SCHOOL PLACES: A FAIR CHOICE?

School choice, inequality and options for reform of school admissions in England

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About the Sutton Trust

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Executive Summary

- England has a system of school choice. Parents submit an ordered list of preferences, and then places are allocated. While there are enough places overall, there is significant variation in school quality, which means some schools are oversubscribed. The question therefore is how such places are allocated.
- Schools matter. Estimates vary, but about 10-20% of the difference in pupils' academic
 outcomes is down to the school they attended. Since academic achievement in turn strongly
 influences life chances, the effectiveness of the school a student attends has potentially lifelong implications.
- Controlling for a variety of local factors, children from disadvantaged families attend schools with a much lower proportion of children achieving the benchmark of at least 5 A* to C grades. The gap in the academic quality of school attended between poor and non-poor pupils averages at 6.9 percentage points, 41% of a standard deviation; a substantial difference.
- This socio-economic divide in access to the 'best' schools has significant consequences. If a student's chance of attending a high performing school is determined by their family income, this will act as a major brake on social mobility.
- While many see this gap arising from differences in engagement in the school choice system
 between middle class and less well-off parents, analysis of parental preferences shows that
 parents across the socio-economic spectrum pro-actively engage in school choice, making
 choices based on academic quality. Families eligible for free school meals, on average, make
 as many choices as richer families; are as (un)likely to choose the local school; and take
 account of school quality in their choices.
- 65% of parents make more than one choice, and 27% make the maximum choices permitted, with only 39% of parents putting their nearest school as top choice.
- More than parental preferences, it is the school allocation system that is the source of socioeconomic gaps. When children are allocated to schools that are over-subscribed, the criteria they use often favour the wealthy. We have a system in which whoever can afford to live near to the good school has a much higher chance of getting in.
- Schools currently operate a very wide range of priorities and criteria vary across the country, but "distance from the school", is predominant, either in terms of straight-line distance, or catchment-based criteria. Balancing the trade-off between prioritising a sense of community in schools by accepting those who live closest, and ensuring fair access is difficult, but the current system is skewed entirely towards the former.
- There is robust evidence from a range of countries, including England, showing that house prices reflect the quality of schools nearby, because buying the house also buys access to that school, given that proximity is so key to school admission.
- This results in high levels of socio-economic segregation across schools. Addressing this
 segregation and enabling more mixed and balanced pupil intakes are likely to be beneficial,
 not just in terms of social cohesion, but also balancing out the attractiveness of schools for
 teachers.

- Given the advantages in terms of fairness of more mixed intakes, what are alternative policies that could make a difference? A number are considered in detail:
 - Marginal ballots This is where a substantial proportion of school places would be allocated as normal (as few as 50% up to as many as 90%), and the remaining places would be reserved for a random draw among un-accepted applicants, giving an equal chance of access, regardless of any other factors.
 - o Simple priority for disadvantaged families Another option is to reserve a number of places for applicants from less well-off backgrounds, for example based on eligibility for the Pupil Premium. This is already legal and being done in some schools.
 - o *Banding tests* Already operating in a number of schools, a school sets a test for all applicants, and admits equal numbers of pupils from each 'band' across the ability spectrum. As disadvantaged pupils are often lower on this spectrum, it may increase the number of such pupils admitted.
 - Simplifying the conditions for demonstrating religious observance Faith schools are often among the most socially selective, partly as a result of the frequently complex faith criteria that families must meet in order to be admitted. Simplifying those criteria to an agreed binary measure of religious observance could help to make this process more straightforward, and reduce barriers to entry. But this alone cannot act as a tie-breaker to determine admissions, and either distance or the random ballot would still be needed.
 - More complex schemes Some other schemes are already in existence, including a 'multiple node' based proximity criterion in Birmingham.
- All proposed reforms have pros and cons in terms of practicability for schools and parents and
 the likelihood of success in balancing the socio-economic backgrounds of intakes at
 oversubscribed schools. The authors believe that a marginal ballot approach has the greatest
 chance of success, among both schools and parents. But the school system is significantly
 decentralised, and crucial to any reform is consulting with and building a consensus among
 schools, multi-academy trusts and local authorities. This is what the Sutton Trust aims to do.

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Introduction

Every year in England, each of around 630,000 pupils turning 11 needs to be assigned to a place in a secondary school. But which particular school? While there are enough places overall, for most pupils there are several schools that they could feasibly attend. The procedure to allocate each pupil to a specific school is a key part of any education system. In England, we have a system of school choice. Families are not simply assigned a school; they submit an ordered list of preferences for schools. These preferences can be decisive, but often high-performing, popular schools are over-subscribed and a set of priorities has to be used to determine which children are admitted. These priorities lie at the root of the unfairness in the system that we illustrate below. Among these priorities, living very near the school typically remains the key factor in determining access. This generates a house price premium close to more desirable schools and this in turn generates inequalities in access to high performing schools based on family income.

The process of allocating pupils to schools is potentially problematic. At the very least, this is a significant logistical challenge. But if schools matter for pupil achievement, then it is a task heavy with implications for each child's future since going to a "good" (high-performing) school makes a difference to outcomes such as their qualifications, occupation, wellbeing and earnings. While clearly policy should aim to make all schools high-performing, at any one moment that's not the case, and the way a society chooses to assign pupils to schools makes a difference to the level of inequality. For example, if the assignment mechanism means that children from richer families are more likely to get the places in high-performing schools, then that will tend to increase inequality. Further, if there are positive peer effects, since children from richer families tend to have higher levels of achievement, clustering more advantaged students together in the same schools further advantages them. So school allocation matters.

