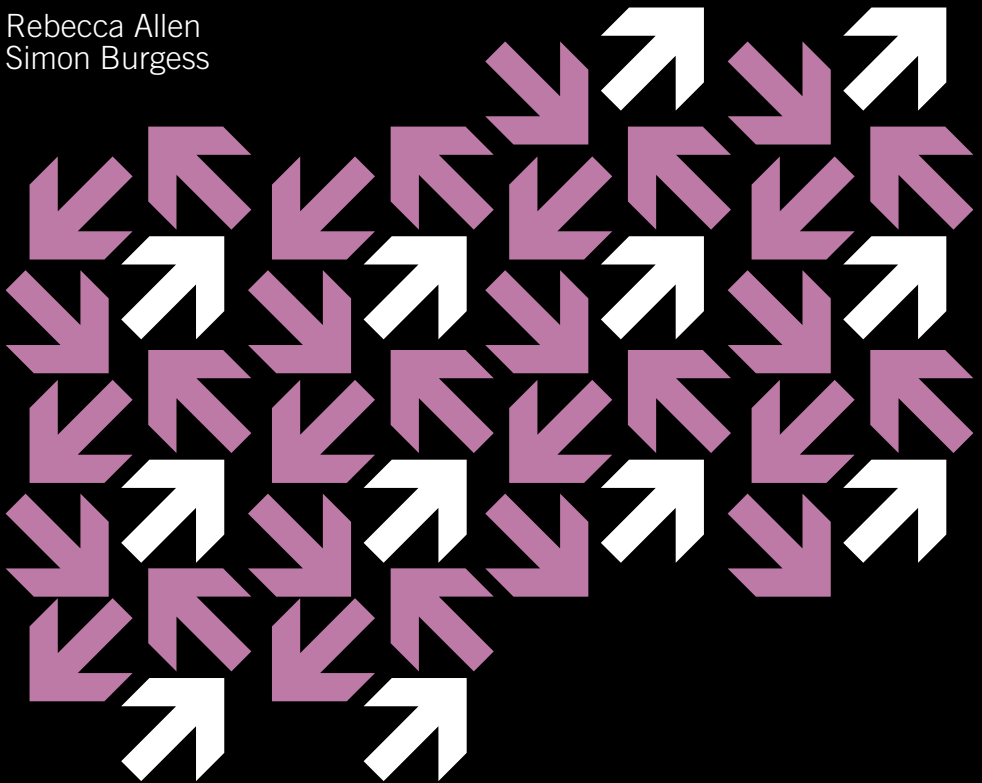


The future of competition and accountability in education

Rebecca Allen
Simon Burgess



2020 Public Services Trust
at the RSA

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In December 2008, the Trust launched a major new **Commission on 2020 Public Services**, chaired by Sir Andrew Foster, to recommend the characteristics of a new public services settlement appropriate for the future needs and aspirations of citizens, and the best practical arrangements for its implementation.

For more information on the Trust and its Commission, please visit www.2020pst.org.

The views expressed in this report are those of the author and do not represent the opinion of the Trust or the Commission.

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About the ESRC



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Introduction to this series

The Commission on 2020 Public Services is a major inquiry into how public services should respond to the significant societal challenges of the next decade. The Commission is developing a practical and compelling vision of the priorities for public action to address the emergent challenges facing society in 2020. The Commission has three aims:

- 1** To broaden the terms of the debate about the future of public services in the UK.
- 2** To articulate a positive and long-term vision for public services.
- 3** To build a coalition for change.

This series of essays represents a working partnership between the 2020 Commission and the Economic and Social Research Council (ESRC). As part of our commitment to rigorous, evidence-based research, we jointly commissioned a series of experts to examine the key issues in public services. Two broad themes emerged: one considering future relationships between citizens, state and society; the other exploring the future delivery of public services.

Generous support from the ESRC has allowed the Commission to dig deep into a complex set of issues, and ensure its inquiry represents the best contemporary thinking on public services and society, with a strong evidence base.

Each paper can be read separately, and will also be available as a collected volume in the future. We believe that the research and analysis emerging from this partnership is a rich and significant contribution both to the ongoing national debate on public services and to the Commission's vision for the future. We hope that you enjoy the series, and we invite you to share your own reflections and analysis at www.2020pst.org.

