

An analysis of examination uptake and performance of schools in the Academies programme

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Please note that most of this paper was written before the general election in May. Since then the new government have expanded the academies programme to allow all schools to apply for academy status, where previously only underperforming schools in deprived areas were eligible. This means that some of the description in this paper of the purposes of the academies programme and future plans are now out of date. However, the main analysis focussing on uptake and attainment in key subjects is still of great relevance, particularly given the expansion of the programme.

Executive Summary

- By September 2009, there were 200 academy schools open, with plans for another 100 or so to be open by September 2010 and a commitment to an eventual total of 400.
- The original intention of academies is that they would replace failing schools in deprived areas. Eligibility has broadened somewhat as the programme has expanded. Other types of schools, such as independent schools or those in the National Challenge are now eligible to convert, even if they are not in areas of particularly high deprivation.
- An analysis of the mean level of deprivation experienced by pupils in schools converting to academies suggests that there has been a shift towards schools in slightly less deprived areas in recent years.
- Similarly there has been a slight shift away from the poorest performing schools (at GCSE level), although on average schools converting have attainment levels well below the overall level across all schools.
- Between 2005 and 2009 the average prior attainment of GCSE pupils in academies (as measured by mean KS3 level) increased considerably and at a higher rate than in the population as a whole. However, the mean KS3 level of the pupils in academies was well below the mean level in the whole cohort in all years.
- Uptake of English and maths GCSE in academies between 2004 and 2009 was very similar to the level in the population as a whole.
- Uptake of GCSE English literature, geography, history, French and German in academies
 was similar to uptake in the lowest third (in terms of overall attainment) of the whole
 cohort.
- The percentage taking combined sciences was less than the percentage amongst the lowest third of the population (except for 2007, where it was equivalent). However, uptake of the separate sciences was higher than amongst the lowest third, and in 2009 was higher than in the whole population.
- Uptake of A-levels in schools converting to academies increased significantly between 2004 and 2009 as many added a sixth form or increased places to encourage staying on post-16.
- Pupils taking A-levels in academies had on average lower levels of prior attainment (measured by mean GCSE) than the A-level cohort as a whole. However, prior attainment levels increased for pupils in academies between 2005 and 2009 faster than in the whole cohort.
- Uptake in A-level maths and the three main science subjects increased over the period, although remained below the uptake in the whole cohort. However, the numbers of Alevel students in academies remained relatively low, making conclusions tentative at best.
- There were no clear patterns in terms of changes to GCSE or A-level uptake within schools before and after converting to an academy. However, for most of the academies it is still early days as part of the new regime.

- All of the core subjects at GCSE showed improvements in attainment in academies as a whole between 2004 and 2009. However, attainment levels remained well below the overall population figures.
- Similarly, in the core A-level subjects attainment levels increased in academies over the period. In all these subjects attainment was well below the population level, apart from English where it was above that in the population in 2009.
- It is likely that at least part of the improvement in attainment in both GCSEs and A-levels
 is due to the improved levels of prior attainment of the pupils in academies. In order to
 determine how much was due to levels of prior attainment, statistical modelling would be
 necessary.
- Further research on levels of uptake and attainment would be useful once more academies have been open for a considerable length of time. Analysis of changes in performance post conversion is also recommended, using statistical modelling to account for the influences of background factors such as prior attainment and deprivation levels.

Introduction

The academies programme is a key part of the current government's education strategy. By September 2009, there were 200 academy schools open, with plans for another 100 or so to be open by September 2010 and a commitment to an eventual total of 400¹.

According to the DCSF website:

"Academies are all-ability, state-funded schools established and managed by sponsors from a wide range of backgrounds.... Sponsors challenge traditional thinking on how schools are run and what they should be like for students. They seek to make a complete break with cultures of low aspiration which afflict too many communities and their schools.... On establishing an academy, the sponsor sets up an endowment fund, the proceeds of which are spent by the academy trust on measures to counteract the impact of deprivation on education in their local communities." ²

The original intention of the government's academies programme was to take 'failing' secondary schools in deprived areas, hand much of the control over to a sponsor, and give them extra funding, new buildings and leadership, all with the intention of breaking the cycle of underachievement and low aspirations in the school and the area. Some new academy schools have also been built in deprived areas where more places were required. However, it is not exclusively low attaining schools that are eligible to become academies; City Technology Colleges and independent schools can also apply, the majority of which are likely to be high achieving schools.

All new academies must follow the National Curriculum in English, maths, science and ICT (although the first few academies were not bound by this rule), and they all have specialist school status with the specialism(s) determined by the sponsor. Like other specialist schools they can select 10% of their pupils on aptitude for their specialism.

Sponsors, the local authority and other potential partners interested in setting up an academy are required to submit an Expression of Interest (EoI), outlining their proposal. This should set out the requirement for an academy in the area, and details such as age range, pupil numbers, planned building etc. Furthermore it should outline a 'vision' for the proposed academy. In this vision:

"Particular attention should be given to the ways in which this Academy will counter the effects of deprivation and raise standards of achievement."

Thus it was certainly the original intention that academies should be set up in deprived areas, and when replacing an existing school it is implied that this would be a poor performing or underachieving school. However, there is a suspicion voiced in some quarters (Curtis *et al*, 2008; Gorard, 2009) that this initial eligibility criterion has been loosened somewhat in recent years. In particular, critics cite a fall in the deprivation levels experienced in the schools converting. For example, Curtis *et al* report that the proportion of pupils eligible for free school meals (FSM) in academies fell from 45.3% in 2003 to 29% in 2008. Similarly, according to the PricewaterhouseCoopers (PwC) review (2008) around one third of pupils in academies were eligible for FSM in 2007, but this proportion had declined since the first academies opened, at a faster rate (6 percentage points) than in English schools as a whole (1 percentage point). Levels of prior attainment (as measured by KS2 average points score) of pupils entering academies in 2007 were only just below the England average (26 against 27.4) (PwC, 2008), suggesting that their average intakes were not amongst the most deprived.

¹ http://www.standards.dfes.gov.uk/academies/projects/?version=1

² http://www.standards.dfes.gov.uk/academies/what are academies/?version=1

³ See, for example p14 of the EoI for Nottingham Academy - available at http://www.dcsf.gov.uk/foischeme/_documents/DfES_FoI_588.pdf

It is certainly true that some changes have occurred in the eligibility criterion. For instance, in 2008 the government announced that up to 70 schools that are part of the National Challenge (involving schools with less than 30% of pupils getting 5 A* to C including English and maths) could convert to an academy (whether or not in a deprived area)⁴. The DCSF website currently lists three types of schools that have converted into academies; underperforming schools, those providing new 'high quality' places in areas that have a particular need (either new schools or independent schools that become non-selective), or high performing schools merging with poor schools⁵. Thus, some high-attaining schools are allowed to convert, so long as they can demonstrate that by doing so they are contributing to the programme's aims of raising levels of attainment in deprived areas⁶.

To date there has been no detailed analysis of patterns of uptake in academies. Most evaluations have focussed on other aspects such as attainment and attendance, costs and value for money, effects on neighbouring schools and whether or not the programme is achieving its stated targets. The Government commissioned evaluations of the academies programme have on the whole been mildly favourable (PwC, 2008). In terms of attainment both PwC (2008) and the National Audit Office [NAO] (2007) report improvements in performance in academies in comparison to their predecessor schools at GCSE level, and that this improvement is faster than that in schools similar to the predecessor in terms of ability level.

Other analysis is less favourable. Several authors note that any improvements in academies need to be put in the context of changes in the intake of these schools in terms of the percentages of deprived pupils (Gorard, 2009; Curtis *et al*, 2008). There is a related concern (Curtis *et al*, 2008, p36) that the freedom that academies have over their admission policies could mean they try to exclude more deprived pupils. PwC (2008) recommend a process for checking the intake into academies to make sure that they meet the programme's purpose of providing opportunities for 'disadvantaged' pupils.

Curtis *et al* (2008) note that of the 36 academies in their analysis that were eligible for the National Challenge, only 10 achieved the required figure of 30% of pupils getting 5 GCSE A* to C grades including English and Maths. Furthermore, by 2007 the GCSE pupils in the academies opening in 2002 had been all the way through the school after it became an academy, and none of these 3 academies achieved the National Challenge level in that year.

Another analysis of attainment was undertaken by Machin & Wilson (2009) who compared the performance of 27 of the academies opening between 2002 and 2005 with those of a closely matched school in terms of levels of (and trends in) attainment. They found that improvements in academies were not statistically significantly different from those in the matched schools.

Gorard (2009) points out that whilst some of the academies had impressive improvements in the percentage of pupils getting five A* to C grades at GCSE, this was not matched by increases in five A* to C grades including English and maths. This he puts down to changes in entry patterns, by which he means increasing entries to GCSE equivalents, as opposed to core GCSE subjects. However, he does not cite any evidence for this claim. He goes on to conclude that only 5 out of 24 academies he investigated had substantially better results post academy, given their intake.

The NAO report puts a more positive slant on the fact that academies offer more alternatives to the academic GCSEs, noting that they may be raising the attainment of deprived pupils by providing vocational GCSEs.

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⁴ http://www.dcsf.gov.uk/pns/DisplayPN.cgi?pn_id=2008_0109

⁵ http://www.standards.dfes.gov.uk/academies/what_are_academies/whyacademies/?version=1

⁶ An exception to the criteria is City Technology Colleges (CTC). These are a separate category of schools eligible for conversion and were usually high performing schools when they became CTCs (Gorard, 2009).

There has been considerably less evaluation of A-level performance in academies. Results at A-level have generally been poor (PwC, 2008; NAO, 2007) which is likely to be due to the focus on KS4 at the start of the academies programme and the fact that most of the sixth forms involved were very small to begin with. Many of the predecessor schools did not have sixth forms at all, but have added one when re-opening as an academy.

There is also some doubt that academies are a necessity for improving attainment, or whether any school given extra funding, new buildings, a new head and new staff would be able to achieve the same results (Committee of Public Accounts, 2007).

Finally, it is also worth noting that there is no consistent pattern of attainment in academies, with some doing well and others less so, making firm conclusions on their effectiveness problematic, a point noted by the PwC and NAO evaluations and Curtis *et al* (2008).

Thus, analysis so far of academies has been rather mixed. For many it is still too early to make a definitive conclusion about the success of academies in raising attainment, or participation beyond GCSE. Perhaps a clearer picture will emerge when a substantial number of schools have a cohort of pupils that have been all the way through to GCSE level whilst being in an academy.

As for the future of academies, the government are committed to opening a total of 400. It is not entirely clear what proportion of these will be in very deprived areas and what the make-up will be in terms of pupil ability. One interesting feature to follow will be the number of City Technology Colleges (CTCs) and independent schools converting to become academies, as this would change the overall intake considerably.

There is scope, therefore, for further analysis of academy schools. This report investigates the characteristics of schools that have converted or are part of a proposal to convert, and tries to determine whether there have, in fact, been changes since the start of the programme. It also looks at the levels of uptake of GCSEs and A-levels and performance in individual subjects.

Data

A list of current and planned academies was downloaded from the DCSF website. Centre numbers were then found for each academy (and any predecessor school(s)) using the National Centre Number (NCN) database from 2007. To get data on uptake and attainment levels, and the level of deprivation experienced by pupils in academies the list of academies was merged (using the centre number⁷) with the National Pupil Database (NPD) for the years 2004-2009.

