

Nearly two thirds of secondary schools in England now have academy status. **Andrew Eyles** and **Stephen Machin** are tracking the impact of this unprecedented educational reform on pupil outcomes – in both the first wave of ‘sponsored’ academies introduced by Labour and the coalition’s wider programme of ‘converter’ schools.

Academy schools and pupil outcomes

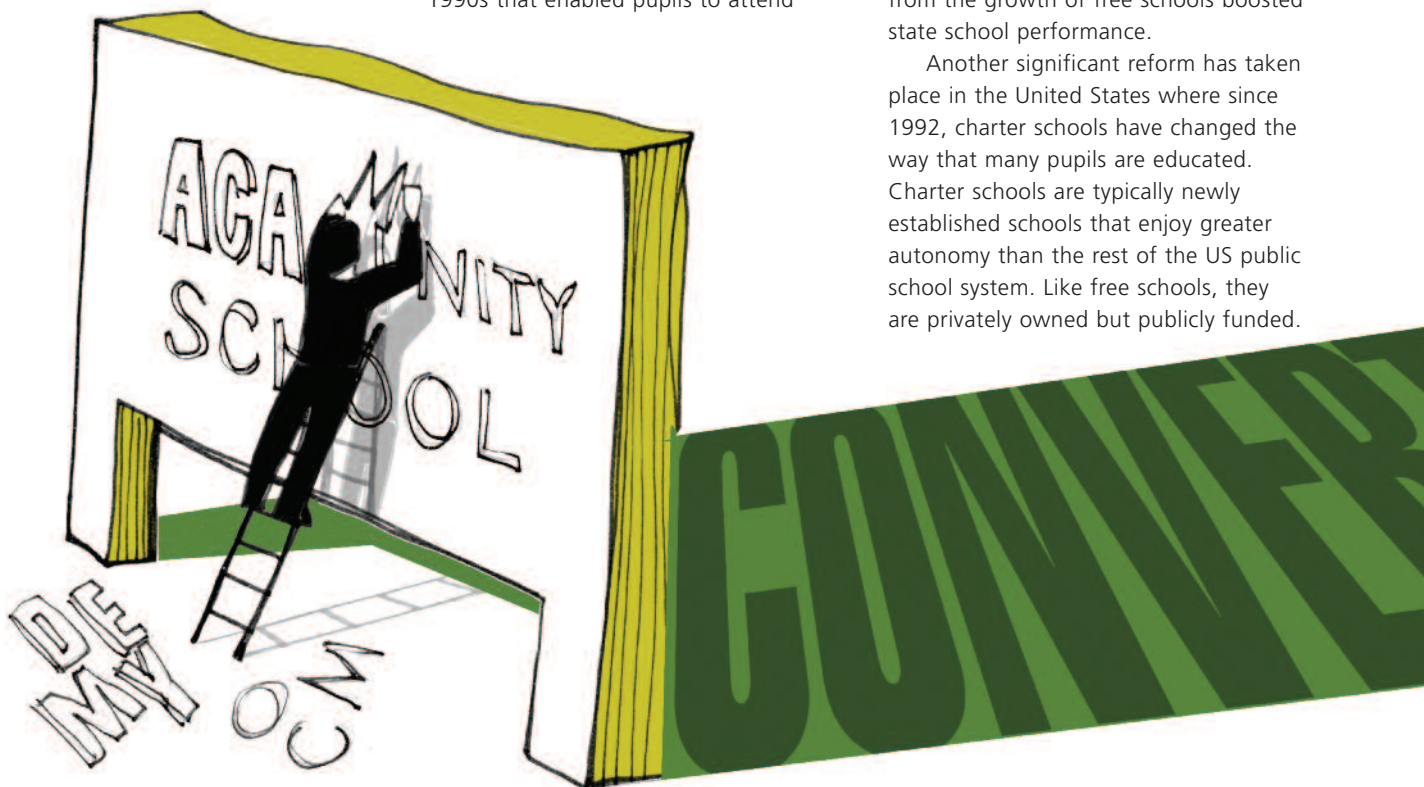
A well-functioning compulsory education system is essential to a country’s economic performance, but how is publicly funded education best provided? And how can innovative policies boost the performance of the state-maintained school sector,

especially when reaching out to disadvantaged pupils? Pursuing answers to these questions has led some countries to initiate reforms to their school systems that have led them away from the conventional ‘local’ or ‘community’ school model. Sweden, for example, introduced a voucher system in the early 1990s that enabled pupils to attend

privately owned schools (‘free schools’) funded by public money.