Foreword

In its coalition agreement of May 2010, the Conservative and Liberal Democrat government set out its plan to reform schools. One of the government's overarching aims is to “give greater powers to parents and pupils to choose a good school”.¹ To achieve this, the government proposes ensuring “new providers can enter the state school system in response to parental demand”, giving “parents, teachers, charities and local communities the chance to set up new schools” and publishing “performance data on educational providers, as well as past exam papers”.²

In this timely review of the evidence on the impact of competition among schools on educational outcomes, Dr Rebecca Allen and Professor Simon Burgess examine the difficulties of creating the conditions in which education quasi-markets can truly raise attainment. The authors argue that four conditions are critical to ensuring that competition among schools raises overall attainment. These are:

- “Parents must value and be able to correctly identify educational success as a school characteristic”
- “Parental choice must be meaningful and capable of affecting the allocation of pupils to schools”
- “Schools must find it beneficial to be popular and to grow”
- “The best way for schools to be popular must be to raise the quality of teaching and learning, rather than engage in other activities (such as cream-skimming easier to teach children)”

Some of the Coalition's policies may help create these enabling conditions. Specifically, publishing performance data should help parents to identify educational success, and allowing new providers into the market will help make choice more meaningful. However, simply raising the levels of competition among schools,

1 HM Government, *The Coalition: Our programme for government* (London: Cabinet Office, 2010): 28.

2 *Ibid.*

without these four conditions in place, may not achieve the goal of increasing educational attainment.

This paper offers a very insightful, cautious analysis of how competition among schools can raise achievement. At a critical time for public service reform, Dr Allen and Professor Burgess have made an important contribution to the body of knowledge against which education policies can be judged.

Lauren Cumming

2020 Public Services Trust, September 2010

1

Introduction

It is only relatively recently that the idea of competition has become embedded in the debate on schools. Traditionally, schools have been seen, in the UK at least, as a system to be managed. Policy debates focussed instead on resources, pupil selection, teaching techniques and so on. But alongside healthcare and other public services, client choice and provider competition are now important parts of the policy landscape. Proponents of radical market-based school reforms argue that they are necessary, despite substantial rises in the number of pupils leaving school with five good GCSEs (DCSF, 2009), because UK schooling is not improving relative to other countries (OECD, 2007) and because improvements in outcomes have been accompanied by even larger rises in educational spending, resulting in small falls in productivity across the sector (Wild et al, 2009).

School competition in a wholly private market is straightforward to understand. Parents choose a school based on price and quality, and schools are incentivised to make themselves attractive to parents so that they can survive and make a profit. By contrast, government-funded schools often operate on a very different basis, with administrators assigning pupils to schools, and schools having little incentive to use resources efficiently since they cannot retain surpluses. Elements of competition can be introduced into this environment, however, through the separation of funding and provision. Parents choose schools and schools receive funding for each pupil they attract. The idea is for popular schools to grow and unpopular schools to close, mimicking the effects of true competition. This market-like, or quasi-market, mechanism combines some elements of market competition and some bureaucratic elements (Glennester, 1991; Le Grand, 1991).

Can such a quasi-market system be made to raise educational attainment? In this paper we argue that creating enabling conditions for this is highly complex. We

first review the empirical evidence on school competition from four countries that have enacted significant choice reforms to highlight how weak supportive evidence on competition and efficiency currently is. We then discuss four conditions that are critical to ensuring that school competition can work to raise overall attainment. We describe the extent to which the English system currently meets these conditions. Finally, we describe five sets of reforms that we believe are critical to ensuring that a market for schooling is able to function effectively.

2

A review of the evidence on competition and choice

We give a brief review of the evidence on the impact of competition and choice on student outcomes, focusing on England, the US, Sweden and Chile since these are four countries where a number of high quality empirical studies exist (a more detailed review of papers can be found in Allen, 2008). Studying different countries also allows us to learn how competition works in different contexts.

a. England

The simultaneous national implementation of legislation arising from the 1988 Education Reform Act, combined with a lack of historic pupil-level national datasets, makes evaluating the causal effect of these reforms very difficult because analysis is forced to exploit comparisons between areas where schools are believed to experience different levels of competition but may also differ in other systematic ways. The largest group of empirical school competition studies assume that a school operating in an area of higher population density is experiencing greater competition because local families have access to a large number of potential schools. This presumption is not unreasonable and most of these studies do indeed confirm that schools in more urban areas achieve greater pupil progress, but it is difficult to causally attribute this to competition rather than other factors, including gentrification, that make urban schools unusual. Bradley and Taylor (2007) use a school-level panel from 1992-2006 to show that schools in urban areas appear to improve their exam results in response to improvements in neighbouring school exam results, but that this association is not present in more rural areas. Gibbons et al (2008b) use pupil-level administrative data to show that secondary school

progress is faster in areas of relatively dense population, but that the elasticity of school performance with respect to population density is low at +0.02. This tiny positive cross-sectional effect falls somewhere between the positive estimate of Bradley et al (2001) and the null finding of Levačić (2004).