The English School Choice System

Different countries process this assignment problem in different ways, but in England we have used a choice-based approach since 1988. An advantage of school choice is that it enables parents to potentially have more say in their child's schooling. It may also make schools more responsive to the desires of parents and children in order to attract applications to the school (funding in such systems is generally linked to enrolment). This leads to the claim that school choice can drive up standards overall; in this report we are concerned with fairness in access, and we do not go further into this debate here.²

The system works as follows: families are invited to state their preferred schools, and these choices influence but cannot always fully determine the school a child is assigned to. This is because many schools have more applications than places, some dramatically so.³ This brings into play the other part of the system – schools' priorities for pupil admission. In cases where a school is over-subscribed, a set of criteria have been chosen to act as tie-breakers and to determine which children are admitted. These priorities are, by law, published. And the nature of the priorities that schools can use are tightly

¹ 75% of families have 3 schools within 3.5km of home, and 75% of families have 5 schools within 5.1km.

² See Burgess (2017) for a discussion of different admissions systems and evidence.

³ For example, in the data we use, some schools are over-subscribed by over 200%, and overall just under half of schools are over-subscribed.

constrained by legal restrictions, as set out in the National Admissions Code, and policed by the Schools Adjudicator and ultimately by the Secretary of State for Education. Priorities for admission are determined by local authorities for community schools and by schools themselves in the case of academies and free schools.

Typically, these priorities include whether the applicant has an elder sibling in the school, whether the applicant is a Looked After Child (in the care system), and so on. Location or distance from the school is often a key criterion. These priorities are the key focus of this paper so we discuss them in more detail below. First, we present the evidence for reform.

Inequalities arising from the school choice system

We start by clearly demonstrating the need for the reform of school admissions⁴ by considering the rather unequal outcomes that arise from the current school choice process. To do this, we want to focus attention on the choice process and to abstract from the consequences of variations in local school quality. For example, it may be that some children end up in low performing schools simply because there are no highly effective schools around them. We can do this statistically by taking account of, by controlling for, the academic quality of the highest performing school in the neighbourhood. Doing this, for two children facing the same local school effectiveness options, the difference in the quality of the school they attend will largely be due to the operation of the school choice process.

We find very substantial and significant differences in access to schools. We use data⁵ on the whole cohort of pupils in 2015/6 moving into secondary schools, and simply look at the performance measure of the school each child ends up attending, the performance measure of their best local school, and whether the child comes from a disadvantaged family (is eligible for the Pupil Premium).⁶

Controlling for the quality of the best local school, and all local authority factors, we find that children from disadvantaged families attend schools with a much lower proportion of children achieving the benchmark of at least 5 A* to C grades. The average score for this cohort was 59%. The gap in the academic quality of school attended between poor and non-poor pupils averages at 6.9 percentage points. To be clear this is a very substantial effect; in technical terms, this is equivalent to 41% of the standard deviation. It is difficult to estimate the gain in pupil test scores that might result from giving more poor students access to higher performing schools. However, in the context of only around 30% of disadvantaged pupils achieving 5A*-C GCSE grades (including English and Mathematics) at this time, giving more of them a chance to attend schools where the proportion of pupils achieving this is on average 7 percentage points higher is likely to be important.

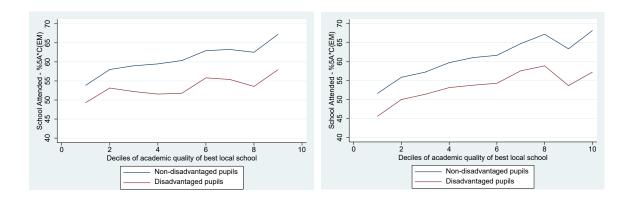
This disadvantage gap is also present throughout the range of quality of the best local school. Interestingly, the gap is bigger in neighbourhoods with higher performing schools; one interpretation of this is that those are the neighbourhoods where the competition for entry is strongest and the disadvantage of the poorer families is even more apparent.

⁴ This report is not about the 163 grammar schools in England. Much has already been written about grammar schools, (for example, Burgess et al. 2017; Gorard et al. 2018), and the evidence very clearly shows the grammar system to be deeply unfair in terms of access by lower income students. This report is about the roughly 2800 schools that are not grammars.

⁵ Supplied by the Department of Education.

⁶ For those interested in more detail, we have set out a bit more fully what we have done <u>here</u>.

Figure 1: Academic quality of school attended, by disadvantaged and non-disadvantaged children



Note: Deciles of the outcome measure of the highest scoring local secondary school. Left panel: local is within 7.5km of home, right panel: local is within 4km of home.

This separation of students from poor and rich family backgrounds into low and high performing schools matters for a number of related reasons.

First, schools do make a difference to children's academic success. Estimates vary, but about 10-20% of the difference in pupils' academic outcomes is down to the school they attended. Since academic achievement in turn strongly influences life chances, and particularly earnings, the effectiveness of the school a student attends potentially has life-long implications. In the US, where there is much better causal evidence on the importance of school, the differences in life trajectories arising from school academic quality are dramatic. School effectiveness might (or might not) have a lower impact in the UK, but in the absence of true causal evidence, it would be very unwise to assume "schools don't matter".