We were interested to see whether there has been a change in the level of deprivation experienced by pupils in the schools that have either already converted or are part of a proposal to convert. To do this we used the Income Deprivation Affecting Children Index (IDACI)⁸ as a measure of the level of deprivation experienced by each pupil. For each school, a mean IDACI level was then calculated, and this measure was compared between schools that converted in different years.

The calculation was done at one point in time, using the NPD from 2007. Two points need to be made about this. Firstly, the database we used contained only pupils taking a KS4 qualification in

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⁷ All pupils registered at a centre were included in the analysis. This means that when a pupil took a qualification in a different centre to the one they were registered at this was still included in the results, even though it was technically not uptake in an academy. However, these occasions were very rare at GCSE or A-level.

⁸ This index is the percentage of children in a small area (Local Super Output Area or LSOA) who live in families that are income deprived (in receipt of Income Support, Income based Jobseeker's Allowance, Working Families' Tax Credit or Disabled Person's Tax Credit below a given threshold). See p19 of http://www.communities.gov.uk/documents/communities/pdf/733520.pdf

2007 and therefore the school level mean IDACI is based on a limited number of pupils in each school. However, one can assume that they are reasonably representative of all pupils in the school in terms of their deprivation. Secondly, we looked at a point in time when some of the schools had already converted to an academy and some were yet to convert. This might lead to a criticism that the earliest academies have changed the make-up of their pupils since converting. However, it was not thought that there would have been large changes, particularly as the majority of the candidates taking GCSEs in 2007 would have already been in the school when it converted.

We also looked at the performance level of the schools prior to converting, to see if that had shifted over time. To do this we calculated a mean GCSE for each school by converting grades attained by each pupil into points, with A*=8, A=7 etc.

For part of the analysis we were interested in looking at uptake of subjects in the schools both before and after they became academies. For most of the academies this was fairly simple to calculate, because they kept the same centre number when they became academies. However, several of the academies were formed by the merging of two or three other schools. In these cases, we looked at the pre-academy uptake in all of the schools that merged to become the academy.

We were also interested in the prior attainment of pupils taking exams at each academy. Using the NPD we were able to draw on Key Stage 3 results for pupils taking GCSEs in 2005-2009. The measure we used was the mean of the levels achieved by each pupil in English, Maths and Science. For A-level students we used the mean performance of candidates on their GCSEs and vocational GCSEs for those taking A-levels in 2005-2009.

For the uptake and attainment data we were only interested in looking at academies that opened in September 2007 or earlier, as any opening after this would not have had any candidates going through entire GCSE or A-level courses whilst it was an academy. Table 1 shows the number of new academies opening in each year from 2002 to 2007. It also gives the number of academies for which there were records in the NPD at KS4 and KS5.

Table 1: Number of academies opening, and those with NPD records (2002-2007)

	2002	2003	2004	2005	2006	2007	Total
Actual	3	10	5	10	19	40	86
In NPD (KS4)	3	10	4	10	19	34	79
In NPD (KS5)	2	9	4	8	13	18	54

There was one academy opening in 2004 and six in 2007 which did not have any records in the NPD at KS4. Of these, five of the academies opening in 2007 were completely new schools and thus did not have any pupils taking GCSEs in the years in question.

There were many more schools with no records at KS5, mainly due to them not having sixth forms.

Results

Characteristics of schools converting to academies

Table 2 presents the number of academies opening in each year (or proposed opening for 2010 to 2012⁹), and the school level mean, standard deviation, minimum and maximum IDACI for 2007. A higher value represents a higher level of deprivation. This table does not include the CTCs that converted as they were not part of the original model of academies born out of

⁹ Proposed list downloaded January 2010.

schools with deprived pupils. It also does not include completely new schools that did not have any pupils take GCSEs in 2007.

It is worth noting that around 3% (1,404 out of 44,010) of the candidates in the academy schools had a missing IDACI score. Where a large majority in a particular school had missing values the school was excluded from the analysis.

This data should also be put in the context of the mean IDACI measure of all schools. In 2007 (excluding schools with less than 20 candidates) the mean IDACI was 0.23, with a standard deviation of 0.13, a minimum value of 0.01 and a maximum of 0.89.

Table 2: Level of deprivation experienced by pupils in academies, by year of opening

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Year of opening	Academies	Mean IDACI	s.d. IDACI	Min IDACI	Max IDACI
2002	3	0.49	0.11	0.38	0.60
2003	6	0.44	0.10	0.33	0.61
2004	3	0.32	0.01	0.30	0.33
2005	7	0.37	0.15	0.16	0.66
2006	16	0.43	0.09	0.30	0.59
2007	26	0.33	0.09	0.13	0.46
2008	44	0.31	0.10	0.08	0.60
2009	74	0.33	0.12	0.08	0.63
2010	54	0.31	0.10	0.11	0.56
2011	9	0.32	0.08	0.20	0.43
2012	1	0.22		0.22	0.22
Overall	243	0.33	0.11	0.11	0.66

Looking at the mean IDACI for academies opening in each year, there is some evidence that schools converting in more recent years (or proposed conversions) consisted of children experiencing lower levels of deprivation on average than in the first few years. The mean figure for the 62 schools converting in the first six years was 0.38, compared with a figure of 0.32 for the 182 conversions (or proposed conversions) since 2008. This shift can also be seen in the minimum IDACI measure in each year, which was as low as 0.08 for 2008 and 2009.

Generally, it seems to be the case that most academies consist mainly of pupils living in deprived areas. However, as illustrated by the minimum IDACI measure in each year, there are some schools with a much less deprived intake on average. We looked in detail at a number of the schools with the lowest mean IDACI measure (i.e. schools that at first sight seem unlikely candidates for conversion) to determine the reason for their conversion. This was done by inspecting their EoI (where available) ¹⁰.

The EoIs suggested that, broadly speaking, these academies fitted in with the DCSF's current definition of types of school eligible for conversion. There were three main groups of these academies. The first, and most common, group were schools that were not in areas of particularly high deprivation, but the performance in the schools was particularly low, or underachieving. This included some schools which were near grammar schools where the grammar schools were creaming off the best candidates. It also included some National Challenge schools.

Secondly, some academies were proposed to increase the availability of good quality secondary school places within an area, even though it may not be particularly deprived. The justification was that these were areas where there was little choice or only poor performing schools and therefore many pupils had to travel outside of the area to get good quality education.

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¹⁰ All the available EoIs are at:

http://www.dcsf.gov.uk/foischeme/subPage.cfm?action=collections.displayCollection&i collectionID=175

Finally, there were some schools with low numbers of deprived pupils which merged or federated with schools that were underperforming or with a more deprived intake, in order to try and improve the performance of the weaker school.

However, we also found a (very few) number of schools where it was less clear that the eligibility criteria had been met. The EoIs for these proposals stated that they were in areas of high deprivation, but we did not find this to be the case in our analysis of the data. There may be several reasons for this; the intake may have changed between the analysis undertaken for the EoI and our analysis; some of the EoIs referred to the area the school was located in, *not* where the pupils actually lived, as being particularly deprived; finally, some EoIs referred to a school serving the most deprived part of the county or area, which does not necessarily mean that it was particularly deprived in a national context. For these schools, we cannot be sure why they were allowed to become academies.

We analysed the academies' predecessor school(s) in terms of their mean GCSE performance in the year in which they converted¹¹. Again, this gives an indication of whether there have been any changes over time in the types of schools converting. We also present the mean GCSE across all schools in England in each year, as a benchmark. This is shown in Table 3:

Table 3: Mean GCSE	performance in	academies	by year of	opening
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Year	Academies	Mean GCSE	s.d. GCSE	Min GCSE	Max GCSE	Pop mean GCSE
2002	3	n/a	n/a	n/a	n/a	n/a
2003	6	n/a	n/a	n/a	n/a	n/a
2004	3	3.55	0.07	3.50	3.63	4.59
2005	7	3.76	0.68	2.97	4.83	4.71
2006	16	3.55	0.49	2.83	4.62	4.73
2007	29	4.18	0.94	3.34	7.00	4.79
2008	46	4.17	0.64	3.17	6.33	4.88
2009	73	4.07	0.56	2.89	6.70	4.91
2010	55	4.10	0.42	3.19	5.67	n/a
2011	9	4.30	0.50	3.53	5.22	n/a
2012	1	5.00	n/a	5.00	5.00	n/a

In each year the mean GCSE of the schools converting to academies was well below the mean GCSE across all schools. However, there is some evidence of a change over time in the schools converting in terms of the performance of the pupils. The mean GCSE of the schools converting in 2004, 2005 and 2006 was lower than the means for each of the years 2007-2012. Looking at the school with the highest mean in each year, this was much higher in 2007 or later. There was a school in 2007 with a mean of 7 (equivalent to all grade As) and one in 2009 with a mean GCSE of 6.79 (equivalent to 8 grade As and two grade Bs).

We looked at the EoIs of a number of the schools with the highest mean GCSE to try and determine the reason for their conversion. Again, in general the reasons are in line with the DCSF's different models of schools eligible for conversion. These were either high achieving schools merging with poor performing schools, or independent schools converting in order to increase the provision of high quality, non-selective places in the area.

GCSE uptake

The number of GCSEs taken and number of pupils taking them in the academies by year of opening and exam year are shown in Tables 4 and 5. The greyed-out boxes show the uptake

¹¹ The mean GCSEs for the proposed academies (opening 2010-2012) were calculated for the latest available year (2009).

before the academies opening in that year had been open for two years; in other words before any cohort of candidates had studied for GCSEs for the whole two years whilst in the academy.

Table 4: Number of GCSEs taken in each year by date of academy opening

			Exam	n Year		
Date of opening	2004	2005	2006	2007	2008	2009
2002	3,756	2,885	2,498	3,177	3,246	3,435
2003	8,666	6,846	7,562	6,954	11,533	11,530
2004	4,314	3,582	3,503	2,863	3,124	4,962
2005	12,295	11,842	11,006	10,307	11,059	10,553
2006	19,863	17,176	16,280	16,074	14,702	14,701
2007	36,085	32,609	32,545	29,890	31,832	28,248
Total	84,979	74,940	73,394	69,265	75,496	73,429

Table 5: Number of pupils taking at least one GCSE exam

	Exam Year											
Date of opening	2004	2005	2006	2007	2008	2009						
2002	482	443	403	477	520	534						
2003	1,294	1,025	1,155	1,125	1,653	1,654						
2004	499	431	457	475	492	731						
2005	1,514	1,439	1,421	1,426	1,458	1,481						
2006	2,607	2,352	2,383	2,664	2,467	2,467						
2007	4,591	4,435	4,618	4,702	4,706	4,465						
Total	10,987	10,125	10,437	10,869	11,296	11,332						

The impact of the schools becoming academies on the number of pupils and number of GCSEs taken does not seem to be large. For the academies opening in 2003 there was a sharp fall in the number of GCSEs taken by the first 'post-academy' cohort of pupils (in 2005), although this did correspond to a fall in the size of the cohort. There was a much bigger increase in the uptake of GCSEs in the 2003 academies in 2008, a consequence of the much larger cohort in that year (this was the cohort that would just have started in year 7 in the academies when they first opened: it may be that some of these academies were able to offer more year 7 places once they had converted).

