

The effect of changes in published secondary school admissions on pupil composition

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This research report was written before the new UK Government took office on 11 May 2010. As a result the content may not reflect current Government policy and may make reference to the Department for Children, Schools and Families (DCSF) which has now been replaced by the Department for Education (DFE).

The views expressed in this report are the authors' and do not necessarily reflect those of the Department for Education.

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Executive Summary and Key Findings

Issue addressed by the research

- Schools differ widely in the social composition of their intakes meaning that children from more affluent families tend to be educated separately from those less affluent.
- The children of poorer parents tend to go to schools that perform less well.
- This suggests that poorer parents may have unequal access to good schools partly because of covert and explicit selection by schools.
- For these reasons admissions have been increasingly subject to regulation by successive Codes.

Aim of the research

- To investigate whether changes to the School Admissions Code in 2003 and 2007 concerning school admission arrangements have had any discernible effect on the social composition of English secondary schools.

Method

- The research links data from three surveys of secondary school admissions to all available years of the National Pupil Database (NPD).
- These surveys give us a snap-shot of arrangements in use prior to the 2003 Admissions Code, immediately following the implementation of the 2003 Code and following the implementation of the 2007 Code.
- We calculated changes in the free school meals eligibility (FSM), the school's prior attainment profile and the proportion of white British ethnicity pupils at the school for the years 2001/2 to 2009/10.
- Our analysis investigates the relationship between schools that used inadmissible admissions criteria and changes in school composition over the period of our analysis.

Key Findings

- The 2003 and 2007 School Admissions Codes appear to have been at least in part responsible for changes in social composition of pupils at schools with criteria and arrangements that were subsequently deemed inadmissible.
- These relationships still held once we had controlled for changes in neighbourhood composition.
- Contrary to expectations, school type was not strongly associated with change in composition.
- However, a significant number of the schools experiencing very large changes in composition were foundation or voluntary-aided and responsible for their own admissions.

Introduction

This research investigates whether changes to the School Admissions Code in 2003 and 2007 concerning school admission arrangements appear to have had direct effects on the published admissions policies and the social composition of particular schools. The effect of these changes in the Code have been indirectly captured by three surveys of school admissions brochures carried out by teams at the LSE (for 2001 and 2008 entry) and Sheffield Hallam University (for 2006 entry). Whilst changes in admissions have been described by researchers, to date these three databases of admissions policies and procedures have not been analysed alongside each other. Nor have they been combined with data relating to pupil characteristics. In this research we thus link the three survey databases of school admissions policies to pupil-level data contained in the National Pupil Database (NPD) in order to analyse changes in the social composition of year 7 intakes of pupils to secondary schools across England. In short, whilst generalised changes in admissions have been described by researchers, this is the first piece of research that investigates the specific effects that the Codes appear to have had on the social composition of individual schools over time.

Social segregation and admissions

In England, as in a number of other developed countries children from more affluent families tend to be educated separately from those less affluent. Jenkins *et al.* (2008) conclude that in terms of such social segregation England is a 'middle-ranking country'. In England the historic division between the maintained and private sectors with approximately seven percent of parents paying for private education is the most obvious manifestation, but state maintained schools of all types differ markedly in terms of the social and economic status of their intake (Sutton Trust 2006) and Jenkins *et al.* (2008) found it is the unevenness in social background in the state sector that mostly accounts for the social segregation of English schools. It is not unreasonable to take this as evidence of unequal access to 'good' schools. In addition there is evidence that more segregated education systems perform less well overall (OECD 2001, 2003).

The reasons for the social segregation of schooling are complex and deep rooted (Coldron *et al.*, 2010). Since the Education Act of 1980 and the Education Reform Act of 1988, successive governments have adopted parental choice and the development of a 'quasi-market' in school-based education (in England) as the preferred means for the general improvement of schools and enhancing the supply of high quality educational provision. Early studies suggested that the quasi-market reforms would cause the schooling system to become more segregated for three inter-related reasons: first, because parents from differing social backgrounds vary in how strongly they engage with the process of choice and how far they are able to negotiate the process; second, because parents from different social backgrounds appear to choose different schools on different criteria (including material resources available); and third, because schools, in response to market incentives, will look to select more socially advantaged pupils. In the case of schools, it has been argued that some such schools are more able and willing to do this than others partly because of differing admission arrangements. For example, it is possible for a school that interviews parents in order to determine their religious adherence also to

use this to favour more socially advantaged parents. Admissions criteria may also be used to deliberately discourage certain parents from applying to the school if they feel they are unlikely to meet the criteria. For example, the need to 'demonstrate' a commitment to the school or prove religious commitment through a marriage certificate could both discourage applications from some families.

Several studies have demonstrated that schools, particularly voluntary-aided and foundation schools, which control their own admissions have arrangements that offer the potential for social selection (West and Pennell 1997; Woods *et al.* 1998; West *et al.*, 2004; Coldron *et al.* 2008; West, 2006). Others have reported that local authorities where a larger proportion of schools are their own admission authorities also have above average school segregation and that both voluntary-aided and foundation schools are associated with a larger gap between the level of residential segregation and school segregation (Allen, 2007; Goldstein and Noden, 2003).

Early and more recent qualitative evidence and arguments that the introduction of market-like mechanisms into the process of school admissions is likely to increase segregation appeared strong, but subsequent quantitative studies did not find evidence of such an effect. Despite methodological disputes about the measurement of segregation, it is generally agreed that the unevenness in the distribution of free school meals (FSM) pupils across schools did not increase in the first decade following the 1988 Act (Gorard *et al.*, 2003; Allen and Vignoles, 2007). FSM segregation did appear to rise very slightly between 1999 and 2004, but the measure is very sensitive to changes in the economic cycle and so it would be unwise to attribute this rise to a change in education policy (Allen and Vignoles, 2007; Goldstein and Noden, 2003). Gibbons and Telhaj (2006) overcome the problems with the FSM measure by using the National Pupil Database (NPD) to show there is very little change in ability segregation between 1996 and 2002.

Nevertheless policy makers over the last decade have been persuaded of a dysfunction in the education market and of the need for regulation as opposed to guidance to prevent schools covertly selecting more advantaged students. As a result the regulatory machinery has been progressively strengthened. It has evolved between 1999 and 2009 through five codes of practice governing what arrangements admission authorities can put in place (DfEE, 1999; DfES 2003; DCSF 2007; DCSF 2009; DCSF, 2010). In addition the Office of the Schools Adjudicator has been created with powers to monitor and require compliance with the Code and Admission Forums are required to scrutinise all local admission arrangements. The key question this research seeks to answer is whether there has been any change in the composition of schools that might be attributed to the greater regulation of admissions.

The 2006 Education and Inspections Act introduced much stronger provisions on admissions, including the prohibition of pre-admission interviews, and the 2007 Admissions Code made mandatory certain provisions that had previously been 'guidance'. It also introduced a duty to 'promote' equity.ⁱ The work reported here focuses on the effects of some of these regulations governing admissions arrangements.

