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How effective are academy schools in achieving improved pupil performance in GCSE exams?

Stephen Machin and Joan Wilson have conducted an initial evaluation.

Academy schools and pupil performance

The government's flagship education policy of academy schools represents a distinct departure from the way state education has traditionally been offered in England. Academies are publicly funded institutions that are largely run in partnership with private sector sponsors ranging from individuals to businesses and faith groups.

Unlike traditional community and voluntary-controlled state schools, academies are independent from the local authority, and are instead run by a board of school governors consisting in the main of delegates appointed by the private sector sponsor. Governors are responsible for the employment of staff and for contractually agreeing their levels of pay and conditions of service.

Originally designed to replace failing maintained secondary schools located in socially disadvantaged urban areas and characterised by a very poor track record of GCSE achievement, academies were seen as a strategy for improvement and reform in city schools. After their inception, the definitions of school academies have widened and they have begun to take on several different forms, with their coverage spreading geographically and, more recently, into the primary school stage.

In terms of deciding on the curriculum, academies are specialist schools for which the sponsor chooses the subject specialisms. National curriculum teaching in academies is only required in the core subjects of English, maths, science and information and communications technology.

In terms of management and school governance, the academy sponsors were granted autonomy in return for a capital cost contribution of the lesser of £2 million or 10% of building costs. These finances were to be put towards the remodelling of a pre-existing predecessor school or as an outlay to go towards the development of a brand new academy school.

More recently, sponsors have instead been required to set up an endowment fund of equivalent value, the payments from which go into counteracting the

effects of local deprivation on education. Sponsorship has also started to take place in public sector organisations such as universities and colleges, including city technology colleges that are converting into academies. And in a much more recent development, independent schools have been invited to become involved in partnerships with failing schools.

Following the initial announcement of the scheme in March 2000, the first academies opened in September 2002. To date, 133 academies have opened, and the government is committed to having a further 67 open or in the pipeline by the end of 2010. The overall target for the unspecified future has recently been scaled up to the establishment of 400 academies.

The academies scheme has its roots in the 1988 Education Reform Act, which set the scene for a 'quasi-market' in schooling. The major provisions of the act were to introduce the national curriculum, to establish testing and league tables, to offer local management of schools and to increase school accountability through measures such as a regular inspection regime.

The act also created both city technology colleges and grant-maintained schools, which were allowed to select up to 10% of their pupils on the basis of

Academies have improved their GCSE performance after changing status – but so have comparable schools that did not become academies

ability or aptitude. City technology colleges formed the first attempt to bring the private sector into the state sector as they are partially funded by private sector business. It is on the legislative grounds of these institutions that the academies programme is based.

As a public-private initiative, the academies programme is expected to drive up educational standards through the innovative nature of the academy culture and the expertise and experience that a private sector sponsor is presumed to bring to a school. It is argued that this will facilitate better management and governance, which in turn will lead to improvements in educational attainment.

Much media attention has focused on the performance of academy schools, with their distinct level of autonomy compared with traditional state schools often questioned as a necessary characteristic of their set-up. In a first attempt at gauging the effectiveness of academy schools in achieving improved pupil attainment, we concentrate on a sample of four cohorts of 27 academies that opened in England between the school years 2002/03 and 2005/06.

Methodologically, the impact of academy status on pupil achievement could be evaluated by looking at two identical schools (in terms of levels and trends in achievement), only one of which is given academy status (and the associated funding and autonomy). Even if they are poorly performing schools, the scope for 'mean reversion' (performance returning to the average for the local area) is the same, and a comparison of relative pupil achievement in the two schools before and after one became an academy can provide an estimate of the impact of becoming an academy on educational achievement.

The issue is finding the matched schools. In our initial study, we adopt two strategies. The first matches each academy school with the nearest performing school via a one-to-one match on pre-policy exam levels and trends in pupil achievement. The second uses all other secondary schools in the academy's local authority as a comparison group.

Looking at the final pre-policy year of GCSE performance in schools that become academies, and comparing this with exam outcomes across all years in which the academy policy was in effect, we find that

academies did improve their performance after changing status. This is the case for all four cohorts, with their improvement in GCSE performance rising between 9.6 percentage points (academies opening in 2005/06, the fourth cohort) and 14.1 percentage points (academies opening in 2003/04, the second cohort).

These improvements look less impressive when benchmarked against other poorly performing matched state schools that did not become academies but were also prone to mean reversion. This is because standards rose for the matched schools as well, by between 6 percentage points (academies opening in 2004/05, the third cohort) and 14.5 percentage points (academies opening in 2002/03, the first cohort).

Overall, these changes in GCSE performance in academies relative to matched schools are statistically indistinguishable from one another. The same pattern emerges if all state schools in the academy's local authority are used as the comparator group.

To control explicitly for pre-policy trends in GCSE scores for several years before academy status (rather than a single level, as in the above case), we make use of school-level data on GCSE performance going as far back as 1995/96. We find a pattern of no short-run effects of becoming an academy on GCSE performance when long-run differences between the academies' predecessors and matched schools are taken into account.

To conclude, the academies programme is still at too premature a stage for GCSE performance improvements to be fully appraised. The scheme is evolving rapidly and it is likely that children may need more exposure to it for there to be substantial beneficial effects on achievement. Indeed, the evidence that we present here is based on a small fraction of the future number of academy schools.

It is evident that a very important future research exercise on the role of private sector collaboration in the state school sector will be to evaluate the impact of their more widespread introduction on pupils' academic performance.



This article summarises 'Public and Private Schooling Initiatives in England' by Stephen Machin and Joan Wilson, a chapter in *School Choice International: Exploring Public-Private Partnerships* edited by Rajashri Chakrabarti and Paul E. Peterson, MIT Press, 2008.

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