

# Academies and achievement: setting the record straight

Research report:

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## Executive summary

This research examines in detail the various claims made by Government of the benefits of academy schools. It seeks to determine whether there is indeed an ‘academies effect’ in terms of improving school performance.

It has been claimed that:

- academy status ‘turns round’ underperforming schools serving deprived communities;
- disadvantaged young people make better progress in academies;
- once well established, academies provide improved GCSE success across a broad curriculum; and
- major academy chain sponsors are particularly effective.

This research questions these assertions. It examines the details of individual school GCSE performance as well as the averages, and digs below the surface of headline figures.

In particular, it questions the widespread myth that academies are predominantly replacements for ‘failing schools’. It also questions the failure of official evaluations to examine academies’ heavy use of alternative qualifications which are supposedly ‘equivalent’ to GCSE A\*-C grades. Despite the current Secretary of State’s condemnation of such over-reliance as ‘gaming’, official evaluations continue to sidestep this issue, which results in a lack of rigour when academies are compared to other schools.

The main findings reveal that:

- 1) The headline attainment statistics for academies depend very heavily on *alternative qualifications* to GCSE. Without these ‘equivalents’, students in academies are just *two-thirds as likely to achieve five or more A\*-C grades* including English and Maths as young people studying in non-academy schools.

*Academies rely on ‘equivalents’ to GCSE twice as heavily as other schools to boost their attainment scores. Government ministers call this practice ‘gaming’.* Although some other schools use this strategy too when faced with the pressure of league tables and Ofsted inspections, academies exploit it most.

*The use of equivalents inflates attainment figures for academies overall, and in a fifth of academies by over 20 percentage points.* There is a clear contradiction in Government policy in that the supposed success of academies is based on qualifications that ministers distrust and are in the process of abolishing.

- 2) *Disadvantaged pupils do no better* in academies than in other schools. Without the ‘equivalent’ qualifications, they do significantly worse.

- 3) Academies are *not improving faster than non-academies with similar characteristics*.

Schools which have a lower starting point, and also those which have a higher proportion of disadvantaged pupils, tend to have above average improvement. This is true of academies and non-academies alike. The illusion of academies improving faster is simply due to the higher proportion of academies with a low starting point, and the higher proportion of academies with large numbers of disadvantaged pupils.

The apparent year-on-year improvement of many academies also depends critically on their exploitation of alternative qualifications. Compared with other schools, 3 out of 5 academies show either a deteriorating performance, no change, or an apparent 'improvement' resulting from the heavy use of 'equivalents'.

Even among the minority of academies which have improved on the basis of *GCSE results*, we have to bear in mind that some of them took over from schools which were already showing an upward trend before they became academies. We also know that some academies have found ways of deterring or excluding less 'promising' pupils, and in other cases the new buildings will have served to attract more ambitious and mobile families, thus boosting results.

- 4) It is disturbing that *1 out of 7 academies fall below the 'floor target'*, the indicator used by the Government to signify that a school has a serious problem in terms of academic attainment. This is no better for academies which have been open for longer. The comparative figure for all maintained schools is 1 out of 34. Furthermore, but for the heavy use of equivalents, around *1 in 3* academies would fall through the 'floor'.

Many of these academies have shown very low levels of attainment for some years. This has gone unchallenged, at the same time as higher achieving schools have been closed down for replacement by academies.

- 5) It is a *myth* that most academies established before the change of Government *replaced low-achieving schools with disadvantaged populations*. In fact, around a third clearly do not fit that stereotype in terms of pupil composition, and about a half in terms of the attainment levels in the predecessor schools a year before closure. Furthermore, some have subsequently re-engineered their student populations to reduce the number of disadvantaged pupils, or attracted significant numbers of new pupils who did not attend the predecessor schools.
- 6) The Government has decreed that schools should encourage pupils to study a combination of GCSE subjects which they have named the 'English Baccalaureate' (EBacc). These subjects are English, Maths, two sciences, a humanities subject (History or Geography) and a foreign language. On average, academy pupils are only *half as likely to achieve the EBacc*

*subjects* as in non-academy schools. In a quarter of academies *not a single pupil* attained the EBacc combination.

- 7) This report also examines the argument that the ‘academy effect’ takes some time to achieve. By examining academies which have been open for five years or more, we conclude that this has *little impact on academies’ ability to raise academic attainment*. It is important to acknowledge that improvement does take time, but unfortunately this time is rarely granted to non-academy schools.

Problems within these long-established but low-achieving academies continue to be attributed by politicians to low achievement in the predecessor schools. This explanation is unconvincing since the predecessor schools have been closed for five years and more. The academies which replaced them have had many advantages, including new buildings and extensive support. To all intents and purposes these academies are new schools which should now be evaluated according to their current poor performance.

- 8) Given the recent emphasis in Government policy on major sponsors running chains of academies, the report examines these developing chains based on their most recent examination results. It concludes that there is *little consistency in achievement, equity or curriculum*, so that it is difficult to identify any improvement which might be due to the involvement of the major sponsor.

The attainment of disadvantaged pupils is of concern in half the academies run by major sponsors. *The use of equivalent GCSE qualifications, on average, is as high for the chains as in other academies, and is particularly high in some chains and academies. In over a third of the chain academies, 30% or fewer disadvantaged pupils achieved 5ACemEQ. In half the chain academies, 20% or fewer disadvantaged pupils achieved 5ACemG.* This has not stopped the Government handing these chains control of large numbers of additional schools.

Overall, this research provides detailed evidence to reinforce findings contained in the recent National Audit Office report (2010) that there is *no academy effect* but *considerable variability*, and that *disadvantaged young people generally do no better in academies than in other schools*.

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## Introduction

When the first few academies were opened ten years ago, they were promoted as the way to improve opportunities for disadvantaged young people in schools with very low attainment. It is clear that the present Secretary of State for Education expects academy status to be the norm for secondary schools, and subsequently for most primary schools, special schools and pupil referral units (PRUs). The ambition of raising qualification levels for disadvantaged students has become a bridgehead for a shift from local authority control to privatised governance.

It is argued by Government and Department for Education representatives that:

- i) academies have replaced ‘underperforming’ schools serving the most deprived communities;
- ii) the poorest pupils make faster progress in academies than other state schools;
- iii) once well established, academies provide GCSE success across a broad curriculum;
- iv) major sponsors governing chains of academies are particularly effective.

This report deals with these claims and concludes that the evidence does not support them.

It has been argued that academy status is important to free schools from local authority ‘control’. There are two myths here: that local authorities still have extensive powers, and that direct control by central Government and its agencies – a consequence of academy status – is somehow more helpful or benign. The evidence in this report suggests that academy heads may have been under even greater pressure than those of other schools to raise attainment scores by adopting alternative and easier qualifications to GCSEs, *at whatever cost to a broad and balanced curriculum*. In many academies this has produced a spurious improvement in results to satisfy the political masters, but with questionable benefit to students.

### *Dealing with the myths*

This investigation adds to the growing body of research into England’s academies and similar schemes (US charter schools and Swedish free schools) which concludes that they have not led to real improvement but have damaging consequences to standards and social cohesion. (See, for example, Lubienski and Lubienski 2006, or CREDO 2009, for charter schools; Lundahl 2011 for a summary of the Swedish research.)

It is difficult to believe that politicians do not know this. Despite its positive tone, the most recent National Audit Office report *The Academies Programme* (2010), lodged in the House of Commons Library, is unable to identify an ‘*academies effect*’ (p20) but rather *considerable variability* (p18). It shows that *disadvantaged pupils and those with lower levels of prior attainment do no better in academies than elsewhere* (pp 6 and 27-8), and that the *apparent success of academies is in large part due to their reliance on alternative qualifications to GCSE* (pp21-2).

This is not to question the dedication and skills of the many fine teachers working in academies. Nor would we wish to deny that there are many good schools with academy status, or indeed that some of the school leaders are bringing about worthwhile development or innovation. The issue is one of governance: whether academy status in general is more likely to produce successful schools. The final PriceWaterhouseCooper (PWC) evaluation in November 2008 informed the previous Government that they could find no ‘academy effect’ but rather ‘a more complex and varied process of change’. That message was, unfortunately, ignored. The more extensive data now available supports the PWC conclusion.

We would not wish to minimise the importance of improving qualifications and opportunities for the many young people whose lives are damaged by poverty. However, we cannot find in the statistics anything to suggest that academies are the answer, and they may indeed serve as a distraction from the real issues.

#### *A critical approach*

In conducting this research, it has often been clear that surface appearances can be deceptive and that more detailed and critical investigation is needed in order to see the patterns and make a fairer evaluation. We have raised questions such as whether ‘equivalents’ to GCSE A\*-C grades are distorting attainment statistics, how well more disadvantaged students are performing, whether particular academies are successful once you control for different patterns of KS2 attainment. We have looked into whether multi-academy sponsors are particularly effective, and whether longer established academies are more successful.

Every effort has been made to ensure that our conclusions are based on secure evidence. We welcome questions and challenges to our use and interpretation of data, as well as comments and further information, from critics as well as those who broadly support our findings.

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## **Note: abbreviations and technical notes**

More familiar abbreviations such as Ofsted and KS4 are used without explanations. The government department responsible for schools is referred to by its current name Department for Education to avoid confusion, even though it has been renamed many times in recent years.

For the sake of brevity and clarity, this report uses two new abbreviations. Five or more A\*-C grades with English and Mathematics is the most common measure of a secondary school's success in England. For reasons which will be made clear in the text, we need to distinguish *5ACemEQ*, which signifies 'including equivalents', from *5ACemG*, meaning *by GCSEs alone*.

