Admissions to Academy Schools in England: 
School Composition and House Prices

Stephen Machin* and Anne West**

August 2013

* Department of Economics, University College London and Centre for Economic Performance, London School of Economics and Political Science

** Education Research Group, Department of Social Policy, London School of Economics and Political Science

Abstract
This paper offers a description of secondary school admissions in England, placing a particular focus on academy schools. The way in which admission policies differ in academies is highlighted and we present some evidence that the introduction of academy schools to the English secondary school sector has affected the composition of enrolment and parents’ demand for schools.

JEL Keywords: School admissions; Academy schools; Pupil intake; House prices.
JEL Classifications: I20; I21; I28.

Author Emails: s.machin@ucl.ac.uk; a.west@lse.ac.uk.

Acknowledgements
We would like to thank our discussant, Parag Pathak, Greg Ingram and participants at the June 2013 Lincoln Conference for a number of helpful comments and suggestions.
Introduction

The way in which pupils are admitted (or assigned) to schools determines the distribution of pupils between schools in a given area. This is important as evidence from a range of different countries suggests that inequalities between pupils from different social groups are accentuated by between-school tracking (see Pfeffer 2008; van de Werfhorst and Mijs 2010). England has, in international terms, a predominantly ‘comprehensive’ system, with little explicit tracking into academic and non-academic schools. However, there is a degree of school selectivity resulting in what might be called implicit tracking (see Nikolai and West 2013). Moreover, changes to education policy have resulted in the creation of new school types with admissions criteria and policies that, in some cases, differ significantly from those found in other publicly-funded schools. There has, as a result, been considerable policy interest and academic debate about these schools, their composition and educational outcomes.

At the same time there has been interest in the association between house prices and schools, with research indicating that school ‘quality’ defined in terms of a school's academic performance is associated with higher housing prices. This paper brings together these two key issues: secondary school admissions in England and property prices. The first part of the paper provides an historical, institutional and policy context, the second addresses admissions to secondary schools, the third previous research. The fourth section provides our analysis of pupil intake, house prices and academies and the final section concludes.

Historical, institutional and policy context

Historical context 1944-1979

Secondary school admissions in England can only be understood with reference to institutional and policy context over time. Following the 1944 Education Act a national system of compulsory primary and secondary education was established in England. The provision of schools was made by either local education authorities (broadly equivalent to school districts) or voluntary bodies, normally the churches. Admissions to local education authority schools were determined by the local education authority, whilst admissions to most voluntary schools were made by the school’s governing body. The legislation also allowed for an academically-selective system of secondary education: grammar schools for the most academically able, technical schools for those with technical aptitude and secondary modern schools for the remainder. Admission to grammar schools was based, in the main, on the results of the ‘eleven plus’ a test of ability taken in the final year of primary school. However, concerns were raised about the so-called ‘tri-partite’ system, as the main beneficiaries of grammar schools were

---

1 In England, unlike the US, there is no church-state divide, with the majority of religious schools being publicly funded.
2 For the small number of voluntary-controlled schools, admissions were the responsibility of the local education authority.
3 Generally at the age of 11 years.
children from middle class backgrounds (Floud 1956). Thus, following the 1964 general election, the Labour Government requested local education authorities to submit plans for the introduction of ‘comprehensive’ (all ability) secondary education. Although this request was withdrawn following the election of a Conservative government in 1970 (Simon 1991), proposals for comprehensive reorganization continued to be submitted to central government by local authorities. By the beginning of the 1980s, comprehensive schooling was almost universal (Gordon et al. 1991), although some local authorities retained grammar schools.

**Introduction of a quasi-market 1979—**

Major changes to school-based education policy took place under successive Conservative governments (1979 to 1997). The 1980 Education Act gave an increased emphasis to parental ‘choice’ of school and following the 1988 Education Reform Act further legislative changes resulted in school funding being determined predominantly on the basis of pupil numbers (in essence a quasi-voucher system) and schools being required to admit pupils up to the school’s physical capacity. School budgets were delegated from local education authorities to schools, with governing bodies deciding how the budget should be sent, and appointing school staff. National test results and public examination results at different stages of primary and secondary education were also published via government-produced ‘performance tables’ and ‘league tables’ published in the media. A quasi-market (Le Grand and Bartlett 1993) was thus created, with schools being incentivized to increase the number of pupils admitted and maximize their ‘league table’ position.

A new type of school was also introduced: the city technology college (CTC). CTCs differed from other government-funded (maintained) schools in that they were not funded by local authorities nor under their jurisdiction; rather they were funded by central government via a legally binding contract and owned by a private (non-public) body, with sponsors providing a proportion of the capital costs.

Under the 1988 Education Reform Act, maintained schools could also opt out of local authority control and become ‘grant-maintained’, gaining control over admissions from the local authority and becoming the employer of staff. In so doing, they joined those schools that had long had this responsibility, in the main voluntary-aided schools. Grant-maintained schools were funded by central government, but unlike CTCs, they had to follow the national curriculum. They also employed their own staff but unlike CTCs were bound by national school teachers pay and conditions regulations. Although more

---

4 Via circular 10/65.
5 There are currently 164 grammar schools in England, making up 5 percent of secondary schools.
6 The local education authority was the employer for community and voluntary-controlled schools (see also Annex A).
7 Unlike other schools, they also had a particular focus on science and technology education. Only 15 CTCs were established.
autonomous than other maintained schools, grant-maintained schools were nevertheless required to adhere to education law, unlike CTCs that were bound by contract law.  

Commentators expressed concerns about secondary school admissions following the introduction of these reforms. These related to the admissions process (Audit Commission 1996), the use of interviews, overt selection on the basis of ability or aptitude, social or covert selection and complex application procedures (Gewirtz et al. 1995; West et al. 1998). Following the election of the Labour Government in 1997, the 1998 School Standards and Framework Act (SSFA) was passed. Grant-maintained schools retained their comparative autonomy as (in the main) foundation schools, but were no longer funded by central government, instead they received their budgets via the local authority and were subject to local authority ‘control’ (in effect, supervision).

