

Replicating Swedish ‘free school’ reforms in England

Rebecca Allen of the Institute of Education summarises the research evidence on the impact of Sweden’s educational reforms on pupils’ academic achievement.

The Conservatives’ proposal to replicate Sweden’s ‘free school’ reforms would be the most radical reform of education in England since the dismantling of selective schooling four decades ago. But the work of Swedish economists used to support the argument that the introduction of choice and competition has improved academic performance is less unambiguous than the Conservatives claim.

There are a number of related reforms to the supply side that have to be understood as background to the changes and which raise questions about the potential of free schools in the UK, particularly if pursued in isolation. Here I summarise evidence on the impact of the Swedish reforms on test scores, evaluating the relative merits of the research papers and explaining why they disagree in their findings.

The background to Sweden’s reforms

In 1992, Sweden introduced a voucher scheme in which privately run (including for-profit) schools could receive public funding for each pupil they educated on the same terms as municipality schools. Like all market reforms of public services, the exact nature of the institutional structures, financing and regulation are critical to ensuring success.

But the important context for the changes in Sweden was a backdrop of radical supply-side reforms, which were intended to facilitate innovation and more efficient resourcing decisions. These included deregulating teachers’ pay and conditions, decentralising school financing and increasing schools’ discretion over curriculum, goal-setting and test regimes (see Björklund et al, 2005, for an overview of the reforms).

Each reform was almost the exact opposite of the New Labour education reforms that were taking place at the same time in the UK.

Today, about 10% of lower secondary aged pupils in Sweden choose to attend the privately run free schools, with places strictly allocated on a ‘first-come, first-served’ basis. First-come, first-served sounds like a sensible and fair admissions rule, but it can lead to parents queuing on streets overnight to ensure they are first in line on the day that the admissions process opens.

The best evidence on Sweden’s reforms indicates small improvements in academic achievement in areas with more free schools

There has been large regional variation in the expansion of free schools. More have been established in urban, affluent and gentrifying areas and in those places with second-generation immigrant communities. Within these municipalities, more educated parents and second-generation immigrants are most likely to use the free schools, so the overall system is stratifying a little (Böhlmark and Lindahl, 2007). The largest group of free schools are for-profit providers of a general education, but special pedagogy, religious and special language/ethnic group schools are also prevalent.

Evidence of the impact on academic achievement

The Swedish schooling reforms are not straightforward to analyse because free schools were not set-up at random across the 290 municipalities: they are more prevalent where the municipality is politically supportive and offers high per pupil funding. Movement of pupils across municipality boundaries is also permissible, although not particularly common.

Evaluation of the reforms is especially difficult because Sweden does not routinely collect administrative test score and demographic data on all pupils in the country, as England does.

Externally marked test score data in maths, English and Swedish are available for around 30 municipalities, but for the remainder, researchers are restricted to using grade levels that are not consistently standardised across the country.

The research papers described below adopt a variety of strategies for dealing with the non-random assignment of the policy and the fact that areas with many free schools have demographic characteristics that make them systematically different. Two studies rely on cross-sectional data, hoping that the good quality of control variables (and the use of an instrument to predict free school supply) avoid confounding influences.

The most recent two studies use a municipality panel to measure the extent to which changes in the share of free schools in the municipality are associated with changes in pupil test scores. This latter approach requires less arduous identification assumptions since it controls for time-invariant demographic factors in the municipality.

There is still a problem of establishing causality as trends in social demographics (such as an influx of immigrants) are associated with trends in free school growth. But this can be dealt with by collecting data on time-varying demographic characteristics and/or by accounting for pre-reform trends in test scores.

Böhlmark and Lindahl

The most recent papers to evaluate the reforms (Böhlmark and Lindahl, 2007, 2008) are described first since they use the most robust data and methods, requiring relatively few identification assumptions. By describing these first, the relative drawbacks of the other papers' approaches can be understood.

The biggest advantages of this research come from the construction of a long panel of data from 1988/89 to 2002/03.

This gives three years of pre-intervention trend and over a decade of post-reform data to apply a difference-in-differences approach with municipality fixed effects to compare changes in areas with large growth in free schools with changes in areas with smaller growth in free schools.

The sample of data is also very large: a 20% sample from the population of pupils across all municipalities. The quality of the background control variables is good, including parental education, income, age and immigrant status, although they do not include any measures of the child's prior attainment.

The researchers do rely on non-standardised attainment data, but they have externally marked test scores for a sample of pupils that are sufficient to confirm that biases in teacher assessment are not correlated with the policy reform.

Small positive effects are evident in both the private schools and – through competition – in municipality schools

The results show a moderately positive impact of free school growth on municipality academic performance at the end of ninth grade (the end of lower secondary school, when pupils are aged 15-16). This finding is convincing because it is consistently estimated across almost all subjects and model specifications. The biggest beneficiaries are children from highly educated families; the impact on low educated families and immigrants is close to zero.

By tracking siblings within families who differed in whether they attended municipality or free schools, the researchers show that the superior performance of areas with private schools is due both to the greater effectiveness of private schools and to municipality schools making improvements in response to school competition, with the latter likely to be more important than the former.

But the researchers also find that the advantages that children educated in areas with free schools have by age 16 do not translate into greater educational success in later life. Although there is some (weak) evidence that pupils in areas with many free schools are more likely to take an academic track in high school, they score no better in high school exit tests at the age of 18/19. They are also no more likely to participate in higher education than those who were schooled in areas without free schools.