The word *disadvantaged* is now applied by the Department for Education to students who are either entitled to free school meals (FSM) or in local authority care. Since statistically a very small proportion of 'disadvantaged students' are in the latter category, we have felt justified in using FSM and disadvantaged interchangeably in places, particularly where there are no specific figures for *disadvantaged* students as opposed to FSM-entitled. This is not of course to suggest that young people in care do not have important and particular needs.

Where a comparison is made with 'all schools nationally' or 'all maintained schools', the comparison is, to be precise, with the average for all *maintained mainstream* secondary schools in England.

To avoid repetition, some technical notes (marked in the text as TN1, TN2 and so on) are provided towards the end. These will clarify some of the uses of data and the processes by which it has been critically evaluated.

## **Have academies replaced ‘underperforming’ schools?**

- *It is a myth that most academies have replaced ‘underperforming’ schools in disadvantaged areas. In addition, since becoming academies many have changed their pupil intake.*

It is often claimed that academies have replaced schools which had low levels of attainment and which were serving seriously disadvantaged populations. This is a half truth.

The early academies, opened from 2002 to 2004, were certainly more likely to fit this description. The first three (2002) had between 40 and 50 percent of pupils eligible for free school meals (FSM). The average for academies opened from 2002-6 was 37%. Most, though not all, of the predecessor schools had low GCSE attainment figures.

However a number of these early academies have reduced their FSM-entitled students by over 10 percentage points. Account should also be taken of changes in local status (the pecking order of parental choice) which are not visible in the statistics but affects pupil intake.

The 44 academies which had opened by September 2006 now have an average of 33% of pupils entitled to free school meals. This is more than double the national average, though no worse than the average for major conurbations such as Manchester, Birmingham and inner London.

However, five are former City Technology Colleges with intakes heavily skewed towards pupils with high prior attainment at KS2. A further seven were already achieving well, and some other predecessor schools could not in any sense be described as ‘failing’ (see technical notes TN1 and 2). At least three dramatically re-engineered their pupil intake; in one the proportion of pupils with FSM entitlement dropped from 51% to 13% and in another from 60% to 16%. A further three are new foundations, not replacing existing schools; although located in poor areas, their intakes are little different from national norms of KS2 attainment. Just over half can be seen as a continuation of seriously disadvantaged schools in terms of pupil profile or attainment.

Of all the academies open by September 2010 and with KS4 results in 2011, only half can claim to replace ‘failing schools’, based on predecessor school’s results a year before closure, the criterion of the current ‘floor target’ (TN6) and adjusting results to match annual improvements in other schools (TN2). In terms of pupil composition, around a third clearly do not fit the stereotype, whether because of a high-ability intake (including former grammar schools and CTCs), few pupils with FSM entitlement, or both (e.g. successful comprehensives in affluent areas, with high ability intakes). Their average FSM entitlement is 25%, well above the national average (15%) but not unusual for urban areas.

The recent voluntary conversion to academies of large numbers of high-achieving schools, as a result of Coalition Government policies, does not affect the present report, as this occurred after the cut-off date of mid-September 2010 (TN1).

## Have academies led to higher academic standards?

- *Academy GCSE headline results have been inflated by the extensive use of alternative qualifications. Without these 'equivalents', pupils in academies are only two-thirds as likely to gain five or more A\*-C grades including English and Maths as pupils in other schools.*

It has become customary to measure the relative success of secondary schools in terms of the percentage of pupils achieving five or more A\*-C grade GCSEs 'or equivalent'. Academies are no exception. The National Audit Office report of 2010, looking at results up to 2009 for academies which were open on or before September 2007, showed the improved performance comparative to that of all maintained schools (page 19). On the surface, the improvement appears greater in academies.

However, the same report (page 21) acknowledges that academies made twice as much use of alternative qualifications to GCSE than did other schools, though without taking account of this in its evaluation. This problem, ignored in earlier official evaluations including the PriceWaterhouseCooper (PWC) series of reports on academies (2004-8), remains crucially important when evaluating academy attainment.

- In 2011 59% of pupils in mainstream maintained schools achieved five or more A\*-C GCSEs *or equivalents* including English and Maths; while 53% of pupils achieved this *by GCSEs alone*, a gap of just 6 percentage points. (For convenience, we will abbreviate this as 59% 5ACemEQ and 53% 5ACemG.)
- In academies the figures were 50% 5ACemEQ and 38% 5ACemG, a gap of 12 percentage points. (Department for Education *Statistical First Review* 02/2012, table 5)

The above data refers to the 269 academies with 2011 results which were open by 12 September 2010 (see also TN1). This is rather problematic, as 82 of these had only been open as academies for nine months when students completed GCSE and other qualifications, and 3 just six months longer. Furthermore 22 of this group were Coalition 'converter academies' with 'outstanding' Ofsted judgements and without the requirement for sponsors. Earlier PWC reports had sensibly focused on academies which had been open for the whole of Key Stage 4, which, in terms of summer 2011 results, means academies opened by September 2009. The average for this set (184 academies) is 48% 5ACemEQ and 35% 5ACemG, with a similar gap (13 percentage points). Later in this report we focus on academies which had been open long enough for pupils to complete all of Years 7-11 at the academy.

It is not surprising that the headline figures for academies are lower than for mainstream maintained schools across England, since many of them serve more disadvantaged populations.

It is also clear from the data that only a small part of the academies' exploitation of 'equivalents' can be attributed to them having more disadvantaged pupils.

*Summary: 2011 results*

	5ACemEQ	5ACemG	Gap
Academies (open 2+years)	48%	35%	13pp
All maintained schools	59%	53%	6pp

As for all maintained schools, the average figure for academies represents a wide range of attainment, *from 19% to 98% (5ACemEQ)*. Not surprisingly, the highest results often (though not always) come from former grammar schools or CTCs, with selective pupil intakes, as well as other schools with relatively able intakes. (See previous section *Have academies replaced 'underperforming' schools?*)

The range for *5ACemG* is *0% to 98%*. The gap between *5ACemEQ* and *5ACemG* spreads evenly from 0 to 45 percentage points, and in one case 70.

## Have academies made greater use of alternative qualifications?

- *Academies rely on 'equivalents' to GCSE twice as heavily as other schools to boost their attainment scores.*
- *Government ministers call this practice 'gaming'. Although some other schools use this strategy too when faced with the pressure of league tables and Ofsted inspections, academies exploit it most.*
- *In a fifth of academies, the use of equivalents inflates statistics for five or more A\*-Cs including English and Maths by over 20 percentage points.*

There is a clear contradiction in Government policy in that its claims for the success of academies depend extensively on qualifications that ministers distrust and many of which are to be removed from school league tables. It also impacts on the curriculum, as we show in a later section.

It is unjust that other schools are being forcibly converted to academies because they fall below the 'floor', whereas existing academies go unchallenged despite having very few pupils actually achieving five or more higher-grade *GCSEs* (5ACemG).

### *The use and misuse of 'equivalents'*

It is a well established principle in England and elsewhere that comprehensive secondary education should include vocational courses alongside a broad academic curriculum, as part of a broad and balanced curriculum. The inclusion of some vocationally oriented courses in the English curriculum provides a wider curriculum offer to all young people and can raise the motivation and opportunities of those who are less 'academic'.

Problems arise when the curriculum is driven by accountability statistics and surveillance systems such as league tables and Ofsted inspection. Schools with less advantaged pupils are often placed under pressure by threats of closure if their headline statistics are deemed to be 'too low'.

This has led schools to engage in what the current Secretary of State calls 'gaming' with alternative qualifications. The irony is that the Coalition Government is claiming that academies are successful on the basis of academic performance which does not stand up to scrutiny when the heavy use of equivalent qualifications is examined.

There are various problems with the way that vocational qualifications have been used in recent years as equivalent GCSEs:

- 1) There is the danger of students being channeled into taking these subjects in order to enhance their school's league table performance, rather than being able to select them as part of a broad and balanced curriculum.

2) Some of these alternative certificates are unrealistically deemed to be equivalent to one or more GCSE qualifications at A\*-C grades. These include qualifications which are not actually vocational subjects but simply easier duplicates of existing GCSE subjects.

3) There has been a perceived lack of rigour in differentiating between genuinely robust and industry-recognised qualifications (such as the Engineering diploma) and others thought to be less reliable or useful to students as a passport to further and higher education or the world of work.

#### *GCSE or equivalent?*

As schools were encouraged to offer vocational qualifications to Key Stage 4 students, it was clearly unreasonable not to count them towards attainment statistics. Unfortunately the process was poorly managed. Perhaps the very idea of drawing up numerical equivalences between very different kinds of qualification is too simplistic. GCSEs are organised so that currently about a third of candidates achieve D-G grades, whereas many vocational alternatives are premised on students passing the qualification provided that they complete the required tasks to a basic specification. There is nothing wrong with this in itself, but the official assumption that these alternative qualifications are automatically 'equivalent' to A\*-C grades is seriously misleading.

Surprisingly, earlier correspondence with a senior official in its research division (26.1.2006) established that even Ofsted had not ascertained whether 'equivalents' were genuinely on a par with a C grade at GCSE. In some academies with low GCSE results, the whole cohort is entered for these vocational alternatives and no pupil fails to obtain the 'equivalent' of A\*-Cs. Our investigation found numerous examples of academy students obtaining E, F or G grades at GCSE in Science or Maths who were deemed to obtain the official 'equivalent' of an A\*-C grade in the same subjects through alternative certificates. (See also TN3 for earlier data.) It should also be noted that many of the 'equivalent' qualifications to GCSE are not in genuinely vocational areas such as Engineering or Health and Social Care, but are rebranded versions of traditional school subjects readily available as GCSEs, for example ICT or Art and Design, and even Science or Maths.

