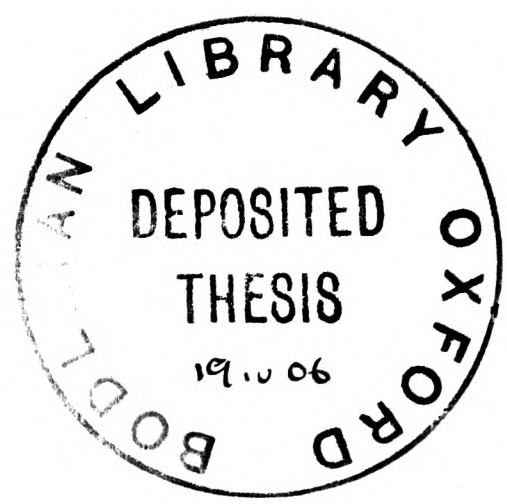
Choice and Social Segregation in Education:

The Impact of Open Enrolment on the Social Compositions of English Secondary Schools

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Trinity Term, 2005 [ie 2006] (Hil 2006)



Thesis submitted in partial fulfilment of the requirements for the degree of D.Phil in Social Policy in the Social Sciences Division at the University of Oxford.

Abstract

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The Education Reform Act of 1988 introduced a policy of open enrolment into English secondary education that was designed to enhance the scope for parental choice of schools. In the resulting 'quasi market' for education, state school admissions authorities can no longer deny most expressed parental preferences, and the majority of state educational funding follows pupils to the secondary schools that they attend. Accompanying these policy reforms has been a longstanding concern that the new school attendance patterns resulting from the enhanced choice present within an open enrolment system would further polarize the social compositions of secondary schools in England. This thesis employs recently developed individual-level databases such as the Pupil Level Annual Schools' Census (PLASC), along with GIS mapping software, to investigate the role that choice of non-local schools played in the degree of social segregation in English secondary schools in 2002.

A detailed analysis of the data reveals high rates of non-local school attendance across many areas of England in 2002 as large numbers of pupils from all backgrounds bypassed their local schools in favour of non-local alternatives. Although non-local school choice was exercised by both disadvantaged and more advantaged segments of the schooling population, pupils eligible for free school meals were less likely to attend higher performing non-local schools than their more advantaged counterparts. The disproportionate gains made from non-local school attendance by more advantaged secondary pupils within the marketplace helped to reinforce local school hierarchies already strongly associated with performance and social composition. As the individual level pupil data in PLASC illustrates, the exercise of non-local school choice in 2002 produced school compositions that were more segregated by socio-economic status than they otherwise would be under a system of local school catchments. Thus, rather than helping to diminish the social segregation of secondary pupils resulting from pronounced residential segregation levels, the availability of parental choice instead further stratified most English secondary schools by socio-economic status in 2002.

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Introduction

During the past two decades several countries have chosen to adopt enrolment policies in compulsory education designed to enhance the scope for parental choice of schools. The move toward widespread parental choice at the secondary level has come as part of broader reform measures intended to restructure state schooling and to create more devolved systems based upon local management, diversity of provision, and market-based methods of delivery (Whitty and Power, 2000). In many cases, the 'marketization' of education has accompanied parallel reforms in other public services, although the extent and nature of these reforms has varied within different national settings.

The motivations behind choice legislation range from concerns with the efficiency of state-controlled education systems to attempts to provide parents with more autonomy over the increasingly important subject of their child's education. Parental choice of schools is, in a sense, nothing new, having always been available in most national systems to those willing and able to choose fee-paying and selective schooling alternatives. Extending the availability of choice to all parents (at least in theory) through open enrolment, the dissolution of traditional school zones, and the creation of a managed market framework, however, constitutes a fundamental restructuring of the public education sector, a transformation played out on perhaps the largest scale within England and Wales.[1] A series of policy reforms culminating in the landmark Education Reform Act of 1988 effectively introduced a 'quasi-market' into English schooling in which admissions authorities could no longer deny expressed parental preferences (except in the case of oversubscription) and the majority of central funding followed pupils to the schools they decided to attend.

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[1] As the focus of my research is the secondary schooling sector in England (and because of the similar nature of the education reforms in England and Wales) I will generally refer to England alone in the discussion.

The Debate over Choice-based Reforms

The 'new' education market has drawn a great deal of attention in the popular media and sparked an intense debate amongst policymakers, academics, and educationalists over both the merits of choice and the application of market principles to public policy reforms in general. While many of the reasons originally behind the push for market-based reforms in education grew from concerns over bureaucratic efficiency, school responsiveness, and other procedural difficulties, the central mechanism selected to enact these reforms—the bestowal of broader parental choice—has received the most attention in subsequent policy evaluations. Views on the impact of parental choice range from, on the one hand, the belief that it provides the best means for extending opportunities to low-income families that currently lack educational options to, on the other hand, the objection that it disproportionately assigns benefits to the middle-upper income families who possess greater capacities to choose.

Many researchers and educationalists argue that the adoption of widespread parental choice and other market mechanisms in education will lead to the stratification of school intakes and educational opportunities along several lines including social background, parental education, and academic ability (e.g., Ball, 1993; Gewirtz *et al*, 1995). Of particular importance is the question of whether the introduction of universal choice polarizes the educational system, creating a situation in which socio-economic disadvantages translate into disparate educational opportunities as more advantaged children (and their funding) migrate in large numbers to high-performing schools. Known as the *polarization thesis*, this prediction maintains that the self-interested selection process of oversubscribed schools (or 'cream-skimming') combined with the inability or disinclination of low income parents to successfully 'play' the market will lead school intakes and compositions to become increasingly segregated by social class and other features related to scholastic aptitude and the capacity to choose. If genuine, this phenomenon would have serious implications both for the educational and

employment opportunities of individual pupils and for society's broader interest in meritocracy, social mobility, and social inclusion.

Alternatively, advocates of choice-based education reforms argue that broadening the options of *all* parents will inevitably produce schools that are less segregated than the communities they exist within, helping instead to mitigate the effects of residential barriers and class differences in resources and mobility (e.g., Cookson, 1994; Tooley, 1997a). While the parental choice policies adopted during the 1980s raise several key research questions regarding the appropriateness and effectiveness of applying a market logic to the provision of public services, it is the concerns with the equity (or fairness) of the market-based reforms that have been at the forefront of the choice debate and dominated the subsequent research on the subject.

The outcome of the polarization argument is especially significant because the issue exists at the nexus of greater concerns with the distribution of opportunities across modern societies and the role of education in stimulating economic growth, maintaining social status, and promoting individual merit. In England, such concerns grow out of a long-standing debate over the merits of selective education and the widespread fear that choice will help introduce a 'covert selection' process into a largely comprehensive system of public education. Whether or not parental choice policies have a stratifying effect upon school intakes and pupil outcomes also bears upon the decisions of policymakers in the United States and other nations still considering the expansion of choice-related education schemes. Therefore, data from nations such as England that have already adopted broad choice reforms provides valuable evidence for examining whether or not the concerns over the consequences of market-based reforms in education have been justified.

Previous Research on the Secondary Education Market in England

Throughout the 1990s, a wide range of research was performed on the secondary education marketplace in England. These studies produced a host of contradictory findings and resulted in almost paradoxical claims about how the new market-based

reforms have influenced the landscape of public education. The majority of parental choice research to date has been qualitative, small-scale and focused upon the *process-side* of choice, utilizing largely ethnographic data to describe the landscape of the 'lived market'[2] faced by parents (usually with reference to the choice of their child's secondary school). These studies analyse the various approaches adopted by schools to market themselves and admit pupils within a market system. Perhaps most critically, they also elucidate the choice-making process itself and how different parents engage in various ways with the market, often along class-based lines.

Process-side qualitative research has raised awareness about the ways in which the inclination and ability to utilize parental choice vary within a population, highlighting the relevance of early criticisms regarding the potential inequities inherent to the education marketplace (e.g., Wilms and Echols, 1992; Ball *et al*, 1995; Woods *et al*, 1998). After finding a strong correlation between social class position and the use of choice, many researches have gone on to endorse the polarization thesis and to voice concerns over the continuance of choice-based policies (e.g., Gewirtz *et al*, 1995; Lauder *et al*, 1994; Hatcher, 1998; Whitty *et al*, 1998). This conclusion, however, has been increasingly put to the test through the application of quantitative, *product-side* research geared toward exploring the actual impact of parental choice policies upon secondary school compositions and pupil performance.

Although common to studies of school and neighbourhood segregation in the United States, large-scale quantitative analyses have only recently been employed by researchers in England to evaluate the impact of the market-based reforms in education. Researchers at Cardiff University have performed the largest examination to date of the impact of market reforms upon the English education system. Using official statistics for every secondary school in England and Wales from 1989-1998, Stephen Gorard and John Fitz have shown that, contrary to the expectations resulting from the qualitative

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[2] A term first used by researchers in the New Zealand Ministry of Education's Smithfield Project (e.g. Lauder et al, 1994) to describe both the formal and informal properties of the competition found within education markets.

literature, pupils of low socio-economic status (measured by the proportion of pupils in a school on Free School Meals) have actually become more evenly distributed between schools since the implementation of choice reforms in 1988 (e.g., Gorard and Fitz, 2000). Gorard and Fitz are reluctant to attribute this result to the advent of the education market, but they broadly conclude that there is no evidence to suggest that polarization of school compositions has occurred in England and Wales. They surmise that for the most part '[secondary] schools are now significantly more socially mixed than in 1988 in the sense that the intake to each school is generally a better reflection of the wider society from which it recruits' (Gorard, Fitz, and Taylor, 2001: 21). Subsequent research (Taylor and Gorard, 2001; Taylor, 2002) has expanded these findings, documenting further the 'geography of choice' in England, as well as the influence of local area factors and admission policies upon school compositions.

Nonetheless, the question of social polarization across English secondary schools is far from resolved. Empirical studies from other countries (e.g., Lauder and Hughes, 1999), along with several similar examinations of the class compositions of English secondary schools (e.g., Levacic and Hardman, 1998; Gibson and Asthana, 2000; Noden, 2000), offer conclusions opposed to the findings of Gorard and his colleagues at Cardiff. Moreover, even if conclusive, there remains to be explained the central discrepancy between the quantitative evidence presented by the Cardiff researchers that English secondary schools are becoming less segregated by socio-economic status and the findings of previous qualitative research, which suggest that choice is disproportionately utilized by those families with higher incomes.

This discrepancy, however, may not be as paradoxical as it at first appears. It is possible that, even if choice does disproportionately benefit more advantaged users under the new market system, enough of those pupils who were formerly the most artificially constrained by a residentially-based catchment system (i.e., pupils from low income families) will choose to attend non-local schools and, in the process, sufficiently alter the composition of the schools they attend. However, in order to investigate this possibility and the complex interplay of school compositions, social class and residential geography

it is necessary to move beyond charting how the aggregate levels of a fluctuating group of pupils (i.e., those on Free School Meals) changes in secondary schools through time.

Research Questions and Methodology

The following quantitative analysis seeks to expand upon the school segregation studies of Stephen Gorard, Chris Taylor and others in an attempt to disentangle further how social background, school admissions policies and residential factors contribute to the social compositions of secondary schools under the system of open enrolment established in England. Understanding the dynamics of local schooling markets is critical for answering the *central research question* that this thesis seeks to address: do the new school attendance patterns resulting from the enhanced levels of choice present within an open enrolment system bring about school compositions that are more segregated by socio-economic status than would be expected under a local, residentially-based school allocation system?

In answering this question, this thesis will attempt to provide some indication of why the rather benign school segregation changes experienced under the market (as shown by quantitative studies of segregation) have not mirrored the potential class-based disparities in the process of choice (as revealed by the qualitative literature). In the absence of robust longitudinal data for each year in which the market has been in place, the polarization thesis cannot be tested directly. Newly available administrative data sources, however, allow for the modeling of different school attendance scenarios (e.g. a hypothetical model in which all children attend their nearest secondary school), which can shed considerable light on the role played by residence, admissions, diversity of provision and non-local attendance in the distribution of disadvantaged pupils across secondary schools in England.

The primary prerequisite for this form of analysis is the existence of individually post-coded pupil records that locate pupils within both schools and residential neighbourhoods. This information helps to reveal the nature of the *de facto* school catchment areas that have developed as a result of partially marketizing state education.

Several recent advances in data collecting, such as the 2001 UK Census of Population and, most importantly, the new *Pupil Level Annual Schools' Census* (PLASC), make it possible to carry out a micro-analysis of choice for every pupil of compulsory school age in England. First taken in January 2002, the *Pupil Level Annual Schools' Census* administered by the Department for Education and Skills contains, among other things, the sex, ethnicity, school, home postcode, and FSM eligibility status for every pupil on the roll of a state-maintained primary or secondary school. Moreover, pupil reference numbers allow the school, residence, and performance of individual pupils to be linked up and tracked through time. The detailed nature of this data has profound implications for educational research and will enhance fundamentally the empirical basis for studying, among other things, school effectiveness, peer effects, and the role of social disadvantage in educational attainment.

For the purposes of this investigation into the impact of enhanced parental choice and its role in school segregation levels, I utilize the data for 2002 and 2003 contained in PLASC, along with other low-level geo-demographics data from the 2001 Census and other administrative datasets, to provide a more intimate view of the secondary education landscape. This will include an analysis of how well existing measures (e.g. Free School Meals) and methods (e.g. school level segregation measures) describe the market dynamic as well as an original foray into the relationship between school compositions, local residential segregation, and pupil performance. In doing so, I will attempt to contribute more detailed answers to such long-standing questions concerning the education market as:

- How the exercise of choice—as indicated by rates of non-local school attendance—varies by geographical area (i.e. rural, semi-rural, metropolitan, and urban)? What do *de facto* secondary school catchment areas really look like in these areas?
- To what extent are pupils from socially disadvantaged backgrounds attending non-local schools and how do these 'choosers' perform in school relative to non-choosers or to their more advantaged classmates?

- How do the destination schools of disadvantaged and more advantaged choosers differ? Are different groups of pupils accomplishing the same results through exercising non-local school choice?
- Do market hierarchies exist within different schooling markets? How are these related to levels of residential segregation, non-local school attendance and different local contexts?

The answers to these questions will be pursued through an analysis of aggregate statistics derived from individual level data for all English LEAs as well as through more focused evaluations of local secondary school marketplaces in different geographic and economic surroundings (in 2002). The ultimate aim will be to draw conclusions about the equity of the education market and whether choice reforms have indeed served to further stratify schools (and thus educational opportunities by socio-economic status), or, whether, as Whitty *et al* (1998) argue, '[i]f equity issues alone are considered, it might be more appropriate to develop policies which break, rather than strengthen, the relationship between schools and their communities' (131).

Outline of Thesis

In the next two chapters the relevant background to the choice reforms adopted in England and the claims made about their impact will be explored in more detail. Chapter 1 outlines the development of the education market in England during the 1980s alongside both the broader economic, social and political changes that prompted its creation. Chapter 2 reviews the research literature on class-based choice as well as the larger debates over social class and educational equality into which the various qualitative and quantitative findings have been incorporated.

The exploration of the workings of the education market begins in Chapter 3, which documents the geography of secondary education in England and the various contexts in which open enrolment policies must operate within different areas of the country. The next two chapters focus on pupil mobility between areas and schools, including rates of non-local school attendance. Chapter 4 uses mapping software and the

data for 2002 contained in PLASC to illustrate the scale of the schooling marketplace in different areas as well as the extent to which secondary pupils are bypassing their local school (and what they are accomplishing by doing this). In Chapter 5, the differential mobility of disadvantaged pupils and their peers will be compared with respect both to non-local school attendance and to the transition between primary and secondary schooling—an area of particular use in attempting to corroborate previous findings on class-based choice.

Chapters 6 and 7 utilize the findings on pupil mobility to explore their implications for school compositions and segregation levels. This primarily entails 'parceling' out the extent to which residentially segregated communities, pupil mobility levels and other factors contribute not only to the social compositions of secondary schools but also to the local market hierarchies that exist to some degree in every local area across the country. Finally, the conclusion will provide a summary of research findings and conclusions as well as a discussion of what these results imply for the decisions facing policymakers in England, the United States and elsewhere who are contemplating the expansion of choice-based education policies and programmes.

-1-

Education Reform and the Public Market

Beginning in the 1980s several nations, including England, New Zealand and Sweden, began to alter systematically the nature and role of government within the welfare sector (OECD, 1994). Many of the policy reforms adopted grew out of a new market-based approach to the provision of social services—an approach driven by a number of social and economic influences and one ultimately embraced by governments across the political spectrum (Bartlett *et al*, 1998). The application of market principles to the public sector appealed in particular to those policymakers eager to reform state education systems, and, in turn, generated considerable debate over the value of employing economic-based models within efforts to improve schooling and other forms of social provision.

This chapter will examine the development of the market-based education reforms in England during the 1980s alongside the broader economic, social and political changes that set the stage for their implementation. The market constitutes both a mode of service delivery and a governing ethos, and the debate over its application to education represents more than simply the conflict between national and parental goals for children: it signifies a 'clash of competing visions of society, economic efficiency and social justice' (Lauder and Hughes, 1999: 31). In England, this clash centres largely upon the consequences of expanded parental choice, the heart of the Conservative Government's market reforms and by far the most controversial aspect of their enactment.

The Changing Political Economy of Education in England

Towards the Comprehensive Ideal

The current objectives of British educational policy are best understood against the background of more than a half-century of reforms to schooling, and of the changing views (of both government and society) on the nature and aims of compulsory schooling reflected within those reforms. In the years following the Second World War, support for mass education grew along with the expanding welfare state. Backed by widespread popular and political support, the Education Act of 1944 established a system of universal, free secondary education until age 15.[3] Policymakers and other proponents viewed expanded secondary schooling as a means not only of spurring the economic growth of the post-war state through the creation of human capital, but also of promoting the aims of social justice through expanded educational opportunities. Such optimism sparked large-scale government spending and initiatives during this period, and, by 1951, 30% of children aged 11 to 18 attended secondary school in England, a figure that had been below 10% prior to the war (Brown *et al*, 1997). Nonetheless, despite the expansion of secondary education, and the growing 'democratization' of education that this represented, the tripartite system of grammar, secondary modern and technical schooling sectors (and the 'eleven-plus' examination process through which children were channeled into the three sectors) remained even after the 1944 Act, and reformers pushed for further changes to the educational landscape.

The 'comprehensive ideal' latched onto by scholars (e.g., R.H. Tawney), politicians (e.g., Anthony Crosland) and political parties (i.e., Labour) alike challenged the prevalent principle of 'selection' in British schooling and affirmed that '...children's education should not be disadvantaged by their backgrounds, and that the state should provide free, high quality education for all in comprehensive schools' (Walford and Pring, 1997: 6). Grounded firmly in the belief that equality of educational opportunity

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[3] The one exception was direct-grant schools, which were permitted to continue charging fees as well as receiving subsidies from the central government (Lowe, 1988).

through a system of local schools could both efficiently allocate individuals to the labour market and assimilate diverse social backgrounds into a single national culture, the comprehensive schools movement promised an end to the more socially divisive class-based system of selective education.

In reality, comprehensive schooling faced difficulties beyond the substantial political opposition mounted before and after the Labour Government's landmark *Circular 10/65*.[4] Despite the phenomenal growth of the comprehensive sector—from 1% of children in comprehensive schools in 1951 to 90% in 1981—the ideal was, at least in practice, incomplete and vulnerable from the start (although more so in England than in Scotland or Wales) (Walford, 1994). Much like parental choice, banding and other school admissions policies, comprehensive schooling initiatives in England have never been fully implemented but rather imposed upon (and structured within) a pre-existing hierarchical educational system and social landscape, a fact that has ultimately muted the movement's impact and created opportunities for its downfall. Selection by ability (and its associated inequalities), while less overt, has continued until this day and the close link between school catchment areas and residentially segregated neighbourhoods has meant that families from more affluent areas still enjoy greater access to the better performing comprehensive schools.

Changing Fortunes and the New Right

The severe economic downturn experienced throughout the world as a result of the oil shocks and growing 'stagflation' of the early to mid 1970s helped undermine the system of Keynesian politico-economic management common to most industrial nations after WWII (Taylor-Gooby, 1998). While the extent of the crisis varied, it left its deepest impact upon those countries such as the UK that were not only strongly dependent on foreign oil but which also had invested the most in building national welfare states at the

[4] *Circular 10/65* announced the Government's formal opposition to the eleven-plus exams and requested LEAs to reorganize on a comprehensive basis. Although the comprehensive ideal was emphasized in the Circular, it was neither put into a Green Paper nor legislation before the Conservatives regained power in 1970.

expense of greater economic growth.[5] Growing fiscal pressures, and the demands associated with the transition to the more flexible management and employment structures of 'post-Fordist'[6] economies, raised the question of whether the broad social support enjoyed by national welfare states could be sustained in more troubled economic circumstances.

In Britain, even before the Thatcher Government came to power in 1979, opponents of large social expenditures expressed the view—one that would gain currency with other governments during the 1980s—that the burgeoning welfare state was helping to destroy market incentives and to weaken competitiveness in what was already a dire economic situation. In the sphere of education, this discourse fed into a larger and ongoing debate over the failure of comprehensive schooling. A group of largely Conservative politicians and scholars, in a series of *Black Papers* produced between 1969 and 1977, ridiculed the move toward comprehensive schooling and lamented the standards of the state educational system as a whole. Their argument centred upon the claim that egalitarian efforts to bring about equality of opportunity within a single school system neglected the real differences between children, and would ultimately generate a leveling-down process that was detrimental to the performance of bright children (e.g., Cox and Dyson, 1969, 1971). Subsequently, the political ground beneath the comprehensive ideal began to shift: in 1970, Margaret Thatcher took over as Secretary of State for Education and *Circular 10/65* was officially withdrawn. By 1976 and Prime Minster James Callaghan's Great Debate on Education, the failures of the comprehensive system were well rehearsed, an eventuality that '... cleared the ground for a shift of emphasis on the Right from critical deconstruction to radical reconstruction' (Ball, 1990: 31-32).

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[5] The UK sustained its substantial post-war welfare state growth largely through growth losses and in 1976, became the first major industrialized nation to apply for a loan from the International Monetary Fund in the wake of the oil crisis (Taylor-Gooby, 1998).

[6] 'Post-Fordism' generally denotes several significant developments within Western economies since the 1970s: the shift of jobs from manufacturing to services, changing patterns of consumption, the casualisation of labour and the increased prominence of economic growth concerns within the realm of public policy (Brown and Lauder, 1992: 95-116).

The 'New Right' philosophy that emerged as political orthodoxy in the 1980s brought together two increasingly popular perspectives, *neo-liberalism*—an economic-based approach to governance that emphasized the free market, minimal state interference, and individual liberty—and *neo-conservatism*, a movement that sought a return to the traditionally perceived values of nationalism, individual duty, and the family (Levitas, 1986). Despite the inherent tensions that existed between these two perspectives, they shared a collective dislike of the welfare state and the negative outcomes they perceived to be associated with it: i.e., a growing dependency culture, the uncontrolled growth of public expenditure, and the unwarranted violation of both individual liberties and community autonomy.

The initial efforts of reformers to reduce government spending during the early 1980s in Britain were soon followed by more radical alternatives aimed at minimizing the role of the state in general. Within the realm of education policy, this mission was aided, and indeed strongly influenced, by certain changing social realities. Just as the comprehensive movement had been bolstered during the 1960s and 1970s by the rising educational demands of the middle class baby boomers—who, unable to attain places for their children at traditional grammar schools, had pressed for improved secondary moderns—the market reforms to education proposed by the Conservatives catered to similar concerns within middle class Britain (Walford and Pring, 1997). In the context of the growing inequalities, unemployment and job insecurity experienced during the 1970s and 1980s, the acquisition of educational credentials became increasingly important to individuals seeking labour market opportunities and safeguards against unemployment (Brown, 1995).

The Rise of the Parentocracy and the New Consensus on Education

In the growing struggle for credentials, education—and secondary schooling in particular—have become the sites of escalating social contests. As a 'positional' good whose value depends largely upon the relative standing it confers, education constitutes a socially scarce resource that will rise in price as the demands for its positional benefits

increase (Hirsh, 1976). A significant consequence of this phenomenon, and of the pressure upon the middle classes to ensure a comfortable life for their children, has been a growth in the educational qualifications required for access to higher-paid, more secure occupations (Collins, 1979). The lengthening of the educational course, and the associated 'credential inflation,' means that social reproduction has to be increasingly worked for—a process that puts a premium upon possessing sufficient financial resources to participate in the extended race as well as adequate 'cultural capital' to take advantage of the early positional advantages available during compulsory schooling.

The failure (both perceived and real) of comprehensive schools to deliver on educational standards during the 1960s and 70s prompted many middle class parents to seek alternatives to state schools for their children in order to allay such labour market and positional concerns. For many, their child's education had become simply too important to be pursued within an unreliable system of public provision. The ideological ascendancy of the resulting 'parentocracy' displaced and, in many ways, reversed the aims of the comprehensive movement, creating a situation in which 'a child's education is increasingly dependent upon the *wealth* and *wishes* of parents, rather than the *ability* and *efforts* of pupils' (Brown, 1990: 65). As we shall see, the implementation of a market for education grounded upon enhanced parental choice provided a more socially and politically viable solution to the concerns of the parentocracy than a return to selective education, a fact that has lead many to label the reforms as 'selection by stealth.'

Improving educational standards has become a rallying cry for modern education because of such concerns over individual opportunities in a changing labour market and over the falling performance of pupils within several Western nations relative to their Pacific Rim counterparts, especially with respect to their performance in maths and science (e.g., Reynolds and Farrell, 1996). The old debate over the role of education in the economic success of industrial societies has substantially expanded over the past two decades to assess the repercussions of the new global economic market. A 'new consensus' on economic productivity has arisen in which liberals and conservatives alike

have argued that raising educational performance is essential within a more 'knowledge-based' global economy (Taylor-Gooby, 1998).

Although the critical question of the relationship between a nation's expenditure on education and its level of economic success remains largely unanswered, there is some evidence to suggest that growth in human capital is positively correlated with a rise in GDP in most developed countries and that total expenditure on education relates strongly to performance on international achievement tests[7] (e.g., Blundell *et al*, 1999; OECD, 2001). Nonetheless, the new consensus on education has meant that education policy decisions across the world have become further dominated by concerns with performance and the larger economic demands for an educated population. In Britain, this movement has occurred despite the fact that as many as 30% of Britons may be over-educated for their current jobs and that the British economy may become even less capable of absorbing a large influx of higher education graduates as more service sector positions move overseas (Sloane *et al*, 1999). Such evidence makes more credible the view that education in modern Britain serves as a 'filter' as much as a 'factory' for the economy, an effective mechanism not just for generating skilled workers but also for allocating socially scarce resources.

The political economy of education in Britain over the past half century has been a tumultuous one. In confronting educational policy, each new government has inherited a system of well-entrenched issues and interests and has had to balance the demands of the economy, the growing costs of state welfare and the requirements of social justice, not to mention the ever-present concerns of parents, teachers and administrators. With all of these pressures and many more weighing down upon it, and with an avowed mission to curtail social spending and 'return' excellence to schools, the Thatcher Government turned late in its second term toward a radical, and yet familiar, vehicle in instituting its educational reform agenda: the market.

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[7] Although there are still significant exceptions such as Japan (see Green, 1997).

Markets in the Public Interest

Public Choice Theory and the Critique of Public Education

Policymakers adhering to the New Right orthodoxy, especially those within the Conservative Governments of the 1980s, were themselves influenced considerably by the works of early neo-liberal scholars such as Friedrich Hayek and Milton Friedman. Hayek (1960) and Friedman (1962) both expressed concern that excess government intervention in public affairs would, by imposing uniform standards, stifle economic innovation and social progress. The state, as Friedman (1962) argued, 'would substitute uniform mediocrity for the variety essential for that experimentation which can bring tomorrow's laggards above today's mean' (4).

Public choice theorists have since built on Friedman and Hayek's ideas in elaborating upon the shortcomings of the state and the inefficiency, in particular, of large-scale public welfare programmes. The arguments of *public choice theory* are perhaps best encapsulated in the New Right mantra of 'provider capture': the notion that the combination of vested interests within the domain of service provision (e.g., teachers' unions) and perverse incentives within state bureaucracies (e.g., funding within government departments) will inevitably lead to a growth in the expense and inefficiency of the state's provision of services (Levacic, 1995). While there has been little conclusive evidence to support the claims of public choice theory, they have had a large impact upon the decisions of many governments and formed the backbone of a host of market-oriented reforms (Wolfe, 1996).

Applied to public education, the public choice argument made by neo-liberal reformers is grounded upon the claim that democratic institutions are fundamentally 'coercive': they are subject to a political form of social control where policies and structures are shaped by those interests with the loudest voice (Chubb and Moe, 1990). In the mind of many critics, the best solution to this inefficiency would be to import some of the beneficial features of private schools (e.g. economic incentives for school responsiveness, exit points for parental 'consumers') into the sphere of public education.

One means of accomplishing this, as Friedman (1962: 89) himself originally proposed, is to create an alternative 'voucher' system in which the state's role in funding and providing education could be split by giving parents vouchers equal to the cost of public schooling that could be redeemed at 'approved educational services' in either the private or non-profit sector. Such a solution was implemented as early as the late 1960s in various pilot programs in the United States[8]; however, the institution of widespread 'parental choice' within the *state* educational system would not be realized until the education reforms of the late 1980s in nations such as England and New Zealand.

The linking of expanded parental choice to a system of self-managing schools within a public market environment constituted *the* 'big idea' in neo-liberal education reform during the late 1980s (Whitty *et al*, 1998). The movement to increase school autonomy, embedded within the decentralizing reform measures taken by several nations, primarily involved efforts to devolve decision-making and responsibility to local professionals and/or governing councils. However, while these two main pillars of educational reform—delegating decision-making and providing greater parental choice—need not necessarily be coupled[9] (one increases managerial flexibility, the other consumer competition and institutional responsiveness), within the public market created in England by the Education Reform Act of 1988, the two principles were joined through the device of linking school funding to pupil numbers[10] (Levacic, 1995).

The New Public Management and the Public Market

Looking to control levels of state expenditure and taxation, the Conservative Party in Britain adopted a *New Public Management* strategy during the 1980s in which the

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[8] One such example, the Alum Rock programme, was inspired by the voucher model of Christopher Jencks (then at Harvard University) and was not motivated by efficiency concerns so much as by the perception that disadvantaged families were trapped in certain low-performing school zones.

[9] Indeed, in more diverse federal systems as found in the United States and Australia, school autonomy and choice often constitute separate competing forms of school reform (see Whitty *et al*, 1998).

[10] Stuart Sexton (1987), a British neo-liberal choice advocate who had a large impact on the design and implementation of both the English and New Zealand reforms during the late 1980s, labelled the principle that money follows pupils as a 'virtual voucher system.'

transformation of social service delivery provided a means for introducing private sector principles into the public sector and for shifting the balance of service provision away from the state and toward private and voluntary providers. For its supporters, the key belief underlying this strategy was that 'the superiority of private sector institutions arose not only from competition *between* them but also from more efficient and effective management techniques employed *within* them' (Pierson, 1998: 137).

The 'contract state' introduced by the reforms of the late 1980s and early 1990s in Britain thus embodied a 'steering, not rowing' theory of governance in which the state continued to finance social service provision but increasingly divested itself of the responsibility of service delivery—an act justified in several social services by the efficiency and effectiveness gains that would allegedly accrue from the new market approach. Advocates of public choice on the New Right maintained that by introducing market principles into the public sector, the outcomes of the new *public market*[11] would not only be more cost-efficient but also far more responsive than politicians or bureaucrats to the preferences and choices of service recipients.

It is useful to contrast the basic features of public markets with more conventional goods markets. On the supply side, individual institutions within the public market compete for customers as in conventional goods markets, although these institutions need not be necessarily either profit making or based in the private sector. On the demand side, unlike in conventional markets, consumer interest is not valued in monetary terms, and it is often the case that a third party makes the actual purchasing decision on behalf of the service client (Le Grand and Bartlett, 1993). Such measures were not only applied to reforms within health and education in Britain, but also to social

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[11] Various conceptual labels have been used to recognise the partial market nature of the market in public services, including 'internal market' (Levacic, 1995), 'planned market' (Saltman and Van Otter, 1992), 'administered market' (Ranson, 1993), and 'quasi-market' (Le Grand and Bartlett, 1993). Following Phillip Woods *et al* (1998), I have adopted the term 'public market' because I feel that it best expresses the public interest side of the equation (i.e., the political and social factors often neglected or left merely implicit in most accounts of the 'quasi-market'). The term 'public market' also makes more explicit the hybrid nature of education markets in particular, which incorporate both planned public service and market elements. As Woods *et al* (1998) argue, it is perhaps most appropriate to conceive of public markets along a continuum from 'total planning' to 'free market.'

care, housing, and other areas of social service delivery. Reforms in these areas were designed to retain state funding while creating a fundamental schism between the purchasers and providers of services—a gap bridged only by the internal 'quasi-contracts' and agreements established between these two roles (Levacic, 1995). It is important to note that, like all markets, public markets are not natural but rather operate within a 'politically determined legal framework' in which central government sets the budget of purchasers and regulates both the entry of new providers and the standards of service (Woods *et al*, 1998: 135).

The endorsement of public markets by New Right governments in the 1980s marks a distinct break from prior conceptions of the state-market relationship. No longer is the Keynesian notion of state investment considered to be the panacea for, or at least the buffer against, market injustices. Rather, the market is brought in to remedy the shortcomings of the state. The advocacy of this brand of market therapy has become increasingly common within the field of education, particularly in connection with the surge of concern within many Western nations about the perceived inadequacies of public education systems.

The Logic of the Education Market

When applied to education, the public market represents a compromise between true voucher-led markets and schooling models based on centrally administered institutions and locally designated public school catchments. *Parental choice*[12], in this context, refers to the notion that parents ought to be given the option of selecting which school their child will attend (which is usually but not necessarily limited to the state maintained sector), and that schools should, in response, be forced to compete for students in a quasi-market atmosphere. In the absence of unlimited school places, even under a

[12] 'Parental choice' as often been referred to as 'school choice' (primarily in the U.S. literature), a term that I will reserve for the tendency of pupils to be selected by schools in a choice environment characterized by few surplus places and widespread over-subscription. Also, depending on the extent of choice provided in a local policy atmosphere, public funds may be used to extend choice beyond state maintained schools and into the private sector as with the Assisted Places Scheme in Britain and with many voucher schemes in the U.S.

system of choice, parents really have only the right to register a preference as to which school they wish their child to attend. Such a policy, however, contrasts markedly with the more traditional practice of assigning students to schools serving particular residential zones and of accommodating parental preferences only to an extent compatible with the plans of the broader school district or local authority.

Proponents of parental choice models in a number of countries contend that the educational environment created by choice will achieve several important objectives, ranging from improvements in student performance to gains in budgetary efficiency (e.g., Friedman, 1962; Coons and Sugarman, 1978; Sexton, 1987; DfE, 1992). The primary policy expectation, along the lines of the public choice critique, is that choice-driven competition between schools will lead not only to the employment of more cost-efficient management strategies but also to higher quality schools as these institutions strive to attract pupils (and via pupils, funding). As Stuart Sexton (1987) argues, it is the 'direct financial relationship between provider and consumer' (2) within a pupil-based funding procedure that in particular demands increased *responsiveness* on the part of schools. The incentives for improved provision, it is maintained, serve to protect parents from 'unscrupulous providers' while also helping to ensure that the perceived preferences of consumers will generate and maintain a *diversity* of supply (Tooley, 1997a: 108). Public market advocates maintain that the presence of parents (and pupils) pursuing their own self-interest within a competitive education market will result in the most optimal, or 'catallactically' efficient, social outcomes as pupils are allocated to the schools best adapted to their own individual needs.[13]

The notion of *efficiency* most relevant to both policymakers and economists, however, is that of productive efficiency, or how a given quality of service can best be realized from minimum inputs (Levacic, 1995). Improvements in productive efficiency that are generated within a competitive marketplace entail non-zero benefits to the

[13] Catallactic efficiency is 'an expression of social efficiency. A catallaxy is a social order generated by the market activities of separate individuals and organisations, each pursuing their own purposes' (Cordato, 1992: 58).

education system as a whole and create 'efficiency dividends' that can in theory be funneled back into the system in the interest of equity or of other social interests to which the market is blind (Fitzsimmons, 1999). The market may also provide the most effective means for cutting costs within the system such as those arising from an excess of secondary school places created by falling school rolls (a difficulty faced by planners in England and elsewhere like New Zealand during the late 1980s).

Improving efficiency and responsiveness has become particularly attractive during the past two decades as a means for bolstering the *effectiveness* of schools through the perceived ability of public markets to raise standards. The ability to gauge successfully the effectiveness of schools becomes, under the aegis of a competitive market, a tool for revealing value to individual parental consumers, providing the information they need in order to sufficiently communicate their preferences or dissatisfaction. It is perhaps above all the drive to raise standards within an environment of declining public expenditure that has dominated the decision of many nations to adopt public markets in education (Lauder and Hughes, 1999).

Despite the influence of neo-liberal economic theories upon policymakers and reformers alike, several important non-market motivations have been espoused for increasing the schooling options available to pupils. Choice is often hailed as a good in itself, one which provides parents with more input into a decision that will likely influence their child's educational and vocational future.[14] Practically speaking, this recognizes that the family has a 'special competence' in determining the best interests of the child, one that is particularly important in the sphere of education (Coons and Sugarman, 1978). The institution of open enrolment, it is argued, helps to expand the capacity of parents and pupils to choose the school that is in their best interest. Creating such alternatives in education is perhaps of most importance to those disadvantaged families that must rely upon inadequately funded and poorly administered local schools.

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[14] *The Universal Declaration of Human Rights* (1948), for example, recognizes that '[p]arents have a prior right to choose the kind of education that shall be given to their children' (cited in Walford, 1994: 27).

Thus, the final and perhaps most controversial case for choice rests upon its potential for mitigating the ill effects of residential and socio-economic segregation, as well as the inequalities in opportunity and facilities that accompany such segregation. Choice already exists for some parents within a residentially based catchment system; but, expanding options for all, it is argued, will work to remedy the inherent inequities associated with this traditional form of school selection. As the Secretary of State for Education, Keith Joseph, put the case for school vouchers in a speech to the Institute of Directors in 1982:

> The idea of the voucher is a noble idea. It is the idea of freeing parents from all money considerations in choosing a school for their children...A voucher would provide an equal moral treatment for all parents (Joseph, 1982: 5).

Early proponents of choice in the U.S. made similar social justice claims, arguing that choice provides fairer access to good schools, extending a privilege already enjoyed by some and serving therefore as an antidote to social and racial stratification by liberating disadvantaged pupils from the 'iron cage' of residential segregation.[15] In Britain, on the other hand, many academics, parents, teachers and administrators have come to view choice more as a class-sorting mechanism than as a creator of opportunities (e.g., Hirsh, 1997; Whitty and Edwards, 1998). Indeed, opponents of choice in Britain are far more likely to promulgate a social justice agenda, claiming that a policy of parental choice disproportionately benefits those who have the greatest capacity and inclination to choose. This concern, however, is only one of many reservations with the intrinsic value of choice or its instrumental capacity to effect positive changes in education.

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[15] In many European countries with partial choice plans such as France and Denmark, social justice issues likewise form important planks of the pro-choice argument as lower middle class parents tend to be the most likely to want to escape their neighbourhood schools (Hirsh, 1997).

Market Concerns

Objections to the Application of the Market to Public Education

Given their far-reaching nature and the entrenched interests involved, it is perhaps unsurprising that parental choice policies have generated controversy. In England, a vast body of academic literature has developed that outlines the shortcomings of the parental choice policies embedded within the 1988 Education Reform Act. The opponents of choice can be divided broadly into those that object *in principle* to the application of market-based policies to public schooling and those who believe that the externalities of those market mechanisms employed *in practice* will ultimately cause more harm than good.

Early reviews of the theoretical underpinnings of the public market reforms in England were largely critical, especially of the application of market principles to fields such as education, which many scholars and educators argue is a *public good.*[16] Should market failure and its potential effects, it was asked, be allowed within the educational sphere? Are schools really the same as businesses, and parents the same as consumers? Financial markets are often harsh and unyielding and it is highly questionable whether or not schools and their students should be subjected to the same potential for failure experienced by small businesses and other market participants (Ball, 1993).

This raises another concern, one of particular importance to both British and American policymakers: the extent to which parental choice and the marketization of education undermine a comprehensive or public school system that is typically portrayed as woven into the very fabric of democracy. Does the abandonment of publicly funded and run education in favour of a public/private market mix fundamentally alter the landscape of democracy, shifting the source of authority from democratic agents and

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[16] Both in the general prescriptive sense of the term as connoting a good that should not be privatised or commodified, but also in the more specific economic sense in which 'public' or 'social' goods such as clean air are seen as being beyond market controls because of both the *non-excludability* (individuals cannot be excluded from their use) and *non-rivalrous* (one individual's use doesn't influence another's) aspects of their nature (Glennerster, 1997).

decision-makers to consumers of education and the flow of capital?[17] The American philosopher John Dewey (1916), whose writings continue to influence the role of public schooling today, argued that education is essential to democratic states and that public/comprehensive school systems are best equipped, as Dewey put it, to:

> ...balance the various elements in the social environment, and to see to it that each individual gets an opportunity to escape from the limitation of the social group in which he was born, and to come into living contact with a broader environment (20).

Through the institution of fully funded, comprehensive schooling systems, pupils, the comprehensive schools movement argued, would become better aware of children from other backgrounds and learn to understand their differences—a notion that, as a consequence of the extent of residential segregation, may no longer be as easily realized within public education systems.

Finally, some critics assert that pure market outcomes and benefits exist only in theory and that markets are in practice neither perfect nor effectively neutral since they are politically and socially constructed (e.g., Ball, 1993; Ranson, 1993). In this respect, educational reforms serve particular interests and embody values that are not beneficial to all in society. Indeed, for some the neo-liberal reforms enacted by governments during the 1980s fashioned a new and indirect means of central state control by devolving responsibility to local providers and thus largely de-politicizing any unequal outcomes generated by the public market (Wolfe, 1996). One result of this displacement of responsibility in education, as Stephen Ball (1997) points out, is that "[i]ncreasingly it becomes possible to locate the deficiencies of schools or 'planning' mistakes in the 'poor' choice made by families or the inadequate responses of individual schools '(78).

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[17] Related to this worry in the U.S. is the concern that choice allows for the flow of public money to private schools and organizations, fundamentally breaching the barrier between church and state that is enshrined in the *U.S. Constitution.*

The Critique of the Public Market Mechanism

The implementation of education markets may also be criticized from a more instrumental perspective: public markets are arguably vulnerable to the flaws associated with conventional goods markets while also unable to harness sufficiently the more beneficial elements of those markets. The assertion that the market provides the best means for achieving the key aims of efficiency, responsiveness, effectiveness and equity in education depends on a number of key assumptions, such as the existence of sufficient alternative suppliers, simple entry and exit routes, and adequate information flows (Levacic, 1995). In practice, such conditions rarely exist. There may be, for example, a lack of adequate supply or diversity in the education marketplace, as is the case in most rural areas where the limited number of state-funded schools means that choice is largely irrelevant. The existence of a diversity of goods (such as a broad educational curriculum) also does not necessarily mean a correspondingly diverse set of suppliers (Brain and Klein, 1994). Indeed, the use of one dimensional performance indicators like school league tables may encourage schools to develop along more homogenous, rather than more diverse, lines. If the preferences of parental consumers could be voiced independently of national guidelines and performance standards, it is argued, a far different selection of schools (than currently afforded by local and central authorities) might be generated.

Another imperfect aspect of the education market is the coexistence of surplus school places and oversubscribed schools. The presence of constraints on the expansion of popular schools means that the excess demand for places cannot be allocated efficiently by the market (Ball, 1993). Such a closed system is problematic because surplus (empty) school places, even though they enable more consumer preferences to be met, also constitute an inefficient and costly burden upon the system. A true market environment, in which unsuccessful providers are punished and forced to exit while successful ones expand production, is therefore not present within an education market in which individual schools can neither easily expand nor exit the market in response to

consumer demand (Glennerster, 1991). Likewise, 'sink schools'—those institutions that face steep declines in pupil numbers and funding—have no parallel within an economic market because pupils relegated to such schools lack the same exit possibilities available to most consumers within conventional markets.

The potential consequences of this supply-side fault highlight another significant feature of the educational market: its 'zero-sum' nature. The notion of 'linked choice' recognizes that in many arenas (such as an education market) there is not sufficient room for all actors to make the 'dominant' choice because of the scarce nature of the desired good (e.g., a place at a high-performing school) (Dworkin, 1988). In these cases only a proportion of consumer choices are likely to be met at any one time, which results in one parent or child's decision inevitably influencing the decision and opportunities of another. This often means that risk-adverse parents and pupils may select the safest or 'next best' option to their true preference in order to be certain of a place in a decent school, even if it is not truly the school of their choice.

Another prerequisite for an effective market is the possession of adequate information by its participants. Choice by its nature requires a certain degree of knowledge, the acquisition and execution of which will entail the effort of gathering sufficient information, making the appropriate decision, and accepting the consequences of that decision (Dworkin, 1988). Investment decisions, unlike simple consumptive ones, also demand a more developed understanding of anticipated consequences (Hirsch, 1976). This includes, among other things, information on the quality of individual schools and (in some cases) the relative ability of the pupil within the population distribution. Because education is an 'experience good,' questions of quality will take sufficient time to evaluate, and once a school is decided upon, the inertia stemming from that decision may constitute a 'sunk' or 'switching' cost that prevents parents from moving their children between schools regardless of subsequent dissatisfaction.

It is likewise difficult for entities as complex as schools to demonstrate accurately their quality to potential customers (Adnett and Davies, 1999). In the absence of a price mechanism or other appropriate signal from the market, parents and children will be

more susceptible to the influence of peer-groups and school marketing efforts when making decisions, a somewhat risky strategy given the fact that parental preferences (and school popularity) do not necessarily coincide with the true merit of the school. Creating accurate indicators of school quality and performance is a difficult exercise. Sufficiently taking account of such factors as the 'value-added' nature of a school's effectiveness, given, for example, a very socially disadvantaged intake has proved problematic in many nations (Fiske and Ladd, 2000).

Just as it is difficult to demonstrate school quality accurately, it is similarly challenging for consumer (parental) preferences to be effectively communicated to schools. Given that not all parents will utilize choice, the 'marginal consumers' of education increasingly become those empowered parents who are both the most vocal and most likely to exercise choice, and who may, in return, have their needs catered to most by service providers (Adnett and Davies, 1999). Less empowered 'inactive choosers' may find themselves, by the same process, becoming less accommodated within the educational marketplace, and thus may grow more unwilling to exercise choice (perhaps because their educational preferences are not adequately being met in the first place) (Wilms and Echols, 1992). A dearth of information on consumers, it is also suggested, may prompt schools to engage in adverse selection or 'cream-skimming,' in which proxy characteristics such as socio-economic advantage are employed to help select the most able pupils. By adopting more selective admissions policies, schools would be able to maximize their intake of able (and usually advantaged) pupils, thus improving their market (league table) position, which would, in turn, lead to a rise in pupil numbers. Barring strict admission regulations, oversubscribed schools, even in a framework of parental choice, would thus effectively have the power to choose their own pupils. Parental choice, in such cases, leads to its antithesis, choice by schools.

The Distribution of Choice and the Polarization Thesis

One final yet crucial consideration raised by market critics relates to the distribution of choice within a population of service users, and, in particular, to the relative capacities

and inclinations of those users to avail themselves of choice. There are no guarantees that every parent or child who enters an educational market will either consider that market to be personally beneficial or will possess the time, resources, and inclination to take on the costly burdens of choice mentioned above.

Choice, almost by definition, is not a capacity available to all. Several factors exist that may conspire against an individual's range of choice, including geography, available transport, prohibitive costs, amount of leisure time and adequate information. The nature of education as an experience good, and as a mandatory undertaking in most countries,[18] also suggests that those families who are more familiar with the values and structure of the educational system at large will have a better basis on which to exercise choice. On the other hand, those who do not find the market in their own interest will nonetheless be faced with a significant decision: to participate in the market or to risk compromising their child's future. In this regard the market is hardly a 'neutral' vehicle for policy even if, in many ways, its outcomes will be considered fair and legitimate because parental choice is, at least theoretically and legally, available to all (Thrupp, 2001). In fact, the distribution of opportunities created by the availability of choice may simply reflect and reproduce the capacities of actors to exercise choice, a distribution that itself may fall heavily along social class lines.

One of the main problems inherent in a system of choice is the fact that the distribution of resources within a population will inevitably influence the capacity of the individual actors operating within a market environment. Parents who value education and have material and cultural resources to draw upon will effectively seek out information, school officials, and channels of influence when selecting a school for their child. In a society where education for many constitutes an investment good, consumed for the purposes of manufacturing and reproducing social status, it becomes possible that '...the implementation of market reforms in education is essentially a class strategy

[18] In the UK, 'education' is mandatory, but not 'schooling'.

which has as one of its major effects the reproduction of relative social class (and ethnic) advantages and disadvantages' (Ball, 1993: 4).

The next chapter will explore this proposition more fully and examine the large body of research concerned with how the education market and parental choice intersect with class relationships in Britain. This research has to a large extent been guided by the fear that an education system structured upon market relationships and choice 'valorizes' middle class interests and provides little scope for improving the options of disadvantaged pupils, and may in fact worsen them (e.g., Gewirtz *et al*, 1995; Reay, 2001). Yet, although market advocates and public choice theorists routinely acknowledge the inevitable existence of market inequalities and system 'losers,' few explore the repercussions that those who lose out might face. The cost and inadequacy of information, the incentives for schools to engage in cream-skimming, the overvaluing of marginal consumer preferences, and the unequal distribution of choice across a population—while all arguably inequities in themselves—also combine to form what many scholars view as the most significant social cost of parental choice: the potential of the public market to polarize the compositions of schools (and thereby the structure of educational opportunities) by socio-economic status, race, educational attainment and other background variables associated with the ability to 'play' the market successfully.[19]

This dynamic, if real, would significantly influence the social mix of schools (and the positive 'peer effects' associated with that mix), potentially contributing to the generation of sink schools in disadvantaged areas and the reproduction of social hierarchies. It is this final concern with the market instrument, its capacity for polarizing pupils and opportunities along the lines of social class and other variables associated with the ability to choose, that constitutes perhaps the greatest potential shortcoming of the market for education.

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[19] Milton Friedman (1962) himself originally observed that private schools 'tend to exacerbate class distinctions' and that within a choice system it was indeed possible that '…[g]iven greater freedom about where to send their children, parents of a kind would flock together and so prevent a healthy intermingling of children from decidedly different backgrounds' (91-2).

The Adoption of Market Reforms

Choice in English Education

In England, choice in education has been traditionally restricted to those parents who are willing and able to pay the cost of finding alternatives to public schools. Consequently, 'choice' has referred broadly to the right of individuals (of means) to express a preference not only for particular schools but also for different types of school organisation, curricula and educational activities (Benn and Chitty, 1996). Beginning with the 1944 Education Act, however, a narrower version of 'parental choice' was codified. Section 76 of the 1944 Act stipulated that local authorities must respect that:

> So far as is compatible with the provision of efficient instruction and training and the avoidance of unreasonable public expenditure, pupils are to be educated in accordance with the wishes of their parents (Ministry of Education, 1944).

Within the framework of the Act and the parliamentary debates of the time, it was generally understood that this section implicitly signalled a 'denominational choice' and was intended primarily to limit parents to expressing choice over the selection of religious schools, not between individual schools within the state sector. Part of the compromise between the government and religious schools that formed the bedrock of the 1944 Act's goal of creating universal state secondary education was the proviso that in return for entry into the state maintained sector, access to denominational schools would be preserved through the prerogative of parental choice (Glennerster, 1995).

Nevertheless, in its 1950 Manual Guidance No. 1, entitled *Choice of Schools*, the Labour Government pronounced that although 'Section 76 does not confer on the parent complete freedom of choice,' it is also not 'limited to choices made on denominational grounds.'[20] It was accepted that parents might wish to choose alternative schools for other reasons including for broader educational or linguistic purposes. This recognition, however, required that an appropriate balance be struck between the preferences of parents and the practical administrative requirements of the Local Education Authorities

[20] Cited in Stillman and Maychel (1986), p. 11.

(LEAs) empowered by the 1944 Act to allocate pupils to state-maintained schools (usually done in accordance with locally defined catchment areas). The 1944 Act awarded the ultimate control over admission to the LEAs, which, as *Choice of Schools* clarified, could deny an expressed parental preference if the decision was based upon concerns with any of the following: 1) overcrowding and zoning; 2) avoidance of unreasonable public expenditure; or 3) transport costs—conditions which would all remain in use by LEAs until the market reforms of 1988.

Thus, while the growth of comprehensive schools in the 1960s and 1970s allowed a minority of parents with sufficient information and resources to satisfy their preferences within the state system, the obligation to justify the selection of a non-local comprehensive school still fell entirely upon parents (Walford, 1994). Although some parents did appeal under this system, most were unaware of the available choice or resigned to accept the limitations of the situation, especially considering the shortage of spaces at most schools. The movement for enhanced parental choice arose from a number of sources during this time. Advocacy groups such as the Advisory Centre for Education (ACE) counselled parents to complain if they were unable to get the school they wanted for their child. However, whereas ACE and other organisations assumed that increased choice could be accomplished within the current framework of local comprehensives, those on the Right opposed to comprehensive education argued that parents should be able to act more like consumers of schools and even proposed the institution of school vouchers and other choice-based admissions policies (Cox and Dyson, 1971).

In time, such forces put enough pressure upon local authorities that many agreed to incorporate a broader definition of parental preference into their admissions systems despite the warnings of many educationalists and policymakers that a system in which choice was the primary arbiter of admissions would produce inequalities and become socially divisive[21] (Benn and Chitty, 1996). Indeed, the Kent County Council in 1975

[21] A particularly strenuous objection to the prospect of vouchers was made by the Labour Parliamentary Under-Secretary of Education at the time, Rt. Hon. Armstrong: 'We have to face reality, which is that up to 85 per cent of our children will have no choice at all. The voucher

went as far as a pilot policy of full 'open enrolment,' an experiment that proved expensive with some schools needing to open extra classrooms while others with reduced intakes remained half empty (Stillman and Maychel, 1986).

In 1976, the Labour Government passed an Education Act that initiated the process of compulsory comprehensive organisation within all LEAs and promised an end to selection by ability. Aware of both the perceived demand for expanded choice (evidenced in the growth in parental appeals) and a looming decline in pupil numbers, the Secretary of State for Education, Shirley Williams, introduced another bill in 1978 that devolved more management control to LEAs (including over parental appeals) and required LEAs to use an admissions procedure based on choice (still termed 'parental preference') (Benn and Chitty, 1996). While the 1978 Bill failed to become law before Margaret Thatcher became prime minister in 1979, its core elements would be incorporated into what would prove to be a far more radical educational agenda.

Early Attempts at Reform, 1979-1987

The course of educational reform that would culminate with the landmark Education Reform Act of 1988 began with a bang but would progress slowly over the next eight years. Soon after taking power in 1979, the Thatcher Government quickly overturned the 1976 Act that had threatened the future of grammar schools and academic selection. Any further assault on comprehensive schooling, however, remained a politically risky endeavour given the fact that a majority of the population supported comprehensive education. When given the opportunity to return to selection by academic ability in secondary schools, as the parents of Conservative-run LEAs such as Richmond and Solihull were in the early 1980s, parent groups campaigned to have comprehensive schools retained (Pring and Walford, 1997).