Second, school segregation by family income also has implications for social mobility; that is, the extent to which a student's family background determines their own success. If a student's chance of attending a high performing school is determined by their family income, this will clearly act as a major brake on social mobility. Further, we might also worry about the social and political implications of students from different socio-economic backgrounds being educated separately. This does not seem optimal for building a fair and cohesive society.

Why does the school choice system lead to inequalities?

A school choice system requires parents to make an active decision, which many criticise for adding to the burden of parents who have to make difficult choices. Many also believe that it increases inequalities and social segregation in schools, since richer parents may be better informed about their options. Our research suggests however, that the main driving source of unfairness, i.e. unequal access to high performing schools by socio-economic background, arises from the nature of school priorities, rather than due to lower income parents having different preferences for schools. This is consistent

⁷ See for example Dobbie and Fryer (2009) on the charter schools associated with the Harlem Children's Zone (HCZ); Abdulkadiroğlu et al (2011) find large and significant gains in attainment in both middle school and high school; in a related paper, Angrist et al (2010) focus on a school belonging to the largest charter group, the Knowledge is Power Program, and show huge gains in attainment.

with previous research which has suggested that socio-economic segregation across schools did not increase substantially, following the introduction of school choice in 1988. In other words, prior to the introduction of school choice, pupils were allocated to their nearest school, and this resulted in socio-economic segregation across schools. After school choice was introduced, because of the central role of geographic proximity in determining access to high-performing schools, there was no major change in the level of socio-economic segregation. This is consistent with the allocation mechanisms being key, in terms of reforming the system to make access more equal.

Using data on the secondary school choices of all the children in England in 2015/16, we show that most parents do have a choice of school (see Burgess et al. 2019). A large proportion of parents use the school choice system pro-actively to secure a preferred school for their child. They do make choices and even more crucially they select schools with high academic quality. For example, 65% of parents make more than one choice, and 27% make the maximum choices permitted. Perhaps surprisingly, the maximum number of choices that a parent can make varies by area, generally three or six, with parents in London and some other urban areas able to make more choices. In Southwark for example, 31% of parents make the maximum choices permitted, which is six; in very rural areas such as Northumberland only 20% make more than one choice. It is also not the case that parents just choose their local school. Perhaps contrary to expectations, only 39% of parents put their nearest school as top choice; in fact, only 55% put their nearest school as any choice. This strongly suggests that parents are making active decisions not to just enrol their child in the nearest school. Another clear indication that parents are using the system as intended is that they are far less likely to choose their local school if it is a low performing school. For example, on average the schools that parents choose when they avoid their local school have 20% higher levels of attainment.

A positive aspect of this school choice process is that when parents do make more choices they tend to get an offer of a place at a school that is higher performing than parents who make fewer choices. For example, comparing those who are offered a place at their first-choice school, the percentage of pupils in the school achieving 5 A*-C is 62% for those who make one choice compared to 68% for those who make six choices. This is likely to be because when a parent has more options they can make, they will tend to be "ambitious" in their choices, going for that high performing school safe in the knowledge that if they don't get in to that school their other choices make good alternatives, or at least secure ones. Indeed, those who make more choices are also offered higher performing schools even if they end up being allocated to one of their lower ranked school choices (for example their second or third choices). Some have argued that the major downside of this system of choice is that poorer families will tend to engage less in the process, make fewer, less informed or more local school choices, and hence they will tend to end up in lower performing schools. The data refutes this to a large extent: families eligible for free school meals, on average, make as many choices as richer families; are as (un)likely to choose the local school; and take account of school quality in their choices.

School choice is therefore not a sham, and it does reward those parents who engage with it.

But it clearly does not work well for poorer families. This is not because school choice is a flawed system in itself – we have just shown that poorer families use the system to the same degree – but because when children are allocated to schools that are over-subscribed, the criteria they use often favour the wealthy. We have a system in which whoever can afford to live near to the good school has a

⁸ This result is from Allen and Vignoles, 2007. See Gorard (2009) for an ongoing debate about how best to measure socioeconomic segregation across schools.

much higher chance of getting in. This criterion is not the only way to allocate pupils to schools. This is what needs to be reformed, rather than abandoning the idea of choice altogether.

Options for reform

In order to reduce inequalities in access to high-performing schools, the ideal aim of reform should be to design a system that separates priority from income. The goal should be to ensure that students whose parents cannot afford to live close to high performing state schools are not excluded from accessing them.

Schools currently operate a very wide range of priorities and criteria vary across the country. Just as an illustration, while almost all schools use some version of "distance from the school", there is considerable variation in the form. For example, many schools use straight-line distance, and others use catchment-based criteria – common in Cambridgeshire (85%), but rare in Birmingham (12%). In the latter, many schools are grammars and hence using test score criteria, as well as faith-based criteria. Around 8% of schools in Birmingham use combinations of criteria, such as prioritising pupils who meet faith or selection criteria and who are lower income students, i.e. eligible for the Pupil Premium. Hence the system is undoubtedly complex, not least for parents to understand.

Nevertheless, the vast majority of schools use geographical proximity as a major criterion for entry. This is the most problematic precisely because it penalises those without the means to live near to good schools. While politicians arguing about raising social mobility declare that 'where you come from should not affect where you end up', it is explicitly written into the regulations of the education system that it does.