While the provisions of the 2006 Act predominantly addressed concerns with the behaviour of providers it also intended to address problems assumed to be hindering

choice for poorer and less well educated parents. For example, it outlawed payments associated with admissions and restrictions on the costs of uniforms; provided more subsidy for poorer parents to meet the costs of travel to more distant schools; and required LAs to offer advice on school admissions. It is possible that these measures could also have affected the social composition of schools making it more difficult to assess the independent effect of changes to admission criteria. We are not aware (as at June 2010) of any evaluation of the effects of the regulations on the costs of uniforms, nor on the changes to travel subsidies. We cannot therefore gauge how far they did or did not contribute to any observed changes to school intakes. In the case of Choice Advice (the most common way in which advice was offered) there has been a full evaluation, which found that the proportion of poorer parents gaining access to high performing schools as a result of contact with a choice adviser was extremely small and would not have significantly affected the intake of any one school in an area (Stiell *et al.*, 2008).ⁱⁱ Unlike regulations on uniform, travel and choice advice, admission arrangements directly affect the *relative* ease of access of schools in an area and are likely therefore to have a bigger impact.

It is important to stress that the research reported here is underpinned by the Codes in operation between 1999 and 2007. The 2009 and 2010 Codes did not come into force until 10 February 2009 and 10 February 2010 respectively.

Legislative and policy context

The 1998 School Standards and Framework Act established a new legal framework for school admissions. Two key mechanisms were introduced: a Code of Practice on School Admissions and the Office of the Schools Adjudicator. Schools Adjudicators have a specific role in determining objections to admission arrangements.

Parents/carers must be allowed to express a minimum of three preferences for publicly-funded secondary schools for their child, generally at the age of 11 years when they move from primary to secondary school (see DfES, 2007). They are required to complete a 'common application form' provided by and returned to their local authority. Some schools are permitted to seek additional information about prospective pupils, by asking parents/carers to complete supplementary information forms (SIFs). If there are fewer applicants than places available at a particular school, all those expressing a preference must be offered a place for their child.ⁱⁱⁱ If there are more applicants than places available, the school's published oversubscription criteria are used to determine which children are offered a place.

Legislative framework

Admission authorities (the local authority or the school, in the case of schools responsible for their own admissions) must comply with the law, but until 2007 they were only required to 'have regard to' the guidance given in the School Admissions Code; having done so, they were able to set admissions criteria that did not comply with the Code as long as they had good reasons for their actions (House of Commons Education and Skills Committee, 2004).

The first Code came into force on 1 April 1999 (DfEE, 1999) and applied to arrangements leading to admissions from September 2000. This noted that admission authorities had ‘a fairly wide discretion to determine their own oversubscription criteria provided these criteria are objective, fair, compatible with admissions and equal opportunities legislation’ (1999, para. 5.2). The general guidance was broadly similar in the second Code (DfES, 2003). Further changes followed the Education and Inspections Act 2006 which prohibited interviews to determine whether an applicant is to be admitted to a school (see DfES, 2007, 1.46). Also in 2006, the Education (Admission of Looked After Children) (England) Regulations were introduced requiring an admission authority to give ‘first priority in its oversubscription criteria to all relevant looked after children’ (s 3). The third School Admissions Code (DfES, 2007) which came into force in February 2007, and applied to admissions from September 2008, differed from the previous Codes in that there were certain provisions that were mandatory and certain practices that were not to be used (see West *et al.*, 2011).

Equal opportunities

The first Code (DfEE, 1999) noted that in light of the Sex Discrimination Act 1975 and the Race Relations Act 1976 ‘admission authorities should consider the possible impact, direct or indirect, on equal opportunities of their proposed oversubscription criteria’ (para 5.7). The second Code (DfES, 2003) reiterated these points and also noted that criteria such as giving preference to children whose siblings had previously attended the school, or with parents in specific occupations (such as teachers) could disadvantage certain individuals who had recently moved into the area. The third Code (DfES, 2007) had a mandatory requirement in relation to ‘fair access’ and also noted that admission authorities and governing bodies should adopt admission arrangements actively promoting equity. It was noted that random allocation could be ‘good practice’ as it ‘can widen access to schools for those unable to afford to buy houses near to favoured schools and create greater social equity’ (DfES, 2007, para 2.28).

Reference was also made to pupil ability banding ‘used by some admission authorities to ensure that their intake includes a proportionate spread of children of different abilities’ (DfES, 2007, para 2.79). Banding is of different types: some is in relation to individual schools, some in relation to two or more schools and some across a local authority area (DfES, 2007; see also West, 2005; Allen and West, 2009).

The second Code (DfES, 2003) made explicit reference to ‘looked after’ children, a particularly disadvantaged group. It recommended that admission authorities give looked after children ‘top priority’ in their oversubscription criteria (para. 7.22). The third Code (DfES, 2007) strengthened this stating that, in line with regulations ‘All admission authorities **must** give highest priority in their oversubscription criteria to these children’ (para 2.7).

All Codes have addressed the admission of children with statements of special educational needs; this is underpinned by the Education Act 1996 and as stated in the third Code (DfES, 2007), this ‘requires the governing bodies of all maintained schools to admit a child with a statement of special educational needs that names their school’ (para 1.50). ‘This is not an oversubscription criterion; schools must

admit such children whether they have places or not' (DfES, 2007, para 2.6). The admission of children with statements of special educational needs is thus carried out differently from that of others.

School admissions databases

This research links data from three surveys of secondary school admissions to all available years of the National Pupil Database (NPD). Rather fortuitously, the timings of the only three surveys of school admissions that exist give us a snap-shot of policies that were in use prior to the 2003 Admissions Code, immediately following the implementation of the 2003 Code and following the implementation of the 2006 Code.

LSE 2001 admissions database

The LSE database of secondary school admissions policies for September 2001 entry was funded by the LSE and carried out in cooperation with the Research and Information on State Education (RISE) Trust. This has been described and analysed elsewhere (e.g. West and Hind, 2003; West *et al.*, 2004; Allen and West, 2009).

The research involved setting up a database of admissions criteria to individual state-funded secondary (or high) schools in September 2001.^{iv} Data were collated for the majority (95%) of secondary schools in England (N=3013) (15 city technology colleges, officially classified as 'independent' were excluded). Data were obtained from local authority (LA) brochures and from individual admission authorities (voluntary-aided and foundation schools) where information was not provided in brochures. The missing schools were foundation/voluntary-aided schools that were not included in brochures and did not provide information when asked for details (West *et al.*, 2004).

Sheffield Hallam 2006 admissions database

The Sheffield Hallam study of secondary school admissions for the cohort entering in September 2006 was commissioned by the then Department for Children, Families and Schools (DCSF) and is reported in Coldron *et al.* (2008).

A database was created of the admission arrangements for all maintained schools from the 2006 composite prospectus sent to parents by each LA in England. Of the 148 local authorities that coordinated secondary applications we obtained the 2006 composite prospectus from 135 (91%). The 2006 prospectus was not available for the other 13 authorities (9%) and for these the 2007 prospectus was used. The research team wrote to all voluntary-aided and foundation schools and Academies requesting copies of their supplementary information forms (SIFs) or confirmation that they did not ask for further information: 67% of these schools responded.

The arrangements for a total of 3122 schools were analysed. This included all community, voluntary-controlled, voluntary-aided and foundation schools and academies (but not city technology colleges).

LSE 2008 admissions database

The LSE database of secondary school admissions policies for September 2008 entry was commissioned by RISE with financial support from the Esmée Fairbairn Foundation. It has been completed and published by RISE (West *et al.*, 2009). It contains detailed information on the types of admissions criteria currently in use by schools, and information regarding admissions procedures (see also West *et al.*, 2011).