In 2000, academies were introduced, with the first schools opening in the 2002/3 school year. These bear similarities to CTCs in terms of their organisational form (West and Bailey 2013). However, the overall policy goal was to replace poorly performing schools and improve pupil performance. Initially known as ‘city academies’ they were outside local authority control and sponsored by businesses, individuals, churches or voluntary bodies which initially made a contribution (intended to be around 20 percent) of the capital costs (Department for Education and Employment (DfEE) 2000). Academies were set up by the sponsoring bodies; these established a private company with charitable status (not for profit), and entered into a funding agreement with the Secretary of State for Education and Employment. They offered a ‘broad and balanced’ curriculum and specialized in at least one area of the curriculum (e.g., science and technology, languages, the arts or sport). The aim was for academies to be ‘all ability’ schools although they were permitted to select up to 10 percent of pupils on the basis of aptitude in the academy’s specialist area. Admissions policies were agreed with the DfEE. Revenue costs were met by the government and set at a comparable level to other schools in the local authority, with additional funding to cover services for which the academy would be responsible (see West and Bailey 2013).

The Education Act 2002 allowed for academies outside urban areas, for all-age academies and an emphasis on any subject area. Following the 2005 general election a goal of having at least 200 academies open by 2010 ‘or in the pipeline in areas of traditionally low standards’ was set (Department for Education and Skills (DfES), 2005: 29).

---

8 Kenneth Baker, the then Secretary of State for Education, considered CTCs to be ‘prototypes’, laying the ground for grant-maintained schools which he regarded as in many respects ‘the direct descendants’ of CTCs (Baker 1993, 181).

9 There were also concerns prior to the 1988 Education Reform Act: a report commissioned by the former Inner London Education Authority (1985) expressed concern that some voluntary-aided secondary schools (responsible for their own admissions) were using interviews to obtain a disproportionate number of higher ability pupils.

10 Academies share some similarities with US charter schools, which are independently run but publicly-funded schools that are not subject to the same regulatory framework as other public schools (see Zimmer et al. 2009).

11 For details of the ownership of schools of different types, see Annex A.
By 2010, there were 203 sponsored academies up and running in England (see West and Bailey 2013). Following the 2010 general election, the Conservative-Liberal Democrat Coalition enacted the Academies Act 2010 allowing schools to convert to academy status (under certain conditions) (converter academies). Sponsored academies are still being established to replace, in the main, schools deemed to be providing poor quality education (West and Bailey 2013): in January 2013, 12 percent of secondary schools were sponsored academies (401 out of 3,281 state funded secondary schools in England) (DfE 2013a).

Summary of Secondary School Types

To summarise, there are currently seven different school types that make up the English secondary education system: fee-charging independent schools, academy schools, city technology colleges (CTCs), voluntary-aided schools, foundation schools, voluntary-controlled schools and community schools. Each school type is characterised by a unique set of features regarding their school autonomy. This is shown in Table 1. In this Table, we order the different school types by the amount of autonomy that their governing body/management body has to make schooling decisions, ranging from fee-charging independent schools with most autonomy, and community schools with the least.

The changing pattern through time is described in Table 2, which shows the number of state-maintained English secondary schools – of each school type – in operation at the start and end of the eight year period beginning in the school year 2001/2. The Table shows that, by the 2008/9 school year, there were 133 academies. These were gradually introduced, with the first three opening in 2002/3, and then speeding up in the subsequent school years as follows: 2003/4 - 9; 2004/5 - 5; 2005/6 - 10; 2006/7 - 19; 2007/8 - 37; 2008/9 - 30. The Table shows reductions in the other secondary school types as the share of academies rose to 4 percent of the secondary sector by 2008/9. As noted above, the number of academies operating under the Labour regime rose further to 203 by the time the government changed in the May 2010 election.

Admissions to schools

Regulatory framework

The 1998 SSFA established a new legal framework for admissions; two key mechanisms were introduced, the Schools Adjudicator (whose responsibilities include ruling on objections to schools’ or local authorities’ admission arrangements) (West and Ingram 2001), and the School Admissions Code. In the first Code (DfEE 1999) it was 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. Criteria were not to be unlawful; the admission

\footnote{When sponsored academies are established, experiences of head teacher and staff turnover vary as head teachers and school staff may or may not continue in their posts, though this is currently an under-researched aspect of the academies programme.}
authority had to consider the factors it believed to be the most important to ensure that children received an ‘efficient and suitable education’ and had to have had ‘regard to the guidance’ in the Code (DfES, 2003, para. A.51). Admission authorities had a duty to consider its provisions but, having done so, they were able to set criteria that did not comply with the Code provided they had good reasons for their actions and what they chose to do did not contravene its general principles or the law.

Significant regulatory changes followed the 2006 Education and Inspections Act. This prohibited interviews ‘where the interview is to be taken into account…in determining whether the applicant is to be admitted to the school’ (part 3, s 44); and the Education (Admission of Looked After Children) (England) Regulations, introduced in 2006, require an admission authority to give ‘first priority in its oversubscription criteria to all relevant looked after children’ 13 (s 3), a particularly disadvantaged group. The Code was also strengthened from one which admission authorities should ‘have regard to’ to one with which they must ‘act in accordance’; thus in the third School Admissions Code (DfES 2007) certain provisions were ‘mandatory’ or ‘prohibited’.

The 2008 Education and Skills Act further strengthened the statutory admissions framework. A revised (fourth) Code was published in 2009 (DCSF 2009) noting that the application and allocation process was to be made easier, with, from 2010, parents only needing to apply to the local authority in which they lived and national closing dates for applications being specified. In 2010, the Code was amended slightly and reissued (DCSF 2010). A new Code was introduced in 2012 (DfE 2012a), which was broadly similar to the 2010 Code.

Admissions process

In terms of the process of secondary school admissions, parents/carers must be allowed to express a minimum of three ‘choices’, or more accurately ‘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 DCSF 2010; DfE 2012). They are required to complete a ‘common application form’ which is provided by and returned to their local authority. Schools outside the local authority where the child lives can be named: thus, a parent can apply for a place for their child at any publicly-funded school in any area. In some cases schools are permitted to seek additional information about prospective pupils, by asking parents/carers to complete supplementary information forms.

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; 14 if there are more applicants than places available, the school’s published oversubscription criteria are used

---

13 Children who are ‘looked after’ or ‘in care’ are those in ‘out-of-home care’ (e.g. family foster care, kinship care, residential/group care) in the US.

14 Except in the case of grammar schools.
to determine which children are offered a place.\textsuperscript{15} As stated in the School Admissions Code (DfE 2012):

If a school is undersubscribed, any parent that applies \textbf{must} be offered a place. When oversubscribed, a school’s admission authority \textbf{must} rank applications in order against its published oversubscription criteria and send that list back to the local authority...All preferences are collated and parents then receive an offer from the local authority at the highest preference school at which a place is available (para. 15, sections d and e).