Nonetheless, the Government proceeded with further (albeit moderate) reform measures. The Education Act of 1980 (which came into effect in the autumn of 1982)

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system is seen by the Government as being socially divisive. On principle we are against it... Education is not to be sold across the counter like groceries. It is far more important' (House of Commons Oral Questions, vol. 891 Col. 1202, 6 May, 1975).

allowed parents to 'express a preference' for a school and obliged LEAs to comply with that preference unless doing so would prevent the efficient use of resources or prove incompatible with preserving the character of the school or existing selection arrangements (e.g., selection by ability) (DES, 1980). LEAs were further required by the Act to make means available for parents to express preferences for authority-maintained schools *and* (if the LEA could negotiate the arrangements) for non-authority schools.[22] The 1980 Act thus marked a fundamental turning point in school admissions by effectively transferring the burden of justification from parents (in choosing a particular school) to local authorities (in denying a preferred school) (DfE, 1992). In this key respect, the 1980 Act remained strikingly similar to the Labour Government's 1978 Bill, but in others, notably in the creation of the *Assisted Places Scheme* (1980), the Act heralded a more paradigmatic shift in the Government's approach to secondary education.

The Thatcher's Government's first significant educational policy, the *Assisted Places Scheme* (APS) was presented as a way of ensuring that talent would not be victimised by the levelling down of standards at some comprehensives. By 1987 almost 27,000 pupils were holding assisted places at an annual cost of £48 million to the state (Edwards, Fitz, and Whitty, 1989). The APS provided financial support to low-income parents for sending their children to private schools by making 5,000-6,000 places per year available to academically able pupils from low-income backgrounds (DES, 1980). This measure created no true choice mechanism within the state sector, but simply allowed able pupils from disadvantaged backgrounds an opportunity to 'opt out' of what was seen as an inferior state education system, an action that provided considerable financial and ideological support for the private education sector (Edwards, Fitz, and Whitty, 1989).

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[22] It was, however, presumed that most pupils would still attend school in their local area and that preferences, where there were any, would be largely for voluntary or same sex schools (Walford, 1994).

Although the Thatcher Government entertained more radical reform ideas[23] than the APS, the 'boldest' policy innovations followed upon more 'systematic rhetorical preparation' (Whitty and Edwards, 1998: 218). Right-of-centre interest groups and think-tanks such as the Institute of Economic Affairs (IEA), the Centre for Policy Studies and the Adam Smith Institute helped to circulate market and choice-related educational proposals well before they appeared on the formal policy agenda.[24] As mentioned earlier, educational reform in England during the 1980s drew largely from the ideas of American academics such as Milton Friedman. And yet, although ample opportunity existed for policy sharing and networks of influence to operate between New Right policymakers and academics in England and the U.S. during the 1980s, the Anglo-American consensus on school choice is best described as a process that is '...less a matter of direct policy exchange than [one] of mutually reinforcing versions of reality which reflect shared reference groups and assumptive worlds' (Whitty and Edwards, 1998: 223).

One such example of a policy overlap was the creation of the City Technology Colleges (CTCs) in the Education Act (No. 2) of 1986. These state-maintained institutions, which were publicly likened to American magnet schools, were designed to serve as 'beacons of excellence' for local LEA schools with the goal of raising overall standards in the state educational sector (DES, 1986). While CTCs never firmly took root in England, they foreshadowed larger and more radical reforms ahead, signalling a fundamental shift in policy with the introduction of competition into the state education sector and a corresponding reduction in the power and autonomy of LEAs.

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[23] Secretary of Education Keith Joseph, for example, toyed with the possibility of vouchers in 1983 but ultimately rejected them in the face of practical (and political) constraints (West and Pennell, 1997). In addition, although reintroducing selection was on their agenda during the early 1980s, the Thatcher Government soon realised that this was not a viable educational policy.

[24] Often such groups worked in coordination with similarly minded organisations in other nations, such as the Manhattan Institute or the Heritage Foundation in the United States.

The Education Reform Act of 1988

The policies enacted by the Conservatives between 1979 and 1986 failed, however, to prevent more local authorities from going comprehensive and phasing out selection. The Government realised that in order to pursue its goals of preserving selection and improving educational attainment levels it would have to rely on more direct policy measures (Benn and Chitty, 1996). The solution arrived at was to legislate a more formal parental choice dynamic, one enshrined within the new 'public market' framework discussed above. The proposal, known as the Great Education Reform Bill (GERBILL), met with opposition in both the House of Commons and the House of Lords but ultimately was passed as a result of the persistent efforts of advocates and of the Secretary of State, Kenneth Baker (Pierson, 1998). Introducing the first reading of the Act in 1987, Baker argued:

> If we are to implement the principle of the 1944 Act that children should 'be educated in accordance with the wishes of their parents' we must give consumers of education a central part in decision making. That means freeing schools and colleges to deliver the standards that parents and employers want. It means encouraging the consumer to expect and demand that all educational bodies do the best job possible. In a word it means choice (Hansard, 1 December, 1987).

Arguably the most significant piece of education legislation since the 1944 Act, the Education Reform Act of 1988 (ERA 1988) was passed in the context of lengthy disputes over teacher pay and large demographic changes that were producing a fall in school rolls. From its peak in 1975, the number of ten-year olds in Britain had plummeted by 30% by 1987, leading to an unprecedented abundance of surplus places in secondary schools (Walford, 1996). The increasing parental demand for choice that accompanied these demographic changes coincided well with the market philosophy of Margaret Thatcher and other ministers. Even after 1980 Act, the preferences of many parents had been denied by the limits set upon the number of places available in popular schools[25], and ERA 1988 argued that 'no child should be refused admission to a school

[25] Referred to by the Government as 'artificial ceilings' (DES, 1988), the 'standard number' for a school was based upon its enrolment for the 1979-80 school year, a year in which intakes were near their highest point in two decades (Walford, 1994).

unless it is genuinely full' (DES, 1988). An open market, in this context, provided a justifiable solution to the problem of spare places and choice-centred reform measures garnered far more support in opinion polls than a return to selection (Fitz *et al*, 1993).

In the eyes of its supporters in Government, however, the Education Reform Act of 1988 offered much more: it would bring 'standards, freedom and choice,'[26] and the resulting market for education would increase competition between schools and improve overall parental choice and school performance standards in the process (DES, 1988). The Act itself contained four central policy initiatives, which applied to both primary and secondary schools, although their implications for the latter generally have received more attention. First, a new funding structure was introduced, labelled *Local Management of Schools* (LMS), in which budgets were turned over from LEAs to individual schools, with 80% of funding to be determined solely by pupil numbers. Self-management as implemented by ERA 1988 meant that schools now not only were managed by a governing body, but also relied upon a pupil-based funding formula that left LEAs increasingly powerless to adjust or transfer funds in order to meet needs in other areas or in the future.[27] The implementation of LMS thus provided benefits beyond the educational, including political gains for the Conservative Party by weakening the power of the local authorities and teachers' unions traditionally allied with the Labour party (Walford, 1994).

The powers formerly held by the LEAs were, however, just as likely to be transferred upwards to central Government and the Secretary of State (e.g. parental appeals) as downwards to schools and governing bodies. Such a consolidation of power allowed the state to set the rules for low level governors, issuing stricter prescriptive

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[26] Secretary of State Kenneth Baker (cited in Whitty and Edwards, 1998: 212).

[27] A move toward more decentralized administration structures and locally based government, including the self-management of schools, had already been attempted in various forms such as the Home Office's Community Development Projects (CDP) of the late 1960s and 1970s (Smith, Lees and Topping, 1977). This initiative sought to build up a programme of local participation that would both devolve responsibility away from the centre and help improve depressed areas. Devolution and more locally based choice was also endorsed within the 1974 Labour Party Manifesto: 'we want to give a much bigger say to citizens in all their various capacities—as tenants, shoppers, patients, voters' (cited in Klein, 2001: 82).

guidelines and assessment indicators and relying less on more discretionary pronouncements (Pierson, 1998). A second key plank of ERA 1988, the establishment of a formalized *National Curriculum Assessment (NC)*, clearly reflected this consolidation.[28] Imposed to ensure high standards, universal skills and a comparative market indicator for parents, the NC created a nationally-based, general school curriculum and demanded new assessment procedures in the form of increased testing (at ages 7, 11, and 14) (DES, 1988).

While the LMS and the National Curriculum created a devolved environment in which schools were given incentives to attract pupils and parents were provided with information to track school performance, two further initiatives, *Grant Maintained (GM) schools* and *open enrolment*, imparted the necessary channels of choice within the new market structure. The *GM schools* proposal provided schools with the opportunity of receiving funding while opting out of LEA control entirely, a policy staunchly supported by the Government and which had been pushed for years by New Right thinkers who believed that schools should have the option of direct funding (e.g., Sexton, 1987). Grant-maintained schools, no longer under the umbrella of LEA control, could thus operate their own admissions policies. Thatcher and others in government hoped that this opportunity would carve out a clear-cut path for schools wishing to reintroduce selection (Walford, 1994).

The final, and what would prove to be the most enduring and controversial, policy embodied in ERA 1988 was the advent of *open enrolment*, which further expanded the scope for parental preference created by the 1980 Act. English parents, after the Act came into effect at the beginning of the 1990-91 school year, were allowed to seek admission for their child to any state-maintained school.[29] Local authorities were required to accommodate this preference except in situations where a school was

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[28] The centrally imposed National Curriculum was actually opposed by many public market advocates such as Stuart Sexton who believed that the measure placed undue constraints on school diversity.

[29] Originally this choice was circumscribed by area boundaries but the 1989 'Greenwich Judgement' removed the right of schools/LEAs to deny access to pupils on the basis of LEA boundaries in cases of reasonable proximity. This will be explored further in Chapter 3.

oversubscribed, in which case admission decisions would be made based upon publicly available criteria such as geographical proximity, sibling considerations, and pupil merit[30] (DES, 1988). This meant that, under the provisions of the 1988 Act, LEAs could no longer cite the 'prejudice efficient education' clause contained in earlier legislation unless the standard number of the school in question had been reached.

With these four policy initiatives, the controversial market for education was finally and significantly advanced within the confines of a single legislative act. Several subsequent amendments and modifications would be made in the following years in order to complete the reform begun by the 1988 Act.

Education Reform after 1988

Following through on the promises of a 1992 White Paper entitled *Choice and Diversity*, the Conservative Government enacted several market refinements under the Education Act of 1993. These included streamlining the GM school application process and creating a new Funding Agency for Schools (FAS) that would be given authority (instead of LEAs) for provision in areas in which GM schools accounted for more than 75% of schools. The 1993 Act also allowed all schools to specialize and select up to 10% of their intake based on pupil abilities in areas like sport, music, drama, technology—an action the Government insisted was not commensurate with a return to selection (DfE, 1992). Concerned with the continued number of surplus places (estimated at 1.5 million), the 1993 Act also obliged LEAs to report surplus places to the Secretary of State in order to identify 'systematically' those 'unpopular or otherwise unviable schools where there is a case for rationalisation' (DfE, 1992: 24).

After 18 years of Conservative rule, a 'New' Labour Government came to power in 1997 under the banner of 'education, education, education.' Nevertheless, despite abolishing the Assisted Places Scheme and reclassifying GM schools as 'foundation' schools, New Labour has done relatively little since its election, and (as of 2003) to

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[30] The Act did *not* alter how admissions arrangements are operated: LEAs were still required to publish admissions criteria and oversubscription policies, and schools that selected on ability were still required to make their selection procedure clear.

disrupt the continuity of parental choice policies in England. The Labour Government's continued support for independent schools, its failure to remove the status of former GM schools, and its refusal to end selection by ability, have all helped to preserve the Conservative educational legacy.[31]

Several of Labour's own policies have also arguably furthered the same agenda. *Excellence in Cities* (funding targeted at disadvantaged pupils, arguably under much the same logic as the APS), *Education Action Zones* (which allow some schools, as with CTCs, to work with business sponsors) and *City Academies* (publicly funded independent schools under private or voluntary sector management that are allowed to select pupils[32])—although all policies targeted at disadvantaged, predominantly urban areas—have failed largely to alter the schooling structure generated by ERA 1988 (West and Pennell, 2002). Perhaps the centrepiece of secondary education reform for New Labour, the *Specialist Schools* programme, which encourages schools to adopt a 'specialism' and allows them to select up to 10% of their pupils by ability, has likewise helped to promote selection and to undermine further the 'pure' comprehensive ideal.[33]

New Labour's continued faith in the education market has been attributed to several factors, including its new 'Third Way' allegiance to markets rather than public ownership (as Clause 4 of its Party Constitution had originally endorsed), and the vested interests of middle class parents and voters in the preservation of the 'compositional advantages' aided by parental choice policies (Thrupp, 2001: 303). Notwithstanding the general continuity of New Labour's educational policy, however, the Government has attempted to make several adjustments to the way in which the educational public market

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[31] Although GM status was nominally abolished, the former GM schools' funding levels were protected by 'transitional funding,' and the schools were also allowed to remain their own admissions authority, therefore preserving by and large the structural division created by the Conservatives (see West and Pennell, 2002).

[32] City Academies, like Specialist Schools, each possess a specialism and are able to select up to 10% of their students by ability if they are over subscribed.

[33] As of 2002-03, about 95% of specialist schools did not choose up to the 10% limit according to David Miliband (2003), the Minister for Schools at the time. In promoting the Specialist Schools agenda, New Labour has attacked the 'one size fits all' comprehensive, and the Secretary of State for Education (in 2003), Charles Clarke, has stated that he believes that all schools should eventually become Specialist (Walford, 2003).

operates. The most significant action, the School Standards and Framework Act (SSFA) of 1998, helped to equalize direct funding to schools (e.g., former GMs now receive the same as other schools) and installed local education authority representatives on school governing bodies. Most importantly, however, the SSFA 1998 established a new legal framework for admissions along with a revised Code of Practice (DfEE, 1999) designed to alleviate some of the problems arising from the education market. The new measures created included a new Adjudicator position for resolving local disputes (including with admissions decisions), as well as a prohibition on any 'new' selection by ability in schools other than by a process of ability 'banding' (DfEE, 1999).

Conclusions

Perhaps the most significant and controversial piece of education legislation passed in the last half century in Britain, the Education Reform Act of 1988 had many aims but no aspect was more critical to its mission than the expansion of parental choice. Choice in education was valued both in its own right and for its potential (as the key plank in the new education market created by the 1988 Act) for promoting bureaucratic efficiency and higher standards in schools.

Despite the changeover to a Labour government in 1997, the core measures enshrined in the 1988 Act—including the policy of open enrolment in state schools—have been modified at the margins but otherwise left largely undisturbed. Nonetheless, the shift to increased parental choice within a market for schooling was accomplished in the face of staunch opposition from many in education and has in the decade and a half since ERA 1988 been the subject of many research studies, most of them highly critical in nature. The large body of research and literature that has grown up around the education market for secondary schooling in England is the subject of the next chapter.

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Researching the 'Lived Market' for Secondary Education

The Education Reform Act of 1988 and other measures related to the formation of the secondary education market have established England as a 'social laboratory' for the development and observation of parental choice policies and their consequences (Gorard and Fitz, 2000). Data from nations like England that have already adopted widespread choice reforms provide valuable evidence for examining the effects of (largely) unrestricted choice. This evidence is of great value both to those interested in expanding the scope for choice in other nation's education systems and to those in England concerned with the impact of the 1988 reforms on the nature and structure of state schooling. More than a decade and a half later, the consequences of the competition and choice initiated by the Education Reform Act of 1988 are starting to become clearer through the application of both quantitative and qualitative research methods, particularly those geared toward answering questions concerned with the relationship between choice and socio-economic status.

Concerns with social equity, while not the primary motivation for the choice policies introduced in England, have dominated the British research on choice. Several schools of thought have developed regarding the effects of choice upon socio-economic inequalities, and a series of studies into choice in England have been completed. The majority of research, as we shall see, has been qualitative and small-scale in nature, examining how parents of different backgrounds engage in the 'micro-political process of choosing' within the education marketplace (Gewirtz *et al*, 1995). More recent quantitative research has explored the broader impact of choice upon school enrolments and compositions (Gorard and Fitz, 2000; Noden, 2000; Taylor and Gorard, 2002). As outlined in the Introduction, a fundamental paradox pervades the research literature to

date on the impact of open enrolment policies in England. Qualitative research suggests that the environment created by choice allows middle class parents to play the market more effectively than their working class counterparts, while quantitative analyses, on the other hand, indicate that disadvantaged children have in fact become more evenly distributed across schools in most local areas since the 1988 Act. One of the primary objectives of this thesis is to help resolve these somewhat contradictory findings and to provide a clearer picture of the 'lived market' as it exists for parents today, and the resultant effect on pupils of different backgrounds.

Education and Social Class

Modern Theories of Social Class

The hotly contested debate over parental choice policies in England has arisen largely from general and more longstanding concerns about the role that the social class backgrounds of parents and children plays within the educational system. Economists, sociologists and political philosophers have long been preoccupied with drawing class boundaries and social class has for decades been the primary focus of both the sociology of education literature and much of the wider public debate on inequality in Britain (Whitty, 2001). While some researchers and policymakers believe that social class constitutes a somewhat artificial concept that is incorrectly imposed on an infinite variety of social groupings (e.g., Denison, 1984) and increasingly inapplicable to modern society[34] (e.g., Pahl, 1989), many others (e.g., Bourdieu, 1986; Goldthorpe and Marshall, 1992) maintain that class is only now—thanks mostly to large-scale data-sets and research studies—achieving 'conceptual clarity' (Savage, 1995).

Just as Karl Marx originally pitched class relations in the context of the struggle between capitalists and workers to control the 'means of production,' modern approaches

[34] Reasons often cited for the declining importance of class-based analysis include changes in structure of employment (from manufacturing to service), the growth of new social movements tied to race, gender and other social groupings, and the increasing relevance of consumption to self-identity.

to the study of class generally focus upon the occupational structure and employment relations of a given society. Unlike Marx, however, modern class theorists have found little evidence to suggest that membership within a particular occupational sector entails any particular collective action or awareness. Social class distinctions appear to exist more within the strong associations that can be found between occupational positions, educational qualifications and certain practices, attitudes and behaviours (e.g., Goldthorpe, 1987; Heath, 1981). Although gender, race and other factors often mediate such associations in complex ways, class distributions and divisions are generally found to exist within these sub-groups as well (Gilborn and Safia-Mirza, 2000).

Social class, in modern terms, is thus most commonly invoked to describe structures of material inequality, usually based upon occupational divisions and the discrepancies in power (political, social, legal and economic) that create and maintain those divisions and inequalities. Individuals within the same social (or occupational) class share both similar market situations (conditions of employment, levels of income, job security) and work situations (autonomy, supervisory capacity in the workplace). Many empirical examinations of class have explored the distribution of employment positions within a population of workers as well as the 'consequences thereof for [employees'] life chances and for the social identities that they adopt' (Goldthorpe, 1987: 382).

In modern industrial societies, the social classes are typically grouped into two broad categories: the working class and the middle class.[35] The stereotypical 'traditional working class' of England, however, represents a rather heterogeneous group of manual workers, and the middle classes, despite similar material lifestyles, may likewise consist of several socio-cultural factions (e.g., those with high educational capital in professional employment and those that have worked their way up the managerial ladder in manufacturing, service, etc.) (Wynne, 1998). Notwithstanding its clear restrictions, this broad classification of social backgrounds based upon occupational standing has

[35] Although the terminology of theorists can vary: Goldthorpe (1987), for example, refers to 'service' and 'manual working' classes.

informed a great deal of sociological and economic research and provided key insights into the distribution of opportunities within modern capitalist societies. One key component of this research—the critical examination of the distribution of educational credentials and of the process of credential acquisition within a society—provides consistent evidence that at each stage of the educational process, social class (and the associated availability of resources) influences a child's academic performance and consequent life opportunities.

Social Class and Education in England

Social class has often been referred to in research circles as a 'peculiarly British obsession,' one that reflects the unique and pervasive influence of class in British history, which has included its role in structuring publicly financed schooling (Savage, 1995). For much of recent history, formal schooling options for the children of the working classes in Britain were severely limited. When schooling was available, it was often provided as 'a palliative designed to contain and pacify rather than to educate and liberate' (Reay, 2001: 334). Expressing a view not uncommon within elite society at his time, the 19th-century historian Robert Lowe (1867) once wrote: 'If the lower classes must now be educated... they must be educated that they may appreciate and defer to a higher civilization when they meet it' (9-10).

The Education Act of 1944, one of many reforms that helped bridge social class divisions to create the post-war Welfare State in Britain, promised an educational structure more conducive to lower class achievement since—for the first time in history—secondary schooling was to be compulsory and admittance to grammar schools based wholly on academic merit. Moreover, with the growing comprehensivation of schools during the 1960s and 1970s, many hoped that the strong link between social background and educational success in Britain would at last be weakened, if not entirely severed.

Nonetheless, strong social class differences in achievement persist to this day. According to 1997 DfEE figures, children from more advantaged

professional/managerial backgrounds are still three times as likely as their peers from unskilled manual backgrounds to attain five or more A*-C scores on GCSEs[36] (Gilborn and Safia-Mirza, 2001). This achievement gap appears to represent a long established trend in Britain. Recent longitudinal studies of class mobility and educational outcomes over time in England have failed to show any substantive impact of past policies directed at disadvantages in education (Kerchoff and Trott, 1993; Heath, 2000). It appears that despite the landmark goals and directives instigated by the 1944 Education Act and subsequent comprehensivation, educational policies have had very little success at reducing socio-economic differences in educational attainment and weakening the apparent link between background and educational success.

How does socio-economic disadvantage translate into lower attainment levels? Educational disadvantage takes many forms. Poverty can both limit access to educational opportunities for certain children and reduce the likelihood that they will benefit from the education they receive (Smith *et al*, 1995). In disadvantaged areas, the potential hazards faced by young people are often qualitatively different from those faced in more affluent areas. Certain 'handicapping factors' such as dropping out of school and unemployment are disproportionately prevalent in these areas, and other 'barriers to learning' like poor health, family breakdown, and low quality housing combine to have a particularly powerful effect on low-income areas and their inhabitants (Smith, 1996; Mortimore and Whitty, 1997).

Perhaps more than anything else, however, educational disadvantage is, as Phillip Brown (1997) states:

> ... a matter of resources. At every point, again both inside and outside the schools, working-class children have a great deal less spent on their opportunities for learning than have their more fortunate middle-class contemporaries (32).

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[36] The proportion of pupils attaining five or more 'high pass' scores on the General Certificate of Secondary Education (GCSE) exams has become the most commonly invoked 'benchmark' of educational success at the secondary level in England.

Thus, given the many and deep-seated effects of social disadvantage, it is unlikely that schools alone will be able to mitigate the strong influence of family and background factors upon educational attainment. Indeed, even when the most basic economic barriers to achievement are lifted—as was convincingly revealed in Jackson and Marsden's (1966) landmark study of the effect of grammar school education upon working class children in the decades following the 1944 Act—more subtle barriers are exposed.[37] These again demonstrate 'the many small ways in which money and power in society prepare early for a competitive situation' (Jackson and Marsden, 1966: 230-231).

It may be in part for this reason that educational reforms during the past half century have not had more success at ameliorating social class differences in performance: these mostly organisationally-based measures (e.g. comprehensive re-organisation) may simply have shifted the nexus of class competition from access *between* different types of school to access *within* those types as, for example, middle class parents began to compete for access to preferred comprehensives rather than to grammar schools (Heath, 2000). This, in turn, suggests that the association between class and educational attainment will not be solved by policies that focus primarily upon school re-organization and improvement, and which do not incorporate broader changes in the level of public support directed at family welfare, employment opportunities, and neighbourhood renewal (Whitty, 2001). What many who oppose parental choice reforms worry most about, however, is that the negative effects of social disadvantage upon educational opportunity will be exacerbated within the choice environment by the distinct perspectives and strategies that parents of different social classes bring with them to the education marketplace.

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[37] The 1944 Act prevented grammar schools from charging fees, thus removing any financial barriers to entry. What Jackson and Marsden found was that, even in the absence of such a barrier, relative differences in class admission and performance persisted because 'any form of *nominally academic* selection will, in effect, be a form of *social* selection' (230-1).

Class Educational Strategies and Cultural Capital

Concerns with the relative advantages enjoyed by families of higher social class backgrounds with regard to educating children have not been limited to the debate over parental choice. A large body of sociological theory and ethnographic research regarding the home-school relationship and the social functions of education has accumulated over the past few decades and helped to inform policy debates as well as instructional methods and curriculum formation (e.g., Halsey *et al*, 1997).

Perhaps the most influential sociological perspective, Pierre Bourdieu's theory of 'cultural capital,' begins from the premise that 'the social world is accumulated history' (Bourdieu, 1986: 241). In education, as in employment and other areas of life, individual social agents utilize social networks and resources to achieve their aims. Yet, as Bourdieu (1986) argues, even though a great deal of attention has been devoted to the amount of economic investment made by different classes in their children's education, few studies have attempted to measure and account for the myriad forms of cultural investment, or cultural capital, that are likewise expended for the purposes of securing opportunities for social and educational reproduction (or advancement).

Through investing time and money into their children's intellectual and social development (e.g., by paying for extracurricular activities and lessons or devoting time to reading and interacting with their children), parents can make what is perhaps the 'best hidden and socially most determinant educational investment' (Bourdieu, 1986: 244). In this way, external wealth is effectively converted into part of the child's person, into her 'habitus'—the constellation of abilities, talents, knowledge and advantage that she carries and calls her own (Bourdieu, 1986). Additionally, Bourdieu claims, the education system itself aids this process of social reproduction by formally sanctioning the transmission of cultural capital and by allowing the upper classes to convert social advantages into academic advantages[38] (Bourdieu and Passeron, 1990).

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[38] The process occurs all the while the dominant classes, according to Bourdieu and Passeron (1990), appear 'to be surrendering to a perfectly neutral authority the power of transmitting power from one generation to another, and thus to be renouncing the arbitrary privilege of the hereditary transmission of privileges'(167).

It is not hard then to see how the application of the cultural capital model to the public market created by the 1988 reforms could engender fears about aggravating educational inequalities. 'To lack resources is to be disenfranchised from the polity of the market,' (337) according to Stewart Ranson (1993): the statement could be applied to any market framework, but is especially pertinent to the public market construct. Participating fully in a market environment, as we saw in the last chapter, requires a social actor (e.g., consumer or parent) to possess a certain capacity for gathering information, engaging with producers, and understanding the requisite intricacies of the consumption process. To take advantage of the opportunities afforded by parental choice, a parent must thus be able 'to decipher and manipulate complex structures'—an activity that in most cases requires a certain threshold of material and cultural resources (Bourdieu and Passeron, 1990: 73).

Of course, full participation in choice-making activities requires not only capacity but inclination as well: a feature of choice implied by sociological theories of cultural capital but one that is more fully taken up by rational action theory (or rational choice theory). Working class parents and children, like their middle class counterparts, it is argued, strive to maximise their own utility and it is in the daily exercise of determining the likely costs and benefits of decisions that class-based differences in behaviour may emerge (Hatcher, 1998). As ethnographers have shown, these decisions may reflect risk-avoidance strategies as working class parents disengage from an educational system that has not served them well in the past and in which they see little purpose in participating[39] (e.g., Lareau, 1987; Reay and Ball, 1997). Alternatively, working class parents may have preferences that are not met in a system that does not value their own particular cultural interests, and consequently pupils may similarly feel like outsiders or 'imposters' within it (Reay, 2001). Middle and working class parents demonstrate clear differences in attitude regarding the level of attainment they wish their child to achieve,

[39] The study of working class 'self exclusion'—traditionally rooted in ethnographic research into the different class values and cultural/material resources—has now largely been subsumed within the new sociological literature on 'social exclusion,' which places more emphasis on the relational aspect of exclusion (Whitty, 2001).

their own level of involvement with schools, and the overall value they attach to education (Lareau, 1987). How important then are these differential capacities and propensities within the context of choice?

Qualitative Research: Social Class and Patterns of Parental Choice

Early Choice Findings

> I don't claim that all consumers are wise, of course not, but some will be able to exercise choice which they can't exercise now (Keith Joseph, quoted in Ball, 1990: 63).

As this rather frank admission by former Secretary of Education, Keith Joseph, reveals, concerns with potential differences in parental behaviour, although countenanced by policymakers, did not fundamentally deter the expansion of parental choice policies in the 1980s and 1990s. Qualitative research into the process of choosing schools and the corresponding class-based strategies has, however, subsequently illuminated the advantages enjoyed by 'educationally responsible' parents as a result of choice (Ball, 1997).

Even before the 1988 Act opened up the potential for widespread parental choice, the effects of similar, preceding measures had become the subject of scholarly investigation. The Education Act of 1981 passed in Scotland, which allowed Scottish parents to make a 'placing request' well before their English counterparts, provided one early forum for testing theories of class-based choice. The largest factor found to be influencing the utilization of choice was in fact a structural one—the local geography, particularly the predominance of non-urban environments and the corresponding dearth of real schooling options (Adler, 1990; Echols *et al*, 1990). In early studies, those relatively few parents (less than 10%) who were able to make use of choice, however, appeared to come from relatively varied class backgrounds (Macbeth *et al*, 1986), although subsequent research suggested not only that better-educated and more affluent parents were in fact more likely to take advantage of choice, but also that 'active

choosers' tended to select schools with higher socio-economic compositions and attainment levels (Echols *et al*, 1990; Wilms and Echols, 1992).

In England, a large-scale study of the impact of the 1980 Education Act upon four LEAs reached similar conclusions: families from lower class backgrounds were more likely to send their children to their local secondary school and to be less informed about school options in general (Stillman and Maychel, 1986). A subsequent review of the Assisted Places Scheme (APS) of the same Act—which relied on parents being aware and motivated enough to enrol their children for consideration—found that the programme led to an uneven take-up of pupils by socio-economic status since more advantaged parents were better equipped to negotiate the selection and choice procedures (Edwards *et al*, 1989). Very few of the programme's participants actually came from working class backgrounds (68% of mothers of APS pupils were educated in selective or independent schools themselves), but instead appeared to come from 'artificially poor' middle class backgrounds (Edwards *et al*, 1989). Would such findings, however, be reconfirmed within the context of the more pronounced open enrolment policies instituted by the 1988 Act?

Studies in Class-based Choice

Perhaps the most influential and often cited study examining the relationship between social class and parental choice in the educational market in England is Stephen Ball, Richard Bowe and Sharon Gewirtz' in-depth assessment of three London LEAs during the early 1990s (Ball *et al*, 1995; Gewirtz *et al*, 1995). Gewirtz *et al* (1995) claimed that their interviews with parents, teachers, and administrators revealed three 'ideal types' of choosers: 1) *privileged/skilled choosers* who possess a strong inclination and capacity to engage in the process of matching their child to a suitable school; 2) *semi-skilled choosers* who have a 'strong inclination but limited capacity,' (40) lacking the inside knowledge and familiarity with the system necessary to fully avail themselves of choice; and 3) *disconnected choosers*, who are not inclined to engage in the market and who make little attempt to collect the relevant information.

The above categories were found to be strongly class-differentiated; more middle class parents fell into categories 1 and 2, and more working class parents into category 3 (with some in 2 as well). From these broad analytical groupings, the researchers argued for the existence of differing market strategies and levels of cultural and material resources amongst parents of different social classes. They concluded that while for 'working class locals' concerns of practicality and localism dominate school choice decisions, in generally middle class 'cosmopolitan' families more emphasis is laid upon attainment and advantage (Ball *et al*, 1995). In other words Ball, Bowe and Gewirtz argued from their findings that, as Bourdieu and other theorists had concluded before them, class-based selection and decisions are legitimated by the adoption of choice and that choice in education provides one key point at which the cultural and material resources possessed by parents may be successfully 'cashed in' (Gewirtz *et al*, 1995: 181).

Subsequent research provided further insight into the nature of these class-differentiated educational decisions. Not only do working class families often express a preference for nearby schools (Hughes, 1997), but also, in these families, the child, and not the parent, is generally considered the 'educational expert' (Reay and Ball, 1998). The key factors determining choice of school therefore tend to be related more strongly to the child's current well-being (e.g., attending the same school as their friends) (Glatter *et al*, 1997). Choice decisions are also commonly influenced by the 'hot knowledge' being disseminated through the grapevine of informal social networks, although this knowledge is unevenly available and used differently by different social classes (Ball and Vincent, 1998). Expectations and past experiences vary as well. For many middle class parents, the only actual schooling options under consideration are limited to grammar schools and top performing comprehensives, and some may even consider moving if their child performs unsatisfactorily on selective entrance exams (Reay, 1996; Bates, 2002). On the other hand, for working class parents, the top choice available might be an above-average comprehensive in a neighbouring area; however, even such a

modest preference may be overridden by the safer and more risk-averse selection of a local comprehensive (Gewirtz *et al*, 1995; Reay, 1996).

The process of choosing schools thus does not occur within a vacuum, but often represents only the tip of a large iceberg of submerged processes related to the social reproduction and educational strategies discussed above. Social reproduction activities, such as choosing a school, constitute a highly 'gendered process' that is strongly tied to the everyday domestic activities of mothers: although working class mothers may be just as passionate about their child's education, they often lack the 'social power' and networks available to their middle class counterparts (Reay, 1998). Middle class mothers on the whole are highly involved in their child's educational progress, acting as chauffeurs and chaperones for extracurricular activities, and as dissatisfied consumers (e.g., by writing letters of complaint to headmasters). Within the middle classes, however, variation with respect to educational preferences and involvement appears to exist just as it does within employment patterns (Wynne, 1998). Middle class parents may range from highly interventionist and educated professionals to blue-collar educational 'outsiders' who are more trusting of schools and generally less directly involved (Vincent, 2001).

The above findings have helped to confirm the prevailing fear that within an education market, provision inherently benefits the consumption demands of the more privileged consumer. Locality *per se*, for example, is not a preference that the market rewards even though it is one that is valued by many in the working class. Citing such factors, Gewirtz *et al* (1995) conclude that the English market for education fails to achieve equitable results because

> ...success in the marketplace is not primarily a function of family motivation but rather of parental skill, social and material advantages, the perceived raw-score potential of the child, and, to some extent, pure chance (189).

Similar research findings have been drawn from studies in the United States (Moore and Davenport, 1990), New Zealand (Waslander and Thrupp, 1995) and elsewhere (Vandenberghe, 1998). The evidence for class-differentiated approaches to parental

choice does not, however, necessarily demand a verdict of educational and political inequity. It is important also to understand the limits of 'process-side' educational research and what it can and cannot tell us about the impact, and consequent equity, of the education market.

The Limits of 'Process-Side' Research

The qualitative research studies of parental choice outlined above consist almost entirely of 'process-side' investigative analysis in which the actions, motivations and attitudes of social actors are ascertained primarily via interviews and questionnaires (Taylor, 2002). As such they provide valuable evidence regarding the very real class-based differences that exist with respect to educational strategies, orientations and parental investment. Both the legitimacy and the generality of these conclusions, however, may be questioned.

The findings of Stephen Ball and colleagues on social class and choice—widely cited in both academic and policy circles—have several faults that may limit the nature and scope of those findings. In their research, the London researchers draw broad conclusions (from a sample of 137 interviews from only three LEAs) about inherent class-based differences in choosing, and the consequences of those choice decisions for the increasing 'decomprehensivation' and social segregation of English secondary schools (Gewirtz *et al*, 1995: 181). These conclusions, however, are generalized from a London-specific dynamic and from a sample of parents that is not wholly representative.[40] Of additional concern are the categories of 'choosers' themselves and how readily such demarcations arise from the interview data: can parental values and attitudes be so easily distilled down to three such distinct and limited categories.[41] The generalizations drawn by the London researchers also neglect contextual relevancies,

[40] The sample was compiled from interviews with parents at arranged school meetings, arguably under-representing those 'disconnected' families less likely to choose. Also, Gewirtz *et al* (1995) make conclusions about the motives of 'disconnected' choosers but at the same time remark that this group was largely inarticulate in voicing its reasons for choices. For more methodological criticisms see Tooley (1997).

[41] Carroll and Walford (1997), for example, construct a 'continuum' to better reflect the variation found within class-based responses to the secondary schooling market.

such as evidence for efficiency improvement in schools and unequal outcomes before the choice reforms. These may provide good reasons for qualifying the conclusions of market 'inequity'[42] (Brighouse, 2000).

There are thus many reasons for reservations over the findings of the major qualitative study on parental choice in the secondary education market. Process-side research on the dynamics of parental choice, however, is generally inadequate for addressing the true impact of the choice reforms upon the important (and most contested) issues related to the socio-economic composition of secondary schools and the distribution of opportunities amongst pupils of different social classes in a market environment. Some process-side research has presupposed polarization in theory from the start (e.g., Adler, 1989; Echols *et al*, 1990; Ball *et al*, 1995; Hatcher, 1998). Most has sketched a rather one-sided social justice scenario, failing to acknowledge some of the potentially beneficial effects of choice that are so strongly emphasised within the American literature on the subject (e.g., Jencks, 1972; Coleman, 1992).

Perhaps most importantly, the qualitative research on choice lacks the necessary temporal comparisons with the *status ante* situation pre-1988 (Gorard and Fitz, 1998). Even clear connections between social class and the utilization of choice in a market system do not doom that system to produce more inequitable results than did the previous residence-based catchment system. Further research on the impact of choice is needed in order to elucidate more effectively the benefits before and after the institution of legislative reform. Such research—which must rely upon more heavily quantitative calculations of school compositions—has begun during the past five years, and has so far yielded dramatically different results from the findings of the qualitative literature.

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[42] Stephen Ball and his colleagues have subsequently made qualifications and concessions regarding the scope of their research but maintain that the London findings are both relevant and backed up by studies of other areas and countries (Ball, 1997).

Quantitative Research: School Compositions and the Outcomes of Choice

Focusing on Outcomes

By the late 1990s, it had become almost an 'article of faith' amongst British educational researchers that schools were becoming more segregated by socio-economic status, and that the market reforms of the 1980s had worsened the already stark inequalities in educational participation, opportunities and attainment (Gorard, 2000a). As we have seen, most of the early misgivings about parental choice policies in England were tested during the 1990s primarily through the use of qualitative research studies. In most other countries that had experienced similar market reforms in education, however, larger-scale quantitative analyses have attempted to answer questions related to how reforms have affected school segregation levels and other outcome variables such as pupil performance. In the United States, for example, quantitative analyses of school voucher programmes in Cleveland, Wisconsin and elsewhere have produced mixed findings with respect to the social segregation of pupils (Witte, 1990; Powers and Cookson, 1999). The Smithfield Project, a series of research studies commissioned to evaluate the *Tomorrow's Schools* reforms that created an education market within New Zealand in 1989, came to the conclusion that the de-zoning policies were having a detrimental effect on the socio-economic compositions of schools[43], a finding that contributed to a return to zoning policies in 2000 (Lauder *et al*, 1994; Hughes *et al*, 1996).

In England, however, the debate over the choice reforms of the late 1990s was highly influenced by the conclusions of early theoretical work. Even once research findings started coming in, the evidence they provided for class-based choice was often inappropriately generalized to make broader conclusions about the class compositions of schools as we have seen. In effect, academics, education campaigners and policymakers during the 1990s marshalled the early choice findings as if building a legal case against the market reforms rather than basing their arguments on stronger and more empirically-

[43] As Gorard (2000a) demonstrates, several of the primary analytical findings on which this conclusion is based are flawed.

driven social scientific findings (Gorard, 2003). In part, this was because such findings did not exist. Educational researchers in England had for decades conducted predominantly qualitative and small-scale statistical research into school effectiveness and other educational fields related to class environments, pedagogic techniques and pupil learning. The sort of large-scale quantitative data and analysis required to examine fully the effects of the education market had not been attempted since data on pupil backgrounds, although available in various forms from central government and local education authorities, was difficult to gather at the school level.

By the late 1990s, scholars (Tooley, 1997; Gorard and Fitz, 1998a) and policymakers alike (DfEE, 1997) had come to question the 'crisis account' of English education posited by mainstream research (Gorard, 2000a). Through the prolific work of researchers such as Stephen Gorard and John Fitz at the University of Cardiff, the debate on the impact of the education market shifted to one more predicated on the question of how school compositions had changed in the years since the reform. As Gorard and Fitz (1998a) maintained, an empirical analysis of market impacts would require both an agreed definition of what constitutes segregation/polarization (e.g., schools progressing away from their 'fair share' of disadvantaged pupils) and a method of 'proportionate analysis' that could control for economic and demographic influences on the variables of interest (Gorard, 2000b). An essential element of any proportionate method would be a 'robust comparator' that would allow researchers to track segregation through time (and against the *status ante* pre-1988 situation).

Segregation between Schools: The Cardiff School

The research of Gorard, Fitz and others at the University of Cardiff has come to represent the current empirical verdict on the impact of parental choice in English education. In an early study of 81 secondary schools in Wales as well as an expanded examination of all state-maintained secondary schools in England and Wales, Gorard and Fitz (1998a, 2000a) examined polarization in education as revealed in the segregation of disadvantaged pupils between schools. The chief indicator of pupil background used by

the researchers is eligibility for Free School Meals (FSM), the 'most appropriate and convenient' measure of socio-economic need and family poverty (Gorard, 1997: 46).

To control for larger economic and demographic changes that might impact pupil numbers and FSM rolls independently of a market effect, Gorard and Fitz relied upon the *segregation index*, a proportionate measure of segregation widely employed in urban segregation research (Massey and Denton, 1988). Gorard and Fitz utilized the *segregation index* as a measure of evenness to signal the percentage of FSM pupils that would have to transfer schools in order for there to be an equal distribution of FSM pupils across all schools in an area.[44] Their primary finding using the *segregation index* was that segregation between schools in England and Wales had actually slightly decreased between 1988 and 1996, implying either that choice has helped break some of the previous connections between residence and schools, or that the market has simply had a negligible effect in the light of larger social and economic forces (Gorard and Fitz, 2000b).

Gorard and Fitz found that areas with more grammar schools showed less change in segregation following the 1988 reforms, which suggested that the overall trend in desegregation was not likely to have been a result of the new marketplace.[45] Equally, no significant relationship was found between the number of appeals in an LEA and the amount of desegregation occurring in that area, despite the fact that overall parental placement appeals had increased. This revealed a generally increasing 'market awareness' amongst parents (Gorard and Fitz, 2000a). The Cardiff researchers hypothesized that the apparent desegregation of secondary schools could be attributed to local school closings and LEA re-organisations that might have forced the 'redistribution of the underprivileged' amongst remaining local schools (Gorard, 2000d).

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[44] Based upon the *dissimilarity index*, the Segregation Index = $\frac{DPS - (DPA \times tps/tpa)}{2(DPA)}$

Where: DPS= # of disadvantaged pupils in a school; DPA=# of disadvantaged pupils in an area; *tps*=total # of pupils in a school; *tpa*=total # of pupils in an area.

[45] This was because areas with the greatest diversity (availability of choices) did not demonstrate the highest levels of desegregation.

Gorard and Fitz (2000b) have been cautious in interpreting their findings but conclude broadly that:

> ...markets may have much less impact on education systems than is popularly believed and the advent of choice may be truly both less beneficial than some advocates suggest, and less harmful than some critics fear (130).

Subsequent research has revealed that this trend may well have reversed since 1998 with increases in school segregation levels, a fact likely related to the growth of faith-based, foundation and specialist schools that, in most cases, serve as their own admissions authority and take less than their fair share of disadvantaged pupils (Gorard and Taylor, 2001). Nevertheless, during most of the 1990s, it appears that disadvantaged pupils became more evenly distributed through English secondary schools. However the causes of this desegregation are interpreted, it is clear that if—as Gorard and Fitz maintain—the market created by choice has not had a hand in exacerbating social inequities in education, 'then a central plank in the case against marketization will fall' (Gibson and Asthana, 2000b: 309).

Gorard and Fitz's findings unsurprisingly have sparked a number of criticisms and rebuttals (Gibson and Asthana, 2000b; Noden, 2000; Goldstein and Noden, 2002). In particular, the findings that school desegregation has been most pronounced in highly populated areas such as the London boroughs explored by Stephen Ball and colleagues has been greeted by a 'chorus of disbelief' (Gorard, 2000). Notwithstanding the clear differences between the findings of the segregation analyses and the research on class-based choice strategies, there are also some technical issues raised by the research and its methodology.

Gorard and Fitz are successful in showing what they claim to show: i.e., that school segregation, as measured by the number of pupils on FSM in a given year, has decreased since 1988, and that this is unlikely to be the result of the new market in education (Gorard and Fitz, 1998a, 2000a). A number of complications arise, however,

from Gorard and Fitz's use of the FSM marker, raising questions about its overall explanatory significance. As mentioned earlier, the use of FSM by educational researchers is understandable given that it is the most available indicator of pupil socio-economic status. Still, as a binary measure of socio-economic status that identifies only a small, residual sector of the population (those 15-18% eligible for FSM[46]), its ability to accurately delineate the educational market's impact across wider society is inevitably limited (Walford, 2003). Socio-economic disadvantage (and particularly the extent to which families possess different amounts of 'cultural capital') is a much broader phenomenon than is reflected by entitlement to income support (Gibson and Asthana, 2000a). Thus, while Gorard and Fitz's *segregation index* may correctly reflect the location of a sub-section of pupils through time, its basis in FSM figures could mask changes in overall segregation and social stratification, revealing only the distribution and changing fortunes of a fluctuating fringe group.

Gorard and Fitz's FSM segregation index has also been labelled as 'entirely spurious' as a longitudinal indicator of socio-economic status because eligibility is not a fixed characteristic like ethnicity and other background variables (Gibson and Asthana, 2000b: 134). The number of pupils eligible for free school meals within a school thus may change year to year not as a result of choice or intake differences but rather because of changing economic growth and poverty levels in the local area population, or simply because of current pupils moving or leaving school (Goldstein and Noden, 2002). In a sense, the FSM segregation index used by the Cardiff researchers measures how evenly a particular year's disadvantaged pupils are spread across schools, but this level may change with the next year's disadvantaged pupils for several reasons unrelated to differential choice or intakes. As Gorard and Fitz (2000a) themselves observe: not only does an increase in the proportion of FSM pupils in an area generally result in a decrease in the *segregation index*, but also the greater the number of total pupils in an area the

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[46] Taken from the Department of Education and Skills' (DES) *Statistics of Education: School in England*, 1998-2001.

higher the *index* tends to be as well.[47] The fact that Gorard and Fitz's findings on segregation in English education neither agree with the qualitative evidence on the subject nor coincide with larger increases in both geographical segregation and income inequalities (e.g., Evans *et al*, 2002), raises the important question of whether there are better ways of testing trends in educational segregation.

Another of the major drawbacks of the *segregation index* used by Gorard and Fitz is that it takes no account of where the 'unevenness' that it measures is located (Noden, 2000). The practical implications of whether disadvantaged pupils are concentrated in a few failing schools or across many sub-par schools can be of great importance to policy, especially considering the costs associated with rescuing failing schools and the benefits related to 'peer effects' offered to disadvantaged pupils within less-segregated environments (Robertson and Symons, 1999; Noden, 2000). Other researchers, using different methods of quantitative analysis have concluded, unlike Gorard and Fitz, that social segregation in schools widened during the 1990s as schools in many areas grew more polarized both in terms of compositions and outcomes (e.g., Bradley and Taylor, 2000; Noden, 2000; Gibson and Asthana, 2000; Davies *et al*, 2002; Levacic and Woods, 2002). In particular, some studies (Davies *et al*, 2002; Gibson and Asthana, 2000) argued that local markets and groups of schools constitute the most appropriate focus for analysing potential polarization because segregation levels are so strongly influenced by local conditions. Gorard, Fitz, Taylor and others have responded in depth to these alternative findings and criticisms, but for many in educational research, a definitive quantitative verdict on the effects of choice on social polarization remains elusive.

[47] According to Gibson and Asthana (2000c), over 70% of the variation at the Regional level (and over 40% at the LEA level) of Gorard and Fitz's *Segregation Index* can be explained by these two factors alone.

Rationale for This Research

Equity Matters

Research into the outcomes of parental choice reforms is important not only for evaluating the largely theoretical arguments made by critics of education markets, but also for assessing the claims of those who support their implementation, exposing, where necessary, the places where adjusting the landscape of the market would be beneficial. Testing the role of choice in school segregation levels is particularly essential given its role in what is perceived as being the gravest shortcoming of the market—its inequity. The concept of equity in general refers to 'judgements about whether or not a given action or a particular state of affairs is just' (Walford, 1994: 13). Equity is not the same as 'equality,' even though measures of inequality are often central to making judgements about equity. Simple differences or inequalities in funding or individual pupil opportunities, for example, are not in themselves indicative of inequity or injustice since the fact that groups and individuals naturally differ from each other renders group differences inevitable across a population. In the sphere of education policy, equity concerns relate primarily to the justice of administrative and political decisions and the nature of the educational system that arises from them (Secada, 1989).

Concerns with equity and inequality factored little into the Education Reform Act of 1988 and subsequent legislation, which provided none of the measures that might be associated with an interest in equity. The reforms did not, for example, bolster travel funds for LEA to lift the constraint of transport costs for disadvantaged parents, nor did they create 'weighted' pupil funding arrangements or value-added measures of school performance. In a very revealing quote from 1987, the Government spokesperson for education at the time, Baroness Hooper, admitted: 'If we are offering freedom of choice to parents, we must allow that choice to operate. If it ends up with a segregated system, then so be it'.[48] Policymakers and scholars, worried by such statements and by the

[48] Quoted in Walford (1994), p. 132.

potential for choice to be a covert form of selection, have made sure that equity concerns have figured prominently in the subsequent debate over parental choice in England.

The achievement of social justice in education depends on which dimensions of schooling—namely, processes, inputs or outcomes—one is concerned to make equal. Questions and judgements about educational equity generally refer to conceptions of distributional justice—how fairly the opportunities for access, advancement and economic success are distributed within a society, and what measures need to be taken to ensure that any shortcomings might be adequately addressed. The distribution of educational opportunities and outcomes is especially important given that educational attainment in most societies is both unevenly distributed and closely linked to family income and background (Levacic, 1995).

During the 1960s and 70s—a period that coincided with increased comprehensivation in England—policymakers and scholars began to emphasize the need to equalize educational inputs but also to move toward an equality of outcomes, given different individual inputs, such as those inequalities driven by different family backgrounds. Taken to one extreme, judging the equity of educational policies or decisions in light of a concern with equal outcomes ultimately requires that factors of parental wealth and influence be neutralized in the sphere of education—an unlikely and arguably undesirable situation (Hayek, 1960). Nonetheless, the creation of equal access to quality schooling, of a level playing field within the school and additional funding for disadvantaged pupils (who do not have so much money spent on their educations outside of school) are all measures that can redress social disadvantage and inequalities in educational outcome (Brighouse, 2000). Such measures, although subject to some earlier dissent (e.g., Black Papers), have now widely been accepted as necessary by the policy and academic communities.

Open enrolment policies may have negative, positive or neutral effects on educational equity. By making access to good schools increasingly dependent on the possession of unevenly distributed capacities such as cultural capital, the education market may significantly influence the social mix of schools, potentially contributing to

the generation of sink schools in disadvantaged areas and the reproduction of social hierarchies. Such a dynamic would have even broader social ramifications in that it would undermine both the 'area of shared concerns' (Dewey, 1916: 87) essential to public schools and the potential benefits that a balanced school intake confers upon socially disadvantaged children (Robertson and Symons, 1999).

The positive effects associated with the desegregation of schools, however, may in fact be furthered by open enrolment policies that allow parents to escape the 'iron cage' of zoning and residential segregation. In such a scenario, parental choice and the education market may be considered as equity-improving devices, especially where more balanced intakes improve raise the performances of low-income pupils. Alternatively, levels of segregation (or desegregation) may have little or nothing to do with the extent of choice available to parents, but may depend instead on a host of other factors including locally-based economic patterns, levels of residential segregation, and the diversity of schooling options and admissions processes encountered by parents at the local level. It is these determinants of segregations that have been under-researched in the choice literature and which are critical to understanding the impact of choice on educational equity.

Context Matters

In the absence of uniform schooling provision and universal class parenting strategies, it may be rather unlikely that parental choice will have a single, clear-cut influence on the opportunities and outcomes of disadvantaged pupils relative to their more advantaged peers. Indeed, the highly diverse system of secondary schooling that has developed in England since the 1944 Education Act testifies, *prima facie* at least, to the importance of local contexts in assessing the effect of the new education market upon school compositions and outcomes, not to mention financial efficiency, sector diversity and parental satisfaction.

Several contextual factors, therefore, must be considered in analysing the impact of the education market. The nature of school intakes depends upon the options

available to parents in different areas, and the feasibility of those options. Parents in a sparsely populated rural authority will encounter, regardless of wealth or background, an entirely different slate of schooling options than those in a metropolitan authority with a large independent and/or grammar school presence. Additionally, the quality of local schooling, the prerequisites for admission, the well-being of the child, and other factors will all influence (or perhaps constrain) any schooling decision.

Not only is the contextual landscape of school provision important for investigating the impact of market policies in education, but also the findings of any such investigation must likewise be understood within a broader context. School compositions, pupil performance scores and levels of segregation are all relative, and thus evaluating the role of policies such as open enrolment in effecting these variables must somehow be considered in light of the pre-policy state of affairs, or the *status ante*. As Gorard and Fitz (1998b) put it, one might 'expect the introduction of schemes of choice to lead to segregation if they started from a relatively well-integrated system. They did not' (305). Indeed, short of proactive integration policies such as the mass bussing strategies embarked upon in the U.S. during the 1960s, it may be difficult for any educational reform to influence the social mix of schools. This is largely due to the degree of entrenched residential segregation present within England and other Western nations. As the current London Schools Czar, Tim Brighouse (1997), has claimed, even in the aftermath of choice legislation, 'the social composition of the pupil population of any comprehensive school will inevitably be governed by the locality it serves' (173).

This raises the ultimate question regarding the context of parental choice policies: can true equality of school choice, within an unequal society, ever exist, whether within a market, or any other form of educational environment? Families with existing material and cultural advantages that enter the contest for desirable school places will have more options than those with fewer advantages: the opportunities conferred by an open enrollment system over a residential zoning system that allows for 'selection by mortgage' may be only a matter of degree. Moreover, policies that attempt to improve educational equity by confronting these advantages may come at the expense of other

educational goals such as improving pupil performance. Remedying inequalities stemming from social background while pursuing better standards in education has proven to be a formidable task for many governments.

Nevertheless, if the peer effects associated with more balanced school intakes are corroborated by further research, then the desegregation of school populations may be an effective means for improving the performance, and equity, of all pupils. On the other hand, it is also conceivable that system-wide improvements in performance as a result of market forces and internal competition will successfully bolster the achievements of all pupils, even as relative inequalities between pupils increase—in which case, these inequalities may be seen by some to be justified in the context of absolute gains.[49] Finally, the comparative value of choice and residence-based schooling arrangements may shed further light on the broader issue of the relative worth of market-based systems of access and opportunity. The success or failure of the education market in pursuing higher standards, greater equity, and increased efficiency in the schooling sector contributes considerable evidence to the larger debate over the merits of employing market frameworks in the organization and delivery of social policies.