Data on admissions criteria and practices for publicly-funded secondary schools for September 2008 were obtained from information provided by all the LAs in England with publicly-funded secondary schools. Although LAs had a statutory responsibility to publish these, in some cases inadequate information was provided about schools responsible for their own admissions (voluntary-aided, foundation and academies) so individual schools were contacted. A total of 3134 secondary schools were included in the sample, virtually all those in England.^v Academies and city technology colleges were included given that the former are required to adhere to certain aspects of legislation and guidance (see also West *et al.*, 2009),

Issues emerging from admissions databases

Over the time period covered by the three surveys a number of highly significant changes took place. In 2001, it was found that a significant minority of secondary schools, in the main those that are responsible for their own admissions, used a variety of criteria that appeared to be designed to select in certain groups of pupils: these included giving priority to the children of employees, of former pupils and with a family connection to the school (11%); and selecting a proportion of children on the basis of aptitude/ability in a subject area(s) (3%) (West *et al.*, 2004).

In 2006, admissions were better regulated than in 2001 (Coldron *et al.*, 2008). However, some schools, in particular voluntary-aided schools, were less compliant than other types of school with the second School Admissions Code (DfES, 2003) and were more likely to select covertly than community schools. They also found that there had been an increase (from less than 1% to 4%) in the proportion of schools selecting 10% of their intake on the basis of aptitude. Voluntary-aided and foundation schools were more likely to select in this way than community or voluntary-controlled schools. In relation to children in care, two thirds of schools had this as a high priority but nearly a quarter did not mention it as a criterion. More than half of the schools included medical/social need in their oversubscription criteria: but foundation and voluntary-aided schools were less likely than other school types to mention either children in care or medical/social need. Coldron *et al.* (2008) also investigated the use of supplementary information forms required by schools finding that around one in three non-community schools asked for additional information with voluntary-aided schools being more likely to do so than any other school type.

In 2008, following the third School Admissions Code (DfES, 2007), virtually all schools were found to give priority to children in care, as required by legislation, although a small minority of schools responsible for their own admissions did not. A minority of schools also failed to give *top* priority to this group of children, although by law they should. In a significant minority of schools, in the main those with responsibility for their own admissions, some criteria used are designed to select in

certain groups of pupils, with an increased percentage selecting a proportion of pupils on the basis of aptitude/ability in a subject(s) – an increase from 3% in 2001 to 4% in 2006 to 5% in 2008 (Coldron *et al.*, 2008; West *et al.*, 2004; 2011). The highest proportion of schools that selected a proportion of pupils on the basis of ability/aptitude in a subject area (allowed by legislation and guidance) were academies and foundation schools. Very few schools reported the use of interviews (less than 1%), prohibited by the Education and Inspections Act 2006, although there was some evidence of pre-admission meetings by schools that were their own admission authority. Supplementary information forms (SIFs) were used by around 15% of all non-grammar secondary schools. Schools seeking information not allowed for by the Code were virtually all voluntary-aided or foundation schools as opposed to either academies whose admissions policies are agreed with the Secretary of State or schools whose admissions are the responsibility of the local authority (West *et al.*, 2011).

Schools with criteria that have become inadmissible

The research on which we draw was carried out differently and the databases created and coded differently. This means that although some criteria and practices are broadly similar across the three databases, some are not and this limits the direct comparisons we can make over time. Because we cannot straightforwardly match changes in admission policies for every school, we focus our analysis on those that used inadmissible admissions criteria.

We first select a set of non-grammar secondary schools from our 2001 database that were using policies that were shortly to become inadmissible under the 2003 School Admission Code. These policies include:

1. schools giving priority to pupils with some family connection to the school, for example, the relatives of employees, governors or former pupils (used by 11%);
2. schools holding interviews of the parents and/or the pupil to determine religious adherence prior to admission to the school (2% interviewed pupils and 1% parents);
3. schools using the academic record of the child from primary school or the academic record of an older sibling to determine priority (used by less than 1%).

We select a second group of schools from our 2006 database that were using policies shortly to become inadmissible under the 2007 School Admission Code. These policies include:

1. schools that give priority to those parents who list the school as their first preference on the common application form (used by 30%);
2. schools that *did not* have child in care as the first criterion for entry (used by 54%);
3. schools asking for evidence of parental commitment to the school or the child's education (used by 9%);
4. schools giving priority to pupils with some family connection to the school, for example, the relatives of employees, governors or former pupils (used by 4%);

5. schools holding interviews of the parents and/or the pupil to determine religious adherence or suitability for admission to school (used by less than 1%);
6. schools requesting inadmissible supplementary information from parents (used by 10%).

It is worth noting that these criteria vary in the likely scope of their impact. For example in 2006 over half of all schools (54%) did not have child in care as a first priority but the number of children to which it will apply is less than 1%^{vi}. The proportions of schools using in 2006 the other criteria now outlawed by the new code was small but notable – parental commitment (9%), family or other connection (4%) - as was the proportion requesting kinds of supplementary information now deemed inadmissible (10%). The percentage of schools requiring interviews was very low (0.3%). On the other hand outlawing the first preference first criterion applied to 30% of all schools.

National Pupil Database

The analysis draws on all nine available years of School Census data from the National Pupil Database (NPD). Information on pupils in year 7 in January of 2001/2 through to 2009/10 is used to analyse changes in the school's social composition. The analysis covers all schools with year 7 pupils, excluding special schools and those with fewer than 10 pupils in their year 7 cohort. This clearly excludes secondary schools with year 8 or year 9 entry since these pupils would have been in middle schools at the time. 3867 schools appear in at least one of the nine years in the analysis, but only 2884 schools appear in each of the nine years.

The NPD provides key socio-demographic information on all children in year 7 in state-maintained secondary (or middle) schools over nine years. In this study we analyse changes in the free school meals eligibility (FSM) proportion, recognising the limitations of this as a proxy for low income (Hobbs and Vignoles, 2009). The overall proportion of year 7 pupils who are FSM changes each year in line with the economic cycle, as shown in Table 1. We also use indicators of the school's prior attainment profile. The pupil's total Key Stage Two (KS2) score is standardised with a mean average of zero and standard deviation of one for each cohort year and school-level indicators for the proportion of pupils who scored in the top and lowest quartile nationally are included. Finally, we measure changes in the proportion of white British ethnicity pupils at the school and this overall proportion declines each year, reflecting recent migration patterns.

The NPD provides a postcode for each pupil in year 7 and from this we are able to place the home address of the pupil on an Ordnance Survey grid location to within 100 metres accuracy (see Harland and Stillwell, 2007, for analysis of the accuracy of this data). There is minor imputation on the pupil characteristics where they are missing. The pupil KS2 score is imputed using all other available individual subject KS2 test scores, plus socio-demographic characteristics. The white British ethnicity indicator is imputed using the secondary school mean white British ethnicity proportion. The pupil's home location northing and easting are imputed using the median location of the child's primary school cohort.