Schools with responsibility for admissions have more scope to decide on their admissions criteria than other schools whose admissions policies are set by the local authority. Such schools are in a position, if they so wish, to seek to select ‘in’ and ‘out’ certain types of pupils via their oversubscription criteria.

It is also important to note that local authorities provide support with travel costs in certain, legally defined circumstances. This legislation applies to all state-funded schools including academies. Thus, children between the ages of 5 and 16 qualify for free school transport if they go to their nearest suitable school and: live at least 2 miles from the school if they are under 8; or 3 miles from the school if they are between 8 and 16. If there is no safe walking route, they must be given free transport, however far from school they live (DfE 2013b).\textsuperscript{16} In parts of the country (e.g., London) there is additionally provision for free travel on public transport (see Transport for London 2013).

\textbf{Previous research}

A number of research studies have examined secondary school admissions policies in England. West and Hind (2003) provided, for the first time, data relating to admissions criteria and practices used by virtually all publicly-funded secondary schools in England in 2001. They found that a significant minority of secondary schools, in the main those responsible for their own admissions (voluntary-aided and foundation), used a variety of criteria that appeared to be designed to ‘select in’ certain groups of pupils: these criteria included giving priority to children of employees or those with a family connection to the school; selecting a proportion of children on the basis of aptitude/ability in a subject area(s); and interviewing prospective pupils and their parents (West et al. 2004). Subsequent research by Coldron et al. (2008) relating to admissions in 2006, found that

\textsuperscript{15} Notice these explicit criteria that are used means that the system of admissions operating in most English schools is rather different from the mechanisms being used in some US settings (see, for example, Abdulkadiroglu et al. 2005, 2009, or Pathak and Sonmez 2013).

\textsuperscript{16} For families on certain state benefits there is more generous provision: children aged 11 to 16 are entitled to free transport if the school is 2 to 6 miles away, so long as there are not three or more suitable schools nearer to home; and to a school 2 to 15 miles away if the school is their nearest school preferred on the grounds of religion/belief. Children with special educational needs (SEN) or disabilities are entitled to free transport however far they live from the school if they have a statement of SEN that says the local council will pay transport costs; or they are not able to walk because of their SEN, a disability or mobility problem (DfE 2013b).
some schools responsible for admissions, in particular voluntary-aided schools, were less compliant with the provisions of the School Admissions Code and were more likely to use covert selection than were community schools. They also found that there had been an increase in the proportion of schools selecting 10 percent of their intake on the basis of aptitude, with voluntary-aided and foundation schools being more likely to select in this way than community or voluntary-controlled schools (where admissions are the responsibility of the local authority).

A further large scale research study focusing on secondary school admissions in 2008 was carried out, following the Education and Inspections Act 2006 and the introduction of regulations requiring top priority to be given to looked after children (i.e. in local authority care). West et al. (2009; 2011) found that compared with 2001, virtually all schools gave priority (and in the main top priority) to children in care. More schools made reference in their admissions criteria to children with statements of special educational needs (a higher proportion were community/voluntary-controlled schools/academies than voluntary-aided/foundation schools). Very few schools used interviews, (prohibited by the Education and Inspections Act 2006). Fewer schools used criteria that could be used for social/covert selection (e.g., prioritizing children of former pupils/staff). However, more schools selected pupils overtly on the basis of aptitude/ability in a subject area. The highest proportion of schools that selected in this way (allowed by legislation and guidance) were academies and foundation schools. Table 3 gives the percentage of secondary schools in England using different admissions criteria/practices. Given our particular interest in academies, we also give the percentage of academies using the various criteria/practices. It is important to stress that the different criteria are only used in the event of the school being oversubscribed.\textsuperscript{17}

School composition

Research evidence has clearly demonstrated that some types of schools have more advantaged intakes than others, although this is likely to be a result of parents’ differing choices as well as different admissions criteria. Thus voluntary-aided schools on average have more advantaged intakes than community schools in the vicinity (Allen and West 2009; 2011; see also West et al. 2006). There has been particular interest in academies, which were originally designed to replace failing schools. The composition of these has changed over time with a year on year decrease in the proportion of pupils at academies eligible for free school meals (an indicator of poverty). Thus between 2003 and 2008, the proportion of pupils eligible for free school meals decreased from 45.3 percent to 29 percent (Hansard 2008; see also Curtis et al. 2008). This reduction in the proportion of pupils from disadvantaged backgrounds:

may suggest that middle class parents are returning to Academies having not considered their predecessor schools as a viable option. Whilst this suggests that there is now greater choice and diversity for these families, there is also a danger

\textsuperscript{17} Children with statements of special educational need are outside the normal admissions process, and prioritising children with statements is not an ‘oversubscription’ criterion.
that their greater ability to manoeuvre within the market may disadvantage more socially deprived pupils (PriceWaterhouseCoopers 2008, 62)

On the other hand, it can be argued that those disadvantaged children who do attend academies with more advantaged intakes, will benefit from more balanced school intakes as a result of school composition/peer effects.

School performance and house prices

Finally, a significant body of research has explored the association between school performance and housing prices, with the reviews by Black and Machin (2010) and Machin (2011) summarising work that suggests something like an estimated 3-4 percent house price premium for a one standard deviation increase in school average test scores. More recently Gibbons et al. (2013) explored house prices and value added test scores at the primary school stage. Here the quasi-market is less well developed and academic selection is not permitted. Their research demonstrated that house prices respond equally to both the expected academic gains and the initial characteristics of pupils; importantly the association between the school value added and house prices appears to be causal (it should however, be noted that value added is also associated with school composition and hence pupil characteristics).

Consequences of Academy Conversions

In this paper, we study two possible consequences of academy conversions:

First, we ask whether conversion to an academy affected the pupil intake?

Second, we ask whether there is any impact on housing values near academies as parents potentially view the newly converted in an improved light relative to other options, so that demand for school places increases and pushes up local house prices?

Empirical Approach to Studying Academy Conversions

The empirical approach we utilise recognises that the sponsored academies introduced under the Labour programme were typically disadvantaged schools that were converted from a badly performing predecessor school to an academy (Adonis 2012). Thus simply studying what happened before and after conversion amongst academies alone, or undertaking a before/after comparison with all other schools, would be misleading. We thus adopt an approach that looks at what happens to pupil intake and house prices in the area near an academy for academies that convert in the sample period. To do so we define a comparison group as academies that are going to convert in future, but their conversion takes place after the last year of the sample we study.