Recognising the desirability of distinguishing between the impact of urban density and school competition, two studies exploit the observation that schools close to local authority boundaries could be less likely to experience competition due to the tendency of parents to choose schools within a local authority. Gibbons et al (2008a) analyse the relationship between academic progress at primary school and school competition in London, using the distance of a school from its nearest local authority boundary as an instrument to predict the amount of competition it faces. They find no overall effect of choice or competition on school performance, though some positive effect of competition from religious schools. Burgess and Slater (2006) use the administrative boundary change of 1998 that split Berkshire into six local authorities to estimate the impact of possible falls in competition across the new boundaries on pupil progress between the ages of 14 and 16. They find no impact of these boundary changes on pupil achievement, though again there is a hint of an effect for faith schools.

The final set of UK competition studies exploit institution variation in the governance of schools, arguing that both voluntary-aided faith schools and autonomous foundation schools present a greater competitive threat to community schools because they recruit pupils across a wide geographical area. Neither Clark (2009) nor Allen (2008) find that Grant-Maintained (now foundation) schools exert a greater competitive pressure on their neighbours than schools who lost their parental vote to become autonomous and so have remained under local authority control. Allen and Vignoles (2009) compare the levels of faith secondary schooling in an area with GCSE achievement, using pupil-level data and the historical size of faith communities as an instrument to predict modern-day faith school densities. They again find no evidence that the presence of faith schools induces neighbouring schools to increase standards to attract pupils to their school.

The problems of establishing the causal impact of school competition on pupil sorting are similarly complex, but the associations between urban density, numbers of autonomous schools and social segregation of pupils across secondary schools is clear. Schools are more segregated than neighbourhoods in almost all parts of England and Burgess et al (2007) and Allen (2007) both show that this post-residential sorting is

greatest in areas of higher population density and where there are larger proportions of autonomous schools. Allen and West (2010) confirm that autonomous schools such as faith voluntary-aided schools do have intakes that are more socially advantaged than their direct neighbourhoods. However, none of this evidence suggests that school competition is responsible for this increased sorting; it simply observes that schooling markets in England, as they are currently constructed, appear to have a tendency to become stratified where schools are able to control their own admissions.

b. US

The US empirical literature on school competition provides a more positive picture of an effect on school performance. Belfield and Levin's (2003) literature review of 35 wide-ranging studies found that between 36% and 67% of estimates of the effect of a cross-sectional measure of competition are statistically significant. However, the effect sizes are quite modest and not generally robust to changes in the specifications of equations. Furthermore, most simply measure associations without an attempt to identify a causal effect. The best known attempt to establish causality by Hoxby (2000) has been strongly questioned by Rothstein (2007) since it is not robust to changes in arbitrary coding re-classifications. Bayer and McMillan (2005) have access to the best dataset where they are able to match house price data to school district boundaries and use this to show modest positive impacts of school competition on test scores.

Charter schools are government-funded schools that are not subject to many of the same rules and regulations as traditional public schools. Estimates of the effect of Charter schools on traditional public schools from across the US have varied in both the direction and degree of the competition effect. For example, Booker et al (2008) find positive impacts in Texas, as does Hoxby (2001) in Michigan and Holmes et al (2003) in North Carolina. However, both Bettinger (2005) and Ni (2007) disagree with Hoxby's finding from Michigan and Bilfulco and Ladd (2004) find negative impacts in North Carolina. Null or even slightly negative effects of Charter schools have also been found in studies from Milwaukee, Florida, California and Ohio (e.g. Sass, 2006; Buddin and Zimmer, 2005; Greene and Forster, 2002; Carr and Ritter, 2007).