The number of exams taken by pupils in the 2004 academies fell 'post-academy' and this was not matched by a similar fall in the cohort size, suggesting that on average each pupil was taking fewer exams. A quick calculation shows the average number of GCSEs taken by pupils in these academies to be 8.3 in 2005 and 6.3 in 2008.

There was also a general fall over time in the number of GCSEs taken in all the schools (whether or not they had converted to academies), without a similar fall in the number of pupils. The total number of GCSEs taken fell from 84,979 to 73,429 between 2004 and 2009, whereas the number of pupils increased from 10,987 to 11,332.

Uptake of core subjects

Table 6 on the next page outlines the uptake of core GCSE subjects in academies from 2004 to 2009 (restricted to academies open for two years or more). The percentage of pupils in academies taking each subject is shown, and this is compared to two reference figures taken

from a previous Cambridge Assessment report (Vidal Rodeiro, 2007): 'Low 06' refers to the percentage of low attaining pupils taking the subject in 2006¹², where low attaining refers to the weakest third of the GCSE cohort; 'Pop 06' refers to the percentage of the whole GCSE cohort taking the subject in 2006.

The table also presents the average prior attainment of the pupils in academies (as measured by the mean KS3 level across English, maths and science) and the average across all schools. This gives an indication of how the cohort of pupils in academies compares to the rest of the population in terms of ability. We also present a percentile figure to relate these two more directly; this figure is where the mean KS3 level for academy pupils sits in the distribution of mean KS3 across all schools. To take an example, in 2005 the mean KS3 for academy pupils was the same as a school in the 25th percentile of the distribution across all schools. Thus, 75% of schools had a mean KS3 level above that of the mean in academies.

Table 6: Uptake of core GCSE subjects in academies 2004-2009 (percentage of pupils)

Subject	2004	2005	2006	2007	2008	2009	Low 2006	Pop 2006
English Language and Literature	96.1	95.0	95.0	95.6	96.9	95.6	92.0	96.6
English Literature	78.8	65.9	63.1	68.1	70.6	66.9	62.5	83.3
Mathematics	99.8	96.7	97.8	97.3	98.1	98.7	95.6	97.3
Science: Single Award	25.5	22.5	31.0	25.7			22.1	11.3
Science: Double Award	38.4	46.1	37.7	57.9			58.1	69.9
Science (Core)					77.0	67.1	n/a	n/a
Additional Science					42.5	39.3	n/a	n/a
Biology	7.3	2.2	7.4	6.5	8.5	12.5	0.8	8.0
Chemistry	7.3	2.2	5.0	6.4	6.4	10.1	0.5	7.7
Physics	7.3	2.2	2.3	6.4	6.0	9.9	0.4	7.6
Geography	16.8	17.4	11.4	16.8	16.5	16.5	17.7	29.4
History	19.1	10.6	15.5	21.4	21.3	20.3	17.2	32.9
French	21.0	14.5	14.2	18.7	12.5	11.4	14.9	33.2
German	8.5	2.7	3.9	6.3	5.8	4.3	4.8	13.5
No of pupils	482	1,468	2,015	3,503	6,449	11,332		
Mean KS3 Level	-	3.93	4.24	4.74	4.82	4.77		
Pop Mean KS3 Level	-	5.10	5.07	5.14	5.23	5.23		
Percentile	-	25 th	30 th	37 th	34 th	35 th		

There are several interesting points to note from this table. The first is that the mean KS3 level of the pupils in academies was well below the mean level in the whole cohort. However, this figure increased considerably between 2005 and 2008, before falling slightly in 2009. Although these increases were also seen in the population as a whole, the percentile figure shows that the increases amongst the academy pupils were greater (although note the slight fall in the percentile figure in 2008). This suggests that there may have been a drift in the type of school being converted into an academy, with some less-deprived schools being converted in recent years.

English and English Literature

Uptake in English was about the same in all years as that for the overall population figure for 2006 (96.6%). In English Literature there was a big fall in uptake between 2004 and 2005, before a steady increase between 2005 and 2008. In 2007-9 the uptake was higher than amongst low attaining pupils, but well below the level in the overall population.

¹² The latest year for which figures were readily available

Maths

Uptake in maths remained fairly constant in academies over the period, and was very similar to that amongst the population as a whole in 2006 (97.3%).

Sciences

The percentage taking double award science was very low in academies in the first few years, being below 40% in 2004 and 2006. This is well below the levels even amongst the low attaining pupils in the population. In 2007, 57.9% of academy pupils took double science, equivalent to the low attaining pupils' percentage; but in 2008 and 2009 the percentage taking the (broadly) equivalent core and additional sciences (we assumed that the pupils taking additional science also took core science) had fallen again, to 42.5% and 39.3% respectively. The percentage taking the single award science was greater than amongst the low attaining pupils in 2006-2009 (e.g. if we assume 42.5% took core and additional science in 2008, then 77.0-42.5 = 34.5% took only core science {equivalent to single science} in that year).

Interestingly, the percentage taking the separate sciences (biology, chemistry and physics) was considerably higher amongst academy pupils than amongst the low attaining pupils. Indeed, in 2009 uptake of all separate sciences was higher (12.5% in biology, 10.1% in chemistry and 9.9% in physics) than in the population as a whole (8.0%, 7.7% and 7.6% respectively). All the separate sciences showed increases in uptake between 2005 and 2009.

Other subjects

The percentages taking the other subjects in Table 6 were similar to the percentages amongst the low attaining pupils. In history the percentages were slightly higher for 2007-2009 than in previous years.

Appendix A presents the uptake of all other GCSE subjects in academies and, where available, compares this to the percentages amongst low attaining pupils and in the cohort as a whole.

Uptake by year of opening

A further analysis was undertaken of the uptake of core subjects in academies both before and after they converted, in order to assess whether the opening of the academy had any impact. Table 7 on the following pages presents this by year of opening of the academies. The shaded columns represent the years before the academy had been open for the length of a full GCSE course (i.e. less than two years).

These tables do not show a clear pattern in levels of uptake pre- and post-academy. In English there were no consistent changes. In English Literature there were decreases in uptake in those opening in 2004, 2005 and 2006. In maths the only real change was a small increase in academies opening in 2003. The uptake of double award science fell in the academies opening in 2003 and 2004, as did the uptake of single science in those academies. In the separate sciences there were increases in uptake in the academies opening in 2003, 2005, 2006 and 2007.

In both geography and history there were decreases in uptake in the 2004 academies, but increases in uptake in academies opening in 2005.

Table 7: Uptake of core GCSE subjects in academies by date of opening

Date of Opening=2002

Subject	2004	2005	2006	2007	2008	2009	Low 2006	Pop 2006
English Language and Literature	96.1	99.8	91.8	92.9	96.0	97.0	92.0	96.6
English Literature	78.8	55.3	53.8	79.2	72.1	69.7	62.5	83.3
Mathematics	99.8	95.5	96.5	94.8	99.8	98.7	95.6	97.3
Science: Single Award	25.5	11.1	7.9	13.2			22.1	11.3
Science: Double Award	38.4	29.3	27.0	64.6			58.1	69.9
Science (Core)					50.2	47.4	n/a	n/a
Additional Science					9.6	10.1	n/a	n/a
Biology	7.3	5.4		4.6	7.9	19.7	0.8	8.0
Chemistry	7.3	5.4		4.6	7.9	19.7	0.5	7.7
Physics	7.3	5.4		4.6	7.9	19.7	0.4	7.6
Geography	16.8	15.1	6.5	3.1	13.5	14.6	17.7	29.4
History	19.1	5.2	13.6	17.8	22.1	24.2	17.2	32.9
French	21.0	12.9	9.4	13.2	6.3	3.4	14.9	33.2
German	8.5	3.6	3.2	6.1	1.7	3.4	4.8	13.5
No of pupils	482	443	403	477	520	534		

Date of Opening=2003

Subject	2004	2005	2006	2007	2008	2009	Low 2006	Pop 2006
English Language and Literature	92.7	92.9	94.4	92.4	96.7	92.4	92.0	96.6
English Literature	61.8	70.4	60.4	59.8	60.9	71.9	62.5	83.3
Mathematics	96.2	97.3	97.4	95.7	97.1	98.1	95.6	97.3
Science: Single Award	12.1	27.4	27.4	30.5			22.1	11.3
Science: Double Award	64.8	53.4	49.5	48.8	0.1		58.1	69.9
Science (Core)					80.8	80.3	n/a	n/a
Additional Science					50.3	44.1	n/a	n/a
Biology	2.9	0.8	10.0	4.0	12.5	15.4	0.8	8.0
Chemistry	2.9	0.8	5.5	3.7	5.9	7.3	0.5	7.7
Physics	2.9	0.8	1.6	3.8	4.7	5.7	0.4	7.6
Geography	16.2	18.3	13.2	17.8	17.2	17.9	17.7	29.4
History	11.6	13.0	14.6	17.4	18.7	18.2	17.2	32.9
French	21.1	15.2	12.6	12.8	13.6	16.8	14.9	33.2
German	2.2	2.2	5.5	5.2	5.4	5.1	4.8	13.5
No of pupils	1,294	1,025	1,155	1,125	1,653	1,654		

Date of Opening=2004

Subject	2004	2005	2006	2007	2008	2009	Low 2006	Pop 2006
English Language and Literature	96.2	99.5	99.3	97.9	98.8	98.5	92.0	96.6
English Literature	81.8	92.8	78.1	78.7	90.2	82.2	62.5	83.3
Mathematics	98.2	99.3	100.0	98.5	99.8	98.6	95.6	97.3
Science: Single Award	34.9	35.0	60.6	64.6			22.1	11.3
Science: Double Award	54.9	58.5	17.3	28.2			58.1	69.9
Science (Core)					97.0	87.3	n/a	n/a
Additional Science					39.0	59.4	n/a	n/a
Biology	4.6	5.6	7.4	4.0	1.6	11.9	0.8	8.0
Chemistry	4.6	5.6	7.9	4.0	1.6	5.9	0.5	7.7
Physics	4.6	5.6	6.3	4.0	1.6	5.9	0.4	7.6
Geography	16.8	20.2	11.2	10.1	9.8	8.1	17.7	29.4
History	23.6	17.9	19.3	5.9	15.0	11.5	17.2	32.9
French	21.8	14.4	22.5	5.3	7.1	5.1	14.9	33.2
German	0.4		0.2	1.3	2.4	13.1	4.8	13.5
No of pupils	499	431	457	475	492	731		

Table 7 cont: Uptake of core GCSE subjects in academies by year of opening

Date of Opening=2005

Subject	2004	2005	2006	2007	2008	2009	Low 2006	Pop 2006
English Language and Literature	96.5	97.5	96.7	98.2	97.2	97.0	92.0	96.6
English Literature	72.5	73.8	76.1	67.3	64.5	46.5	62.5	83.3
Mathematics	99.2	98.2	99.2	99.0	97.7	99.2	95.6	97.3
Science: Single Award	7.1	7.4	18.5	13.0			22.1	11.3
Science: Double Award	78.9	82.7	59.2	72.7			58.1	69.9
Science (Core)					75.8	59.0	n/a	n/a
Additional Science					49.8	47.0	n/a	n/a
Biology	6.7	5.5	9.9	9.8	12.3	19.6	0.8	8.0
Chemistry	6.7	5.5	9.9	9.8	12.3	19.3	0.5	7.7
Physics	6.7	5.5	9.9	9.7	12.3	19.3	0.4	7.6
Geography	16.2	17.8	20.5	22.7	23.0	28.0	17.7	29.4
History	28.5	27.2	25.8	30.9	30.9	31.9	17.2	32.9
French	34.8	34.7	20.6	29.7	18.4	13.3	14.9	33.2
German	21.1	13.5	15.2	8.9	12.8	8.0	4.8	13.5
No of pupils	1,514	1,439	1,421	1,426	1,458	1,481		