Table 1: Summary statistics for year 7 pupils

	2002	2003	2004	2005	2006	2007	2008	2009	2010
FSM proportion (%)	17.1	16.7	16.6	16.4	16.4	16.1	16.0	16.5	17.2
Ethnicity white proportion (%)	85.2	84.7	84.2	83.0	81.5	80.4	79.7	78.7	77.8
Average size of cohort	174.4	176.0	174.8	170.0	171.9	169.3	165.8	170.8	168.0
Number of schools	3477	3453	3441	3413	3366	3341	3299	3267	3245
Schools that opened at start of year	N/A	46	29	33	35	42	66	65	75
Schools that closed at end of the year	70	41	61	82	67	108	97	97	N/A
Closures that were middle or primary	43	16	47	59	24	50	33	6	N/A
Grammar schools (% of pupils)	3.7	3.6	3.6	3.8	3.8	3.9	3.7	3.7	3.8
Middle schools (%)	6.8	6.6	6.4	6.0	5.9	5.8	5.6	5.4	5.3
CTC/Academies (non grammar) (%)	0.4	0.6	0.8	1.0	1.2	1.7	2.6	4.0	6.0
Foundation (non grammar) (%)	22.6	22.3	22.6	22.8	23.2	23.2	23.4	23.1	22.9
Voluntary-aided (non grammar) (%)	13.0	13.2	13.5	13.6	13.7	14.0	13.9	14.0	14.0
Voluntary-con. (non grammar) (%)	1.9	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1

Note: the date 2002 refers to academic year 2001/2, and so on. Spring Census data is used, except for 2010 where only Autumn 2009 data was available at the time of analysis.

Calculating school and neighbourhood composition

Throughout the period of analysis we report changes in each school's intake profile for the relevant year 7 cohort across four metrics:

1. the proportion of the cohort who are known to be eligible for free school meals (FSM);
2. the proportion of the cohort who are of White British ethnicity;
3. the proportion of the cohort who scored in the top 25 per cent nationally in KS2 tests (top KS2);
4. The proportion of the cohort who scored in the bottom 25 per cent nationally in KS2 tests (low KS2).

We also generate measures of the social profile of children living close to a school to account for changes in residential composition over time. Residential composition is calculated by measuring the characteristics of the school if all pupils in the neighbourhood wished to attend the school, with the school allocating places based on proximity to the school. In computational terms, the number of pupils currently at the school is counted, then the same number of pupils who live closest to the school are found from all year 7 pupils currently in state schools. The social and ability characteristics of these proximity pupils are measured.

This approach to measuring the neighbourhood characteristics of a school produces indicators that reflect a set of pupils who live within a particular radius of the school. In practice, actual neighbourhoods that most schools draw from tend to be irregular rather than circular in shape, particularly where geographical barriers such as motorways, hills and lakes affect journey times. This means a school might draw from its direct neighbourhood, as it conceptualises it, yet may have an intake with characteristics significantly different from the neighbourhood measured by these

statistics. However, if the school's actual intake is irregular due either to the school themselves selecting a favourable catchment area, or due to parental choice, it is desirable to use the circular neighbourhood because it abstracts from these processes. For the purposes of this analysis, all that matters is that the statistic measures the average neighbourhood characteristics for any particular school type without bias, and there is no reason to suppose this should not be so (see also Allen, 2007, for further discussion of the methods). Of course, the choice of neighbourhood measurement is necessarily somewhat arbitrary, but many have been tested and the substantive results reported are not sensitive to alternative measures of neighbourhood. Alternative neighbourhood calculations include use of postcode areas (e.g. Chamberlain *et al.*, 2006, Sutton Trust, 2006), a 3 kilometre walk-zone or the local authority. However, we believe our measure achieves a more consistent treatment of urban and rural schools.

Changes in the social composition of a school are described in four different ways in the analysis. First, we describe the change that occurred between the period immediately preceding and succeeding the implementation of the 2003 Code, for example:

<i>Change in FSM proportion pre- and post-2003 Code</i>	=	<i>Average school FSM proportion for years 2005 to 2008</i>	-	<i>Average school FSM proportion for years 2002 to 2004</i>
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Secondly, we describe the change that occurred between the period immediately preceding and succeeding the implementation of the 2007 Code, for example:

<i>Change in FSM proportion pre- and post-2007 Code</i>	=	<i>Average school FSM proportion for years 2009 to 2010</i>	-	<i>Average school FSM proportion for years 2005 to 2008</i>
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Finally, we describe the change in the school's social composition that is not accounted for by changing in the school's neighbourhood characteristics, for example:

<i>Change in FSM proportion pre- and post-2003 Code after accounting for residential sorting</i>	=	<i>Average school FSM proportion for years 2005 to 2008 minus Average residential FSM proportion for years 2005 to 2008</i>	-	<i>Average school FSM proportion for years 2002 to 2004 minus Average residential FSM proportion for years 2002 to 2004</i>
<i>Change in FSM proportion pre- and post-2007 Code after accounting for residential sorting</i>	=	<i>Average school FSM proportion for years 2009 to 2010 minus Average residential FSM proportion for years 2009 to 2010</i>	-	<i>Average school FSM proportion for years 2005 to 2008 minus Average residential FSM proportion for years 2005 to 2008</i>

Analysis

Changes in school composition

We begin by summarising the overall changes in school composition in England from 2002 to 2010 in order to set the background context for the policy changes of interest. Indices of segregation are able to summarise overall changes in the distribution of pupils across schools into a single figure for each year.

Figure 1 reports the index of dissimilarity, the most widely used segregation index, for our four binary indicators of school composition (FSM, white British ethnicity, top KS2 quartile, lowest KS2 quartile).¹ Although the pattern of changes is not unambiguous, it does appear that school segregation across England has declined a little over the past decade. The remainder of the analysis will explore the extent to which changes in the School Admissions Code could be responsible for this improvement in segregation.

Figure 1: Secondary school segregation in England from 2002 to 2010

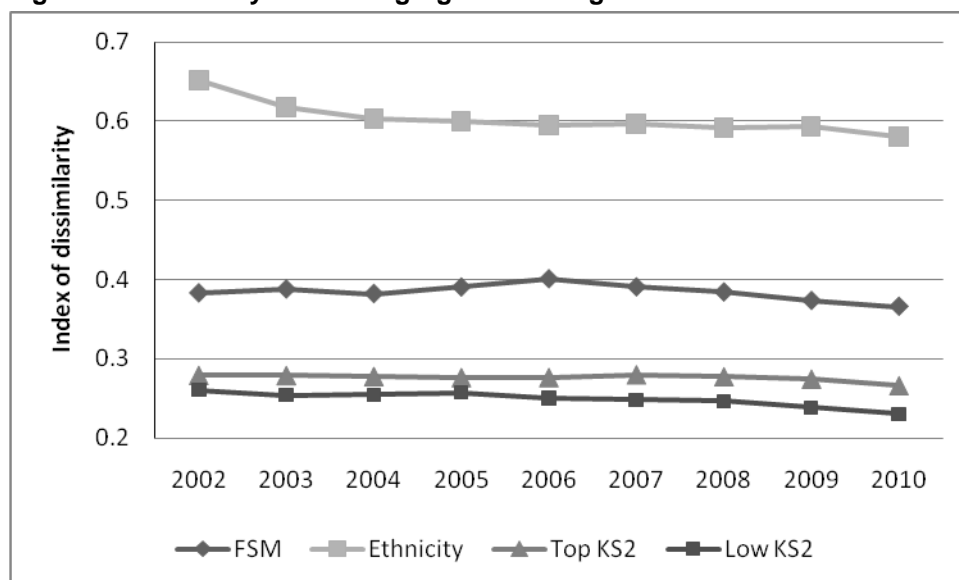


Table 2 summarises changes in the distributions of school compositions for the 2884 schools that were open in every year from 2002 to 2010. The top half the table describes the change in compositions for the four years after the 2003 Code compared to the three years prior to the implementation of the 2003 Code. The bottom half of the table shows the difference in school compositions for the two available years of data following the 2007 Code compared to the four years of data prior to the 2007 Code. The (mean) average changes in composition are not particularly interesting since they simply reflect changes in the underlying social demographics of the cohort. For example, the data shows that the White British ethnicity proportion in year 7 cohorts fell by 3.1 percentage points following the

¹ The formula for the Index of Dissimilarity in an area with *FSM* free school meals pupils and *NONFSM* non FSM pupils and with *j* schools, each with *fsm_j* pupils eligible for FSM and *nonfsm_j* pupils not eligible for FSM is

$$D = \frac{1}{2} \sum_j \left| \frac{fsm_j}{FSM} - \frac{nonfsm_j}{NONFSM} \right|$$

implementation of the 2003 Code and 2.6 percentage points following the implementation of the 2007 Code, mirroring trends towards greater ethnicity diversity in the UK.