c. Sweden

In the early 1990s Sweden introduced a voucher scheme to enable private schools to receive government funding for every pupil they educate. These private schools

can be set up by anyone (the majority are joint stock companies) and are given funding via a voucher on exactly the same terms as government schools. They are able to make a profit, but are not able to charge extra tuition fees and they must admit pupils on a 'first-come, first-served' basis. A wide variety of types of private schools now educate around nine percent of pupils in primary and lower secondary sectors, with specialist language schools, special pedagogy schools, religious schools, all receiving state funding alongside general private schools. Many areas in Sweden still have no private schools and growth has been greatest in affluent or gentrifying urban areas and in municipalities with large numbers of second-generation immigrants and right-wing political control. Böhlmärk and Lindahl (2007) show that within any municipality the families who choose to use the private schools are more likely to have highly educated parents or are second-generation immigrants, suggesting that the Swedish schooling system is becoming a little more stratified on ethnic and social dimensions. Analysis by Bjorklund et al (2005) suggests this is due to specialist language, religion and pedagogy private schools that attract particular strata of society. The upper secondary schooling system in Sweden has become significantly more socially stratified in recent years, but this is due to the separate issue of the introduction of an ability-based admissions system (Söderström and Uusitalo, 2004).

The question of whether competition between private and public schools in Sweden has successfully raised standards has been contentiously debated across four major quantitative studies with uncertainty about impacts resulting from imperfect data availability. The first three papers to be completed found effects to be either (i) very positive in all subjects (Sandström and Bergström, 2005); (ii) very positive in maths but not in English or Swedish (Ahlin, 2003); or (iii) mildly positive in Swedish and English but not in maths (Bjorklund et al., 2004)! However, the superiority of the data in Böhlmärk and Lindahl's work means these initial findings should be set aside.

Böhlmärk and Lindahl (2007) have constructed a superior dataset to any of the previous papers and are able to track pupil performance in municipalities from 1988 (significantly before the reforms began) to 2003. Using a difference-in-differences approach that can account for any pre-reform trends in test scores within an area and by including time variant municipality variables they are able to show a moderately positive impact of private school growth on municipality academic performance at the end of 9th grade (end of lower secondary school).

This is consistently estimated across almost all subjects and model specifications and the greatest beneficiaries are found to be children from highly educated families (the impact on low educated families and immigrants is close to zero, though not negative). They can show that this superior performance of areas with private schools is due to both the greater effectiveness of private schools and due to public schools making improvements in response to school competition.

However, they find that these advantages that children who were educated in areas with private schools have by age 16 do not translate into greater educational success in later life (Böhlmark and Lindahl, 2008). They score no better in high school exit tests at the age of 18/19 and are no more likely to participate in higher education than those who were schooled in areas without private schools. They explore a variety of explanations for this, but conclude that the advantages of school competition are simply too small to persist into any long-term gains for young people.

d. Chile

Chile has been operating a radical voucher scheme since 1981, with teachers, parents, religious groups or companies able to set up private schools that are eligible for government vouchers to cover tuition fees. In Chile today about half of all pupils attend a private school and the government voucher means that companies have found it profitable to set up schools in both very deprived and very affluent neighbourhoods. Private secondary schools are able to 'top-up' their income from the government by charging very limited fees to students, though many choose not to do this, and schools are able to choose which students they wish to educate at their school. The result is that private schools in Chile have become rather stratified, with children from poor families concentrated in certain schools and other schools attracting the social elite by charging fees and/or requiring children to sit entrance exams (Elacqua et al., 2006). It is the large for-profit schooling sector that has become the most socially stratified. As with Sweden, the evaluations of the impact of the increased competition from private schools on pupil achievement are not conclusive, with the key papers identifying a range of different effects from a positive effect (Auguste and Valenzuela, 2006) to a negative (Carnoy and McEwan, 2003) and no (Hsieh and Urquiola, 2006) effect.

3

Can competition work?