#### *Playing the 'equivalents' game*

A third of academies make no more use of alternative qualifications than maintained schools nationally, and a few don't use them at all. However, many of the academies making little use of them are selective schools (former grammar schools or CTCs) or other schools with very low levels of deprivation. In half of academies, the gap between 5ACemEQ and 5ACemG is more than 10 percentage points, and in a fifth it is more than 20 percentage points.

The data shows very little difference whether we examine academies which have been open for at least two years or at least five years, and whether or not they are run by the major sponsors. In every case the proportion is fairly similar:

- Only a quarter to a third of academies have a gap of 6 percentage points or less;
- Around half have a gap of more than 10 percentage points; and
- Around a fifth of academies have a gap of over 20 percentage points (one in seven for long-established academies, i.e. open five years or more).

The average gap between the percentage of pupils achieving 5ACemEQ and 5ACemG also shows little variance, remaining between 11 and 14 percentage points, whether we are looking at all academies or only the longer-established ones, and whether or not they are run by major sponsors. (Please see later sections concerning older academies and major sponsors for details.)

‘Gaming’ like this dramatically inflates academies’ performance statistics. For example, a gap of 20 percentage points can mean that 40% of pupils count as achieving five or more A\*-C grades with English and Maths including the ‘equivalents’, but only 20% of pupils actually achieve five or more higher level *GCSEs*. This makes many headline claims of academy ‘success’ fraudulent. Here are some illustrations:

- Around the half way mark for ‘gaming’ with ‘equivalents’, one Yorkshire academy with 37% 5ACemEQ, i.e. just above the current floor target of 35%, has just 26% for 5ACemG.
- One of the earlier academies, run by a major sponsor in inner London, has a very respectable 50% 5ACemEQ; this falls to 29% by *GCSEs* alone.
- In the three worst cases, 67% becomes 22%, 45% becomes 1%, and 70% becomes 0%.

The exploitation of equivalents affects not only attainment statistics overall, but evaluation with regard to:

- the achievement of disadvantaged students;
- the Government’s ‘floor target’;
- achievement of the EBacc group of *GCSE* subjects;
- curriculum breadth and balance; and
- how many academies have improved and by how much.

(For further details see later sections; also Titcombe 2008 for an earlier analysis)

## **How well do disadvantaged pupils achieve in academies?**

- *Academy status does not assist disadvantaged pupils, who do no better in academies than in other schools. Without the 'equivalent' qualifications, they do significantly worse.*
- *The progress from age 11 to age 16 of pupils with low KS2 attainment is only marginally better in academies than elsewhere.*

The relatively low achievement of disadvantaged pupils compared to others (see TN4) is a serious problem for English schools. In 2011, 33.9% of disadvantaged pupils achieved five A\*-C grades including English and Maths or equivalent, compared with 58.2% of all pupils in maintained schools. The difference has remained almost constant for five years, narrowing only from 27.9 percentage points in 2007 to 27.4 in 2011 (Department for Education SFR 03/2012, page 6) (see TN5).

Unfortunately schools minister Nick Gibb (Department for Education press note 26.1.2012) has chosen to blame schools and teachers, rather than education policies or indeed the scandalous extent of child poverty. To prove his point he referred to 20 schools where 80 percent or more of their disadvantaged pupils achieved five or more A\*-C grades. He was perhaps unaware that almost all of these schools were either grammar schools which only admit very high achievers, or comprehensive schools in more privileged areas with very few disadvantaged pupils. It is unhelpful to exaggerate the extent to which schools can make a difference, or indeed to scapegoat teachers for the problems of a society with such severe levels of child poverty.

Some schools can be more successful in supporting disadvantaged students than others, though by nothing like as much as Gibb suggests. There are a variety of reasons for this, which needs much more research. There is strong variation between academies, as in other schools, though high levels of disadvantage almost invariably affects school performance.

### *No advantage for lower attaining pupils*

The prime argument for the establishment of academies has, from the start, been to raise the attainment of disadvantaged young people. It is surprising, then, that the proportion of disadvantaged pupils in academies who gain five or more A\*-C grades or equivalent including English and Maths, i.e. 33% 5ACemEQ, is almost exactly the same as the figure for all maintained schools nationally.

Furthermore, the extensive data supplied by the Department for Education for 2011 provides a breakdown to show what proportion of pupils with various levels of prior (KS2) attainment achieved this level. This is not to suggest that disadvantaged pupils automatically have lower KS2 scores, though many do.

The first table shows what proportion of all pupils were below, at, or above level 4 at KS2. The results show an attainment profile on entry that is lower in academies than other schools, though

the difference is not extreme and the profile for academies is not unusual for schools in urban areas.

	Percentage of pupils whose prior attainment was		
	<4	4	>4
Maintained mainstream	17.1	49.4	33.5
Academies	24.8	51.5	23.7

The next table shows what percentage of each of these three groups went on to achieve five or more A\*-Cs or equivalent with English and Maths (5ACemEQ) (Department for Education sfr02/2012na, table 6). The results for pupils in academies are virtually identical to those in other schools; academy status makes a difference to only one or two pupils out of every hundred from each prior attainment band.

	Percentage of pupils with low, middle and high prior attainment who achieved 5ACemEQ		
	<4	4	>4
Maintained mainstream	6.9	54.5	95.2
Academies	7.6	52.4	94.3

### *Time for change*

Obviously it takes time to bring about change in a school – though this is something which politicians prefer to forget for non-academy schools. How well do disadvantaged pupils achieve in the academies which have been established longer? For academies open for the whole of KS4, i.e. by September 2009, the average remains much the same: 34% percent of their disadvantaged pupils achieve 5ACemEQ. In academies open for at least five years, the proportion rises to 40 percent, which is somewhat higher than for other schools.

However, for the reasons explained in the previous section on alternative qualifications, we should not take this figure at face value. The proportion of disadvantaged pupils gaining five or more higher grade *GCSEs* including English and maths (5ACemG) is 21% for academies open by 2010, 24% for those open by 2009, and 30% for those open by 2006. This does suggest that the longer-established academies are, for some reason, more successful than more recent academies in terms of this particular measure. However, we should note that even this well-established group is hardly any more successful than the average for all maintained mainstream schools nationally, which is 28.6%.

We should also remember that these comparisons are with a very poor national average for disadvantaged pupils, which is only half that for other pupils. While we may have reservations over the extent to which schools can compensate for the problems relating to poverty, it is clearly a cause for concern that many disadvantaged young people are not achieving higher.

In summary, only in long-established academies are disadvantaged pupils more likely to achieve five or more A\*-C grades *or equivalents* including English and Maths (5ACemEQ). Disadvantaged pupils are less likely to achieve this through GCSEs alone (5ACemG) in academies than in other schools; only in the longest established academies are they slightly more likely to do so than in other schools – a difference of *only one or two pupils out of every hundred*. If we focus only on those older academies which actually did replace low-attaining schools, we find that, in 18 cases out of 25, disadvantaged pupils in these academies achieve less well at GCSE than in other maintained schools.

Although academies tend to have a larger proportion of disadvantaged pupils than the average for mainstream maintained schools - as indeed do many schools in similar locations - the crucial question is whether disadvantaged pupils do better there than elsewhere. The answer to that question is clearly no.

#### *Variable results*

We also need to note the variation in results between academies. This is of course true of other schools, and we would not expect all academies to be equally successful, but strong claims have been made that academy status will in itself benefit disadvantaged young people. The range, in fact, for 5ACemG among disadvantaged pupils runs from 0% to 71%. The following table shows how many of the 44 longest-established academies (i.e. those that opened between 2002-2006) lie in each attainment group:

#### *Academies with different proportions of disadvantaged pupils achieving 5ACemG*

Percentage with 5ACemG	0-9	10-19	20-29	30-39	40-49	50-59	60+
Number of academies	4	11	9	8	3	7	2

This extreme variation undermines the argument that closing schools and replacing them with academies is the best way to raise attainment for disadvantaged young people.

While it is important to acknowledge that many of the long-established academies replaced high-deprivation, low-achieving schools, nearly half of them do not have this excuse. This is because they are either completely new schools, they are former CTCs with a selective intake, they never were low-achieving schools, or they have dramatically re-engineered their intake to exclude most of their disadvantaged pupils. (See earlier section *Have academies replaced 'underperforming' schools?*) It does not seem right that Government ministers continue to excuse poor opportunities for disadvantaged young people in well-established academies because of the achievement levels of schools they replaced which were closed five to nine years earlier.

### *Forces of inclusion and exclusion*

Further questions remain to be asked, some of which fall beyond the remit of this particular academic study. We should investigate how some academies have managed to re-engineer their pupil populations, in the most extreme cases shedding three quarters of their disadvantaged pupils (see section *Have academies replaced 'failing schools'*). Witnesses to the MPs Committee of Enquiry into Academies and Trust Schools (12 June 2007, Palace of Westminster) presented evidence of various devices used to deter 'less desirable' pupils who might damage their league table prospects. These included very expensive uniforms (compulsory sports kit costing more than £110). In other cases extremely punitive regimes and arbitrary exclusions have driven out large numbers of pupils (see for example Matthew Taylor, *The Guardian*, 30 May 2006). Fixed-term and permanent exclusions remain twice as high in academies as in other schools (Department of Education, SFR 17/2011; also National Audit Office: *The Academies Programme*, 2010, page 29). We know that exclusion impacts most strongly on disadvantaged pupils.