This comparison group turns out to be a good one (as is shown in detail in Machin and Vernoit 2011) in that the academies that convert in the sample period we study (school years 2001/2 to 2008/9) are very similar in terms of pre-conversion characteristics and in
pre-conversion trends in intake to schools that become academies later under the Labour regime (specifically in the 2009/10 and 2010/11 school years). Thus, we would hope that biases that would emerge for a less well balanced control group should not arise in our analysis.

In Table 4, we look in more detail at which types of school converted to academy status. The upper panel of the Table shows all schools that get academy status, whilst the lower panel shows conversions for the sample of schools on which we have data available pre- and post-academy conversion. The main differences is the small number of new academies (12), for which there is no predecessor school and 5 conversions from independent schools, for which we do not have predecessor school data to analyse.

Table 4 shows that the vast majority of academy schools are actually academy conversions from predecessor schools. The Table also shows that (at least) one school from every secondary school type has converted to an academy. However, the majority of academy conversions occur in community schools. There is also a marked increase in the number of foundation schools that convert to academies as the program has matured. Finally, in the period we study, school years 2002/3 through 2008/9, there are seven cohorts of converting academies on which we have data on 97 schools, and there are two cohorts of schools that have signed up to become academies but that convert after our analysis period ends in 2008/9 (i.e. what we refer to as the future academies).

Pupil Intake

In England, over the time period we study, compulsory schooling was organised into four Key Stages that take place over the eleven years of primary and secondary school. Key Stage 1 runs for the first two years of primary school (for pupils aged 5 to 7) and Key Stage 2 over the next four years. In most local authorities (the exception being the minority that have middle schools) pupils make the transition from primary to secondary school at the end of year 6 (at age 11) and then study in Key Stage 3 for the first three years of secondary school and Key Stage 4 for the final two years (age 14 to 16). At the end of each Key Stage children undertake national tests, the data on which we have access to.

---

18 Machin and Vernoit (2011) present balancing tests showing that academies and ‘future’ academies have very similar (statistically indistinguishable) characteristics. The Table showing this from their paper is reproduced in Annex C below. That Table also makes it clear that schools that convert to academies are very different from most other secondary schools with significantly worse performance and more disadvantaged students in their pre-academy state. Machin and Vernoit (2011) also present results showing pre-conversion trends in pupil intake to be similar in academies and ‘future’ academies.

19 One further issue concerns the schools that convert to academies. There are some examples where a number of schools combine to create one academy school. Where this occurs, we create one hypothetical pre-academy school. This adopts hypothetical characteristics that are a weighted-average – based on their student population at the time of the merge - of the characteristics of the merged schools.

20 From 2013 the age of leaving compulsory education/training is to be raised from 16 to 17, so that there will be twelve years from then (from 2015 it will be raised to 18).
We therefore measure the pupil intake quality for secondary schools using the average standardised Key Stage 2 total points score of their year 7 pupils (i.e. the end of primary school test scores that they obtained before enrolling in secondary school). We measure the average standardised KS2 total points score\(^{21}\) (with a population mean of zero and a standard deviation of one) of the pupils who enrol into year 7 of the academy school (the first year of secondary school).

Table 5, we investigate whether an academy school conversion has an impact on pupil intake of academies vis-à-vis ‘future’ academies over the 2001/02 to 2008/09 period. This Table shows results from three different specifications to report estimates of the impact of academy status on its pupil intake. We begin with the raw differences-in-differences estimate in column (1), and then add time-varying controls in column (2). In column (3), we estimate heterogeneous effects for different cohorts of academies, by placing the first five academy cohorts from the treatment group into an early group and the remaining two academy cohorts of academy school into a late group.

The estimated coefficients in the Table show that there has been a significant increase in the KS2 test scores for the year 7 pupils who enrolled into an academy. This suggests that (on average) the schools that convert to academies experience a sharp and significant increase in the ‘quality’ of their pupil intake at year 7. Column (1) shows the key stage 2 total points score of the year 7 pupils enrolled into an academy to be 0.16 standard deviations higher following the academy conversion. The intake quality (on average) is significantly higher by 0.13 standard deviations when we add the controls in column (2). The estimates in column (3) show that the quality of intake measured by primary school test scores seems to have increased by more in the earlier academy conversions, as the 'early' cohort conversions (cohorts 1 to 5, in school years 2002/3 to 2006/7) saw an increase in the KS2 performance of their year 7 intake by a statistically significant 0.23 standard deviations, as compared to a (statistically insignificant) increase of only 0.03 in the 'later' conversions (academy cohorts 6 to 7, in school years 2007/8 to 2008/9).

These results suggest that (on average) academies seem to be attracting and admitting higher ability pupils once they convert to academy status.\(^{22}\) Given children had five years of secondary school education in the sample period we study, it is the case that most of the academies we study would not have the new post-academy conversion students taking the age 16 school leaving Key Stage 4 exams in our sample period. We therefore do not look at this as an outcome in the school-level analysis we report here.

One interpretation of the results of Table 5 is that higher ability pupils may be substituting away from other schools to the academy schools. In Table 6 we therefore

\(^{21}\) This is calculated by totalling (for each pupil) their overall percentage score in English, Maths and Science. This is then averaged to the level of the year 7 school.

\(^{22}\) Wilson (2011) reports evidence on changing pupil mix using a different metric, showing that academies enrolled approximately 12.5 percent fewer pupils known to be eligible for free school meals. Thus academies also became more socially mixed (see also the discussion in Machin and Silva 2013).
look at the impact on KS2 in neighbouring schools (those within three miles before and after academy openings).

Table 6 shows that academies seem to be upping the quality of their intake by enrolling students from nearby schools. The Table shows there to be significant falls in the average KS2 scores of pupils in secondary schools located within a three mile radius of academy conversions from the difference-in-difference estimates reported.

**House Prices**

The previous sub-section showed an improvement in the quality of the pupil intake following academy conversions. This is probably not that surprising, given the way that many individuals view academy conversion as a school improvement programme. We have also attempted to ascertain whether parents may have increased their demand for academy schools by looking at house prices nearby to academy schools.

We obtained the population of all house price transactions from the UK Land Registry from 2000 onwards and have looked at what happened to house prices in postcodes within one mile of academy conversions before and after conversion, again relative to areas within one mile of ‘future’ academy conversions.

The results are shown in Table 7. The Table has the same structure as the intake Tables, although now the unit of analysis is house price sales (in logs) rather than schools for postcodes within one kilometre of the converting (or future converting) school. The estimates (with standard errors clustered at the area/school level) uncover a positive impact of the order of around 7 percent higher house prices in areas with an academy conversion. As with the pupil intake results, the early/late distinction is also evident, with a significant (and larger positive) effect observed only for the former group.  