The international evidence in the previous section highlights how difficult it is to use market-like reforms to raise educational standards, so choice reforms need to be carefully designed to ensure that all the elements of the system fit together. Every possible system of organisation of schools, whether bureaucratic or market-like, has incentives built into it. These implicit or explicit incentives determine how headteachers, governors and teachers interact with parents and pupils. All these actors have goals, constraints and information sets and in this section we describe the four conditions that are critical to ensuring that competition works.

a. Parental aims and behaviour: “Parents must value and be able to correctly identify educational success as a school characteristic”

The school characteristics that parents value are critical to determining how schools respond to a choice system. Good exam results, pupil behaviour, and proximity to home all rank highly in surveys of what parents say they want from schools (see Allen, 2008, for a review of this evidence). Burgess et al (2009) use English survey data that includes parents’ primary school choices and allocations to show that parents strongly value academic quality, socio-economic composition of the school, and proximity of the school to home. They estimate a clear trade-off between preferences for socio-economic composition and academic attainment, but find quantitatively irrelevant differences in this trade-off between parents from different socioeconomic groups; this differs from US estimates that find that a preference for school attainment is strongly increasing in parental income (Hastings et al, 2006).

Information for parents on school characteristics is available from formal and informal channels, including performance tables, prospectuses, Ofsted reports,

school visits and social networks. Parents may care about teaching quality but they cannot observe this directly. This means that the design of school accountability measures (Wilson 2010) is critical to how parents interpret quality. Whatever factor is chosen to be measured will become a focus for parental interest, and so prompt a reaction from schools. Balancing the need to produce measures that are easy to understand with the desire that they reflect the quality of teaching that takes place is not straightforward. The Contextual Value Added measures of school quality that are published in schools performance tables are an admirable attempt to indicate the quality of the school, rather than the quality of the pupil intake, but surveys suggest that parents still focus on the proportion of pupils gaining 5 or more A* to C at GCSE because it is a metric they can understand (e.g. Coldron et al, 2008).

b. Pupil assignment: “Parental choice must be meaningful and capable of affecting the allocation of pupils to schools”

The current system of school allocation allows parents to express a preference for between three and six schools, but given constrained capacity (with all spare capacity located in unpopular schools) oversubscription criteria act as a rationing device, allocating pupils to schools. Current oversubscription criteria typically used by schools include priority for younger siblings of pupils already at the school, proximity to home or catchment areas, adherence to a particular religion and performance in an academic test (see West et al, 2009). Neighbourhood schooling forces parents to choose a school by choosing a place of residence. This has the advantage that all the families will live near to the school, thus minimising school journeys, allowing collective progression of primary school friends and creating a sense of community. The disadvantage is that poorer families are powerless to access high performing schools since it ties access to the school tightly to residence and therefore to house prices, implying income-segregated communities (although Allen et al, 2010, suggest this phenomenon may be overstated).

Although admissions policies are seen as critical to whether parental choice is possible, in a system with constrained capacity with most parents preferring academically successful schools, the reality is that it is impossible to satisfy all choices, with popular schools using their admissions policies to decide who is admitted. In this sense, at any given point in time the system is a zero sum game where every successful allocation of a place at a preferred school denies another parent their choice. Altering the admissions policies, for example to make greater

use of lotteries or banding (taking equal numbers across the ability distribution) does nothing to facilitate greater parental satisfaction (unless it alters the long-run relative popularity of schools); admissions policies will simply alter the set of parents who are able to achieve their choice of school.

For competition to work, meaning that school success and survival becomes contingent on parental choices, significant spare capacity and changes in capacity are needed so that parental choices can be meaningful, popular schools can grow and the least popular schools can be closed. This system has the potential to achieve efficiency gains, provided there is some relationship between school popularity and the quality of its teaching and learning.

c. School aims: “Schools must find it beneficial to be popular and to grow”

For school competition to raise academic standards we require a behavioural response by schools to parental choice. Critically, schools must find it beneficial to be popular so that they fill their places and, ideally, they need to be motivated to pursue growth where excess demand exists. Under the current system of per pupil funding, schools do face some incentive to fill places up to their Published Admission Number, but this incentive is often dampened by a local authority who works to redistribute funds across their schools to ensure they each receive smoothed income streams (Chowdry et al, 2010). In practice their greatest incentive to fill places arises because under-capacity schools are mandated to accept in-year transfers of pupils who are excluded from other schools.

We can illustrate the lack of appropriate dynamics in the following simple way. We take data on all secondary schools in England over the past decade, and consider schools *always* in the top quartile of their local (LA) quality distribution, those always in the bottom quartile and those always in the middle half. In a well-functioning system we should see the high-performing schools growing more rapidly than average schools. In fact, over this ten year period, the schools that were always in the top quartile grew barely more than the middle half of schools: the median growth rates were 10.3% ten year growth rate versus 7.0% respectively.