The table highlights that the large majority of schools see relatively small changes in composition of cohorts across all the social metrics, but that a very small minority of schools have seen very large changes in social composition. We specifically focus on these schools with very large changes in their intake composition in the final part of this report.

Table 2: Distribution of changes in school composition resulting from Admission Codes

	Mea n	S.D .	Percentile						
			Min	10th	25th	50th	75th	90th	Max
Difference pre- and post- 2003 Code:									
FSM proportion change (%)	-0.1	3.7	-32.3	-4.0	-1.9	-0.2	1.4	3.6	24.1
Ethnicity proportion change (%)	-3.1	5.9	-48.7	-9.5	-5.1	-2.0	-0.5	0.7	47.8
Top KS2 proportion change (%)	-0.5	3.8	-19.5	-5.1	-2.8	-0.4	1.9	4.1	15.9
Low KS2 proportion change (%)	0.5	3.9	-19.7	-4.2	-1.6	0.4	2.8	5.2	27.8
Difference pre- and post- 2007 Code:									
FSM proportion change (%)	0.9	4.1	-23.4	-3.2	-1.0	0.8	2.8	5.4	32.1
Ethnicity proportion change (%)	-2.6	6.6	-97.3	-8.1	-4.0	-1.5	0.1	1.4	46.2
Top KS2 proportion change (%)	-0.2	4.3	-23.7	-5.3	-2.9	-0.2	2.5	5.0	20.6
Low KS2 proportion change (%)	0.4	4.4	-22.9	-5.0	-2.1	0.3	3.0	5.6	22.6

Note: N = 2884 (all schools that were open in every year from 2001/2 to 2009/10)

Changes in school composition by governance type

Table 3 shows the output from four regressions that model the change in school composition over the entire period. In these regressions we report whether there are any differences in social composition changes by school governance type. Our initial hypothesis is that voluntary-aided schools should be most affected by changes in the Admission Code; therefore they should see larger declines in the socio-demographic profile of their school.

Overall, the regressions show relatively little relationship between school type and change in social composition of the school. According to the analysis, grammar schools have seen a larger decline in their FSM proportion, a larger rise in their non-white ethnicity proportion and an improvement in the KS2 scores of their intakes. Also, voluntary-aided schools have seen a somewhat larger fall in their FSM proportion than Community schools and have also become more ethnically mixed.

Table 3: Regression analysis of change in school composition between pre-2003 Code and post-2007 Code

	FSM proportion change			Ethnicity proportion change			Top KS2 proportion change			Low KS2 proportion change		
Pre-2003 Code level of dependent variable	-0.11	(0.01)	***	0.07	(0.01)	***	-0.17	(0.01)	***	-0.24	(0.01)	***
Pre-2003 Code cohort size	-0.01	(0.00)	***	-0.01	(0.00)	**	0.00	(0.00)	***	-0.01	(0.00)	***
Change in cohort size	-0.04	(0.00)	***	0.00	(0.01)		0.03	(0.00)	***	-0.05	(0.00)	***
Grammar	-2.45	(0.41)	***	-5.24	(0.74)	***	12.04	(0.73)	***	-7.05	(0.55)	***
Middle	-1.51	(0.34)	***	0.16	(0.62)		0.14	(0.36)		0.59	(0.39)	
CTC/Acad (non sel)	-3.27	(3.21)		-0.47	(6.05)		-0.75	(3.47)		-3.75	(3.71)	
Foundation (non sel)	0.12	(0.22)		-0.71	(0.42)	*	0.07	(0.24)		0.00	(0.26)	
Vol aided (non sel)	-0.68	(0.26)	***	-4.14	(0.48)	***	-0.15	(0.29)		0.13	(0.31)	
Vol con (non sel)	-0.80	(0.64)		-0.29	(1.21)		0.81	(0.69)		-0.33	(0.74)	
Constant	3.26	(0.38)	***	-8.92	(0.83)	***	2.67	(0.38)	***	8.24	(0.54)	***
N	2884			2884			2884			2884		
Adj R-squared	0.12			0.07			0.12			0.18		

Note: ***=1% stat. sig.; **=5% stat. sig.; *=10% stat. sig..

School and neighbourhood composition

Where a school experiences a large change in its social composition it is possible this results from changes in the local residential population. In this section we describe how much change in school composition over time still remains once we account for changes in residential composition close to the school. We do this by first calculating the change in average school composition before and after each Admission Code implementation, then we subtract the change in the residential composition that has occurred in the area. Table 4 shows the distribution of the percentage point change in school composition that remains after the percentage point change in residential composition is accounted for. Comparison with the data in Table 4 suggests that most large changes in school composition are not accounted for by changing the demographics of the local neighbourhood.

Table 4: Distribution of changes in school composition not attributable to changes in residential composition

	Mean	S.D.	Min	Percentile					Max
				10th	25th	50th	75th	90th	
Change pre- and post-2003 Code:									
FSM proportion (%)	0.3	3.4	-26.4	-3.2	-1.3	0.2	1.8	3.9	19.8
Ethnicity proportion (%)	-0.1	4.4	-26.1	-4.4	-1.5	0.0	1.4	3.6	42.4
Top KS2 proportion (%)	-0.4	3.6	-19.6	-4.7	-2.4	-0.4	1.6	3.7	22.1
Low KS2 proportion (%)	0.4	3.6	-27.5	-3.7	-1.6	0.3	2.4	4.7	21.3
Change pre- and post-2007 Code:									
FSM proportion (%)	0.2	3.6	-18.7	-3.6	-1.5	0.1	1.9	4.2	16.9
Ethnicity proportion (%)	0.0	4.9	-68.4	-4.5	-1.6	0.1	1.7	4.2	32.0
Top KS2 proportion (%)	0.0	4.0	-19.8	-4.5	-2.4	-0.1	2.2	4.6	19.0
Low KS2 proportion (%)	0.3	4.0	-22.5	-4.3	-2.0	0.2	2.4	4.8	27.7

Association between schools with inadmissible criteria and changes in school composition

The most direct way to test the impact of a change in the Admissions Code is to analyse whether schools that used criteria that were soon to become inadmissible did indeed see a change in social profile of their year 7 intake following the Code's implementation. Table 5 reports the output from eight regressions that model the change in a school's intake composition as a function of the 2002 intake composition, the change in residential sorting and a set of indicators of use of inadmissible criteria in 2001. Because there are very small groups of schools using some of these inadmissible criteria, we also group them into a binary indicator of whether the school was using any of these 'potentially selective' (and now inadmissible) criteria.