Conclusions

The research literature on the implications of parental choice on school compositions and on the equity of schooling decisions is vast and continually growing. Even before the 1988 reforms, scholars had been exploring the larger impact of the education market from several directions. Process-side behavioural research has failed, however, to investigate fully the context of its findings, and the class-differentiated processes revealed by such studies have too often been perceived as confirming the standard argument that a hierarchy of schools will inevitably grow up within an education market. While school market hierarchies can develop in the absence of specific class differences

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[49] It is these aggregate improvements, after all, that many policymakers argue are most relevant to the stimulation of economic growth and stability in a globally competitive marketplace (DfEE, 1997; U.S. Department of Education, 1998).

in choice (they are likely in some form, for example, as long as differential attainment exists within a selective system of oversubscribed schools) different contexts will determine whether this dynamic is more or less equitable than the traditional schooling allocations based upon residence (Adnett and Davies, 2002).

The work of the researchers at Cardiff University, which infused a long overdue quantitative element into the field of parental choice research, may also be improved upon and expanded in a number of ways as a result of the availability of the pupil level data contained in the *Pupil Level Annual Schools Census* (PLASC). While individually post-coded data has been previously gathered and analysed by Gorard and others (Taylor and Gorard, 2001; Taylor, 2002; Gibson and Asthana, 2000b), these analyses have only been performed upon data from the small sample of the LEAs and schools willing to participate and able to provide such micro-level information. Moreover, although several small-scale studies at the school level have attempted to gather enough data within a few local authorities to make robust empirical conclusions about the relationships between pupil background, residential segregation, performance outcomes, and school compositions (Parsons, 2000; Taylor, 2000), there has not yet been sufficient data to determine with any certainty the impact of the education market in its various area contexts. With PLASC, the scale, depth and complexity of the secondary education market come into full view for the first time, and it is this data that will form the core of the following analysis.

-3-

The Geography of Education in England

Policies are never implemented within a vacuum, and the impact of even such a broad and substantial piece of legislation as the Education Reform Act of 1988 varies depending upon the specific context in which it is adopted. The landscape of secondary education in England has always been locally varied and context specific. Local educational environments differ significantly in several respects, including institutional diversity, population composition, and pupil attainment levels. The imposition of a new and more decentralized education marketplace arguably has made the geography of local and regional schooling provision even more important than it was previously. The availability and relevance of choice to each individual secondary school pupil varies from place to place: it depends on the spatial and social geography of one's local area, the number, diversity and quality of the schooling options available, the nature of local management processes (e.g., funding, admissions and appeals), not to mention local transport routes, the political affiliations of local authorities, and the choices made by other schooling 'consumers' (Woods *et al*, 1998). Many of these factors may cluster or interrelate, and in some cases the 'nature of the local environment... will determine the choices that can be exercised' often before pupils' or parents' individual preferences factor into the decision (Herbert, 2000: 79).

The 'significance of place' is well known to human geographers and local planners but has frequently been overlooked by policy analysts and researchers in education. Socio-spatial variations in the residential and educational environments encountered by young people strongly influence educational attainment and future life chances, and can determine the success or failure of specific policy initiatives (Pacione, 1997). The aim of this chapter is to describe the areas in which secondary school pupils

live, the types of schools they attend and the various social and spatial contexts within which open enrolment policies may operate across the country. Such a 'contextual geography' provides a useful snapshot of the diversity of regional populations, schooling provision and policies that form the backdrop of the education market—a snapshot that is greatly enhanced by the application of individual level data to the analysis of local geographies and area differences. The contextual indicators developed and presented in this chapter will also provide key variables for the area-based regression analyses performed in subsequent chapters.

The Local Area Landscape

Data Sources and Levels of Analysis

Social science research has grown increasingly data-intensive during the past decade. In Britain in particular, there is not only more data available for research than ever before, but also a growing refinement and thoroughness to be found in its collection, analysis and application (Gorard, 2003). One of the key analytical advances has been the employment of administrative data sources—information collected as part of the normal administrative process and not primarily for the purposes of research—such as means-tested benefit claimant records, most notably within the realm of social disadvantage research (Smith and Noble, 1998).

For researchers, the advent and expansion of administrative data sources opens up broad avenues of research previously impossible, providing both further information for use along with more traditional sources of social scientific information such as published statistics, household surveys and census small area statistics, as well as an opportunity to explore individual and local area level relationships beyond the confines of a sample population or periodic census figures. The new *Pupil Level Annual School Census* (PLASC), first collected by the DfES in January 2002, provides an unprecedented opportunity for educational researchers to 'unbundle' school level data to

local areas and explore relationships between pupils' backgrounds, neighbourhoods and schools.

The research and analysis presented in this thesis draws upon PLASC and a number of other data sources (Figure 3.1) in an attempt to bring several levels of analysis to bear upon the dynamics of the secondary education market. These include small area data from the 2001 *UK Population Census*, administrative data sources such as Income Support claimant counts and individual level data on pupil performance from the 2002 *National Pupil Database*. A number of school and LEA level education datasets have also been utilized.

Figure 3.1 DATA AND SOURCES

Individual Pupil Data
- DfES *Pupil Level Annual School Census* (PLASC) (2002, 2003)
- DfES *National Pupil Database* (2002)

School Level Data
- DfES *All Schools File* (2002) (from Edubase)
- DfES *Performance League Tables* (2002, 2003)
- DfES *Section 52 School Budget Outturns* (2002/03)
- DfES *Annual Census of Schools STATS 1/Form 7* (1991-2001).

LEA Level Data
- DfES *Statistics of Education, Schools in England* (2002, 2003)
- DfES *Admissions Appeals* (2001/02)

Population Statistics and Boundaries
- ONS *U.K. Population Census* (2001)
- ONS *U.K. Census Borders* (2001) for digitized OA, Ward and LA boundaries.
- ONS *U.K. Internal Migration Statistics* (2001)

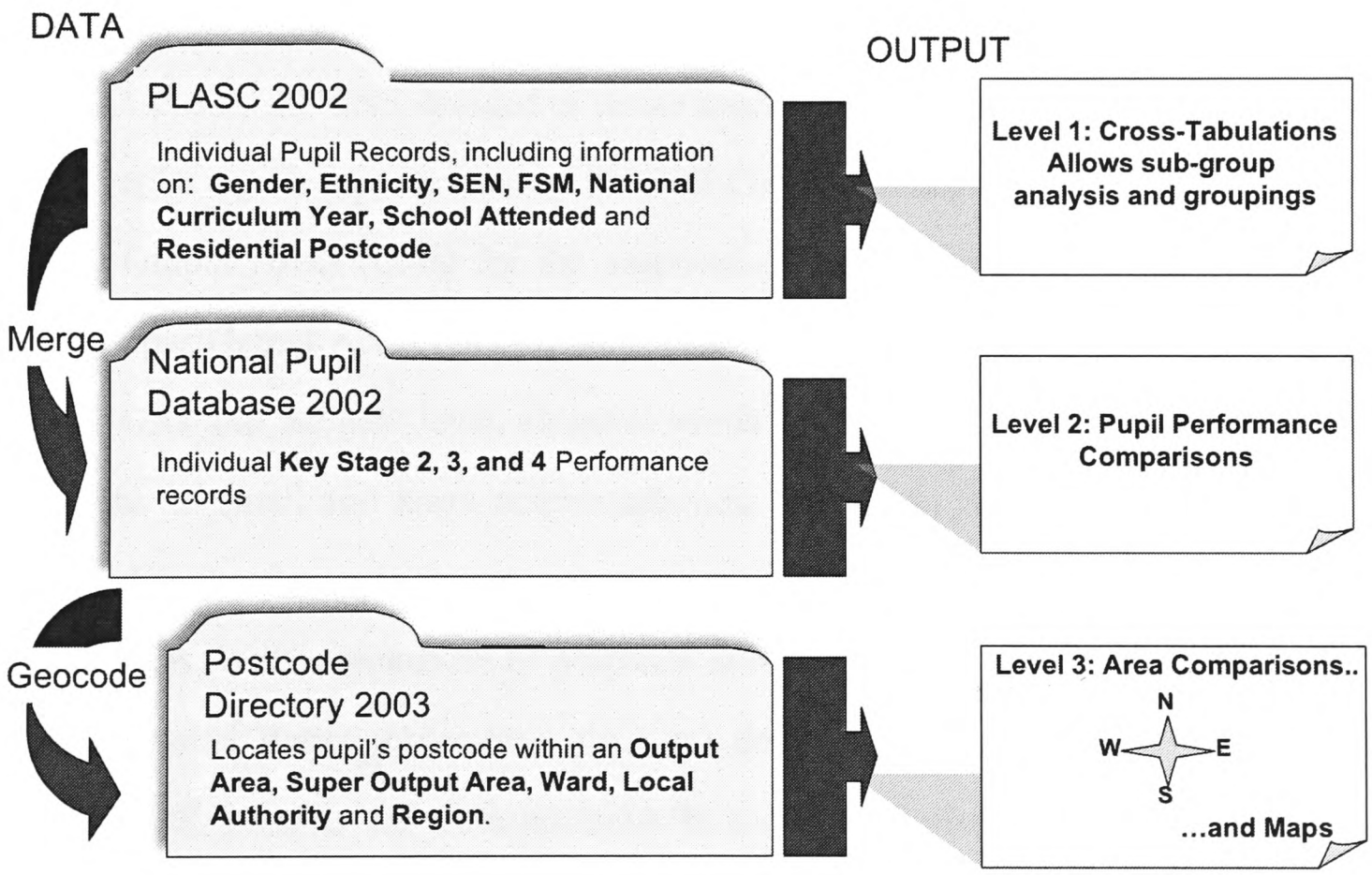
Geographic Referencing
- ONS *All Fields Postcode Directory* (2003): administrative, census and electoral geographies look-up file.
- DWP *NeSS Postcode Directory* (2003)

Social Disadvantage
- ONS *Income Support, Job Seekers Allowance and Working Families' Tax Credit Claimant Counts*, 1998-2000.
- ODPM *The English Indices of Deprivation* 2004

Analysis Software
- *SPSS*, version 12.0
- *MapInfo Professional*, version 7.0

The most comprehensive and primary data source, however, is PLASC. As Figure 3.2 below illustrates, the pupil level data available in PLASC provides researchers with several potential lines of analysis. At the most basic level, PLASC allows pupil characteristics such as ethnicity, FSM or SEN (formerly collected as a school level total) to be cross-tabulated to illustrate, for example, the number of pupils of Bangladeshi ethnic origin with Special Educational Needs. Moreover, the presence of unique pupil identifiers allows variables from other pupil level data sets such as the *National Pupil Database* to be easily merged in at the *individual* level, augmenting the core data and allowing for further analytical comparisons.

Figure 3.2 USING THE PUPIL LEVEL ANNUAL SCHOOLS CENSUS (PLASC)



Finally, and most importantly, because almost 99% of cases in PLASC have a valid residential postcode listed, the residential environment of the pupil, (and not just the location of the school) may serve as an additional focus of research and comparison. Pupil postcodes in PLASC may be geographically referenced to a variety of geographies using up-to-date 'look-up' files such as the Office of National Statistics' (ONS) *All Fields Postcode Directory* (AFPD) that link postcodes to the administrative, census and electoral areas they are contained within. This allows the researcher to aggregate and output data at several area levels (beyond just the school, LEA, and Region aggregations previously used in the Annual Schools Census), to map the exact geographical locations of the postcode centroid onto the British Coordinate System (a national grid system used by cartographers) and ultimately to relate points in space through the use of Geographical Information Systems (GIS) software.

Data may now be outputted at a variety of geographic levels in England. With the 2001 Census, the ONS decided to create separate geographies for data collection and output, replacing the approximately 125,000 Census Enumeration Districts with about 165,000 Output Areas (OAs) for the purposes of data publication. In addition, about 32,000 Super Output Areas (SOAs) were created to serve as an intermediate geography between OAs and the next level, electoral wards. Both OAs and SOAs, which roughly correspond to small and large neighbourhoods, have been carefully constructed using automated GIS software to 'create a purpose-specific output geography' (ONS, 2001: 6). Output Areas, built upwards from postcode unit polygons, involve a planned trade-off between several design objectives: they are devised to achieve a certain population threshold (100 persons and 40 households in the 2001 Census) while also maximizing population homogeneity and minimizing irregularly shaped spaces (ONS, 2001).

The Census geographies (Output Areas, Super Output Areas, and Wards) form a single hierarchical system that is made to 'nest' both within each other and within larger, more traditional administrative areas (as of 2003, see Table 3.1 below).[50] Originally

[50] Although census wards have generally grown in significance during the past few decades, serving as boundaries for local elections as well as the primary unit of small area analysis for the purpose of employment, housing and population statistics, the increasing sophistication and

established by the Local Government Acts of 1888 and 1894, local authority boundaries in England have changed frequently[51] over the past century but the general framework of *county boroughs* (major cities and towns) and *county councils* (areas outside major towns further subdivided into a second tier of municipal boroughs, urban districts and rural districts) forms the basis for the 354 Local Authorities currently in use today (Herbert and Thomas, 1990).

Table 3.1 PRIMARY AREAL UNITS OF ANALYSIS, ENGLAND, 2003

Area Level	Units in England	Average Area (Sq. Km) **	Average Number of Residents **	Average Number of Pupils Aged 11-15 **
Census Geography (2003)				
Output Areas (OAs)	165,665	0.07	300	20
Super Output Areas (SOAs)	32,482	0.5	1,500	100
Wards	7,969	4.8	5,100	320
Local Authorities (LAs)	354	240	110,000	7,300
Local Education Authorities (LEAs)	150	140	240,000	16,000
Government Office Regions (GOR)	9	16,000	5,200,000	350,000

** All values are approximate median values (as areas and population figures tend to be skewed toward the upper end of the distribution and a median figure represents the more 'typical' area value). Rounded to two significant figures.

The 150 Local Education Authorities (LEAs) in England, representing either the individual local authorities themselves or groups of neighbouring authorities[52], serve as the primary administrative level for education provision and have thus traditionally served as the focus of geographical analyses of education (Taylor, 2002). While LEA level information remains useful (and abundant), it is no longer the only option for comparing features of educational provision in England. As we shall see, LEA level

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flexibility of Super Output Areas and other small areal units has led researchers and the ONS to move beyond nested area hierarchies based on electoral wards.

[51] Large-scale suburbanization and other population trends in the 20th century, however, made some of these area distinctions increasingly problematic, particularly for urban planners, which prompted several revisions including in 1974 the Conservative Government's new two-tier structure of 38 county councils and six metropolitan counties with a lower level of 370 district councils.

[52] The re-composition of local authorities between 1995 and 2000 carved a number of new unitary authorities out of larger counties and increased the number of LEAs from around 100 to 150 (Fitz *et al*, 2002).

figures derived from aggregating school level data (performed routinely by the DfES over the years) can produce different results from data based on pupils' home addresses. Further explanation of area-based analysis methods will be provided throughout this study (and expanded upon in the appended Research Methods Annex).

Population and Space in England

The population of England has grown dramatically during the past half millennium as well as progressively more urban. Around 1500, it is estimated that only 10% of England's inhabitants lived in towns of 5,000 or more (Dennis and Clout, 1980). From 1801 to 1901, however, the population of England trebled and by 1851 over half the population was living in an urban area, a figure that rose to over 80% by 1951. In the latter half of the 20th century a ring of 'urban fringe' developed around large cities such as Birmingham and Bristol, and, in particular, along the motorway 'corridors' leading into London (Dorling and Atkins, 1995).

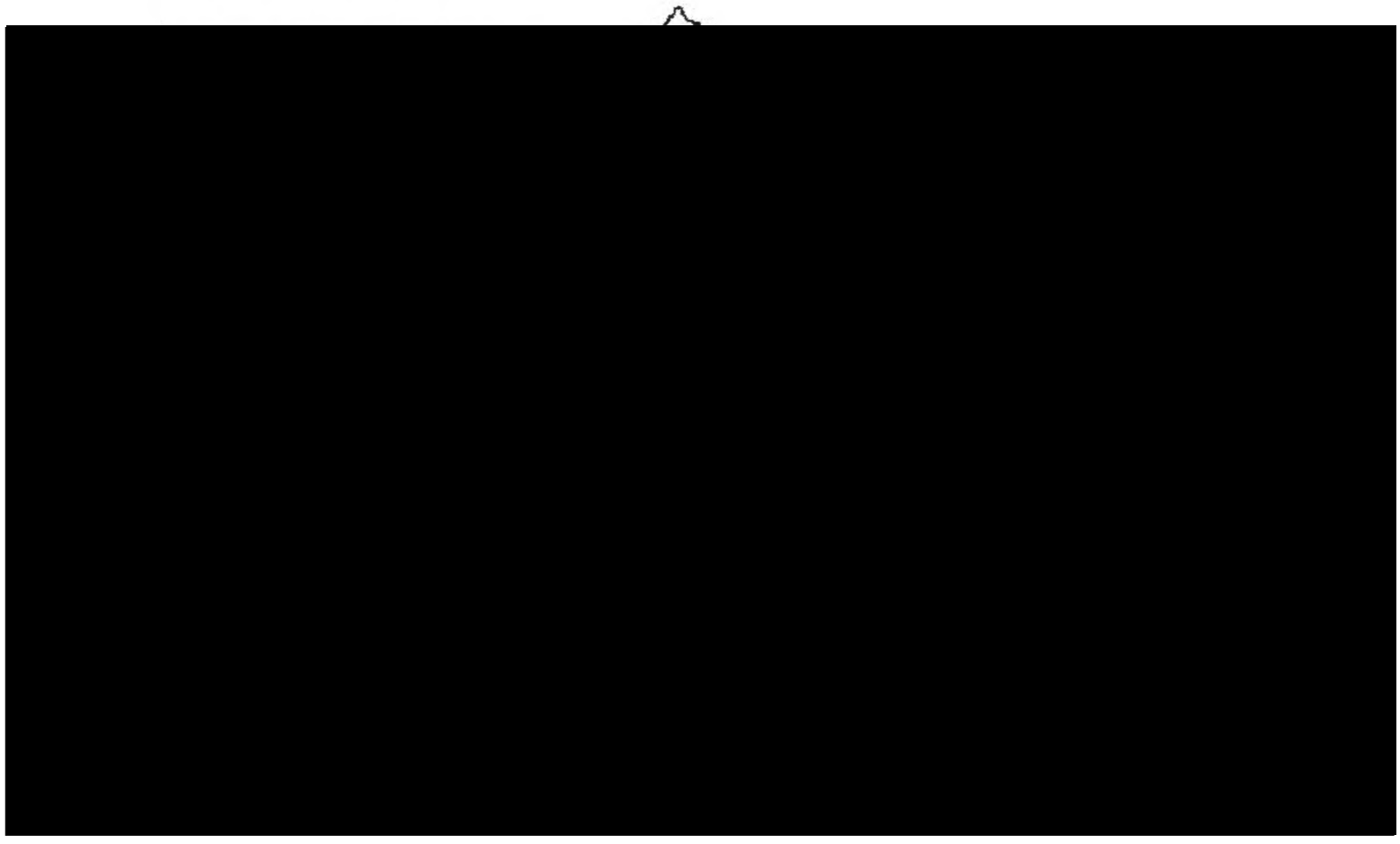
Consequently, England's 49 million residents are not evenly distributed across the nation' s 130,000 square kilometers, but highly clustered as a result of such historical processes as well as natural features, local labour markets, individual preferences and a host of other factors. The density and distribution of the population will affect areas in different ways, influencing their transport systems, social services and employment opportunities. *Population density*—the most fundamental description of the relationship between people and the space they inhabit—has been a subject of interest to social scientists and geographers for its use in depicting living standards in rural and crowded urban locales[53] (Dorling and Woodward, 1995). Rural inhabitants, for example, face longer journeys to shops, hospitals, schools and other services and the steady closure of many rural secondary schools since the 1950s has resulted in an estimated 90% of pupils in those areas now living beyond a reasonable walking distance to school (Champion and Townsend, 1990).

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[53] See Research Methods Annex for discussion of calculation.

Population 'sparsity' thus possesses a particular relevance to secondary school pupils, which suggests that the range of schooling options (and indeed the degree of choice available) may be highly dependent upon the nature of the pupil's area of residence. At the LEA level, the average density of secondary school age pupils ranges considerably across the country, from 4 children per square kilometre in Northumberland to 700 per square kilometre in Hackney (Figure 3.3, below). Even within a single LEA the population density of areas may vary noticeably, and this will in turn affect the location and variety of school provision available[54]. Overall, the population of children under age 16 declined steadily in the years prior to ERA 1988, falling from about 25% to 20% of the English population between 1971 and 1991.[55] As a result of this decline, and of the general 'counterurbanisation' trend, English children have become more evenly distributed across the land in recent years (Dorling and Woodward, 1995).

Figure 3.3 PUPIL POPULATION DENSITY: Children Aged 11-15 per square kilometre, by LEA, 2001



Source: The 2001 Census, Crown Copyright

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[54] Despite the *counter-urbanisation* trends of the past few decades, as of the 1991 Census, 43% of all British residents lived in the densest 2.5% of wards (Dorling and Atkins, 1995).

[55] The total fertility rate in the UK declined from 2.83 in 1965 to 1.82 in 1991 (Champion, 1993).

The Social Geography of England

Modern public policy increasingly requires a grasp of spatial relationships such as population density and a thorough knowledge of a population's social demography. Issues such as crime, ill health, poverty and housing are now frequently examined geographically, and measures of these factors are used to form composite indicators of area deprivation that can then inform government policy (e.g., DoE, 1994, Noble *et al*, 2000, Noble *et al*, 2003). The populations of localities in England are socially diverse, and may vary considerably in several aspects such as age, ethnicity and socio-economic status. Ethnic minority groups, for example, are particularly concentrated: roughly one in five Londoners are of non-white origin—four times the national average—and many areas in England have very few non-white individuals at all.[56] As a result of separate waves of migration to different regions in the UK during the past half century, individual ethnic groups also tend to be spatially concentrated: for example, Black Afro-Caribbeans in Inner London and the West Midlands, and Indians in Leicester and Lancashire (Robinson, 1993). Even within individual authorities or wards, ethnic diversity, like poverty and other factors, often differs from town to town or across individual neighbourhoods.

Perhaps the most important use of geographical analysis within the policy context is its application to the problems of poverty and social exclusion. The concern of urban and social geographers with the 'unequal role of social groups and institutions in the use of geographic space' (Dennis and Clout, 1980: 23) is now reflected in explicit policy concerns with the role of space in structuring social inequalities between neighbourhoods (e.g., the creation of the Social Exclusion Unit) (Buck, 2001). Although social disadvantage has long been known to be spatially concentrated, the 1980s and 1990s witnessed a notable increase in the level of socio-spatial polarization between areas (SEU, 1998; Smith, 1999). The growing 'North-South' regional divide in Britain has, in

[56] A self-ascribed measure of ethnicity was not included in the UK Population Census until 1991. Before then, ethnic categories were based on the individual's birthplace. See the Research Methods Annex for a map of the distribution of ethnic minorities across LEA in England in 2001.

particular, been the subject of much public debate, particularly following the loss two million of the nation's manufacturing jobs between 1979 and 1987 (two-thirds of which were in Northern England) (Lewis, and Townsend, 1989). While the focus of this debate has primarily been on unemployment and de-industrialization, the divide relates to several other aspects, including higher rates of poverty and ill-health in the North, lower house prices as well as electoral behaviour (Green, 1998). Additionally, the distribution of different classes of employment is uneven between regions and local authorities in England and social disadvantage remains disproportionately concentrated in the 'old industrial regions' of the North (Figure 3.4). This distribution inevitably influences the nature of employment opportunities as well as educational outcomes.

Figure 3.4 SERVICE AND MANUAL CLASS EMPLOYEES, by LEA, 2001



Source: The 2001 Census, Crown Copyright

Inter-regional differences, however, may mask tremendous intra-regional variation, and it is at the small area level that England's socio-spatial disadvantage comes into the clearest focus. Relative to the national average, the 50 local authority districts with the highest levels of multiple deprivation have in recent years typically possessed greater numbers of means-tested benefit claimants, lone parent households and families in overcrowded housing; higher rates of mortality, ill-health and illiteracy; not to

mention nearly twice the level of unemployment as the rest of the country (Lupton, 2001; Noble *et al*, 2003). At the small area level, however, the contrast between the disadvantaged and more advantaged areas is most evident.

Although pockets of rural deprivation persist in many areas of the country, urban areas—where rich and poor often live 'cheek by jowl'—consistently demonstrate the greatest discrepancies in levels of low income, unemployment, housing conditions and general quality of life (Champion, and Townsend, 1990). Often, especially in the context of gentrification, areas may ostensibly gain a more balanced population but in fact become increasingly more segregated within communities (Smith, 1999). In London, for example, even a ward-level presentation of child poverty (as revealed in the concentration of benefit claimants with dependent children) reveals the range of poverty levels experienced within a relatively small geographical area (Figure 3.5).

Figure 3.5 CHILD POVERTY LEVELS IN LONDON WARDS, 2001



Source: Neighbourhoud Statistics (2004)

Several studies have shown that residential segregation and social polarization in England increased steadily during the 1990s (e.g., Smith, 1999; SEU, 2000). Levels of segregation and spatial separation may, of course, reflect some level of self-sorting (e.g., ethnic enclaves in urban areas) but they also signal, and even reinforce, exclusionary tendencies within societies.[57] Socio-spatial clustering (whether exclusionary or not) can have harmful consequences for disadvantaged neighbourhoods, and may serve as both a cause and consequence of economic hardship. Poor neighbourhoods generally possess lower quality schools and other services, and further negative 'neighbourhood effects' may exist in disadvantaged communities beyond those expected by the nature of the area's social composition.[58]

It is not difficult to see the importance of 'place,' not only for families' educational decisions and outcomes but also for a whole range of factors that can affect an individual's life chances and the effectiveness of government policies and services. Indeed, the sheer diversity within local areas is reflected in the preponderance of area-based initiatives (both within government and the voluntary sector) that make use of social indicators and other information in order to best target and tailor services to the areas that need them most. For educational purposes, the size and social composition of the local population affect, among other things, the demand for public or private resources and can strongly influence local provision, including the diversity of schooling options available in a given area (Bennett and Krebs, 1993).

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[57] Throughout history, spatial separation has been used to exclude and control dangerous or marginalized groups (e.g., prisons, leper colonies, asylums, ghettos). Exclusion, it has been argued, is the 'dominant factor in the creation of social and spatial boundaries' (Sibley, 1995: 38). The phenomenon can be witnessed today in the creation of certain protected social locales such as private shopping centres and gated communities.

[58] It remains a largely untested policy assumption whether areas of concentrated disadvantage create additional disadvantages for the individuals living in those areas (Lupton, 2003). The critical question informing 'area' or 'neighbourhood effects' research is, as Buck (2001) notes, '...whether the inequalities are essentially compositional, with individuals' well-being depending on their (or their family's) characteristics rather than their location, or whether a concentration of (some or all) disadvantaged groups in particular areas gives rise to externalities with an additional effect on the opportunities, behaviour and well-being of (some or all of) the local population' (2252).

The Landscape of Secondary Education

Administrative Spaces: The Role of Local Education Authorities

Choice of secondary school, before and after ERA 1988, has been dependent upon the organisation and provision of schooling in one's local area, a landscape that has varied considerably between localities and through time. When they were first conceived and created in 1902, Local Education Authorities (LEAs) served as the 'hub of both administration and development' (Tomlinson, 1993: 146) in local education. LEAs provided a widely accepted improvement over centrally controlled provision: they were locally elected, democratically accountable, and they possessed a better knowledge of local policy environments than their counterparts in London. The economic downturn experienced during the 1970s, however, combined with falling school rolls, left LEAs vulnerable to a Central Government aiming to curtail the scope of local government authority, a demise that began with growing funding restrictions during the 1970s and an eventual loss of powers during the 1980s (Tomlinson, 1993).

The shifting power relations and the marginalization of LEAs instigated by the *Local Management of Schools* (LMS) initiative represent not only an attempt to improve efficiency and choice but also a new consolidation of power in which central government increasingly sets the rules for lower level governors, issuing stricter prescriptive guidelines and assessment indicators and relying less on more gentle and discretionary pronouncements.[59] Although passed under the rhetoric of 'devolving' control for education from LEAs to schools and parents, the Education Reform Act of 1988 actually constituted a combination of centrifugal and centripetal forces that have led to several conflicting elements within its implementation[60] (Audit Commission, 1996).

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[59] In the White Paper *Choice and Diversity* (1992) the DfE outlined the more circumscribed powers of the LEAs: '[LEAs] will retain certain responsibilities for all pupils in their areas: for special education and statementing; and for certain other pupil specific and support services' (31).

[60] The decentralizing measures of the ERA 1988 were imposed alongside measures such as the National Curriculum, which granted central government increasing scope to set the educational agenda and grant-maintained schools, which required their own additional supervising authority.

Local education authorities, despite their reduced authority, continue to be statutorily responsible for pupil admissions and thus still exercise some influence over admissions, appeals, school closures and other facets of the education market (as we shall see in the next Section).[61] This influence, however, differs across the country, depending on the political affiliation of the authority, the proportion of non-maintained schools in the area and the nature of the area and population governed by the authority. For the purposes of this thesis, LEAs have been subdivided into four main types based on the common distinctions drawn by government and previous researchers (Audit Commission, 1996; ONS, 2001; Taylor, 2002): *London Boroughs*, *Metropolitan Districts* (part of metropolitan counties such as Tyne and Wear and Merseyside), *Urban Counties* (primarily Unitary Authorities in the middle of rural counties, but also including some densely populated counties such as Hertfordshire and Surrey) and *Rural Counties* (sparsely populated counties such as Cumbria and unitary authorities like Herefordshire).

Table 3.2 TYPES OF LOCAL EDUCATION AUTHORITIES IN ENGLAND, 2002

Type of Local Education Authority	Average Area (Sq. Km) (1)	Average Secondary School Density (Schools per sq. km)	Average Secondary Pupil Density (Pupils aged 11-15 per sq. km)	Average % of Population that is Non-white	Average % of Children in Poverty
London Boroughs (33)	40	0.33	340	34	30
Metropolitan Districts (36)	140	0.14	130	9	26
Urban Counties (39)	90	0.14	140	8	22
Rural Counties (42)	2500	0.02	16	2	14

Sources: DfES (2002) local authority classifications; ONS (2001) population densities; NeSS (child poverty)

The abolition of the Inner London Education Authority (ILEA) in 1990 in favour of authorities in individual boroughs highlights one further factor complicating the role of the LEA as an 'administrative space' within both policy administration and

[61] In a recent paper on *The Role of the Local Education Authority in School Education*, the DfES (2001) pronounced that 'Schools are... the key unit of delivery,'(5) and stated that where LEAs do provide services, they are expected to be competitive with other alternatives.

geographic analysis: the large movement of pupils across LEA boundaries, especially within urban areas. In 1992, an estimated 186,000 pupils crossed LEA boundaries to attend school (Taylor, 2002), a figure that swelled to 270,000 by 2002 (according to PLASC). In the wake of the ILEA abolition, the London borough of Greenwich elected to give priority in admissions to children whose parents resided within the LEA, an act that the Court of Appeal ruled in 1989 violated the parental choice clause (Section 6) in the Education Act of 1980.[62] While the 'Greenwich Judgment' (still in effect) allows admissions authorities to use criteria such as proximity, it does not allow priority simply on the basis of residence in a particular LEA, a ruling that elicited strong feelings from areas with high council taxes and high net inflow from pupils residing in outside LEAs.[63] With more schools than ever now acting as their own admissions authorities, however, the realisation of parental choices increasingly depends upon the types of schooling available within an area as much as the policies of a particular LEA.

Institutional Spaces: 'Circuits of Schooling'

One of the most important factors influencing the 'active' selection of a secondary school is of course the range and quality of secondary schooling options in a given area: parents and pupils are not choosing between a uniform set of alternatives. This is particularly the case in England where the schooling system has always been diverse and hierarchically organised (Ball *et al*, 1995). As discussed earlier, the landmark 1944 Act left intact the system of denominational schools and allowed private, grammar and direct-grant schools to remain fundamentally unchanged (Lowe, 1988). Even after secondary modern schools (containing 75% of pupils in 1950s) gave way to comprehensives and direct grant schools were abolished (in 1975), the fundamental schism between private, selective grammar, denominational, and comprehensive (or

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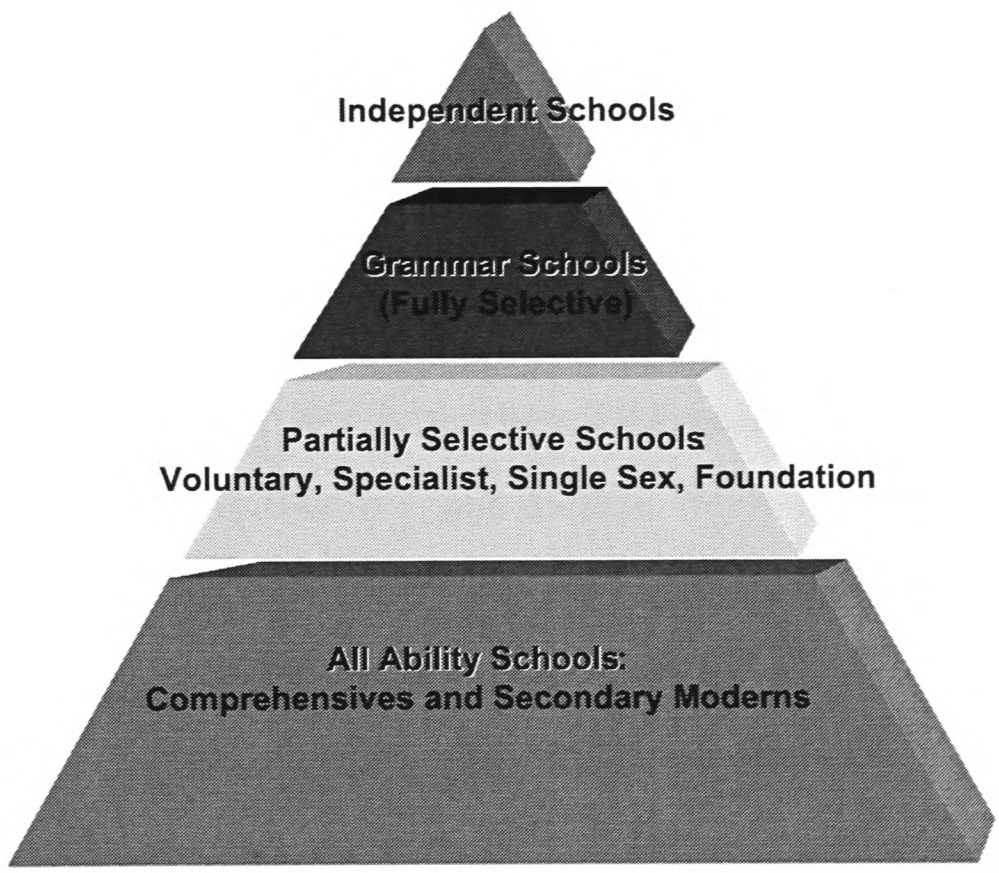
[62] In its Greenwich Judgement, the Court of Appeal held that 'an LEA could not lawfully pursue an admissions policy which preferred children living in its area to those living outside its area' (DfE, 1993).

[63] In a 1998 House of Commons debate, MPs from Richmond argued that the borough, which was receiving 45% of its secondary intake from other boroughs, was experiencing overcrowding, higher appeal rates and funding inequities as a result of the Greenwich Judgement (HANSARD 20 May 1998 : Column 921).

secondary moderns in areas with grammar schools) schools has been largely preserved, including within the post-1988 education market.

Secondary education provision in England remains organised into fundamental 'tiers' (Burdett, 1988), 'circuits' (Ball *et al*, 1995) or 'clusters' (Byrne and Rogers, 1996) of schools that can be grouped based on aspects such as the school's autonomy, selection policies and/or religious affiliation (Figure 3.6). These circuits mean that the education market created by the 1988 Act and associated policies in reality consists of a series of roughly parallel markets (they are in practice not entirely exclusive or separate) that to a large extent had been present even prior to the advent of open enrolment.

Figure 3.6 CIRCUITS OF SCHOOLING IN ENGLAND, 2002



The first, and highest, circuit of schooling consists of the 2,204 day and boarding *independent* schools that cater to 222,000 pupils in England (DfES, 2002). Private education has always been a 'choice' for those who could afford it[64], and has been

[64] Fees charged at an independent *day* school for secondary pupils range from £2,600-£6,400, and from £5,400 to £9,200 at independent *boarding* schools (BBC, 2001). Slightly over 50% of English parents, however, would send their children to independent school if they could afford to (Hutton, 1995).

affected little by the education market created in the maintained sector. Independent schools remain amongst the top performing (41% of pupils taking GCE A-levels in 2002 received a top A grade) and best preparatory institutions for higher education.[65]

Pupils from independent schools typically fill about one half of Oxbridge places and one in four University places overall, despite being only 7% of the pupil population (Hutton, 1995). The numbers of pupils attending independent schools has fluctuated through time from 10.2% of all pupils in 1947 down to 5.7% in 1976 (Lowe, 1988), rising again with the growing demand during the 1980s (Bradford, and Burdett, 1989), and standing at about 8% of the pupil population nationally in 2002 (DfES, 2003).

Spatially, independent schools have always been located disproportionately in the south of the country and as such constitute yet another element of the prevailing 'North-South divide'[66] (Coates and Rawstrom, 1971, Burdett, 1988). The geographical variation in independent school provision means that access to this sector is not only limited by academic ability, gender or income requirements but also by the physical distances to independent alternatives in different areas of the country. While previous studies have analysed the geographical spread and prevalence of independent schools at the regional (Coates and Rawstrom, 1971; Bradford and Burdett, 1989) and LEA levels (Taylor, 2002), the advent of PLASC allows one to ascertain the residential location of pupils who attend independent schools.

Although PLASC itself contains individual-level data only for those children attending maintained schools, the pupils in PLASC may be subtracted from the larger population of all school-aged pupils, obtained from aggregated 2001 Census counts from a similar point in time.[67] This produces a reasonably accurate depiction (at the small area level) of pupils not in the maintained sector (primarily independent sector pupils).

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[65] 'Best' in terms of acceptance rates into higher education—it is still debated whether independent schools are in fact better educators once the social background of their clientele and other factors are controlled for.

[66] Even after controlling for the class composition of regions, the southeast and southwest have more than their fair share of private schools, and the northern regions less (Bradford, 1990).

[67] See Research Methods Annex for more details on this process.

Looking at the distribution of independent pupils by their LEA of residence (Figure 3.7), it is clear that there are numerous areas across the country that contain far more pupils attending independent schools than would be apparent from the distribution and location of the schools themselves.

Figure 3.7 PUPILS 11-15 NOT IN MAINTAINED SECONDARY SCHOOLS, by LEA of Residence, 2002



Sources: The 2001 Census, Crown Copyright; PLASC (2002)

The public or 'maintained' provision of secondary schooling in England is now composed primarily of comprehensive schools that are open to children of all abilities without selection[68] or an examination process. Nevertheless, the system is not truly comprehensive and considerable variations exist within the maintained sector. At the top of the maintained hierarchy are institutions that select by ability, including 164 grammar schools. Sixteen out of 150 LEAs in England remain partially selective, with a

[68] With the exception of specialist schools, which are allowed to select 10% of their pupils based on ability in the particular specialism.

significant number of grammar schools alongside comprehensives and secondary moderns[69] (DfES, 2002).

Even in LEAs that remain fully comprehensive there exists a wide variety of provision, including circuits of partially selective schools (e.g. foundation and specialist) and standard, generally lower-performing, all-ability comprehensives and secondary moderns. Additionally, another effectively separate market composed of voluntary-run, denominational schools offers a more religiously based education. Parents and pupils will have differential access to all of these circuits depending upon both their own backgrounds, preferences and abilities as well as the availability of schools of a certain type in their area. The 'horizontal' diversity of maintained secondary school provision confronting parents in England overlaps with, but spans beyond, the more 'vertical' circuits sketched above, and it is this type of diversity that is most relevant to the functioning of the education market.

School Diversity and the Market

An axiom of both recent Conservative and Labour governments in Britain has been that choice not only is more meaningful within the context of greater school diversity, but also itself serves to enhance the mixture of schooling provision. School diversity may be achieved within the individual school environment and curriculum as well as at the community level within 'networks of schools that are differentiated according to what they excel in' (DfES, 2004). Schools potentially differ in respect to a range of other variables, including structural (source of funding or control), curricular (academic specialisation), gender, age range, size, and religious affiliation (Glatter *et al*, 1997).

Since the Education Act of 1980, greater parental preference has been accompanied by a growth of new school types that have somewhat obscured the former divide between independent schools on the one hand, and comprehensives on the other. School diversity in England has undoubtedly increased as a result both of the Assisted

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[69] It has been estimated that the 161 Grammar schools in England directly affect the rolls of 500 comprehensive schools (Tomlinson, 2003). This figure may grow: 1998-2000 saw a 20% increase in grammar school attendance.

Places Scheme, City Technology Colleges, and grant-maintained schools enacted in the 1980s and of the more recent Specialist Schools and City Academies. The broad circuits of education discussed above represent the variety of admissions arrangements, ranging from independent and grammar schools that are fully selective (by pupil ability) to foundation, specialist and denominational schools that select portions of their pupil intake according to some criteria (academic specialism or denominational preference), to comprehensive and secondary modern schools that have open or 'banded' admissions processes. Admissions arrangements, however, are strongly related to the way in which a school is governed and funded (and the degree of independence it has from the LEA), and, within the maintained sector, secondary schools are now organised into four main types on this basis (DfES, 2000): *Community*, *Voluntary Controlled*, *Voluntary Aided* and *Foundation.*

Owned and operated by LEAs, *Community* Schools are largely comprehensive, and with a growing number of schools opting for specialist status. *Voluntary Controlled* and *Aided* schools—which compose around 20% of the maintained sector—are both owned by churches or other charitable organisations, the former being staffed by the LEA and the latter by the school's governing body, which also operates admissions (Croft, 2003). In addition, as of 2002, there were 501 *Foundation* (formerly GM) schools[70] in England that were operated (and sometimes also owned) by their governing bodies, receiving direct funding from the central government and permission to serve as their own admissions authorities. Finally, there also remain 14 City Technology Colleges, which (as of 2003) are funded by central government (with private sponsors) and allowed to act as their own admissions authorities as long as their intake reflects the local population.[71]

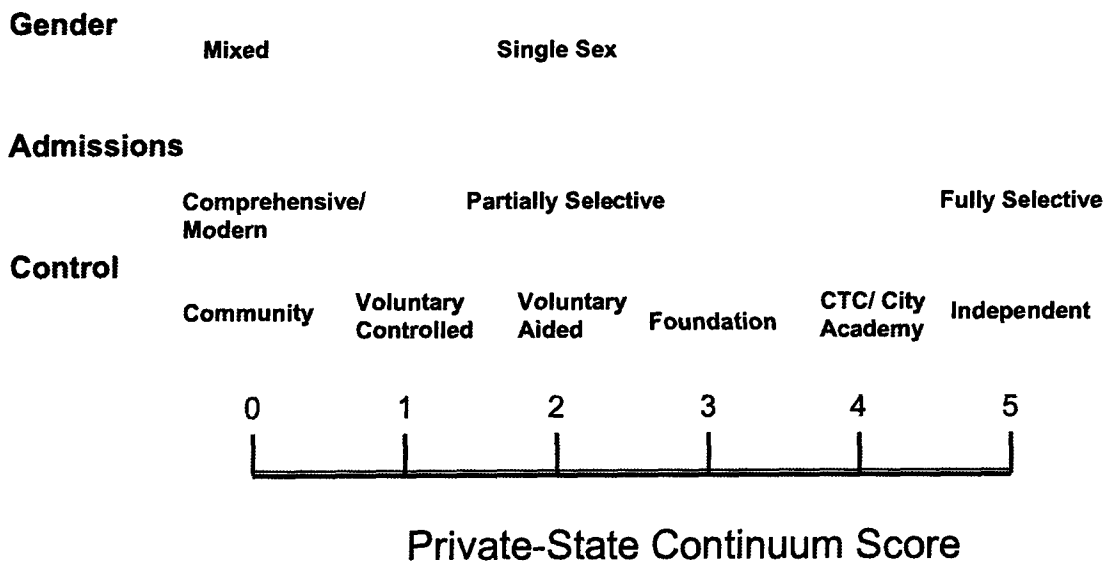
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[70] When the labour government abolished grant-maintained schools, most became the similarly situated 'foundation' schools, although some elected to become voluntary aided. In 1999, 19% of English secondary schools were grant-maintained and 11% voluntary aided, while by 2000 only 14% were foundation and 15% voluntary aided (West and Pennell, 2002).

[71] City Technology Colleges and City Academies are responsible for their own admissions but are officially classified as 'independent' schools and not state schools. For the purposes of this analysis they will be included among Foundation Schools.

Perhaps the best way to illustrate the new spectrum of secondary level provision is by outlining a 'private-state continuum' (Bradford, 1993; Taylor, 2002) that takes into account three key dimensions of schooling diversity: the type of admissions system in place, the degree of autonomy possessed by the provider/arranger of services, and the mixed or single sex nature of that provision (Figure 3.8). Any of the above types may be a mixed or single sex institution (single sex being more selective by definition), and individual schools often constitute unique groupings of the three dimensions (e.g., a Foundation comprehensive school for girls or a mixed Community grammar school that selects based on pupil ability). Moreover, any maintained school may also apply to be a Specialist School, which is allowed to select up to 10% of pupil applicants based on

Figure 3.8 PRIVATE-STATE CONTINUUM



Source: Bradford (1993), Taylor (2002)

ability in their particular 'specialism.'[72] Although there remains room to further differentiate between types of schools—Community comprehensives, for example, may vary considerably in the ethnic, socio-economic background or abilities of their pupils—

[72] As of 2004 there were in total 1,685 specialist schools in England, or 54% of the mainsecondary sector as of 2004 (Guardian, 2 February, 2004).

schools can be 'scored' along the three dimensions outlined above in order to arrive at a rough indicator of their 'selectivity' (see Figure 3.8, above). For example, a single sex, voluntary aided, fully selective grammar school would have a *private-state continuum score* of 9 (2+5+2).

Although somewhat crude, scoring schools along this continuum provides a very useful and linear indicator of their level of selectivity (Taylor, 2002). A weighted average of the *private-state* scores of all secondary schools in an LEA also provides a broad measure of the mixture of provision in the area. As Figure 3.9 illustrates, widely different mixes of schooling exist in LEAs across England, a spread that is due to both historical imbalances (e.g. in the distribution of fee paying schools) and recent policies (e.g. schools that opted for grant-maintained status during the 1990s tend to be spatially concentrated as most of the first to convert were in Conservative-run LEAs) (Fitz *et al*, 1993). Amongst those LEAs with the most 'private' schooling provision are areas such

Figure 3.9 PRIVATE STATE CONTINUUM SCORES, By LEA, 2002



as inner London with many independent school users and numerous voluntary aided schools, and counties such as Buckinghamshire and Kent with large numbers of grammar schools. On the other end of the spectrum are largely comprehensive local authorities, typically in northern metropolitan districts (e.g., Sheffield and Barnsley) and rural counties (e.g., Cornwall and Northumberland).

Despite the steady proliferation of new school types, there is little evidence that schools are actually becoming more diverse in terms of 'product differentiation,' especially when one considers the standardizing influence of the National Curriculum and the similar lessons and exams encountered by all state pupils (Glatter *et al*, 1997). If anything, in the decade or so following ERA 1988, schools arguably have tended to become less diverse as popular paths became imitated and parents selected schools based on their successful delivery of a standard product rather than their capacity for specialization (Walford, 1996). Notwithstanding what market advocates had predicted during the 1980s, the majority of schools have made few formal attempts to glean information from and about their consumers (Hughes, 1997), preferring to sink funds (where available) into marketing strategies and glossy promotional materials (Bagley *et al*, 1996), although there is some evidence that within more competitive local market environments (e.g, in more urban areas) schools report becoming more market-oriented through time (Foskett, 1998).

Regardless of a school's market behaviour, there often remains a structural mismatch between parental preferences and available options. Although parent surveys regularly signal that approximately 90% of parents get the school of their choice, this usually must be qualified by the existence of 'frustrated preferences' that are not achieved because of a lack of availability (Brain, and Klein, 1994) or by 'second choice' decisions in which parents shaped their preferences by a knowledge of what was realistically accessible in the local market[73] (Audit Commission, 1996; Woods *et al*,

[73] The Audit Commission (1996) cited a MORI poll showing that in some parts of London, 49 percent of parents were failing to obtain a place for their child in their genuine first preference school.

1998). The calculations involved in assessing these options also are often further complicated by the different admissions procedures encountered by parents.

Procedures and Outcomes in Secondary Education

Admissions and Places

Parental choice occurs, as illustrated above, within both administrative and institutional contexts, and the policies of individual LEAs and schools help to define the nature of the local educational landscape and the opportunities for choice. At the heart of this landscape is the question of admissions, and who sets the rules for how the allocation of school places, and the application of parental market strategies, will unfold (Fitz *et al*, 2001; Taylor and Gorard, 2001). Schools not only differ on whether or not they the have the authority to use selection in their admissions when they have available places but also on which criteria they may use in prioritising applicants for places when they are oversubscribed.

Perhaps the most fundamental influences upon the competition for secondary school places are the numbers of children and available places in a local market. Choice requires above all else a certain surplus of supply, and therefore may vary depending on local demographic trends and enrolment rates. A basic reorganisation of provision became inevitable in many areas of the country once falling birth rates (and increasing out-migration in urban areas) during the late 1970s and 1980s led to a substantial decline in school rolls and increase in spare capacity.[74] By 1996, there were already 19% fewer secondary schools and 13% fewer secondary age pupils in England than there had been in 1986 (HMCI, 1998). Secondary pupil numbers began to steadily rebound in 1993, however, and almost all LEAs have seen a growth in pupils from 1991 to 2001.[75] In

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[74] This was largely an urban problem: for example, in Manchester during the mid 1980s, forecasters (Thomas and Robson, 1984) were predicting a 45% drop in the number of 15 year olds in the area between 1978 and 1992, a drop that would create a spare capacity of about 1900 places.

[75] For more details on regional variation in the growth of the secondary school population in England between 1991-2001 see the Research Methods Annex.

most areas, such demographic change appears to have been met with an increase in overcrowded schools rather than an increase in new capacity: an Audit Commission (1996) study revealed the coexistence of surplus places and overcrowding within many LEAs, estimating that nearly 20% of schools were operating at 105% or more of their physical capacity while approximately 900,000 surplus places remained in other schools. The growing levels of pupils and overcrowded schools may explain a large part of the reason that few schools have entered 'spirals of decline' following the 1988 reforms (Gorard *et al*, 2002).

In the context of growing pupil numbers, and very real limits to school expansion, admissions procedures have taken on even more importance, particularly the criteria which LEAs or schools apply in cases of oversubscription. Traditionally, admission to secondary schools in England has been accomplished through four primary allocation mechanisms: *selection*, *catchment areas*, *feeder primaries* and *parental choice* (Table 3.3). Allocation methods have always served as a way of balancing the planning responsibilities of local authorities and the school preferences of area families; however, the balance of these methods has changed considerably through time (Fitz *et al*, 2002).

Table 3.3 ALLOCATION METHODS IN ENGLAND SECONDARY SCHOOLS, 1968-2001

Primary Allocation Method	% of Secondary Schools or LEAs Using Method...					
	1968 Survey of Schools	1972 Survey of Schools	1977 Survey of LEAs	1986 Survey of LEAs	1996 Survey of LEAs	2001 Survey of LEAs
Catchment Areas	34	48	51	61	61 *	82 *
Feeder System	19	15	19	NA	NA	3
Parental Choice	20	29	27	NA	39	NA
Other (including selection by exam)	27	8	3	39 **	NA	15

* Criteria used to set priority within (or in the absence of) parental choice. Includes LEAs operating Catchment Areas and Proximity criteria.
** Primarily based on parental preferences.

Sources: Dore and Flowerdew (1981); Stillman and Maychel (1986) Forrest (1996); DfES (1999); Fitz *et al* (2002)

Before the 1980 and 1988 Acts, a policy of open parental choice constituted only a single allocation option for schools and LEAs. After the market reforms, however, it became the primary or sole mechanism within which the former alternatives, such as catchment areas or feeder primary schools, must now operate, either as default options or priority criteria.[76] The Code of Practice on School Admissions (1999, 2003), established by the 1998 School Standards and Framework Act to instruct LEAs on composing admissions procedures, requires that they be 'clear, fair and objective' as well as published and accessible.[77] Despite national admissions guidelines, however, the fact that admissions policies are still locally implemented provides considerable room for interpreting legislation, and a number of different application procedures exist. These include (White et al, 2001):

1. *Catchment Areas*: LEAs instruct parents of a designated school (based on a catchment area or measure of proximity) to which they are entitled admission. Parents who wish to choose and opt out of this default preference must apply to the LEA or the DfES.
2. *Common Application Form*: This, the most frequently used type of procedure, provides parents with a single form and allows them to register a preference for a number of alternative schools.
3. *Single Preference Application*: Parents are allowed to name only one preferred school.

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[76] Selection has remained largely undisturbed throughout even though where selection by exam is employed, parental preferences are inarguably denied. While the School Standards and Framework Act (1998) limited any further expansion of selection procedures, 36 LEAs still have grammar schools that select by ability, and existing selection may only be eliminated by parental ballot (DfES, 1999).

[77] In addition, it is required that admissions criteria not be discriminatory and that applications from students outside LEAs be considered equally and in consultation with other admissions authorities. The Commission for Racial Equality (CRE) has recently issued instructions to help schools ensure that they reflect adequately the racial and ethnic make-up of their local area, and that admission procedures do not engender inequalities (Doughty, 2002). Beginning in 2005, LEAs will be required to coordinate admission forms and timetables with other authorities in order to help prevent some parents receiving multiple offers for places. This will require LEAs to examine their own *de facto* catchment areas based on actual schooling patterns, a task that may be greatly enhanced by the use of the new PLASC data.

4. *Multiple Applications*: Separate applications are required, typically in areas with a number of schools acting as their own admissions authorities.

The nature of the admissions procedure ultimately depends on who is acting as the admissions authority, and over 30% of schools—including most foundation and voluntary aided schools—controlled their own admissions in 2002, up from 10% prior to 1988 (Tomlinson, 2003). Three percent of all non-grammar secondary schools select by ability, however, and a fair proportion of schools that serve as their own admissions authorities also use partial selection: about 8% of foundation schools, 9% of voluntary aided and 6% of specialist schools according to a recent survey[78] (West and Hind, 2003).

Selection based on pupil ability and other admissions criteria takes on the most significance, however, once a school becomes oversubscribed: being full allows even non-selective schools to become 'covertly' selective, and a number of criteria may appear to help 'select in' certain groups of pupils while excluding others[79] (West and Hind, 2003). While most schools do not use criteria that are either overtly or covertly selective (e.g., proximity, SEN, medical need), a minority of schools still gives priority to children of former pupils or employees or to those who show more potential in a particular subject area (Table 3.4).

Even a minority of partially selective schools may nonetheless impact the intakes of comprehensive and other non-selective schools, affecting their enrolment and/or the types of pupils enrolling. This possibility is particularly acute in urban areas such as London where more secondary schools already select on the basis of religion (27%) and ability (5%) than do nationwide (11% and 2% respectively). London has taken steps in

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[78] Part of the School Standards and Framework Act 1998 was designed to close the 'admissions loophole' that allowed grant maintained and voluntary aided schools serving as their own admissions authorities to draw pupils from a wide catchments and from areas across LEA boundaries, which had made it more difficult for some pupils in these areas to attend their local school (Fitz *et al*, 2002)

[79] Benn and Chitty (1994) reported that only 34% of LEA schools were full compared with 63% of aided and 61% of GM schools.

recent years to address this problem, including encouraging 'banded'[80] admissions (as of 2003, used in 20% of London secondary schools) considering broader reform proposals such as a new 'collegial' approach in which schools work collaboratively in admissions, teacher development and pupil attendance (Brighouse, 2003).