There is robust evidence from a range of countries, including England, showing that house prices reflect the quality of schools nearby, because buying the house also buys access to that school given that proximity is so key to school admission. For example, in England, one study showed that an increase in school test scores of one standard deviation increases house prices by 3% around primary schools that admit students on the basis of proximity, and showed that there is no such impact around schools that do not use proximity as an admissions criterion. This phenomenon is also evident from the attention paid to school quality in the information that estate agents provide to potential buyers. For example, the estate agent 'Rightmove' lists nearby schools and links to information about their quality, so this is clearly an issue of great interest to potential house buyers.

We should recognise that there is an important trade-off from including proximity to a school as part of an admissions system. On the one hand if proximity is a criterion, this may help to foster a strong sense of community around the school and neighbourhood. Children both learn together and play together; parents meet each other at school and in their street; families can help each other with homework, with lifts and can share knowledge of the school. This feeling of community is probably valued by a lot of families, though arguably more at primary than secondary level given the large size of most secondary schools. On the other hand, if access is determined by the ability to pay higher house prices, this will be exclusionary and may increase neighbourhood segregation. It will definitely reduce the likelihood of access by families outside the immediate neighbourhood, and from poorer families hoping to move in. This trade-off was discussed by the Mayor of Boston and others in that city's debates on the use of proximity priority. Crucially there is also a potential benefit for pupils, teachers

⁹ See Black and Machin (2011).

 $^{^{10}}$ See Gibbons et al. (2013).

 $^{^{\}scriptscriptstyle 11}$ See Dur et al (2013).

and schools from more mixed intakes, in terms of socio-economic background. We have already rehearsed the advantages for pupils, in terms of potential gains in achievement. Further, high levels of socio-economic segregation across schools mean that in some schools there are a large number of pupils with very high levels of disadvantage, with the additional challenges that this poses. More mixed and balanced pupil intakes are likely to be beneficial, not just in terms of social cohesion, but also in terms of the attractiveness of schools for teachers and the overall educational environment.

Given these advantages of more equal access to high performing schools, what are the alternatives for reforms to school admissions priorities? We should start by noting that we are not proposing reform to some current priorities, such as priority given to Looked After Children or those with Special Educational Needs and Disabilities. Clearly these particular criteria are likely to improve fair access for specific groups of children. Other criteria are vital for family life, such as enabling siblings to attend the same school. Leaving such criteria as they are, we consider the following options for reform:

- 1. Marginal ballots
- 2. Simple priority for disadvantaged families
- 3. Banding tests
- 4. Simplifying the conditions for demonstrating religious observance
- 5. More complex schemes

1. Marginal ballots

The challenge for reform is to devise a priority that cannot be bought, that is independent of family income. One obvious possibility is to give every applicant a random number and use that to determine the order of who gets admitted. The further challenge is to integrate that random allocation with a school's existing priority structure. This is necessary to abide by the Admissions Code, but it is also desirable to acknowledge that a desire for some sense of community in a school is valid.

One solution that we propose here is a marginal ballot. ¹² This would work as follows. For the majority of a school's places, the existing priority would operate as normal. However, the school would have reserved a fraction, say 20%, of its slots to be determined by random draw. All applicants to the school, excluding obviously those already accepted through the standard priorities, would be given a random number, regardless of any other priority status at the school. This would be used to rank applicants to fill up the remaining 20% of places in the school. For example, consider a school with 200 empty places to fill, and 300 applicants, and using the 20% rule. Assume 50 places would be filled by siblings, Looked After Children and children with Special Needs. If the school operated a proximity rule, then the next 110 places, from 51st to 160th, would be filled up, in order of proximity, by those living closest to the school. Finally, the remaining 40 places would be available to the 140 (300 – 160) unplaced applicants, each with a 29% (40/140) chance of getting in. The probability would be equal for all the 140 and would be unaffected by how near they lived (or anything else). In terms of proximity, the nearest 110 applicants would get in, rather than the nearest 150. This gives the plan its name: the ballot operates on the margins of the catchment area around the school. This has a number of implications, which we discuss below.

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¹² See Burgess (2016).

Why 20%? The proportion allocated on the basis of a ballot could be higher or lower depending on the preference for a balance between admitting local children to build a "sense of community" on the one hand, and ensuring a diverse intake and providing "fair access" on the other. Indeed, the Sutton Trust has made the argument for a 50% ballot. The higher the fraction of places decided by the existing priorities (and the lower by ballot), the more weight is on the former and the less on the latter. A 50:50 split of admissions is a more radical change in the balance with a lot more access available to those living a little further away from the school. Reserving 10% for admission by ballot represents a slower pace of change. Both of these aspects are hard for policymakers to evaluate - a strong sense of community and fair access. But as with any trade-off, it seems unlikely that the optimum position is at either extreme. Yet that is where our current system places us: a lot of weight on proximity and zero weight on fair access. Tipping the balance back a little the other way, while preserving an important role for community, opens the door to less advantaged families from further away.

Clearly a number of detailed design issues would need to be resolved. Not least, as above, the fraction of places not allocated by priority. Second, a detailed study of the school admissions procedures in Boston¹³ shows that there are subtle precedence issues to consider in designing schemes of this general type; the proposal we outline above uses a different approach 14 and is not subject to the same critique. Third, there are questions of whether to run one-off school-by-school ballots, or a single coordinated local authority (LA) ballot; while each approach has pros and cons, the former seems to fit better in a world where only a minority of secondary schools are run by LAs. Each school would have to run its ballot in a totally transparent way with the data made available for scrutiny.