Schools certainly face an incentive not to shrink since a falling pupil roll should eventually equate to lower income, with potential loss of facilities or teacher redundancies and associated loss of staff morale. On the other hand, it is less clear that schools are motivated to pursue growth and this is reflected in relatively

small numbers applying to increase their capacity (Select Committee for Education and Skills, 2005). Positive growth may be taken to indicate a successful school, boosting the headteacher's career prospects; certainly negative growth is taken as a sign of failure. However, it does not directly translate into a higher salary for school leaders and the school is restricted in what it can do with any surplus it generates. Furthermore, if the most affluent school in an area expands its capacity to admit pupils who were previously unable to access the school, it will rightly fear a degradation in the cohort's average prior attainment which will threaten its headline exam results (Epple and Romano, 2003).

d. School behaviour: "The best way for schools to be popular must be to raise the quality of teaching and learning, rather than engage in other activities (such as cream-skimming easier to teach children)"

Even if a funding scheme can be put in place to incentivise schools to be popular and to grow, it is extremely hard to ensure that they achieve popularity by focussing on school quality. A great deal of care is needed to ensure that performance measures are set up to reward desirable behaviour on the part of schools. We know that parents currently focus on raw exam results as a proxy for school quality, but the quality of a school's teaching and learning have only a marginal impact on this measure compared to pupils' prior attainment social background. This means that the current system incentivises schools to admit pupils with high academic potential and to focus resources on pupils who are 'just' at risk of missing their 5+ A*-C at GCSE (Burgess et al 2005).

Given that high ability pupil intakes ensure survival by attracting other pupils to the school in the current system, it is understandable that schools are incentivised to cream-skim certain pupils. This might involve explicit cream-skimming through the use of published admissions criteria and procedures or more implicit activities such as only marketing the school in more affluent neighbourhoods or excluding harder-to-teach pupils (West et al, 2004). Clearly not all schools choose to engage in these activities that may run counter to more altruistic agent missions (Le Grand, 2003).

What is unclear is the extent to which the development of better quality metrics could reduce the extent to which parents favour schools with affluent intakes, sustaining the relationship between pupil characteristics and school popularity. It

is possible that they rationally favour these schools for social reasons or because affluent pupil intakes attract higher quality teachers (there is currently little evidence on the latter). Where social mix is truly important to parents, balancing policies of admissions regulation and financial incentives to admit deprived pupils can be used to limit incentives to cream-skim.

4

Reforms to school market structure

We have identified the features of an education market that are necessary for choice and competition to raise attainment. Some of these are in place in England, but some elements are missing. In this section we describe five sets of reforms that we believe are essential if competition is to raise academic standards successfully.

There are many arguments for introducing greater parental choice of school that are unrelated to efficiency and it is worth noting that direct approaches to incentivising schools to raise standards are much more likely to yield results than market reforms alone. For example, government could switch from funding inputs (the number of pupils) to rewarding schools for desired outputs such as pupil exam results. One approach would be to transition to the system whereby schools are partly funded on the basis of the progress of their schools so that, for example, a high bonus could be paid for students arriving at a school with a low level of attainment, provided the school brings them up to a defined minimum standard of achievement. Schools could be free to distribute this bonus to high performing teachers, to all teachers equally, or to higher quality facilities. This scheme has echoes of the standard procedure prices recently established in the NHS in England. There are obviously a number of important practical issues that would need to be considered and dealt with before such a system could be set up and these are beyond the bounds of this paper.

a. Increasing supply in existing popular schools

Creating supply of new school places to meet demand can be done by increasing supply in existing popular schools or by opening new schools. The former is likely to

be the more important source of new supply since the supply of new schools cannot be infinitely elastic: there are still only 200 academies in England (as of Spring 2010) and most Swedish children continue to be educated at municipality schools.

It is clearly difficult to overcome physical capacity constraints on growth in some urban schools, but we can remove the systematic disincentives to grow that are described earlier in this chapter. Popular schools with very affluent intakes do risk experiencing a decline in the ability profile of their intake as the school expands, although the extent to which this takes place will depend on the oversubscription criteria they use. To offset this disincentive, differential per pupil funding could be introduced based (inversely) on a pupil's prior achievement or on their deprivation. The advantage of the former is that it relates more directly to the accelerated learning that is required for that pupil to catch up, and also solves a number of practical problems relating to the collection of pupil social background data. It is unclear how large the 'pupil premium' for educating less able pupils needs to be, but if set at an appropriate level it should make schools happy to accept any students when expanding.