Some academies continue to serve their original communities, engaging with large numbers of disadvantaged students and their families. Some academies are exceptionally good in terms of how well they educate disadvantaged pupils, and some even have a higher proportion of disadvantaged pupils than in previous years. *But these are the exceptions, as with other schools. These unusual cases should be studied for the lessons we might learn, along with highly successful non-academy schools, but so far nobody has been able to provide evidence to establish a link with academy status.*

## **Do major sponsors contribute to school improvement and higher standards?**

- *There are differences between academy sponsors, but even within individual chains there is very little consistency in achievement, equity or curriculum. It is difficult to see any impact which might be due to the involvement of the major sponsor.*
- *Although disadvantaged pupils tend to do better, on average, under these sponsors than in other academies, their attainment is still lower than in non-academy schools. The attainment of disadvantaged pupils is of concern in half of the academies run by major sponsors.*
- *The use of equivalent GCSE qualifications on average is as high for the chains as in other academies, and particularly high in some chains and academies.*
- *In over a third of the chain academies, 30% or fewer disadvantaged pupils achieved 5ACemEQ. In half the chain academies, 20% or fewer disadvantaged pupils achieved 5ACemG.*

One of the most dramatic shifts in academy governance has been the management of chains of academies by major sponsors, a new form of edu-business (albeit often registered as charities). By September 2010 there were seven larger chains, defined here by the criterion of controlling five or more schools listed in the 2011 results. Altogether this involved a total of 72 schools (61 of which had been opened by September 2009), i.e. an average of 10 per sponsor. In March 2012 there were already 14 chains controlling a total of 171 open academies, and in addition numerous smaller organisations with three or four academies open so far and more due to open soon. Despite the patchy results outlined below, the Government has encouraged the rapid growth of these multi-sponsors so that several of them are now running 20-30 schools each. So far, unlike the Swedish ‘free schools’, they are not allowed to make a profit, though there are many ways of charging for services rendered (see National Audit Office report, p40). Some of the chains conduct their businesses nationally, while others focus on a local area.

What follows is not intended as a thorough evaluation of each of the major sponsors but is designed to test the Government’s claim that handing over even more schools to such organisations will improve standards and prevent underachievement. We do not wish to suggest incompetence or malpractice in any of these organisations, but rather to raise questions about the Government’s faith in privatising the management of public services.

We also reiterate that our analysis is not a criticism of the staff of individual academies. We have no doubt that they include many dedicated teachers who work conscientiously in their pupils’ best interests within the structures available to them.

### *The record of academy chains*

It has been claimed that major sponsors are particularly effective, yet attainment data for chains of academies is remarkably similar to academies in general. In chains of academies run by major sponsors, the use of GCSE ‘equivalents’ is higher than in other academies, and much higher than for other schools. They are also less successful in terms of EBacc; indeed the average for academies run by major sponsors is only a quarter of the national average for maintained mainstream schools.

### *Attainment for all pupils in academies (2011 results)*

	5ACemEQ	5ACemG	EBacc subjects
Open by 2010	50%	38%	8%
Open by 2009	48%	35%	6%
Open by 2006	51%	40%	8%
<i>Academy chains</i>	<i>50%</i>	<i>36%</i>	<i>4%</i>

Disadvantaged pupils do somewhat better on the 5ACemG measure than in other academies, but below the national average for maintained mainstream schools.

### *Attainment for disadvantaged pupils in academies (2011 results)*

	5ACemEQ	5ACemG
Open by 2010	33%	20%
Open by 2009	34%	24%
Open by 2006	40%	30%
<i>Academy chains</i>	<i>40%</i>	<i>26%</i>

### *Preventing low achievement*

There is considerable variation among academies run by major sponsors, so that it is difficult to believe that sponsorship in itself helps to bring about improved performance. In over a third of the chain academies, 30% or fewer disadvantaged pupils achieved 5ACemEQ, and in half the chain academies 20% or less achieved 5ACemG.

On the basis of the 2011 results some differences emerge between the different groups, though this should not be seen as conclusive given quite small numbers of schools in some chains. The average within each chain for five or more A\*-Cs including English and Maths by GCSEs alone (5ACemG) runs from 29% to 53%, and for disadvantaged pupils it ranges from 16% to 42%. The highest performing chains have over 60% of pupils achieving 5ACemEQ, but one of these drops to 42% by GCSEs alone (5ACemG).

The percentage of disadvantaged pupils achieving 5ACemG in academies run by major sponsors is below the national level. This raises the question of what benefit such chains are bringing to these pupils.

*Inconsistent results: gaming and floor targets*

In every one of these chains, what the Secretary of State calls ‘gaming’ is double the national average for maintained schools. In two of the seven chains, the statistic for A\*-Cs including English and Maths is inflated through the use of equivalents by 15 percentage points, and in a third by 19 percentage points. This level of ‘gaming’ has clearly not deterred the Department for Education from handing many more schools to these sponsors.

Academies run by the major sponsors are less likely to fall below the Government’s floor target than other academies, though at 1 in 18 this is still twice the rate as for all schools nationally. But for the zealous use of ‘equivalent’ qualifications 1 in 3 would probably do so. (For a more detailed explanation, please see the later section *Does academy status prevent schools falling below floor targets?*)

In the following examples we will anonymise these organisations as Sponsors A-G. However all seven major sponsors are covered in what follows.

*Sponsor A: a tale of two schools*

One major academy sponsor, which we will call sponsor A, prides itself on closing the gap between disadvantaged pupils and the rest, and on the surface appears to have succeeded. A closer look at individual schools in this group points to problems lying underneath that claim.

Two of its academies have the same proportion of disadvantaged pupils, 46%. These disadvantaged pupils do just as well as other pupils on the 5AcemEQ score but problems emerge when we look at how the two schools manage it.

	5ACemEQ		5ACemG	
	All pupils	Disadv.	All pupils	Disadv.
Academy 1	69%	70%	53%	54%
Academy 2	67%	67%	22%	28%

Both of these academies make heavy use of ‘equivalents’, but in academy 2 it is particularly extreme, with a gap of 45 percentage points. Academy 1 is very successful in terms of 5ACemG but in academy 2 very few pupils achieve their higher grades through real GCSEs.

The contrast between academies 1 and 2 reaches into the curriculum. Both are highly successful in terms of English and Maths; in both schools, a remarkable 70% achieved A\*-C in English and 80% in Maths. In both schools over half sat a double GCSE Science; in academy 1 almost all achieved an A\*-C grade, but in academy 2 only a quarter did so. Only a fifth took a language

at either school, and most of these pupils achieved A\*-Cs. In academy 1 *a third of pupils* took History or Geography, but in academy 2 only *one pupil* did.

This multi-sponsor, despite its claim to have closed the disadvantage gap, shows a worrying range between its various academies on the GCSE-only statistic among disadvantaged pupils: 11%, 26%, 28%, 54% and 55%. One academy in this chain has 19% of its pupils attaining the EBacc subjects; the others have between 0 and 5%.

#### *Sponsor B*

On the surface, it appears that this chain of academies are doing well, but this may be largely the result of good business sense in identifying schools to close down and take over. In nearly half of this chain of academies, the school it replaced was already showing good attainment before it was closed down, and the 2011 results for these particular academies are actually lower than before, after controlling for the upward shift in all maintained schools (TN2). One of this chain (2011 results) has only 5% of disadvantaged pupils reaching 5ACemG, and another 9%.

#### *Sponsor C*

This chain, which shows the lowest 5ACem scores with or without equivalents, has one academy where disadvantaged students do exceptionally well. Over half its pupils classify as disadvantaged, and 45% of these disadvantaged pupils achieve five or more actual *GCSEs* at A\*-C including English and Maths (5ACemG). We cannot however ascribe the success of this remarkable school to its academy status, since attainment was equally high before it became an academy. This school makes virtually no use of ‘equivalent’ qualifications to achieve its results.

By contrast, a neighbouring academy in the same chain with similar 5ACemEQ results and apparently strong improvement, has a 28 percentage points gap between EQ and G scores (46% / 18%). In other words, less than half the pupils with five or more A\*-Cs with English and maths *or equivalent* achieved this through five higher-level *GCSEs*.

#### *Sponsor D*

This organisation achieves high 5ACemEQ results in almost half its schools but through the extensive use of equivalents. One academy’s score of 75% for five A\*-Cs with English and Maths with equivalents reduces to 46% without, while another falls from 50% to 29%. All this chain’s schools appear at first to be improving more than maintained schools in general, but in half this is heavily exaggerated by the exploitation of equivalents.

#### *Sponsor E*

Only one of the academies run by this multi-sponsor is below the 35% A\*-C GCSE ‘floor’, though four more probably would be were it not for ‘equivalents’. In two cases, there is a gap of 25 percentage points between ‘with equivalents’ and ‘by GCSEs alone’.

### *Sponsor F*

No academies in this group are below the floor, but for half of them this is due to extensive use of 'equivalents'. Less than 2% of pupils in this multi-sponsor's chain of academies achieved the five EBacc subjects.

### *Sponsor G*

In this large chain, which has been in the business of running academies almost from the start of the academies programme in 2002, use of equivalents is somewhat less than the other groups but with enormous internal variation. In one of its academies serving a very deprived population, 69% of *all* pupils gain 5ACem with equivalents (5ACemEQ) and 63% of the *disadvantaged* pupils achieve it by GCSEs only (5ACemG). At the opposite extreme, in another of its academies, 55% with equivalents drops to 18% by GCSEs alone.

### *The impact of major sponsors*

As the above examples show, there are some good achievements among academies controlled by major sponsors, but also results which give rise to significant concern. This is no different from schools generally, and it is very difficult to understand, among all the inconsistency, where the elusive 'academies effect' might be found. Just as the final evaluation by PriceWaterhouseCooper (2008) failed to find an 'academies effect', we have been unable to find a Brand X or Sponsor Y effect.