The regressions overall suggest that schools using criteria that were to become inadmissible did indeed experience a change in their intake composition following implementation of the 2003 Code. Following the Code they experience a greater growth than other schools in the number of low KS2 pupils and minority ethnic pupils and saw a greater decline in the proportion of top KS2 pupils they admitted for entry. There is no evidence of a change in their FSM proportion, relative to other schools. All of these effect sizes are quite small: for example, the estimated impact of using potentially selective criteria on the change in low KS2 proportion is +0.56, meaning that these schools experienced an average increase of half a percentage point in their low KS2 proportion, compared to other schools. Suppose a school using inadmissible criteria prior to the 2003 Code had an intake of 200 pupils had just 20 low KS2 pupils, our estimates suggest that they would admit just one extra low KS2 pupil (i.e. 21 overall) as a result of the implementation of the Code.

We are unable to consistently measure what type of inadmissible criteria are associated with the largest changes in social composition. This is likely to be because small numbers of schools were using some of these criteria, which explains the insignificant results. However, most of the coefficients are correctly signed.

Table 5: Changes in school composition from 2003 Admission Code

	Change in FSM proportion pre- and post- 2003 Code			Change in ethnicity proportion pre- and post- 2003 Code			Change in top KS2 proportion pre- and post- 2003 Code			Change in low KS2 proportion pre- and post- 2003 Code		
Pre-2003 Code level of dependent variable	-0.02	(0.00)	***	-	(0.00)	***	-0.03	(0.00)	***	-0.04	(0.01)	***
Change in residential sorting	0.63	(0.02)	***	0.91	(0.02)	***	0.54	(0.02)	***	0.56	(0.02)	***
School uses academic record (0.8%)	-0.42	(0.71)		-	(0.94)		2.98	(0.66)	***	-0.36	(0.68)	
School uses connections (11.4%)	0.03	(0.20)		-	(0.27)	***	-0.21	(0.18)		0.29	(0.19)	
School interviews parents or pupils (3.0%)	0.44	(0.38)		-	(0.51)	***	-0.91	(0.35)	***	1.39	(0.36)	***
Constant	0.51	(0.11)	***	1.19	(0.37)	***	0.47	(0.11)	***	1.26	(0.15)	***
N	2618			2618			2618			2618		
Adj R-squared	0.26			0.46			0.30			0.32		
Pre-2003 Code level of dependent variable	-0.02	(0.00)	***	-	(0.00)	***	-0.03	(0.00)	***	-0.04	(0.01)	***
Change in residential sorting	0.63	(0.02)	***	0.91	(0.02)	***	0.54	(0.02)	***	0.56	(0.02)	***
School used potentially selective criteria (14.2%)	0.09	(0.19)		-	(0.25)	***	-0.24	(0.17)		0.59	(0.18)	***
Constant	0.50	(0.11)	***	1.08	(0.37)	***	0.41	(0.11)	***	1.25	(0.15)	***
N	2618			2618			2618			2618		
Adj R-squared	0.26			0.46			0.30			0.32		

Note: ***=1% stat. sig.

Table 6 also reports eight regression outputs, but this time it uses information on schools that were using criteria in 2006 that were to become inadmissible in the 2007 Code. Once again, the overall results suggest that schools using these potentially selective criteria in 2006 did indeed experience a significant change in the ethnic and ability profile of their intake (but not the FSM profile). Effect sizes are quite similar to those reported for the 2003 Code. For example, the impact of using potentially selective criteria in 2006 on the change in top KS2 proportion is -0.56. This suggests that a school using these criteria with cohort size of 200, of which 40 were top KS2 ability pupils would see a drop in the number of these pupils to 39 pupils in the years following the implementation of the Code.

Table 6: Change in school composition following 2007 Admissions Code

	Change in FSM proportion pre- and post- 2007 Code			Change in ethnicity proportion pre- and post- 2007 Code			Change in top KS2 proportion pre- and post- 2007 Code			Change in low KS2 proportion pre- and post- 2007 Code		
Pre-2007 Code level of dependent variable	-											
Change in residential sorting	0.03	(0.01)	***	0.00	(0.00)		0.02	(0.00)	***	-0.05	(0.01)	***
Parental commitment needed (9.3%)	0.68	(0.02)	***	0.89	(0.02)	***	0.56	(0.02)	***	0.60	(0.02)	***
Priority to children of associated adults (3.8%)	-			-0.57	(0.32)	*	-0.53	(0.24)	**	0.58	(0.24)	**
Interview required (0.3%)	0.10	(0.24)		1.04	(0.48)	**	0.12	(0.36)		-0.16	(0.36)	
Inadmissible supplementary info (7.2%)	-			-3.30	(1.58)	**	-1.52	(1.18)		-0.45	(1.18)	
Constant	0.03	(0.27)		-2.01	(0.36)	***	-0.46	(0.27)	*	0.30	(0.27)	
N	0.94	(0.12)	***	0.21	(0.33)		-0.34	(0.13)	***	1.25	(0.17)	***
Adj R-squared	2695			2695			2695			2695		
	0.31			0.44			0.27			0.34		
Pre-2007 Code level of dependent variable	-											
Change in residential sorting	0.03	(0.01)	***	0.00	(0.00)		0.02	(0.00)	***	-0.04	(0.01)	***
School uses potentially selective criteria (17.6%)	0.68	(0.02)	***	0.89	(0.02)	***	0.56	(0.02)	***	0.60	(0.02)	***
Constant	-			-1.06	(0.24)	***	-0.56	(0.18)	***	0.44	(0.18)	**
N	0.19	(0.18)		0.11	(0.33)		-0.33	(0.13)	***	1.21	(0.17)	***
Adj R-squared	0.93	(0.12)	***	0.44			0.27			0.34		

Note: ***=1% stat. sig.; **=5% stat. sig.; *=10% stat. sig..

Schools with large changes in social composition

In the final part of this report we select a small group of schools for whom we can identify large changes in social composition in order to illustrate how changes to admissions arrangements have been implemented in practice. This is not a random sample; on the contrary we have chosen these schools with very substantial changes in intakes to highlight the wide variety of circumstances that can lead to changes in school composition. To describe changes at these schools, we have drawn on information from admissions brochures, the School Adjudicator reports, Ofsted reports and National Pupil Database. Thus our discussion of admissions criteria and practices is presented along with other changes that can be ascertained from the data available.

Schools becoming less advantaged for the period

We focus in the first instance on schools whose social composition had become much less advantaged over the period in question. The first three schools we describe here illustrate situations where we believe that the 2003 and 2007

Admissions Codes were critically important to the changes in social composition because they altered both the published criteria and manner in which the criteria were applied.

School A is a single sex voluntary-aided school that, in 2001, used parental and pupil interviews to select pupils. It also used banding that was not 'fair' but selective in that it selected more higher ability than lower ability pupils (27% from the top 25% of the ability range, 55% from the middle 50% and 18% from the lowest 25%).

The school's resulting intake in 2002 was significantly more affluent and more able than either the national average or the immediate locality. For example, free school meals eligibility amongst the 2002 year 7 cohort was just 2 percent, versus 46 percent in the immediate neighbourhood. Similarly, despite the use of banding, over two-thirds of the intake scored in the top quartile in their KS2 tests at the end of primary school and just 8 percent scored in the lowest quartile.

The school had also been subject to objections to the Office of the Schools Adjudicator in the period under investigation. The objection, in 2007, covered different aspects of the admission arrangements including for example catchment areas, siblings and children in care. The objection was upheld. The determination also required the school to check its supplementary form to ensure that it was in line with the School Admissions Code. It is also significant that the banding in place in 2008 was not in theory socially selective as it involved selecting 25% from the top 25% of the ability range, 50% from the middle 50% and 25% from the lowest 25%.