Table 3.4 MOST FREQUENTLY USED ADMISSIONS CRITERIA, 2002



Source: West and Hinde, (2003), Table 1, p.6

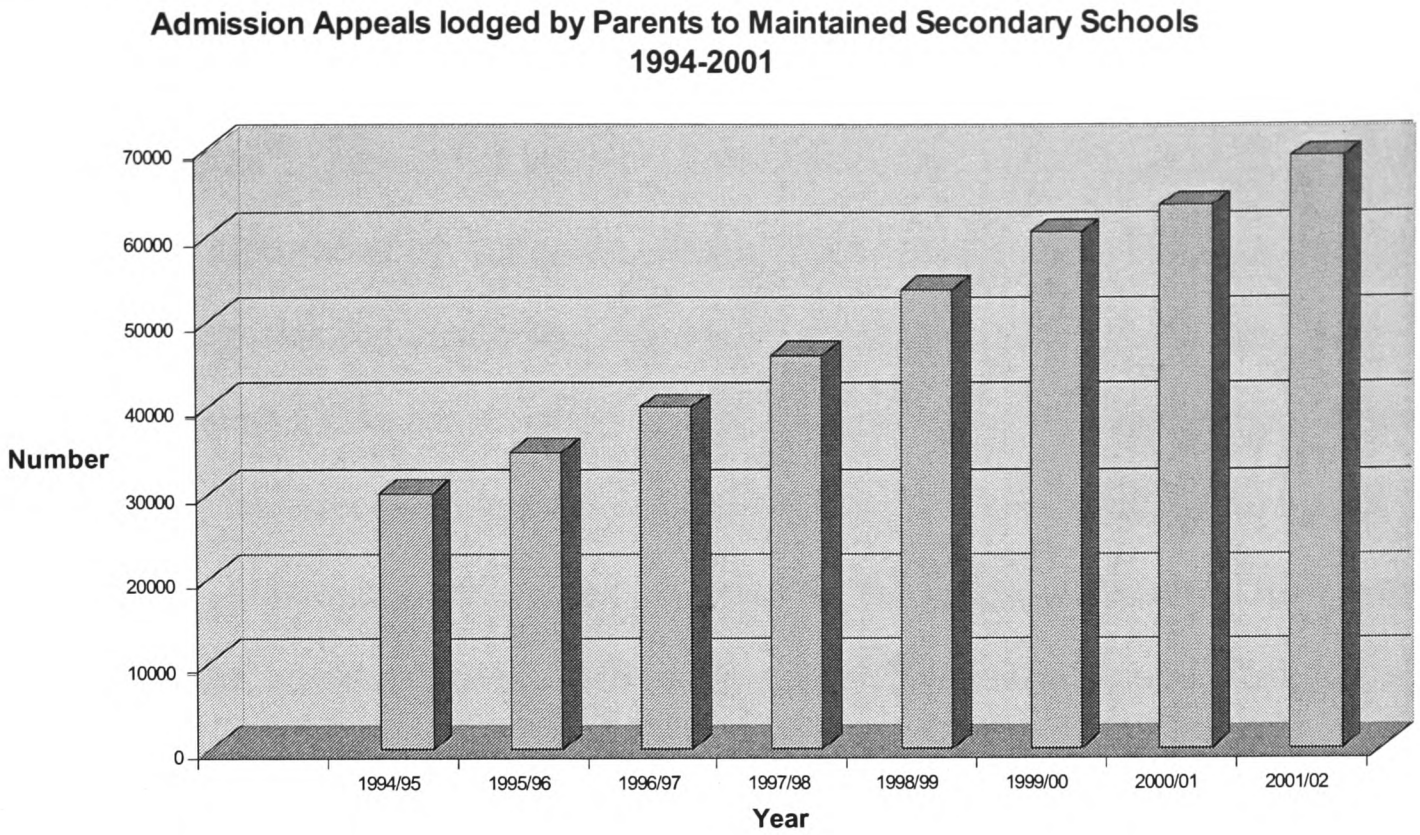
Finally, as a result of growing pupil numbers and greater scope for parental choice, parental appeals over denial of admission of their children to secondary school have increased steadily over the past decade (Figure 3.10) and now represent over 10% of applicants[81] (DfES, 2002, 2003). This again varies by area: approximately 75% of London boroughs receive more than the national average while 40% of metropolitan and unitary authorities receive less, reflecting both population density and the prevalence of religious and single sex schools (Audit Commission, 2002; Taylor *et al*, 2002).

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[80] Banding, used by Inner London Education Authority before its abolition, helps ensure a fair mix of pupils by requiring schools to take a certain number of pupils from each ability range. The policy runs counter to parental choice but has been recently applied by the Commissioner for London Schools to the admissions policies of the city's elite City Academies, to guarantee that they take a fair proportion of low performing pupils (Pyke, 2004).

[81] The recent increase in appeals may be slightly over-inflated: effective as of 2000-01, parents have been allowed to lodge separate appeals for each place denied (which means that the total number of appeals lodged may increase even while the number of appellants remains constant). Whatever the measure, the current 10% rate of appeal represents a large jump from the 1.2% rate experienced during the early 1980s (Stillman and Maychel, 1986).

Figure 3.10



Source: DfES (1999, 2003)

Educational Expenditure

Another important procedural variable that is relevant to local education contexts is expenditure. Within the new education market 'money follows pupils' to secondary schools more strictly than ever before, and, with increasing pupil choice and movement, the task of central government to target funds effectively—and of schools to maintain constant levels of income—has been made considerably more demanding. *Local management of schools* and subsequent reforms introduced an output-based funding process into an already complex financing structure. As a result, the current system for financing maintained schools is composed of a number of different streams and distribution formulae.

As of 2003, the DfES, as part of its Education Formula Spending (EFS), allocates LEAs an Education Formula Spending Share (EFFS) comprised of two funding blocks, one for schools and another for LEAs (DfES, 2003). Historically, the EFFS (or SSA) has constituted about 80% of the money that local authorities receive for education (the other 20% coming from local council taxes and other sources) (Barrow, 1998). The overall EFFS figure allocated as to an LEA entails a basic entitlement based on pupil

numbers[82] (adjusted for age for each school level) with tops ups for higher levels of deprivation or Additional Educational Needs (AEN) (now calculated on the basis of several indicators)[83], population sparsity, and area costs. Most of a local authority's expenditures are provided by this grant, although they are not obligated to adhere to the assessment categories for their own budgetary assignments. With LMS, and now 'Fair Funding', however, LEAs are expected to devolve most of the Potential School's Budget (PSB) that they have received to schools—an estimated 90% for most LEAs by 2002-03 (DfES, 2001). Although there is some evidence for the increased financial efficiency of schools after the introduction of LMS—real school budgets per pupil declined while examination performances rose during the 1990s (Levacic and Hardman, 1998)—the amount of change in school budgets explainable by pupil numbers depends on local spending priorities.[84]

Other than their ability to attract pupils, most schools have no substantial input into the size of their total budgets, and as the ultimate financier, the state remains largely responsible for the allocation of public resources to schooling regardless of public market mechanisms. AEN, area cost and other adjustments mean that variations in the amount of funding received by LEAs existed both before and after LMS; however because the majority of schools receive these funds via their local authority, there can also be considerable variation and inequity, particularly within more heterogeneous LEAs (Bullock and Thomas, 1997)[85].

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[82] The decline in pupils during the 1980s, and the subsequent rise in school rolls during the 1990s, has been met with more or less constant levels of central funding (Glennerster, 2002).

[83] Since the Plowden Report (1967), which argued that schools with more disadvantaged populations should receive extra funding, the government has factored into its funding formulae an index for Additional Educational Needs—an umbrella for a wide range of factors that can negatively influence a pupil's education including EAL, SEN, and social deprivation (Bullock and Thomas, 1997).

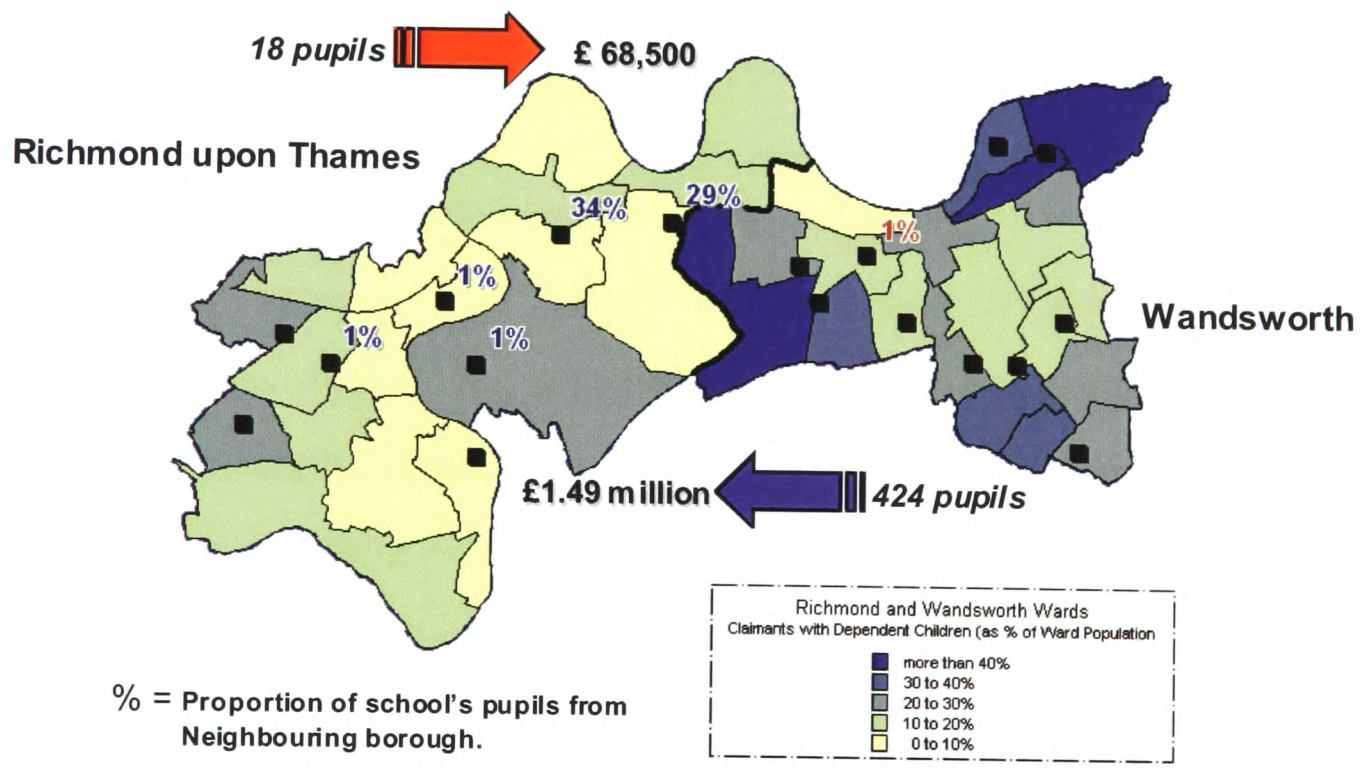
[84] In part because schools face mixed financial incentives in many areas: the ability to accrue savings may encourage schools to be more efficient; however, in some cases, the balances built up by schools have been used by LEAs as an excuse to reduce funding levels (Barrow, 1998).

[85] See the Research Methods Annex for more information on education expenditure levels for LEAs.

The movement of pupils within a local schooling market may further complicate efforts to target funding and make adjustments for AEN. There is some evidence that the possession of disadvantaged pupils continues to be associated with declines in a school's numbers and budget[86] (Levacic and Hardman, 1998), and may entail substantial cross-border migrations in urban LEAs. Many relatively advantaged local authorities (with higher council tax and better schools) remain concerned with being 'swamped'[87] by migrants from neighbouring disadvantaged areas—allowed under the Greenwich Judgement—and an analysis of pupil movement and school spend in PLASC[88] reveals

Figure 3.11

'Unfair Trading': Pupil exchange in two London Boroughs



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[86] One study (Bullock and Thomas, 1997) estimated that the average loss of 25 pupils experienced in those schools with falling rolls would entail a loss of about 38,000 GBP (3.4% of a school's budget) on average.

[87] In a 1998 House of Commons debate, MPs from Richmond argued that the borough, which was receiving 45% of its secondary intake from other boroughs, was experiencing overcrowding, higher appeal rates and funding inequities as a result of the Greenwich Judgement (HANSARD 20 May 1998 : Column 921).

[88] Expenditure per pupil for each secondary school (from Section 52 Budget Outturns for 2002) was 'attached' to each pupil in PLASC in order to calculate the amount of money being expended upon another LEA's pupils.

the existence of imbalances in funding and movement across neighbouring authorities such as Richmond and Wandsworth (Figure 3.11). In 2002, well over a million pounds of educational funding allocated to Richmond schools was spent on children from Wandsworth, which in turn paid only a fraction of that figure on the eighteen pupils migrating in the other direction. Although the *LEA Central Services* sub-block takes into account both resident pupils and pupils attending school within an LEA (weighting the former at 35% and the latter at 31.7%), there is (as of 2004) still no distinction made in the allocations made by the DfES to local authorities as part of the EFFS. This means that certain LEAs (such as Richmond above) may be adversely affected financially by the degree of movement across LEA boundaries, and find themselves spending disproportionate amounts on pupils from other authorities.

Pupil Performance

Just as there are considerable imbalances in schooling inputs such as funding, there also exists tremendous variation with respect to educational outputs such as pupil performance on examinations. The performance of 15-year old pupils on the General Certificate of Secondary Education exams (GCSEs) had risen steadily in recent decades: 26.4% of test-takers received 5 or more A-C grades (a common performance benchmark) in 1987, a level that had risen to 45% by 1997, and now stands at 51% (Glennerster, 2003). The notable improvement in English secondary pupils' exam performance since the late 1980s is likely attributable to a number of factors, including structural changes such as the substitution of the scaled GCSEs for O levels and the introduction of a standardized curriculum, as well as the advent of performance 'league tables' and other market mechanisms as a result of ERA 1988 (Dolton et al, 1999). In local markets with more competition, schools exhibit a greater concern with exam results and ultimately demonstrate performance improvements (Bradley *et al*, 1999, 2000).

Nonetheless, England still retains one of the highest levels of inequality of educational attainment in the developed world (PISA, 2001), and significant gaps in

achievement persist along several dimensions such as area, school and individual pupil background. Combining the pupil performance data in the National Pupil Database (2002) with the residential information contained in PLASC (2002) provides an

Figure 3.12 GCSE PASS RATE, By LEA, 2002



indication of how well pupils living within different LEAs and areas of the country perform on GCSEs and other exams (Figure 3.12). The GCSE performance levels of pupils living in the industrial regions of North Central England, for example, were significantly lower than the national average in 2002, and pupils living in several southern LEAs in particular scored higher than their counterparts in other areas of the country. Moreover, there was a wide gap between the top and bottom performing schools[89], and certain types of schools tended to perform considerably higher than others

[89] Although this has decreased somewhat: for example, between 1995 and 2000 the difference between the KS3 English score of the average top quartile secondary school and the average bottom quartile school decreased from 32 to 26 points (Glennerster, 2003).

in 2002 (Table 3.5): specialist schools have a higher percentage of pupils achieving the GCSE 5 or more A-C benchmark (56% vs. 48%) than other comprehensives, although the top pupils within comprehensive secondary schools actually outperform the top pupils in grammar schools (Jesson, 2001).

Table 3.5 GCSE PASS RATE BY TYPE OF SCHOOL, 2002

Pupils in...	GCSE PASS RATE (%)
All Schools	52
Type of School	
Community	48
Voluntary controlled	59
Voluntary aided	60
Foundation	59
School Admissions Basis	
Comprehensive/ Modern	48
Specialist/Partially Selective	56
Grammar/Selective	96

Sources: PLASC (2002); National Pupil Database (2002)

These regional and school level disparities primarily reflect differences in the social composition of areas as well as different types of school—grammar, foundation and specialist schools all tend to have less than their fair share of pupils on free school meals. Schools that have increased their intakes in the competitive market have also tended to raise the percentage of pupils attaining 5+ A-C grade GCSEs (Hardman & Levacic, 1997) and the state education sector as a whole has improved its performancerelative to the independent schooling sector (Gorard & Taylor, 2002). The relationship between performance and the education market will be explored further in Chapter 7.

Up Close: Local Area Contexts

Common Associations: Analysing Area Relationships

The above features of the area, organisational and institutional landscapes combine in different places to create very real opportunities and obstacles to parental choice, educational achievement, and a child's future life chances. Nevertheless, some common features of the environment within which the market for secondary education is now situated may be identified across different areas. Statistical analyses of the many sources of data consulted in the proceeding pages reveals several important relationships about local schooling contexts that will figure into the analysis in upcoming chapters.

Areal analyses come with several caveats, and one must be careful of committing one or more errors when interpreting area-based figures and relationships. One fundamental difficulty, labelled the *modifiable areal unit problem* or MAUP by geographers, arises from the fact that spatial analysis is inevitably based upon areal units that may be divided in an unlimited number of ways (Openshaw, 1984). To conduct spatial aggregation of data, analysts must decide both upon how many areas or sub-units should be used (the 'scale problem') and how these areas can most effectively be grouped for aggregation (the 'zoning problem') (Wrigley, 1995). The scale problem reflects the tendency for different results to be derived from the same data when grouped at different level of analysis, a problem associated in particular with the *ecological fallacy*, in which individual characteristics are unwarrantedly inferred from group or area characteristics. Aggregate figures for any arbitrarily chosen area are likely to mix experiences and characteristics of different individuals and groups within that area (Noble *et al*, 1999), so that any association between different indicators for the larger population may not necessarily mean that individuals are experiencing the same phenomenon (Heath, 1981).

The zoning problem presents a related issue in which variable results may also be achieved depending on how areal units are grouped at the same scale (Wrigley, 1995). This may interact with the phenomenon of *spatial autocorrelation*—in which

observations that are geographically close are actually related and therefore not statistically independent events—and may render key statistical tools and inferences inappropriate and biased (Lorant *et al*, 2001). The best way, although not foolproof, of avoiding some of the pitfalls associated with MAUP and other geographical difficulties, is to conduct analyses at the lowest scale possible (Pacione, 1997). The increasing availability of large-scale administrative datasets (providing individual level information for entire populations) means that the characteristics of individuals may be identified at carefully designed small geographical scales (such as the new Census Output Areas), minimizing the likelihood that individual and area characteristics do not reasonably correspond. Statistical relationships may also be sought at a variety of potential levels from the individual to the neighbourhood to the school to the region and so on. Nonetheless, with increasing availability comes increased risk, and easier access to small Census areas and mapping software will require researchers to be increasingly vigilant of each other's work. Quantitative analyses, particularly of large-scale data, will also continue to have their limits and thus will continue to require small-scale, qualitative studies to properly understand the interaction of variables of interest.

Local Landscapes: Some LEA Clusters

A statistical analysis of the factors discussed in this chapter broadly reveals how they may interact to influence local area contexts (Table 3.6). At the local authority level, the strongest associations (measured by Pearson Correlation Coefficients) exist between the social and spatial geography of areas: in general, urban areas in 2002 tended to have more pupils from disadvantaged and/or ethnic minority backgrounds. The GCSE performance levels of LEAs also appears to depend heavily on the social background of the population it serves: lower attainment levels are consistent with high numbers of FSM pupils and manual class households, and low numbers of service class households.

***Table 3.6* CORRELATION MATRIX: SIGNIFICANT* RELATIONSHIPS BETWEEN LEA VARIABLES**

	% Pupils Eligible For FSM	% Pupils From Ethnic Minority Background	% Households Manual Class	% Households Service Class	% Pupils Not In Maintained Schools	Selectivity	Admissions Appeals Per 100 Applicants	% Of Pupils With 5 Or More A*-C GCSEs
PUPIL DENSITY	**.780**	**.817**	-.473	.233	.430	.248	.438	-.464
% FSM		**.660**			.261		.273	**-.719**
% ETHNIC			-.470	.302	.416	.264	.439	-.321
% MANUAL				**-.879**	**-.759**	-.412	-.205	-.313
% SERVICE					**.760**	.378		.446
% INDEPENDENT								
SELECTIVITY **							.179	.240
APPEALS								
GCSE								

* All Correlations (Pearson) are significant at the p=.01 level (2-tailed) at the local authority level. The strongest correlations are presented in **Bold.**

** As measured by the Private State Continuum Score (See Chapter 3).

Moreover, the proportion of an authority's children opting for independent sector schooling is also clearly associated with these same social categories. Of course, even if there exists no significant statistical relationship between these variables across local authorities nationwide, they may nonetheless interact significantly in different local contexts. The above relationships, however, combined with information on the nature and diversity of local schooling options, may be used to construct several distinct and important local authority clusters. These groupings provide a useful heuristic tool for understanding some of the differences in pupil mobility and school segregation levels that will be explored in later chapters.

Inner London Boroughs

One of the most distinctive sets of local authorities consists of several *inner London boroughs* (formerly a part of the ILEA). These areas possess high population densities, large ethnic minority populations, and high levels of child poverty (Table 3.7). Additionally, these boroughs are home to large numbers of service class households,

Table 3.7 **LEA CLUSTER #1: INNNER LONDON BOROUGHS, 2002**

LEA	% Ethnic Minority	% FSM	% Service Class Households	% Not Attending Maintained Schools
Camden	42	38	41	23
Hackney	52	42	30	22
Hammersmith and Fulham	38	42	44	26
Islington	31	36	37	14
Kensington and Chelsea	28	35	46	41
Lambeth	57	36	39	20
Lewisham	38	29	33	17
Southwark	49	38	32	18
Tower Hamlets	68	62	29	14
Wandsworth	43	25	47	27
Westminster	36	37	43	29
ENGLAND	**10**	**15**	**27**	**8**

and high proportions of their resident pupils opt for independent secondary schools despite the fact that most areas have high performing (and often selective) maintained schools. Those pupils electing to remain in state secondary schools in these areas score below average on GCSEs, and are more likely to appeal admissions placements than pupils nationwide. As we shall see in more detail in Chapters 4 and 5, secondary education in London—with poor and affluent neighbourhoods positioned 'cheek by jowl', large mass transit systems and relatively small administrative areas (i.e., borough LEAs)—remains quite distinct in nature, and the dynamics of the schooling markets in the capital are noticeably more complex than in other areas.

Selective Local Authorities

Unlike boroughs in inner London, the second cluster of LEAs—composed of local authorities with high numbers of grammar school pupils and a history of selective education—contains areas with relatively low numbers of non-white and deprived pupils (Table 3.8). Secondary schooling in these predominantly Conservative-run authorities remains largely bifurcated with grammar schools 'creaming' the highest ability pupils

and secondary moderns left to cater to the majority of remaining local pupils. Most of the pupils in the authorities in this cluster perform well above average, but there exists enormous variation in attainment levels between schools.

Table 3.8 **LEA CLUSTER #2: SELECTIVE AUTHORITIES, 2002**

LEA	% Ethnic Minority	Selectivity Private State Score (Mean)	GCSE Pass Rate	GCSE Variance (between schools)
Trafford	9	4.61	61	10.8
Southend-on-Sea	4	4.40	56	12.6
Kent	2	4.21	56	10.8
Medway	2	4.13	49	10.6
Lincolnshire	1	3.29	56	9.6
Sutton	8	3.26	59	11.1
Buckinghamshire	10	3.23	66	10.6
Kingston upon Thames	11	3.23	62	11.3
Bexley	8	2.96	56	9.6
Torbay	1	2.66	52	11.5
ENGLAND	**10**	**1.77**	**51**	**6.7**

Areas with Foundation Schools

One of the key planks of the Education Reform Act of 1988 was the establishment of Grant Maintained (GM) schools, and several areas across England—primarily in Conservative-run local authorities—experienced a high proportion of their secondary schools 'opting out' of LEA control and instead receiving funding directly from central government. Converted to 'foundation' status under Labour, the majority of these schools maintain high levels of autonomy, including being able to act as their own admissions authority. Two broad 'types' of foundation-rich local authorities can be seen in the data (Table 3.9). In Type A LEAs, foundation schools typically select or specialize and are located in areas with few disadvantaged or ethnic minority pupils.

Table 3.9 **LEA CLUSTER #3: FOUNDATION AUTHORITIES, 2002**

LEA	% Ethnic Minority	% FSM	Private State Score (Mean)	GCSE Pass Rate
Type A				
Gloucestershire	2	7	3.77	62
Poole	1	7	3.52	58
Essex	2	9	3.07	57
Bournemouth	1	11	3.05	54
Type B				
Derby	15	18	2.32	48
Peterborough	13	16	2.54	46
Milton Keynes	9	10	3.25	52
Brent	62	22	3.28	51
Hillingdon	22	13	3.40	51
ENGLAND	**10**	**15**	**1.77**	**51**

A second group of more urban authorities, those in Type B, also have high numbers of foundation schools, but many of these schools have comprehensive admissions procedures and draw from areas with more disadvantaged and minority pupils. These areas typically have lower GCSE attainment levels than those in the Type A category.

Authorities with Mixed Voluntary Provision

In many local areas in England, particularly those in London and the urban areas of the north, secondary schooling provision is split almost equally between the community and voluntary sectors. The majority of these areas have highly diverse urban school environments and high rates of admissions appeals. Again, this group may be classified into two broad sub-groups (Table 3.10): *Type A* LEAs in outer London with large ethnic minority populations and neighbourhoods in which disadvantaged and high income families exist in close proximity to one another, and *Type B* authorities in the north of the country that are relatively more disadvantaged and contain both fewer non-white and service class households. Broadly speaking, the voluntary schools in Type B authorities tend to have comprehensive admissions policies, a high proportion of FSM pupils and lower GCSE attainment levels, while those in the former constitute a more 'separated' circuit of schooling that is more likely to draw pupils from neighbouring authorities.

Table 3.10 **LEA CLUSTER #4: VOLUNTARY AUTHORITIES, 2002**

LEA	% Ethnic Minority	% FSM	% Service Class Households	Appeals per 100 Applicants	GCSE Pass Rate
Type A					
Hounslow	43	19	33	30	49
Croydon	30	17	33	15	52
Redbridge	44	15	31	11	65
Barnet	24	14	38	22	63
Type B					
Manchester	20	41	20	23	38
Liverpool	5	34	19	16	41
Knowsley	1	35	16	2	38
Bolton	12	16	23	13	47
Bradford	30	24	22	19	41
Lancashire	6	14	24	15	54
ENGLAND	**10**	**15**	**27**	**10**	**51**

Comprehensive Stalwarts

A large proportion of areas in England retain schools that are almost exclusively comprehensive. In most of these areas, the largely Labour-controlled authorities conduct admission procedures on behalf of all schools as they have for decades. However, there exists reasonable diversity within this group, which can be divided once again along north-south lines (Table 3.11). The *Type A* cluster contains authorities from urban areas in the north that serve disadvantaged and largely manual class neighbourhoods. Proximity considerations determine admission to popular schools, relatively few appeals are lodged, and several of these authorities possess 'failing' levels of attainment. Authorities in the *Type B* cluster, on the other hand, are located in less deprived areas in the south, and many possess growing numbers of specialist schools (reflected in their higher private state scores) as well as higher attainment levels.

Table 3.11 **LEA CLUSTER #5: COMPREHENSIVE AUTHORITIES, 2002**

LEA	% FSM	% Manual Class Households	Selectivity Private State Score (Mean)	Appeals per 100 Applicants	GCSE Pass Rate
Type A					
Barnsley	22	36	0.30	2	38
Blackpool	21	32	0.92	16	39
Doncaster	16	36	0.33	3	42
Rotherham	16	36	0.61	9	43
Wakefield	16	36	0.92	5	47
Redcar and Cleveland	24	34	0.51	2	47
North Tyneside	17	30	0.88	3	50
Sheffield	19	29	0.78	8	45
Nottingham	32	30	0.96	10	34
Type B					
East Sussex	11	25	1.13	5	55
North Somerset	7	26	1.03	11	56
Solihull	10	25	1.04	10	62
Wokingham	3	17	1.57	11	71
Brighton and Hove	17	20	0.78	11	50
ENGLAND	**15**	**28**	**1.77**	**10**	**51**

Rural Irrelevancies

Finally, there are those largely rural authorities for which the educational market reforms hold very little relevance (Table 3.12). These areas are typically sparsely populated, overwhelmingly white, and relatively popular areas for migrants from London and other urban areas. In most of these local authorities, comprehensive schools dominate the landscape, few admissions appeals are lodged and relatively little difference exists between the performance levels of local schools. It is also worth noting that two of the rural authorities listed below—Northumberland and Suffolk—contain a large percentage of middle (deemed secondary) schools, as do a handful of other LEAs in England, including Bedfordshire, Staffordshire, Oxfordshire, Dorset, Windsor, Worcestershire and Northamptonshire. Because of the asymmetries in the market created by the coexistence of middle and secondary schools, these authorities will not be the subject of close analysis in the following chapters. Many local education authorities, of course, do not fit

well into any of the above categories but nonetheless demonstrate many of the same features described above (e.g. high levels of disadvantage and low mean GCSE scores). The above clusters, however, will help to provide useful (and highly relevant) distinctions for classifying the mobility and segregation findings in upcoming chapters.

Table 3.12 **LEA CLUSTER #6: RURAL AUTHORITIES, 2002**

LEA	Density	% Ethnic Minority	Private State Score (Mean)	Appeals per 100 Applicants	GCSE Variance
Northumberland	3.9	1	0.92	6	5.5
Cumbria	4.5	0	2.09	3	5.6
North Yorkshire	4.7	1	0.98	7	6.5
Herefordshire	5.4	0	0.60	4	3.9
Shropshire	5.7	1	0.88	6	2.9
Devon	6.7	0	1.15	4	5.6
East Riding of Yorkshire	8.4	0	0.96	12	4.3
Cornwall	8.8	0	0.93	11	2.9
Norfolk	8.9	1	1.44	4	5.2
Somerset	9.6	0	0.74	5	4.2
Suffolk	11.6	2	0.76	5	5.1
ENGLAND	**99.7**	**10**	**1.77**	**10**	**6.7**

Conclusions

England has long possessed a tremendously varied social geography and a highly diverse set of secondary schooling options. The contextual geography presented in this chapter illustrates a number of factors that may potentially influence, and interact with, the education market and the utilization of parental choice. As Chris Taylor (2001) has commented, '…there now exists a mosaic of different education markets, where the two key components of the [market] reforms, choice and diversity, are unevenly distributed' (368). Indeed, the various obstacles to the realization of parental preferences within the marketplace, including oversubscribed schools, the availability of transport and particular admissions policies—take on even more importance within the context of high

diversity. Thus, where an uneven landscape of secondary provision exists, it signifies, as Bradford (1993) argues:

> ...that for those parents who can make choices about where their children will be educated, the range of choices which they face differs greatly according to where they live (82).

The next two chapters will look more closely into what the education market means to pupils in different areas of the country, and what factors influence the exercise of choice.

-4-

Pupil Movement and the Lived Marketplace

Before examining the implications of widespread open enrolment for school social compositions and segregation levels, it is first necessary to understand the patterns of pupil movement within the 'lived marketplace' for secondary schooling—the actual space in which consumers and providers of secondary education interact for the purposes of placing children within schools (Taylor, 2002). The aim of this chapter is to map more closely the landscape of the secondary education market and, in particular, to examine to what extent pupils are attending non-local schools. The advent of open enrolment raises many questions:

- How far do pupils live away from the schools they attend and to what extent are they attending non-local schools?
- Which types of schools are competing against each other, and which are benefiting most from non-local pupil inflows?
- To what extent do 'neighbourhood schools' still exist?
- What size are different local schooling markets and what factors influence the level of competition present in a local market?

The following analysis builds on earlier geographical studies of secondary schooling, particularly those of Taylor (2000, 2002), in modelling the lived marketplace and chronicling the level of market activity present within different areas of the country. The individually post-coded pupil data contained in PLASC, however, allows for an unprecedented look into *de facto* secondary school catchment areas and the scale of pupil movement across England in 2002. In conjunction with school-level data sources and the 2001 Census, PLASC provides key insights into the 'increasingly complex ecology of schools and their catchment areas' (Smith et al, 1999: 3) that now exists within English secondary education.

The Scale of the Lived Marketplace

Modelling the 'Lived Marketplace' for Secondary Schools

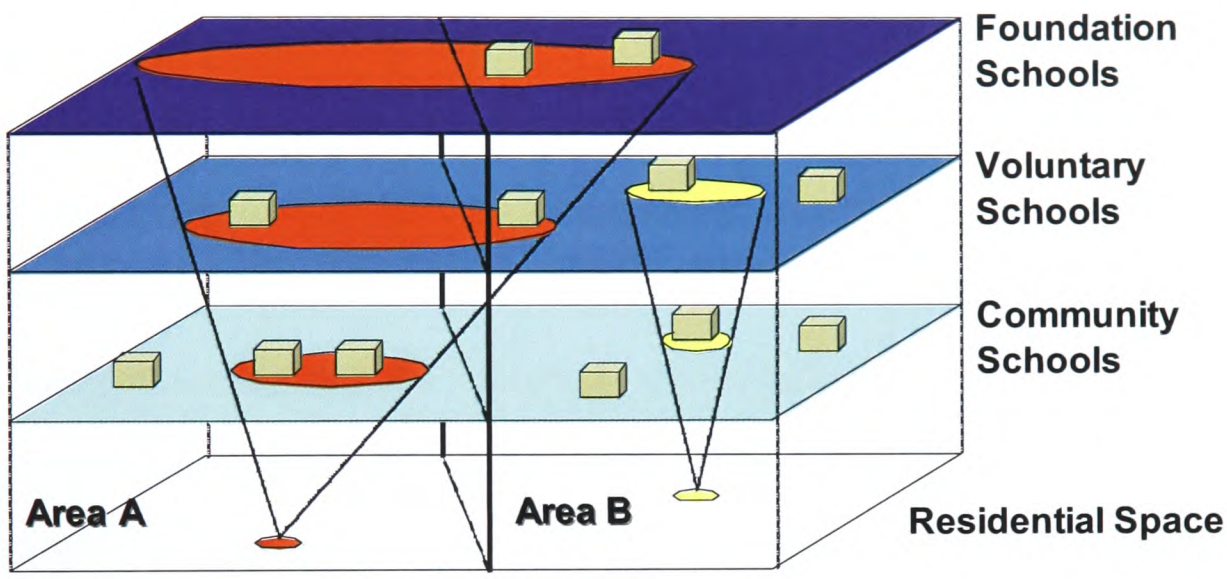
Local schooling markets are by their nature local and complex, and therefore must be investigated with carefully understood parameters in mind. Given the variety of school types, admissions policies, spatial distributions and other factors explored in the previous chapter, it is almost impossible to create a single model of the lived marketplace for secondary schools that applies in all local circumstances. Previous studies have set out a variety of heuristic models to encapsulate the 'local competitive arenas' in which producers, consumers, bureaucrats and social forces interact, and which serve as the effective 'battleground' for secondary school choice (e.g., Glatter *et al*, 1996; Woods *et al*, 1998).

As illustrated in Figure 4.1, the key aspects of any local education *marketplace* include local *consumers* (located in residential space), local secondary schools or *producers* (of various types), and area *boundaries* (either for administrative purposes such as LEAs or catchment boundaries for school admission procedures). A variety of 'competition spaces'[90] exist within any local schooling market and within the *market horizon* under consideration by any individual school consumer. These reflect, as discussed in Chapter 3, the spatial accessibility of schools (dependent on local transport systems and the efforts of individual consumers), the nature of schooling on offer (e.g. the 'parallel' *market spaces* represented by community and voluntary religious schools), the preferences and characteristics of consumers, and the rules governing admissions to different schools and within different administrative areas. In reality, despite the existence of LEA boundaries and other potential admissions barriers, local school markets cannot be circumscribed so neatly: they overlap considerably, and (even in rural

[90] Taylor (2001) defines a *competition space* as an 'area of interaction between schools in the marketplace' (199) that is based largely on pupil movement and exchanges between areas and schools. Thus, competition spaces, in some cases, may be very broad in nature and reflect a greater spatial area than the interaction of local schools that comprise 'local competitive arenas' (Glatter *et al*, 1996).

areas) there is no such thing as a completely discrete or self-contained marketplace. Under the present system of open enrolment, as we shall see, administrative spaces, local marketplaces and school catchments are interwoven and complex as many pupils opt for non-local schools and as more common admissions procedures are being agreed to between authorities.

Figure 4.1 **CONCEPTUALIZATION OF THE LIVED MARKETPLACE IN TWO LOCAL AUTHORITIES**



Based on Taylor (2001)

Investigating a system as dynamic as open enrolment using only LEA (or even school) level data effectively 'straightjackets' any approach to understanding the intricacies of parental choice and school attendance in different areas. Indeed, as early as the late 1980s, this concern prompted Her Majesty's Inspectorate (HMI) to map *de facto* school catchment areas using pupil postcodes in order to link information on the social background of pupils to school inspection data, an effort that ultimately led to the

OFSTED PICSI system[91] (Smith *et al*, 1999). While some early choice research in Scotland made use of parental surveys (Echols *et al*, 1990) and aggregate small area data (Adler *et al*, 1989) to gauge the level of non-local school choice, several more recent studies (e.g., Smith et al, 1999; Gibson and Asthana, 2000; Parsons *et al*, 2000; Taylor, 2001) have attempted to collect pupil level data from individual local authorities in England (many of which now routinely collect pupil postcodes linkable with performance and other data[92]) in order to chart the movement of pupils from home to school within the new education market.

No previous work, however, provides the range of options allowed by the possession of pupil-level data for the entire country. The background characteristics and residential identifiers found in PLASC allow, among other things, the construction of artificial competition spaces and detailed counterfactuals, including the creation of secondary school catchment areas that reveal which schools different types of pupils currently attend, as well as those which they *could* be attending given different policy or admissions arrangements.

Market Horizons: Available Schooling Options and Local Catchment Areas

A parent or pupil's market horizon—the effective range of schooling options they are considering—may be limited, in some cases, by insufficient financial resources (for entry into fee paying independent schools) or unsatisfactory exam performance (for entry into selective grammar schools), and, in all cases, by some measure of proximity. A major factor in determining available options—and choice necessarily requires options—is simply the location of secondary schools in one's given area. The uneven spatial distribution of grammar schools in England, for example, has meant that pupils living in the south of the country have always had more grammar school places available to them

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[91] OFSTED inspection teams receive a Pre-Inspection Context and Statistical Indicators (PISCI) report to aid them in assessing the value that a particular school adds to its pupil intake (primarily in terms of national achievement standards).

[92] For example, in Scotland the Lothian LEA uses a GIS based system for processing applications for places according to the calculated distances from home to school for over 95,000 primary and secondary school pupils (Parsons et al, 2000).

than pupils living in the north, demonstrating the geographical, if not overall procedural, inequity inherent to selection (Lowe, 1988).

Other types of school—community, voluntary, foundation and independent (Figure 4.2)—also each have their own geography.[93] The locations of foundation

Figure 4.2 **THE LOCATION OF COMMUNITY, VOLUNTARY, FOUNDATION, AND INDEPENDENT SECONDARY SCHOOLS IN ENGLAND, 2002**



[93] For the purposes of this spatial analysis, City Technology Colleges will be categorised alongside foundation schools, and voluntary controlled and aided schools will be combined into a single category—voluntary schools.

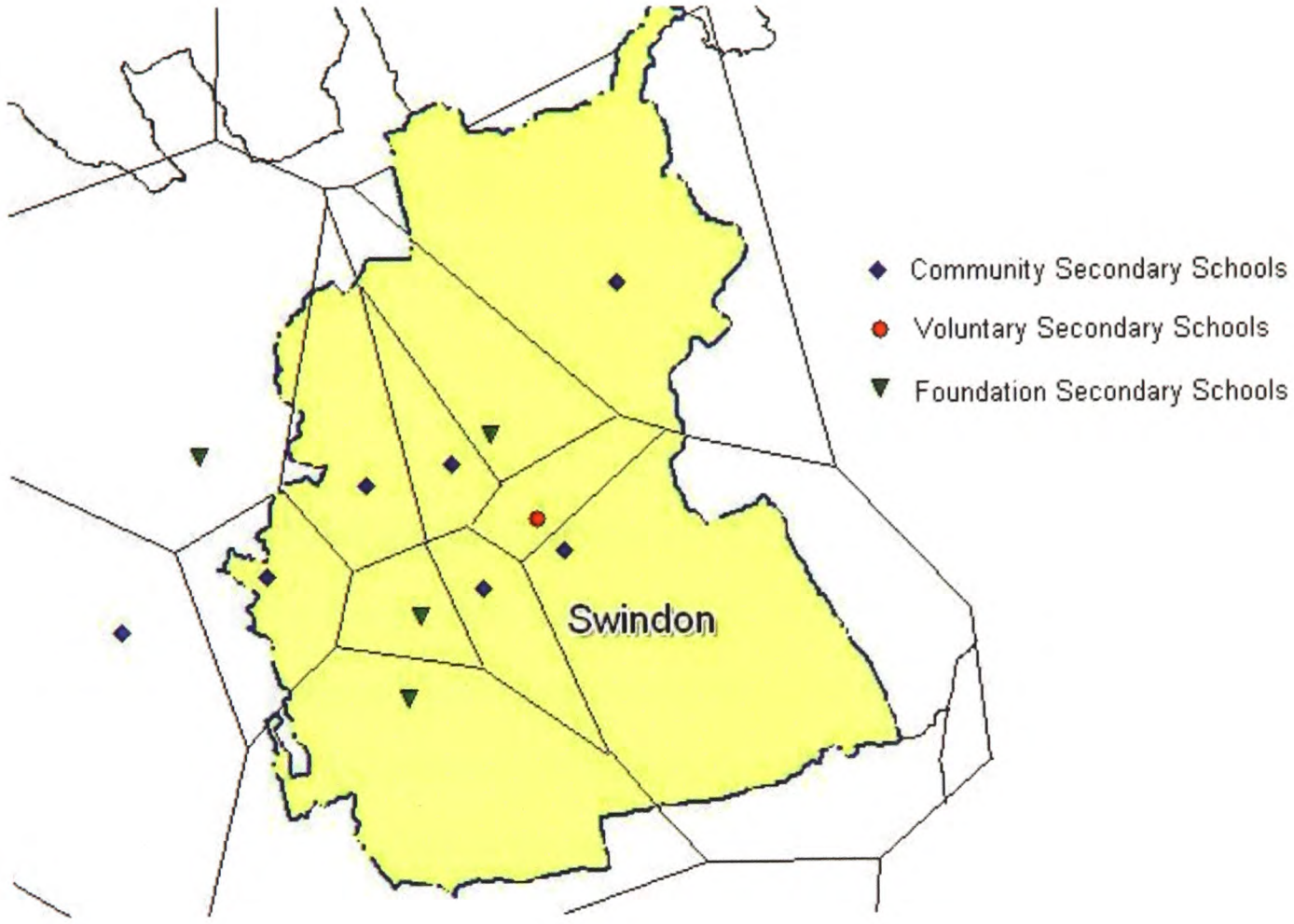
schools reflect the original spatial distribution of grant maintained schools, and are primarily concentrated in the Conservative run local authorities like Kent and Buckinghamshire where schools took the most advantage of the opportunity to opt out of LEA control during the 1990s (Fitz et al, 2002). Voluntary (aided and controlled) schools—many of which were founded by various Church authorities before the 1944 Education Act—exhibit a more 'historically embedded' geography (Taylor, 2001: 373). Voluntary schools are particularly concentrated in urban areas such as London and Merseyside and tend to be oversubscribed (and sometimes limited to particular denominational groups), although there are also many voluntary schools in rural areas that effectively operate as local community schools. The location of community schools primarily reflects population density, although in some areas, their presence may reflect the prevalence of other types of schooling. Finally, independent schools are disproportionately concentrated in the south of the country, particularly in London and surrounding areas.

Using the *British Coordinate System* geo-coordinates of their postcodes, secondary school locations can be plotted in MapInfo and other GIS software packages. It is then possible to construct a *local catchment area* around each school that encloses a space in which every point within that space is related only to the circumscribed school (Figure 4.3). Voronoi polygons, drawn in MapInfo, have been used for the purposes of this research.[94] *Local catchment areas* provide a 'local school counterfactual' in which all pupils living within a school's local catchment are assumed to attend that school should they elect to attend their most spatially proximate school. This construction assumes rather crude 'crow flies' distances and does not take into account local transport routes, which may make some routes more likely than others regardless of distance. Moreover, the degree to which any individual secondary school can serve its local catchment will inevitably be influenced by the size and nature of school, as well as the

[94] GIS procedures like these, though common to Census based social research, have been applied in only a handful of education studies (Parsons *et al*, 2000; Taylor, 2001; Taylor and Gorard, 2001).

numbers of secondary age pupils in its local area. Nevertheless, local catchment areas provide an easy and very useful means for assigning pupils to nearby schools on the basis of their residential location. As we shall see, the assignment of pupils to their local schools supplies a valuable baseline scenario for comparing with actual attendance patterns.

Figure 4.3 **USING VORONOI POLYGONS TO GENERATE LOCAL CATCHMENT AREAS**



Local catchment areas may be *non-overlapping* (as shown in Figure 4.3 above), in which all school types are treated equally as lying along a single market space, or *overlapping*, in which different school types are considered as operating within parallel market spaces (as in Figure 4.1 above). The average size of *non-overlapping* catchments provides a useful measure of school density in different areas and allows for the classification of local catchments into different groups based on the size of the local area that they are (or could be) serving (Taylor, 2002). A cluster analysis that divides local

catchments into six broad groups based on size reveals that the great majority of local catchments (71%) served by secondary schools are urban in nature and about six square kilometres in size on average (Table 4.1).

Table 4.1 **CLUSTER ANALYSIS: LOCAL CATCHMENT AREAS (NON-OVERLAPPING), 2002**

Local Catchment Area Cluster	% of Schools	Minimum Area (sq. km)	Maximum Area (sq. km)	Average Area (sq. km) *
Urban	71	0.2	34	6
Metropolitan	16	34	80	53
Suburban1	6	80	115	96
Suburban2	3	115	140	126
Rural1	3	140	192	162
Rural 2	1	192	228	210

* Median area size.

Based on Taylor (2002).

Overlapping local catchment areas, on the other hand, reflecting parallel markets for schooling and the competition between 'like' secondary schools, illustrate well the differently sized catchments possessed by schools within different circuits by virtue of their prevalence and the nature of their control, curriculum or admissions process. A similar mapping process as above can be used in MapInfo to generate Voronoi polygons for each separate schooling circuit—Community, Voluntary, and Foundation—in order to illustrate the size of the local catchment areas for different types of provision. Community schools, by far the most prevalent and closely spaced circuit, possess average (median) local catchment areas of just over 20 square kilometres (Table 4.2), although this varies considerably depending on the broad nature of the area and may be as small as six square kilometres on average in London.[95]

[95] See Research Methods Annex for more on local catchment area variation by region.

Table 4.2 **SECONDARY SCHOOL LOCAL CATCHMENT AREAS, by Market Space, 2002**

School Type	Average Total Area of Local School Catchments (Sq. Km)
All Maintained Schools *	12
Community Schools	22
Voluntary Schools	69
Foundation Schools	74

* For all schools the *non overlapping* catchments were used (average catchment size of all schools treated equally in space). Outliers removed for all calculations.

Voluntary and foundation schools—far less in number than community schools (Figure 4.2)—unsurprisingly demonstrate much larger local catchment areas when treated as separate, parallel circuits of schooling (Table 4.2). It is because of this wider 'reach' that voluntary (primarily aided) and foundation (formerly GM) schools were the primary beneficiaries of the Greenwich judgement (discussed in Chapter 3): such schools already possessed larger catchment areas because of their relative autonomy from LEAs, and were thus in a better position to expand their catchments to 'tap' demand across LEA boundaries.[96]

Because of the complex nature and geography of English schooling, however, it is not possible to treat either foundation or voluntary schools as entirely separate circuits with parallel market spaces in the same way as one might the independent sector. The figures misrepresent the true size of, for example, the catchment areas of some voluntary controlled schools in rural areas, which may serve as *de facto* community schools and thus in reality not merit separate spatial consideration. Even so, the notion of parallel spaces must be kept in mind, and preserved in spatial analysis, as, in the majority of

[96] Independent schools also demonstrate large local catchment areas, a fact that lends credence to reports that many independent day pupils live as far as 15 to 20 miles away from school (BBC, 2001).

cases, denominational schools, for example, will draw from much larger areas than their community counterparts.[97]

Distance to School and Actual Catchment Areas

The size of any local schooling market, however, ultimately depends upon the interaction between the consumers and providers of education, which is mediated not only by geography but also by local interest, consumer awareness of choice, and the number of feasible options available (including the extent of oversubscription or number of surplus places available). The best way of examining the *actual catchment areas* being tapped by schools of different types is to measure where and how far pupils are actually going to attend school—something that, because of the data contained in PLASC, is now possible for every maintained secondary school pupil in England.

Using the geo-coordinates of each individual pupil's postcode centroid (the geographical centre of a postcode area), as well as that of the school that they attend, it is possible to measure the distance (in metres) between a pupil's home and school.[98] Again, the resulting distances are straight-line, crow-flies distances that do not take into account local transport routes and thus may substantially underestimate actual travel distances.[99] Nationwide in 2002, secondary pupils lived a mean distance of about 2.76 kilometres and a median distance of 1.76 kilometres from school, and 95% attended a school that was within approximately ten kilometres of their homes.

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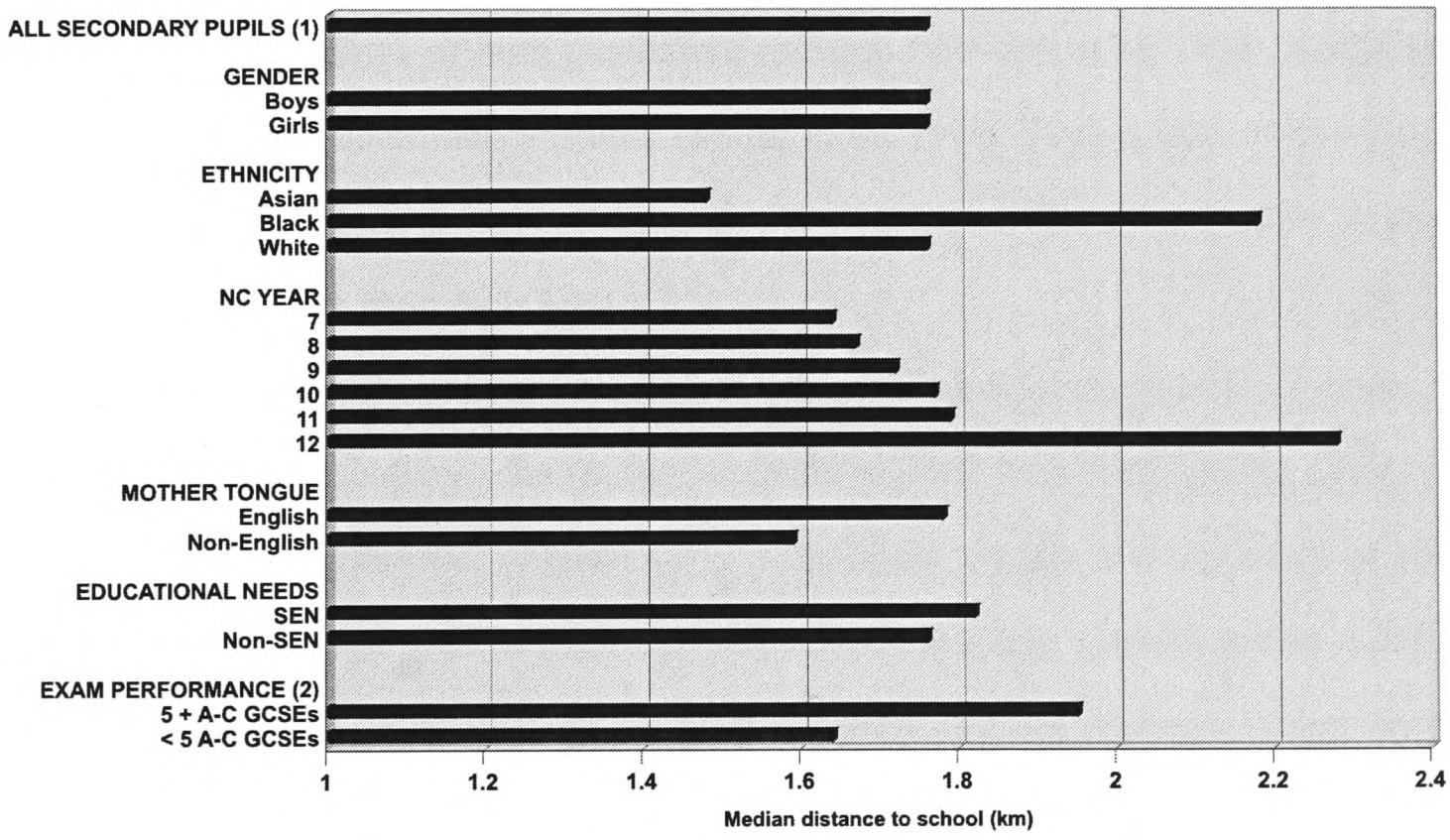
[97] This may often mean that pupils from religious backgrounds have more than one local school choice (comprehensive and denominational) where other non-religiously inclined families have only one (Macbeth *et al*, 1986).

[98] This is done through a simple application of Pythagoras' formula for computing the hypotenuse of a right triangle, using the geocoordinates of the school and pupil as the two vortices.

[99] The latest Transport Trends report (ONS, 2004), based on the National Travel Survey (NTS), found that the average (mean) distance of a school trip for secondary school children was 3 miles (4.8 km) from 1999 to 2001, up from 2.1 miles (3.4 km) in 1989. These, however, are self-reported distances from a survey of 3,500 households in 2001 that was designed to be a long-term measure of changes in travel behaviours.