Doubtless there are cases where a sponsor's involvement has led to the appointment of some highly successful school leaders and teachers – as also occurs in local authority schools through the involvement of experienced educational advisers. There could, unfortunately, also be cases where a sponsor's 'zero tolerance' style of management may have led some head teachers to engage in excesses of 'gaming' in order to conceal their inability to work miracles.

## Does academy status prevent schools falling below floor targets?

- *One out of seven academies fall below the 'floor target', the indicator used by the Government to signify that a school has a serious attainment problem. This is no better for academies which have been open for longer. The comparative figure for all maintained schools nationally is 1 in 34.*
- *But for their greater use of alternative qualifications, more than one in three academies would be below the 'floor'.*

In recent years the notion of 'floor target' has been applied to identify 'underperforming' schools. It is a crude and unjust measure, as no consideration is given to the characteristics of the student population. Not surprisingly far more schools serving areas of poverty fall below the floor target. For secondary schools, the current 'floor' is 35% of pupils achieving five or more A\*-C grades 'or equivalent', including English and Maths. Again, this is crude, and takes no account of the overuse of 'equivalents'. However, since this method has been officially imposed, we will pay some attention to it.

Of academies opened by September 2010, 1 in 7 are below the 'floor'. The proportion is the same for those academies opened by September 2009, i.e. for the whole of Key Stage 4. The problem becomes more severe (around 1 in 6) if we exclude selective schools, those with low numbers of disadvantaged pupils and so on.

By comparison with 1 in 7 academies, only 1 in 34 maintained secondary schools fall below the floor; in other words, academies are five times more likely to be below the floor than other schools. In non-academy schools, below-floor attainment levels are usually a signal of imminent closure and replacement by an academy.

It can rightly be argued that it takes some time to 'turn round' an underachieving school, so we should expect this problem to be restricted to newly founded academies. However we find that the proportion does not diminish with age. The following table shows that around one in seven academies are below the floor:

Academies open	Number below 'floor' (2011 results)
2 or more years	1 in 7
3 or more years	1 in 7
4 or more years	1 in 9
5 or more years	1 in 7

If we look at this from the other direction, we find that academy status has made little impact on low attainment except by heavy use of the alternative qualifications. For this exercise we identified academies whose predecessor schools had attainment in their penultimate year below the current floor of 35%. (Figures were, of course, adjusted to control for the annual attainment

rise of all schools nationally. We used the penultimate rather than the final year to avoid the possibility of a dip due to demoralisation associated with closure.)

In a quarter of these cases the academy remains below 'floor'. In a half attainment has risen due to reliance on 'equivalents'. In only a quarter does there appear to be a genuine improvement in attainment. Meanwhile, in some other cases, schools have fallen below the floor since becoming academies whereas the predecessor schools were not below the floor.

Many of the academies with very low attainment have been 'bouncing along the bottom' for years. We might ask whether they should be closed down as academies and re-opened as local authority comprehensive schools. This is not, we reiterate, meant to endorse the notion of 'floor target', which is a crude measure and punitively applied (see TN6), but schools which are not academies are surely entitled to a level playing field.

#### *Low achievement disguised by 'equivalents'*

We also raised the question of how many academies come above the floor because of their heavy use of 'equivalents'. The gap between 5 or more A\*-Cs including English and Maths with and without equivalents (5ACemEQ and 5ACemG) is on average 6 percentage points for all maintained schools, but twice that rate for academies. What happens if we allow academies a margin of 6 percentage points? This would suggest a GCSE-only 'floor' of 29 percent.

Department for Education data shows that 1 in 34 maintained schools are below the 'floor'. As stated above, of academies open by September 2009 (all of KS4), about 1 in 7 are below the 'floor' for 5ACemEQ. For our imaginary GCSE-only 'floor', it is just over 1 in 3. If we exclude more advantaged academies (as explained earlier), it is around half. .

#### *Taking context into account*

We reiterate once more that we give little credence to such crude measures, which pay no heed to context. The teachers in some schools, whether academies or not, face extremely challenging situations, with young people's aspirations seriously undermined by chronic unemployment in the area and the social damage resulting from intense poverty.

We have tried various methods during the course of this investigation to match outcomes more realistically against pupil characteristics (see TN7). Our intention was to experiment with ways of comparing GCSE results with expectations based on prior KS2 levels and also the extent of disadvantage in each school. No formula proved entirely satisfactory in the end – selective schools, and often comprehensive schools with very few disadvantaged pupils, generally enjoy the most favourable conditions for 'adding value'. However one thing this exercise did establish was the very wide range of 'effectiveness', as judged by these various formulae, among academies – on the most reliable formula, the difference between actual and expected results ranged from +45 to -30. Once again, we conclude against an 'academies effect'.

## **Are academies ensuring a broad and balanced curriculum?**

- *Various factors have led many academies to develop a narrow and utilitarian curriculum. Even traditional school subjects are re-framed as work preparation.*
- *A range of vocational courses is offered, but humanities, creative arts and languages are neglected.*

It is beyond the scope of this study to provide a thorough evaluation of the curriculum patterns of academies as a whole. As well as looking at the English Baccalaureate (EBacc) subjects (see the subsequent section), we have conducted case studies of four academies which rely heavily on ‘equivalent’ qualifications to boost the five or more A\*-C scores.

Academy status is, of course, not the only influence on these schools’ development. Many of the curriculum changes identified here are occurring in other schools, but they are far more likely to occur in academies because of their heavier reliance on ‘equivalents’. It is also possible that the balance of influence has shifted away from educational considerations towards business factors such as the need for an academy sponsor to demonstrate success in order to grow its academy chain. Without the influence of experienced educational advisers from the local authority, and given the strong national pressure to improve performance, it is conceivable that a competitive or commercial culture among many sponsors has exacerbated a tendency towards improving the headline statistics whatever the cost.

The problem of ‘equivalence’ was dealt with in an earlier section, in terms of:

- i) the flawed qualitative equivalence between a pass in many alternative qualifications and a C grade or above at GCSE;
- ii) the dubious quantitative equivalence of a single vocational certificate with two, four or even six GCSEs.

### *The rationale behind alternative qualifications*

These problems apply to many of the most popular ‘equivalent’ qualifications. However it may be helpful to make some distinctions:

- a) Some qualifications accredit genuinely vocational courses which are innovative in terms of school curricula at Key Stage 4. Examples include Business and Finance, Engineering, Health and Social Care and Tourism. Many were introduced as BTEC Firsts following the previous Government’s 14-19 reform.
- b) Some qualifications substitute for existing GCSE subjects, for example Art and Design, ICT, Music, Drama and Sport. In some cases the alternatives are preferred because they offer more realistic and student-friendly modes of assessment including projects fulfilling a

brief or specification. In some cases the alternative certification seriously distorts what is studied.

- c) Some 'equivalent' qualifications, for example in Science or Maths, are predominantly used to provide easier accreditation for students likely to receive low grades in GCSE.

These are not hard and fast distinctions, and relate as much to how they are used as to the nature of the qualification. For example, BTEC Art and Design could be seen predominantly as vocational preparation in some schools, and in others as an easier substitute for GCSE.

### *Case studies*

For each of these four academies, we examined the range of subjects studied overall, and also looked in detail at the qualifications of a random sample of 20 pupils. In one academy, five more pupils were added because our original sample was unrepresentative of the year group.

Across all four schools, analysis shows a very strong emphasis on vocational studies and the core of English, Maths and Science, but the eclipse of humanities, creative arts, languages, and design and technology. In our sample of 85 pupils, we found that:

- i) only seven pupils had studied History or Geography, though seven pupils in one academy studied another humanities subject, Sociology
- ii) less than half our sample had studied a creative arts subject (for the majority this was BTEC First Art and Design)
- iii) languages were almost non-existent apart from nine pupils whose families were probably bilingual (Portugese, Turkish, Urdu, Dutch, Russian and Arabic). Several more obtained low-level results in Spanish 'graded tests'.
- iv) design and technology GCSE had almost disappeared, with a very small number of students opting for Food, Graphic Design or Resistant Materials.

The indication that some curriculum areas were marginalised was reinforced by looking at the entire Year 11 population of these four academies, nearly 500 students.

- i) History or Geography were taken by 12 % of these 500 students, mainly from two schools. In one academy, a single student took History and none took Geography. Nationally, 57% of students sit these subjects.
- ii) A further 11% sat Sociology, mainly from one school (6 % nationally).
- iii) Around 20 % of the 500 students sat Art and Design, Drama or Music as GCSEs and 30% in vocational versions. In one academy there was no music, and in two no drama. Nationally 44% take these subjects as GCSEs.
- iv) 14 % of students qualified in a language which was probably spoken at home (single entries in Dutch, Portuguese, Persian and Russian, for example, and small numbers in Arabic, Bengali, Spanish and Urdu). Only 8% appeared to study French or Spanish as a

new language. Nationally 40% of students take languages, though predominantly French, German and Spanish.

v) Only 10% of these 500 students studied a Design and Technology subject.

Each of these academies offered several major vocational options, such as Business and Finance, Engineering, and Health and Social Care. Other subjects such as BTECs in Sports Studies or Art and Design may serve the purpose of preparation for work, or simply as replacements for well-established GCSE option subjects.

### *Core subjects*

In terms of core subjects, the overwhelming need to secure an A\*-C in English and Maths for the 5ACemEQ scores led some of these schools to enter every student three or four times through Years 10 and 11. In one academy, numerous pupils achieving an F or G in GCSE Maths in Year 11 on their third attempt, were nevertheless awarded an A\*-C 'equivalent' because of a Mathematical Studies VRQ taken in Year 9. In all these four case study academies, students with low grades in GCSE Core Science obtained an A\*-C 'equivalent' through Applied Science.