Date of Opening=2006

Subject	2004	2005	2006	2007	2008	2009	Low 2006	Pop 2006
English Language and Literature	95.4	95.9	94.6	96.6	96.8	95.1	92.0	96.6
English Literature	81.1	82.1	77.6	78.8	76.7	74.6	62.5	83.3
Mathematics	96.0	96.2	97.5	98.1	98.3	99.2	95.6	97.3
Science: Single Award	15.5	15.0	15.6	16.6			22.1	11.3
Science: Double Award	78.0	67.7	54.1	54.6			58.1	69.9
Science (Core)				3.8	76.9	67.0	n/a	n/a
Additional Science					40.4	37.1	n/a	n/a
Biology			0.7	0.4	5.0	7.1	0.8	8.0
Chemistry			0.7	0.4	3.8	7.0	0.5	7.7
Physics			0.7	0.4	3.4	7.0	0.4	7.6
Geography	16.5	14.3	14.6	13.4	14.0	7.8	17.7	29.4
History	21.9	21.4	20.4	17.2	18.4	16.3	17.2	32.9
French	29.9	16.4	13.9	8.9	10.5	9.6	14.9	33.2
German	6.4	6.0	4.4	3.6	3.4	2.8	4.8	13.5
No of pupils	2,607	2,352	2,383	2,664	2,467	2,467		

Date of Opening=2007

Subject	2004	2005	2006	2007	2008	2009	Low 2006	Pop 2006
English Language and Literature	95.9	96.7	96.8	96.4	97.5	96.0	92.0	96.6
English Literature	80.7	80.4	80.9	75.2	66.7	64.7	62.5	83.3
Mathematics	98.5	98.2	98.2	97.1	96.9	98.5	95.6	97.3
Science: Single Award	12.2	13.4	15.9	16.0	0.7		22.1	11.3
Science: Double Award	71.9	63.4	53.5	50.4	9.2		58.1	69.9
Science (Core)				0.0	62.2	64.1	n/a	n/a
Additional Science					34.3	36.4	n/a	n/a
Biology	6.4	5.6	7.0	6.6	6.8	11.3	0.8	8.0
Chemistry	6.3	5.6	7.0	6.5	6.4	9.5	0.5	7.7
Physics	6.4	5.6	6.6	6.6	6.5	9.5	0.4	7.6
Geography	18.7	15.2	14.4	16.1	18.9	18.5	17.7	29.4
History	21.5	21.2	22.1	21.6	22.9	20.5	17.2	32.9
French	43.8	35.6	23.1	22.2	17.2	11.8	14.9	33.2
German	7.5	5.9	6.1	5.2	2.6	2.4	4.8	13.5
No of pupils	4,591	4,435	4,618	4,702	4,706	4,465		

We should note that it may take several years for the conversion to an academy to take effect, so it is a bit early to conclude there has been very little impact, particularly amongst the recently opened academies.

A-level uptake

Table 8 presents the number of A-levels taken from 2004 to 2009 in the schools that converted into academies. As noted in Table 1 there were far fewer of these schools having A-level results in the NPD than had GCSE results.

Table 9 gives the number of pupils taking A-levels in each year.

Over the period there were increases in the numbers of A-levels taken and pupils taking them, which were likely to be a result of academies wishing to have sixth forms to encourage pupils to stay on in education after 16 (NAO, 2007). Many of the schools that were converted into academies did not have sixth forms previously.

There was not much change in the average number of A-levels taken by pupils after the school converted to an academy.

Table 8: Number of A-levels taken each year by date of academy opening

	Exam Year					
Date of opening	2004	2005	2006	2007	2008	2009
2002	0	14	39	54	61	112
2003	133	388	726	570	588	496
2004	180	186	337	372	387	422
2005	1,141	1,242	1,165	1,227	1,186	1,386
2006	441	409	339	468	885	1,329
2007	2,165	2,022	2,132	1,831	1,578	1,856
Total	4,060	4,261	4,738	4,522	4,685	5,601

Table 9: Number of pupils taking at least one A-level exam

			Exam	n Year		
Date of opening	2004	2005	2006	2007	2008	2009
2002		14	22	30	32	55
2003	78	176	295	239	237	212
2004	70	70	127	144	143	161
2005	418	453	413	441	442	506
2006	143	138	116	166	347	519
2007	769	748	764	674	582	720
Total	1,478	1,599	1,737	1,694	1,783	2,173

Uptake of core subjects

In Table 10 the uptake of key A-level subjects in academies open for two years or more is presented, as a percentage of the A-level candidates. This is compared to two reference figures from 2005, uptake by low attaining A-level pupils (as measured by mean GCSE) and uptake in the whole A-level cohort (both sets of figures from Vidal Roderio, 2006). The mean GCSE of A-

level candidates in academies is also presented along with the mean GCSE for all A-level candidates, in order to compare levels of ability.

We should be cautious in interpreting these A-level uptake figures because of the relatively low numbers involved, and because many of the sixth forms involved had only just opened.

Table 10: Uptake of core A-level subjects in academies 2004-2009 (percentage of pupils)

Subject	2005	2006	2007	2008	2009	Low 05	Pop 05
English Language and Literature	· ·	5.4	3.0	4.5	3.5	6.0	6.0
English Literature	17.9	14.9	15.8	13.2	20.2	16.0	20.0
Mathematics	8.4	14.2	17.6	17.2	18.8	6.0	18.0
Biology	11.6	9.5	15.9	15.2	14.4	6.0	18.0
Chemistry	8.9	6.3	12.2	11.3	12.8	4.0	14.0
Physics	5.3	4.3	10.9	8.3	8.2	4.0	10.0
Geography	2.1	2.7	5.3	4.7	5.5	8.0	12.0
History	6.3	5.6	12.1	12.7	12.1	10.0	18.0
No of pupils	190	437	826	1,176	2,166		
Mean GCSE	4.59	4.98	5.54	5.45	5.53		
Pop Mean GCSE	5.88	5.97	5.97	6.00	6.02		
Percentile	6 th	10 th	33 rd	26 th	29 th		

As with the GCSE uptake figures we note that the ability of the candidates taking A-levels in academies was considerably less than in the A-level cohort as a whole. However, a look at the percentile figures shows a large improvement in the ability over the period. As with the GCSE pupils the percentile figure peaked in 2007, and then fell back slightly in 2008 before increasing again in 2009.

The percentage of A-level pupils taking English or English Literature did not change much over the period and in most years was slightly below that of low attaining pupils in 2005. In maths, the percentage was consistently above that of the low attaining pupils, and in 2009 was above the percentage in the A-level cohort as a whole. All the main science subjects showed similar patterns of increasing uptake over time, although remained a few percentage points below the uptake in the A-level cohort. In geography and history the percentages also increased over the period, but were still well below the figures for the A-level cohort as a whole.

Appendix B presents the uptake of other subjects at A-level in academies.

Uptake by year of opening

Again, if we look at the uptake pre- and post-academy, we see a mixed picture. In Table 11 on the following pages we can see that in English literature the only clear trend was an increase in uptake in the academies opening in 2006. In maths there was evidence of a post-academy rise in uptake in academies opening in 2003 and 2005. For the sciences the percentages fell post-academy in those opening in 2004 and 2006, but rose in those opening in 2003.

In academies opening in 2004, both geography and history had a fall in uptake after conversion, although there was increased uptake in both subjects in the 2005 academies.

Table 11: Uptake of core A-level subjects in academies by date of opening

Date of Opening=2002

Subject	2004	2005	2006	2007	2008	2009	Low 05	Pop 05
English Literature			9.1	10.0	12.5	36.4	16.0	20.0
Mathematics			9.1	3.3	34.4	18.2	6.0	18.0
Biology			13.6	23.3	18.8	7.3	6.0	18.0
Chemistry			9.1	23.3	15.6	1.8	4.0	14.0
Physics			9.1	10.0	9.4	1.8	4.0	10.0
History					12.5	10.9	10.0	18.0
No of pupils								

Date of Opening=2003

Subject	2004	2005	2006	2007	2008	2009	Low 05	Pop 05
English Language and Literature			8.1	4.6	4.2	4.7	6.0	6.0
English Literature	12.8	19.3	11.9	19.2	12.2	18.4	16.0	20.0
Mathematics	2.6	9.1	16.9	10.5	16.5	17.0	6.0	18.0
Biology	5.1	12.5	9.5	10.5	16.9	12.7	6.0	18.0
Chemistry	6.4	9.7	6.1	7.5	13.5	9.4	4.0	14.0
Physics	3.8	5.7	4.4	9.6	7.2	9.9	4.0	10.0
Geography		2.3	3.1	3.8	3.0	4.7	8.0	12.0
History	-	6.8	4.7	5.0	8.9	11.8	10.0	18.0
No of pupils				·	·			

Date of Opening=2004

Subject	2004	2005	2006	2007	2008	2009	Low 05	Pop 05
English Language and Literature				2.1	2.8		6.0	6.0
English Literature	25.7	21.4	22.8	16.0	13.3	22.4	16.0	20.0
Mathematics	5.7	12.9	8.7	11.1	14.0	12.4	6.0	18.0
Biology	10.0	17.1	8.7	11.1	6.3	11.8	6.0	18.0
Chemistry	8.6	17.1	6.3	11.1	6.3	6.8	4.0	14.0
Physics	2.9	14.3	3.1	6.9	6.3	2.5	4.0	10.0
Geography	17.1	2.9	2.4	2.1	1.4	1.9	8.0	12.0
History	5.7	8.6	8.7	7.6	2.8	5.0	10.0	18.0
No of pupils								

Date of Opening=2005

Subject	2004	2005	2006	2007	2008	2009	Low 05	Pop 05
English Language and Literature	1.2	2.9	2.4	2.7	3.8	3.8	6.0	6.0
English Literature	15.8	14.1	14.8	14.3	15.6	15.4	16.0	20.0
Mathematics	16.0	16.8	19.1	24.5	21.7	24.7	6.0	18.0
Biology	20.3	19.2	22.5	20.0	19.7	19.0	6.0	18.0
Chemistry	12.9	13.5	14.3	14.3	12.9	18.0	4.0	14.0
Physics	10.0	9.3	9.7	12.9	11.1	13.8	4.0	10.0
Geography	6.5	3.3	4.6	7.5	7.7	8.7	8.0	12.0
History	14.6	15.2	13.6	18.1	19.9	14.2	10.0	18.0
No of pupils								