The average (median[100]) distance from a pupil's home to school in 2002 varied considerably by several factors, including the characteristics of both pupils and the schools attended (see Figure 4.4, below). While boys and girls in maintained secondary schools lived approximately the same distance from the schools they attended, on average, pupils with special educational needs (SEN), with English as their native language and with 5 or more A*-C scores on GCSEs travelled longer distances to school than their peers in 2002 (the figures for pupils eligible for free school meals will be explored in Chapter 5). Although it is tempting to treat the fact that younger NC Year cohorts lived closer to school than their older classmates as evidence of the declining exercise of non-local school attendance during the preceding five years, the longer distances to school for older pupils are most likely attributable to a 'decay function,'

Figure 4.4 **DISTANCE TO SCHOOL ATTENDED, SECONDARY PUPILS, by Pupil Feature, 2002**



(1) Includes pupils in Year 7 and above in Middle deemed Secondary Schools.
(2) For all Year 11 pupils

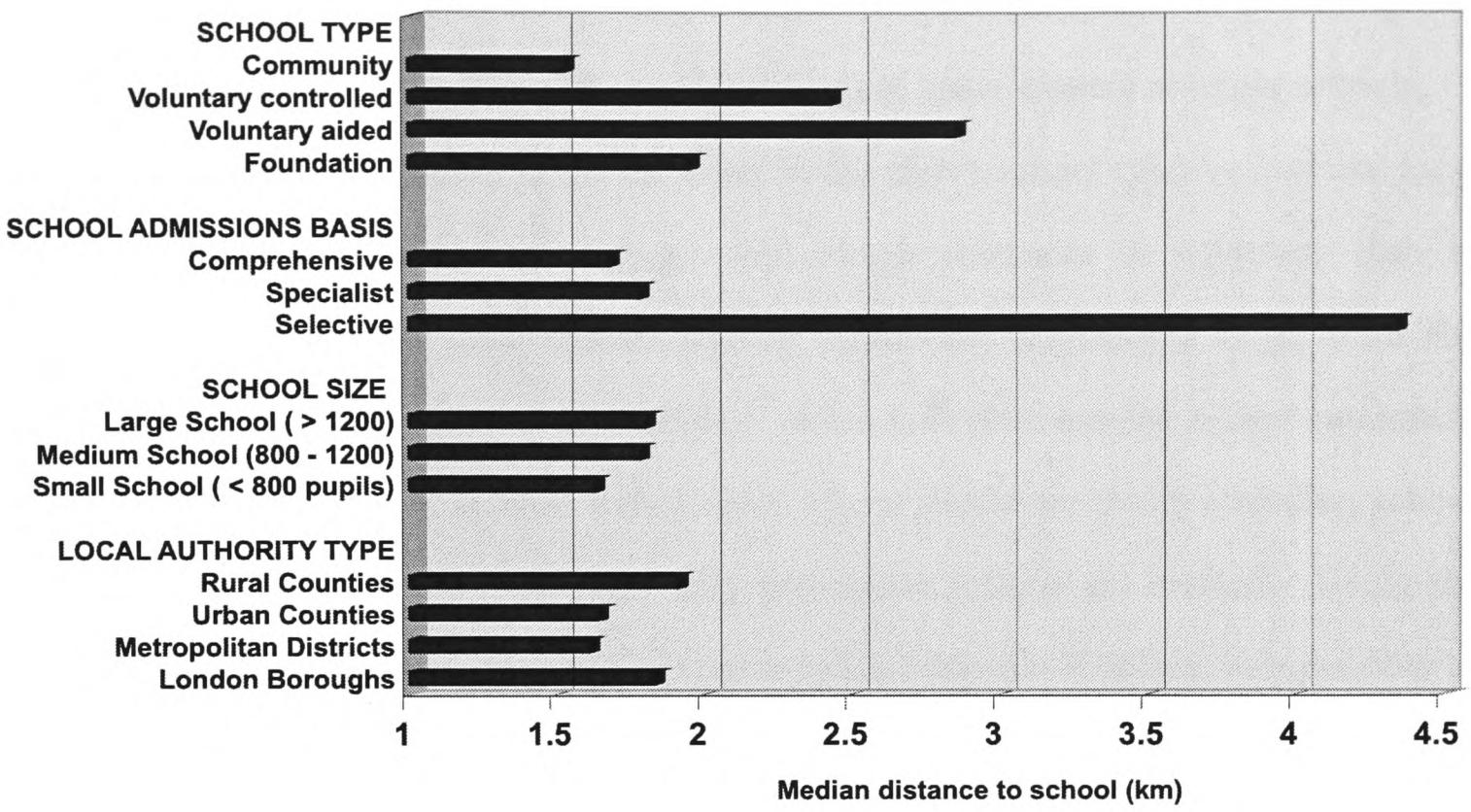
[100] In many ways, the median distance is more reflective of the 'typical' distance travelled to school than the mean, which may be significantly influenced by more extreme cases (even once statistical outliers are removed as they have been in this analysis).

whereby the likelihood of short-distance household moves (in which pupils remain in the same, but now slightly more distant secondary school) being experienced is progressively greater for older children (Smith *et al*, 1999). Distance thus serves as a tenuous proxy for non-local school attendance rates and, as we shall see, it is important to take several other factors including population density into account when taking longer journeys as evidence of active 'choice'.

Perhaps the most intriguing trend revealed by the above table consists of the various distances from home to secondary school for different ethnic groups in England: does this reflect genuine differences between groups or the tendency for ethnic minority groups to be concentrated in areas that require longer journeys? When analysed across a variety of area types, the ethnic differences in distance remain. Secondary aged children from Black Afro-Caribbean households lived further away on average from the secondary schools they attended than other ethnicities in 2002, and pupils from Asian households lived closer to the schools they attended, especially in London. This result corroborates the findings of both qualitative research (Gewirtz et al, 1995, Noden et al, 1998) and previous quantitative results (Smith et al, 1999; Taylor, 2002) showing that pupils from some ethnic minority backgrounds were more likely than white pupils to attend schools farther from their homes.

Overall, pupils residing in London boroughs also lived greater distances, on average, from the secondary schools they attended in 2002 than did pupils in other types of non-rural local authorities (Figure 4.5). This likely signals a wider array of urban transport alternatives as well as a greater number of schooling options within a defined area. The increased use of cars and public transport for school journeys during the past two decades has expanded the travel horizons of many secondary school pupils, 52% of which walked to school as late as 1985 (ONS, 2004). Indeed, between 1985 and 2002 the proportion of 11-16 year olds travelling by car to school increased from 10% to 24% (ONS, 2004), with roughly 20% of rush hour traffic in some urban areas being attributable the transport of pupils to and from school (Worpole, 1999).

Figure 4.5 **DISTANCE TO SCHOOL, ENGLISH SECONDARY PUPILS, by School/Area Feature, 2002**



Pupils attending community schools in 2002 also lived closer to school than those attending voluntary aided and controlled schools who made journeys of more than a kilometre longer on average (Figure 4.5). This presumably indicates the less intense spatial concentration of these schools as well as their more selective appeal. Interestingly, pupils attending foundation schools travel noticeably shorter distances on average than those attending voluntary schools, although not as short as those attending community schools. The reasons for this are unclear, although it may reflect the fact that foundation schools are located in areas that have local populations more inclined or capable of taking up places within schools of that type. The most distinct figures in the table, however, relate to the movement of pupils attending grammar (or other selective) schools who in 2002 lived, on average, more than four kilometres away from the schools they attended.

Despite the clear average differences between school types, however, tremendous amounts of variation also existed *within* school types: pupils may travel as little as half a

kilometre on average to get to an urban foundation school in the north, for example, but as far as 12 kilometres on average for a foundation grammar school in parts of the south. Finally, and perhaps unsurprisingly, schools with larger school rolls also tended to have pupils attending from farther away than medium or small size schools, a finding that reflects the greater number of spaces (and likelihood of spare places) at larger schools.

The overall differences in the distances to the above school types reveal that local catchment areas have some merit (e.g., with longer distances to voluntary than to community schools) but may nonetheless be somewhat misleading (e.g., with the expected catchments of foundation schools). What size then are the *actual* catchment areas of different types of schools based upon where pupils are really attending school rather than upon where the most physically proximate options are located? Using the distances from pupils home postcode to choice school calculated above, it is possible to construct an *actual catchment radius* for each school—a distance composed of the average (mean) distance from home to school for pupils attending that school plus one standard deviation, a composite distance that may be used to construct a circle that encloses 83%[101] of the residences of a school's pupil population. Plugging the *actual catchment radius* for a school into the standard geometric formula for calculating the area of a circle (A= radius of the circle (squared) multiplied by π (3.14)) produces a figure for the *actual catchment area* of the school.[102]

The average maintained secondary school in England in 2002 drew a large majority (83%) of its pupils from a wide residential area, approximately 88 square kilometres (Table 4.3, below)—equivalent to a circular catchment with a 5.3 kilometre-long radius. In many areas, of course, these catchments may be composed primarily of

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[101] Within a normal distribution in statistics, 67% of a population lies between + or – one standard deviation of the mean, and approximately 83% of the population lies below + one standard deviation. The figure 83% also happens to be the percentage of the pupil population travelling 5km or less to the average medium sized school in England (see Table 4.5 above).

[102] Although most school catchment areas are extremely uneven, and not circular, in shape, the area circumscribed by the *actual catchment area* does reflect in most cases the potential population that a school may be drawing from, given the distances travelled to school by its current pupils. The measure is especially relevant given the priority placed on proximity within most schools' oversubscription criteria.

uninhabited land, but they nonetheless give an idea of the size of net that various types of school would have to cast out in order to encompass most of their potential secondary intakes. As illustrated in the maps at the end of this chapter, actual catchment areas are often scattered and 'patchy' in nature and rarely do they consist of discrete, contiguous (much less circular) areas. The size of actual catchments also varies by school and local authority type; for example, voluntary aided and controlled schools in London in 2002 drew children from a wider area than rural community schools did, and even London's community schools drew from wider areas than other community schools located in metropolitan districts or urban counties.[103]

Table 4.3 **SCHOOL CIRCUITS: AVERAGE ACTUAL CATCHMENT AREAS, 2002**

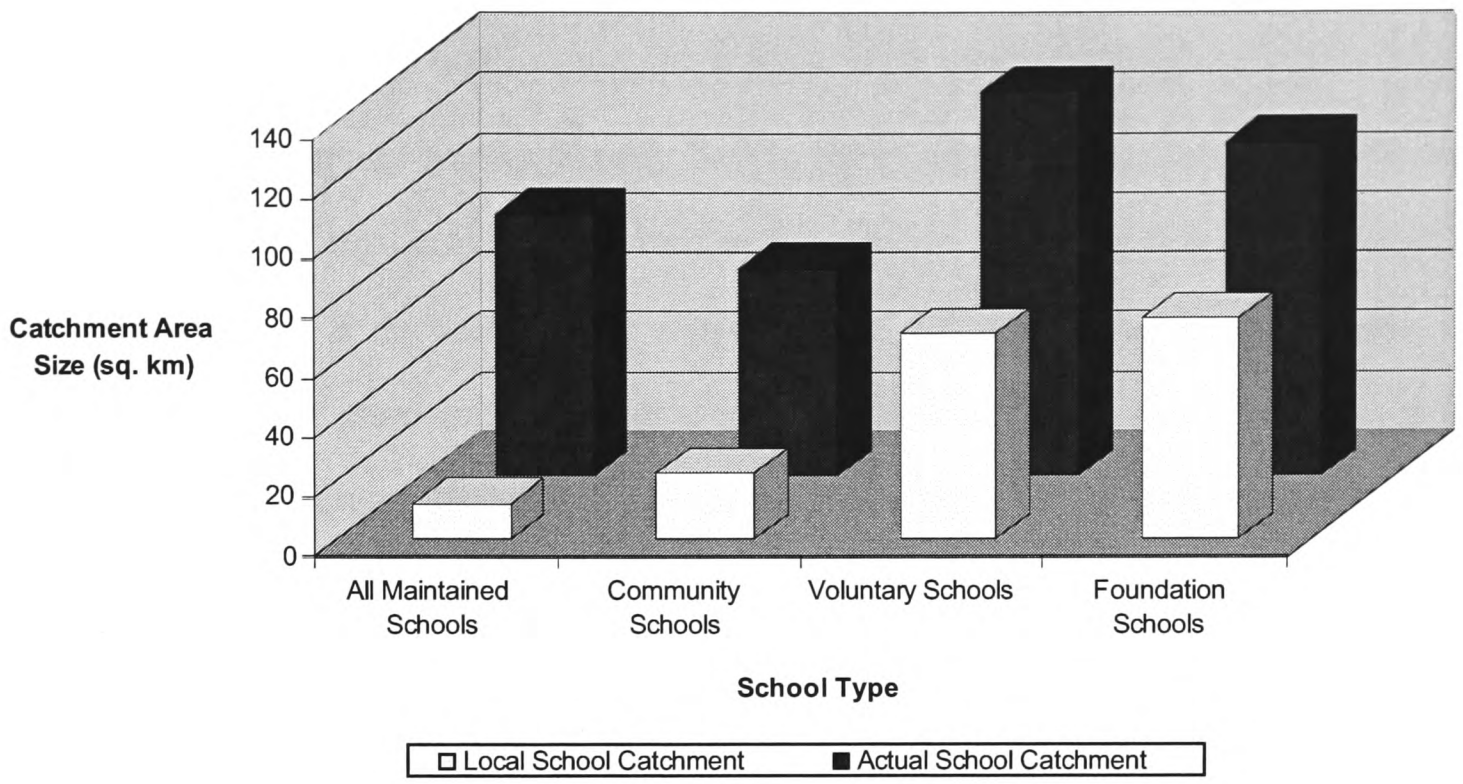
School Circuits	Average Total Area of Actual School Catchments (Sq. Km)
All Maintained Schools	88 *
Community Schools	70
Voluntary Schools	129
Foundation Schools	112

* Mean Catchment Area for All schools

Comparing the size of the average *local catchment area* for each school type (which reflects more the rough spatial distribution of different school types) with their *actual catchment areas* for 2002 illustrates that voluntary schools, despite possessing the same approximate local catchments sizes as foundation schools on average, are in reality drawing from a wider area than foundation schools (Figure 4.6, below). This appears to be true across different types of area and suggests that foundation schools, although largely autonomous and composed of former GM schools, are in general serving their local areas more closely than their voluntary counterparts (but not as closely as do community schools on the whole).

[103] See Research Methods Annex.

Figure 4.6 **ACTUAL V. LOCAL CATCHMENT AREAS: by School Type, 2002**



As this examination of the actual catchment area sizes of secondary schools reveals, it is becoming increasingly difficult for schools and local authorities to anticipate the size of school rolls based on the population of children within the immediate vicinity of the school. The scale of the areas being catered to by schools within the education market, however, cannot directly inform us about the number of schools competing within a particular local market or the proclivity of pupils in different areas to choose a secondary school beyond their local one. In the next section, the levels of 'market activity' occurring within the lived marketplace will be explored in further detail.

The Market Activity of Secondary School Pupils

'Active Choice' and Non-Local Schools

Simple measures of distance between pupils' homes and the secondary schools they attend may not be synonymous with choice within the education market as we have seen. The length of school journeys reflects, among other things, the density of schools and users in an area, and likely relates to the age of individual pupils as well. However,

while distance itself may not be an adequate proxy for the level of choice being exercised, the extent to which pupils are foregoing the nearest school might serve as a more reliable indicator of 'active choice' (Echols *et al*, 1990; Smith *et al*, 1999; Taylor, 2001). Of course, many pupils already live in areas with high quality local schooling (perhaps because of residential relocation) or possess local schools that are desirable for other reasons (e.g., a denominational school within an ethnic 'enclave'). These will obviate the need for choosing a non-local school. Furthermore, such a measure cannot account for the different alternatives canvassed by parents, or for how 'frustrated' their choice may have been by the number of realistic options.[104] Attending a non-local school, moreover, may not necessarily indicate an affirmative exercise of a particular schooling preference but may instead be a product of a 'forced' choice (e.g., for excluded pupils) or a 'negative' choice (e.g., for pupils moving residences but attending the same school as previously).

Despite these several caveats and exceptions, however, non-local school attendance remains a valuable indicator of 'active choice' within the education marketplace. Given, for example, that a majority of schools have, both historically and under open enrolment, operated local catchment areas based upon residential proximity, and that school transport systems generally encourage parents to use the nearest school (Fitz *et al*, 2002), it is not unreasonable to consider attendance at a non-local school as the best indicator of active choice (in lieu of surveying all choosers directly). There is also a great deal of research to suggest that the majority of parents will opt for the convenience of their local school if it meets certain basic standards (e.g., Adler *et al*, 1989; Gewirtz *et al*, 1995).

This section will thus focus on 'market activity' from the perspective of the individual consumers (parents and pupils) confronting the local education market.

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[104] Parents and pupils who consider different schooling alternatives but ultimately opt in favour of their local secondary are certainly participants in the education market, even if their final decisions do not reflect this activity for analytical purposes. However, according to Government figures, about 90% of parents and pupils successfully gained admission to the school of their 'choice' in 2002 (DfES, 2003).

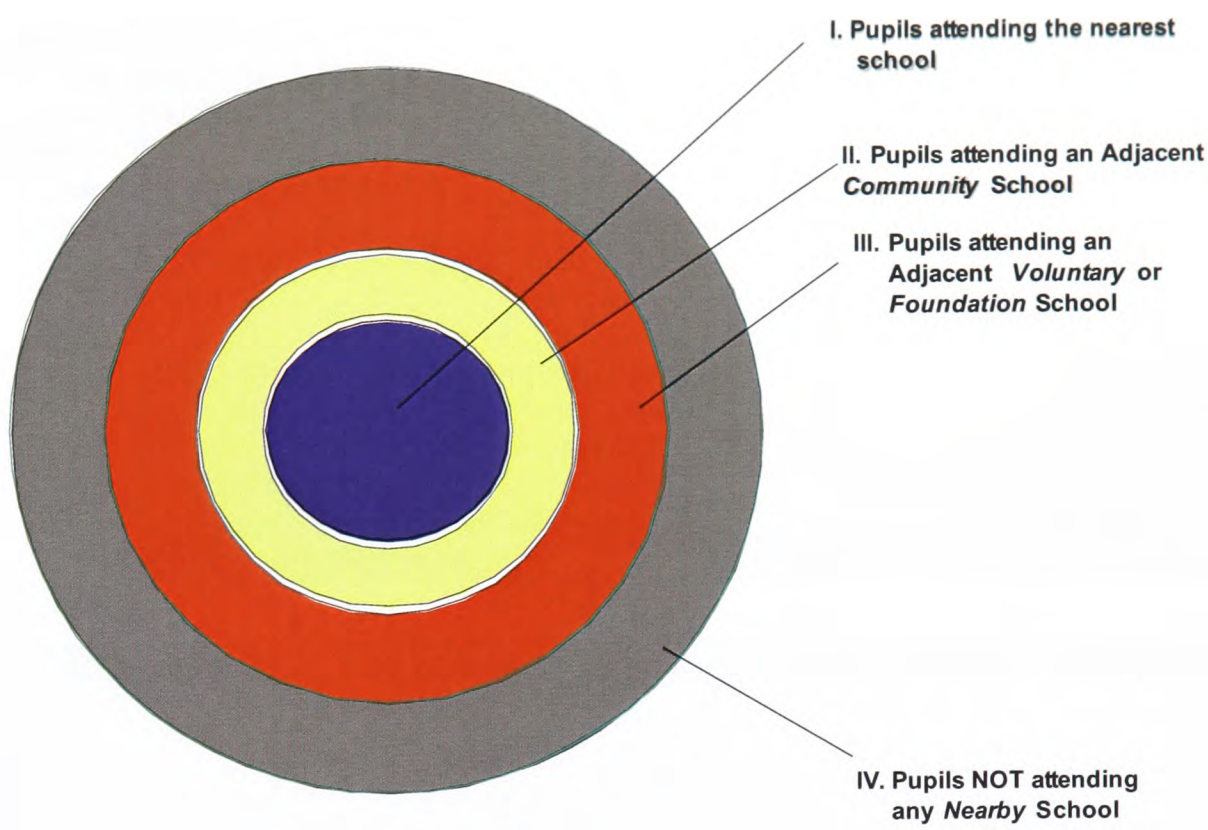
Although a few studies (Echols *et al*, 1990; Smith *et al*, 1999; Parsons *et al*, 2000; Taylor, 2001) have attempted to measure quantitatively the degree to which parents and pupils are active within their local markets, all previous attempts have limited the investigation to a handful of selected local authorities. For the purposes of this analysis, however, the information on pupil residential location in PLASC has been combined with the *local catchment areas* created for the different types of schools above. In order to measure active school choice, the following three-step procedure was used:

1. Each Census *Output Area (OA)* in England[105] was assigned to the nearest a) secondary school (all types), (b) community secondary school (c) voluntary (aided or controlled) secondary school, and (d) foundation (including CTCs) secondary school. This means that every neighbourhood in England has been assigned its nearest community, voluntary, foundation, and overall secondary school.
2. These school assignments are next attached to every secondary pupil in PLASC so that for each pupil living in a respective OA, it is thus possible to identify which local catchment areas that they fall within. Thus, for each pupil it is possible to identify the nearest overall school (and school of each type) to their residence.
3. These *hypothetical* school assignments were then compared, for each individual pupil, with the school they *actually* attend, producing an indicator of whether they attend (a) their nearest school, (b) an adjacent community school (nearest community school that is not the most proximate school), or (c) an adjacent voluntary or foundation school (nearest voluntary or foundation school that is not the most proximate school). Figure 4.7 provides a diagram illustrating the different levels of 'market activity' that this exercise produces.

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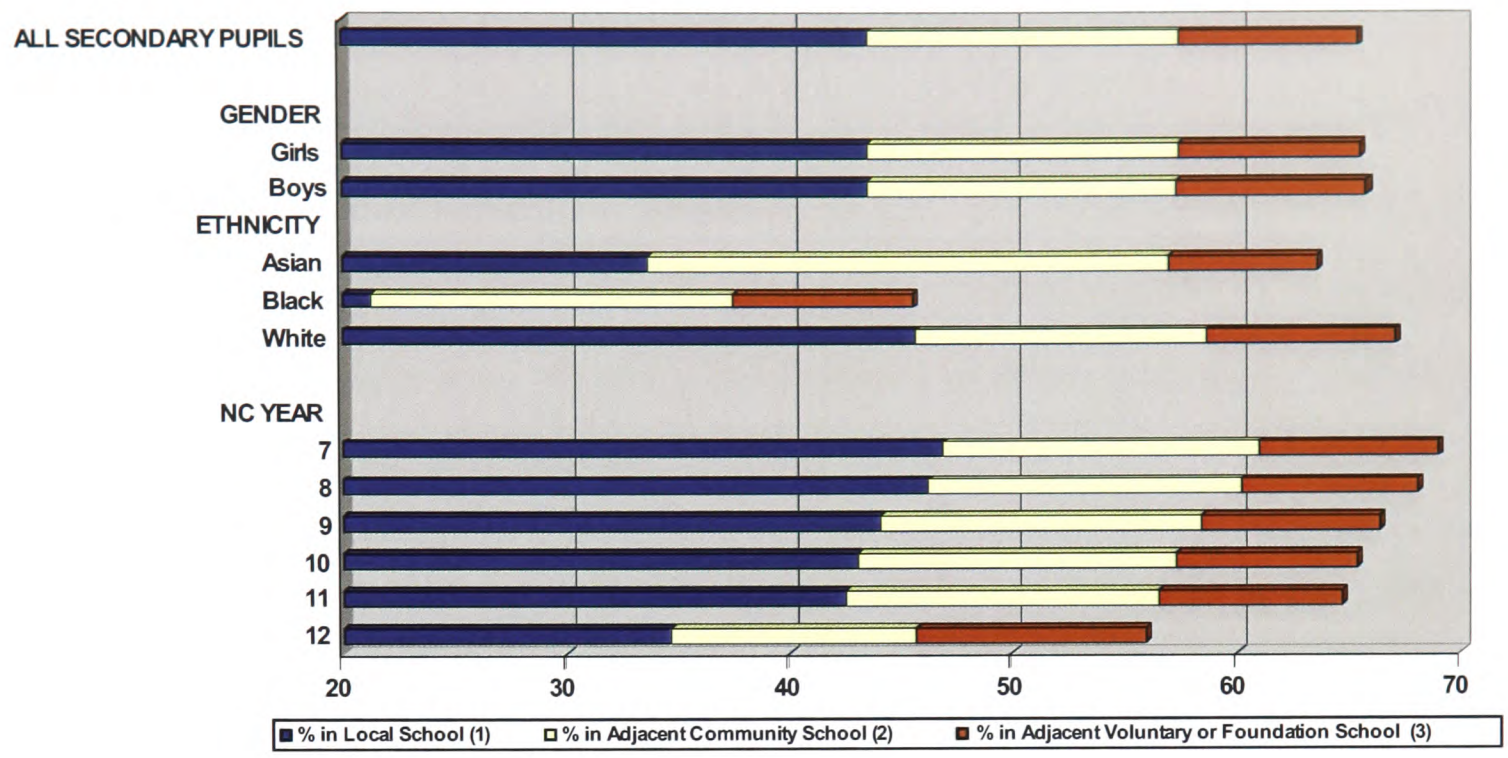
[105] As illustrated in Chapter 3, there are over 160,000 Census Output Areas in England, the average size of which is only 0.07 square kilometres.

Figure 4.7 **LEVELS OF MARKET ACTIVITY**



The results of this exercise reveal that across England, 44 % of pupils attended their most spatially proximate, or '*local*', secondary school in 2002, and 65% attended a school that was either local or reasonably adjacent—i.e., a '*nearby*' school. The levels of market activity employed by pupils, however, tend to vary on the basis of certain pupil features (Figure 4.8). Again, pupils from ethnic minority backgrounds, particularly Black Afro-Caribbean pupils, were less likely to attend a nearby school than their White counterparts (45% vs. 66%) and pupils in higher National Curriculum year groups again were progressively more likely to travel beyond their local schools. The attendance patterns of FSM and non-FSM pupils will be compared in Chapter 5.

Figure 4.8 **PUPILS IN LOCAL AND ADJACENT SECONDARY SCHOOLS, By Pupil Feature, 2002**



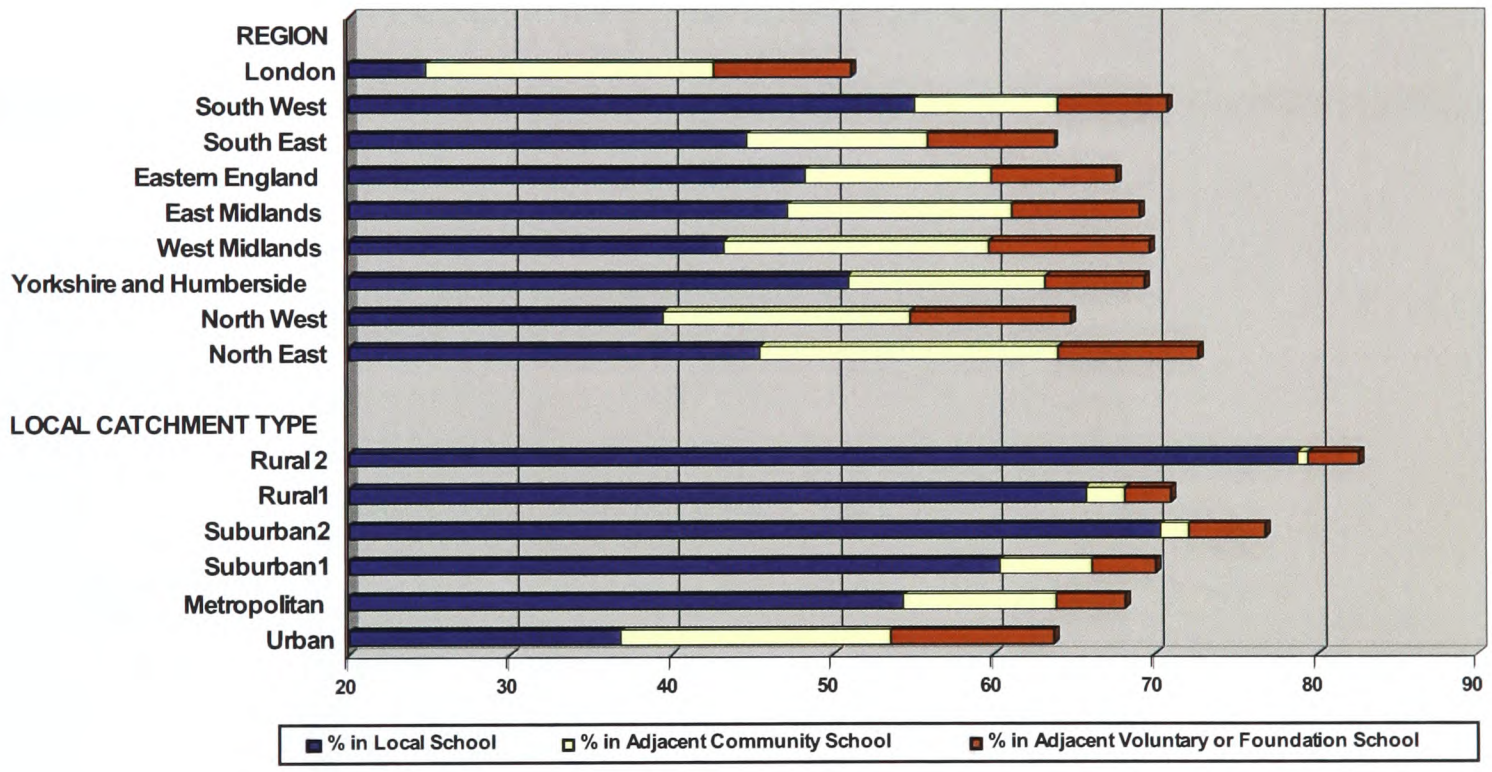
(1) Pupils attending the most spatially proximate school of any type.
(2) Pupils attending either a) the nearest community school that is not the most proximate school to them overall, and b) any other community school that is within 2km.
(3) Pupils attending the nearest voluntary or foundation school even if it is not the most proximate school to them overall, excluding pupils, however, that live less than 5km away from their nearest school but who journey at least twice as far (and more than 5km) to school.

Which types of areas are the most likely to have pupils attending non-local secondary schools? Clearly the 'incidence of choice diminishes as the distance of alternative schools to home increases' (Echols *et al*, 1990: 209), and densely populated areas with many schooling options, such as London and other urban authorities, will have more pupils taking on the relatively lower marginal costs and added effort involved in pursuing non-local alternatives (Figure 4.9). It is nonetheless particularly striking how much less likely pupils from London boroughs were to attend their nearest school in 2002 than pupils even in other urban areas of the country, which signals the relevance of factors such as public transport options, traditional consumption of non-local schools,[106]

[106] After all, a single body, the Inner London Education Authority (ILEA), traditionally administered school admissions for all inner London maintained schools, meaning that the spatial

and perhaps even a certain spatial mismatch between consumers and school preferences in certain areas. Interestingly, the South West—one of the regions with the highest proportion of pupils in the independent sector—also had the greatest percentage of pupils attending their nearest school: does this suggest that the private sector has 'poached' the families most likely to utilize choice (Bradford, 1993)? It is more likely, however, that the high proportion reflects population density and the limited number of local options (confirmed in the proportions attending local school in rural catchments, and in the regression analysis in the next section).

Figure 4.9 **PUPILS ATTENDING LOCAL AND ADJACENT SECONDARY SCHOOLS, by Area, 2002**



It appears that, on average, less populated suburban and rural areas (with a lower density of provision) contain a higher percentage of pupils attending their local school, a finding that confirms other local studies (e.g., Adler *et al*, 1989; Parsons *et al*, 2000) showing that rural catchment areas generally are more 'watertight' than urban ones. Levels of market activity, however, will inevitably vary depending upon the quality of the incentives for choosing a non-local school. It is thus also useful to look at which

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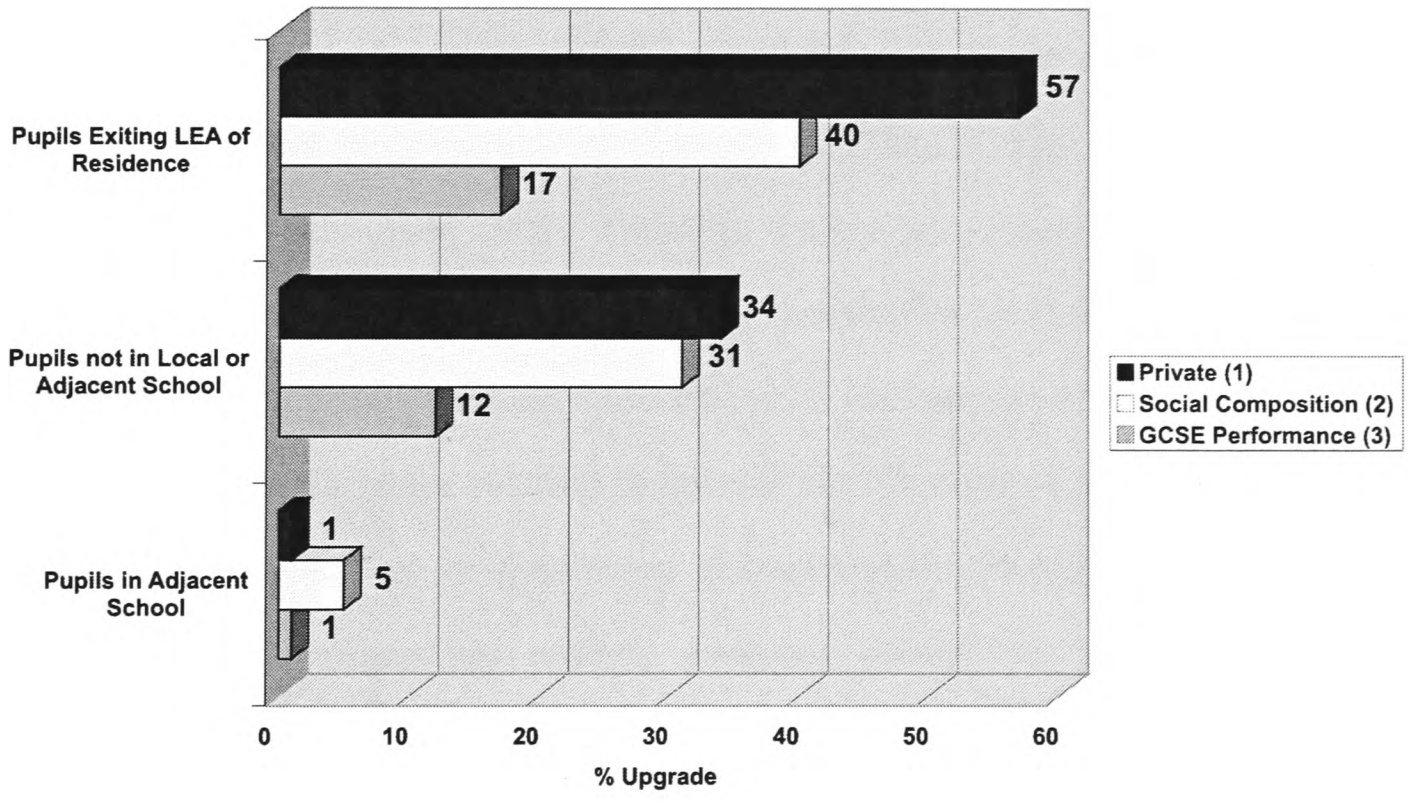
permeability (i.e. inflows and outflows of pupils attending school) of LEAs in inner London is more pronounced than in other areas of the country.

types of schools are being attended by non-local pupils. In 2002, pupils attending non-local secondary schools were more heavily concentrated in voluntary aided and selective (grammar) schools than the population of secondary pupils at large. Is this a reflection of pupils seeking 'better schools' than their local one? Amongst those pupils *not* attending local secondary schools:

- 51% attended schools with higher GCSE pass rates,
- 13% attended more selective[107] schools, and
- 62% attended less disadvantaged schools[108]

Although 39% of pupils that were not in their local school attended an adjacent institution, it was primarily those pupils that bypassed local *and* adjacent schooling options that tended to 'upgrade'—to attend a school that is higher performing, more

Figure 4.10 **SCHOOL UPGRADES: QUALITY OF LOCAL SCHOOL VS. SCHOOL ATTENDED, 2002**



(1) Percentage increase in private state score: attendance school versus local school.
(2) Percentage decline in proportion of pupils on free school meals: attendance school versus local school.
(3) Percentage increase in points score: attendance school versus local school.

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[107] As measured by the school's *private-state score* (see Chapter 3, p. 71 for an explanation).

[108] A higher rate is defined as one that is at least 5% greater as regards the dimension in question, e.g., attending a non-local school that has a GCSE pass rate that is more than 5% higher.

selective, or less disadvantaged than the school that is most spatially proximate. On average, pupils that did not attend local or adjacent schools in 2002, *upgraded* to schools with 12% higher GCSE scores, that were 34% more selective, and that had 31% fewer disadvantaged pupils than their local school (Figure 4.10). Thus, on average, for those pupils attending non-local schools in England in 2002, doing so signified a general movement to schools that performed better, were more selective, and had fewer disadvantaged pupils.

Determinants of Non-Local School Attendance

The above findings do not permit robust conclusions regarding the relative importance of several factors—including population density, local schooling options, and neighbourhood characteristics—in influencing the likelihood of a pupil attending a non-local school. Multiple regression analysis, however, provides a means for isolating the factors involved in non-local school attendance, determining their relative importance, and drawing conclusions beyond the aggregate tendencies laid out above.

Which factors best predict whether an area had a high proportion of pupils attending non-local schools in 2002? Previous studies have found that the largest effect on the exercise of choice was structural (i.e. the number of local options available) with some additional influence stemming from the social background of 'choosers' (Echols *et al*, 1990). Entering variables relating to several key features of the local market place (spatial considerations, area or population characteristics, schooling options, schooling quality) into linear regression models produces robust yet parsimonious models predicting the proportion of a local authority's pupils that did not attend a *local* or *nearby* (neither local nor adjacent) schooling options in 2002.

The best model (Table 4.4) of the proportion of an area's pupils not attending their nearest school possesses four factors that explain three-quarters of the LEA variance: distance to nearest school, manual class employment levels, variations in school performance levels, and the social composition (%FSM) of local schools. As in previous studies, the strongest predictor of the proportion of pupils foregoing their

nearest school was the distance to the nearest school: selecting a non-local school was significantly more likely to occur in urban areas where schools are located closer to pupil residences. The model as a whole suggests that the highest levels of non-local school attendance in 2002 were found in urban areas with relatively low numbers of working class families[109] but which possessed large differences in school performance (measured by school variation in GCSEs) and local school compositions that were relatively deprived (or at least more deprived than the school that migrating pupils ultimately attended). Interestingly, the proportion of ethnic minorities in the local population drops out of the model once distance measures are entered, suggesting that urban-ness is a better predictor than ethnicity of non-local attendance at the area level (although coming from an ethnic minority group is associated with a higher likelihood of non-local choice in the individual level logistic regression below).

Table 4.4 **PREDICTING THE % OF LEA's RESIDENT PUPILS NOT ATTENDING THEIR LOCAL SECONDARY SCHOOL, 2002**

Explanatory Variables	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	T	Sig.
Constant	.864		15.419	.000
Mean Distance to Nearest School (km)	-25.360	-.413	-7.329	.000
% of Working Age Persons in Manual Occupations	-.792	-.347	-7.902	.000
GCSE Variation (St. Dev.) of LEA Schools (points score)	2.016	.310	7.051	.000
% of Pupils Eligible for FSM in Local School	.317	.225	4.247	.000

R squared= .764, df=4

Do the same factors explain choice of schools that are not nearby (i.e., not local or adjacent)? A model predicting the level of choice of non-nearby schools (Table 4.5,

[109] The level of working class families was a stronger negative predictor of non-local choice than the level of service class families was a positive predictor.

below) contains three of the same predictors as the non-local model— manual class employment levels, variations in school performance, and the social composition of local schools—and explains about two thirds of the variance (R squared = .676). The average distance to local schools, however, notably drops out as a predictor of attending non-nearby schools, and is replaced by a new factor, the level of selective schooling available within the local authority. This suggests that the distance to the nearest school makes no significant difference to the numbers of children opting for a non-nearby school. Rather, the availability of more selective schools adds explanatory power to a model that now centres largely upon the class background of local residents. Thus, the exercise of choice beyond simply bypassing the most proximate school apparently becomes much more of a matter of differential (aggregate) class responses to variations in school options, performance and social compositions than a matter of convenience and local preference.

Table 4.5 **PREDICTING THE % OF AN LEA's RESIDENT PUPILS *NOT* ATTENDING ANY NEARBY SECONDARY SCHOOL, 2002**

Explanatory Variables	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	T	Sig.
Constant	39.051		9.991	.000
% of Working Age Persons in Manual Occupations	-.872	-.448	-8.374	.000
GCSE Variance (St. Dev) of LEA Schools (points score)	1.130	.211	3.412	.001
% of Pupils Eligible for FSM in Local School	.333	.280	5.739	.000
Private State Score (LEA mean)	3.603	.302	4.544	.000

R squared= .676, df=4

Finally, as a result of PLASC, an individual level logistic regression analysis may also be performed to ascertain which factors increase or decrease the odds of a pupil not attending a *nearby* secondary school (Echols *et al*, 1990). The pupil level variables contained in PLASC, along with various school- and area-based indicators that can be

'merged' into the schools and residences of individual pupils, allow a host of independent variables encompassing pupil background as well as characteristics related to pupils' schools, neighbourhoods and areas to be factored into a logistic regression model with more than three million cases. The resultant model unsurprisingly possesses significant and precise likelihood estimates (measured in odds ratios[110]) (Table 4.6) for all 18 independent variables, although the overall predictive strength of the model is moderate: only about a quarter of pupils in non-nearby schools in 2002 were correctly

Table 4.6 **LOGISTIC REGRESSION ON THE ODDS OF ATTENDING A NON-NEARBY SECONDARY SCHOOL (INDIVIDUAL LEVEL), 2002**

N=3,170,165

Independent Variables	Chi Square (Block)	Exp (B)	Standard Error
BLOCK 1: Pupil Characteristics	24209		
Sex (Female)		.989*	.003
Age		1.058*	.001
Disadvantage (FSM)		.954*	.004
Ethnicity (non-white)		1.309*	.005
BLOCK 2: Spatial Characteristics	63625		
School Density (Schools per 100 sq.km, LEA)		1.016*	.017
Distance to Nearest School		1.000*	.000
BLOCK 3: Neighbourhood Characteristics	29620		
% Pupils eligible for FSM in OA		1.012*	.011
% Manual Class Households in OA		.988*	.020
% Service Class Households in OA		.999*	.020
BLOCK 4: School Characteristics	136988		
School Roll		1.000*	.000
Selectivity (Private State Score)		1.124*	.001
Social Composition (% FSM)		.982*	.022
Performance (GCSE Pass Rate)		1.000*	.001
Relative Disadvantage (vs. LEA)		.998*	.004
Relative Performance (vs. LEA)		1.007*	.024
BLOCK 5: Local Authority Characteristics	15313		
Segregation of Disadvantaged Pupils (SI)		1.006*	.030
% Secondary Pupils not in Maintained Sector		1.019*	.033
Variance in School GCSE Pass Rates		1.001*	.001
(Constant)		.162*	.029

*=P<0.001 Model Chi-Square = 269757 for 18 df

Cox and Snell R Square = .088 % of Non-Nearby School Attendees Classified Correctly: 24.5

[110] For odds ratios a value of 1.00 signifies equal odds, while greater than 1.00 represents an increased probability of being successfully identified by the dependent variable in question (in this case attending a non-nearby secondary school), and less than 1.00 represents a reduced probability.

identified as such based on the information provided by the variables. Factors beyond the most quantifiable social and educational indicators were clearly influencing the likelihood of parents sending their children to non-local secondary schools. Nonetheless, some striking relationships emerge from the model. True to the aggregate mobility findings above, pupils from ethnic minority backgrounds were 31% more likely to be attending a non-nearby school than their white counterparts. The odds of attending a non-nearby secondary school for pupils were also raised by being older, having more schooling options, and attending schools that were more selective and with higher attainment levels. Pupils eligible for free school meals, and those hailing from more working class neighbourhoods, however, were less likely to bypass local and adjacent schooling options in 2002—a finding that will be explored in greater detail in the next chapter.

Modelling Alternatives

In order to illustrate the extent of market activity that is occurring within the English education market and to highlight the importance of some of the above relationships, it is useful to model some alternative 'choice realities.' For example, one may compare the distances that pupils lived from the secondary schools they attended in 2002 with the hypothetical distances they would travel if every child attended his or her nearest secondary school. Comparing the distances computed in PLASC reveals that English secondary pupils travelled approximately 4.9 million kilometres per day farther to school in 2002 (or 9.8 million kilometres for a return journey) than if each pupil had attended his or her local school. Although this broad figure does not take into account more realistic travel routes, it does provide a good illustration of just how much extra travel is entailed under an open enrolment system.

Furthermore, allocating pupils to the nearest school (and without respect to school size) does not result in many significantly small or large schools—only 5% of schools have either less than 200 pupils or more than 2,000 as a result—a fact that suggests that secondary schools are fairly evenly distributed in space across the country.

Average school size, however, shifts differently for different types of schools: community schools would have gained an average of around 50 pupils if all children had attended their local school in 2002, while voluntary and foundation schools would have declined in size. This is yet another indication that these schools draw significantly greater numbers of pupils from outside of their local area (Table 4.7).

Table 4.7 **SCHOOL SIZE AND GCSE PERFORMANCE: ACTUAL V. LOCAL COUNTERFACTUAL**

Institution Type	Mean School Size	'Local' School Size	Mean School GCSE Pass Rate	'Local' School GCSE Pass Rate
Type of School				
Community	901	956	46	53
Voluntary controlled	879	739	59	58
Voluntary aided	850	778	59	53
Foundation	1060	954	60	59
School Admissions Basis				
Comprehensive	862	915	46	53
Specialist	1158	1001	55	56
Selective	900	691	97	62

Note: 'Local' school figures calculated by assigning all pupils to their most spatially proximate secondary school regardless of capacity.

Compulsory local school attendance would also mean that community schools and schools with comprehensive admissions policies would have seen their average GCSE pass rate (% of pupils attaining five or more A*- C scores) improve by 15% in 2002, while other school types, particularly grammar and voluntary aided schools, would have experienced considerable declines in overall performance.[111] This illustrates, among other things, that certain types of school typically draw more able pupils than those present in their immediate area, perhaps not unsurprisingly given academic and denominational selection policies. Whether this reflects 'cream-skimming' of able pupils by schools (via selective admissions for example) or legitimate value-added

[111] These hypothetical calculations assume that pupils will perform the same on GCSE regardless of the type or quality of school they have been attending. Nevertheless, it provides a good approximation of how a school's local talent pool compares to its actual intake.

performances is difficult to ascertain. The former appears more likely given the consistent finding that pupil backgrounds affect performance and ability more than schools do. This relationship between mobility and performance will be examined more closely in Chapter 7.

Patterns of Competition

Permeability: The Exchange of Pupils between Areas

Given the level of pupil movement within the lived market described above, and the options being capitalized upon by schooling consumers, it is next useful to examine the implications this movement has for the exchange of pupils between areas and schools. Patterns of competition and variations in the level of 'permeability' will vary by area and for a variety of reasons. According to several earlier studies, secondary school numbers in England have been fluctuating since the early 1990s to an extent compatible with competition and the exercise of choice (Hardman and Levacic, 1997). The levels of competition reported by schools have also increased over that time period (Foskett, 1998). While in 1992, only 16% of head teachers reported competitive local markets, by 1997 86% viewed their schools as engaged in a competitive relationship with other schools, a situation more prevalent in areas with more schools in the local market (Bullock and Thomas, 1997).

At the largest scale, patterns of pupil movement may include exchanges between local authority populations (as illustrated in the funding issues discussed in the previous chapter). Before and after the Greenwich Judgement (outlawing discrimination against pupils in admissions because of their LEA of residence), 'boundary hopping' was common among secondary school pupils, with some LEAs consistently acting as net exporters of pupils and others as net importers (HMCI, 1998). In 2002, urban unitary authorities and London boroughs were generally the most permeable, often losing numerous pupils to surrounding counties (Figure 4.11). Among those LEAs gaining the

most pupils from neighbouring authorities were Gloucestershire, Surrey, Hertfordshire and North Yorkshire—all counties bordering major urban conurbations.

Figure 4.11 **NET PUPIL EXCHANGE, by LEA, 2002**



So are 'boundary hopping' pupils merely from families living close to local authority borders, and is this movement primarily related to proximity concerns? An analysis of the PLASC data (Table 4.8) reveals that only about 9% pupils crossing LEA boundaries for school in 2002 were doing so to attend their local school and only 22% to attend nearby schools, a much lower rate of attendance than exhibited by pupils attending local schools within their LEA of residence.[112] Moreover, pupils leaving their LEA of residence for school tend to live more than three times as far as non-leavers from

[112] It is important to keep in mind that in some cases, especially in the case of older pupils, border crossings may reflect a residential relocation (to a neighbouring local authority) that occurs even as the children remain in the same schools.

the school they attended, and only 52% attended a school less than five kilometres from their homes—figures reminiscent of those listed above for pupils attending grammar schools.

Table 4.8 **COMPARING LEA LEAVERS AND STAYERS, 2002**

Pupil Feature	% in the Nearest School	Any Local or Adjacent School	Median Distance to School (km)	% Under 5km
Pupils Exiting LEA of Residence	9	22	4.84	52
Pupils Remaining in LEA of Residence	47	70	1.62	86

What type of school do LEA leavers attend? Voluntary aided, foundation, and grammar schools are over-represented among the destinations for LEA leavers, and around 60% of leavers attend schools that rank in the top 40% on GCSE performance. Pupils exiting their LEA also unsurprisingly constitute a particularly active sub-group of pupils attending non-local schools, demonstrating an even more pronounced proclivity to upgrade from their local school in order to attain more desirable schooling arrangements. The destinations of pupils leaving their local area for school suggest that schools with certain characteristics are more capable of competing within schooling markets. What exactly, however, constitutes a 'competitive school'? One that successfully retains pupils in its local area? One that serves a particular market niche unrelated to the other schools around it? One that draws high performing pupils from miles around? The next section will explore how successful different types of school are at retaining local school-age populations and 'capturing' additional pupils from neighbouring areas.

Retention and Penetration: Neighbourhood Schools vs. 'Choice' Schools

The existence of widespread open enrolment raises separate issues for different types of school. For some secondary schools, particularly those in rural areas, the existence of

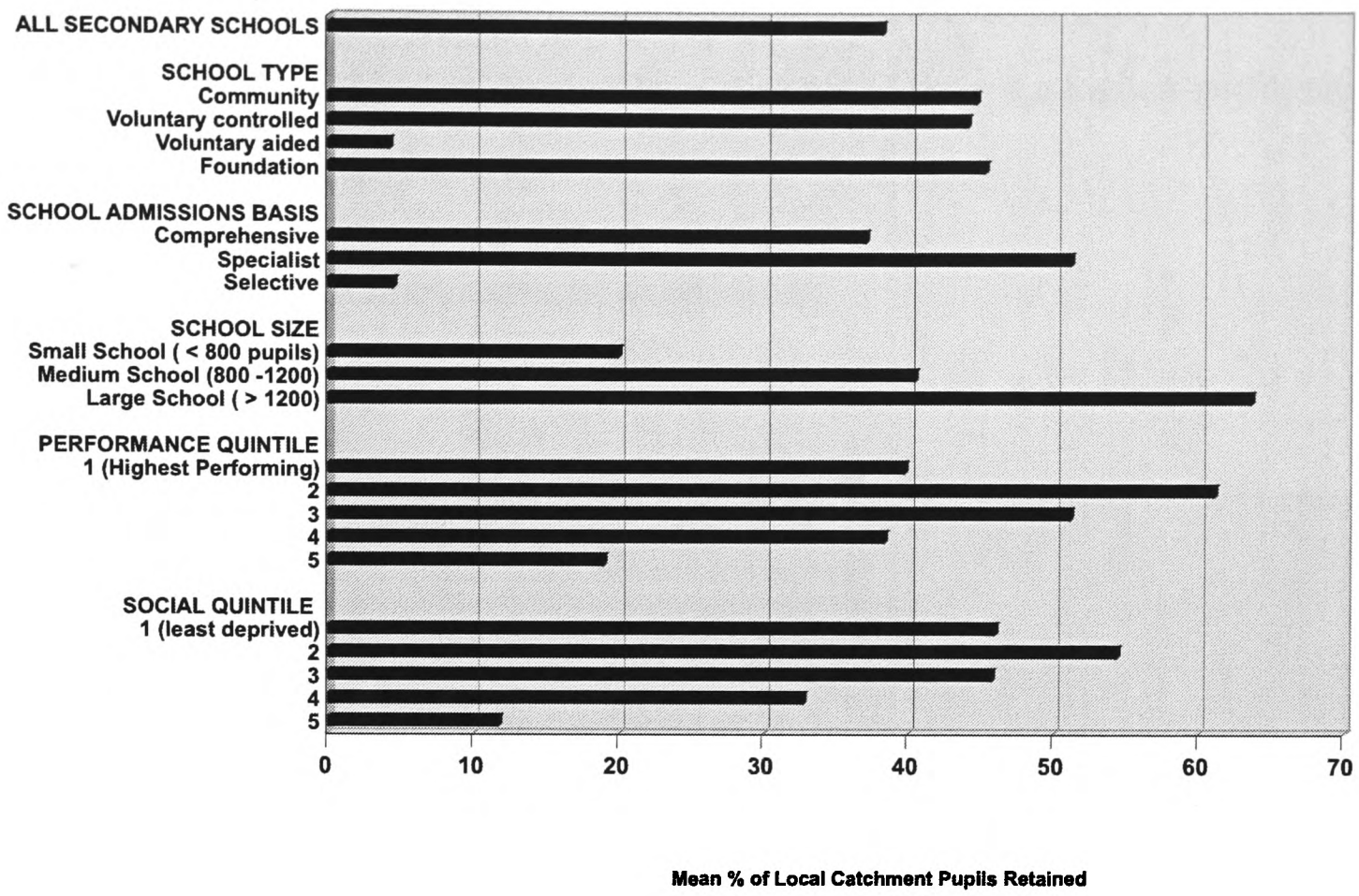
choice does little to disturb an already subdued market dynamic in which competition between schools has always been limited by spatial considerations. For other schools, such as those that have traditionally operated selective admissions procedures, choice will likewise have little effect aside from providing parents in some areas with more non-selective alternatives. On the other hand, some schools will inevitably see their intakes change as soon as zoning and conventional catchment areas are lifted in favour of open enrolment. Schools that have long served as 'neighbourhood' schools for their local communities, for example, could witness an exodus of local schoolchildren that will not necessarily be balanced by an inflow of new ones. In some areas, the mark of a popular school may be simply its ability to maintain its traditional catchment area.

Which schools are most likely to succeed at retaining their local populations? Using school level aggregate figures derived from PLASC a *retention rate* for each school can be calculated based on the proportion of pupils within a school's *local catchment area* that are attending that school. English secondary schools in 2002 retained, on average, 43% of the pupils in their local areas (i.e., local catchment areas), but retention varied considerably depending on several school features (Figure 4.12). It is clear that aside from voluntary aided and grammar schools, which—with their more selective appeal and admissions policies—do not in general rely on being able to retain the local population of schoolchildren, most maintained secondary schools, including foundation, specialist and voluntary controlled, held on to about half of their local pupils on average. Moreover, schools with large capacities, high exam results and more advantaged compositions also unsurprisingly retained more local pupils in 2002. A logistic regression confirms that 'neighbourhood schools' (those with retention rates of greater than 50%) tend to be large, less selective schools catering to larger (i.e., less urban) local catchment areas.[113]

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[113] A three factor model predicting the odds of being a neighbourhood school (Chi square 1024, df=4) emerged which explained 32% (Cox & Snell R square) of the school level variance. The three independent variables (and their odds ratios) were: Size of Local Catchment Area in sq km (1.021), Selectivity of School (.709), and Size of School Roll (1.004).