The result of these changes in the school's admissions procedures is that by 2010, 20 percent of their year 7 cohort is eligible for free school meals, a figure that is still lower than their local neighbourhood but is higher than the national average. The ability profile of the intake is still relatively advantaged, but is now a little more balanced with just under half the pupils scoring in the top quartile on KS2 and 14 percent scoring in lowest quartile.

School B, a voluntary-aided school, was so advantaged in its intake in 2002 that it looked almost identical to a grammar school rather than a comprehensive. Three-quarters of its pupils scored in the top quartile on KS2 tests and no pupils in its year 7 intake scored in the lowest quartile. It appeared to have achieved this advantaged intake by interviewing pupils and giving priority to children of former pupils.

In 2008 the school was subject to an objection to the Office of the Schools Adjudicator which determined that one of its criteria giving priority to the children and grandchildren of a charitable foundation be removed. An objection to a newly introduced criterion, giving priority to 10% of pupils with aptitude in sport was not upheld.

In 2010 it remains one of the most advantaged 'comprehensive' schools in the country with just 3 percent of pupils eligible for free school meals. However, the ability profile of the intake is marginally more mixed, with half the pupils scoring in the top quartile in KS2 tests and 4 percent scoring in the lowest quartile.

School C is a foundation school that gave priority to children of former pupils and employees in 2001. Its intake had a higher average ability than the local

neighbourhood and just 5 percent of the pupils were eligible for free school meals in 2002. An objection was made to the Office of the Schools Adjudicator in 2005 as a result of which the criterion giving priority to children of former pupils was removed.

By 2010 the ability profile of its intake is much closer to the national average. Just 7 percent of pupils are eligible for free school meals, which is below the national average but is roughly representative of the local neighbourhood.

We believe that the experiences of the following two schools in one urban authority illustrate how the Admissions Code and changes in the local schooling market can combine to produce very large changes in the social composition at schools.

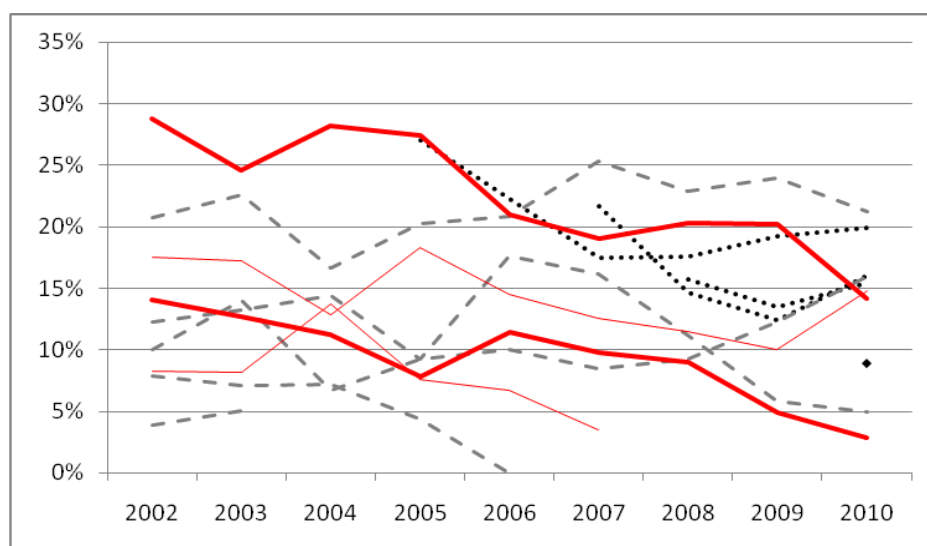
School D is a Roman Catholic voluntary-aided school that interviewed parents and pupils and also used banding in 2001. The intake profile of the school was well above the national average and above that at every other local school, despite being located in one of the most deprived parts of London. In 2008, the school no longer interviewed parents and pupils and no longer used banding.

Interestingly, the school appears to have been impacted by the opening of Academies in the local authority, as shown in Figure 2. Although it is not possible to establish causality here, it would appear that the deterioration in the affluence of this school's intake mirrors the opening of four new Academy schools in 2004/5 onwards. The result is that by 2010 this school has an intake profile that is less able than the typical school in the local authority and is also almost exclusively non-white British ethnicity.

School E is a CofE voluntary-aided school that in 2001 interviewed parents and pupils and also used banding. The intake profile in 2002 was typical of the local authority, making this a relatively deprived school by national standards.

In 2008, the school no longer used interviews or banding. This school also appears to have been affected by the opening of Academies in the local authority, although its cohort size has not particularly declined. It now has a very disadvantaged ability profile of intake, with just 3 percent of pupils scoring in the top quartile in KS2 tests and almost two-thirds of pupils scoring in the lowest quartile in KS2 tests (see Figure 2). This makes it the most deprived school in a very deprived local authority.

Figure 2: Changes in the proportion of top ability KS2 pupils in year 7 cohorts across LA



Key: Grey dashed lines show intakes at Community schools; black dotted lines show intakes at Academies; red thin lines show intakes at voluntary-aided schools and thick red lines show intakes at voluntary-aided schools that are discussed above.

There are other schools that have experienced large declines in their intake that we believe are largely unrelated to changes in their admissions criteria over the period.

School F is a voluntary-aided Roman Catholic school that has experienced a very large decline in both the size and affluence of its cohort over the period of analysis. The cohort size has shrunk from 124 in 2002 to 46 in 2010. The proportion of pupils in the top KS2 quartile has declined from 19 percent to just 7 percent by 2010.

In 2001, the school interviewed parents and pupils; by 2008, both practices had discontinued. The school has been subject to discussion regarding reorganisation of Catholic schooling at least since 2007 (as mentioned in the Ofsted report of that year). This reorganisation may have been accelerated by a decline in demand for Catholic schooling due to demographic change in the area. However, the consequence of the discussions has been that parents have been reluctant to admit their children to the school, making the proposed closure in 2011 inevitable.

School G is a voluntary-aided school that has also experienced a very large decline in both the size and affluence of its cohort over the period of analysis. The cohort size has shrunk from 200 in 2002 to 75 in 2010. The proportion of pupils in the top KS2 quartile shrunk from 16 percent to as low as 7 percent in 2009, although there is evidence it may now be recovering. The school was subject to admissions changes as a result of the change in the Code with the interviewing of parents and pupils being discontinued between 2001 and 2008. However, the schools demographic profile appeared to be stable until it failed an Ofsted inspection in 2004 and again in 2006. Although it did pass its 2007 Ofsted inspection, it appears that the demographic profile of the school has not yet recovered.

Schools becoming more advantaged for the period

In addition we identified schools whose social composition had become more advantaged. In this case, we would not expect to see schools that had been using

admission criteria or practices that were later deemed inadmissible. Rather we might expect to see schools with admissions criteria that had been introduced with a view to obtaining a larger pool from which to select pupils via means deemed admissible. We thus focused on schools that were selecting a proportion of pupils on the basis of aptitude (or ability given the difficulties distinguishing between these concepts), or schools that used banding or random allocation.

School H was a community school in 2001, selecting a proportion of pupils on the basis of ability in music and sport. In 2008, it was a foundation school, responsible for its own admissions. It selected a proportion of pupils on the basis of aptitude in music and sport and also used both banding and random allocation. The school's last Ofsted report in 2010 was outstanding (it had been put in special measures in 1998).