**Conclusion**

This paper offers a description of secondary school admissions in England, placing a particular focus on academy schools. The way in which admission procedures are different in academies is highlighted and we present some evidence that the introduction of academy schools to the English secondary school sector has affected the composition of enrolment and parents’ demand for schools.

The English academies programme is proving to be an interesting exercise in education policy that changes school types and organisational structures. Because of this, and recent developments where the policy has changed somewhat, it seems important to place the

---

23 Thus effects on intake and housing values do seem to be a function of time in operation as an academy. This is probably an intuitive finding in that things take a while to change (especially in the housing market). A time lag for beneficial effects to arise is also the case of US work on charter schools where benefits occur in schools that have been running for some time as compared to new openings (Hoxby 2004; Zimmer et al. 2009).
content of this paper in appropriate context in the policy discussion around academy schools in England. We have studied the sponsored academies set up under the Labour government’s programme, which set up 133 academies in the school years we study and which had 203 up and running in May 2010 when a new coalition government was voted in.

Since the 2010 general election, the academies programme has been massively expanded and partly taken on a new direction, with the number of conversions skyrocketing and with the new ‘convertor academies’ not only being in the secondary sector, but also covering primary schools, and even reaching outside the state sector to some independent formerly fee-charging schools. Moreover, the new Coalition academies need not have a sponsor when they are converted. By January 2013, there were 1,638 secondary academies in England, of which 401 were sponsored and 1,187 were converter academies24 (DfE 2013a).

The new converter academies are not characterised by poor performance and disadvantage prior to conversion like the sponsored academies that we analyse in this paper.25 It is too early to do so yet, but in due course once they have been in existence long enough, it will be an important research challenge to analyse the admissions and enrolment behaviour of these new academies.

24 The remaining 50 were other types of academies set up under the 2010 Academies Act (secondary free schools, university technical colleges, and studio schools (see DfE 2013c)).

25 Note that sponsored academies are still being established as well (see West and Bailey 2013).
References


Education and Skills Act (2008)


Hansard (2008) Parliamentary answer by Jim Knight, 9 October, Column 806W. [http://www.publications.parliament.uk/pa/cm200708/cmhansrd/cm081009/text/81009w0020.htm#08100960000073]


http://www.rand.org/pubs/monographs/MG869
### Table 1 - Characteristics of Autonomy in English Secondary Schools

<table>
<thead>
<tr>
<th>Non-LA Admission Authority</th>
<th>Maintained by Non-LA body</th>
<th>Not obliged to follow National Curriculum</th>
<th>Fee-Charging</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered independent school(^a)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Academy(^b)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>City technology college(^c)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Voluntary-aided(^d)</td>
<td>✓</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>Foundation(^e)</td>
<td>✓</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>Voluntary-controlled(^f)</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>Community(^g)</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
</tbody>
</table>

Notes:

\(^a\) - Registered independent schools are independent of the local authority (LA), and are fee-charging.

\(^b\) - Academy schools (prior to 2010/11): all ability independent specialist schools, which do not charge fees, and are not maintained by the local authority; established by sponsors from business, faith, HE institutions or voluntary groups, working in partnership with central government. Sponsors and the DfE provide the capital costs for the Academy. Running costs are met by the DfE in accordance with the number of pupils, at a similar level to that provided by local authorities for maintained schools serving similar catchment areas.

\(^c\) - City Technology Colleges: all ability independent schools, which do not charge fees, and are not maintained by the local education authority. Their curriculum has a particular focus on science and technology education (see West and Bailey 2013). They were established by sponsors from business, faith or voluntary groups. Sponsors and the DfE provided the capital costs for the CTC. Running costs are met by the DfE in accordance with the number of pupils, at a similar level to that provided by local authorities for maintained schools serving similar catchment areas.

\(^d\) - Voluntary-aided schools are maintained by the local authority. The foundation (generally religious) appoints most of the governing body. The governing body is responsible for admissions and employing the school staff. Land at voluntary-aided schools is usually owned by trustees, although the local authority often owns any playing field land (DfE 2012e).

\(^e\) - Foundation (formerly grant-maintained) schools are maintained by the local authority. The governing body is responsible for admissions, employing the school staff, and either the foundation or the governing body owns the school’s land and buildings (DfE 2012e).

\(^f\) - Voluntary-controlled schools are maintained by the local authority. These are mostly religious schools where the local authority continues to be the admission authority. Land at voluntary-controlled schools is usually owned by trustees, although the local authority often owns any playing field land (DfE 2012e).

\(^g\) - Community schools are maintained by the local authority. The local authority is responsible for admissions, employing the school staff, and it also owns the school’s land and buildings.
Table 2 - Number (Percent) of Secondary Schools in England, 2001/2 and 2008/9

<table>
<thead>
<tr>
<th>Number (Percent) of Secondary Schools by Type</th>
<th>2001/2</th>
<th>2008/9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academy</td>
<td>0 (0.0)</td>
<td>133 (4.0)</td>
</tr>
<tr>
<td>City technology college</td>
<td>14 (0.4)</td>
<td>3 (0.1)</td>
</tr>
<tr>
<td>Voluntary-aided</td>
<td>555 (16.0)</td>
<td>537 (16.0)</td>
</tr>
<tr>
<td>Foundation</td>
<td>609 (17.5)</td>
<td>560 (16.7)</td>
</tr>
<tr>
<td>Voluntary-controlled</td>
<td>116 (3.3)</td>
<td>111 (3.3)</td>
</tr>
<tr>
<td>Community</td>
<td>2177 (62.7)</td>
<td>2017 (59.9)</td>
</tr>
<tr>
<td>Total</td>
<td>3471</td>
<td>3361</td>
</tr>
</tbody>
</table>