Figure 4.12 **SECONDARY SCHOOL RETENTION RATES, 2002**



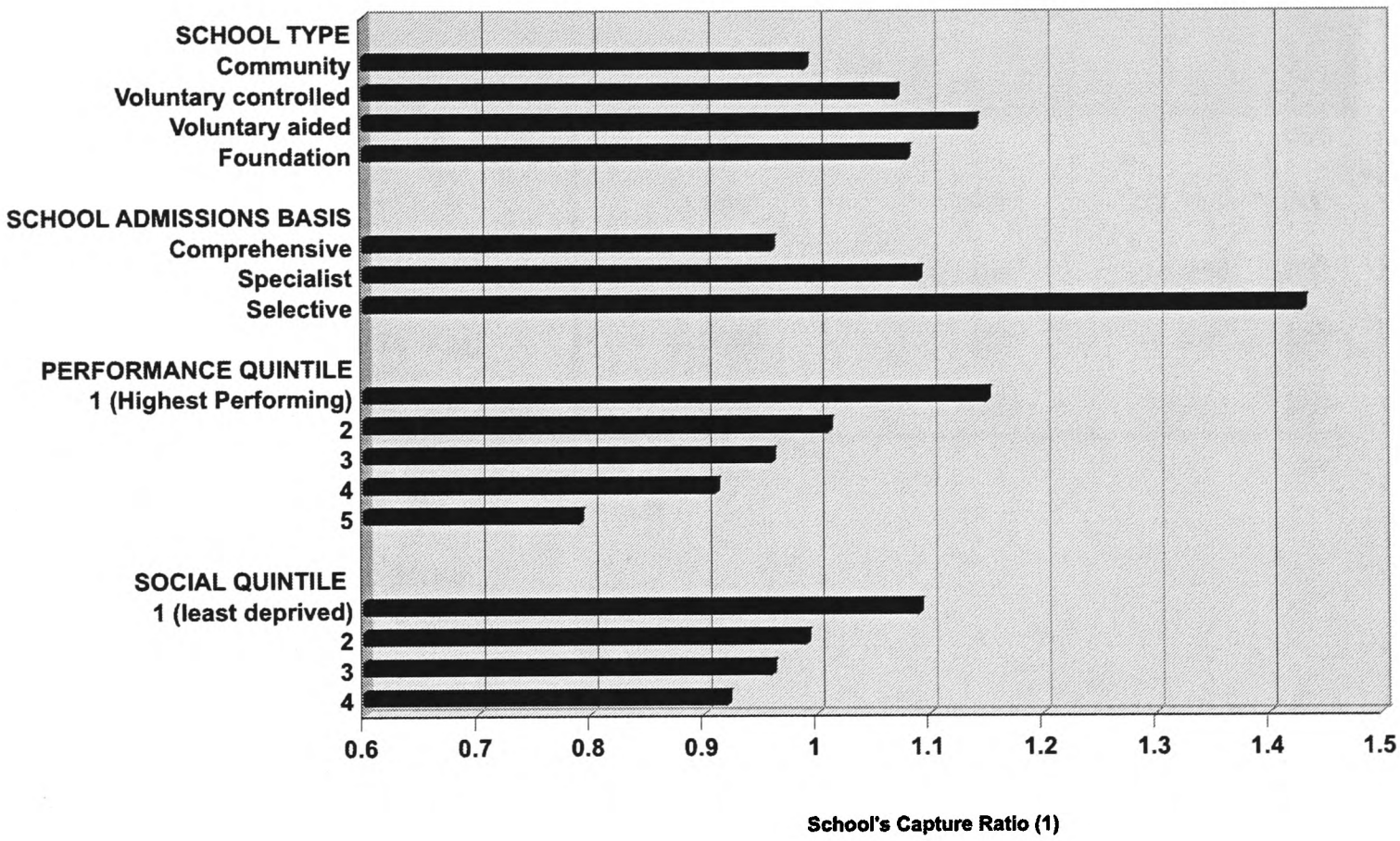
As illustrated above, schools, particularly non-comprehensives, may not be retaining local pupils but instead drawing non-local pupils from neighbouring areas and, in some cases, from across local authority boundaries. Some schools possess the capacity and/or appeal to both retain locals and draw non-local pupils. One way of looking at how well a school is 'capturing' the market of schoolchildren in local and surrounding areas is to compare the GCSE performance of the pupils that attend the school with those of pupils living in the same areas but attending different schools, which can be calculated by a ratio of the GCSE scores for actual attendees and attendees' home areas.[114]

'Choice' schools are those that are the most attractive to schooling consumers and, partly as a result of this, are themselves most likely to exercise choice over the quality of their pupils. As Figure 4.13 shows, *choice schools* are in many ways the

[114] An attendee's home area for this purpose is the *local catchment area* for the school nearest to where they reside.

reverse of neighbourhood schools—voluntary aided and grammar schools, for example, do not exhibit high retention rates on average, but do succeed on average at capturing the best pupils from neighbouring areas. Some schools, however, most notably those with high performance levels and low disadvantage, manage to draw the highest performing pupils from their local areas and elsewhere.

Figure 4.13 **SECONDARY SCHOOL CAPTURE RATIOS (2002)**



(1) Mean GCSE scores of Attendees: Mean GCSE of Attendees' local areas (Ratio)

What factors influence the likelihood that a secondary school will attract a high proportion of non-local pupils? Multiple regression analysis shows that four primary factors influence the chances of a school drawing large numbers of pupils from other areas: the selectivity of the school, the relative disadvantage of its pupils, the size of its local catchment area, and the proportion of minority pupils in attendance (Table 4.9, below). This corroborates other studies (e.g., Parsons *et al*, 2000) showing that the

intakes of denominational and grammar schools were not strongly related to locality or proximity, as well as earlier findings that 'active choice' is tied to factors such as urban location, ethnic minority populations and relative advantage. Interestingly, one factor that does not predict non-local attendance, once other variables such as school selectivity and advantage are controlled for, is the school's GCSE performance level.

Table 4.9 **PREDICTING THE % OF A SCHOOL'S PUPILS THAT ARE NOT ATTENDING A LOCAL OR ADJACENT SCHOOL, 2002**

Explanatory Variables	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	T	Sig.
Constant	31.801		29.375	.000
School Selectivity (1)	3.989	.367	23.166	.000
Relative Disadvantage (2)	-0.0087	-.254	-15.244	.000
Local Catchment Area (Sq. Km)	-0.0060	-.125	-8.106	.000
% School's Pupils that are Non-white	.160	.122	7.930	.000

Model: R square=.287, df=4

(1) School Private State Score
(2) % Difference between School and LEA % FSM

The Extent of Competition: Local Markets

While the patterns of neighbourhood and choice schools shown above illustrate the broad and uneven playing field of school provision in England, the competitiveness of any individual school ultimately depends on its own unique circumstances and the local market of schools that it finds itself competing within. Local schooling markets, however, are difficult to identify and cordon off: they often overlap administrative boundaries and they may contain several different types of school (Gibson and Asthana, 2000).

In order to better get at this complexity, it is necessary to focus analysis upon different areas within England and to examine the patterns of competition occurring

between schools within them. Perhaps the best way to identify from secondary data sources the schools that are in competition with each other is to measure the extent to which schools' *actual catchment areas* overlap and to count how many pupils schools are poaching from neighbouring schools' *local catchment areas* (Parsons *et al*, 2000; Taylor, 2002). One way of measuring the number of schools with which each school is in competition is to create a table of gains and losses, or *exchange matrix*, showing the transfer of pupils between local areas and schools. An exchange matrix graphically demonstrates, for any local market, the number of pupils that each school (horizontal axis) is drawing from the local catchment area of other schools in the market (vertical axis). Pupils entering the core schooling marketplace from other local authorities, or 'imports,' are shaded in red, and those leaving the local market area for schools in other areas, or 'exports', are shaded in blue (see Tables 4.10 and 4.11 below). For data protection reasons, only transfers of 10 or more pupils are shown and the schools and their local areas are identified only with a letter.

Looking first at an example of a more subdued rural secondary market in 2002—Herefordshire's—illustrates well the relatively high retention rates (diagonal in bold) of many rural secondary schools and the low numbers of pupils being drawn from other schools' local areas (Table 4.10). For example, 389 pupils attend School A in Herefordshire, a Community comprehensive (listed with the schools across the top of the table), the majority of whom (322) live in School A's local catchment area. School A, however, also draws 25 pupils from School L's local catchment, as well as 19 from across the boundary in Worcestershire. Of the pupils that live in School A's local catchment (Area A listed in the table's rows), the majority attend School A but many also attend Schools I, K, and L, as well as W2 in Worcerstershire. The two voluntary aided secondary schools, K and L (both denominational), draw pupils from all over the local authority and from almost every other school's local catchment. While there is some cross-border exchange occurring with areas and schools in Worcestershire and Gloucestershire, the majority of this mobility constitutes transfers to reasonably near or

adjacent schools (yet one grammar school in Gloucestershire (G4) does draw Herefordshire pupils from quite a distance).

Table 4.10 **RURAL EXCHANGE: LOCAL SECONDARY MARKET IN HEREFORDSHIRE, 2002**

SCHOOLS		HEREFORDSHIRE SCHOOLS												WORC	GLOUC	
AREAS		A	B	C	D	E	F	G	H	I	J	K	L	W2	G1	G4
Heref. Resid. Pupils	A	322								46		47	12	13		
	B		789	83	132	202					12	77	140			
	C		14	704	329				117			96	135			
	D			29	570							104	68			
	E				15	392		50				22	15			
	F				21		635		99			33	24	21		
	G					21		235				15				
	H								203			21				
	I									655		34	18			
	J										870	58	69		16	13
	K				74							353	35			
	L	25			83					45		289	74			
		IMPORTS												EXPORTS		
Worc. Pupils	W1									66						
	W3	19														
	W4									88			18			
Glouc. Pupils	G1										18					
	G2										67					
	G3										51					
Total Pupils		389	821	830	1248	636	672	298	459	916	1026	1180	630			

(1) Voluntary Aided Schools in Bold
(2) ***Specialist Schools in Italics***
(3) **Grammar Schools Underlined**

Note: Only exchanges of 10 or more pupils shown.

The lived market in London, as usual, comprises a different and far more complex dynamic. If one focuses upon the nine secondary schools in the inner London Borough of Islington and their competitors, an extraordinarily rich market dynamic emerges. An exchange matrix centred upon Islington schools in 2002 (Table 4.11) illustrates a largely three-borough market dynamic between Islington, Hackney and

Camden (though Islington pupils essentially attend secondary school all over London). Clearly this dynamic is relatively unbalanced: in 2002 large numbers of pupils from Hackney migrated to attend school in Islington, while similarly large numbers of Islington pupils crossed the local authority boundary to attend school in Camden.[115]

Table 4.11 **LONDON EXCHANGE: LOCAL SECONDARY MARKET IN ISLINGTON, 2002**

SCHOOLS		ISLINGTON SCHOOLS									*HACK-NEY*		CAMDEN					
AREAS		A	B	C	D	*E*	F	G	H	*I*	*H3*	**H5**	*C2*	*C4*	**C5**	**C6**	**C7**	**C8**
Islington Resid. Pupils	A	136	20	110	174	41	28	35	40	38	27		10		25	14		25
	B	72	76	22	20	47	44		68	52		12	44	246	70	27	17	47
	C	118	33	361	81	110	30	131	48	52			24	14	10	42	15	39
	D	168	46	25	266	29	46	27	44	26	21	12	16	18	21	23		53
	E	143	51	200	33	274	42	131	83	66			33	10	20	73		57
	F	124	51	15	49	71	201	14	84	98		20	43	44	12	20		58
	G	23		101		59	11	123	22	29								
	H								25	14			13	41			13	13
	I	21	28	14	10	33	94		50	110			69	72	13	14	18	64
	C4								14	12			30	119			15	14
		IMPORTS									**EXPORTS**							
Hackney Pupils	H1	25		35		28		73	22									
	H2	10	12			18	12											
	H3	65	19	13	69	23	16	14	25	14								
	H4	69	14	32	18	66	21	35	27	24								
	H5	24	18				21		11	10								
	H6	10				21												
	H7	10						13										
Camden Pupils	C1					10			43									
	C3		10			31			83									
	C5	24	74			27		12	34									
	C6		11			71		14	59									
Total Pupils		**1121**	**542**	**987**	**777**	**1129**	**687**	**717**	**927**	**659**								

(1) Voluntary Aided Schools in Bold
(2) Specialist Schools in Italics

Note: Only exchanges of 10 or more pupils shown.

[115] Although for the hundreds of Islington pupils living in C4's local catchment, this Camden secondary school is their most proximate option.

Although the local authority in Islington uses a proximity admissions procedure (White *et al*, 2001), the sheer density of proximate schooling options almost ensures that local catchment areas are extremely permeable for all schools, and especially for voluntary aided schools (G, H and I), which draw relatively even numbers from across the borough's different catchments. Overall, pupils living in Islington appear to have been attracted to only two specialist schools in Hackney but to several schools in Camden, including three of the highest performing in the borough (C2, C5 and C7) which do not send any local pupils into Islington. Reasonably significant numbers of Islington pupils in 2002 also attended school in Hammersmith and Fulham, Kensington and Chelsea, Westminster, Enfield, Southwark, Haringey and Barnet. Thus, the actual scale of this 'local' secondary market includes most of central London.

Up Close: The Lived Marketplace from Above

Mapping Secondary Schools' Actual Catchment Areas

The exchange matrices constructed above provide some idea of how broad or constrained the actual catchment areas of some secondary schools are, and, to what extent schools are attracting pupils from non-local neighbourhoods (and from the 'catchments' of other schools) via the marketplace associated with open enrolment. The best way, however, to illustrate the diversity of secondary school attendance in England today, and to get a feel for the landscape of the 'lived marketplace,' is to map the actual catchment areas of individual schools. Catchment area maps are nothing new: they have been drawn up by schools and admission authorities for years to guide admissions, and may strongly influence, among other things, local housing prices (Cheshire and Sheppard, 1995) and plans for future provision. Carefully delineated local school catchment areas—now used by most schools and authorities as a primary criterion in the case of oversubscription (and no longer in the first instance as an arbiter of enrolment)—do not, however,

adequately reflect the actual neighbourhoods and broader areas that are being served by many secondary schools.

The individually postcoded pupil data in PLASC provides an unprecedented glimpse into the actual catchment areas of secondary schools in England. The easiest way to map the locations of school attendees' is to plot the geo-coordinates of their postcodes, and those of the school attended, onto a map of local areas. For a highly localized urban comprehensive, for example, this method (Figure 4.13, below) reveals a cluster of pupil residences in the neighbourhoods immediately surrounding the selected school as well as other secondary schools in the vicinity, providing a direct illustration of the residential neighbourhoods from which a school's intake originates. The following maps depict the residential neighbourhoods of *all* attendees in 2002 (and not just those pupils in Year 7 who have recently 'chosen'), and thus this will inevitably include some older attendees that have moved residence since entering the school (though remain enrolled despite living, on average, farther away from it).

For data protection reasons (i.e., not identifying individual pupil's residences) and presentational clarity, however, it is more appropriate to aggregate pupil numbers to their Output Areas (OA) of residence—the smallest area output level contained within the Census and other data sets (which contains, on average, 20 secondary age pupils). Pupil postcodes from PLASC—converted to the Output Area level using an ONS look-up table—can thus be used to map catchment areas by creating shaded OAs representing the proportion of a school's intake hailing from different nearby neighbourhoods. This reconfiguration results in a fully anonymised map with a more clearly discernible catchment area—and one that can represent the intensity of local attendance rates (Figure 4.14).

Figure 4.13 **URBAN COMPREHENSIVE: PLOTTED GEO-COORDINATES OF ATTENDEES**

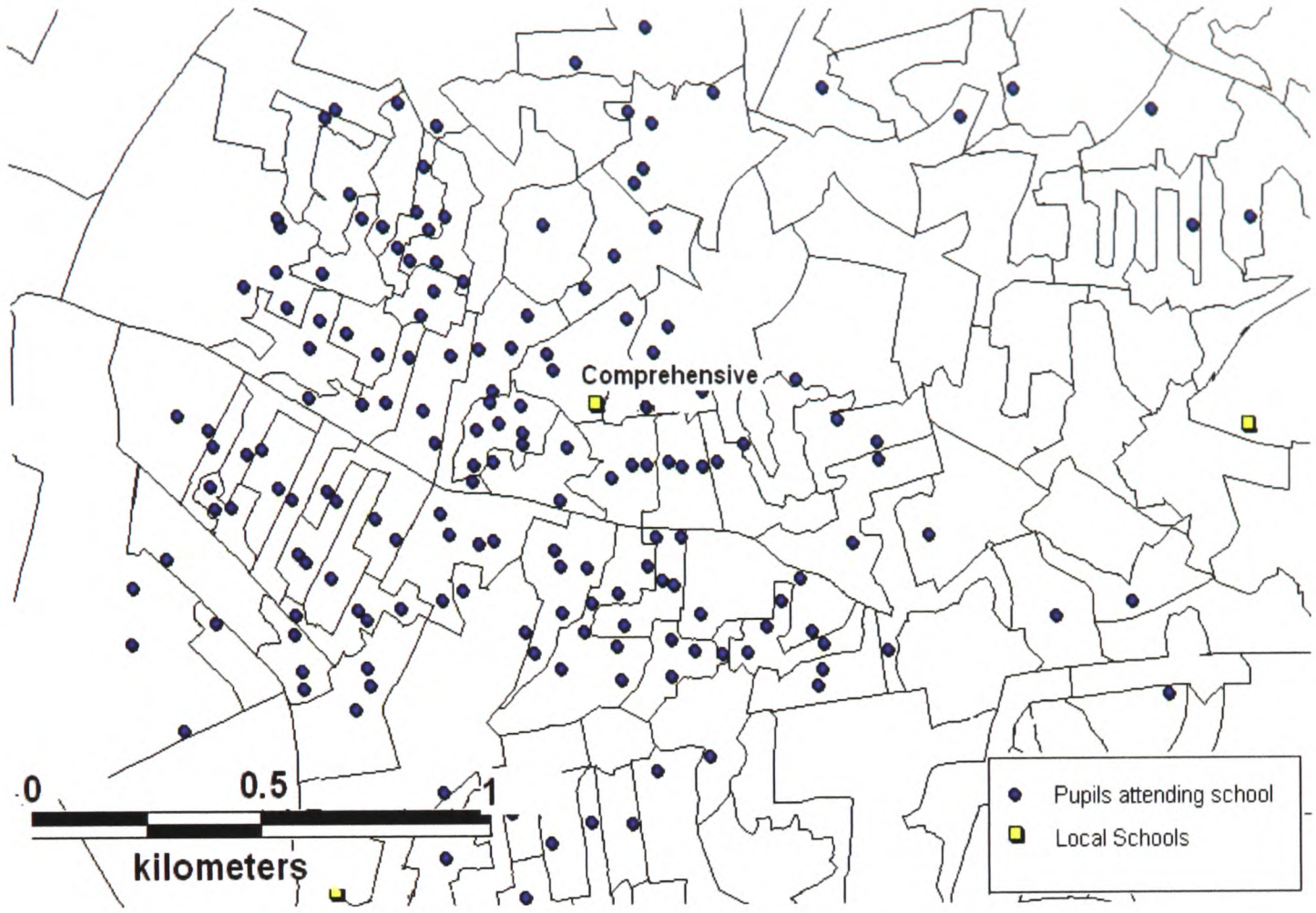
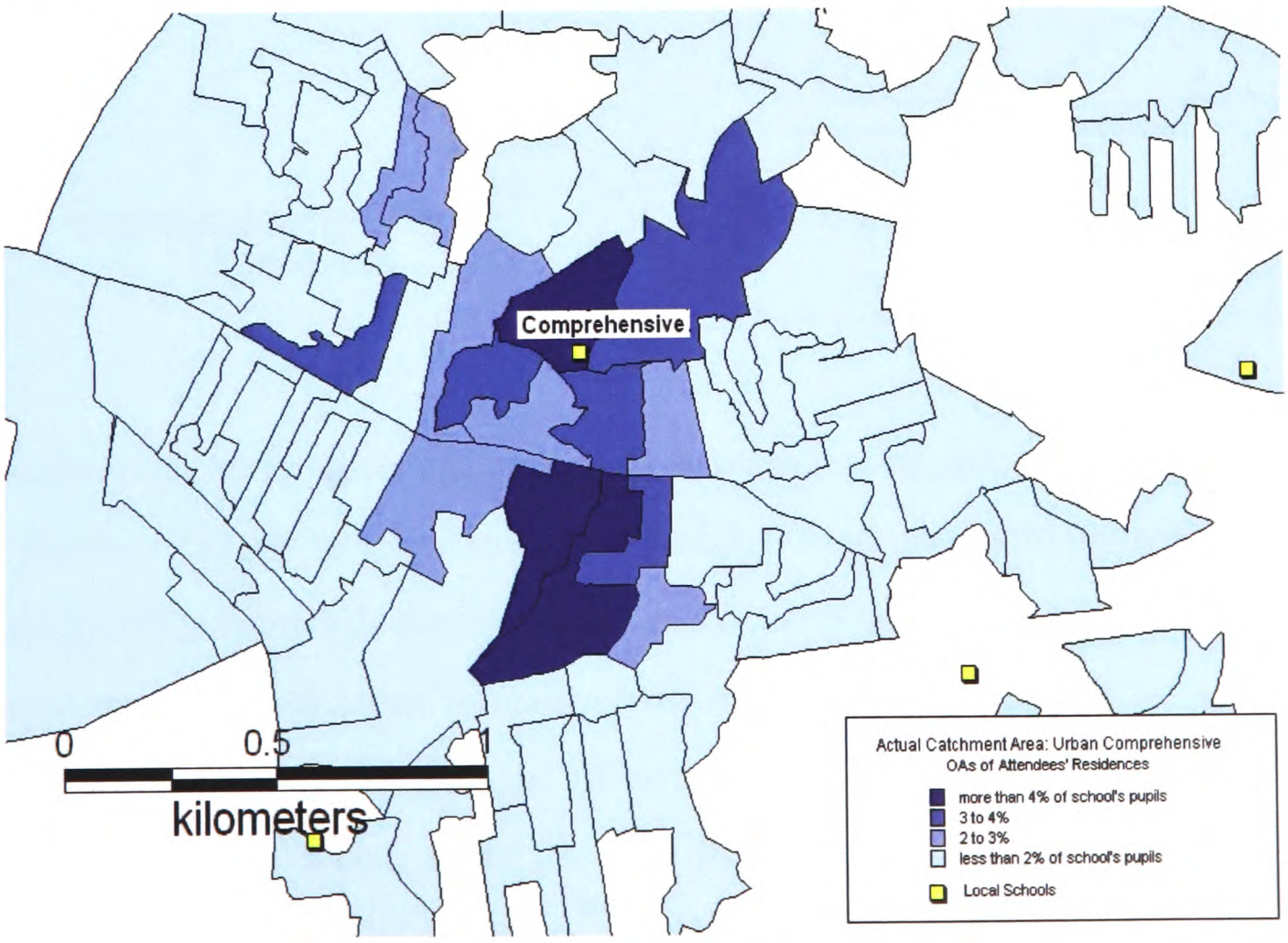
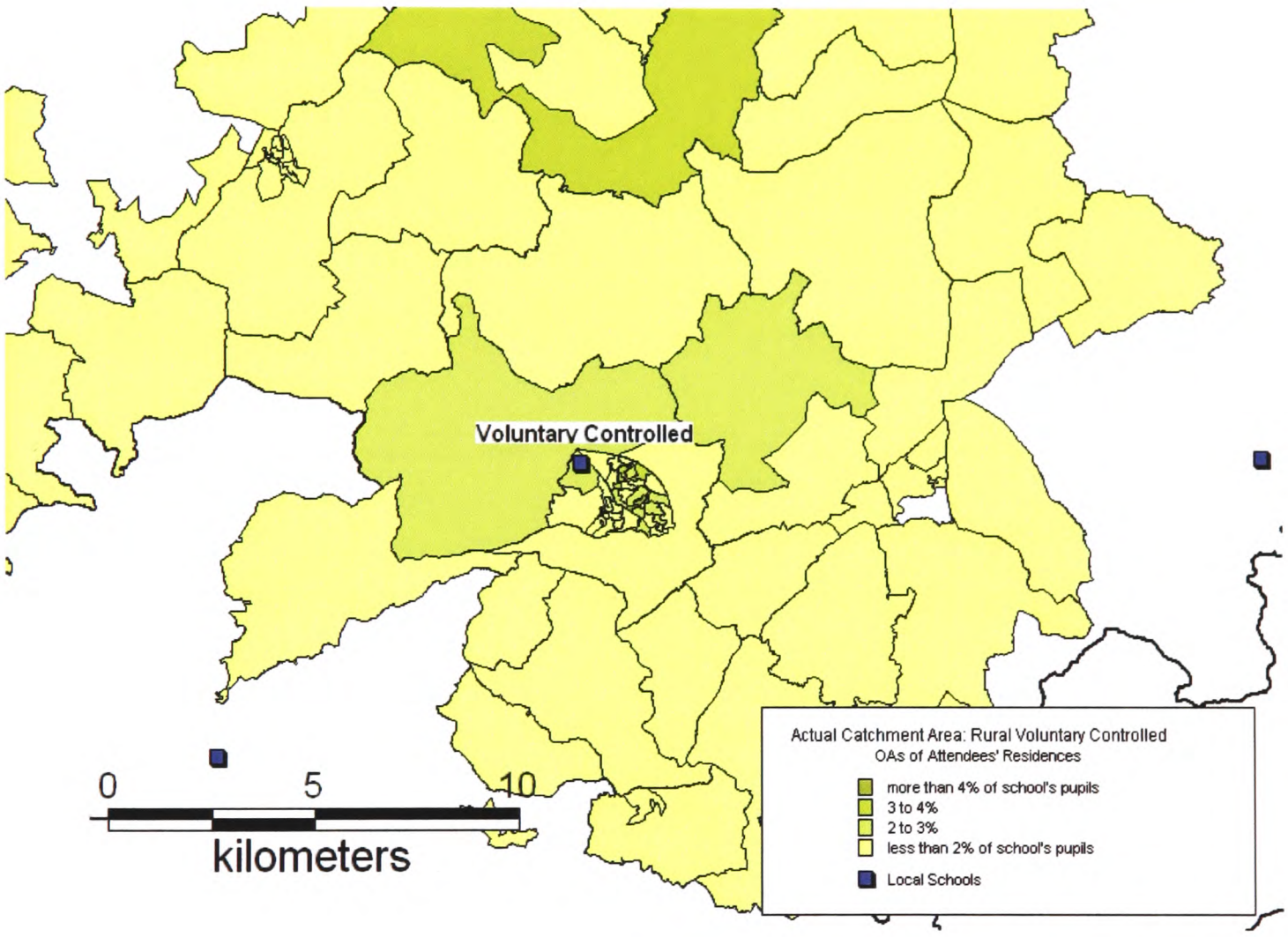


Figure 4.14 **URBAN COMPREHENSIVE: ACTUAL CATCHMENT AREA (SHADED OAs)**



Most secondary schools in 2002, however, did not possess catchments as spatially localized as the above example. For instance, if one looks at the catchment area of a typical rural, voluntary controlled school in a countryside village (Figure 4.15), it is apparent that, although this school acts in many ways as a de facto neighbourhood school that retains local children, its 'local' population is drawn from a much wider area

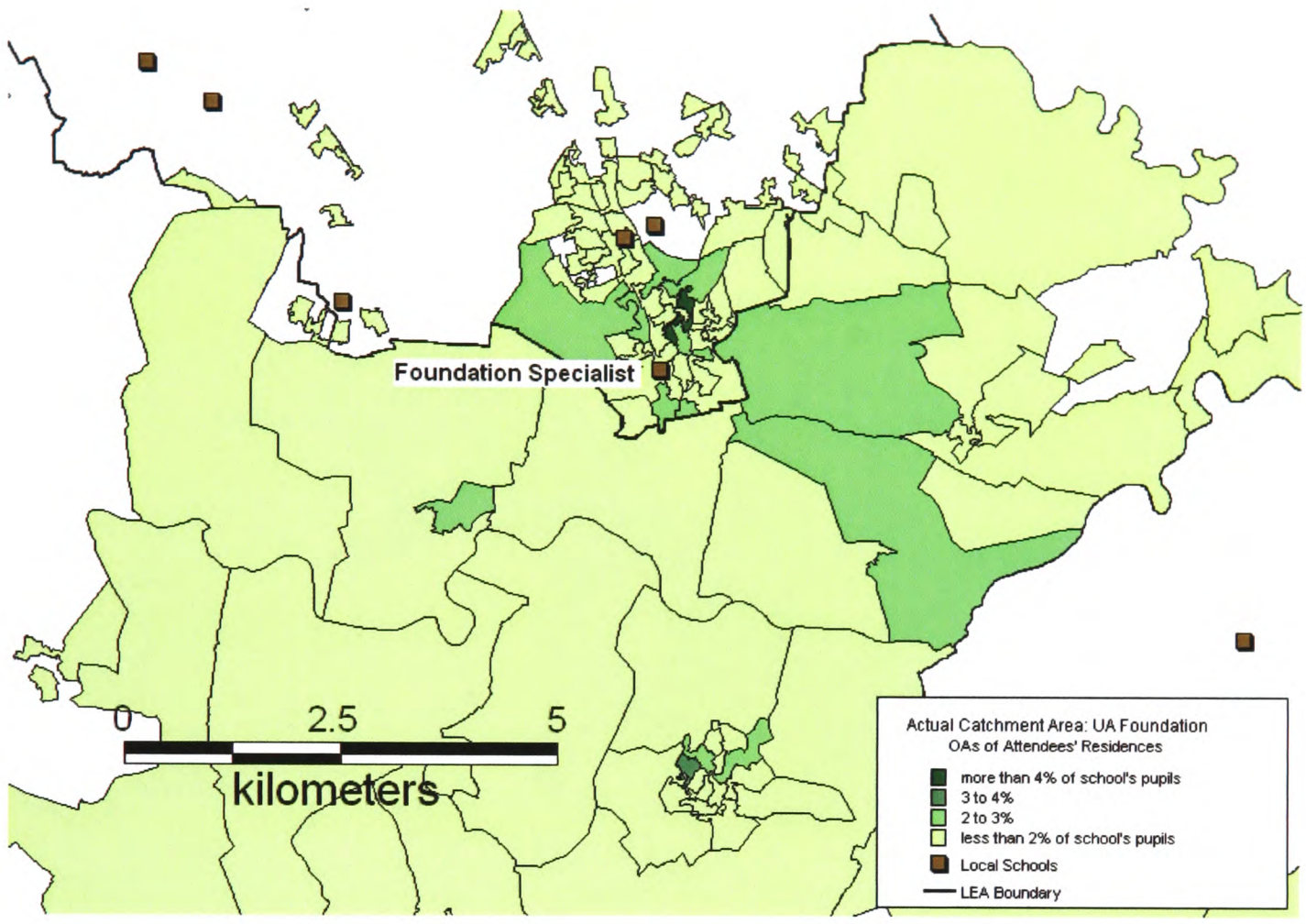
Figure 4.15 **RURAL VOLUNTARY CONTROLLED SECONDARY: ACTUAL CATCHMENT AREA, 2002**



that contains far fewer schooling options. As discussed earlier, many foundation schools also possess relatively localized catchment areas, although they typically contain more advantaged neighbourhoods than those surrounding other types of school. Looking from above at one such Foundation secondary (with a specialism and high GCSE pass rate) located at the more advantaged end of an otherwise disadvantaged, urban Unitary Authority highlights in clear detail the areas from which pupils attending the school originate (Figure 4.16). The school serves both those pupils in its immediate suburban

neighbourhood within the authority as well as large numbers from the surrounding county (for which it is the most proximate school for many).

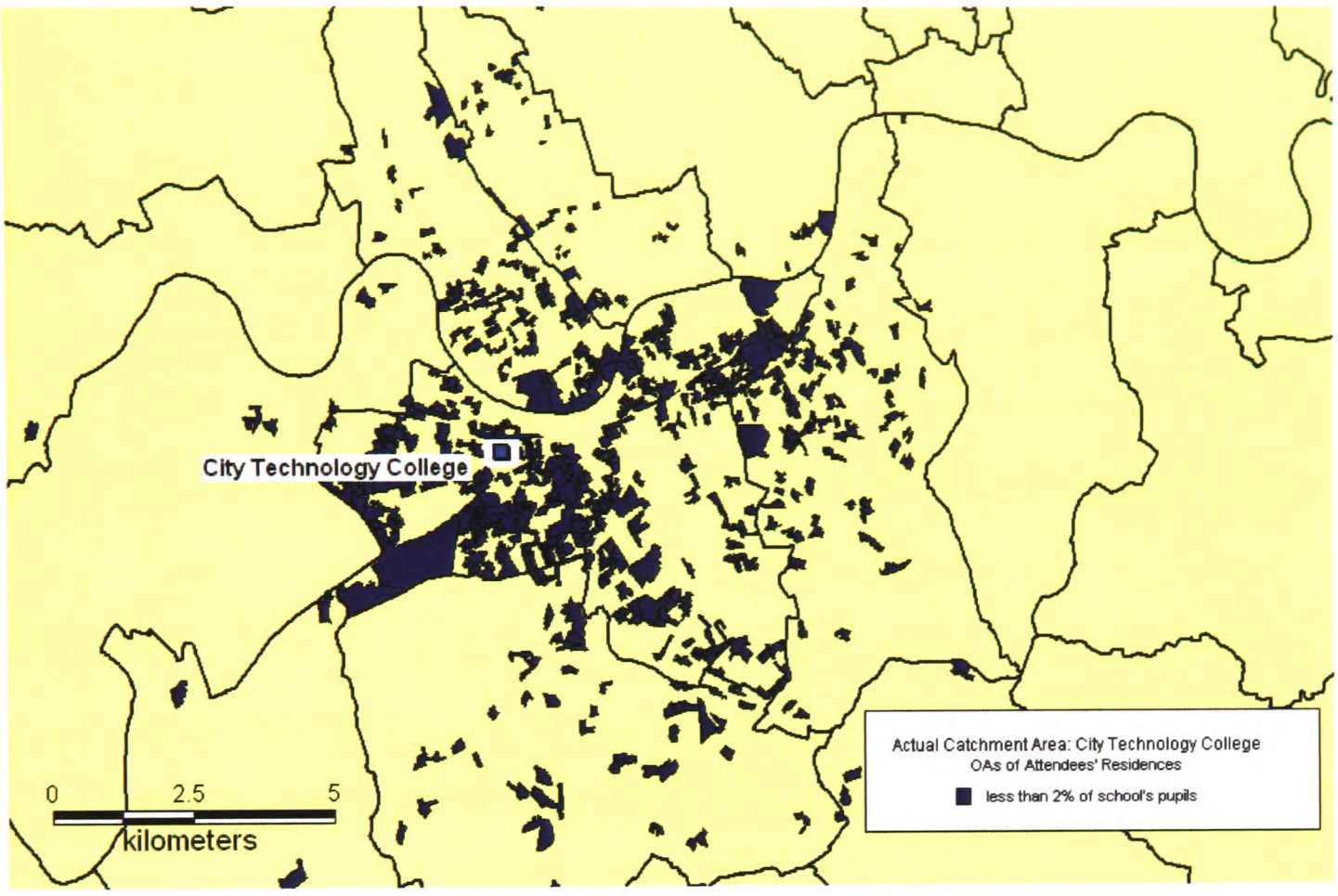
Figure 4.16 **FOUNDATION SPECIALIST SECONDARY: ACTUAL CATCHMENT AREA, 2002**



Finally, it is worth revisiting inner London to examine in more detail some of the ramifications of both the Greenwich Judgement and the abolition of the Inner London Education Authority (ILEA). As the Islington exchange matrix above demonstrated, the level of pupil movement between areas and across local authority boundaries in London (particularly inner London) is particularly high. Indeed, the cross-boundary movement of pupils—protected by the Greenwich Judgement (and still highly contested by individual local authorities)—as it exists at its current level in Inner London arguably supports the re-establishment of some central admissions authority or process akin to the role once played by the ILEA. To take the example of a single secondary school—a City Technology College in Wandsworth (Figure 4.17, below)—it is clear that the combination of numerous and diverse school options, available transport, and consumer

preferences within a highly populated urban centre results in many cases with broad and scattered school catchment areas.

Figure 4.17 LONDON CITY TECHNOLOGY COLLEGE: ACTUAL CATCHMENT AREA, 2002



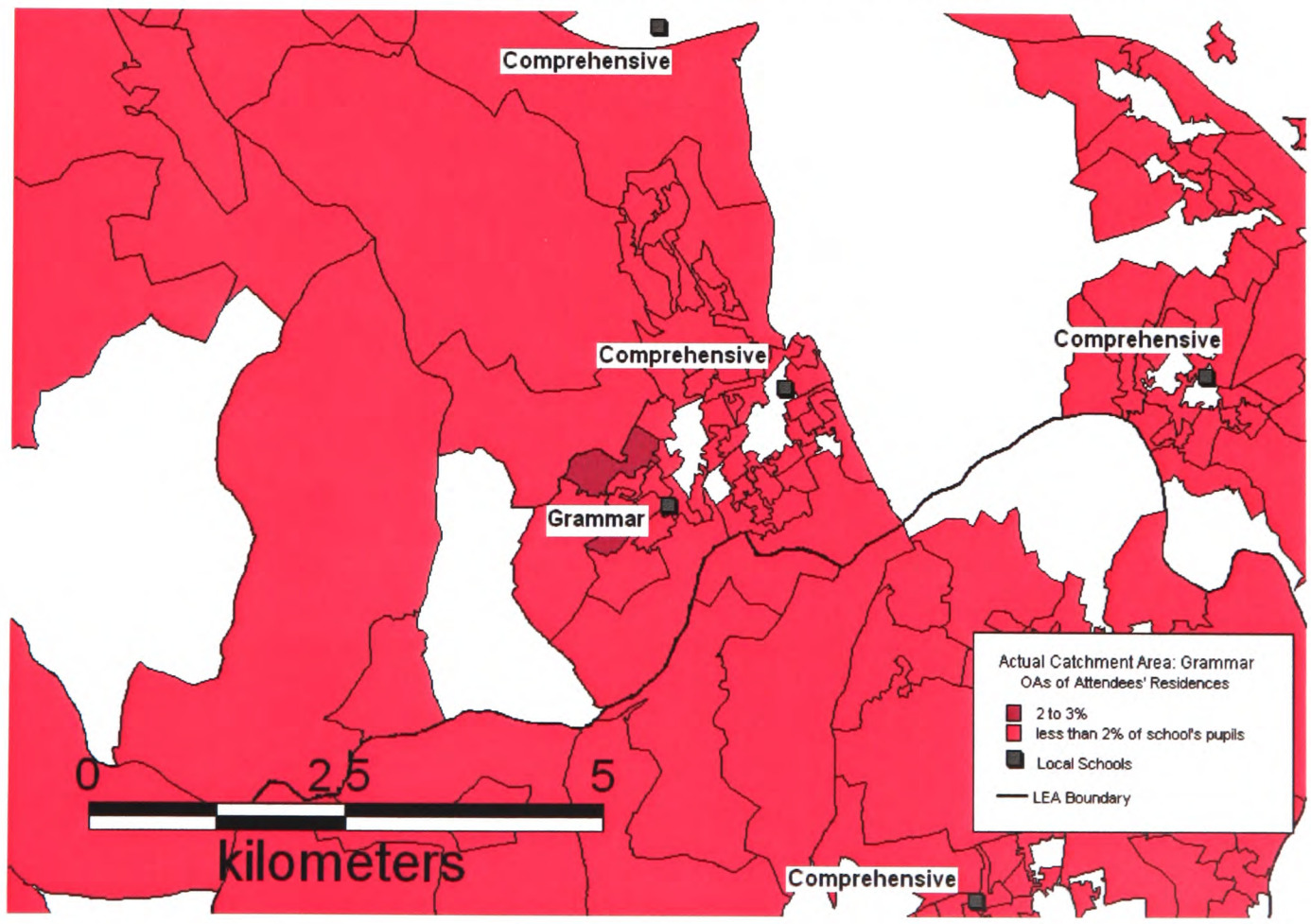
Needless to say, City Technology Colleges—which are responsible for their own admissions but required by government to have intakes that reflect the local population—are a special category, and not all secondary schools will possess the appeal of a CTC located in a deprived area and with an above average GCSE pass rate. Nonetheless, it is striking just how scattered and diverse such an intake can be within a market dynamic such as London's.

Local Market Dynamics

Mapping secondary school catchment areas also provides a means for further exploring the interaction between schools competing with one another in local markets. The findings presented earlier in this chapter indicate that grammar and other fully selective schools on the whole possess pupil populations that are less disadvantaged, higher performing, and more non-local in nature than other school types. Grammar schools also

had an average *capture ratio* of 1.43 in 2002, meaning that the pupils selected to attend school score 43% higher on GCSEs than other 15-16 year olds living in their local areas. Of course, given the largely zero-sum nature of schooling markets, this signifies that large numbers of higher ability pupils are being more or less 'poached' from the catchments of other, mostly non-selective schools.[116] The selective grammar school pictured in the centre of the map (Figure 4.18), for example, possesses a GCSE pass rate of 98%, and the majority (57%) of the pupils attending the school in 2002 were from non-local areas with 39% crossing an LEA boundary to attend the school. As the map illustrates, the school's catchment area is thin (i.e. not concentrated in particular areas) and very wide, permeating the local areas of several nearby comprehensives. Not only, however, were pupils from these neighbouring areas electing to bypass local comprehensives to attend a selective grammar, but those that did performed 18% higher on GCSEs than the pupils they are leaving behind—a figure still considerably lower than the 43% advantage posted by most grammar school pupils.

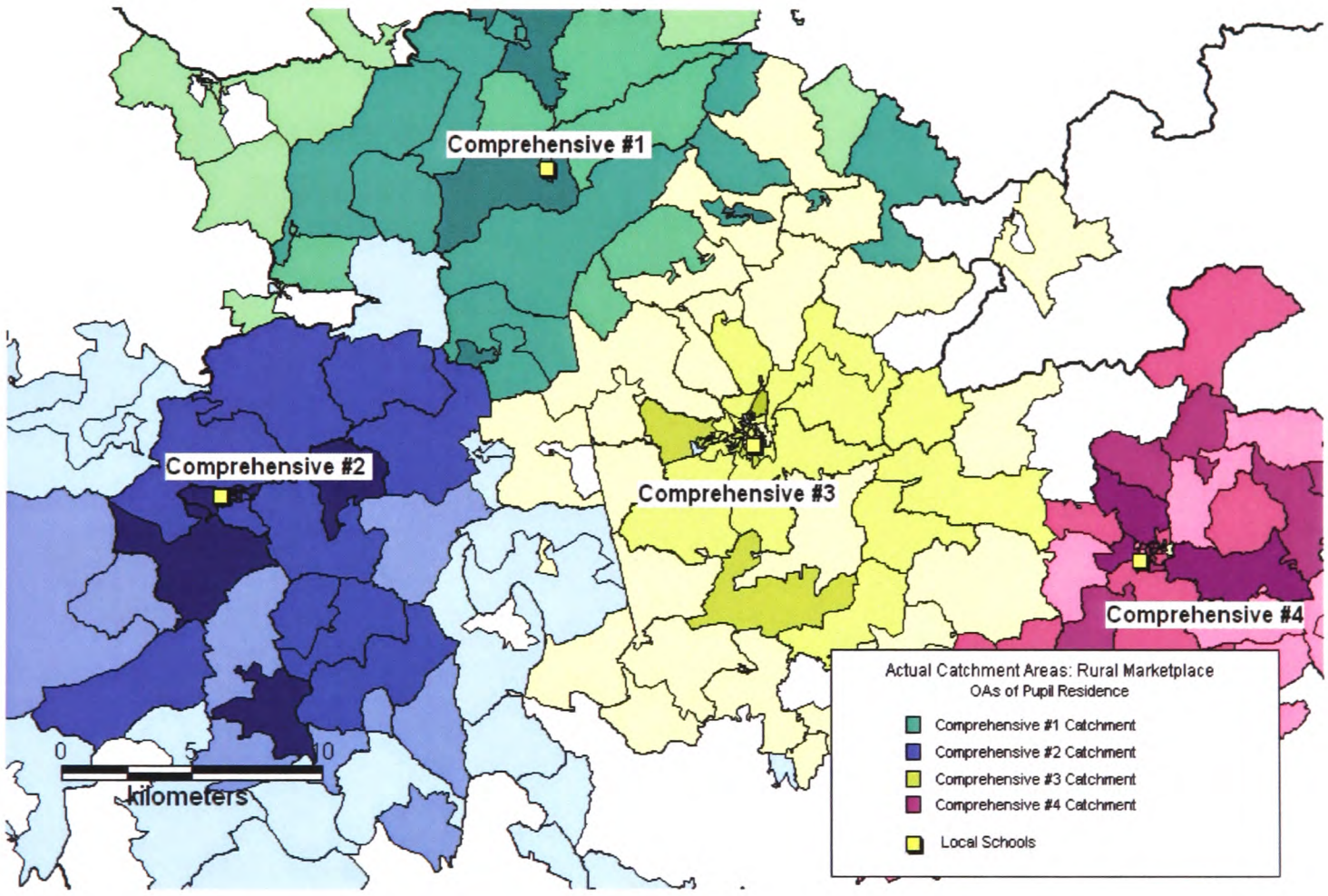
Figure 4.18 **LOCAL MARKET DYNAMIC: SELECTIVE EDUCATION FROM ABOVE, 2002**



[116] Although grammar schools do inarguably add some value to the performance of these pupils, many of whom might otherwise be attending schools in the independent sector.

Mapping techniques also help to illustrate overlapping school catchment areas and the relative interaction (and intensity of competition in many cases) of the different secondary schools within a local marketplace. Returning to a selection of schools from the rural market in Herefordshire depicted in the exchange matrix above helps to illustrate the relatively discrete nature of some rural schooling marketplaces (Figure 4.19, below). The four comprehensive schools pictured occupy relatively impermeable and localized market niches in the north part of the county with only minor overlaps occurring at the fringes of their respective catchment areas.

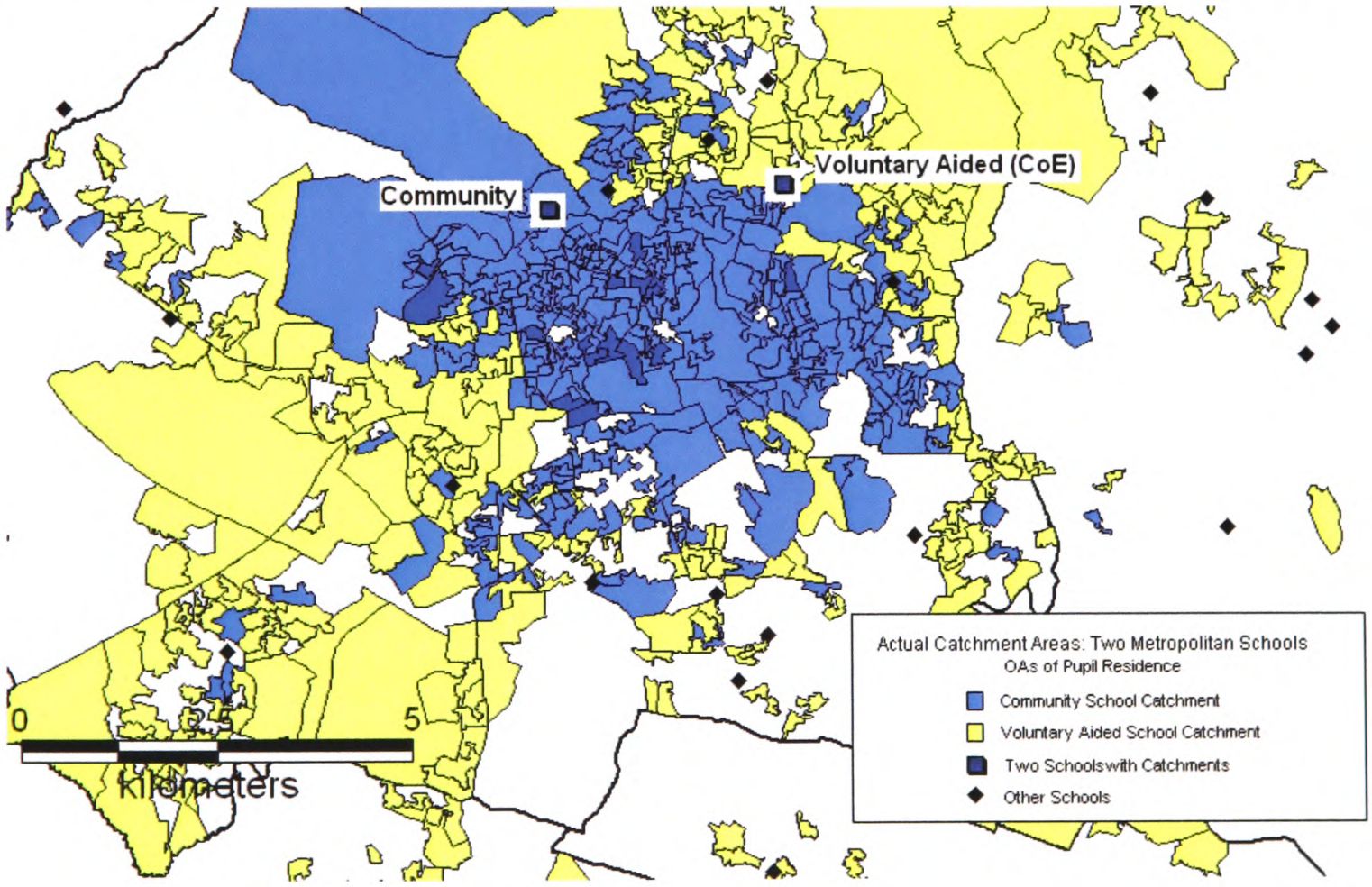
Figure 4.19 **LOCAL MARKET DYNAMIC: RURAL COMPREHENSIVE MARKETPLACE, 2002**



It is also possible to map and to compare visually some of the findings reported above with respect to the differential market activity of community and voluntary aided schools, the two most populated school types in England. PLASC lays bare the different overall patterns of attendance exhibited by these two kinds of secondary school. Voluntary aided schools—in general more selective, both in their admission and in their appeal, than community schools—are the destinations of choice for a higher proportion

of non-local pupils and typically draw intakes that are less socially disadvantaged than the neighbourhoods around the school. But, where local voluntary aided and community schools have comprehensive admissions policies and similar performance levels, and demonstrate few real differences in either socio-economic make-up or academic specialization, voluntary schools nonetheless draw from significantly wider catchments.[117] An examination of the catchment areas of two closely matched and spaced metropolitan area schools—one community and one voluntary aided—illustrates well the extent to which voluntary schools can draw attendees from much wider areas than community schools (Figure 4.20). Although the two schools share pupils from a number of OAs, those OAs shaded in yellow represent neighbourhoods from which *only* the voluntary aided school attracted pupils in 2002.

Figure 4.20 **LOCAL MARKET DYNAMIC: COMPARING COMMUNITY AND VA CATCHMENT AREAS,**



[117] Perhaps reflecting concerns with schooling issues and preferences that get less attention than academic performance and social class such as religious instruction or behavioural discipline.

Conclusions

This chapter has used the individual level data present in PLASC to paint a broad, but comprehensive picture of what the 'lived marketplace' for secondary school education looked like in 2002. Secondary schools in England are not evenly distributed in space and the majority (71%) serve small, relatively urban local catchment areas. The actual catchment areas of schools, however, were much larger than their local catchments in 2002. Overall, around two thirds of secondary pupils in England attended a reasonably proximate school, although urban areas tended to have a smaller percentage of pupils attending local or nearby schools. Moreover, pupils that attended non-local schools were more likely to upgrade to secondary schools that performed better, were more selective, and had fewer disadvantaged pupils than their local schools. The competition matrices and catchment area maps above also illustrate just how complicated the market for secondary education in England is, particularly in London. In the next chapter, we shall examine further the landscape of local schooling markets, how pupils of different socio-economic backgrounds differ in their attendance patterns and in their ability to play the market.

-5-

Choice and Social Background: A Sub-Group Analysis of Educational Mobility

The concern that school compositions will polarize by socio-economic status as a result of increased market activity rests upon the key premise that pupils from different social classes will engage differentially with the options posed by the lived market. This supposition has been supported in England by the findings of several small-scale qualitative studies (e.g., Gewirtz *et al*, 1995) but not by most quantitative analyses (e.g., Gorard and Fitz, 2000). In this chapter, pupil census data will be utilised to look more closely at the social landscape of the market and at how sub-groups of pupils from different social backgrounds are 'playing the market.' Such an examination—based on individual, and not aggregate school or area, data—allows for a richer glimpse into the workings of the education marketplace, including to what extent disadvantaged pupils attend non-local schools and how this movement compares to the mobility patterns of their peers.

The individual level data contained in PLASC has only been available in its current form since 2002, and therefore cannot directly reveal what has transpired since the policy changes of the 1980s. Nevertheless, it can—in conjunction with a number of other data sources such as the 2001 Census—provide a means for exploring the relationships between children's social background, the areas in which they live, and the schools they ultimately attend. In this chapter, differences in educational mobility—the different levels of engagement with the lived market exhibited by disadvantaged secondary pupils and their schoolmates—will be examined through the non-local school attendance rates as well as through a closer analysis of the origins and destinations of 'choosers,' including the all-important transition between primary and secondary school.

Educational Disadvantage and the Social Context of Choice

Measuring Educational Disadvantage: Eligibility for Free School Meals

As discussed in Chapter 2, the role of social background in education constitutes a longstanding concern in English research and policy. There is strong evidence suggesting that throughout the educational process, socio-economic status (and the associated availability of resources) influences a child's success in school and future opportunities, a phenomenon that has remained stubbornly persistent despite substantive policies directed at educational disadvantage (Heath, 2000). Educational disadvantage may broadly be defined to include any aspect of the social, family, or educational environment that limits the educational opportunities of children and reduces the likelihood that they will benefit from their education (Mortimore and Whitty, 2001). This includes those children with severe learning disorders or other special educational needs as well as those from disadvantaged backgrounds that face barriers associated with living in poverty or on low incomes.

Many measures of educational disadvantage relate to low income and thus constitute necessary but not sufficient representations of larger social class distinctions—e.g., occupational positions, parental education, attitudes toward education, and possession of 'cultural capital'—considered relevant to the exercise of parental choice. One of the great challenges of educational research is to isolate successfully different aspects of a child's social background and not to conflate related (but nonetheless distinct) variables such as low income, deprivation, special educational needs, parental education, and social class. In large-scale quantitative analysis, this may prove particularly difficult given the existence of only a few widespread indicators of educational disadvantage.

The most commonly used indicator of pupil disadvantage is his or her eligibility for free school meals (FSM). Education researchers utilize the FSM measure both

because its eligibility reflects income support directly,[118] and because FSM data are collected annually as part of the statutory school reporting process (Gibson and Asthana, 2000). While there exist variations in the take-up of FSM across the country as well as a number of minor measurement issues,[119] the use of FSM by educational researchers is understandable given that it is the easiest (and in some cases only) available indicator of pupil socio-economic status. As a residual measure of socio-economic status, however, the FSM indicator's ability to portray accurately the education market's impact across wider society is inevitably limited. Socio-economic disadvantage (and particularly the extent to which families possess different amounts of 'cultural capital') forms a much broader phenomenon than is reflected by entitlement to income support and focusing on the bottom one-fifth of the population may lead researchers and policymakers to neglect the fact that educational disadvantages are not uncommon amongst middle class children as well (Power and Whitty, 2002).