Another way for popular schools to 'grow' is for them to take over other schools and extend the school brand. The likely success of this policy depends on what makes a good school good. If school leadership and ethos are very important, then these types of policies should be successful; if the outcome is largely dependent on the school intake, then the gain is likely to be low. Under a system of deregulated school funding and expenditure, governing bodies can choose to directly reward headteachers for growing their existing school or for building a federation of schools.

b. The creation of new schools

Policies that allow the creation of entirely new schools have the potential to radically reform local schooling markets, creating a substantial competitive threat to existing providers. Government can do this by building new schools within the state system (e.g. the academies programme in England and Charter schools in the US). Alternatively, it can invite private providers to set up new schools as Sweden and Chile have done. The evidence from Sweden suggests that these schools are not necessarily the panacea they are sometimes portrayed as and given the dysfunctional dynamics in the English educational market (popular schools cannot or will not grow) it is an important option to boost the supply of good school places.

Policies surrounding the capital financing and regulation of new entrants are

extremely complex and will be critical to the success of the reform. One important practical issue in setting up new schools is the availability of school facilities beyond basic classrooms such as libraries, playing fields, halls and science labs. Swedish free schools have been built cheaply and with few of these facilities. What should be the minimum requirements? Financial aid for new schools' capital costs from government is likely to be scarce given an increasingly constrained public funding environment.

Regulation of the entrants and then continuing regulation of the market are also important. Some evidence from the US suggests that heavily regulating new Charter schools yields a better performing system. Continuing regulation of new schools will not need the same sort of model as used for the privatised utilities in the UK. The 'price' charged will be fixed at the same per capita funding as in regular state schools, and if costs are driven down too far and quality suffers, parents have other schools to choose. Clearly, standard school monitoring on the curriculum and adherence to the admissions code will be necessary.

We believe that there is a strong case for allowing private for-profit schools, despite public concerns about extracting profits from the provision of schooling. The primary motivation of for-profit schools will be to provide an education that parents' desire, and so provided monitoring and regulatory mechanisms are put in place by the State there is no reason why this relationship should be exploitative. All providers of new schools will have a 'mission' or motivation for doing so. The experience of Sweden suggests that not-for-profit organisations tend to set up schools that are specific to their 'mission', rather than provide a general education that many parents want. For example, faith-based providers set up religious schools to support and extend the reach of their own religion; specific ethnic group providers set up schools to appeal to one community to maintain culture, languages and identity; and special pedagogy providers offer their own approaches to teaching. It is true that parent groups are likely to set up general education schools, but their role in a market is likely to be rather limited, and perhaps restricted to small primary schools. Also, there are obvious succession problems in parent-run schools, particularly in passing on financial stakes.

Allowing for-profit schools solves the problem of financing upfront capital costs since these should be borne by the provider in exchange for the opportunity to generate a future return. These costs might be particularly large in England (compared to Sweden) in order to create secondary schools that are large enough to accommodate the post-14 curriculum choice that parents have come to expect.

Of course, for-profit schools will also have a greatest incentive to keep their costs low and may successfully innovate in educational methods in order to do this. Where innovation is successful it can be replicated across government and not-for-profit schools that will have lower incentives to experiment.

c. Facilitating the closure of failing schools

We have identified the main problem underlying the lack of impact of school choice as dysfunctional dynamics. Sharpening up the procedure for closing failing schools will not only have a direct and immediate effect on the pupils in those schools, but may also make the incentives underlying competition more effective. If it is hard to incentivise growth in a competitive environment, it may at least be possible to raise the penalty for decline. Indeed, evidence from a choice reform in Tel Aviv where unpopular schools did actually close showed large overall efficiency gains from the reforms (Lavy, 2010).

Currently, LAs are able to subsidise small schools but this would not be possible with direct funding of schools, so easier school closure may be an inadvertent positive consequence of funding reforms. Minimum income guarantees for schools need to be removed to allow excess capacity to be taken out of the system more quickly.