The use of ballots for school admission is not new, nor particularly exotic. Many school districts in the US have successfully used ballots for many years. In England, their use by individual schools is uncommon but not rare. As far as we know there has been no large-scale evaluation of the impact of the latter. A more prominent example of the use of lotteries in England was their introduction by Brighton and Hove in 2007. This was a very different approach, which operated at LA level and was accompanied by the use of newly created catchment areas. While there was much interest in the outcome, the early impact on pupil segregation was shown to be disappointing. 15 While there was convergence in intakes in the two catchment areas with two schools in, across the city as a whole, segregation did not fall. The new admission system did not give equal chances to all pupils in the city because it prioritised those who lived within catchment areas. Certainly, the design of the catchment areas was crucial to the outcome, and so overall the reform may increase or decrease the degree of school segregation. This is not the sort of reform that is being discussed here. And furthermore, the use of area-wide random allocation was ruled out as a principal criterion by the 2012 Admissions Code.

One practical challenge with this approach, which may be key to implementation and perceptions of fairness, arises from precisely the mechanism that generates the unfairness in admissions. Under the current system, where proximity is important, some families will have paid substantial premia for their houses near to the school, as they come with an entry ticket into the school. A change of admissions policy, removing or diluting that right of access, would be likely to lead to a considerable fall in the value of those houses. The extent of this fall depends on the balance of admissions between proximity and ballot. If all places were allocated by ballot then the house near the school holds zero benefit

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¹³ See Dur et al (2013).

¹⁴ Briefly, the assignment of the priority-based places is by strict distance proximity, not by ballot number; the ballot is schoolspecific and is only run on non-placed applicants.

15 See Allen et al (2013).

(beyond the short school commute) and much of the premium would probably be lost; we do not propose going down this route. If 90% of places were reserved for those living nearby and just 10% were by ballot, it is only around the furthest perimeter of the catchment area that any difference would be felt. Here the house price premium is likely to be lower since there would already be uncertainty about admission since in years with larger numbers of applications the likelihood of entry would be reduced. There appears to be little direct evidence on the decay of the house price premium over distance from the school. A study for primary schools in London¹⁶ shows a sharp decline in prices by distance from the school, the premium halving over just 600m. While the distances would likely be higher for secondary schools, the hit to house prices from any marginal ballot would be considerably lower at the margins of the catchment area. In our data, the median distance from home to first choice school was 1.9km, and 25% of families made a choice over 3.8km away.

We anticipate that local and national political opposition would increase markedly as the house premium loss increased with a higher fraction of places decided by ballot. This issue is not limited to the marginal ballots approach: every reform that reduces the chances of those living close to the school being admitted, will necessarily impact on house prices. The marginal ballot approach may in fact imply a smaller effect than other of the approaches discussed here.

Our personal view of the evidence is that there is much to recommend a marginal ballot approach, with perhaps 10% or 20% of places reserved for non-priority applicants. However, how the ballot is communicated to potential applicants is also key to avoid a rejection of a "postcode lottery" approach which is perceived to be a major problem in other public services.

In summary, a well-chosen ballot fraction would make a difference to the chances of admission to high-performing schools for those not able to live very close to the school gates. A well-chosen ballot fraction would also retain much of a sense of community at a school. With a marginal ballot, the impact on house price premia will be minimised, though this issue is undoubtedly a significant one. It is also argued that a ballot introduces uncertainty which may be undesirable. However, this uncertainty would largely be limited to those with uncertainty anyway, those living on the margins of the catchment area. Those living outside the school gates will still for sure be admitted. However, again it is undoubtedly an issue. We would argue however, that for those with currently zero chance of entry into the high-performing school, "uncertainty" means instead at least some chance of entry.

2. Simple priority for disadvantaged families

If, as we argue, children in lower income households are less likely to access high performing schools because their parents cannot afford to "buy in" to the catchment area, then clearly another option is to have an admissions criterion that accounts for family income. The benefits of doing this are already recognised by the fact that it is currently legal for schools to prioritise pupils from poorer households. From 2014 the admissions code enabled schools to admit students on the basis of their eligibility for the Pupil Premium (PP, additional funding provided to schools for children who register as being on low family income). For example, the University of Cambridge primary school prioritises children who are eligible for the PP (after current or previously Looked After Children and those with specific

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¹⁶ See Gibbons and Machin (2006).

¹⁷ Schools are paid an additional sum for every PP child they admit in recognition of the fact that such children often need additional support. Primary schools are paid around £1300 per pupil eligible for the PP, whilst secondaries are paid just under £1000. However, whether the PP fully covers the additional costs is unclear. See Foster, D. and Long, R., 2020. The pupil premium. https://dera.ioe.ac.uk/34939/1/SN06700.pdf

medical needs). In Birmingham, a number of grammar schools who admit pupils on the basis of test scores opted to prioritise pupils eligible for the PP even if they had somewhat lower scores, amidst much controversy. Schools that prioritise pupils who are eligible for the Pupil Premium often do so up to a pre-specified quota of places, to avoid skewing the pupil intake too much in the direction of low income pupils. We would also note that prioritising on the basis of PP status is a phenomenon that has emerged in the last five years or so but is, according to our on-going research, not widespread.¹⁸