Some research finds that state schools in Swedish municipalities with the largest growth in free schools had positive test score gains relative to similar schools in other municipalities (Böhlmark and Lindahl, 2015). This suggests that increased competition from the growth of free schools boosted state school performance.

Another significant reform has taken place in the United States where since 1992, charter schools have changed the way that many pupils are educated. Charter schools are typically newly established schools that enjoy greater autonomy than the rest of the US public school system. Like free schools, they are privately owned but publicly funded.



While initial evidence on charter schools was mixed, recent studies (which typically compare individuals who get a place at an oversubscribed charter school by lottery with those who miss out) suggest that they can improve test scores (Abdulkadiroglu et al, 2011) as well as medium-term outcomes such as college enrolment (Dobbie and Fryer, 2014). The positive effects are most pronounced for charter schools located in urban areas, serving less-privileged pupils and adhering to the 'no excuses' model, which stresses behavioural norms and a strong work ethic.

While these reforms may appear to be far-reaching – around 16% of Swedish pupils attend free schools and 2.5 million American pupils attend charter schools – they now pale in comparison with the scale of the reforms that have recently been taking place in England.

Academy schools

Introduced in the 2002/03 school year by the Labour government, academy schools enjoy more autonomy than traditional community schools. The original ('sponsored') academies operate outside local authority control and are managed by a team of independent co-sponsors who delegate management of the school to a largely self-appointed board of governors responsible for hiring staff, performance management, the curriculum and length of the school day. Unlike most (though not all) US charter schools, academies are typically conversions from pre-existing schools.

The initial programme was relatively modest in size and aimed to improve performance in failing schools. But since the coalition government came to power

Giving struggling schools more freedom and stronger leadership leads to big improvements in pupil performance

in 2010, there has been a striking growth in the number of academies – from 203 schools at the time the government changed to 4,722 schools in 2015. The 2010 Academies Act enabled a wider range of schools to gain academy status. In particular, it allowed high-performing schools to convert to an academy without entering into a sponsoring relationship. The result is that 60% of England's secondary schools now have academy status, and more than 15% of primary schools.

While it is too early to assess the impact of the academies programme as a whole, we have looked at the effect on test scores of attending one of the 106 sponsored academies that opened between the 2002/03 and 2008/09

The greater the autonomy a school gains, the more pronounced the positive effects on test scores

academic years (Eyles and Machin, 2015). There are two hurdles to estimating the impact of academy schools on test scores:

■ First, schools that gained academy status during this period are fundamentally different from the average secondary school in that they are typically inner city, poorly performing schools. A naïve comparison of academy pupil outcomes with average, non-academy school, pupil outcomes would lead to the erroneous conclusion that academy status is bad for pupil performance.

■ Second, schools that gained academy status typically start to attract better pupils. Even comparing outcomes for pupils attending academies with pupils attending similar schools in terms of pre-conversion characteristics may fail to account for these compositional changes.

Our study avoids these problems in two ways. We compare outcomes for those attending an academy school in the period 2002-09 with those who attend 'control' schools – schools that became sponsored academies later (in the 2009/10 and 2010/11 school years). To avoid conflating the causal effect of academy status on test scores with compositional changes, we restrict our attention to pupils already enrolled in an academy school in the year prior to conversion.

Overall, we find that giving greater autonomy to secondary schools leads to large gains in test scores for pupils attending those schools. To be precise, a pupil who attends an academy school for four years can expect, on average, test scores 0.2 standard deviations higher than an otherwise similar pupil at a school under local authority control. This is roughly equivalent to going from the 50th percentile of the test score distribution to the 57th.

The results are driven by schools that convert from community school status. These have the least amount of autonomy pre-conversion and thus gain relatively more freedom than other school types. The performance gains for these schools are twice the average with pupils attending them for four years achieving, on average, test scores 0.4 standard deviations higher than similar pupils attending community schools. This effect is equivalent to going from the 50th percentile of the test score distribution to the 65th.

Autonomy

The question of how autonomy is used to improve performance is an important one. According to the Department for Education's (2014) survey of academy schools, the most prominent changes are those in school leadership, the procurement of services that were previously provided by the local authority, and curriculum changes.

Our research highlights the role of head teacher turnover. In the initial year of becoming an academy, schools are over 60% more likely to change their head teacher than schools that have yet to convert.