A small number of high attainers qualified in three sciences. Most higher attaining pupils achieved English Literature alongside English.

### *Broad and balanced?*

In conclusion, a combination of forces has led these academies towards a curriculum with a strong utilitarian leaning but with significant lack of breadth in terms of languages, creative arts and humanities.

This curriculum appears to be built round a vocational specialism and compulsory English, Maths and Science, with ICT. In some academies Religious Studies is standard. More academic students tend to study Literature in their English lessons.

Roughly half the students take a creative arts subject, though this is generally reframed as preparation for work. Languages, History and Geography are a rare addition.

Here are some typical examples of the programmes of pupils who achieved five or more A\*-Cs due to 'equivalents'. In each example, the first named BTEC normally counts as the equivalent of four A\*-C grades at GCSE, and Engineering counts as six. Other vocational certificates generally count as two A\*-C grades. Where a vocational certificate is deemed to be equivalent to multiple GCSE A\*-C grades, the number is shown in square brackets.

- BTEC Health and Social Care [4], English, Mathematical Studies (VRQ level 2), Science (2), Applied ICT [2]
- BTEC Hospitality [2], English, Maths, Applied Science, ICT, DT Graphics

- BTEC Beauty Care [4], BTEC Art and Design [2], English, English Literature, Maths, Applied Science [2]

The curriculum of higher achieving students who obtain five or more A\*-Cs by GCSE alone shows a similar functionalist orientation; a second vocational course is added rather than languages or humanities. For example:

- BTEC Business and Finance [4], BTEC Tourism [4], BTEC Art and Design [2], English, Maths, Science (2), ICT, Religious Studies
- BTEC Engineering [6], BTEC Tourism [4], English, Maths, Science (2), RE, Computer Appreciation [2]

The curriculum of lower attaining students not reaching C in English or Maths can be even more restricted:

- BTEC Sports Studies [2], English, Maths, Applied Science [2], ICT
- Applied ICT [2], Maths, Sciences (2)

In conjunction with this, we also have to consider the way the vocational style of certification affects subject content. For example, BTEC Music Studies is mainly concerned with the processes and technologies of staging events or making recordings, and with the career opportunities and roles within the music industry. It is a managerialist rather than cultural subject. Applied Science is arguably weaker than GCSE in terms of scientific content and cognitive development. In some respects this is a more restricted curriculum than that of many 1950s secondary modern schools.

## How likely are academy pupils to attain the EBacc subjects at GCSE?

- *The Government has announced that schools should encourage pupils to study subjects which, in combination, they describe as the English Baccalaureate (EBacc). These subjects are English, Maths, two sciences, a humanities (History or Geography) and a modern foreign language. On average, academy pupils are only half as likely to achieve higher level GCSEs in these EBacc subjects as in non-academy schools.*
- *In a quarter of academies not a single pupil passed the EBacc combination of subjects.*

The Coalition Government, soon after coming into office, introduced the notion of an ‘English Baccalaureate’ (EBacc). This will increasingly be used when evaluating and comparing schools, though it is not a qualification as such for individual pupils. It requires pupils to gain a C grade or above in each of the following subjects:

- English
- Maths
- Sciences (combined science, or 2 separate sciences)
- A Language
- History or Geography.

This was partly a reaction to the problem of ‘equivalents’ but also fits the traditionalist mindset of the current Secretary of State for Education and other cabinet ministers. The declared intention was to create incentives for a broad academic curriculum for KS4, though many have pointed out that the selection of subjects is somewhat arbitrary and, in its own way, limited. For example, the creative arts are excluded and no credit is given for practical or vocational studies. Of subjects with clear relevance to education for citizenship, the list includes History and Geography but not Sociology or Media Studies.

The EBacc will require little adjustment for grammar and independent schools. Firstly, these subjects are standard in those schools; secondly, it is easier to achieve consistent success across a range of subjects in a school with relatively prosperous students than in many urban comprehensives.

Finally, because it was introduced without warning and well after students had chosen their KS4 subjects, the percentage passing EBacc subjects at GCSE has started off from a low base (16% in maintained schools) but will grow rapidly as schools adapt their curriculum, so the Government will be able to claim a dramatic improvement.

### *Academies and EBacc*

It is not surprising, given the social composition and other characteristics of many academies, that EBacc results are lower than other schools, but 8% (half the average for maintained schools) must be embarrassing to Government ministers. This is largely linked to the extent of

‘gaming’, and possibly a ‘never mind the quality feel the width’ rationale which sacrifices breadth and balance to counting points and percentages. In a quarter of academies not a single pupil achieved EBacc.

The ratio between those passing the EBacc combination of GCSEs and those achieving 5 or more A\*-Cs or equivalent with English and Maths (5ACemEQ) is also revealing. In academies, a much smaller proportion of the pupils who achieve 5ACemEQ are likely to achieve A\*-C grades in the EBacc combination of subjects.

Maintained schools: 1 : 3.7

Academies: 1 : 6.3

Within this, of course, there are large variations. Overwhelmingly the EBacc results in academies were gained by selective schools such as converted grammar, independent or CTCs, or high-achieving comprehensive schools in prosperous areas. Without these, only 1 in 12 pupils with 5ACemEQ achieved A\*-C grades in the EBacc subjects.

Among all academies, in eight out of ten cases 5% or fewer pupils gained the EBacc-related GCSEs, and in about 1 in 3 cases no pupils did.

## **Are academies more likely to improve GCSE results than other schools?**

- *Academies are not improving faster than similar schools.*
- *It is difficult to compare like with like, because so many academies have changed their intake and now have a less disadvantaged population than previously.*
- *The use of equivalent qualifications (what the Education Secretary describes as 'gaming') also distorts the figures, creating an illusion of more substantial improvement.*
- *A critical scrutiny of the data suggests that only two in five academies have genuinely improved their GCSE results more than other schools. In half of these the improvement had already begun before academy conversion, in the predecessor school. Meanwhile, the performance of one in five academies has declined by comparison with other schools.*

The claim that academies are improving GCSE results faster than other schools does not stand up to critical scrutiny. This claim, familiar since the earliest official evaluations, has been reiterated by Coalition government ministers. In the autumn of 2011 the Department for Education claimed that academy GCSE results were improving at twice the rate of other schools.

Firstly, this was based on provisional results for 2011 which turned out to be a serious underestimate for non-academies.

Secondly, the calculation involved improvement over only a single year – generally an unreliable basis.

Thirdly, among non-academies and academies alike, those which started off low tended to show more improvement than schools which were already attaining high. For example, academies with 0-30% 5ACem in 2010 gained 8.6 percentage points in 2011, as opposed to 8.8 percentage points for the parallel group of non-academies.

Academies appear to be improving more but only because a large number of them began low. Not all academies did but the proportions are certainly different. For example, 15% of academies (or, for newly established ones, their predecessor schools) had 0-30% of pupils with 5ACem in 2010, but only 3% of non-academies.

In order to provide a fair comparison, it was necessary to create a matching set of non-academies, based on their 2010 attainment, to reflect the fact that more academies had started off low (TN8). The improvement of this matching set of non-academies was 4.25 percentage points compared with 4.5 for academies. This slight difference is more than accounted for by the academies' overuse of 'equivalents'.

It also became apparent that schools with a higher proportion of disadvantaged pupils tended to be improving more. Again, the distribution of academies is different from non-academies.

Using the same method, it turned out that academies improved 4.5 percentage points in 2011

compared with 2010, but the matching set of non-academies improved 3.4 percentage points. This is a much smaller difference than in the official claims, and also easily accounted for by academies' exploitation of 'equivalents'.

Looking at improvement over three years rather than one year, i.e. from 2008 to 2011, academies have improved 15 percentage points compared with 14 percentage points for a matching set of non-academies. This is far from ministerial claims of 'twice as fast'.

### *Contributing factors*

The claim that academies are improving faster than other schools has been made repeatedly since the early PriceWaterhouseCooper evaluations. It is important to look beneath the surface of such assertions.

As stated earlier, none of the early official evaluations (PWC 2004-2008) took account of the GNVQ = 4 A\*-Cs 'equivalence' problem. Though they commented on a reduction in free school meal (FSM) statistics, they did not attempt to account for this either when evaluating attainment. A further factor was academies' attraction of additional pupils, particularly those without FSM entitlement, in other words with no particular indicator of disadvantage. These could not be evaluated by a simple comparison with the predecessor school. Once this was taken into account, the claim that academies were improving faster than other maintained schools disintegrated (Wrigley 2011).

Earlier in this report reference was made to ways in which some academies have re-engineered their student populations. Several extreme cases were highlighted where academies had managed to lose three-quarters of their disadvantaged students. Many cases are difficult to spot. However, a close scrutiny of the earliest academies shows a significant shift in population. The 2011 data of the first 19 academies were compared with their predecessor schools in 2002. In three cases the proportion of disadvantaged pupils went up, in three it stayed the same, and in 13 it went down. In 9 out of 19, there was a 10 or more percentage point drop in FSM-entitled students.

Within the highly competitive 'quasi-markets' of many towns and cities – an environment where league tables and Ofsted reports positively encourage parental 'choosiness' – a school's position in the local pecking order makes an enormous difference. A high position can attract parents, particularly those who can afford to move house or transport their children to school. A weak position can leave places empty, to be filled later with pupils excluded from other schools. The market position of many academies has been considerably enhanced through impressive - though not always functional - new buildings, as well as copious political praise and media attention.