How one identifies children from poorer households is however problematic. ¹⁹ A person can become temporarily eligible or not eligible for the PP due to changing circumstances in a parent's work arrangements. Yet the underlying economic circumstances of that child will not have changed much even if the parent moves in and out of work. This is why eligibility for the PP is based on whether or not the child was ever eligible for Free School Meals in the previous six years. Even this is, of course, is relatively arbitrary. Many working poor families with very low incomes but who are not eligible for the PP will not be picked up in this measure. Yet these poor families will hardly be in a position to increase their mortgage or rent to access a high performing school. Hence prioritising on the basis of PP essentially prioritises the bottom quarter of students, or thereabouts, but does nothing for the larger group that are income constrained and yet not eligible for the PP. There is also a group of students who are eligible for Free School Meals but who choose not to register for them, perhaps for stigma or other cultural reasons (estimated to be one in ten of potentially eligible children). ²⁰ In sum, identifying the right children who are experiencing persistent low income is more challenging than it looks. This is not of course a reason to discount a prioritisation system based on family income but it is a practical hurdle.

Schools may also be reluctant to prioritise on this basis and many might want to limit the number of places allocated on the basis of PP to be sure of a balanced intake. On average, pupils eligible for the PP have lower levels of prior achievement, are more likely to have special educational needs, and their education is likely to cost more in various ways. Indeed, the existence of the PP scheme is an acknowledgement of this issue. Whether admitting a significant number of students who will, on average, lower a school's performance in raw league tables, outweighs the financial benefits for schools is debatable. So if we are going to prioritise children on the basis of their family income, it needs to be done fairly across the whole system. Allowing schools to decide individually seems inappropriate given the spill-over effects that a decision will probably have on neighbouring schools. And the fact that very few schools have yet taken up the legal right to do so suggests that there may not be widespread enthusiasm for this approach. So with this approach it would be important to at least get area wide agreement (say at local authority level) that all schools might follow similar criteria. This may clash with the agenda for increasing school autonomy, but is nonetheless worthy of serious consideration.

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¹⁸ In the data we have collected so far, around one in ten schools in Birmingham prioritise PP pupils in some way (often combined with test criteria). Again mindful we do not have data on the whole system, in the LAs for which we do have data, around one in twenty schools mention Pupil Premium in their admission criteria.

¹⁹ See Ilie et al (2017).

²⁰ See Social Mobility Commission (2019).

²¹ Whilst some research suggests social segregation across schools has declined somewhat since 2011 it is hard to determine whether this is linked to the change in the admissions code – not least since the code was not changed until 2014. We are undertaking research to establish precisely how many schools are prioritising PP students and whether this appears to have reduced socio-economic segregation. See Gorard et al (2019).

3. Banding tests

The primary aim of banding tests in school admissions is to achieve a comprehensive intake in terms of academic ability. Typically, a school sets a test for all applicants and admits equal numbers of students from each ability band (usually quartiles). This ensures a range of ability in the school, central to the ethos of the comprehensive schools' movement. Given that poorer students have, on average, lower levels of prior achievement, this approach would tend to ensure greater social mixing than a criterion based on geography.

This approach admits pupils across the range of ability of those who apply. However, this may or may not be representative of the whole local population of pupils. If a school disproportionately attracts from a particular socio-economic segment, the "range" of ability may not be all that broad. Research has also suggested that disadvantaged families may be less likely to enter their children for the banding test.²²

The use of banding was relatively rare in 2012; a Sutton Trust report found 121 schools using it. It is likely to work best with agreement among all local schools that most of the pupils in a neighbourhood take the same test, to ensure a much more representative range of ability in each school.

But in terms of our interest here, it is clear that banding tests cannot act as tie-breakers, cannot act as clinching over-subscription criteria. Some other criterion is required as well. Suppose 200 pupils apply to a school with 100 open places. The 200 pupils take the test and are split into four equal groups of 50; the school can only admit 25 from each group. Some other criterion has to pick those 25. It cannot be the test scores themselves: it is central to the spirit of banding tests that a pupil's individual score cannot be taken into account, beyond which band s/he falls into. So whilst banding may well be a useful way to ensure a more balanced intake, in terms of prior achievement, it would need to be combined with some other kind of tie-break criteria. We would need a measure that ranks applicants and acts as a tie-break within each band. In practice this means either proximity or random allocation is still required.

4. Simplifying the conditions for demonstrating religious observance

Around a fifth of secondary schools are faith based, broadly defined to include both Voluntary Aided, ²³ Voluntary Controlled and other types of state funded schools that use faith as a criterion for entry. ²⁴ At these schools, the proportion of children who are eligible for the Pupil Premium is marginally below the national average, 13% rather than 14% in 2018. ²⁵ This raw statistic does not however, take account of where such schools are located. Taking full account of the neighbourhoods in which such schools were located, evidence has clearly showed that faith schools enrol pupils who are both more socioeconomically advantaged and higher ability than pupils in the neighbourhood around the school. ²⁶ The research suggested that a community school was, on average, likely to enrol far more poor pupils than a faith (Voluntary Aided) school in the same neighbourhood. The Fair Admissions Campaign has also

²² See Sutton Trust (2014).

²³ These tend to be Roman Catholic schools. Voluntary Controlled schools tend to be Church of England schools. Other faith schools are a mix of other types of school, including free schools and academies. More recently established faith based schools have restrictions on the proportion of places that can be allocated on the basis of faith (50%).