Eligibility for free school meals is nonetheless a powerful predictor of both individual- and school-level educational attainment (Gorard, 1998). It is also, along with SEN, the only piece of information on educational disadvantage collected for the purposes of PLASC. The debate over social class and the polarizing effects of parental choice, however, arguably most concerns its effects for the bottom 15-20% of the population, and that is the rough segment of the population measured by FSM eligibility (Gorard, Taylor and Fitz, 2002). The data analysis contained within this chapter will make use of the pupil level FSM marker contained in PLASC (the first dataset to identify individually pupils as eligible for free school meals) as well as several other indicators of social background contained in the Census and available at the small-area level. The

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[118] The only eligibility criterion currently for FSM is to be registered for Income Support (formerly Supplementary Benefit). Family Credit beneficiaries were removed from eligibility in 1988 as a result of the 1986 Social Security Act, so as a consistent measure of socio-economic status it corresponds perfectly with the Education Reform Act of 1988. See Smith and Noble (1995) and Gorard and Fitz (1998b).

[119] The DfEE's Form 7 asked schools about only FSM take-up until 1993 when it changed to eligibility for FSM (Gorard and Fitz, 1998). From 2001 onwards, this eligibility definition has been more narrowly construed 'to include only pupils where parents had indicated that they wished their child to have a free meal and had confirmed benefit receipt with the LEA or school' (DfES, First Release, 24 February 2004).

next section will examine—using the information about individual residential location and FSM eligibility contained in PLASC—just how accurately small-area figures represent the characteristics of the individuals within those areas, and attempt to attach some small-area social indicators to individual pupils. If applicable, census-based indicators of occupational class and educational background provide an additional and broader measure of the social impact of the education market than that afforded by FSM eligibility alone.

Comparing Measures of Area and Pupil-Based Disadvantage

Although a pupil's eligibility for free school meals is the only true measure of social disadvantage contained within the PLASC dataset, the fact that pupils records in PLASC can be attributed to their areas of residence via individual postcodes means that a much wider range of area characteristics can be assigned to pupils living in those areas for the purposes of analysing the role of social background in school attendance patterns. While one risks committing the 'ecological fallacy' discussed in Chapter 3 (p. 84) by incorrectly applying area characteristics to individuals, the possession of 'high resolution' data at the small-area level (e.g., Census Output Areas with an average population of 300), increases the odds that individual- and area-level characteristics will be highly interrelated. Such a method provides an opportunity to conduct a broader analysis of the role of social background factors within the education market.

The best way to test the level of correlation between individual and small-area aggregate data is to use the FSM marker in PLASC itself. For instance, testing how well the aggregate proportion of pupils eligible for FSM in the various OAs (small neighbourhoods) served by a particular secondary school reflect the actual percentage of pupils eligible for FSM attending that school, can be accomplished by attaching the figure for the percentage of FSM pupils in each OA (aggregated up from the individual PLASC data) to each individual pupil, and then re-aggregating the individual data by the school attended. In effect, this creates a weighted *social catchment* score for that school

comprised of the mean level of FSM in the areas in which the pupils attending that school live.

This *social catchment* score—derived from a weighted mean of area figures—correlates significantly with the actual number of FSM pupils attending a school.[120] Even at the Output Area level, however, this remains an imperfect indicator: pupils attending some schools may not be representative of their OAs of residence because of either divergent individual preferences[121] or high participation in the independent sector within the area (Gibson and Asthana, 2000). Nonetheless, the intimate correspondence between the above two indicators shows that when thousands of pupil cases are involved in the calculation, attaching area likelihoods to individual pupils provides rather robust background estimates. Additional OA level social indicators from the 2001 Census may be attached in a similar fashion to individual pupils living within those small areas, an approach that has been successfully operationalized by other researchers using pre-PLASC individual level data provided by local authorities (e.g., Gibson and Asthana, 2000). The ability to make use of broader measures of socio-economic status—although it by no means obviates the usefulness of the FSM marker itself when available at the individual level for millions of pupils—does, as we shall see, provide numerous insights into how a larger segment of society is making use of the market for education.

To expand the examination of social background within the education market, it is useful to select indicators that describe a segment of the population either that includes more households than those with pupils eligible for FSM, or that represents social groupings as separate and distinct from FSM households as possible.[122] Two indicators,

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[120] The two indicators, the derived area score and the actual social composition of the school, attain a Pearson correlation coefficient of *.963*, and are statistically significant at the .001 level (1-tailed), when they are compared over the 3,470 secondary and middle deemed secondary schools in England.

[121] After all, 'cream-skimming' can still occur at the small area level, or even within individual households for that matter.

[122] For the category that includes more low income households than those eligible for FSM, some indicators measure a portion of the population that is as, if not more, residual than the population of families eligible for FSM (e.g., those living in social housing). These segments would be of interest if they did not correlate so highly with FSM (Table 5.1), which suggests that they are in large part—at least at the aggregate level—describing the same sub-group of the population.

the proportion of individuals in manual class occupations and with below level 2 qualifications, appear to fulfill the criteria of describing a broader portion of the population than FSM while being significantly correlated (thus likely including FSM families as a subset in most areas).[123] Of these, perhaps the most promising analytical extension is the manual class occupational indicator, which not only expands the 'lower end' of the population described by FSM but also ties in more closely with the definition of 'working class' applied to households within the qualitative research on parental choice.[124]

Table 5.1 **POTENTIAL SOCIAL INDICATORS AND THEIR RELATIONSHIP TO ELIGIBILITY FOR FSM**



Source: The 2001 Census, Crown Copyright, ESRC

Likewise, the indicator with the most promise of describing small areas of higher income households, and which corresponds to the definition of middle to upper middle class families used in the qualitative research on choice, is the service class occupational measure. Finally, it is worth re-emphasizing that aggregate area measures, even at the small OA level, will inevitably misclassify both some individuals and area relationships: for example, there are some areas in the country such as in London where large numbers

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[123] Level 2 qualifications on the Census are equivalent to adults with 5 or more A-C GCSEs as their highest educational qualification. Occupational class categories are based on the three-group split (service, intermediate and manual professions) in the new National Statistics Socio-Economic Classification (NS SEC) system that with the 2001 Census replaced the Registrar General's Social Class (RGSC) as the main social classification system.

[124] The proportion of the area's population in manual class occupations is also highly related to the proportion of adults with level 2 or below qualifications (r squared = .802, significant at .001), but describes a smaller segment of the population.

of households with FSM pupils and households with service class employees coexist (including 'cheek by jowl' at the OA level) and some pupils originating from those areas may not be labelled correctly by either category. Nonetheless, these additional small area level indicators of social class help to shed substantial light on a wider section of the social distribution than that covered by the FSM indicator.

The Social Composition of Secondary School Catchment Areas

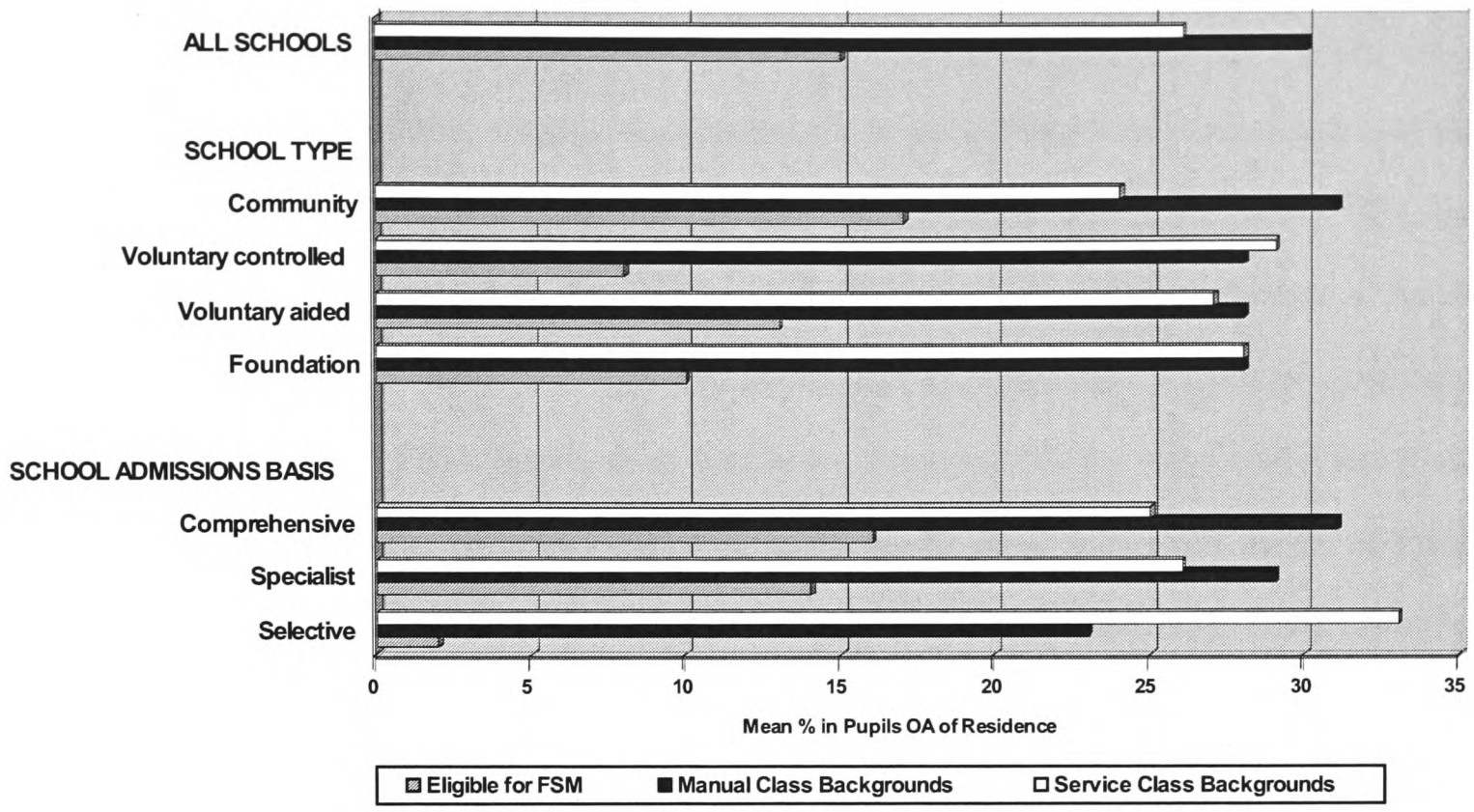
The above indicators of social background, available at the Output Area level, can be attached to individual pupil records in a similar fashion to the FSM eligibility indicator for each OA. Once aggregated to school level, the weighted mean of individual pupils' area backgrounds will provide an indication of the broader social composition of each school's actual catchment and pupil intake (Adler *et al*, 1989). Accurately measuring the actual socio-economic background of a school's population, or its *social catchment*, has several applications, including the contextualization of school performance measures[125] (Gibson and Asthana, 2000). It is important to note that a secondary school's social catchment reflects the social background of the neighbourhoods from which its pupils originate, and not necessarily the neighbourhoods that are most proximate to the school itself (as will be illustrated by the social catchment maps at the end of this chapter).

As mentioned above, there is no guarantee that pupils attending any individual school are wholly representative even of their small area of residence: the analysis in Chapter 4, for example, revealed that some schools are creaming the best (or worst) pupils from their local areas—pupils that in general are not representative of those areas. Nevertheless, the figures shown in Figure 5.1, derived from compiling area level info, provide a rough indication of the social backgrounds of the pupils attending various school types in 2002 and the relative social differences between those types.

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[125] The individual level information on FSM in PLASC, for example, provides a marked improvement on previous methods of measuring the social location of the school (i.e,. the background of the wards surrounding the school), which had been used by government in OFSTED's Performance and Assessment (PANDA) reports, and by social researchers (Byrne and Rogers, 1996; Parsons *et al*, 2000).

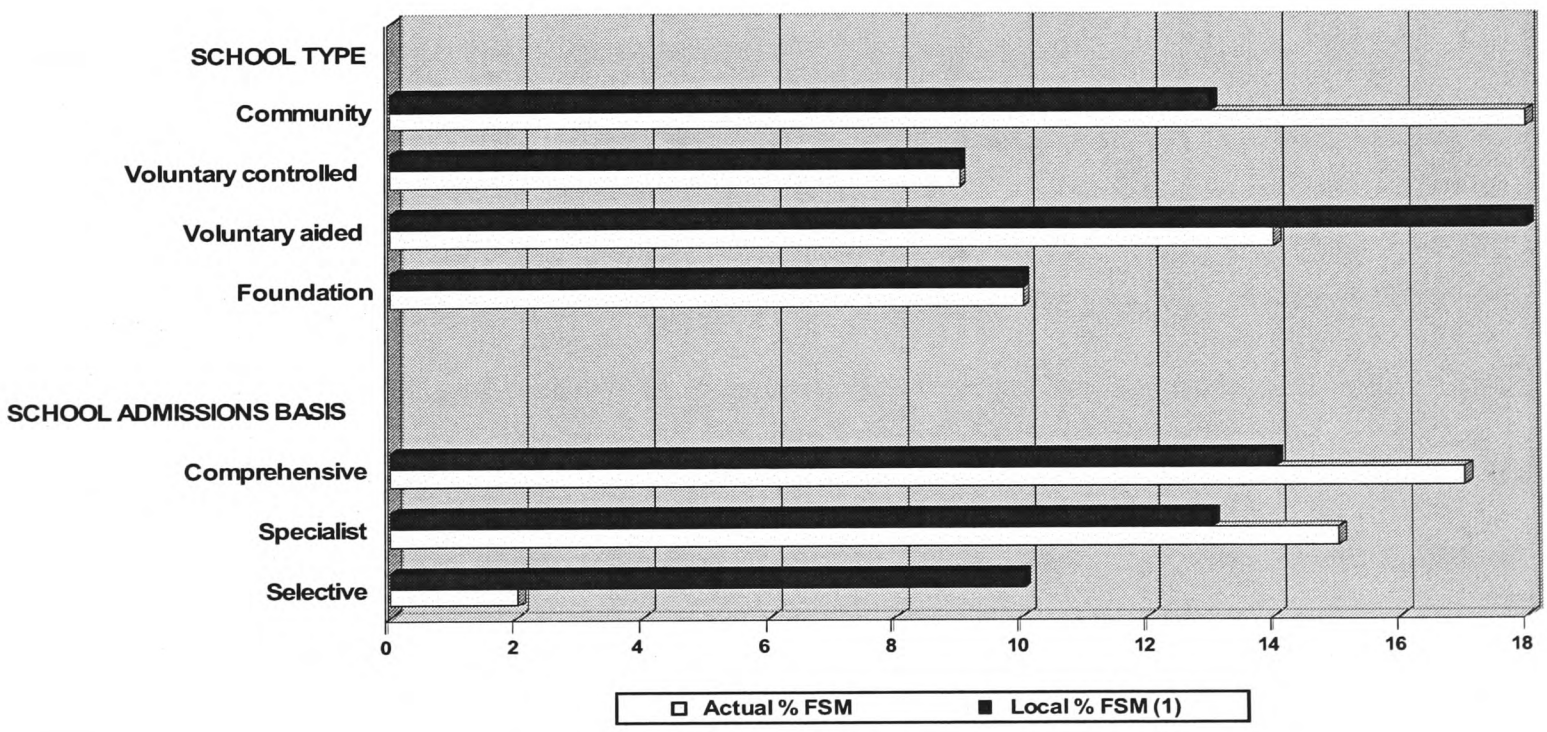
Figure 5.1 **SOCIAL CATCHMENTS: FSM v. OCCUPATIONAL CLASS INDICATORS, 2002**



Expanding the focus of social class analysis from the 15% of pupils eligible for free school meals to the approximately 30% of the population that live in working class households reveals how the social catchments of some schools may not be adequately reflected in the FSM measure. Voluntary controlled schools, for instance, though they typically draw pupils from areas that do not have high incidences of FSM eligibility appear to nonetheless serve areas that contain large numbers of working class households. Even grammar and other selective schools may have a distinctly larger proportion of working class pupils than of FSM pupils if the area backgrounds of the pupils attending them are any indication. The converse occupational class categories—the 'service' class households constituting about a quarter of the population—illustrate the likely distribution of the more advantaged classes within the secondary education system. Pupils from local areas with more individuals employed in service class occupations tend to be more concentrated than other pupils in voluntary, foundation, selective and higher performing institutions.

How then does a school's actual *social catchment* compare with its hypothetical local one? A similar procedure to the one used to calculate schools' actual social catchments (above) can be utilized to identify the social backgrounds of the pupils living in schools' local catchments areas. A comparison of actual and local social catchments indicates that the social compositions of different school types (indicated by the proportion of its pupils eligible for FSM) would be altered noticeably within a 'local schools for local pupils' scenario. For example, in 2002, community schools contained a higher proportion of FSM pupils than would be expected by the nature of their local areas while grammar and voluntary aided schools would have seen their levels of FSM pupils increase if they had served strictly local populations (Figure 5.2). Interestingly, foundation schools—generally located in more advantaged areas—also appear to possess equally non-deprived compositions if they are assigned to house only pupils from nearby areas.

Figure 5.2 **SCHOOL SOCIAL CATCHMENTS: ACTUAL V. LOCAL, 2002**



(1) 'Local' school figures calculated by assigning all pupils to their most spatially proximate secondary school regardless of capacity.

The above findings suggest that different types of school are drawing more selectively than others from neighbourhoods with certain types of social compositions: does this fact, however, translate to the individual level in the form of pupils from different social backgrounds 'playing' the market in distinct ways?

The Lived Marketplace for Disadvantaged Pupils

Pupil Movement and Non-Local Choice by Social Background

Qualitative educational research (discussed in Chapter 2) suggests that individuals from different social classes engage in fundamentally different ways with the choices and alternatives presented by the secondary school marketplace. Working class families in particular attach a high value to local schools and this tendency reflects an important '...difference in the way in which space is negotiated within different class groupings' (Reay and Ball, 1998: 432). Compounding this variance are the basic transportation limits imposed by low incomes and disadvantage: families on low incomes typically have less access to cars and children from these families are almost twice as likely to walk to school as children from more advantaged backgrounds[126] (Worpole, 1999).

We would expect then that the above differences would be reflected in the distances between home and school for disadvantaged pupils (Table 5.2), as well as in the frequency with which they attend non-local schools. An analysis of the differential market activity of FSM and non-FSM pupils in the maintained sector in PLASC (2002) reveals that disadvantaged pupils nationwide did indeed live closer on average to the schools they attended than more advantaged pupils did in 2002. On the whole, however, a *lower* proportion of FSM pupils (42%) than non-FSM pupils (44%) attended their most spatially proximate school in 2002. This national difference must be interpreted with caution—it appears to be a product of the fact that disadvantaged pupils are more heavily concentrated in urban areas with more schooling options (and hence fewer overall pupils

[126] One factor that does not appear to have a significantly differential class-based effect on the exercise of choice is the success of admissions applications: Noden et al (1998) found that while middle class families got 0.72 offers per application, working class families received 0.68.

attending their nearest schools).[127] The urban bias of national FSM figures is also revealed by the higher *distance ratio* for FSM pupils, which reflects the fact that disadvantaged children live closer to their nearest schools on the whole (at least nationally) than more advantaged children.

Table 5.2 **MARKET ACTIVITY: FSM VS. NON-FSM PUPILS, 2002**

	% In Local School	% In a Nearby School (Local or Adjacent)	% Exiting LEA of Residence for School	*Median* Distance School Attended (km)	*Mean* Distance to School Attended (km)	Distance Ratio (1)
FSM PUPILS	42	68	7	1.52	2.18	1.99
NON-FSM PUPILS	44	65	9	1.81	2.86	1.91

(1) Ratio of Distance to School Attended to Distance to Nearest Secondary School.

Nonetheless, perhaps the best indicator of local school attendance—those pupils attending *nearby* (either local or adjacent) schools[128]—reveals FSM pupils to be more 'localized' (i.e. likely to be attending a local or adjacent school). A slightly *larger* proportion of pupils eligible for FSM (68%) than non-FSM pupils (65%) attended a reasonably nearby secondary school in 2002. This corresponds with the logistic regression model of non-local attendance created in the previous chapter in which a pupil eligible for FSM was found on average to be 5% less likely have attended neither a local nor an adjacent school in 2002. Finally, disadvantaged pupils, despite living in disproportionate numbers in urban wards with more permeable boundaries, generally attend out of LEA schools at a lower rate than more advantaged children. In short, pupils eligible for FSM, at least in the aggregate, were more likely in 2002 to be

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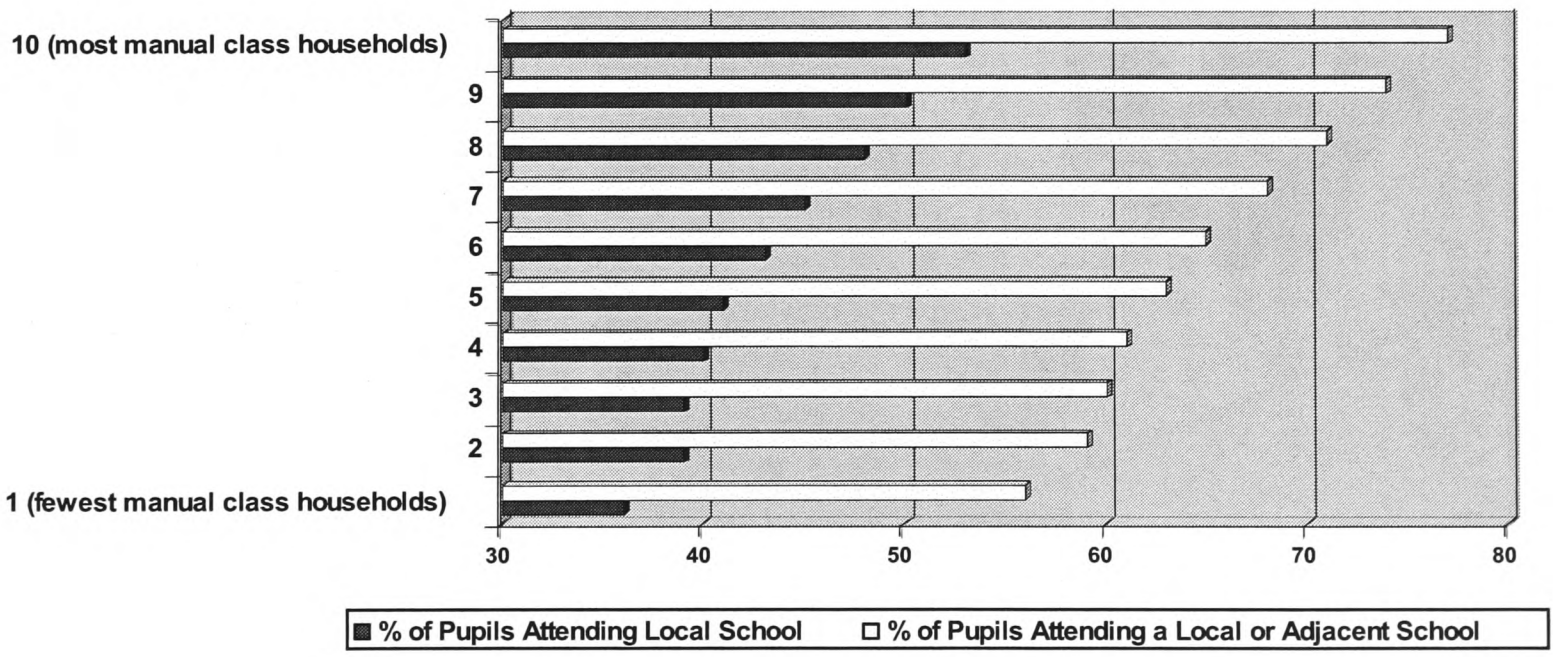
[127] At the LEA level, the density of local schooling options strongly and significantly correlates (Pearson coefficient =.701 at p=.01) with the proportion of pupils *not* attending their nearest secondary school option.

[128] Based on the regression analyses in Chapter 4 in which the number of pupils not attending their nearest school was far more related to proximity measures while the numbers not attending any nearby schools (i.e. local or adjacent) was more closely tied to school characteristics and relative differences in the market landscape.

'localized' in their choice of school than non-FSM pupils. This general result, however, hides a great deal of variation, as well as some surprising levels of mobility amongst disadvantaged pupils, as we shall see shortly.

A look at the market activity of pupils by the proportion of manual and service class households in their Output Area of residence shows a similar overall trend, and one that is especially visible at the extreme ends of the population. For example, 53% of pupils from neighbourhoods in the top decile of manual class households (highest % of manual households) attended their nearest school and 77% attended nearby schools, while the same figures are 47% and 73% respectively for pupils from neighbourhoods in the top decile of service class households (highest % of service class households). Indeed, the proportion of manual class households in a pupil's residential neighbourhood is directly proportional to the rate of local school attendance—the higher the proportion of manual class households in a pupil's neighbourhood in 2002, the more likely she was to attend a local or nearby school (Figure 5.3).

Figure 5.3 **MARKET ACTIVITY, by Manual Class Composition of Pupils' OA of Residence, 2002**



These general differences in the non-local school attendance rates of different social groups—consisting of aggregate totals for the entire nation—do not tell the whole story. The differences embodied in the above trends are slight and may be biased by

contextual factors such as population density, especially with respect to how localized pupils eligible for FSM are in comparison with the rest of the secondary school population. A look at the relative localization of disadvantaged pupils at the local authority level reveals a stronger and more diverse picture of rates of 'differential mobility.' In roughly four out of every five local authorities in 2002, a higher percentage of FSM pupils attended *nearby* schools than non-FSM pupils (Figure 5.4). Selective authorities such as Kent and Buckinghamshire, along with most inner London boroughs, demonstrated particularly pronounced differences, indicating that disadvantaged pupils in these areas attended non-nearby secondary schools at much lower rates than their more advantaged peers.

Figure 5.4 **MARKET ACTIVITY: FSM VS. NON-FSM PUPILS, by LEA, 2002**

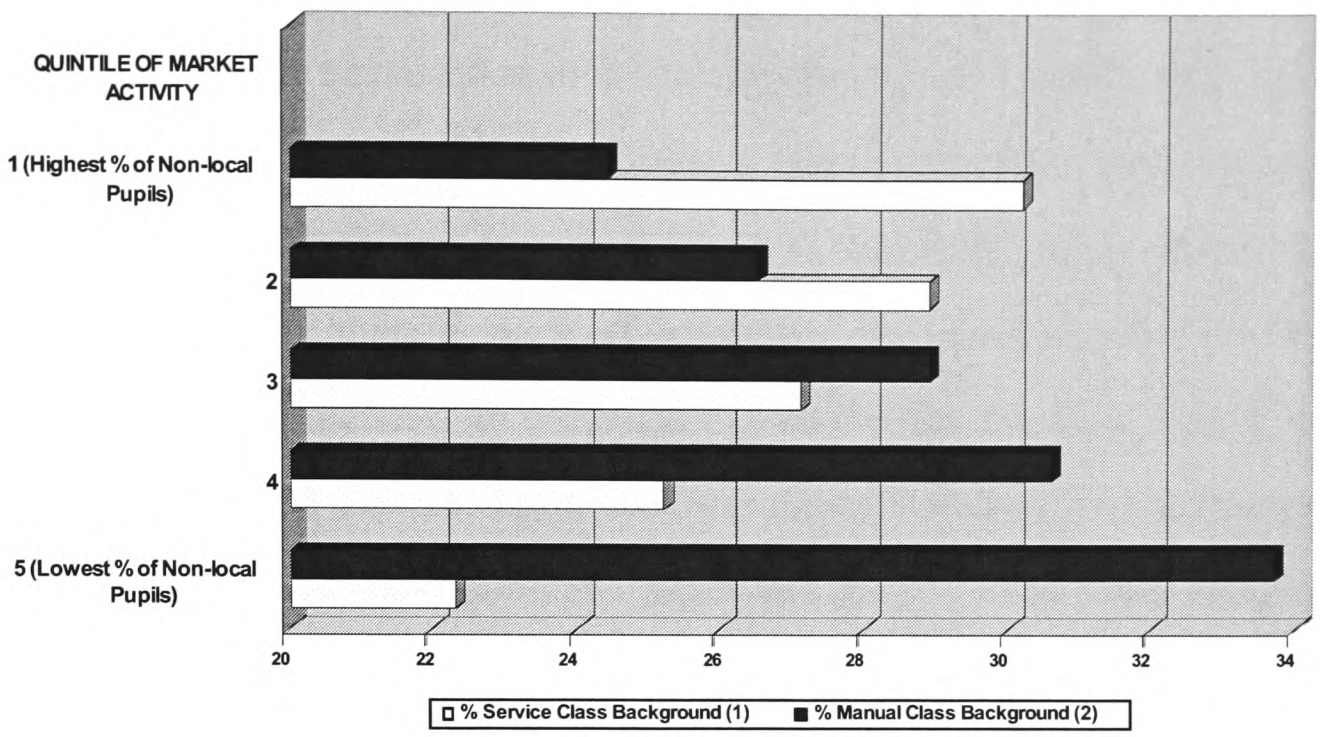


In their oft-cited study on class-based choice, Sharon Gewirtz and colleagues (1995) looked at the patterns of class choice within London, an urban market that possesses levels of pupil movement far more pronounced than those elsewhere in the country as we have seen. A two kilometre-wide radius in London includes a considerable number of schooling options, neighbourhood types, and social groups. As Figure 5.4 reveals again, inner London clearly represents a unique marketplace, in which disadvantaged pupils—though highly mobile themselves (46% attended non-nearby schools in 2002)—demonstrate comparably more localized school attendance patterns. Such patterns of 'differential mobility' between disadvantaged pupils and their peers, however, appear across many areas in the country, lending some support (at least at the area level) to the generalizability of the findings of Gewirtz and others.

Disadvantage and Market Activity Across Schools

Although a useful first step, population and area comparisons do not fully address whether disadvantaged pupils truly represent a distinct and more localized population when it comes to secondary school attendance. To begin analysing differential pupil mobility at the school level is first helpful to classify all secondary schools by the numbers of non-local attendees they possess—each school's relative level of 'market activity' (split into quintiles for presentation purposes). When the social class background of attendees' neighbourhoods in 2002 is compared along these quintile of school market activity (Figure 5.5) it is clear that more localized schools generally have pupils from neighbourhoods with more manual class households and fewer service class households— a finding in keeping with the area class mobility differentials found above. Schools with the highest proportion of non-local attendees (Quintile 1), for example, draw their pupils from neighbourhoods where service class households comprise 30% of the population and manual class households only 24%.

Figure 5.5 **CLASS BACKGROUND OF ATTENDEES' NEIGHBOURHOODS, by Quintile of Market Activity, 2002**



(1) % of Households of Service Class background in pupil's Output Area of Residence.
(2) % of Households of Manual Class background in pupil's Output Area of Residence.

The social class backgrounds of areas, however, cannot be used to examine differential mobility *within* secondary schools. The dangers of the ecological fallacy are too pronounced at the school level. In order to analyse how relatively mobile disadvantaged pupils are within the school they attend, individual pupil background information is required and thus only the FSM indicator in PLASC can be utilized in this analysis. Looking in more detail at the PLASC data and the differential mobility of pupils eligible for FSM across schools, an altered but more accurate view of the movements of disadvantaged pupils materializes. Notwithstanding the fact that nationally (and in most local authorities) FSM pupils lived closer to the schools they attended in 2002, in 56% of English secondary schools a *higher* proportion of FSM attendees than non-FSM attendees were from non-local areas. In other words, in the majority of English secondary schools, disadvantaged attendees were *more* likely to be coming from non-local neighbourhoods.

How then is it possible that even though FSM pupils are more localized in their school attendance patterns across the country and in most local authorities, at the school

level, a higher proportion of individual secondary schools actually have more mobile FSM populations? This strange outcome appears to represent an example of *Simpson's paradox*,[129] and a closer examination of schools by their level of market activity reveals why this is the case. In those secondary schools that possessed the largest numbers of non-local pupils in 2002 (Quintile 1 in Table 5.3), the FSM pupils attending those schools, though overwhelmingly non-local themselves, possessed slightly lower rates of mobility than their schoolmates. In combination with the fact that these 'active' schools had fewer disadvantaged pupils to begin with, this means that the difference between the mobility exhibited by the *many* non-FSM pupils and the *few* FSM pupils in Quintile 1 was enough to ensure that in the aggregate non-FSM pupils were more mobile in 2002, even though at each remaining level of school market activity (which represent schools with lower numbers of non-local pupils than Quintile 1 schools), FSM pupils in fact represent the *more* mobile population. Quintile 1 schools, with their many active non-FSM pupils, also tended in 2002 to be higher performing and to have relatively large actual catchment areas, factors which shall be explored later in the chapter.

Table 5.3 **% OF FSM AND NON-FSM PUPILS ATTENDING A NON-LOCAL SCHOOL, by Quintile of Market Activity, 2002**

	% of Group Attending a Non-Local School **	
	FSM Pupils	Non-FSM Pupils
School Market Activity Quintile		
1 (highest activity)	72	73
2	48	46
3	32	29
4	20	17
5	9	7

** Weighted for school size

[129] In statistics, 'Simpson's Paradox refers to the reversal of the direction of a comparison or an association when data from several groups are combined to form a single group' (Moore, D. and McCabe, G. Introduction to the Practice of Statistics, p. 190).

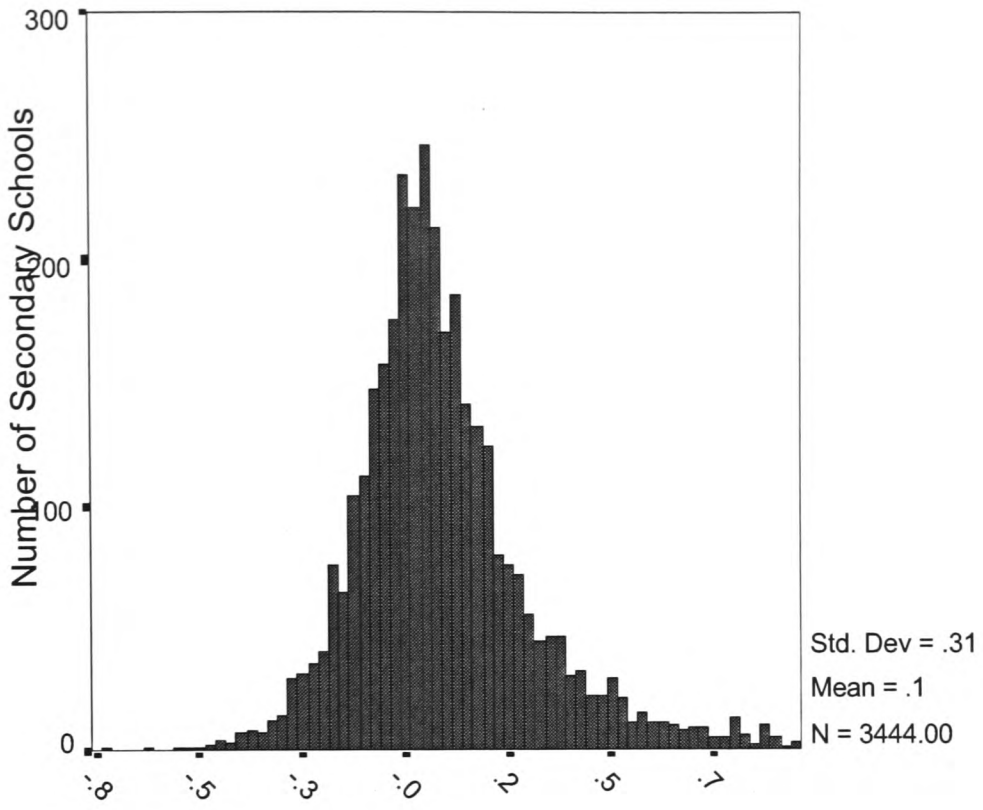
Is it possible that the above figures—suggesting that disadvantaged pupils were actually 'less localized' than their more advantaged peers across most secondary schools—merely reflect the fact that FSM pupils attending non-local schooling options lived proportionally closer to those schools (because of being located in a more urban area), and bypassing their local schools thus in fact requires less relative 'effort'? This does not appear to be the case. At the school level, there were *no* significant differences in the distances to the secondary schools attended by FSM and non-FSM pupils in 2002. In almost exactly one half (49.5%) of all schools, FSM attendees lived farther away from school than non-FSM attendees, and only an average difference of 89 metres (weighted by school size) exists between the distances travelled to school by these two groups.

A slightly more mobile FSM population is confirmed again if one looks instead at the average distances to pupils' *local schools*. Nationally, and in two-thirds of local authorities, FSM pupils lived *closer* to their nearest secondary school than non-FSM pupils did. This difference is preserved at the school level where for 59% of individual secondary schools FSM pupils in that school's local catchment area lived closer than non-FSM pupils to the school. Therefore, even though disadvantaged pupils on average lived closer to their nearest secondary school, they lived equally as far away as more advantaged pupils from the schools they actually attended. This suggests that FSM pupils may in fact be exercising more effort than their peers to attend the schools of their choice (or at the very least are deciding to bypass more convenient local schools in order to attend non-local schools). Further evidence of the differential mobility that produces such a result can be found in the difference between the distance ratios[130] of FSM and non-FSM pupils. In 56% of secondary schools in 2002, FSM pupils went proportionately further beyond their local school than non-FSM pupils to attend that school (the right side of the distribution in Figure 5.6 is slightly larger, illustrating that in a majority of schools FSM pupils were more mobile).

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[130] The ratio of the distance a pupil lives from the secondary school they attend to the distance to the nearest secondary school.

Figure 5.6 **DIFFERENCE IN THE PROPORTIONATE DISTANCE TO ACTUAL AND LOCAL SCHOOL, FSM vs. NON-FSM PUPILS, 2002**



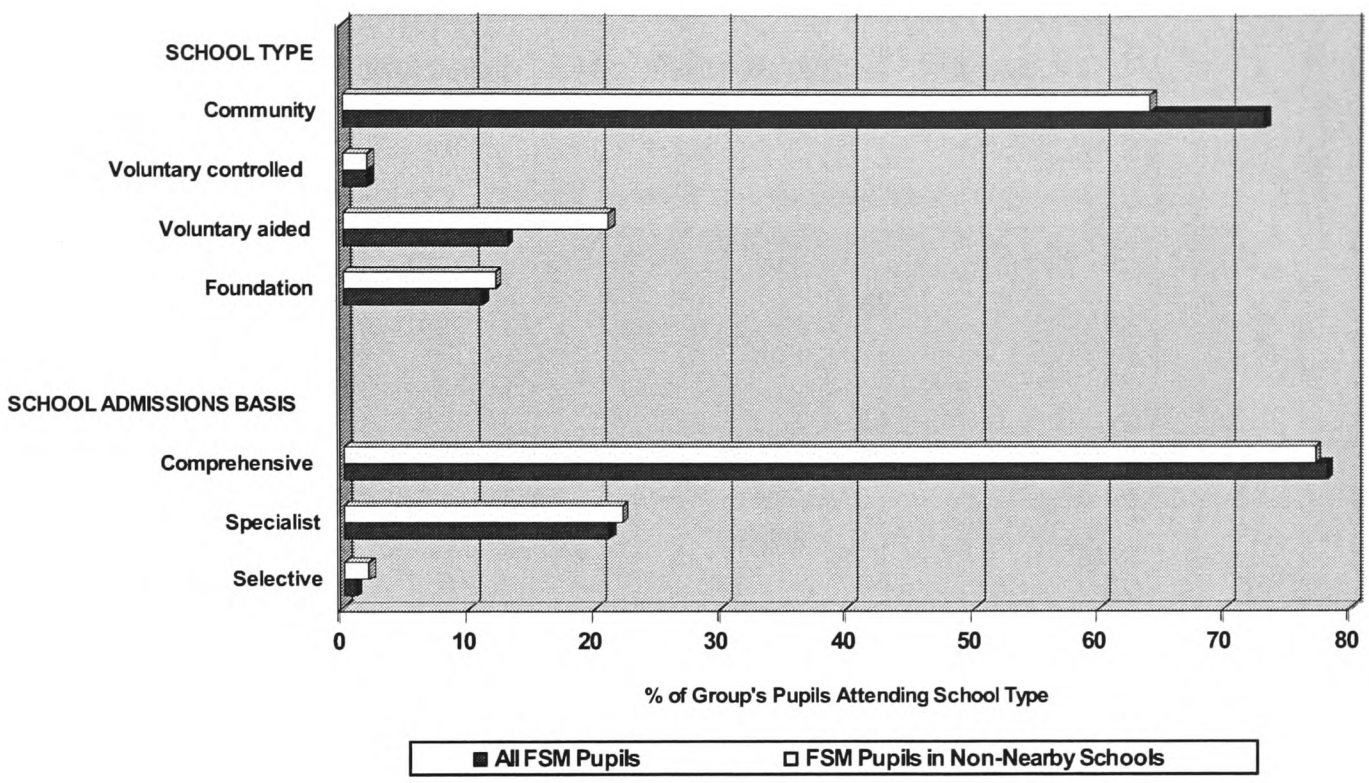
1) Ratio of Distance to School Attended to Distance to Nearest Secondary School.

Differential Mobility and Schooling Destinations

Disadvantaged pupils are not distributed evenly across the country but are instead more concentrated in some areas (generally more urban in nature) than others, a fact that, as we have seen, must be kept in mind when comparing their movements to those of other pupils. Pupils eligible for free school meals also tend to congregate in certain types of school: community schools, for instance, have higher proportions of FSM pupils nationally than voluntary, foundation, specialist, or grammar schools. Indeed, if examined through a local school counterfactual (as was done with all pupils in Chapter 4), FSM pupils would have attended voluntary, foundation, and selective schooling options in greater numbers in 2002 if they had attended their most spatially proximate school. The 32% of FSM pupils that attended non-nearby schools in 2002 were slightly more likely than other FSM pupils to attend voluntary aided schools (primarily Roman Catholic) and, to a lesser extent, foundation and grammar schools (Figure 5.7). Most,

however, attended non-local community schools, although at a slightly lower rate than all FSM pupils.

Figure 5.7 **DESTINATION SCHOOL FOR FSM PUPILS NOT ATTENDING LOCAL OR ADJACENT SECONDARY SCHOOLS, 2002**



It is also informative to examine the differences that exist between the secondary schools in which disadvantaged (FSM) pupils were more localized and those for which they represented a relatively non-local population. To do this it is useful to classify schools into two broad categories:

1. Secondary schools in which FSM pupils had a non-local school attendance rate that was *5% or more greater* than that of non-FSM pupils in 2002 (49% of schools).
2. Secondary schools in which FSM pupils had a non-local school attendance rate that was *5% or more lower* than that of non-FSM pupils in 2002 (39% of schools).

Comparing these two categories of schools along several dimensions (Table 5.4, below) illustrates that schools with more and less mobile disadvantaged populations differed relatively little in 2002. Both types, on average, have similar sizes, levels of market activity and social profiles. The primary differences occur with respect to the size of

their catchment areas, the types of schools they include and their performance levels. Schools with more localized FSM pupils included fewer community schools but also schools with higher GCSE attainment levels than schools with more mobile FSM populations. They also possessed the larger catchment areas associated with more popular schools. Some graphic examples of what differential mobility looks like in these different instances will be examined in the maps at end of chapter.

Table 5.4 **DIFFERENTIAL MOBILITY: THREE TYPES OF SECONDARY SCHOOL, 2002**

	Secondary Schools in which...	
	FSM Pupils are More Mobile (1)	**FSM Pupils are More Localized (2)**
% of All Secondary Schools	49	39
School Roll	1089	1070
Market Activity		
% in Non-Nearby Schools	31	33
FSM	40	25
non-FSM	30	34
Distance Ratio		
FSM	2.39	2.04
non-FSM	2.04	2.20
Retention Rate	48%	48%
Capture Ratio	.94	1.01
Spatial		
Local Catchment	32	45
Actual Catchment	76	112
Background		
% FSM	15	14
% Ethnic Minority	10	8
% Service Class	25	26
% Manual Class	30	30
Type of School		
Community	72	60
Voluntary Controlled	2	5
Voluntary Aided	11	16
Foundation	15	19
Admissions		
Comprehensive	75	72
Specialist	21	24
Selective	4	4
Performance		
GCSE Pass Rate	50	54
GCSE Pass Rate relative to LEA	-1.9%	3.7%

The above analysis illustrates just how difficult it can be to isolate differential patterns of pupil mobility, and how misleading national or area estimates might be if taken out of context. When one breaks the lived marketplace down to its core structure—the secondary schools themselves—it is clear that, far from being more localized, disadvantaged pupils in England actually exhibited slightly *higher* levels of overall market mobility in 2002. Higher pupil mobility rates, however, although illustrative of overall levels of market activity and 'active choice', are not synonymous with market success. Successfully 'playing' the educational market requires more than simply attending non-local schools, it is a process that demands results. To examine this it is necessary to look at the ultimate schooling destinations of pupils from different social backgrounds and what is accomplished via the exercise of non-local school choice.

Social Background and Educational Mobility

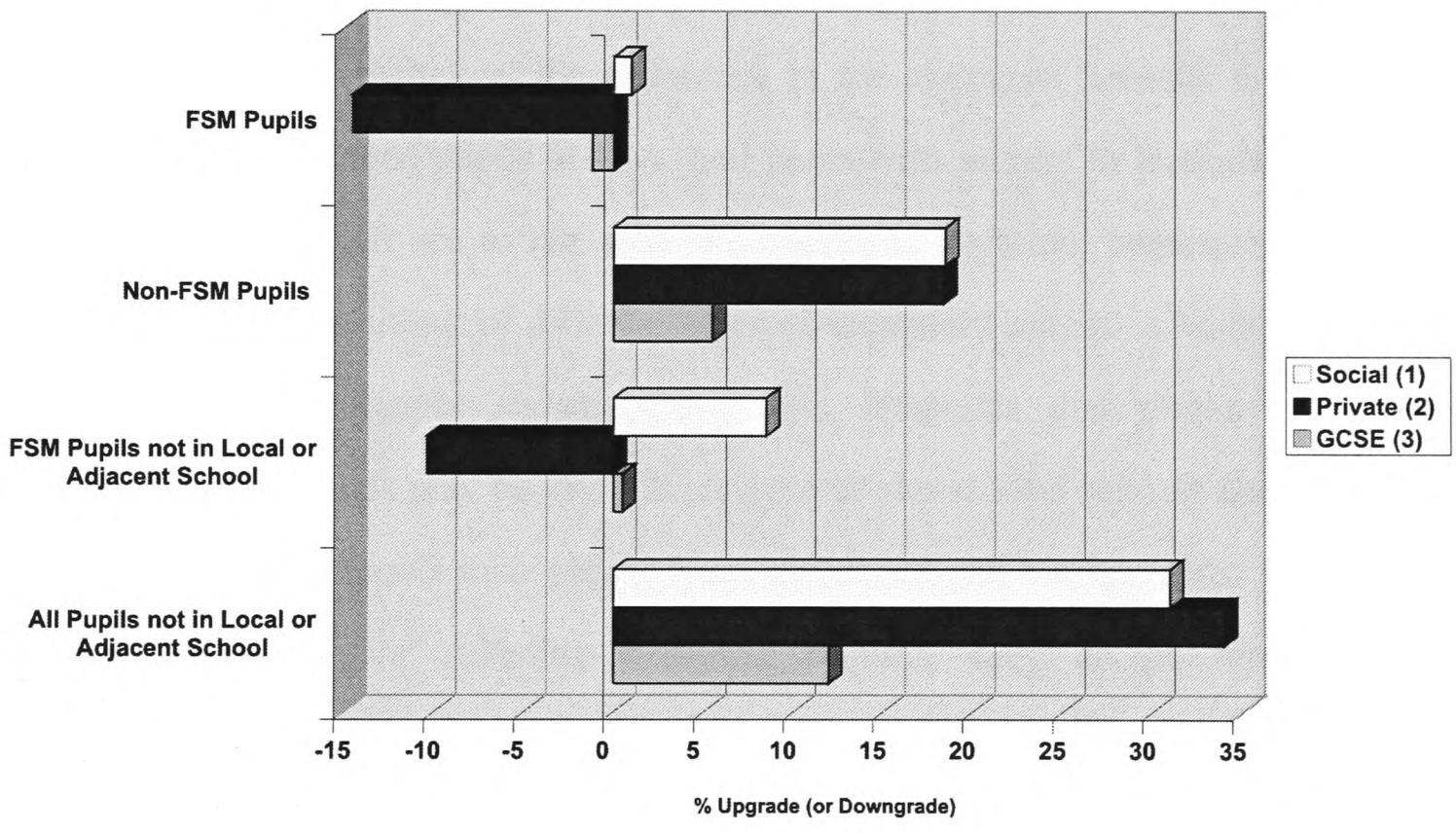
Mobility Gains: The Differential Benefits of Non-Local School Attendance

The primary question for the purposes of investigating differential educational mobility is how the schooling destinations of disadvantaged pupils compare to those of more advantaged pupils. According to a large body of research, one of the key class differences in choice concerns the characteristics of the schools chosen by parents and pupils from different backgrounds. Research suggest that pupils from middle class families are more likely than their working class counterparts to apply to (and to ultimately attend) secondary schools with higher attainment levels (Wilms and Echols, 1992), more advantaged intakes (Gewirtz *et al*, 1995), and more selective admissions arrangements (Noden *et al*, 1998).

An analysis of PLASC using indicators of school quality to compare local and actual schools (as was done for all pupils in Chapter 4) reveals clear differences between the destinations of disadvantaged and more advantaged pupils (Figure 5.8). While FSM is a narrower indicator than most used to describe social background in the above studies, the PLASC analysis confirms that more advantaged pupils, despite residing in

areas with relatively high performing local schools with advantaged intakes,[131] tended to 'upgrade' schools in 2002, selecting non-local schools of even higher 'quality'. Non-FSM pupils that attended a non-local school in 2002, for example, were upgrading to schools that had almost 20% fewer disadvantaged pupils on average than their local schools. These non-local schools were nearly 20% more selective, and also performed 5% better on GCSEs than the pupils' local schools. For FSM pupils, on the other hand, non-local school attendance actually meant declining returns: non-local schools, on average, were 15% less selective than their local schools and scored slightly lower on GCSEs, despite possessing more advantaged intakes.

Figure 5.8 **MOBILITY GAINS FOR FSM AND NON-FSM PUPILS, by Market Activity, 2002**



(1) Percentage decline in proportion of pupils on free school meals at choice school versus local school.
(2) Percentage increase in private state score at choice school versus local school.
(3) Percentage increase in points score at choice school versus local school.

[131] See Research Methods Annex.

Even those FSM pupils demonstrating the most mobility—those attending neither local nor adjacent schools—still appear to accomplish very little compared to the entire population of pupils upgrading to non-local schools. This illustrates again that even the level of mobility demonstrated by some disadvantaged pupils does not result in attending higher quality schools in the same fashion that it does for more advantaged pupils. In general, while bypassing their local schooling options at a slightly higher rate than their peers, disadvantaged pupils are 'relocating' to secondary schools that are largely community and non-selective, and which appear to represent options with little, if any, noticeable advantage in quality over local schools (at least with respect to the standard dimensions of school quality such as performance).

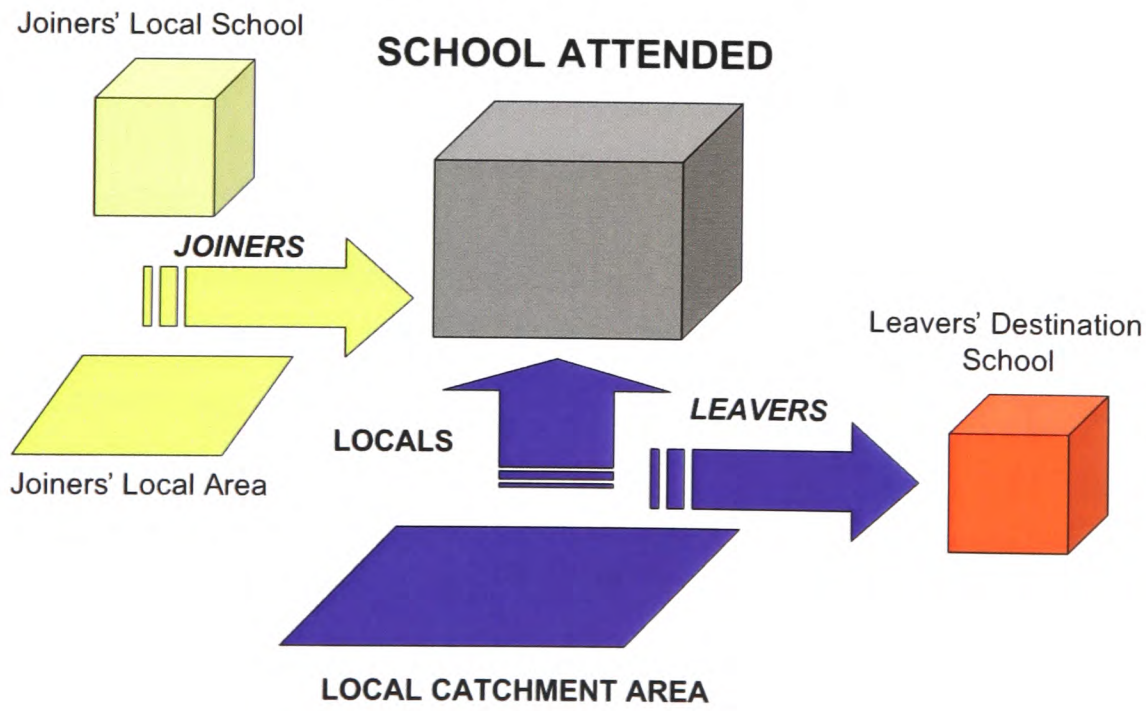
As discussed in Chapter 4, non-local school attendance may reflect 'choices' that are not made with the conscious intent of 'upgrading' to a school that performs better than one's local. Nonetheless, the difference in the aggregate benefits from mobility accrued by disadvantaged pupils and by their peers with respect to indicators of school quality has, as we shall see in the next two chapters, important consequences for the resultant social compositions of different types of secondary school. Combined with the market activity differences shown above, this illustrates that pupils from more advantaged backgrounds may be more likely *both* to attend local schools and to upgrade to better non-local schools than pupils from disadvantaged backgrounds. Thus, even where FSM pupils are attending non-local schools, they do not appear to be accomplishing as much through the activity as their non-FSM counterparts. The gains from this mobility—at least along conventional measures of school quality—clearly favour more advantaged pupils.

Mobility Flows: Non-Local School Attendance Patterns

To fully demonstrate the complex dynamic involved with the flow of pupils between areas and schools, and how these channels provide different benefits to different pupils (depending on their background and on the type of schooling decision being made), it is necessary to examine in more detail how school attendance patterns differ with respect to

a variable such as performance on GCSEs. Tracking *mobility flows*, as the model below indicates (Figure 5.9), involves a comparison of attendees' areas and local schools for the *joiners*, *leavers* and *locals* that compose a particular secondary school's intake.[132] For example, if one considers the mobility and performance levels of all Year 11 pupils who took GCSEs in 2002, some clear patterns emerge. As one might expect from the 'upgrading' presented above, *joiners* (those pupils migrating to school from non-local areas) demonstrated higher attainment levels than the *locals* (pupils from within the school's local catchment) that they were attending school alongside (55% v. 50% GCSE pass rate nationwide). Moreover, it is evident from the figures that joiners were benefiting from the movement, leaving behind schools and local neighbourhoods with lower overall attainment levels (47% GCSE pass rate). Not all local area pupils, however, are retained by the school: these *leavers* bypass their local school for non-local options and typically achieve mobility gains via their destination school as well.[133]

Figure 5.9 **MODEL OF MOBILITY FLOW: JOINERS, LEAVERS, AND LOCALS**



[132] In a sense, this involves combining the analyses of retention, capture and upgrading presented in the Chapter 4.

[133] At the national level, leavers and joiners compose the same non-local group of pupils and thus have identical features.