### Table 3 - Admissions Criteria and Practices in Publicly-Funded (Non-Grammar) Secondary Schools in England 2008 (percentage table)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>England N=2970</th>
<th>Academies/CTCs N=94</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children ‘in care’</td>
<td>99</td>
<td>98</td>
</tr>
<tr>
<td>Pupils with a sibling on roll</td>
<td>97</td>
<td>85</td>
</tr>
<tr>
<td>Distance between pupil’s home and school</td>
<td>93</td>
<td>87</td>
</tr>
<tr>
<td>Pupils with medical/social need</td>
<td>59</td>
<td>57</td>
</tr>
<tr>
<td>Pupils living in specified catchment area</td>
<td>61</td>
<td>46</td>
</tr>
<tr>
<td>Pupils with statements of special educational needs naming the school</td>
<td>53</td>
<td>67</td>
</tr>
<tr>
<td>Pupils attending ‘feeder’ primary school</td>
<td>38</td>
<td>14</td>
</tr>
<tr>
<td>Pupils/parents meeting religious criteria</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>Compassionate/exceptional factors</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Random allocation (area/tie break)</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Proportion of pupils selected on the basis of ability/aptitude in subject area(s)</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Parents support school ethos</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>No alternative school/difficult journey</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Pupil ‘banding’ used</td>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>Pupils with special educational needs without statement</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Proportion of pupils selected on the basis of ability</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Interview with parent</td>
<td>&lt;1</td>
<td>1</td>
</tr>
<tr>
<td>Interview with pupil</td>
<td>&lt;1</td>
<td>0</td>
</tr>
</tbody>
</table>


This table does not provide an exhaustive listing of admissions criteria/practices used.

* Banding is a way of seeking a mixed ability intake. It involves pupils being placed in groups on the basis of a test and individual schools or schools in an area taking a proportion of pupils from each group (see West 2005).
### Table 4: The Nature of Academy Conversions, 2001/2 to 2008/9

**A. All Schools**

<table>
<thead>
<tr>
<th>Pre-Academy School Type</th>
<th>All</th>
<th>New</th>
<th>Independent</th>
<th>City technology college</th>
<th>Voluntary-aided</th>
<th>Foundation</th>
<th>Voluntary-controlled</th>
<th>Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>All academies</td>
<td>244</td>
<td>12</td>
<td>5</td>
<td>12</td>
<td>18</td>
<td>34</td>
<td>2</td>
<td>161</td>
</tr>
<tr>
<td>All academies, 2001/2-2008/9</td>
<td>133</td>
<td>12</td>
<td>5</td>
<td>12</td>
<td>10</td>
<td>15</td>
<td>1</td>
<td>78</td>
</tr>
<tr>
<td>Future academies, after 2008/9</td>
<td>111</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>19</td>
<td>1</td>
<td>83</td>
</tr>
</tbody>
</table>

**B. All Schools With Full Data (Pre- and Post-Academy Conversion)**

<table>
<thead>
<tr>
<th>Pre-Academy School Type</th>
<th>All</th>
<th>New</th>
<th>Independent</th>
<th>City technology college</th>
<th>Voluntary-aided</th>
<th>Foundation</th>
<th>Voluntary-controlled</th>
<th>Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>All academies</td>
<td>195</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>16</td>
<td>30</td>
<td>1</td>
<td>136</td>
</tr>
<tr>
<td>Become academies, 2001/2-2008/9</td>
<td>97</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>10</td>
<td>13</td>
<td>1</td>
<td>61</td>
</tr>
<tr>
<td>Future academies, after 2008/9</td>
<td>98</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>17</td>
<td>0</td>
<td>75</td>
</tr>
</tbody>
</table>

Notes: Source for upper panel, same as Table 2. Source for lower panel, own calculations from Edubase, School Performance Tables and Annual Schools Census.
### Table 5 - Academy Schools and Pupil Intake, 2001/2 to 2008/9  
(Dependent Variable: Standardised Key Stage 2 Test Score)

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academy conversion</td>
<td>0.162 (0.060)</td>
<td>0.127 (0.057)</td>
<td>0.226 (0.088)</td>
</tr>
<tr>
<td>Academy conversion, early</td>
<td></td>
<td></td>
<td>0.025 (0.065)</td>
</tr>
<tr>
<td>Academy conversion, late</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School fixed effects</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Control variables</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Year dummies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.871</td>
<td>0.875</td>
<td>0.877</td>
</tr>
<tr>
<td>Sample size</td>
<td>1560</td>
<td>1560</td>
<td>1560</td>
</tr>
<tr>
<td>Number of schools</td>
<td>195</td>
<td>195</td>
<td>195</td>
</tr>
</tbody>
</table>

Notes: Standard errors (clustered at the school level) are reported in parentheses. Control variables are: proportion of pupils eligible for Free-School-Meals (FSM), proportion of pupils taking Free-School-Meals (FSM), proportion of pupils who are White-Ethnic, the ratio of total pupils to qualified teachers, proportion of pupils with Special Educational Needs (SEN) with a statement, proportion of pupils with Special Educational Needs (SEN) without a statement. Early comprises cohorts 1-5. Late comprises cohorts 6-7.
Table 6 - Pupil Intake in Neighbouring Schools, 2001/2 to 2008/9
(Dependent Variable: Standardised Key Stage 2 Test Score)

<table>
<thead>
<tr>
<th></th>
<th>Key Stage 2 Test Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td>Academy conversion</td>
<td>-0.037 (0.016)</td>
</tr>
<tr>
<td>Academy conversion, early</td>
<td>-0.038 (0.015)</td>
</tr>
<tr>
<td>Academy conversion, late</td>
<td>-0.033 (0.019)</td>
</tr>
<tr>
<td>Academy conversion, late</td>
<td>-0.050 (0.024)</td>
</tr>
<tr>
<td>School fixed effects</td>
<td>Yes</td>
</tr>
<tr>
<td>Control variables</td>
<td>No</td>
</tr>
<tr>
<td>Year dummies</td>
<td>Yes</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.936</td>
</tr>
<tr>
<td>Sample size</td>
<td>7937</td>
</tr>
</tbody>
</table>

Notes: Sample is all schools within three miles of an academy before and after academy conversion. Standard errors (clustered at the school level) are reported in parentheses. Control variables are: proportion of pupils eligible for Free-School-Meals (FSM), proportion of pupils taking Free-School-Meals (FSM), proportion of pupils who are White-Ethnic, the ratio of total pupils to qualified teachers, proportion of pupils with Special Educational Needs (SEN) with a statement, proportion of pupils with Special Educational Needs(SEN) without a statement. Early comprises cohorts 1-5. Late comprises cohorts 6-7.
Table 7 - Academy Schools and House Prices, 2001/2 to 2008/9  
(Dependent Variable: Log House Price)