*Improvement – real or apparent?*

In addition to looking at average improvement, it is also revealing to look on an individual basis at schools which are improving more than other schools and those which are not.

Because the average results of all schools in England rise year by year, it is necessary to adjust the pre-2011 scores to allow for this and to make visible which academies have improved more than other schools. (This is rather like saying that a shop assistant who earned £5 a week in 1948 is paid £200 a week ‘in today’s prices’. See TN2)

Various rules were established (see TN9) to systematically distinguish academies with falling results, no clear trend and rising results. Because of the possible distorting effect of extensive ‘gaming’, four groups were distinguished:

- 1) declining results
- 2) no clear trend (i.e. less than 2 percentage points either way)
- 3) rising results without extensive use of ‘equivalents’
- 4) rising results but more than 10 percentage points between 5ACemEQ and 5ACemG.

The distinction between 3 and 4 was necessary because large EQ / G gaps can artificially inflate results. Because we did not have GCSE-only data for earlier years, it was impossible to say precisely how much the apparent improvement was a result of reliance on ‘equivalents’.

However, by examining whether the improvement was outweighed by how much each academy used equivalents beyond the national norm for maintained schools, we were able to make the following analysis.

*Academies opened Sept 2009 or earlier*

Downward trend	22%
No trend	14%
Upward trend	37%
Apparent upward trend but outweighed by ‘equivalents’	27%

There is a somewhat different pattern for the longest-established group of academies:

*Academies opened Sept 2006 or earlier*

Downward trend	18%
No trend	20%
Upward trend	45%
Apparent upward trend but outweighed by ‘equivalents’	16%

The picture is much more varied than suggested by simple assertions that attainment in academies has risen faster than other schools. The data initially looks as if about three academies in five are improving more than other schools. However, after we remove those whose gain is outweighed by their heavy use of ‘equivalents’, we are left with approximately two out of five academies that have genuinely improved. Meanwhile, one academy in five actually shows a downward trend relative to other schools.

Furthermore, in half of the cases of ‘upward trend’ as defined above, the academy’s predecessor school was already on an upward trajectory. This means that only 1 in 5 academies can genuinely claim to have initiated an improvement.

Once more, this data raises questions about the assumed ‘academies effect’. Whatever factors are leading to improvement - and often they are heavily contextualised, involving a complex interaction of circumstances, people, school culture, leadership, teaching methods, relationships with students and parents, and many other factors – they cannot be related to academy status in any straightforward way.

This is underlined by the fact that a third of those marked above as ‘Upward Trend’ took over from schools which were *already improving before they became academies*.

## **Are longer established academies any more successful?**

- *The achievement of disadvantaged pupils is better in longer-established academies than in academies overall. However, even in these well established academies, disadvantaged pupils do not achieve significantly better than in other maintained schools*
- *Even the longer-established academies are five times as likely as other schools to come below the Government's 'floor target'. But for zealous use of alternatives to GCSE, nearly 1 in 3 would fall below the floor.*
- *Less than half of the older academies have improved their KS4 attainment results more than other English schools, once we consider heavy exploitation of 'equivalent' qualifications, and a fifth have declined.*
- *Low attainment levels in longer established academies in particular can not convincingly be explained by referring to low attainment in the schools they replaced - schools which have been closed now for five years or longer.*

It is not surprising to hear the argument that it takes time to 'turn around' a low-achieving school. Unfortunately this understanding is rarely applied to other schools and improvement initiatives. Older academies perform no better than other academies on most indicators.

Although on some indicators the performance of longer-established academies is better than other academies, the length of time for which they have been open, i.e. between five and nine years, has not enabled them to demonstrate the benefits of academy governance. We are dealing here with academies which were opened between September 2002 and 2006, in other words long enough for GCSE candidates in the summer of 2011 to have spent all of Years 7-11 in an academy.

Much of the evidence relating to these long-established academies has already been presented, but it may be useful to bring it together here:

- i) Older academies tend to have more serious deprivation, though most have reduced this compared with the schools they replaced, as well as attracting more high achieving students. In older academies, 33 percent of pupils on average are entitled to free school meals; this is double the national average, but typical of cities such as Manchester, Birmingham and inner London. These long-established academies have a wide range of origins and characteristics, however, and some of them have changed radically in terms of pupil characteristics since conversion to academies. Consequently, it is difficult to see more than half of them as continuations of severely disadvantaged schools in terms of pupil profile.
- ii) In terms of the prior attainment of their pupils, based on Key Stage 2 tests, most of these older academies have pupil profiles below the national average, though only half have very few higher attainers (i.e. below 20%, compared with a national average of 32% high prior attainers).

iii) 51% of pupils in these older academies achieved 5ACemEQ (i.e. including equivalents), and 40% achieved 5ACemG, i.e. relying on GCSEs alone. This is clearly below the national average. These older academies rely on ‘equivalents’ a little less than other academies but far more than other schools.

iv) Among disadvantaged pupils in these older academies, 40% achieved 5ACemEQ and 30% 5ACemG. The 5ACemG figure is above that for academies in general but only marginally higher than the average for maintained mainstream schools in England (28.6%). In other words, out of every hundred disadvantaged pupils in these long-established academies, just one or two more pupils achieve this compared with non-academy schools. Looking at this another way, the difference is so small that, if we were to remove just one of the more successful academies in this group, there would be no difference at all between the achievement of disadvantaged pupils in the older academies and the achievement of their counterparts in ordinary maintained schools.

v) The introduction of the English Baccalaureate has proved as problematic for the older academies as for academies in general. On average, 8% of their students gained A\*-C grade GCSEs in EBacc subjects, which is similar to other academies and half the level of all maintained schools. Only half of the older academies have 5% or above of students gaining EBacc subject qualifications, and leaving aside more advantaged academies, only 1 in 4.

vi) The ‘floor target’ problem remains serious even for these older academies: 6 of the 44 came below (5ACemEQ), similar to academies in general and *five times as high* a proportion as for all maintained schools (1 in 34). It is only the zealous use of ‘equivalents’ which stops this statistic being even worse: if a ‘floor target’ were constructed for 5ACemG, i.e. by GCSEs alone, nearly 1 in 3 of the older academies would fall below.

vii) The 2011 results for this group of well-established academies was compared to their 2007 results, using 5ACemEQ data and after controlling for the shift in attainment for all maintained schools nationally. This was intended to show whether this group were improving more than all maintained schools. A fifth showed a decline and a fifth no trend. Three-fifths appeared to improve more than other schools. However, large numbers of these make extensive use of ‘equivalents’ so only a minority of these well-established academies can safely be said to have improved more than other schools. This is despite the fact that more disadvantage schools nationally have tended to improve faster.

viii) We also attempted to measure attainment at the end of KS4 against expectations based on prior attainment at age 11, using an experimental method described in TN7. The effectiveness of these older academies, on this measure, ranged from +40 to -20. Bearing in mind the reservations expressed at the end of TN7, this is an enormous range, and not much narrower than for academies in general.

In conclusion, it is difficult, even in terms of long-established academies, to conclude that they have lived up to official expectations. There has been a definite improvement for some, and ongoing problems for others. Direct comparison is not always easy because of changes in the characteristics of their student population.

*Finally, it becomes difficult to explain continuing problems of attainment in many of these older academies on the basis of predecessor schools which closed between five and nine years earlier. There must surely be a time limit on how long the state of predecessor schools can serve as an official explanation for current attainment levels in academies.*

*These 44 schools had been academies for at least five years, so that pupils sitting examinations in 2011 had undertaken their entire secondary education at an academy. Most of these academies have had the benefit of new buildings and additional 'fresh start' resourcing. Many of these academies have been able to change their status in local pecking orders of parental choice, through the prestige granted by governments to their academy status. To all intents and purposes these are new schools which should now be evaluated according to their current performance, rather than by comparison with the schools which were closed many years earlier to make way for them.*

## Conclusion

- *Academy status does not lead to higher attainment for disadvantaged students, greater improvement or solid academic achievement. Neither the length of time for which academies have been established, nor management of chains of academies by the growing edu-businesses, make a significant difference to this.*
- *There are substantial dangers in driving more and more schools into the hands of major academy sponsors whose track record is problematic or unproven.*
- *The academy strategy has been a diversion from the pressing need to focus on improving the school curriculum, providing a better quality of education for disadvantaged young people, and tackling child poverty and high rates of youth unemployment.*

No statistical analysis can fully evaluate patterns of achievement and improvement, let alone the quality of school experience, in different schools and communities. Even when prior attainment patterns and deprivation statistics are taken into account, there are inevitably qualitative factors such as parental aspirations and involvement which are almost impossible to reflect in a statistical evaluation, let alone the impact of academies' new buildings or the media and political attention they have received on their students' engagement and morale.

Despite these limitations, we believe this analysis has demonstrated that many of the claims made on behalf of the academies' project are unjustified. Taken across the board, academy status does not lead to any significantly higher attainment for disadvantaged students, greater improvement, reliability of support to prevent very low attainment, nor a solid core of achievement in academic subjects. Neither the length of time over which academies are open, nor management of chains of academies by the growing edu-businesses makes much of a difference.

### *The elusive 'academies effect'*

The 'academies effect' sought by the early PriceWaterhouseCooper evaluations on behalf of the government of the day, and by various later evaluations, continues to prove elusive, and even the possibility that specific chains might have their own effect is not supported by the data.

This report has also pointed to a *major contradiction in Government policy*. The present Coalition Government and its ministers are forcing large numbers of schools into academy status, arguing that this will raise standards - yet the existing academies depend heavily on *alternative qualifications which the same ministers regard as suspect*. As we have shown, claims for the superiority of academy status depend on these schools' *zealous exploitation of these 'equivalents'*, including those which count as two, four and even six higher grade GCSEs.