This school now has an above average ability intake with 33 percent of pupils scoring in the top quartile nationally in 2010 compared to 6 percent in 2002. The FSM profile has also radically changed: it was one of the most deprived schools in the country in 2002 with 75% FSM and now has just 25% FSM. Whilst the local neighbourhood demographics have changed little, the school has gone from being more deprived than its immediate locale to being more affluent.

School I, a community school, selected a proportion of pupils in the basis of aptitude in technology in 2001 but in 2008 this was no longer in use (as its use was prohibited by Regulation). The school's Ofsted report was good in 2003 and outstanding in 2007.

This school had a very deprived intake in 2002 with 43 percent of pupils eligible for FSM and half the pupils scoring in the bottom quartile in KS2 tests. However, although there has been little change in the schools FSM proportion from around 40 percent throughout the period, the ability profile of the intake is now significantly improved, though still below the national average. In 2010, 28 percent of pupils scored in the lowest quartile in KS2.

School J, a foundation school, was subject to an objection to the Office of the Schools Adjudicator about its admissions arrangements in 2004. The key elements of the objection were the failure of the school to give priority to looked after children, failure to give priority to siblings and no reference being given to children with statements of special educational need. The objections were upheld. A further objection in 2006 (relating to first preference first) was not upheld. In 2008, this school used banding, but it was not used in 2001. The school was graded by Ofsted as being 'good' in 2007.

This school now has almost no white British pupils in it, reflecting the demographic changes in the immediate neighbourhood to the school. However, the increasing polarisation of this school's intake is not mirrored across the city as a whole, where secondary schools are actually becoming marginally more integrated (albeit from very high levels of segregation). The index of dissimilarity of white British ethnicity pupils has fallen from 0.67 in 2002 to 0.59 in 2010.

This is a school that had an ability profile in intake significantly below the national average with just 6 percent of its pupils scoring in the top quartile nationally and 62

percent of the pupils scoring in the lowest quartile. This was actually largely representative of the immediate neighbourhood. The ability profile of the school has improved so that in 2010 14 percent of pupils scored in the top quartile nationally and 38 percent in the lowest quartile. This is still well below the national average, but still largely reflects the local community. This data appear to show how a school can experience large changes in its profile if the local area changes.

Discussion

This research has shown that the 2003 and 2007 School Admissions Codes appear to have been at least in part responsible for changes in social composition of pupils at schools with criteria and arrangements that were subsequently deemed inadmissible. Although the average impact is relatively small, the direction of the impact is consistent with the observation that school segregation across England in terms of all the social metrics has declined a little at the same time that regulations were tightening. The fact that these changes in school composition occurred over the same period that saw increasingly tight regulation did not mean that we could automatically attribute them to the introduction and progressive strengthening of the Codes. But, once we had controlled for changes in neighbourhood composition the association held.

It was a reasonable expectation that no association would be found between the increasing regulation and the intake of schools given that many factors affect the composition of a school's population other than their admission arrangements. Factors include those parts of the codes to do with subsidised travel and choice advice. Equally important may be changes in the organisation of schools in an area including mergers and closures. Not least will be changes in the local perception of schools which may be precipitated by Ofsted assessments, or high profile incidents, or changing relations between staff and parents. In addition, if schools have a strong incentive to manipulate their intakes, their response to regulations that outlaw previous suspect arrangements may be to seek other ways such as making the most of currently legal means. For example, although religious schools are no longer able to interview parents to determine religious adherence, they could use information contained in Supplementary Information Forms to modify their intake if they so wish.

Contrary to expectations, school type was not strongly associated with change in composition. Given that previous studies have shown that the admission arrangements of voluntary-aided schools offered more potential for covert selection than other types of schools and that these were progressively ruled out by regulation we had hypothesised that their intakes would have changed more than other types of school but this was not the case except in terms of ethnicity where they have become more ethnically diverse. However, amongst the schools identified with more extreme changes a significant number were foundation or voluntary-aided and so responsible for their own admissions.

What implications, if any, do these findings have for admissions policy? First, it emphasises that, if the differentiation of school intakes is a concern, then regulating admission arrangements does appear to have an impact but that how a school admits its pupils is only one of the factors determining the composition of a school's population. Relative to all contributing factors some admission arrangements can

have a very small impact and others a very large impact. Policy and regulation designed to outlaw covert selection or procedural unfairness – for example, prohibiting interviews and oversubscription criteria that by default may socially select will have a relatively small effect. Those designed to balance intakes on one metric or another - for example banding across an area to achieve equal proportions of pupils from the whole attainment range, or selection by attainment as in grammar schools, or selection by lottery to randomise from all applications are likely to have a very large impact.

These issues become particularly relevant as there are likely to be more schools – in particular, academies and free schools – that have autonomy over admissions. Previous studies (West *et al.*, 2004; West *et al.*, 2011) have shown that schools that are their own admission authority are more likely to have admissions criteria that enable schools to be unfairly selective in their intakes and there is therefore a case for moving admission powers away from individual schools and putting them into the hands of an independent body that administers admissions across an area and ideally sets admissions criteria that are consistent across all schools. Moreover, if admissions were administered by an independent body, it would increase the transparency of the admissions process and ensure that decisions are not made behind closed doors with no external scrutiny.

Further tightening of the Admissions Code would also be desirable given that there is still much room for discretion in the kind of information required in supplementary information forms (SIFs). It would be helpful if what is and is not acceptable were made more explicit; indeed the Office of the Schools Adjudicator has proposed that the Department for Education with faith bodies draw up model Supplementary Information Forms (SIFs) (Office of the Schools Adjudicator, 2009).

Looking to the future the effect of new schools within an area will depend on the kinds of admission arrangements they adopt. Regulation to avoid unfair practices and, more radically, balanced intakes will be crucial. Area wide banding and random allocation offer powerful tools to achieve a maximally functioning education market and to focus competition and popularity on the quality of provision rather than the social characteristics of the intake.

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Endnotes

ⁱ See School Admissions Code 2007 (DfES, 2007) para 1.72; para 1.101; para 1.102.

ⁱⁱ Only 0.8% of the families with children transferring to secondary school in the 15 case study LAs had any contact with a Choice Adviser and only about half (0.4%) were in a target group. But even the 0.4% of targeted parents were not all helped to gain access to high performing popular schools. Of those parents from socially disadvantaged backgrounds who wanted such access, some did not fit the over subscription criteria and the role of the Choice Adviser was to reassure them about the less popular schools for which they qualified.

ⁱⁱⁱ If a school is undersubscribed then all applications must be offered a place, unless the child does not meet minimum academic standards set for entry to a grammar school (see DfES, 2007).

^{iv} In a minority of cases criteria for September 2002 were used.

^v In England in January 2008 according to the then DCSF figures there were 3140 secondary schools (excluding middle deemed secondary); our figure was 3134 the difference being due to school closures. Our sample of academies was higher than in January 2008 (94 compared with 83) and the number of city technology colleges lower (3 compared with 5). Schools were classified according to their status on 1 September 2008 (see West et al., 2009).

^{vi} In 2008/09 there were 2,879,560 pupils in maintained secondary schools (<http://www.dcsf.gov.uk/rsgateway/DB/SFR/s000918/index.shtml>. Excel sheet 1: Table 1.1.) and of these 24,900 were in care (Harker 2009) (<http://www.parliament.uk/briefingpapers/commons/lib/research/briefings/snsg-04470.pdf>).

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