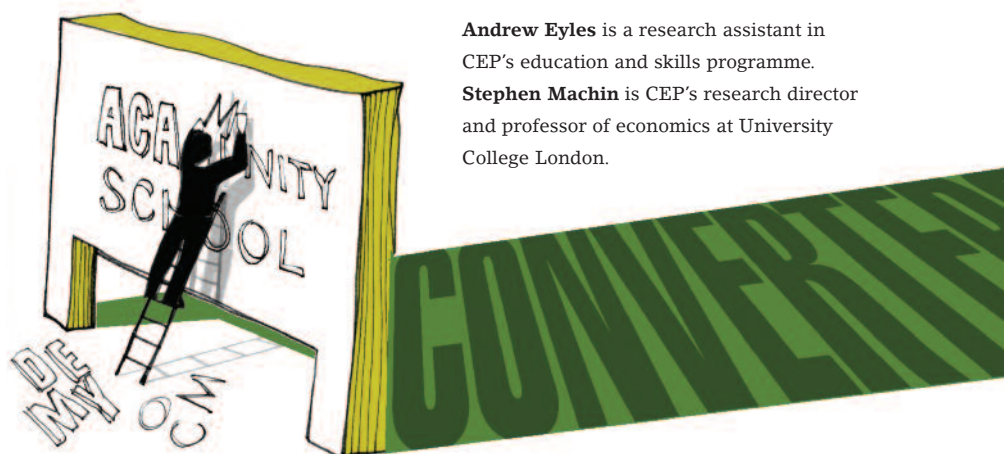
The future

Given that academy schools now dominate the educational landscape in England, it is natural to ask to what extent the effects on pupil outcomes can be meaningfully extrapolated to the surge of academies that opened post-2010. Although the coalition government continued with the sponsored academies programme, most of the growth of the academy sector (almost 80% of the post-2010 growth) came from high-performing schools, known as 'converters', voluntarily converting to academy status without entering into a sponsoring relationship.

In a study with Olmo Silva, we document significant differences between schools that became sponsored academies and those that opened as converters (Eyles et al, 2015). We find that post-2010 converter academies are very different in terms of pre-conversion characteristics compared with schools that became sponsored academies.

In particular, prior to conversion, converters tend to have high levels of attainment and few pupils eligible for free school meals. On the other hand, those becoming sponsored academies are drawn from the bottom of the attainment distribution.

Whether the differences between converter academies and sponsored academies are manifested in differences in performance effects is still unclear, as it is still too soon to consider their impact on pupils' GCSE performance in a way comparable to the earlier work. Similarly, the question of the extent to which a successful, but small-scale, intervention can be rolled-out with equal success on an almost national scale remains open. These



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Academy schools differ considerably depending on whether they are 'sponsored' or 'converters'

questions will be amenable for researchers to study in the next couple of years once the new academies have been open long enough to facilitate an evaluation of their impact on pupil performance.

Conclusion

The academies programme can be seen as the latest in a series of attempts to find innovative schooling strategies that boost the performance of state-maintained schools. As in Sweden and the United States, England's education system is moving beyond the traditional state-maintained school. But compared with reforms in those countries, it is doing so on a scale and at a pace that are unprecedented.

Whether the early successes of sponsored academies translate into success of the wider programme remains in doubt. What is clear is that the academies programme, and some aspects of its mode of operation, can offer some lessons for better provision of state-maintained education, especially for pupils enrolled in poorly performing schools. But thinking that 'mass academisation' offers a panacea for improved pupil outcomes across the board increasingly seems to be an unlikely path to delivering a better education system.

Further reading

Atila Abdulkadiroglu, Joshua Angrist, Susan Dynarski, Thomas Kane and Parag Pathak (2011) 'Accountability and Flexibility in Public Schools: Evidence from Boston's Charters and Pilots', *Quarterly Journal of Economics* 126: 699-748.

Anders Böhlmark and Mikael Lindahl (2015) 'Independent Schools and Long-run Educational Outcomes: Evidence from Sweden's Large-scale Voucher Reform', *Economica* 82: 508-51.

Department for Education (2014) 'Do Academies Make Use of Their Autonomy?' (<https://www.gov.uk/government/publications/do-academies-make-use-of-their-autonomy>).

Will Dobbie and Roland Fryer (2014) 'The Medium-term Impacts of High-achieving Charter Schools', forthcoming in *Journal of Political Economy*.

Andrew Eyles and Stephen Machin (2015) 'The Introduction of Academy Schools to England's Education', CEP Discussion Paper No. 1368 (<http://cep.lse.ac.uk/pubs/download/dp1368.pdf>).

Andrew Eyles, Stephen Machin and Olmo Silva (2015) 'Academies 2: The New Batch', CEP Discussion Paper No. 1370 (<http://cep.lse.ac.uk/pubs/download/dp1370.pdf>).