We are mindful of the costs and potential impact on a community of school closure and so replacing the Headteacher and/or the governing body would be considerably less disruptive to the life of the school. Also, there is often an emotional attachment to local schools: we see campaigns to keep open small local schools even when these are transparently failing the children in them. This may be because there are no other local neighbourhood options. Replacing the school leadership may be a less divisive response to these situations. Given the importance attached by many to school leadership, this may in some cases produce the necessary overhaul of school performance.

d. Regulation of school admissions

In the short run, school admissions reforms do not appear to be critical to determining the level and effectiveness of school competition; they are simply a mechanism for deciding which set of parents get to choose. However, in the long run successful competitive markets work best where the social mix at schools is reasonably similar. The first reason for this is that similarity of social mix is more

likely to produce heterogeneity of preferences for local schools amongst parents, i.e. not all parents will want their child to attend the same school. This will allow parents to investigate school characteristics on the basis of other important criteria such as ethos, music or sports provisions, and so on. This relatively integrated system is likely to be able to meet a much larger proportion of parents' first preference schools in any particular year. Secondly, where schools are very similar in their intakes, the excellence of teaching and learning will be critical to where the school is placed in a local league table of academic performance. To the extent that parents continue to value academic quality, this will force schools to compete on the basis of teaching quality, thus raising the performance of the overall system. By contrast, in a stratified system schools will not be able to alter their ranking in the local league table of academic performance, regardless of effort directed at teaching quality, because differences in pupil intakes will produce very large differences in raw academic outcomes.

This suggests that a reasonably equitable schooling system will make choice and competition truly effective. However, given our starting point it is hard to decide how best to achieve integrated schooling. The best system is not likely to involve uniform rules across the country since proximity of home to school is more important in rural areas. If we were starting from scratch, random allocation lotteries that give all applications to a school an equal chance of achieving a place could be used in urban areas where public transport is good. In rural areas, catchment zones (or primary feeder school systems) could be drawn in an attempt to balance intakes, with parents given options to choose non-catchment schools by giving priority to pupils that would balance the intake of the chosen school towards the area average.

These type of reforms may be too radical for parents to accept, so marginal modifications to current the system may be all that can be achieved for existing providers. There does appear to be social class differences in the way that parents engage in the current school admissions system, which is exacerbated by the complexities of the English choice system. This continues to sanction variation in admissions procedures across state-funded schools and allows oversubscription criteria so complex that it is impossible for a family to assess the probability of achieving a place at their desired school. Policies to simplify admissions procedures may be more equitable, and in addition simplification may encourage low income families to engage with the system.

e. Deregulating schools

For a market system to be effective in raising school quality, significant deregulation of the existing system would be needed. Efficiency gains can be achieved through one of three mechanisms. First, if more effective schools grow and less effective schools shrink then overall efficiency rises, even if the practices in any individual school do not change. This requires a systematic per-pupil financing system to be introduced (with a premium for teaching) so that schools are properly rewarded for attracting each additional pupil to the school (and financially penalised if they become unpopular). Second, efficiency rises if a school successfully improves its exam results without raising costs or alternatively succeeds in lowering costs without damaging quality. For this to take place it is critical that schools are able to take greater control over their major expenditure: teacher pay and conditions, facilitating more efficient recruitment and retention decisions. Performance related pay of teachers can be introduced by schools where they believe it can work, rather than as a country-wide government policy experiment. Finally, the overall efficiency of the system will increase if schools are able to experiment with alternative organisations of teaching and learning that improve academic standards and create a schooling environment that is desired by parents. This freedom to innovate almost certainly requires some relaxation of the National Curriculum and other regulatory measures currently in place.

Radical deregulatory reforms are intuitively appealing, and may produce important long-term benefits that increase levels of parental satisfaction with the schooling system. However, it is important to note that they are very risky since some 'innovations' would necessarily fail. Therefore, to enable market-based reforms to work in England, society would have to come to terms with greater levels of school failure than exist under a tightly regulated system. And policy makers would need to work to ensure that critical regulatory measures are in place so that the life chances of children who happen to find themselves in failing schools are not damaged.

Conclusion

The research evidence to support the idea that competition in education will raise attainment is not overwhelming. Specifically in England, the existing studies suggest at best a weak and inconsistent effect of increasing school choice. We have identified a number of structural problems in the education market in England, and dealing with these may improve the scope for choice to raise standards. Policies to reform school admissions, sharpen policy response to failing schools, facilitate the entry of new schools and deregulate the teacher labour market all hold some promise of improving educational outcomes, and of creating a market structure where competition might be more effective.

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