The researchers explore a variety of explanations for this, but conclude that the educational advantages of school competition are simply too small to persist into any long-term gains for young people.

Björklund et al

The short panel of data for municipalities between 1998 and 2001 that Björklund et al (2004, 2005) use is only able to analyse the relationship between growth in private school share in a municipality and changes in test scores over a short period of time, with correspondingly less variation in the parameter of interest (just a one percentage point change in free schooling share between these dates) and no pre-reform data to account for pre-existing social trends.

The researchers compare estimates between a sample of around 30 municipalities for which they have good quality data and all 290 municipalities where data quality is poor. Overall, they do not find a consistently positive impact of free school share on educational attainment: they identify a small positive impact on English and Swedish attainment, but a zero or even negative impact in maths.

Their findings are not consistent across the sample and the population of municipalities, suggesting that there may be selection problems in the municipality sample. This is a significant observation about data quality since the following two studies both rely on this sample of 30 municipalities.

Ahlin

Ahlin (2003) estimates the impact of the share of private schooling on ninth grade test scores in a cross-section of 34

municipalities from 1997/8, hoping that the quality of her control variables are sufficient to avoid any confounding influences. This is the only study that includes the prior attainment of the pupil in sixth grade and further background controls, thus accounting for systematic differences in the levels of attainment across municipalities but not dealing with differences in expected rates of progress from sixth grade to ninth grade that are due to home background factors.

The educational advantages of school competition are too small to persist into any long-term gains for young people

Her findings reverse those of Björklund et al with quite large positive effects of private schools on overall municipality achievement in maths, but not in Swedish or English.

Sandström and Bergström

Sandström and Bergström (2005) were the first researchers to explore the impact of the free school reforms on overall academic standards in Sweden. Their finding of large positive gains to the reforms have been widely reported, and are surprising given that their data come from quite early in the reform period (1997/8) before growth in free schools became substantial.

The study relies on the largest number of identifying assumptions since they use a cross-section of only municipality schools in just 30 municipalities, using a parametric sample-selection correction to address composition changes caused by lack of data on pupils in free schools. They use a two-stage approach, with an instrument of political control predicting the municipality share of free schools.

Critics argue that the instrument may not meet the excludability criterion of predicting the growth of free schools but not directly determining education attainment because they are not able to control for most of the social factors in the municipality that explain household educational practices. Given this, it is hard to argue that their large positive finding should contribute to our current knowledge of the impact of the reforms.

Concluding remarks

The experience of Sweden is helpful, but necessarily limited, in the extent to which it can help predict the impact of school reforms in England. One reason for this is that the schools also underwent a radical decentralisation of the education system, which would seem to be critical for promoting diversity and productivity gains through experimentation in free schools.

Sweden also has fewer reasons to be concerned that a free school system will produce greater school stratification since the country's lower levels of income and skill inequalities mean there is far less need for parents to choose schools based on social composition. It is also possible that Sweden's stronger tradition of non-standard schooling (such as Steiner and Montessori schools) is leading to a greater diversity of provision than parents in England would ever demand.

Sweden's experience is limited in the extent to which it can predict the impact of comparable school reforms in England

The econometric evidence on the impact of the reforms suggests that, so far, Swedish pupils do not appear to be harmed by the competition from private schools, but the new schools have not yet transformed educational attainment in Sweden. Bunar (2009) argues that the growth in free schools in the first decade was too slow to bring a great transformation due to unclear regulations and uncertainty as to whether the ruling Social Democratic Party would further weaken the financial conditions for free schools.

In addition, the rising pupil population in Sweden during the 1990s meant that existing state schools did not lose pupils in great numbers as free schools opened and poorly performing schools did not need to close. In the past few years, overall demand for school places has fallen as the pupil population shrinks and the supply of free schools places has rapidly grown. So the prospect of a true competitive threat is now real and efficiency gains over the next decade could be larger.

Further reading

Ahlin, Å (2003) 'Does School Competition Matter? Effects of a Large-scale School Choice Reform on Student Performance', Department of Economics, Uppsala University Working Paper No. 2.

Björklund, A, M Clark, P-A Edin, P Fredriksson and A Krueger (2005) *The Market Comes to Education in Sweden: An Evaluation of Sweden's Surprising School Reforms*, Russell Sage Foundation.

Björklund, A, P-A Edin, P Fredriksson and A Krueger (2004) 'Education, Equality and Efficiency – An Analysis of Swedish School Reforms during the 1990s', IFAU Report No. 1.

Böhlmark, A and M Lindahl (2007) 'The Impact of School Choice on Pupil Achievement, Segregation and Costs: Swedish Evidence', IZA Discussion Paper No. 2786.

Böhlmark, A and M Lindahl (2008) 'Does School Privatization Improve Educational Achievement? Evidence from Sweden's Voucher Reform', IZA Discussion Paper No. 3691.

Bunar, N (2009) 'Can Multicultural Urban Schools in Sweden Survive the Freedom of Choice Policy?', Stockholm University Linnaeus Center for Integration Studies Working Paper No. 3.

Sandström, FM and F Bergström (2005) 'School Vouchers in Practice: Competition Will Not Hurt You', *Journal of Public Economics* 89: 351-80.