Table 11 cont: Uptake of core A-level subjects in academies by date of opening

Date of Opening=2006

Subject	2004	2005	2006	2007	2008	2009	Low 05	Pop 05
English Language and Literature	24.5	19.6	24.1	21.7	6.6	8.3	6.0	6.0
English Literature	2.8	5.1	3.4	5.4	11.0	17.0	16.0	20.0
Mathematics	27.3	20.3	18.1	16.9	11.8	17.0	6.0	18.0
Biology	14.7	26.8	31.9	25.9	11.8	11.4	6.0	18.0
Chemistry	14.7	20.3	26.7	16.3	9.5	11.0	4.0	14.0
Physics	12.6	14.5	16.4	12.0	6.3	5.8	4.0	10.0
Geography	16.1	7.2	6.9	4.8	4.0	2.9	8.0	12.0
History	14.0	13.0	20.7	9.6	10.4	11.8	10.0	18.0
No of pupils								

Date of Opening=2007

Subject	2004	2005	2006	2007	2008	2009	Low 05	Pop 05
English Language and Literature	3.6	1.6	6.0	5.5	4.5	0.4	6.0	6.0
English Literature	24.8	25.7	24.2	23.0	23.0	24.7	16.0	20.0
Mathematics	14.6	11.0	14.3	16.0	15.8	18.1	6.0	18.0
Biology	16.1	18.3	13.5	17.7	16.8	14.9	6.0	18.0
Chemistry	13.3	13.9	11.8	13.9	11.0	13.6	4.0	14.0
Physics	9.5	9.6	5.8	9.8	8.1	7.4	4.0	10.0
Geography	7.3	6.8	7.1	4.6	6.9	6.7	8.0	12.0
History	14.2	14.2	12.4	15.6	11.5	12.5	10.0	18.0
No of pupils		_					•	

GCSE attainment

In Tables 12 to 15 we present the cumulative percentages of candidates attaining each grade in core subjects in academies for 2004 to 2009. As a comparison, the percentage attaining each grade in the population as a whole is also shown ¹³. The number of candidates taking the subject in academies in each year is presented in the final column.

There was a clear pattern of improvements in English attainment (Table 12) in academies between 2004 and 2007, with a slight decline in 2008 and 2009 (at grades A* and A). However, even by 2009 this was still well below the performance in the whole population.

The pattern is likely to be a consequence of the change in the ability of the pupils in academies (see Table 6). This improved between 2005 and 2007, before a slight fall in 2008/9.

There were considerable improvements over time in maths attainment in academies (Table 13). The cumulative percentages increased from 2004 to 2007, and then remained approximately the same in 2008 and 2009. The 2009 figures were again well below the percentages for the population as a whole.

¹³ Taken from the NPD in 2008

Table 12: Attainment in GCSE English subjects in academies 2004-2009

Subject=English Language and Literature

Year	Cum %A*	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cum %F	Cum %G Cands
2004	0.4	1.5	5.2	23.9	48.7	64.6	82.6	90.2 460
2005	0.4	3.2	10.7	29.8	55.1	75.8	87.1	94.2 1,380
2006	0.4	3.3	12.6	34.7	60.3	80.5	90.4	95.9 1,914
2007	2.2	10.2	25.6	50.0	71.7	87.0	94.9	98.0 3,349
2008	1.4	7.8	22.8	48.0	71.2	87.1	94.4	97.8 6,252
2009	1.2	7.3	24.0	53.9	75.6	89.1	95.5	98.3 10,785
Pop 2008	4.2	16.0	36.6	62.8	82.0	92.2	96.8	98.7

Subject=English Literature

Year	Cum %A*	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cum %F	Cum %G	Cands
2004		3.2	8.5	21.5	40.3	56.2	75.9	88.3	377
2005	0.5	3.6	13.6	37.2	59.4	75.7	85.9	91.8	949
2006	0.2	3.9	17.1	40.9	62.7	79.8	89.8	94.1	1,265
2007	2.1	14.0	33.7	56.5	74.2	87.4	93.5	96.6	2,384
2008	2.0	10.8	29.7	54.1	75.2	89.0	94.1	96.6	4,550
2009	1.8	11.0	31.5	61.6	80.1	90.4	94.7	97.1	7,531
Pop 2008	5.1	20.7	44.5	70.1	85.8	93.7	96.9	98.3	

Table 13: Attainment in GCSE maths in academies 2004-2009

Subject=Mathematics

Year	Cum %A*	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cum %F	Cum %G	Cands
2004		0.4	3.2	15.8	31.6	54.1	73.3	86.9	475
2005	0.4	2.2	10.0	25.3	44.5	64.9	81.4	91.0	1,406
2006	1.2	4.4	15.5	34.0	50.9	69.6	84.6	93.7	1,971
2007	2.6	9.2	23.5	45.6	63.1	78.5	89.6	94.8	3,409
2008	2.5	9.8	23.3	47.1	65.1	79.6	91.5	97.2	6,325
2009	2.2	9.6	23.9	50.4	68.2	81.6	92.2	97.7	11,050
Pop 2008	4.9	15.4	32.8	58.2	74.8	86.0	93.7	97.6	

In science double award there were substantial improvements in performance in academies between 2004 and 2007 (Table 14). There were also smaller improvements in the single award performance over the period. In 2007 the percentages for single award were similar to the population as a whole (perhaps reflecting the lower ability of candidature), but for double award they were well below the overall population figures. Core and additional sciences only started in 2008, with performance in academies some way below that in the whole population in both 2008 and 2009.

In biology, there were improvements between 2004 and 2007, before a slight decline in the percentage getting the very top grades (A* and A) in 2008 and 2009. In chemistry and physics there were improvements between 2004 and 2008, before a sharp decline in 2009, particularly at the higher grades. In comparison to the overall population the cumulative percentages getting A*, A or B were lower for all three separate sciences in 2008 and 2009, although the percentages getting a C or better were very similar in 2008.

For the geography and history (Table 15) the patterns were very similar, with generally improving performance between 2004 and 2007, before a levelling off or decline in 2008 and 2009. In French and German there were improvements in performance over the whole period. For all these subjects the attainment in academies was well below that of the population as a whole.

Table 14: Attainment in GCSE science subjects in academies 2004-2009

Subject=Science SA

Year	Cum %A*	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cum %F	Cum %G	Cands
2004					9.0	33.6	61.5	82.0	122
2005		0.9	4.0	13.4	30.4	49.7	69.9	87.3	322
2006	0.2	0.3	2.1	16.8	38.2	61.3	80.5	92.8	625
2007		1.0	3.8	18.7	36.9	57.4	78.9	91.8	899
Pop (2008)	0.3	1.7	4.3	23.9	42.0	62.1	77.3	88.3	

Subject=Science: Double Award

	Cum								
Year	%A*	%A	%B	%C	%D	%E	%F	%G	Cands
2004			0.5	9.2	25.0	40.2	67.9	88.6	184
2005	0.4	2.8	9.8	28.2	45.2	62.4	78.8	88.5	671
2006	1.1	5.3	14.3	37.5	61.3	76.4	87.1	92.6	760
2007	2.4	8.4	21.3	46.5	69.7	83.9	92.6	96.9	2,027
Pop (2008)	11.3	27.6	46.5	66.0	78.9	86.0	90.5	94.9	

Subject=Science (Core)

Year	Cum %A*	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cum %F	Cum %G	Cands
2008	1.2	6.2	20.2	47.1	66.3	80.1	90.4	96.5	4,966
2009	1.4	6.7	20.3	50.1	69.2	83.1	92.9	97.8	7,560
Pop 2008	2.7	12.6	31.4	59.0	76.9	88.5	95.5	98.7	

Subject=Additional Science

Year	Cum %A*	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cum %F	Cum %G	Cands
2008	2.7	12.7	32.3	63.5	81.4	92.0	97.3	99.1	2,735
2009	2.6	9.8	27.6	61.3	80.9	90.6	96.3	98.8	4,429
Pop 2008	5.7	17.4	38.9	68.1	84.9	93.2	97.4	99.1	

Subject=Biology

Year	Cum %A*	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cum %F	Cum %G	Cands
2004		5.7	11.4	40.0	68.6	80.0	94.3	100.0	35
2005		3.1	18.8	62.5	87.5	90.6	93.8	96.9	32
2006	2.0	6.7	18.0	34.7	52.7	67.3	83.3	92.7	150
2007	13.3	39.8	70.8	89.4	95.6	96.9	98.7	99.6	226
2008	9.5	34.2	70.4	89.1	96.4	98.4	99.5	99.6	550
2009	6.4	25.7	56.3	82.5	92.3	96.0	98.1	99.3	1,413
Pop 2008	20.3	51.1	78.2	92.4	97.0	98.6	99.4	99.8	

Subject=Chemistry

Year	Cum %A*	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cum %F	Cum %G	Cands
2004		2.9	14.3	40.0	60.0	77.1	88.6	97.1	35
2005	3.1	6.3	25.0	68.8	87.5		90.6	93.8	32
2006	5.0	8.0	23.0	53.0	66.0	76.0	92.0	99.0	100
2007	14.3	33.6	59.2	83.4	95.5	96.4	98.2	99.1	223
2008	11.3	42.7	77.1	94.7	99.3	99.8	100.0		415
2009	7.7	27.9	61.0	88.2	96.8	99.0	99.4	99.8	1,150
Pop 2008	24.0	53.9	80.1	94.6	98.6	99.5	99.8	99.9	

Table 14 cont: Attainment in GCSE science subjects in academies 2004-2009

Subject=Physics

	0 0/41	0 0/4	0 0/5	0 0/0	0 0/0	0 0/5	0 0/5	0 0/0	
Year	Cum %A*	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cum %F	Cum %G	Canas
2004		2.9	11.4	31.4	57.1	74.3	88.6	97.1	35
2005	3.1		28.1	68.8	87.5		93.8	96.9	32
2006	6.4	10.6	31.9	70.2	87.2	95.7	97.9	100.0	47
2007	20.2	39.5	69.1	88.8	95.5	98.7		99.6	223
2008	14.3	42.3	73.5	94.0	98.7	100.0			385
2009	8.7	29.4	61.2	87.4	96.8	99.1	99.9	100.0	1,126
Pop 2008	23.5	53.0	79.0	94.3	98.7	99.6	99.8	99.9	

Table 15: Attainment in other core GCSE subjects in academies 2004-2009

Subject=Geography

Year	Cum %A*	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cum %F	Cum %G	Cands
2004			2.5	12.3	35.8	59.3	72.8	88.9	81
2005	1.2	4.0	10.3	28.2	49.6	67.9	80.6	88.5	252
2006	3.0	9.1	17.4	40.9	62.6	75.2	83.9	89.6	230
2007	7.2	16.7	29.3	53.2	72.9	85.0	91.8	95.2	587
2008	5.3	14.4	30.8	58.6	78.9	88.5	94.8	98.4	1,063
2009	4.1	14.6	29.2	54.6	77.7	87.9	93.5	97.5	1,865
Pop 2008	10.8	27.3	45.6	68.7	83.5	91.5	95.8	98.1	

Subject=History

Year	Cum %A*	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cum %F	Cum %G	Cands
2004		1.1	3.4	10.1	27.0	43.8	61.8	77.5	89
2005	0.6	4.5	18.6	42.3	59.6	75.6	82.1	89.1	156
2006	0.3	7.7	21.5	41.3	59.9	75.3	87.8	92.9	312
2007	6.9	24.4	42.7	62.2	76.5	86.0	92.3	95.3	749
2008	3.3	14.8	34.5	54.3	72.6	84.7	91.6	96.6	1,375
2009	4.4	17.8	36.7	56.8	73.2	83.9	92.0	96.8	2,298
Pop 2008	10.8	29.7	50.2	68.0	80.7	89.5	94.9	97.9	