<table>
<thead>
<tr>
<th></th>
<th>Log(House Price)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Academy conversion</td>
<td>0.069 (0.021)</td>
<td>0.068 (0.020)</td>
<td></td>
</tr>
<tr>
<td>Academy conversion, early</td>
<td></td>
<td>0.073 (0.028)</td>
<td></td>
</tr>
<tr>
<td>Academy conversion, late</td>
<td></td>
<td>0.017 (0.020)</td>
<td></td>
</tr>
<tr>
<td>Area fixed effects</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Control variables</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Year dummies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.626</td>
<td>0.726</td>
<td>0.758</td>
</tr>
<tr>
<td>Sample size</td>
<td>854945</td>
<td>251199</td>
<td>251199</td>
</tr>
<tr>
<td>Number of postcodes</td>
<td>86135</td>
<td>32679</td>
<td>32679</td>
</tr>
<tr>
<td>Number of areas</td>
<td>195</td>
<td>195</td>
<td>195</td>
</tr>
</tbody>
</table>

Notes: Area is defined as all postcodes within one mile of an academy (before and after conversion) or academy to be school (before conversion). Sample includes all house purchase transactions (detached, semi-detached, terraced houses, flats) in these postcodes. Standard errors (clustered at the area/school level) are reported in parentheses. Control variables are: whether a new build house; whether a freehold (relative to leasehold); whether detached, semi-detached terrace house (relative to flats); and a differential trend for postcodes in London (in all three specifications). Early comprises cohorts 1-5. Late comprises cohorts 6-7.
Annex A School ownership

Before the Education Reform Act 1988, most schools were owned and funded by the local authority (see Table A1, A). Some schools, in the main church schools (notably voluntary-aided) were owned by charitable foundations (private, not for profit bodies) (B). Following the Education Reform Act, schools could opt out of local authority control and become grant-maintained (C); these schools were also owned by charitable foundations. In addition, CTCs were introduced: although owned by charitable foundations, they had a contract with the government (D).

With the passing of the Schools Standards and Framework Act 1998, grant-maintained schools generally became foundation schools. Although still owned by a charitable foundation, they were funded by the local authority not central government (B), so becoming more like voluntary-aided schools. Sponsored academies were also introduced by the Labour Government (D). And following the Academies Act 2010 enacted by the Conservative-Liberal Democrat Government, schools could apply to convert to academy status (D).26 Academies, like CTCs, are owned by a charitable foundation, contracted by government to provide education, and funded via a funding agreement with the Secretary of State.

Table A1 Schematic outline of ownership27 and funding of main types of publicly-funded schools in England

<table>
<thead>
<tr>
<th>Owned by the local authority</th>
<th>Owned by charitable foundation (private, not for profit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funded (predominantly) by local authority</td>
<td>A [Community schools]</td>
</tr>
<tr>
<td>Funded (predominantly) by central government</td>
<td></td>
</tr>
<tr>
<td>Funded (predominantly) by central government via legal contract (funding agreement)</td>
<td></td>
</tr>
</tbody>
</table>

Source: West and Bailey (2013)

Annex B Some examples of secondary schools’ admissions criteria
Source: West et al. (2009)

26 The land and buildings are leased or transferred from their current landowners (e.g., local authority, diocese) (DfE 2012b).
27 The land at community schools is owned by the local authority; the land at foundation schools is owned by the governing body or trustees; land at voluntary schools is usually owned by trustees, although the local authority often owns any playing field land (DfE 2012e).
• **Community**
There is no guarantee of a place at the school. In the event of oversubscription places will be allocated using the following criteria in the order given:
1. Children Looked After;
2. Children with a sibling attending the school;
3. Remaining applications.
In the event of oversubscription within any of the above criteria, priority will be determined by straight line distance from home to school, those living closest being given the highest priority. Exceptional medical circumstances (supported by medical evidence) may override the above.

• **Community and academies in one LA**
Should there be more applications than places available, the following criteria will be used to allocate the places.

In accordance with the Education Act 1996, children with a Statement of Special Educational Needs are required to be admitted to the school named in the Statement. Thereafter, the following priorities will apply:-

1. Pupils who are ‘looked after’ by a local authority where the person with parental responsibility completes the application form.
2. Pupils living in the catchment area of the school/academy.
3. On medical grounds supported by a medical certificate.
4. Brothers and sisters of pupils attending the school/academy when the pupil starts at the school/academy...
5. On the shortest distance, measured in a straight line, between the main entrance of the school/academy site and the pupil’s home address (mid point, front of house), with those living closer to the school/academy being accorded higher priority.

The admissions criteria will be applied separately and sequentially until places are filled. Priority is not given within each criterion to children who meet other criteria. If the Council is unable to agree a place for all children meeting a specific criterion, the distance criterion (5 above) will be used as a tiebreaker.

• **Voluntary-aided school**
Pupils will be admitted without reference to ability or aptitude. The number of intended admissions for the academic year commencing September 2008 will be 180.
Where applications for admission exceed the number of places available, the following criteria will be applied (in the order set out below) to decide which children to admit:
1a. Children who are in receipt of a Statement of Special Educational Needs (in accordance with the 1996 education act) as being in need of an educational placement at the school.
b. Children who are in public care (‘Looked After’ children)
2. Anglicans
   A. The practicing Anglican children of practicing Anglican families.
B Practicing Anglican Children.
C Children of practicing Anglican families.

3 Other Christian Denominations
In recognition of the wider Christian commitment of the school, parents/carers who
tend worship at a Christian* Church.
The same order of preference as to religious commitment, residence and relationship will
apply as for Anglican parents/carers.
4 Other Applicants
A Children who attend a Church of England (Aided) primary school and whose parents
wish them to continue to be educated within a formal Christian ethos. Such applications
to be accompanied by a written statement from either the visiting clergy at the school or
the headteacher of the primary school.
B Children whose parents have a religious commitment (other than those specified
above). Such applications should be accompanied by a written statement from a religious
leader.
C Any other children. These should be accompanied by a supporting letter from the
parents.

Notes:
Where applications for admission exceed the number of places available, the following
criteria will be applied, in the order set out below, to decide which children to admit:
1. How regularly and frequently the child attends worship at a Christian* Church.
2. How regularly and frequently at least one parent attends worship at a Christian*
Church.
3. The number of years the child’s attendance at Church has been sustained.
4. The number of years the parent’s attendance at Church has been sustained.
5. Whether brothers or sisters currently attend this school.
6. Whether the child attends a Church of England (Aided) primary school.
7. Whether the child is a practicing member of another faith community.
An authorised Church official must provide information, usually the parish
priest/minister.