None of this, as we stated in our introduction, is intended to take away from the achievement of pupils and their teachers in existing academies, including a few remarkable schools. That is not

the issue, but rather the generalised claim that academies are a better way of running schools. There are many factors which result in high standards of attainment, with even greater complexity of cause and effect in areas blighted by poverty; it remains important to gain a richer understanding of how schools can improve beyond the narrow imagination of the high-stakes surveillance systems operating in England. There is little that appears distinctive, separate or generalisable in academy status and governance as such.

#### *The dangers of sponsorship*

There are also dangers of various kinds. Firstly, the heavy exploitation of ‘equivalent’ qualifications, regardless of the risk to a broad and balanced curriculum, may derive in part from the pressures of business-oriented sponsors with limited educational understanding who demand better ‘bottom-line’ results. The pressures on academies from Government agencies such as the Specialist Schools and Academies Trust (now re-branded) may have added to pressures from the accountability regime of league tables and Ofsted inspections. Academies have also led to increasing emphasis on some qualifications and courses of study which, arguably, require the demonstration of basic procedures and remembered facts rather than more complex problem-solving or creativity. This could have a serious negative impact nationally on social and economic development.

Local authorities were never a perfect form of democracy, but did in many cases help schools to relate to their local areas and the needs of young people and their families. Before recent reforms, they formed an umbrella linking together education of different kinds (nurseries, schools, colleges, youth and community education) and connecting it with other services for children and the wider community. None of this is likely to emerge from academy governance and competing chains, however large the edu-business and the academy chain.

#### *A sense of purpose*

This report has necessarily been limited in focusing overwhelmingly on attainment. Much else has been written on the problems of the academy programme, including a special issue of *Forum* (2008), the scholarly book edited by Professor Helen Gunter *The State and Education Policy* (2011) and a sharp critique by investigative journalist Francis Beckett (2007). There is no space here to recapitulate their arguments but they provide stimulating reading.

Recent decades have also seen an imbalance in education policy between the different purposes of schooling, with dominance given to preparation for employment and the neglect of other aims of education such as personal development and wellbeing, democratic citizenship, and culture and leisure interests.

Within policy, education is now regarded primarily from an economic point of view. The social and economic purposes of education have been collapsed into a single, overriding emphasis on policy making for economic competitiveness and an increasing

neglect or sidelining (other than in rhetoric) of the social purposes of education.

(Stephen Ball: *The Education Debate*, 2008, pages 11-12)

There is a serious danger that this trend is being exacerbated by academy governance, including control by the growing education businesses. (Even 'charity' status is unlikely to exempt major sponsors from this culture, given the high salaries of many executives and the revolving doors between various kinds of organisations.)

Young people in England face serious and unprecedented challenges, which raise complex issues for school development. The difficulties for young people and their teachers are particularly intense given the extent of child poverty and the appalling waste of talent brought about by youth unemployment. This requires fresh thinking about education in schools as well as about the future development of society. *The conversion of schools to academies is at best a distraction and at worst a tragically false direction.*

## Technical notes

TN1) The Department of Education (DfE) has used various criteria over the years for deciding which schools to count in lists of academies. For example, sometimes the former City Technology Colleges are counted separately. Some academies established in September 2010 are run without sponsors, and have been called ‘converter academies’, though this has not been applied to former grammar schools or CTCs which appear to be their own sponsors.

This report uses as its basis the criteria and listings supplied by DfE requiring academies to have KS4 results for the summer of 2011, to have been opened by 12 September 2010, and provided that there are also KS4 results for summer 2010 for comparison, whether as an academy or for the predecessor school. (This final requirement only make a difference of a few schools.) This resulted in a list of 269 academies, including former CTCs and recent ‘converter academies’.

Using this full list is problematic in that it includes schools which had only been open as academies for nine months when pupils sat GCSEs. Their results are largely the product of the school the academy replaced. We have therefore often based analysis on a reduced list requiring academies to be opened on or before September 2009, so that summer 2011 examination candidates had at least spent the whole of Key Stage 4 at an academy (184 academies). Later in the report, we also work with a much smaller list of 44 academies which were opened by September 2006, in other words where summer 2011 examination candidates had completed all of their secondary education. (Of this smaller group, 4 were former CTCs and 1 a former independent school.) The use of these reduced data sets is made explicit in the text of the report.

TN2) One difficulty in comparing the improvement of academies is that other schools are improving too. When looking at improvement of academy results, we have adjusted raw data for 2010 and earlier by the amount by which the score for all maintained schools had risen. This makes it easier to see whether academies had improved *more than other schools*. An analogy would be referring to a teacher earning £200 a week some years ago as earning £500 “in today’s money”.

TN3) In an earlier investigation, reported in Wrigley (2011, page 136), it was discovered that over 90% of pupils achieving a C grade or above in GCSE Science also achieved grade C or above in GCSE Maths, but only 50% of those with a Science GNVQ Intermediate achieved grade C or above in GCSE Maths. A similar exercise was conducted comparing ICT / computing with GCSE maths. Conversely, roughly half of GNVQ candidates in Science and Computing obtained D or E in GCSE Maths.

TN4) For many years the Department for Education has produced attainment data for pupils eligible for free school meals (FSM). Recently the category 'disadvantaged pupils' has been used to cover both FSM-eligible pupils and pupils in local authority care. Unfortunately data is often missing for 'disadvantaged pupils' specifically, so we have had to substitute the FSM data. In practice, there is negligible difference statistically between the two, since less than 1 in 30 of those classified as disadvantaged are in care. For all practical purposes, the two can be used interchangeably in the present context.

TN5) SFR or Statistical First Release is a form of data provided at particular times of year by Department for Education statisticians. It provides a wealth of information broken down into various categories. The most important is the January issue including the verified attainment data for the previous summer, and the February issue which focuses on aspects of social equality and provides data for different ethnic groups, for example. In January 2011 a much more detailed analysis was also published for every school.

TN6) The universal application of 35% as a 'floor target' is clearly unjust, given the different circumstances of schools and the prior attainment and levels of dis/advantage of their pupils.

There are also problems with grouping schools into bands according to the proportion of their pupils who are entitled to free school meals (FSM). The fundamental flaw is that in many schools the higher level GCSE results are not predominantly generated by their disadvantaged pupils; a more fitting correlation would be higher levels of parental education or occupation, though this is more difficult to track. Some schools have large numbers of both FSM pupils and children of professional parents, whereas in others with similar FSM percentages the non-FSM pupils are mainly the children of less educated or less highly-skilled parents.

It was therefore a major step forward for the Department for Education this year to analyse the performance of pupils with various levels of prior attainment, and to show the results among disadvantaged pupils.

TN7) Various attempts have been made by the Department for Education over the years to calculate 'value added', none of them perfectly reliable. This is extremely difficult, because it entails not only prior attainment (KS2) but also different levels of progress during KS3 and KS4. For example, disadvantaged pupils tend to fall further behind, possibly because of their perceptions of the difficulty young people in their neighbourhoods face in securing good employment, but within this many EAL pupils who were graded low at KS2 because they were late starters in English are able to catch up.

We attempted various calculations in the course of this research, the most successful of which consists of calculating the standard expectations of pupils from their KS2 attainment, and adjusting for the proportion of disadvantaged pupils in the school. Even this tends to show selective schools such as grammar schools doing better than expected by the formula, probably because level 4 covers a very wide range of attainment and those gaining grammar school places will be at the upper end. To a lesser extent this may also be true of comprehensive schools situated in more affluent areas. Only the range has been quoted in the text, as an appropriate indicator of the variability of 'effectiveness' among academies after controlling for their different circumstances. The range is not invalidated by the explanation provided earlier in this paragraph.

TN8) In order to make a fair comparison between the year-on-year improvement of academies and that of other schools, it is essential to recognize that different types of school have been raising their scores at different rates. At the most extreme, a school with 100% 5AcemEQ can only go down, while schools below 30% have been under extreme pressure to raise their scores and some of them have done so quite dramatically. Using 2010 as a baseline, non-academies starting 30% or below rose 8.8 percentage points in a year, whereas those starting at 61-70% rose by 0.6 percentage points.

Many more academies (or predecessor schools, in the case of newly opened academies) began low than is the case for non-academies. For example, 44% of academies but only 16% of non-academies had 0-40% in 2010.

The process used to establish a virtual matching set of non-academies was to adjust their weighting to match that of academies. The improvement for each group of *non-academies* was multiplied by the proportion of *academies* belonging to that group. The products were added to establish how this virtual matching set of non-academies improved.

A similar process was adopted based on the different proportions of disadvantaged pupils in academies and non-academies, since heavily disadvantaged schools (academies and non-academies) have been improving the most. At the extremes, academies / non-academies where 0-10% of pupils were disadvantaged improved 2.2 and 2.0 percentage points respectively in the past year, whereas those with 61-80% disadvantaged improved 7.7 and 7.2 percentage points.

TN9) In general, comparison was made between results for 2011 and for the predecessor school's penultimate year. This is to avoid a 'dip' effect in cases where demoralization due to a school's closure has affected the final year's results.

For academies which were open before 2006, their 2011 results were compared with their 2007 results.

Academies only open since September 2010 have not been included in this improvement calculation, since they have been open for too short a time to speak of their academy status impacting on 2011 results.

Where there is less than a 2 percentage point change upwards or downwards, this is shown as 'no trend'.

All this, of course, is a statement whether academies are improving more or less than all schools nationally, and relates therefore to each year's adjusted data (see TN2).

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