Subject=French

Year	Cum %A*	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cum %F	Cum %G	Cands
2004	2.0	5.0	10.9	13.9	31.7	49.5	79.2	96.0	101
2005	1.9	5.6	11.7	32.9	63.8	80.3	91.1	96.2	213
2006	1.7	7.3	16.4	45.5	72.7	89.9	98.3	100.0	286
2007	6.4	16.3	30.8	57.9	77.0	89.5	96.8	99.2	656
2008	5.0	15.2	31.9	61.1	83.1	93.8	97.9	99.5	805
2009	6.8	19.8	37.2	62.8	80.2	91.2	96.2	99.2	1,286
Pop 2008	10.5	25.1	43.8	68.6	85.8	94.4	98.2	99.7	

Subject=German

Year	Cum %A*	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cum %F	Cum %G	Cands
2004					8.1	35.1	78.4	94.6	37
2005	10.3	17.9	25.6	48.7	64.1	94.9	100.0		39
2006	7.7	19.2	20.5	41.0	62.8	85.9	94.9	100.0	78
2007	5.5	16.8	40.5	64.1	81.4	92.7	96.8	99.5	220
2008	6.4	21.3	39.9	68.4	87.2	95.7	98.1	99.5	376
2009	8.8	20.9	40.6	66.8	81.8	87.7	93.2	99.2	488
Pop 2008	9.3	24.2	44.4	72.3	88.5	95.2	98.4	99.7	

A-level attainment

Attainment in both English A-levels showed a definite improvement over the period (see Table 16). In English Language and Literature big improvements in 2008 and 2009 meant that in 2009 the cumulative percentages were above the national figures. However, in English Literature the performance was still below the national figures.

Table 16: Attainment in A-level English subjects in academies 2004-2009

Subject=English Language and Literature

Year	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cands
2006	8.3	25.0	54.2	87.5	95.8	24
2007	3.8	23.1	53.8	69.2	100.0	26
2008	22.2	44.4	72.2	90.7	100.0	54
2009	22.7	58.7	81.3	93.3	98.7	75
Pop 2008	17.1	44.1	74.7	93.7	99.1	

Subject=English Literature

Year	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cands
2005	8.8	20.6	41.2	70.6	91.2	34
2006	12.1	28.8	51.5	78.8	98.5	66
2007	20.0	41.5	67.4	88.1	99.3	135
2008	19.0	42.4	64.6	89.9	98.1	158
2009	13.2	32.4	62.6	86.8	97.9	438
Pop 2008	27.5	53.4	78.0	93.7	99.1	

In maths (see Table 17) there was an improvement in performance in academies between 2005 and 2007, followed by a decline in 2008 and a small improvement in 2009. Performance was below the national level.

Table 17: Attainment in A-level maths in academies 2004-2009

Subject=Mathematics

Year	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cands
2005	12.5	31.3	50.0	62.5	81.3	16
2006	12.7	38.1	52.4	68.3	81.0	63
2007	38.0	64.0	74.0	92.0	96.7	150
2008	28.0	53.1	74.9	86.5	94.2	207
2009	32.5	56.0	75.6	89.0	98.0	409
Pop 2008	43.0	65.2	80.7	91.1	97.2	

The trend in biology, chemistry and physics A-levels (see Table 18) was fairly consistent improving performance over the period. The performance was below the national level, particularly in chemistry and physics.

There was some evidence of improving performance in geography A-level over the period (Table 19), and by 2008 the cumulative percentages were above those in the population as a whole. However, there was a tailing off of performance in 2009. Furthermore, the number of candidates taking it in academies was very low, particularly in 2005 and 2006.

Table 18: Attainment in A-level science subjects in academies 2004-2009

Subject=Biology

Year	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cands
2005	11.1	16.7	44.4	66.7	88.9	18
2006	5.1	20.5	46.2	64.1	84.6	39
2007	16.2	36.8	58.8	80.1	94.1	136
2008	16.4	38.3	63.9	84.2	96.2	183
2009	22.2	42.8	67.5	84.6	94.9	311
Pop 2008	26.2	48.4	68.7	85.1	95.8	

Subject=Chemistry

Year	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cands
2005	11.8	11.8	47.1	58.8	82.4	17
2006	14.3	42.9	57.1	64.3	82.1	28
2007	18.8	42.6	64.4	83.2	89.1	101
2008	13.2	37.5	65.4	83.8	96.3	136
2009	20.2	47.3	70.4	87.4	97.1	277
Pop 2008	32.3	56.9	75.4	88.6	96.4	

Subject=Physics

Year	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cands
2005	10.0	10.0	30.0	60.0	90.0	10
2006	0.0	5.6	38.9	61.1	77.8	18
2007	18.3	33.3	58.1	72.0	88.2	93
2008	17.2	32.3	50.5	72.7	94.9	99
2009	16.2	40.8	62.0	82.1	93.3	179
Pop 2008	30.8	51.5	69.9	85.0	95.4	

Table 19: Attainment in other core A-level subjects in academies 2004-2009

Subject=Geography

Year	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cands
2005	0.0	0.0	50.0	100.0	100.0	4
2006	0.0	41.7	66.7	83.3	100.0	12
2007	15.6	48.9	77.8	88.9	95.6	45
2008	29.8	57.9	80.7	93.0	100.0	57
2009	23.3	47.5	76.7	95.0	100.0	120
Pop 2008	28.4	55.3	78.9	93.2	98.8	

Subject=History

Year	Cum %A	Cum %B	Cum %C	Cum %D	Cum %E	Cands
2005	16.7	16.7	50.0	66.7	75.0	12
2006	12.0	44.0	72.0	92.0	96.0	25
2007	17.5	44.7	68.9	93.2	98.1	103
2008	17.8	42.1	71.1	90.8	98.0	152
2009	13.0	40.2	67.0	90.4	96.9	261
Pop 2008	23.9	51.8	77.2	92.7	98.6	

In history, there was no clear pattern of improvement over the period. The cumulative percentages were generally lowest in 2005, but numbers taking the subject in that year were very low. The cumulative percentages in 2007, 2008 and 2009 were very similar, and were some way below the figures in the population.

Conclusion

Claims are repeatedly made on both sides about the success or otherwise of the academies programme. According to the DCSF academies have already shown improvements in levels of attainment that are at a much faster rate than in the population¹⁴. Critics state that improvements need to be put in the context of declining levels of deprivation and a shift towards less rigorous qualifications (e.g. Gorard, 2009). This paper sought to inform this debate by presenting evidence of the levels of uptake and attainment in individual subjects at GCSE and A-level in academies, as well as the characteristics of the schools converting.

It seems that there has been, on average, a small shift in the levels of deprivation, and in the levels of performance in schools converting to academies since the inception of the programme. Schools in less deprived areas (or fewer schools in deprived areas) have been converting in recent years. However, in examining those in the least deprived areas we found that most of these schools fitted in with how the DCSF currently envisages the characteristics of those converting; they were either particularly poor performing schools, independent schools becoming non-selective in an area lacking high quality places, or were high-achieving schools merging with poor performing ones. This may be a shift in the original idea of the types of schools, but it still fits in with the central ethos of the programme, to break the cycle of underachievement and low aspirations in schools.

The data we presented on levels of uptake and attainment in academies was complex. It also hid a large amount of diversity in outcomes, partly a reflection of the diversity in the types of schools converting. It may also be that it is still too early to be certain about the impact of conversion on patterns of uptake and attainment.

Overall, pupils taking GCSEs in academies tended to be well below average in terms of their prior attainment. Therefore, it is not surprising that the uptake of core subjects in these schools was generally similar to the uptake amongst the lowest third of the population in terms of ability. A-level uptake showed a similar picture, although the number of pupils taking A-levels was too low to have much confidence in interpreting this data.

Since the first academies opened the percentage uptake of core subjects in both GCSEs and A-levels has generally been on the rise. However, this is likely to be a consequence of an increase in the ability levels of pupils in academies, rather than a direct result of schools converting. Indeed, a more detailed analysis of levels of uptake in schools before and after their conversion to an academy did not show any clear pattern.

To summarise the patterns of attainment in academies between 2004 and 2009: the most common pattern in individual subjects was improvement (in terms of cumulative percentages getting each grade or better) up until 2007, before a levelling off, or in some cases a small decline in 2008 and 2009. This is very much in line with the pattern of prior attainment of the candidates in the schools (see tables 4 and 8). In almost all subjects at both GCSE and A-level performance levels were well below those of the population as a whole.

There is plenty of scope for further work in the future. In particular, analysis of uptake and attainment levels once a much larger number of academies have been open for several years may produce a clearer picture of the impact of conversion. What we were not able to look at in

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¹⁴ http://www.dcsf.gov.uk/pns/DisplayPN.cgi?pn_id=2009_0167

this report were any changes in performance in academies after they converted, in comparison to the predecessor school(s). Were this to be investigated in the future statistical modelling would be necessary to try and separate the influences of the differing background factors, such as levels of prior attainment and deprivation from the direct effects of becoming an academy. This would give a clearer indication of whether the academies programme has achieved its major goal of counteracting the effects of deprivation and overcoming low levels of performance.

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Appendix A: Uptake of GCSE subjects in Academies 2004-2009