Points are awarded according to each criterion, and when the total has been calculated for
each child, the governors will allocate places to those children reaching the appropriate
qualifying ‘score’. This is the point at which 180 pupils can be admitted. This ‘score’
varies from year to year as it is dependent upon the number of applications received and
the nature of the church affiliation of that year’s parents/carers, so it cannot be
determined before all applications have been processed.
Should a situation occur where either:
A offering places to all of a group of parents/carers on a particular point score takes us
over our admission number, or
B all remaining candidates have zero points and the intake is not yet full
then governors reserve the right to offer the final places to those children living nearest to
[the school] as measured by the straight line method form the pupil’s registered address
to the school.
* Please note that the governors have defined ‘Christian church’ as being any Church in membership of, or sharing the statement of belief of ‘Churches Together in England’

**Foundation school**

Oversubscription: If the number of preferences received is more than the number of places available, places will be allocated in the following order:

i. those looked after children;
ii. where a child has a sibling attending [the school] at the time of application and who will still be on roll at the point of entry (natural brother/sister, stepbrother/sister, fostered or adopted child) in each case where this child also lives in the same household;
iii. those living nearest to [the school], measured by safest distance walking route, will take priority.

**Academy**

Where the number of applications for admission is greater than the published admissions number, applications will be considered against the criteria set out below:

Children who are ‘looked after’ under provision of the Children Act 1989.

Siblings in the Academy at the time of admission (siblings would include half, step, adoptive and foster siblings provided they also live at the same address as the applicant).

Students in the defined catchment area: in the case of oversubscription, geography will be used as the tie breaker. Distance will be measured in a straight line from the child’s home to the entrance of the Principal’s office with those living closest being given priority.

The admission of pupils with a statement of special educational needs is dealt with by a separate procedure. Pupils for whom a statement of special educational needs has been made in which [named] Academy is named will be admitted.

**Academy**

When the Academy is oversubscribed, priority for admissions will be given to those children who meet the criteria set out below, in priority order:

1. Students with statements of special educational needs where the Academy has consented to be named in the statement.
2. Students in public care (looked after children).
3. 10 percent of students will be admitted on the basis of aptitude in sport, using a specified assessment process.
4. Pupils for whom it is essential to be admitted to the Academy because of special circumstances to do with significant medical or social needs evidenced by written medical advice.
5. Student who, on the date of admission, will have a sibling (i.e. a natural brother or sister, or half brother of sister, or a legally adopted brother or sister or half-brother or sister, who will be living with them at the same address at the date of their entry to the Academy) on the roll of [named] Academy.

6. Of the remaining places:

7. 50 percent will be offered to students living within three miles and south of [named river], on the basis of proximity, i.e. students who live the nearest radial distance to the Academy on the close of the admission application date. The radial distance is measured as a direct line from the Academy’s main building entrance on [named road]. Home to academy distance will be measured as the direct line distance between the applicant’s home to the Academy’s main building entrance on [named road].

8. The remaining 50 percent will be offered to applicants living within three miles and south of [named river], on the basis of an independently operated random allocation.

Annex C

The following Table (on the next page), reproduced from Machin and Vernoit (2011), presents the balancing tests of pre-conversion characteristics of academies and ‘future’ academies (those that become academies after the sample period ends):
**Table C1: Pre-Academy Conversion School Characteristics and Balancing Tests**

<table>
<thead>
<tr>
<th></th>
<th>Proportion eligible for free school meals</th>
<th>Proportion taking up free school meals</th>
<th>Proportion white</th>
<th>Proportion getting 5 or more A*-C GCSEs</th>
<th>Key stage 2 points score</th>
<th>Full-time equivalent pupils</th>
<th>Full-time equivalent qualified teachers</th>
<th>Proportion special educational needs, with statement</th>
<th>Proportion special educational needs, no statement</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>City technology college</td>
<td>0.080</td>
<td>0.076</td>
<td>0.970</td>
<td>0.919</td>
<td>73.781</td>
<td>1204.071</td>
<td>81.643</td>
<td>0.005</td>
<td>0.055</td>
<td>2</td>
</tr>
<tr>
<td>Voluntary-aided Foundation</td>
<td>0.126</td>
<td>0.098</td>
<td>0.807</td>
<td>0.637</td>
<td>66.142</td>
<td>956.586</td>
<td>53.663</td>
<td>0.018</td>
<td>0.128</td>
<td>455</td>
</tr>
<tr>
<td>Voluntary-controlled</td>
<td>0.097</td>
<td>0.074</td>
<td>0.856</td>
<td>0.618</td>
<td>65.787</td>
<td>1124.553</td>
<td>61.254</td>
<td>0.019</td>
<td>0.137</td>
<td>429</td>
</tr>
<tr>
<td>Community</td>
<td>0.081</td>
<td>0.058</td>
<td>0.904</td>
<td>0.636</td>
<td>66.622</td>
<td>1146.019</td>
<td>61.008</td>
<td>0.023</td>
<td>0.124</td>
<td>72</td>
</tr>
<tr>
<td>All academies</td>
<td>0.267</td>
<td>0.196</td>
<td>0.837</td>
<td>0.302</td>
<td>56.107</td>
<td>954.527</td>
<td>55.404</td>
<td>0.029</td>
<td>0.243</td>
<td>195</td>
</tr>
<tr>
<td>Become academies, 2001/2-2008/9</td>
<td>0.272</td>
<td>0.203</td>
<td>0.796</td>
<td>0.320</td>
<td>56.715</td>
<td>921.167</td>
<td>53.495</td>
<td>0.030</td>
<td>0.235</td>
<td>97</td>
</tr>
<tr>
<td>Future academies, after 2008/9</td>
<td>0.264</td>
<td>0.190</td>
<td>0.865</td>
<td>0.289</td>
<td>55.693</td>
<td>977.250</td>
<td>56.704</td>
<td>0.028</td>
<td>0.248</td>
<td>98</td>
</tr>
<tr>
<td>Treatment-control gap</td>
<td>0.008</td>
<td>0.013</td>
<td>-0.069</td>
<td>0.031</td>
<td>1.022</td>
<td>-56.083</td>
<td>-3.209</td>
<td>0.002</td>
<td>-0.013</td>
<td></td>
</tr>
<tr>
<td>(Standard error)</td>
<td>(0.020)</td>
<td>(0.016)</td>
<td>(0.025)</td>
<td>(0.022)</td>
<td>(0.771)</td>
<td>(46.091)</td>
<td>(2.721)</td>
<td>(0.002)</td>
<td>(0.015)</td>
<td></td>
</tr>
</tbody>
</table>

Notes: From Machin and Vernoit (2011).