²⁴ https://dera.ioe.ac.uk/34765/1/SN06972.pdf

https://dera.ioe.ac.uk/34765/1/SN06972.pdf

²⁶ See Allen and West (2011).

documented a range of evidence supporting the view that faith schools are more socially and ethnically selective than community schools.²⁷

Whilst this evidence does not prove that such schools are selecting pupils on the basis of socio-economic status, it is striking, particularly given that our own research has shown that parents from lower socio-economic backgrounds do value school performance. On average, faith-based schools tend to be higher performing, not least because of their more advantaged intakes. For example, in 2018 the average test score for faith-based schools was 5% higher than in non-faith schools. So the question is how is it that such schools have such a low proportion of poor pupils enrolled in them? One possibility is that poor students do not live near enough to faith based schools. An alternative explanation is that poorer parents are less able to navigate the admissions process or are disadvantaged by the religious criteria.

At the moment, schools are permitted to impose complex and quite different criteria on applicants to judge religious observance. For example, the admissions criteria of a fairly typical (anonymous) faith school in an urban area states that it will rank applicants according to their observed religiosity. A lengthy annex details how religiosity might be judged, with 10 distinct categories of religious practice, including varying degrees of attendance at church (by both parents and child). It explains that "late" baptism will only be considered under extenuating circumstances and otherwise would be taken to indicate lack of religious observance of both child and parent. It then encourages the applicant to explain in detail how they can evidence their religious practice. A text box is provided for that purpose, leaving it open for more savvy or literate parents to perhaps explain their religious practices in more detail or in a more convincing manner. There is clearly scope for manipulation either by the parent or the school in terms of demonstrating religiosity and this might tend to favour more advantaged pupils.

For faith schools therefore, a relatively simple but perhaps highly controversial change would be to simplify the criteria required to show religious observance. One approach would be to only permit binary judgements in terms of religious criteria, for example that "regular church going" (simply and clearly defined) would be the only permitted criterion. This would make it easier for parents to understand whether their child is really eligible. Whether making the criterion simpler would increase access by low SES groups of students is hard to say, but it would make the application process more straightforward.

While this change may reduce the social difference in those claiming religious observance, it is also likely to severely reduce its value as an admissions criterion, as a tie-breaker. If a significant fraction of a school's applicants have the same priority status (religious observance), then this obviously cannot be used to discriminate between them. The system is then thrown back on to using some other criterion that will differentiate applicants. So again, whilst this issue deserves serious consideration, it would not solve the issue entirely. In the end, there has to be a continuous measure – and that means either distance or ballot. The simplification of demonstrating religious observance may well be desirable, but it does not solve the problem of relying on proximity. In fact, switching to a binary indicator of religiosity may actually increase the reliance on geographic proximity as a tie breaker in faith schools and worsen socio-economic segregation, if poorer families find it easier to demonstrate religious observance than to purchase houses near to oversubscribed schools.

 $^{^{27}\ \}underline{\text{https://fairadmissions.org.uk/wp-content/uploads/2017/08/2017-08-29-FINAL-Religious-Selection-Research-Survey.pdf}$

5. More complex schemes

Our on-going data collection of schools' admissions priorities has already revealed substantial diversity and innovation in practice. Some of these may well be helpful in reducing the access gap for high-performing schools. We cannot provide a full catalogue of such schemes here but present one case as an illustration.

The Birmingham University Free School has a very innovative admissions scheme. Its uses proximity like so many other schools, but unlike most it uses proximity to multiple nodes in the city: "Rather than having a catchment area, we take pupils from four 'nodes' across Birmingham". 28 Priority is determined by "[straight line] distance between applicant's home address and the nodal points set out below", followed by four postcodes.

This clear and innovative attempt to use priorities to admit a diverse and socially balanced intake is to be lauded. Such innovations should be considered and indeed evaluated. Our personal view, however, is that very complex criteria may not be sustainable on a systemic level. They might end up being too complex and unwieldy to use for many inter-locking schools. It may also pose a risk that some children would not have access to any schools within a reasonable distance due to the intersecting and complex geographic criteria used by schools.

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²⁸ https://uobschool.org.uk/wp-content/uploads/2019/11/UoBS-Admissions-Policy.pdf

How can we move forward with reform to the system?

We have argued that, whilst many factors influence pupils' attainment, schools do matter. It should therefore be of concern that access to high performing schools is strongly influenced by a child's socioeconomic background. Equally, we acknowledge that schools are communities themselves, and need a clear link to their local neighbourhood to build that sense of cohesion. Hence some geographic access criteria will typically be necessary, not just for practical reasons (e.g. minimising the carbon footprint of the school commute) but also to ensure that a school is of its community. However, the trade-off between equal access and sense of community is very skewed in our system, and we have suggested a number of alternatives that might attempt to rebalance school intakes. Our personal view is that there is much to commend a marginal ballot approach that will help to reduce, at the margin at least, the ability of parents to buy access to high performing schools. It will give a wider range of children at least some chance of accessing these schools. Depending on the proportion of places allocated by ballot, it will affect a minority of households on the margins of school catchment areas who would not have had certain access anyway. Properly and simply communicated it should be understandable, and one would hope acceptable, to all parents.

Whatever particular reform or combination of reforms are adopted, how can admissions policies actually be changed? A universal, national route is to change the School Admissions Code. This has generally specified what schools cannot do, but also describes what they must do. Adding a clause requiring over-subscribed schools to adopt a particular approach is likely to be an effective way to change the system. For example, the code might require schools to reserve a minimum portion of their places for non-priority applicants, which would ensure that all schools were operating on a level playing field in this regard. A centralised approach would mean less imbalance in local communities of schools and would make the system much easier for parents to understand. If the ballot approach was adopted, a centralised change would also facilitate the use of a single ballot draw across all schools, increasing transparency and reducing uncertainty for parents.