Art & Design (3d Studies) Art & Design (Fine Art) Art & Design (Fine Art) Art & Design (Fine Art) Art & Design (Photography) Art & Design (Photography) Art & Design (Textiles) Art & Design (Textiles	Subject	2004	2005	2006	2007	2008	2009	Low 06	Pop 06
Additioal Science Applied Ant & Design Applied Business 17.6 Applied Business 17.6 Applied Engineering 17.6 Applied Science 17.7 Arabic 17.7 Ar	Additional Applied Science					6.6	7.1		
Applied Business	Additional Mathematics					3.3	1.6		
Applied Business	Additional Science					42.5	39.3		
Applied Engineering	Applied Art & Design	12.2	3.3	5.1	2.8	1.9	1.3		
Applied ICT	Applied Business	17.6	20.4	15.1	14.7	3.2	1.7		
Applied Physical Education Applied Science	Applied Engineering		0.7	2.3	1.8	8.0	0.5		
Applied Science Arabic One Arabic One	Applied ICT		6.8	21.3	15.6	7.2	1.1		
Arabic 0.6 0.7 1.3 0.8 1.4 0.9 Art & Design 26.6 23.2 25.1 18.8 16.2 13 Art & Design (Graphics) . . 1.4 0.1 2.6 3.6 3.5 Art & Design (Graphics) . <td>Applied Physical Education</td> <td></td> <td></td> <td></td> <td>0.6</td> <td>0.6</td> <td>1.7</td> <td></td> <td></td>	Applied Physical Education				0.6	0.6	1.7		
Art & Design (3d Studies) Art & Design (Fine Art) Art	Applied Science			0.9	8.0	3.1	3.6		
Art & Design (3d Studies) Art & Design (Fine Art) Art & Design (Fine Art) Art & Design (Fine Art) Art & Design (Photography) Art & Design (Photography) Art & Design (Textiles) Art & Design (Textiles	Arabic	0.6	0.7	1.3	8.0	1.4	0.9		
Art & Design (Fine Art) Art & Design (Graphics) Art & Design (Photography) Art & Design (Textiles) Art & Design (Textiles) Art & Design (Frextiles) Art & Design (Frextiles	Art & Design	26.6	23.2	25.1	18.8	16.2	13	17.3	19.2
Art & Design (Graphics) Art & Design (Photography) Art & Design (Protecties) Art & Design (Protecties) Art & Design (Protecties) Art & Design (Protecties) Art & Design (Protecties) Art & Design (Protecties) Art & Design (Protecties) Art & Design (Protecties) Art & Design (Protecties) Art & Design (Protecties) Art & Design (Protecties) Art & Design (Protecties) Art & Design (Protecties) Art & Design (Protecties) Art & Design (Protecties) Art & Design (Protecties) Art & Design (Protecties) Bengali Art & Design (Protecties) Bengali Art & Design (Protecties) Art & Design (Protecties) Bengali Art & Design (Drotecties) Art & Design (Protecties)	Art & Design (3d Studies)			1.4		0.5	0.3		
Art & Design (Photography) Art & Design (Textiles) Art & Design (Textiles) Art & Design (Textiles) Art & Design (Textiles) Astronomy	Art & Design (Fine Art)		1.4	0.1	2.6	3.6	3.5		
Art & Design (Textiles)	Art & Design (Graphics)			2.2	2.5	1.6	0.9		
Astronomy Bengali O.4	Art & Design (Photography)						1.1		
Bengali	Art & Design (Textiles)		1.4	0.9	1.3	1.1	1.2		
Biology	Astronomy				0.2	0.1	0.5		
Biology: Human Substitution Studies: Single Studies: Studies: Single Studies: Studies & Economics Studies & Studie	Bengali	0.4	0.7	0.5	0.2	0.4	0.4		
Business Studies:Single 19.5 8.4 7.5 9.5 9.3 7.1 14.5 11.9	Biology	7.3	2.2	7.4	6.5	8.5	12.5	0.8	8
Business Studies & Economics Catering Studies	Biology: Human			0	0.4	0.3	0.4		
Catering Studies 6.2 3.9 2.3 0.9 2.5 2.3 Chemistry 7.3 2.2 5 6.4 6.4 10.1 0.6 7.7 Chinese 1.1 1 0.6 0.5 0.5 0.5 0.5 Classical Civilisation . . . 0.3 0 0.3 0 0.3 Construction & The Built Environment . . . 0.3 0 0.3 0 0.3 D&T Festicant Products . 1.4 1.9 1 0.2 0.3 1.9 2.4 D&T Graphic Products 19.3 12.7 12.2 6.3 6 6.1 9.9 12.4 D&T Fooduct Design . 3.3 2.8 5.3 5.6 8.4 2.6 2.9 2.2 6 18.6 16.5 9.9 8.2 16.8 14.6 2.9 8.2 16.8 14.6 14.4 1.5 1.7 2 0.6 1.1 1.7 1.7 2.0 1.1 1.7 2.0 1.1	Business Studies:Single	19.5	8.4	7.5	9.5	9.3	7.1	14.5	11.9
Chemistry	Business Studies & Economics				1	0.6	0.4		
Chinese . 1.1 1 0.6 0.5 0.5 Classical Civilisation 0.3 0 0.3 0 0.3 Construction & The Built Environment 0 0 0 0 D&T Electronic Products 1.4 1.9 1 0.2 0.3 1.9 2.4 D&T Food Technology 10.2 8.7 9.9 9.4 7 6.3 13.8 13.5 13.5 13.8 13.5 D&T Graphic Products 19.3 12.7 12.2 6.3 6 6.1 9.9 12.4 D&T Product Design . 3.3 2.8 5.3 5.6 8.4 2.6 2.9 2.9 D&T Resistant Materials 29.5 22.6 18.6 16.5 9.9 8.2 16.8 14.6 16.5 9.9 8.2 16.8 14.6 16.5 9.9 8.2 16.8 14.6 D&T Systems And Control 6.2 . 1 1.7 2 0.6 1.1 1.7 1.7 2 0.6 1.1 1.7 1.7 2 0.6 1.1 1.7 D&T Systems And Control 6.2 . 1 1.7 2 0.6 1.4 1.5 1.5 1.4 1.5 1.5 1.4 1.5 Dance 0.7 0.4 1.4 1.5 1.5 1.4 1.5 1.5 1.4 1.5 1.5 1.4 1.5 Drama And Theatre Studies 15.8 14.1 16 13 13.3 9.4 9.4 0.3 9.5 95.6 99.9 95.6 92 95.6 92 95.6 92 95.6 9.2 96.6 95.9 95.6 92 95.6 92 95.6 92 95.6 95.9 95.6 92 95.6 95.9 95.6 95.9 95.6 95.9 95.6 95.9 95.6 95.9 95.6 95.9 95.6 95.9 95.6 95.9 95.6 95.9 95.6 95.9 95.6 95.9 95.6 95	Catering Studies	6.2	3.9	2.3	0.9	2.5	2.3		
Classical Civilisation	Chemistry	7.3	2.2	5	6.4	6.4	10.1	0.6	7.7
Construction & The Built Environment D&T Electronic Products	Chinese		1.1	1	0.6	0.5	0.5		
D&T Electronic Products 1.4 1.9 1 0.2 0.3 1.9 2.4 D&T Food Technology 10.2 8.7 9.9 9.4 7 6.3 13.8 13.5 D&T Graphic Products 19.3 12.7 12.2 6.3 6 6.1 9.9 12.4 D&T Resistant Materials 29.5 22.6 18.6 16.5 9.9 8.2 16.8 14.6 D&T Systems And Control 6.2 1 1.7 2 0.6 1.1 1.7 D&T Textiles Technology 11 6.5 5.9 5.6 3.4 4.7 5.5 7.2 Dance 2 2.5 1.6 1.4 1.5 1.7 2 0.6 1.1 1.7 7.2 0.6 1.1 1.7 7.2 0.6 1.1 1.7 7.2 0.6 1.1 1.7 7.2 0.6 1.1 1.7 7.2 0.6 1.1 1.7 7.2 0.6 1.1 1.7 7.2 0.6 1.1 1.7 7.2 0.6 1.1 1.	Classical Civilisation				0.3	0	0.3		
D&T Food Technology 10.2 8.7 9.9 9.4 7 6.3 13.8 13.5 D&T Graphic Products 19.3 12.7 12.2 6.3 6 6.1 9.9 12.4 D&T Product Design . 3.3 2.8 5.3 5.6 8.4 2.6 2.9 D&T Resistant Materials 29.5 22.6 18.6 16.5 9.9 8.2 16.8 14.6 D&T Systems And Control 6.2 . 1 1.7 2 0.6 1.1 1.7 DAT Textiles Technology 11 6.5 5.9 5.6 3.4 4.7 5.5 7.2 Dance . 2 2.5 1.6 1.4 1.5 1.1 1.7 Drama And Theatre Studies 15.8 14.1 16 13 13.3 9.4 9.4 7.0 0.3 0.4 0.3 0.2 0.3 0.4 0.3 0.2 0.3 0.4 0.3 0.2 0.3 0.4 0.3 0.2 95.6 96.9 95.6 92 96.	Construction & The Built Environment					0	0		
D&T Graphic Products 19.3 12.7 12.2 6.3 6 6.1 9.9 12.4 D&T Product Design . 3.3 2.8 5.3 5.6 8.4 2.6 2.9 D&T Resistant Materials 29.5 22.6 18.6 16.5 9.9 8.2 16.8 14.6 D&T Systems And Control 6.2 . 1 1.7 2 0.6 1.1 1.7 Dance . 2 2.5 1.6 1.4 1.5 1.7 Drama And Theatre Studies 15.8 14.1 16 13 13.3 9.4 Dutch . 0.3 0.2 0.3 0.4 0.3 Economics 0.7 0.4 Electronics 0.7 0.4 Electronics .	D&T Electronic Products		1.4	1.9	1	0.2	0.3	1.9	2.4
D&T Product Design . 3.3 2.8 5.3 5.6 8.4 2.6 2.9 D&T Resistant Materials 29.5 22.6 18.6 16.5 9.9 8.2 16.8 14.6 D&T Systems And Control 6.2 . 1 1.7 2 0.6 1.1 1.7 D&T Textiles Technology 11 6.5 5.9 5.6 3.4 4.7 5.5 7.2 Dance . 2 2.5 1.6 1.4 1.5 1.1 1.7 Drama And Theatre Studies 15.8 14.1 16 13 13.3 9.4 Dutch . 0.3 0.2 0.3 0.4 0.3 Economics	D&T Food Technology	10.2	8.7	9.9	9.4	7	6.3	13.8	13.5
D&T Resistant Materials 29.5 22.6 18.6 16.5 9.9 8.2 16.8 14.6 D&T Systems And Control 6.2 . 1 1.7 2 0.6 1.1 1.7 D&T Textiles Technology 11 6.5 5.9 5.6 3.4 4.7 5.5 7.2 Dance . 2 2.5 1.6 1.4 1.5 1.5 7.2 Drama And Theatre Studies 15.8 14.1 16 13 13.3 9.4 9.6 9.6 9.2 96.6 9.2 96.6 9.2 96.6 9.2 96.6 9.2 96.6 9.2 96.6 9.2 96.6 9.2 96.6 9.2 96.6 9.2 96.6 9.2 96.6 9.2 96.6 9.2<	D&T Graphic Products	19.3	12.7	12.2	6.3	6	6.1	9.9	12.4
D&T Systems And Control 6.2 . 1 1.7 2 0.6 1.1 1.7 D&T Textiles Technology 11 6.5 5.9 5.6 3.4 4.7 5.5 7.2 Dance . 2 2.5 1.6 1.4 1.5 7.2 Drama And Theatre Studies 15.8 14.1 16 13 13.3 9.4 Dutch . 0.3 0.2 0.3 0.4 0.3 Economics 0.7 0.4 Electronics 0.7 0.4 Electronics 0.7 0.4 Electronics .	D&T Product Design		3.3	2.8	5.3	5.6	8.4	2.6	2.9
D&T Textiles Technology 11 6.5 5.9 5.6 3.4 4.7 5.5 7.2 Dance . 2 2.5 1.6 1.4 1.5 7.2 Drama And Theatre Studies 15.8 14.1 16 13 13.3 9.4 9.5 <td< td=""><td>D&T Resistant Materials</td><td>29.5</td><td>22.6</td><td>18.6</td><td>16.5</td><td>9.9</td><td>8.2</td><td>16.8</td><td>14.6</td></td<>	D&T Resistant Materials	29.5	22.6	18.6	16.5	9.9	8.2	16.8	14.6
Dance . 2 2.5 1.6 1.4 1.5 Drama And Theatre Studies 15.8 14.1 16 13 13.3 9.4 Dutch . 0.3 0.2 0.3 0.4 0.3 Economics 0.7 0.4 Electronics 1.1 0.9 0.5 English Language And Literature 96.1 95 95 95.6 96.9 95.6 92 96.6 English Literature 78.8 65.9 63.1 68.1 70.6 66.9 62.5 83.3 English Studies	D&T Systems And Control	6.2		1	1.7	2	0.6	1.1	1.7
Drama And Theatre Studies 15.8 14.1 16 13 13.3 9.4 Dutch . 0.3 0.2 0.3 0.4 0.3 Economics . . . 0.7 0.4 Electronics . . 1.1 0.9 0.5 English Language And Literature 96.1 95 95.6 96.9 95.6 92 96.6 English Literature 78.8 65.9 63.1 68.1 70.6 66.9 62.5 83.3 English Studies . </td <td>D&T Textiles Technology</td> <td>11</td> <td>6.5</td> <td>5.9</td> <td>5.6</td> <td>3.4</td> <td>4.7</td> <td>5.5</td> <td>7.2</td>	D&T Textiles Technology	11	6.5	5.9	5.6	3.4	4.7	5.5	7.2
Dutch . 0.3 0.2 0.3 0.4 0.3 Economics	Dance		2	2.5	1.6	1.4	1.5		
Economics	Drama And Theatre Studies	15.8	14.1	16	13	13.3	9.4		
Electronics	Dutch		0.3	0.2	0.3	0.4	0.3		
English Language And Literature 96.1 95 95.6 96.9 95.6 92 96.6 English Literature 78.8 65.9 63.1 68.1 70.6 66.9 62.5 83.3 English Studies . <td>Economics</td> <td></td> <td></td> <td></td> <td></td> <td>0.7</td> <td>0.4</td> <td></td> <td></td>	Economics					0.7	0.4		
English Literature 78.8 65.9 63.1 68.1 70.6 66.9 62.5 83.3 English Studies	Electronics				1.1	0.9	0.5		
English Studies	English Language And Literature	96.1	95	95	95.6	96.9	95.6	92	96.6
Environmental Science	English Literature	78.8	65.9	63.1	68.1	70.6	66.9	62.5	83.3
Expressive Arts And Performance Studies 2.1 . 0.7 0.3 0.3 0.6 French 21 14.5 14.2 18.7 12.5 11.4 14.9 33.2 General Studies .	English Studies						1.8		
Studies 2.1 . 0.7 0.3 0.3 0.6 French 21 14.5 14.2 18.7 12.5 11.4 14.9 33.2 General Studies	Environmental Science						0.3		
General Studies		2.1		0.7	0.3	0.3	0.6		
General Studies	French	21	14.5	14.2	18.7	12.5	11.4	14.9	33.2
Geography 16.8 17.4 11.4 16.8 16.5 16.5 17.7 29.4 German 8.5 2.7 3.9 6.3 5.8 4.3 4.8 13.5 Gujarati 0.2 0.4 0.3 0.2 0.3 0.2 Health & Social Care 3.1 4.1 5.9 7.9 4.3 2.9 History 19.1 10.6 15.5 21.4 21.3 20.3 17.2 32.9									
German 8.5 2.7 3.9 6.3 5.8 4.3 4.8 13.5 Gujarati 0.2 0.4 0.3 0.2 0.3 0.2 Health & Social Care 3.1 4.1 5.9 7.9 4.3 2.9 History 19.1 10.6 15.5 21.4 21.3 20.3 17.2 32.9		16.8	17.4	11.4	16.8	16.5		17.7	29.4
Health & Social Care 3.1 4.1 5.9 7.9 4.3 2.9 History 19.1 10.6 15.5 21.4 21.3 20.3 17.2 32.9		8.5	2.7	3.9	6.3		4.3	4.8	13.5
History 19.1 10.6 15.5 21.4 21.3 20.3 17.2 32.9	Gujarati	0.2	0.4	0.3	0.2	0.3	0.2		
	-	3.1	4.1	5.9	7.9	4.3	2.9		
Home Economics: Child Development 10.4							20.3		32.9
	Home Economics: Child Development	10.4	5.7	3.1	3.8	1.9	1	6.1	4.7

Subject	2004	2005	2006	2007	2008	2009	Low 06	Pop 06
Home Economics: Food		0.8	1.3	1.7	0.7	1.1		
Hospitality & Catering				8.0	0.2	0.4		
Humanities: Single		1	1.1	0.3	0.6	0.6	2.6	2.3
ICT	8.3	6.3	15.8	6.9	3.4	3.5	1.1	14.4
Italian	0.2	0.3	0.4	1.2	0.4	0.3		
Japanese			0	0	0.1			
Latin					0.1	0.2		
Law				0.6	1.4	1.1		
Leisure & Tourism	7.7	5.4	3.5	1.8	1.8	1.6		
Manufacturing					0.1			
Mathematics	99.8	96.7	97.8	97.3	98.1	98.7	89.1	97.3
Media/Film/Tv Studies	13.3	9.9	5.9	9.6	13.4	10.9	8	8.3
Modern Greek	0.2	0.1	0.2	0.1	0	0.1		
Modern Hebrew			0					
Motor Vehicle Studies						0.1		
Music	10.6	7.2	9	6.3	5.8	4.6	4.6	8.6
Office Technology	6.8	5.1	3.4	2.3	6.2	5.3		
Panjabi		0.5	0.3	0.2	0.2	0.3		
Performing Arts				0.4	1.5	1.2		
Persian	0.4	0.3	0.8	0.3	0.3	0.2		
Physical Education/Sports Studies	24.3	24.1	18.9	18.9	12.8	14.3	18.3	21.9
Physics	7.3	2.2	2.3	6.4	6	9.9	0.6	7.6
Polish		0.1	0.2	0.3	0.3	0.7		
Portuguese	0.2	0.9	0.9	0.7	0.8	0.7		
Psychology		2	0.6	0.7		1		
Religious Studies	8.1	5.2	2.4	20.7	21.2	21.7	13.3	23.1
Russian	0.4	0.7	1.1	0.5	0.4	0.1		
Science (Core)					77	67.1		
Science SA	25.5	22.5	31	25.7			17.6	11.3
Science: Double Award	38.4	46.1	37.7	57.9	0		58.1	69.9
Sociology		4	5	3.3	4	3.7	2	2.6
Spanish	4.1	3.7	5.1	5.5	5.5	7.1		
Statistics	36.5	5	4.6	3.8	9.4	7.4		
Turkish	2.9	1	0.8	0.7	0.6	0.5		
Urdu	0.2	1.5	1.3	1.5	1	0.9		

Appendix B: Uptake of A-level subjects in Academies 2005-2009

Subject	2005	2006	2007	2008	2009	Low 06	Pop 06
Accounting/Finance	0.5	0.5	0.1	0.1	0.5		
Applied Art & Design	1.6	7	2.9	2.2	1.2		
Applied Business	20	29.5	10.5	12.6	11		
Applied Engineering	2.1	0.7	0.1				
Applied ICT	63.2	45.5	20.5	27.1	18.4		
Applied Science	4.2	2.9	0.6	1.8	3.4		
Arabic		0.9	0.5	1.1	8.0		
Art & Design	3.7	7.7	4.3	4.7	4.3	4.0	4.0
Art & Design (Fine Art)		2.3	3.5	4.2	2.9	6.0	6.0
Art & Design (Graphics)			1.1	0.2	0.5		
Art & Design (Photography)		2.9	1.5	2.7	3.3		
Art & Design (Textiles)		1.8	1.5	0.7	1.1		
Bengali			0.2	0.2	0.1		
Biology	11.6	9.5	15.9	15.2	14.4	6.0	18.0
Biology: Human	4.2	2.5	0.1	0.2	0.2		
Business Studies:Single	4.7	3.4	5.6	6	7.5	12.0	12.0
Business Studies & Economics	1 .		0.8				
Chemistry	8.9	6.3	12.2	11.3	12.8	4.0	14.0
Chinese		0.2	0.4	0.3	0.2		
Classical Civilisation					0.3		
Computer Studies/Computing		1.4	2.5	1.3	1		
Critical Thinking		0.5	1.9	0.7	8.0		
D&T Food Technology			0.7	1.6	0.5		
D&T Product Design	2.6	6.3	4.9	5.2	7.1	8.0	6.0
Dance		0.0		0.1	0.1	0.0	0.0
Drama And Theatre Studies	2.1	3.2	5.6	4.7	4.5	6.0	6.0
Dutch	1.1	0.7	0.2	0.2	0.3	0.0	0.0
Economics		5	2.8	3	3.5	2.0	6.0
Electronics			1.5	0.4	0.3	2.0	0.0
English Language	3.2	0.5	3.3	2.5	6	8.0	8.0
English Language And Literature	0.2	5.4	3	4.5	3.5	6.0	6.0
English Literature	17.9	14.9	15.8	13.2	20.2	16.0	2.0
Expressive Arts And Performance Studies	3.2	2.3	0.6	0.9	0.3	10.0	2.0
Film Studies	1.6	1.4	0.8	0.8	1.2		
French	1.6	0.2	2.1	2.5	2.7	2.0	6.0
General Studies		6.3	8.3	9.5	8.1	18.0	26.0
Geography	2.1	2.7	5.3	4.7	5.5	8.0	12.0
Geology					0	0.0	12.0
German		0.5	1.5	1.6	1.1		
Government And Politics		2.3	3.2	1.5	1.8		
Gujarati	1.6	0.2	0.1	1.0			
Health & Social Care	2.6	5	4.3	5.3	5.2		
History	6.3	5.6	12.1	12.7	12.1	1.0	18.0
Hospitality & Catering	1.1		12.1	12.7	12.1	1.0	16.0
ICT	'	2.3	2.7	4.3	3.9	0.0	6.0
Italian	0.5	2.5	2.1	4.5	0.1	8.0	6.0
	0.5	0.2	•	0.1	0.1		
Japanese Law	1.6	2	4.9	4.6	4		~ ^
Leisure & Recreation	1.0	0.7		4.0	4	6.0	6.0
	1		0.1				
Logic/ Philosophy	0.4		470	0.1	0.2		
Mathematics	8.4	14.2	17.6	17.2	18.8	6.0	18.0

Subject	2005	2006	2007	2008	2009	Low 06	Pop 06
Mathematics (Further)	0.5		2	1.5	1.8		
Mathematics (Statistics)					0		
Media/Film/Tv Studies		3.6	8.4	13.2	11.2	14.0	8.0
Media: Communication & Production			1.2	0.7	0.4		
Music		1.1	2	1.3	0.7		
Music Technology					0.5		
Panjabi	0.5		0.2	0.2	0.4		
Performing Arts		2			0.7		
Persian	0.5	0.2	0.6	0.6	0.1		
Physical Education/Sports Studies	4.2	5.9	6.4	6.7	4.6		8.0
Physics	5.3	4.3	10.9	8.3	8.2	4.0	1.0
Polish					0.1		
Portuguese	1.1		0.4	0.2	0.4		
Psychology	8.9	3.6	9.8	13.4	14.4	14.0	18.0
Psychology (As A Science)	1.6	5	6.9	4.4			
Religious Studies		0.2	6.3	3.5	6.3	4.0	6.0
Russian		0.2	0.4		0		
Sociology	2.6	7.7	11.4	8.7	9.5	12.0	1.0
Spanish		0.5	2	0.9	1.2		
Travel & Tourism	2.1	5.6	2.3	0.6	8.0		
Turkish		0.2	0.2	0.2	0		
Urdu	2.1	1.4	0.6	0.5	0.5		
World Development					0.2		