But our school system is now decentralised and, to a degree, atomised. Over half of secondary schools are academies and make their own decisions about admissions criteria (subject to the code). Central government is much less involved in instructing schools what to do. Many schools are in multi-academy trusts (MATs), of varying size, and many are in quite small groups. Given this is the landscape, a more organic and decentralised approach to admissions reform is to seek to persuade schools, MATs, and local authorities to change their priorities. This is a particular emphasis for the Sutton Trust's work over the next year.

Finally, as researchers, we strongly suggest that changes to schools' admissions regulations need to be piloted and thoroughly evaluated. The impact on actual school attendance and later pupil outcomes needs to be assessed, as well as checking for potential side-effects of reforms.

References

Abdulkadiroglu, A., Angrist, J., Dynarski, S., Kane, T. and Pathak, P. (2011) 'Accountability and Flexibility in Public Schools: Evidence from Boston's Charters and Pilots.' *The Quarterly Journal of Economics*, vol. 126 (2), pp. 699–748.

Allen, R., Burgess, S. and McKenna, L. (2013) The short-run impact of using lotteries for school admissions: early results from Brighton and Hove's reforms. Transactions of the Institute of British Geographers, 38(1), pp.149-166.

Allen, R. and Vignoles, A., 2007. What should an index of school segregation measure?. *Oxford Review of Education*, *33*(5), pp.643-668.

Allen, R. and West, A. (2011) Why do faith secondary schools have advantaged intakes? The relative importance of neighbourhood characteristics, social background and religious identification amongst parents. British Educational Research Journal, 37(4), pp.691-712.

Angrist, J., Dynarski, S., Kane, T., Pathak, P. and Walters, C. (2012) 'Who Benefits from KIPP?' Journal of Policy Analysis and Management Volume31, Issue 4 vol 31(4) pp. 837 - 860

Black, S.E. and Machin, S. (2011) Housing valuations of school performance. In Handbook of the Economics of Education. Vol. 3, pp. 485-519. Elsevier.

Burgess, S., Greaves, E., Vignoles, A. and Wilson, D. (2015) 'What parents want: school preferences and school choice' Economic Journal vol. 125 (587) pp. 1262 – 1289

Burgess, S., Greaves, E., and Vignoles, A. (2019) 'School choice in England: evidence from national administrative data' Oxford Review of Education. Vol. 45(5), p. 690-710

Burgess, S. (2016) 'School postcode ballot: how to improve the odds for poorer children. The 'Conversation. 26/1/2016. http://theconversation.com/school-postcode-ballot-how-to-improve-the-odds-for-poorer-children-53335

Burgess, S, (2017) 'Education Systems: Assignment, Admissions, Accountability and Autonomy' in Economics without Borders, (Edited by Matyas, L., Blundell, R., Cantillon, E., Chizzolini, B., Ivaldi, M. and Leininger, W.). CUP, Cambridge.

Burgess, S., Crawford, C. and Macmillan, L., 2017. Assessing the role of grammar schools in promoting social mobility. Department of Quantitative Social Science Working Paper, pp.17-09.

Dobbie, W. and Fryer, R. (2011) 'Are High Quality Schools Enough to Close the Achievement Gap? Evidence from a Social Experiment in Harlem.' American Economic Journal: Applied Economics, vol. 3(3)

Dur, U., Kominers, S., Pathak, P. and Sönmez, T. (2013) 'The Demise of Walk Zones in Boston: Priorities vs. Precedence in School Choice'. NBER WP 18981, NBER.

Foster, D. and Long, R. (2020) The pupil premium. House of Commons Briefing Paper no. 6700. https://dera.ioe.ac.uk/34939/1/SN06700.pdf

Gibbons, S. and Machin, S. (2006) 'Paying for Primary Schools: Admission Constraints, School Popularity or Congestion?' Economic Journal Conference Papers, Vol. 116, No. 510, pp. C77-C92.

Gibbons, S., Machin, S. and Silva, O. (2013) Valuing school quality using boundary discontinuities. Journal of Urban Economics, 75, pp.15-28.

Allen, R. and Vignoles, A., 2007. What should an index of school segregation measure?. *Oxford Review of Education*, *33*(5), pp.643-668.

Gorard, S. and Siddiqui, N. (2018) Grammar schools in England: a new analysis of social segregation and academic outcomes. British Journal of Sociology of Education, 39(7), pp.909-924.

Gorard, S., Siddiqui, N. and See, B.H. (2019) The difficulties of judging what difference the Pupil Premium has made to school intakes and outcomes in England. Research Papers in Education, pp.1-25.

Ilie, S., Sutherland, A. and Vignoles, A. (2017) Revisiting free school meal eligibility as a proxy for pupil socio-economic deprivation. British Educational Research Journal, 43(2), pp.253-274.

Machin, S. and Salvanes, K. (2016) 'Valuing School Quality via a School Choice Reform'. Scandinavian journal of economics. vol. 118(1) pp. 3-24.

Social Mobility Commission (2019) State of the Nation 2018-19: Social Mobility in Great Britain. p52.

Sutton Trust (2014) Ballots and Banding. https://archive.suttontrust.com/research-paper/ballots-banding/

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