An analysis of *mobility flow* that compares the attendance patterns of schools with more and less mobile FSM pupil populations provides considerable insights into why differential mobility does not equate with market success for disadvantaged pupils (at least in terms of GCSE attainment levels). If the GCSE pass rates of joiners, leavers and locals for both types of school are placed side by side then an unmistakable difference is exposed (Table 5.5). In the almost 50% of secondary schools in which FSM pupils represented the more mobile attendees in 2002, joiners—although improving upon the levels of attainment in their local schools and areas—by and large entered schools with peers (locals) of equal ability but which were located in areas where higher performing children (leavers) had moved on elsewhere. In other words, the mobility experienced in these schools and the benefits acquired by non-local (disproportionately disadvantaged) pupils were largely a type of *hand-me-down* gain. Joiners in essence moved into places vacated by higher performing pupils that themselves had moved on to even greener pastures.[134]

Table 5.5 **MOBILITY FLOWS: GCSE PASS RATES FOR JOINERS, ATTENDEES AND LEAVERS, by School's Relative FSM Mobility, 2002**

	Secondary Schools in which...	
	FSM Pupils are More Mobile	FSM Pupils are More Localized
JOINERS	**50**	**60**
Joiners' Local Area	49	53
Joiners' Local School	46	48
ATTENDEES	**50**	**53**
Pupils Resident in Local Catchment	53	50
Locals (attendees from Local Catchment)	50	50
LEAVERS	**57**	**53**
Leavers' Destination School	58	55
Leavers' Destination Area	57	56

[134] Of course, these pastures are made greener in part by the abilities of those leaving to get there.

In secondary schools in which disadvantaged pupils are relatively more localized, on the other hand, the exact opposite is true. The pupils joining these schools in 2002 (disproportionately advantaged), although bypassing similarly low performing local schools, consisted of children with higher attainment levels than both the locals they were enrolling alongside and the local pupils whose hypothetical 'places' they were filling. Interestingly, the group of *locals* (pupils attending their local school) is remarkably similar across both groups—it is the nature and abilities of the *joiners* and *leavers* that combine to influence the overall attainment levels of the schools.

If the above figures are any indication, one general trend that emerges from the data is that many of the disadvantaged pupils that live nearby to voluntary and selective schools, relocate (and even 'downgrade') to non-local comprehensives that have more disadvantaged pupils and usually only modestly higher attainment levels. Of course, this may represent 'choice' of a different, less educational sort, one that places more importance on school features beyond the more instrumental and academic. The more local dimension of mobility flows will be explored in more detail later in this chapter. Next, it is useful, using PLASC data from 2002 and 2003, to track the key mobility flow that occurs at the transition from primary to secondary school.

Mobility Over Time: Tracking the Transition to Secondary School

One further method for analysing how successful disadvantaged pupils are at playing the market relative to their peers is to track the movements of Year 6 pupils at the transition from primary to secondary school. After all, it is at this transition point that 'choice' primarily occurs and although the foregoing analysis has examined the movement of millions of maintained secondary pupils, this movement has, in a sense, been analysed *ex post facto* in the majority of cases. Tracking the transition to secondary school allows for an examination of the context of choice during the time frame when this context is most pertinent. Pupils eligible for FSM at Year 6, for example, may be living in completely different circumstances by the time they are taking GCSEs at age 15, circumstances that are less relevant to the original act of school selection.

The anonymised pupil matching numbers present in the PLASC data system allow researchers and analysts to link pupil records from different census years. Over half a million (541,563) Year 6 pupils[135] in PLASC 2002 have a linkable Year 7 pupil record in PLASC 2003. Linking these records reveals several interesting facts about pupil mobility. First, 84% of Year 6 pupils in 2002 lived in the same small neighbourhood (OA) in 2003, suggesting that a relatively high percentage (over 15%) of pupils changed residences between the two census dates. This again helps again to affirm and explain why older secondary school pupils are more likely to be found in non-local schools than their younger peers—many may have remained in the same school (or had siblings join them in that school) even as their families relocated to new residences. The scale of this mobility (which is arguably most pronounced at the Year 6 to 7 transition if families are moving in part for school purposes), however, highlights why non-local school attendance rates may be an imperfect measure of 'active choice' as well as how changes of residence may force secondary school choice to occur at points other than the Year 6 to 7 transition.

Examining the movement of pupils between 2002 and 2003 also reveals the relative transience of disadvantaged pupils. This is true in two senses. First, the data shows a very high annual turnover rate in FSM eligibility: only 76% of pupils eligible for FSM in 2002 were again labelled as eligible in 2003. Second, FSM pupils were also more likely to change residences: only 75% of pupils eligible for FSM in 2002 resided in the same small neighbourhood (OA) in 2003 (compared to the population rate of 84% above). Indeed, their higher frequency of residential mobility may be in part why disadvantaged pupils showed surprisingly high levels of non-local choice in 2002.

Finally, using PLASC data for 2002 and 2003 it is possible to examine pupil origins and destinations with respect to the performance of the primary and secondary

[135] For the purposes of this analysis only 504,869 pupil records were analysed—those that had valid FSM indicators and those of Year 6 pupils moving from primary to secondary, and not to middle, schools in 2002. For more details on the linkage and analysis see the Methods Annex.

schools they attend. Year 6 pupils that were eligible for FSM in 2002 were not as likely as their non-FSM peers to upgrade to a higher performing secondary school in 2003.

Table 5.6 **RELOCATING FROM PRIMARY TO SECONDARY SCHOOL, FSM vs. NON-FSM PUPILS, 2002-03**

		Secondary School GCSE quintile, **2003** (1=highest performing)					**Total**
FSM PUPILS							
Primary School quintiles of Key Stage 2 English, **2002** (1) (1=high performing)		**1**	**2**	**3**	**4**	**5**	
	1	**20.3%**	24.9%	22.3%	19.1%	13.3%	100.0% (5,518)
	2	13.4%	**23.7%**	23.0%	21.9%	18.0%	100.0% (10,615)
	3	8.9%	17.1%	**22.5%**	27.8%	23.7%	100.0% (15,464)
	4	5.6%	11.5%	21.1%	**29.6%**	32.2%	100.0% (24,096)
	5	2.6%	7.9%	15.1%	30.7%	**43.7%**	100.0% (35,245)
Total		6,179	12,065	17,573	25,631	29,490	90,938
		6.8%	13.3%	19.3%	28.2%	32.4%	100.0%
Non-FSM PUPILS							
		1	**2**	**3**	**4**	**5**	
	1	**42.0%**	28.9%	16.5%	9.4%	3.2%	100.0% (78,104)
	2	27.0%	**30.9%**	22.0%	13.5%	6.6%	100.0% (92,499)
	3	19.5%	25.7%	**24.6%**	19.0%	11.3%	100.0% (88,915)
	4	13.6%	17.9%	24.8%	**25.3%**	18.5%	100.0% (86,402)
	5	6.8%	12.2%	20.3%	29.8%	**30.9%**	100.0% (68,005)
Total		91,505	97,729	90,185	78,848	55,658	413,925
		22.1%	23.6%	21.8%	19.0%	13.4%	100.0%

(1) Key Stage 2 English final test level was converted to a points score.
Shaded areas indicate upward mobility.

Reading Table 5.6 from left to right, it is evident that non-FSM pupils in relatively high performing primary schools (as measured by Key Stage 2 English pass rates) were largely able to secure places at secondary schools with similarly high relative performances (measured by GCSE pass rates). Over 40% of non-FSM pupils that attended a top performing primary school in 2002 (Quintile 1 above), for example, received places at top performing secondary schools in 2003, as compared to only 20% of FSM pupils. The structural mobility differences revealed in Table 5.6 highlight the ability of more advantaged pupils to maintain or improve the quality of the schools they attend. While some of these differences may be attributed to the better quality of schools (both primary and secondary) in some local areas, it is unlikely that such stark differences would be created, in the absence of selection by ability, without the differential pupil mobility levels that choice allows. The next chapter will illustrate further how non-local school attendance patterns may exacerbate the social segregation of pupils across secondary schools in England.

Up Close: Playing the Market

Mapping Social Catchment Areas

A graphic overview of the social compositions of different school catchment areas, as well as the differences in pupil mobility within these catchments, can be generated in a similar fashion to the catchment areas in the previous chapter. Pupils eligible for FSM, labelled with geo-coded postcodes at the individual level in PLASC, can be identified and mapped alongside their fellow pupils. Returning to the urban comprehensive school example used in the previous chapter, it is possible to plot the residential locations of FSM and non-FSM pupils on an OA level map of the areas immediately surrounding the secondary school (Figure 5.10). This provides a detailed and precise illustration of how far (and from where) disadvantaged and non-disadvantaged pupils come to attend this particular school.

Figure 5.10 **PLOTTING FSM AND NON-FSM PUPILS: AN URBAN COMPREHENSIVE**

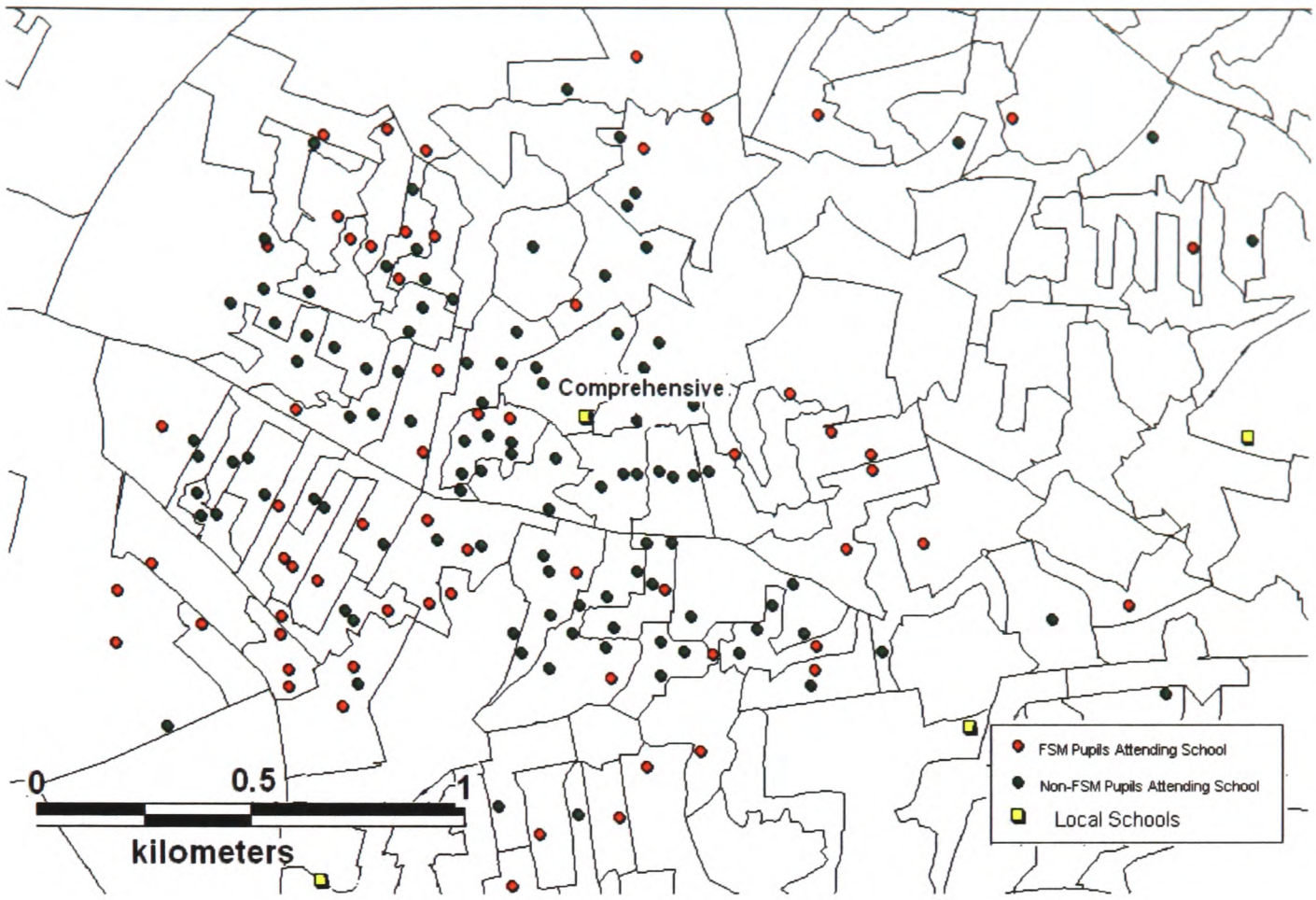
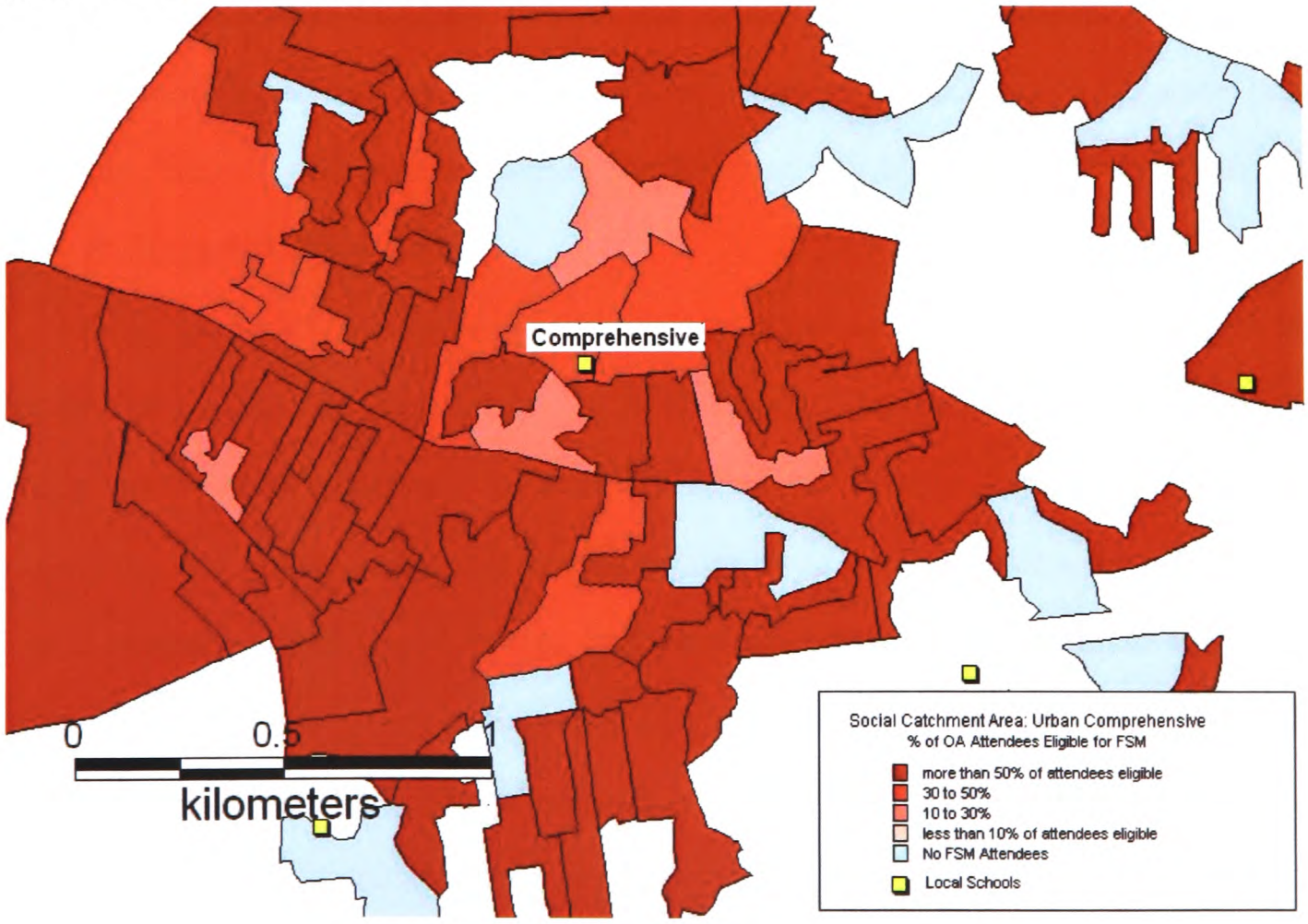


Figure 5.11 **SOCIAL CATCHMENT: URBAN COMPREHENSIVE**



Again, for reasons related both to data protection and presentational clarity, it is better to present the map of any individual secondary school's *social catchment area* as a composite of shaded Output Areas that represent the relative social composition of the group of school attendees (often only a few pupils) that come from various surrounding neighbourhoods[136]. When this is done for the above urban comprehensive, the result is a shaded catchment similar to the one for all pupils illustrated in Chapter 4, except in this case the OAs that contain FSM pupils attending the school are depicted in various shades of red, reflecting the proportion of each OA's attending population that is disadvantaged (Figure 5.11). It is clear from the map that this school's social catchment is highly disadvantaged—the majority of neighbourhoods serving the school contain rates of disadvantage (among attendees) that are greater than 50%. The OAs still coloured in blue represent those residential neighbourhoods from which no disadvantaged attendees originate (as well as the relative concentration of school pupils in those areas).

Mapping social catchment areas provides an incredibly powerful tool for investigating differential mobility rates at the school, and local neighbourhood, level. The various mobility dynamics occurring within different local contexts are more clearly visible from 'above' and such a perspective helps to illustrate some of the differential mobility findings discussed earlier.

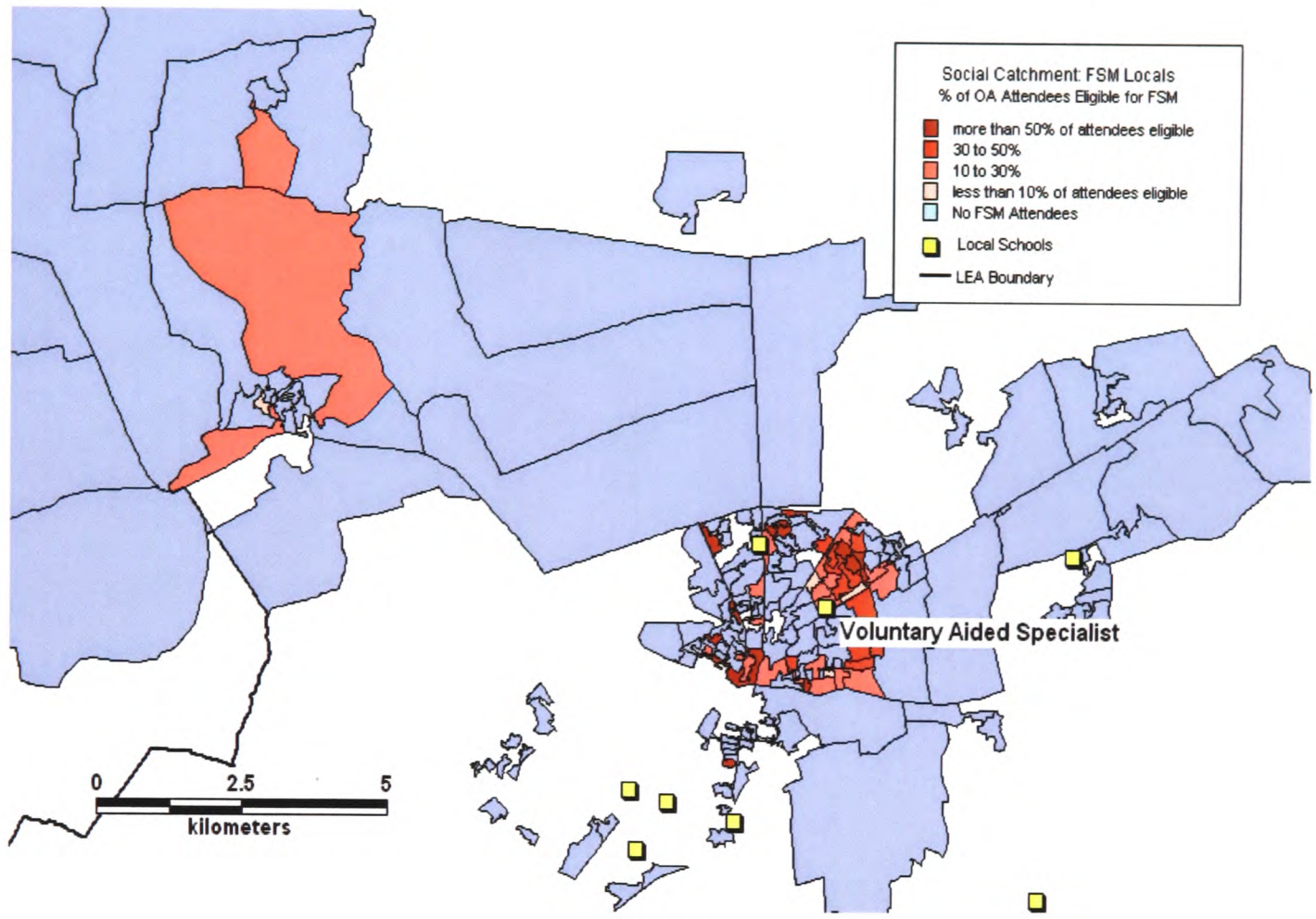
Many secondary schools across the country have (and have always had) catchment areas like the first example of differential mobility (Figure 5.12). The voluntary aided school pictured is located in a selective county authority (LEA Cluster 2 in Chapter 3), and although not a grammar school itself, it does have a denomination as well as a specialism and draws pupils from a wide area outside the local town. The majority of its attendees from local neighbourhoods, however, are disadvantaged. This sort of social catchment is typical of schools in towns within larger and generally more affluent counties, and is unlikely to have changed much under open enrolment. While

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[136] Many OAs will contain only one or two pupils in total who are attending the relevant school. Therefore, darkly shaded areas should not be mistaken for neighbourhoods that have high concentrations of disadvantaged attendees. Instead, the shading should be considered only as a shorthand representation of the social backgrounds of the attendees living in those areas.

the addition of the specialism may make this particular school more attractive for non-local children in the surrounding countryside, because of its location and the clustering of poverty within the town centre, it will usually serve a more localized disadvantaged population.

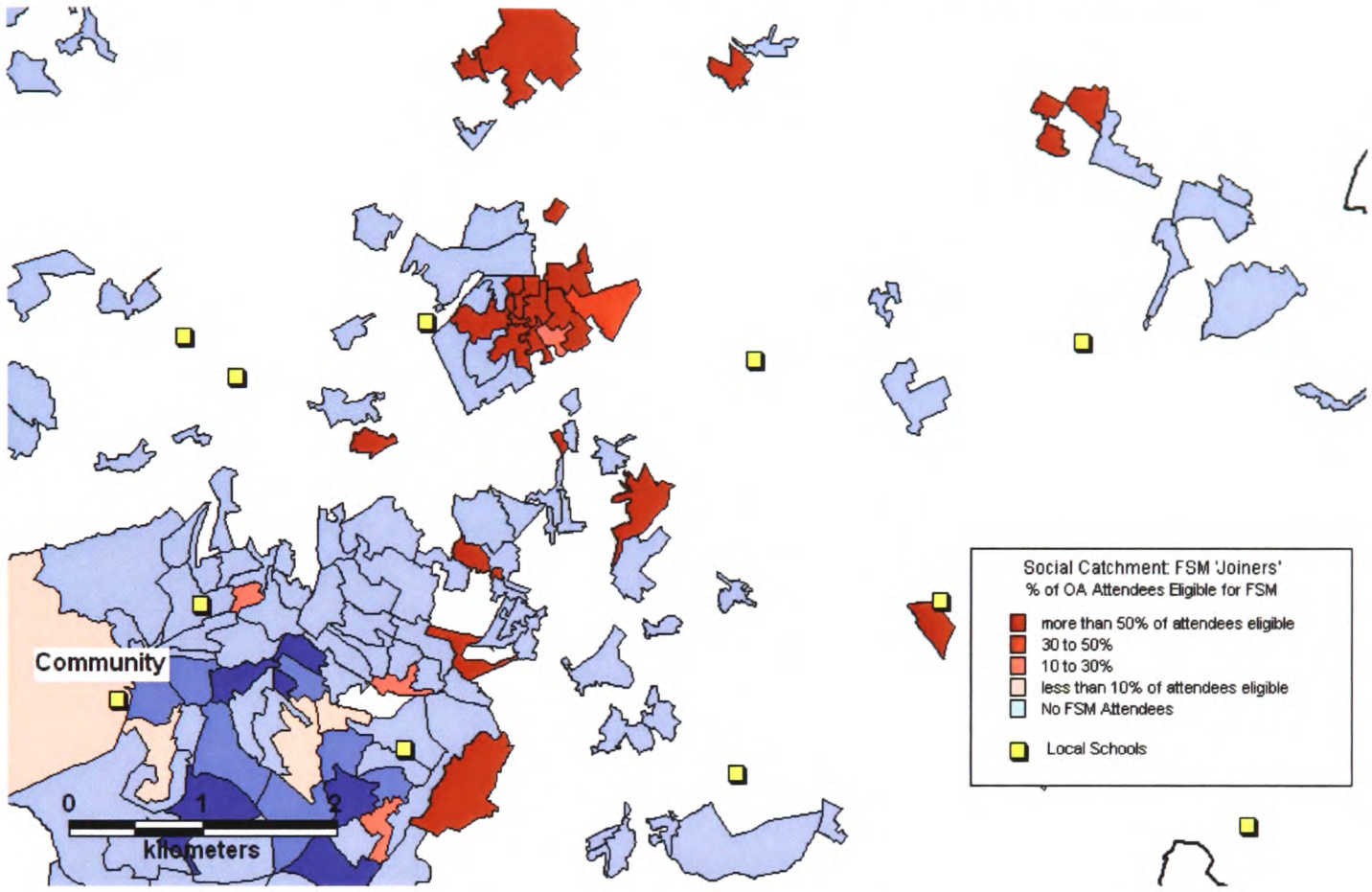
Figure 5.12 **SOCIAL CATCHMENT: VOLUNTARY AIDED SCHOOL WITH FSM 'LOCALS', 2002**



In contrast, the second map (Figure 5.13) illustrates an example of a secondary school that receives an inflow of disadvantaged 'joiners' from non-local neighbourhoods. The secondary school depicted—one of the highest performing schools in an urban comprehensive authority (LEA Cluster 5A)—retains a high percentage of its local (and more advantaged) pupils but also draws FSM pupils from pockets of deprivation deeper into the city. Although it is not possible to know through PLASC whether a specific effort is being made to recruit more disadvantaged, non-local pupils, it is clear that FSM pupils in 2002 were choosing to bypass several closer schools to fill available places in this popular suburban secondary. This particular school is not typical of the level of attainment commonly found in the destination schools of mobile FSM pupils; however, it

does illustrate well a general trend in the direction of disadvantaged pupil movement—from urban pockets of deprivation to suburban secondary schools—within schools that have relatively mobile FSM attendees.

Figure 5.13 **SOCIAL CATCHMENT: COMMUNITY SCHOOL WITH FSM 'JOINERS', 2002**



The movement of disadvantaged pupils may also breach LEA boundaries in order to take advantage of reasonably nearby schooling alternatives. The map below (Figure 5.14) shows a community secondary school within a relatively non-deprived comprehensive authority (LEA Cluster 5B in Chapter 3) but one in which 86% of its FSM population comes from disadvantaged neighbourhoods in a nearby city. The addition of these disadvantaged pupils from a neighbouring LEA helps to make the school's own otherwise non-deprived local authority one of the most segregated in England.

Finally, the secondary schools with perhaps the starkest social catchments are those unpopular 'sink schools' with GCSE pass rates below 20%. Although 'sink schools' do not generally show much difference in the relative mobility of FSM and non-FSM attendees, they do demonstrate highly disadvantaged and discrete catchment areas.

Figure 5.14 **SOCIAL CATCHMENT: COMMUNITY SCHOOL WITH FSM 'IMPORTS', 2002**

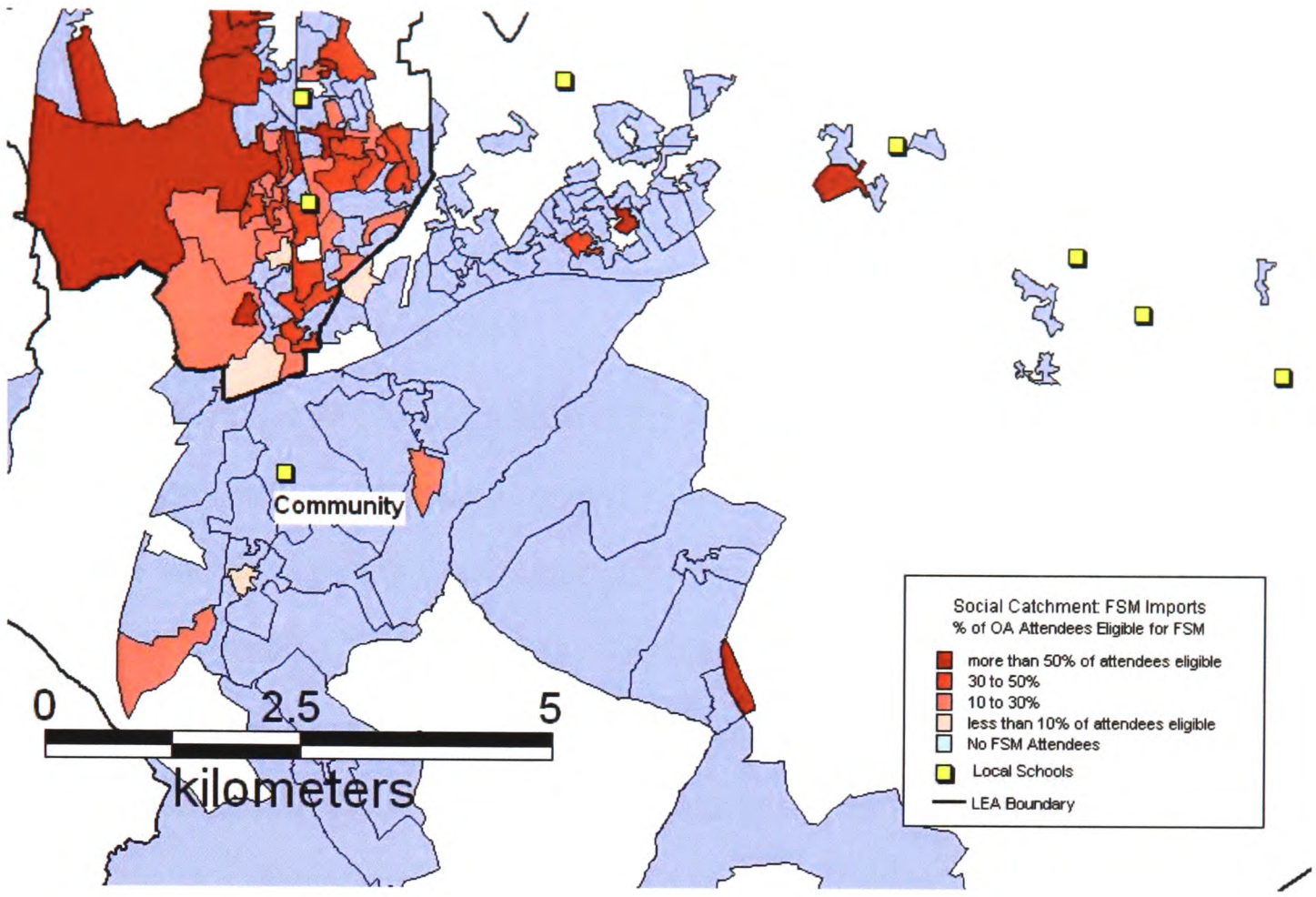
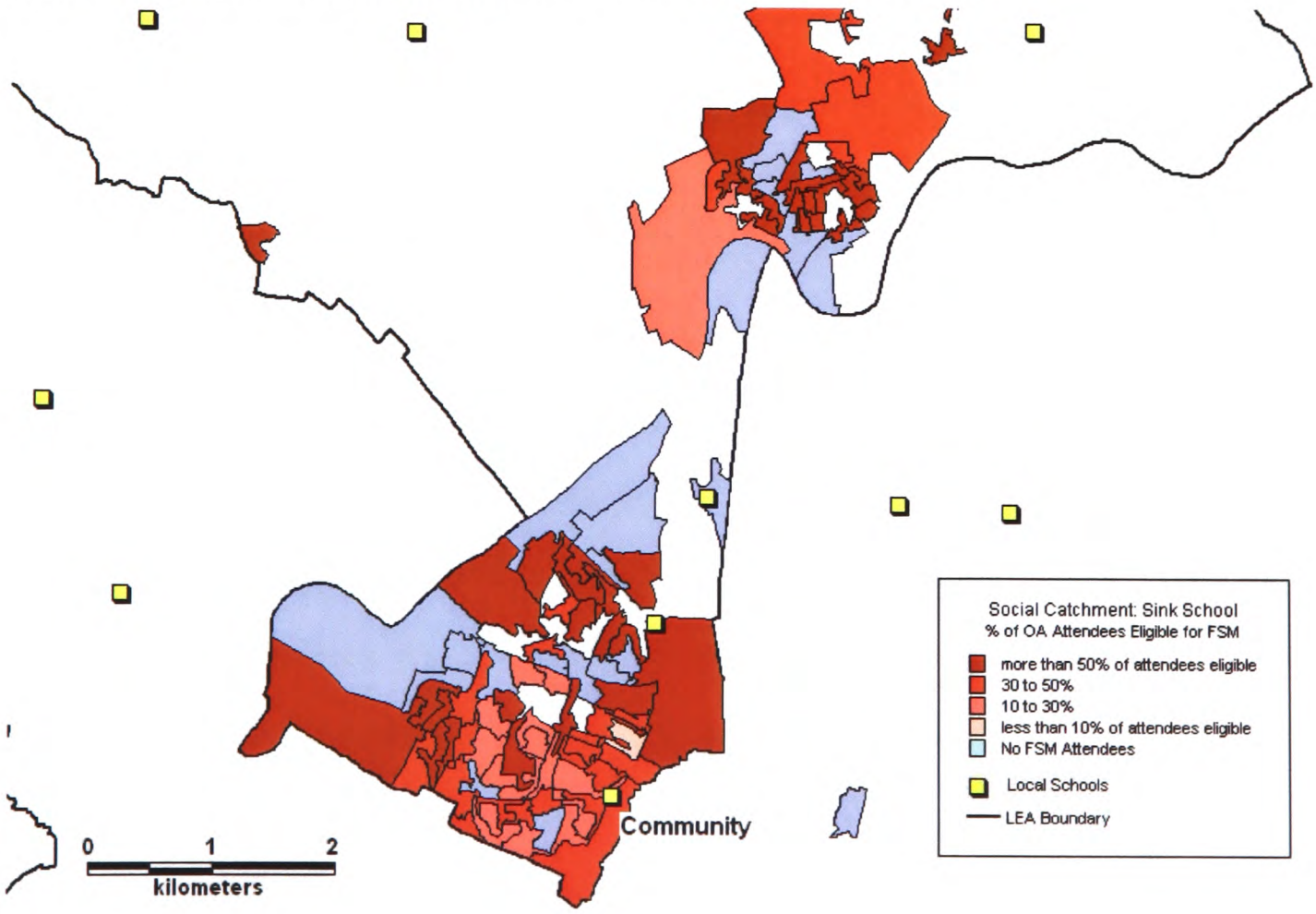


Figure 5.15 **SOCIAL CATCHMENT: COMMUNITY 'SINK SCHOOL' (2002)**



As Figure 5.15 illustrates for one sink school in an urban comprehensive authority (LEA Cluster 5A), the children attending this community school come both from deprived neighbourhoods directly surrounding the school as well as from specific and equally deprived areas 'down the road'. In order to attend this school, these mostly FSM, non-local pupils actually bypass closer and more popular alternatives.

Differential Mobility by Local Area

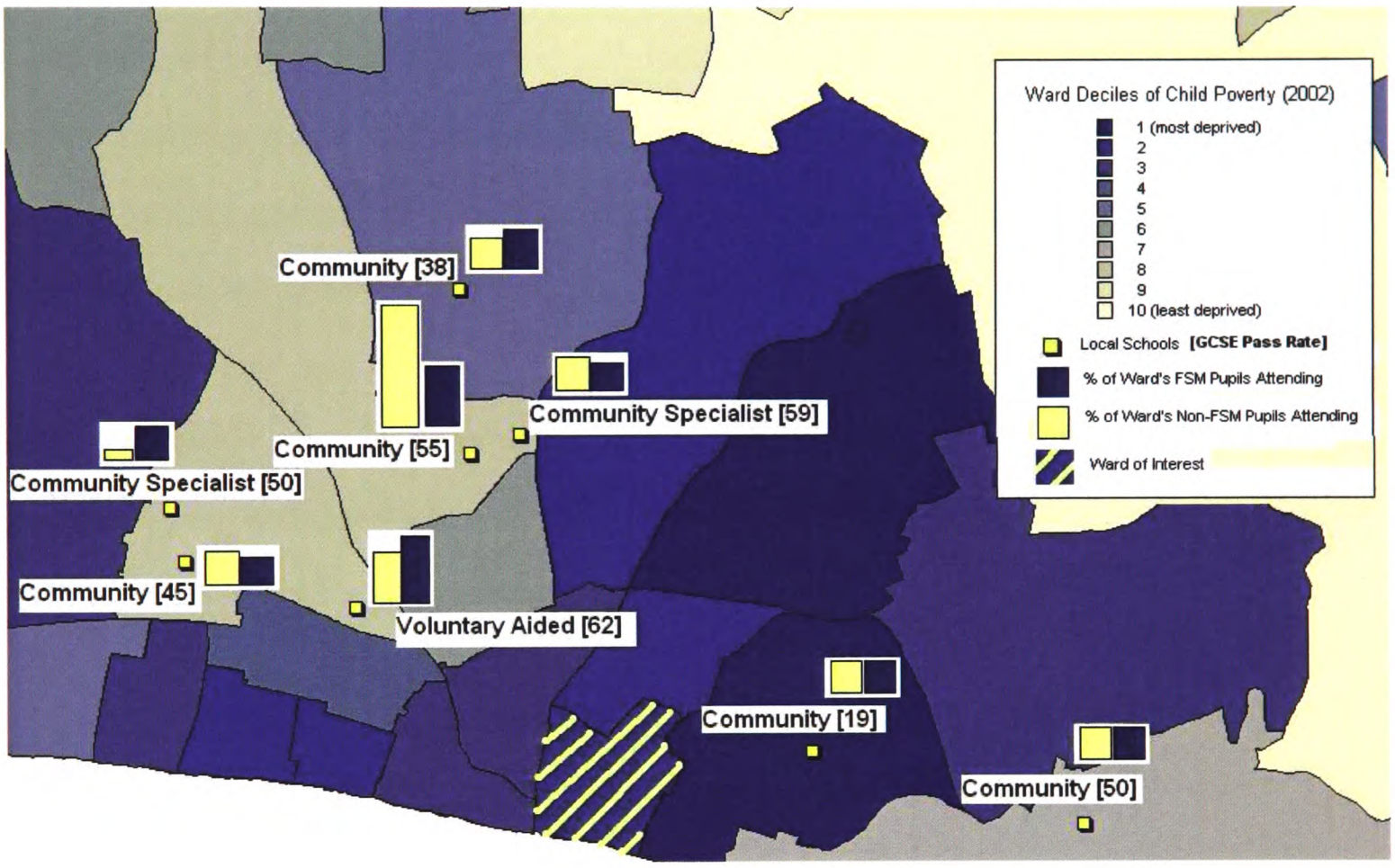
Although it is impossible to do justice to the range of secondary school catchments and the diverse instances of differential mobility, it is clear from the preceding examples that the relative mobility levels (and schooling destinations) of disadvantaged pupils vary considerably according to different local contexts. It is also possible with the data in PLASC to explore differential mobility from the local area perspective.

Focusing in on the schooling destinations of the 363 maintained secondary school pupils living in a disadvantaged coastal ward in 2002 (Figure 5.16) allows a glimpse of both non-local movement and 'upgrading.' The ward depicted in the map below (Ward A) is one of several clustered wards in the top 20% most disadvantaged nationwide on the *Neighbourhood Statistics* child poverty index (NeSS, 2004). The local authority in which these wards lie is predominantly comprehensive (Cluster 5B) and is one of a handful of LEAs in which FSM pupils were on the whole more mobile than their non-FSM counterparts in 2002(see Figure 5.4 above). As evidenced by the map below, this relative mobility may be largely accounted for by the location of the secondary schools themselves, which are almost all in more advantaged wards. Only 6% of Ward A's pupils attended the nearest community school, which had a GCSE pass rate of 19%. Instead, a large 'diaspora' of residents attended non-local secondary schools. A large proportion of pupils from Ward A (41%) attended a non-local community school with a 55% pass rate, and a reasonable number (18%) attended a nearby voluntary aided school with a 62% pass rate.

The FSM and non-FSM pupils that live in Ward A, however, do not attend the same non-local secondary schools although they do avoid the local 'sink school' in

similar numbers (indicated by the size of the yellow and blue bars for each school respectively). Non-FSM pupils attend the two most popular and highest attaining non-local community schools at twice the rate of FSM pupils, although disadvantaged pupils are more concentrated in the high performing voluntary aided school. Thus, although the destinations of Ward A's pupils—both FSM and non-FSM—are somewhat various, more advantaged pupils do succeed in 'evacuating' to better non-local schools on the whole.

Figure 5.16 **PUPIL MOBILITY BY WARD OF RESIDENCE: 'DISADVANTAGED DIASPORA', 2002**



This is just one example of the power of the individually postcoded data contained in PLASC and how it may be used to reveal (in great detail) the fundamental market dynamics occurring within different areas. The area-based information in PLASC, as we shall see, also provides a way of exploring the different types of movement and school attendance patterns and how these ultimately impact the segregation of different social classes across schools.

Conclusions

The social compositions of English secondary schools in 2002 were the result in part of differential mobility rates for sub-groups of pupils though such differences were not as pronounced as one might expect from the qualitative literature on choice. In general, pupils from areas with more manual class households were more localized in their school attendance patterns; however, at the school level, FSM pupils actually demonstrated more mobile attendance patterns than their peers. The more striking differences emerge in what is actually accomplished through non-local school attendance: even disadvantaged pupils that did attend non-local schools in 2002 did not accrue the same sort of 'mobility gains' as their non-FSM counterparts. In general, while bypassing their local schooling options at a slightly higher rate than their peers, disadvantaged pupils were 'relocating' to secondary schools that held little, if any, noticeable advantage in quality over their local schools. Although quantitative analysis cannot provide the subjective motivations behind these attendance patterns, it can provide a means for examining the consequences that such patterns have for the social compositions of schools. This subject will be taken up in the next chapter.

-6-

Schools vs. Neighbourhoods: The Impact of Residence and Choice upon School Compositions

The comprehensive schools movement in Britain has often invoked the principle of 'local schools for local children,' arguing that primary and secondary schools should reflect the communities they are located within. One of the difficulties of this as far as balanced school compositions are concerned is the fact that many local communities are segregated on the basis of socio-economic status, race and numerous other factors such as adult qualification levels. As the Black Papers complained in the 1970s, the 'duke' and the 'docker' could never be educated in the same school under such a principle because they live in entirely different neighbourhoods (Boyson, 1971).

One of the key questions raised both by the findings of qualitative studies of class-based choice and the results from PLASC discussed in the previous chapter is whether—given the fact that families of higher socio-economic backgrounds are disproportionately benefiting from non-local school choice—differential educational mobility between sub-groups of pupils will necessarily result in more segregated school compositions. It may be the case, for instance, that since more advantaged pupils already possess relatively better local schools, the mobility of disadvantaged pupils will have a relatively larger impact on school compositions as choice helps to 'break up' some of the segregation in schools associated with residential segregation. On the other hand, choice may constitute an additional stratifying factor that serves instead to inject more segregation into the educational system than would otherwise exist. This chapter will attempt to shed light on these questions and to discuss in more detail the relationship between residential and school segregation levels in different areas in England and the

relative contributions of residence, choice and other factors to the social compositions of schools.

School Segregation and Social Class in England

Measuring Social Segregation

Investigations into segregation levels within and between populations have informed research into a number of social phenomena including patterns of residence, social mobility, labour market diversity and school compositions. Segregation fundamentally concerns the extent to which different groups within a population live, work, and interact together and the factors that contribute to the relative separation of these groups (Massey and Denton, 1988). The majority of segregation studies have been conducted into the residential segregation of ethnic groups in urban environments (primarily in the United States) as a result of institutionalised racism or discrimination (Lieberson and Carter, 1982; Massey and Denton, 1988; Rivkin, 1994; Cutler *et al*, 1999). Segregation analyses typically examine longitudinal patterns[137] along two main dimensions of group separation: the extent to which group proportions vary from an equal distribution within an area (evenness), and the degree of contact between like and unlike individuals (exposure).

Several different segregation measures or indices exist, and selecting the most appropriate index has been a subject of considerable debate within the social sciences. The consensus favorite following the 'index wars' (Peach, 1975) of the 1950s was the *dissimilarity index* (D), a measure of evenness that calculates the proportion of a minority group that would have to be redistributed in order for that group to be evenly distributed across the area of interest. This index, although commonly used in residential segregation studies with fixed group categories (e.g., ethnicity), is sensitive to scale (Wong, 1997): in general, the smaller the scale of the sub-areas, the greater the degree of

[137] Although longitudinal patterns are necessary for statements regarding the stratification or polarization of population groups through time, segregation comparisons can be made using cross-sectional data with sufficient depth to allow counterfactual scenarios.

segregation present. The dissimilarity index also fails to control adequately for variations in the population composition of non-fixed groups (e.g. the number of FSM pupils year to year).

An index related to *D* but with stronger 'compositional invariance' is the *segregation index* (S), which has been widely used in school segregation research (i.e., Gorard, Taylor and Fitz) and which, unlike *D*, compares the proportion of a particular group within a sub-area with the total proportion of the population from that sub-area. This means that the index will be unaffected by changing marginal numbers in society (you can scale the different groups by the same multiplier and the result will be the same index), which is important in situations, for example, where poverty rates change more rapidly (or slowly) than overall population numbers[138] (Gorard and Taylor, 2002).

Figure 6.1 **COMMON SEGREGATION INDICES**

Dissimilarity Index (D)	$D = \sum_{i=1}^{n} 1/2 \, \lvert [x_i/X] - [p_i/P] \rvert$
Segregation Index (S)	$S = \sum_{i=1}^{n} 1/2 \, \lvert [x_i/X] - [t_i/T] \rvert$
Isolation Index (P)	$P = \sum_{i=1}^{n} [x_i/X][x_i/t_i]$
Segregation Ratio (SR)	$SR = [x_i/X] / [t_i/T]$

Where:
x_i = "minority" population of areal subunit i
p_i = "non–minority" population of areal subunit i
t_i = Total population of number of the areal subunit i
X = Total "minority" population
P = Total "non–minority" population
T = Total population

Neither *D* nor *S*, however, take account of where the measured unevenness is actually located, a fact that may be practically significant to local providers or planners

[138] Segregation levels, however, may still be influenced by the size of disadvantaged populations, as we shall see.

(Noden, 2002). One solution to such shortcomings is to incorporate measures of exposure, which calculate the potential for interaction between members of the same or separate groups, into segregation analyses. The most commonly utilized measure of exposure is the *isolation index* (P), which calculates the chances of a disadvantaged pupil, for example, encountering another disadvantaged pupil in his or her neighbourhood or school. Although most often used to describe the isolation of minority group members, *P* is asymmetric and may also be used to describe the isolation of majority group members as well (often an unrelated phenomenon).

Exposure indices are influenced by both segregation levels and area compositions (e.g., the potential for whites to live in the same community as blacks will be increased if there is an increase in the number of blacks in the area), and are therefore not compositionally invariant (Lieberson and Carter, 1982). Nevertheless, the *isolation index* arguably possesses more advantages in the context of educational policy decisions than measures of evenness: the existence of peer effects in schools and the correlation between performance and socio-economic status suggest that areas with disadvantaged populations that are more isolated (even if they are equally uneven overall) will experience more adverse effects (Noden, 2000). In this chapter measures of both evenness and exposure will be used where appropriate to offer complementary insights into the forces segregating disadvantaged pupils across secondary schools.

Segregation in English Secondary Schools in 2002

The relative isolation of children from different backgrounds in school environments has been a longstanding international concern, one that in some countries such as the U.S. ignited large-scale integration and bussing strategies designed to enhance school diversity and limit the traditional segregation of minority populations. In England, achieving an appropriate 'social mix' within school populations likewise has stood as an explicit aim of the comprehensive movement, and to a lesser extent of market reformers as well. Although segregation concerns in England have largely focused upon the social

class backgrounds of pupils, it is clear that segregation occurs along several dimensions and between many sub-groups in English secondary schools (Table 6.1).

Table 6.1 **SOCIAL SEGREGATION IN ENGLISH SECONDARY SCHOOLS, 2002**



Source: PLASC (2002)

A recent study using PLASC (Burgess and Wilson, 2003) illustrates the high levels of ethnic segregation in secondary schools: in many areas more than half of minority pupils would have to move schools in order to produce an even distribution across schools. Pupils of Pakistani, Bangladeshi and Indian origin remain particularly segregated between schools, although for the most part ethnic segregation in English schools does not approach the segregation of African American pupils in some US cities, which possess dissimilarity indices of 0.60 or greater[139] (Peach, 1996).

Measures of evenness such as the dissimilarity and segregation indices are most usefully applied to sizeable minority groups (Taylor *et al*, 2001) because, as Table 6.1 shows, the smaller the minority group in question, the more likely in general that the population will be less evenly distributed, although this is not always the case[140]. In the average local authority in England in 2002 about a quarter of FSM pupils would have to be re-assigned in order for all secondary schools to possess equal percentages. For most

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[139] In most segregation studies, dissimilarity index values of between 0 and 0.3 are considered low, 0.3 to 0.6 moderate, and 0.6 and above as high levels of segregation (Massey and Denton, 1993).

[140] Burgess and Wilson (2003), for example, found that Pakistani and Bangladeshi pupils tended to be more heavily segregated in areas where they attended schools in higher numbers. The figures for SEN pupils listed in Table 6.1 also illustrate that a small, residual group of pupils may be segregated only moderately in the absence of segregating forces.

local authorities this segregation index declined steadily until about 1997 (Gorard and Fitz, 2000) but has risen since (Taylor and Gorard, 2001). In 2002, LEAs demonstrated a wide variety of segregation levels (Figure 6.2), ranging from 0.06 in Islington to 0.48 in Buckinghamshire. Inner London and rural areas such as Cornwall and Herefordshire possess the lowest levels of school segregation while more selective county authorities such as Kent, Gloucestershire and Lincolnshire possess the highest levels.

Figure 6.2 **FSM SEGREGATION INDEX, by LEA, 2002**



Within LEAs, it is also possible to examine segregation at the school level using a *segregation ratio* comparing the percentage of pupils eligible for free school meals at a given school with the same percentage LEA-wide (see formula in Figure 6.1). A segregation ratio of 1.0 signals that a school possesses exactly its fair share of the area's disadvantaged pupils while a ratio above and below 1.0 means that it contains more or less than its fair share respectively. In general, non-community, non-comprehensive, and

high performing schools are most likely to have less than their fair share of disadvantaged pupils, a trend that is particularly acute in grammar and voluntary aided schools (Table 6.2). It is also likely that this trend has worsened during the past ten years: 29% of England secondary schools, largely voluntary aided and foundations schools, became more privileged (those that already had less than their fair share and saw their ratios sink even further beneath 1.0) from 1994-2000 (Gorard and Taylor, 2001).

If one compares a similar ratio of school and LEA disadvantage based on the social class backgrounds of the pupils' neighbourhoods (i.e. the proportion of working or service class employees in pupils' Output Area), a related, though less pronounced social segregation emerges amongst school types. Pupils attending voluntary, foundation and non-comprehensive schools tend to live in neighbourhoods with more service class employees than the LEA at large, while pupils attending comprehensive schools are disproportionately from more working class neighbourhoods.

Table 6.2 **FSM SCHOOL SEGREGATION RATIOS, 2002**



Source: PLASC (2002)

To further investigate the segregation of FSM pupils it is useful to employ the *isolation index* to calculate 'the probability that a schoolmate of a pupil eligible for free school meals will also be eligible for free school meals' (Noden, 2000: 376). Although it

is susceptible to changes in eligibility levels and therefore not a good longitudinal measure (Gorard, 2003), the *isolation index* picks up on higher concentrations of FSM pupils than indices measuring evenness and thus provides a useful tool for comparing levels of exposure in various spatial spheres (e.g. pupil's residence, primary school, secondary school)[141].

The average LEA *isolation index* for secondary schools nationwide in 2002 was 20.1, in contrast to the proportion of pupils eligible for FSM, which stood at only 14.9% (Table 6.3)[142]. In other words, if all FSM pupils were distributed evenly over secondary schools across England, an individual FSM pupil would find that 14.9% of her schoolmates were also eligible for FSM, but—because of social segregation between schools—the average FSM pupil actually finds that 20.1% of her schoolmates are also disadvantaged. This signifies a national *exposure differential* of 35%—English secondary schools in 2002 were 35% more segregated by socio-economic status than they would have been in an ideal scenario in which all disadvantaged pupils were distributed evenly across schools.

Table 6.3 **EXPOSURE BETWEEN FSM PUPILS: ISOLATION INDEX, 2002**

	% of Maintained School Population	*Isolation Index* **	Exposure Differential (%)
FSM PUPILS	14.9	20.1	35.0

** Weighted average of LEA figures (rather than national unevenness) multiplied by 100.

In almost every local authority in England, the secondary school *isolation index* for FSM pupils is greater than the proportion of overall pupils eligible for FSM[143]. In

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[141] The exposure levels measured by the isolation index are, *ceteris paribus*, directly proportional to the numbers of minority members in the population of interest. Thus, if the number of FSM pupils in the population rises year to year, then their exposure to each other should increase as well, making the isolation index an unreliable longitudinal measure.

[142] Figures are multiplied by 100 for presentational purposes.

[143] In only three local authorities—Kensington and Chelsea, Rutland, and Camden—do disadvantaged pupils encounter each other in smaller numbers in school than in the area at large.

other words, they possess a positive exposure differential[144]. Unsurprisingly, a local authority's *exposure differential* correlates very highly with its *segregation index* (R squared = .925, p=.001): clearly, areas exhibiting higher levels of relative exposure between disadvantaged pupils in secondary schools will also possess uneven distributions of those pupils across schools.

Investigating the Determinants of School Segregation

In examining which factors help explain the levels of social segregation between secondary schools researchers must be careful to understand the weaknesses of their indicators and frames of reference. As mentioned in Chapter 2, Gorard and Fitz's FSM segregation index has received criticism from many scholars (Gibson and Asthana, 2000; Noden, 2000; Goldstein and Noden, 2002) who believe that the FSM indicator cannot test the effect of the education market upon school segregation independent of larger economic and demographic changes. This criticism stems from two basic problems: 1) FSM eligibility is not a fixed background characteristic of pupils and 2) measures of evenness such as the *segregation index* can be strongly related to group size.

The relationship between overall pupil disadvantage and school segregation is significant and strongly negative (R squared –.513, p=.001 for 2002 figures): LEAs with high numbers of FSM pupils tend to have lower segregation levels (Figure 6.3). Thus, on balance, the lower the overall proportion of FSM pupils in an area, the higher the *segregation index* (or unevenness)[145]. Moreover, the segregation index—although a 'compositionally invariant' measure that *can* control for marginal changes to the total number of pupils or FSM eligibility in an area—*cannot* reveal whether compositional

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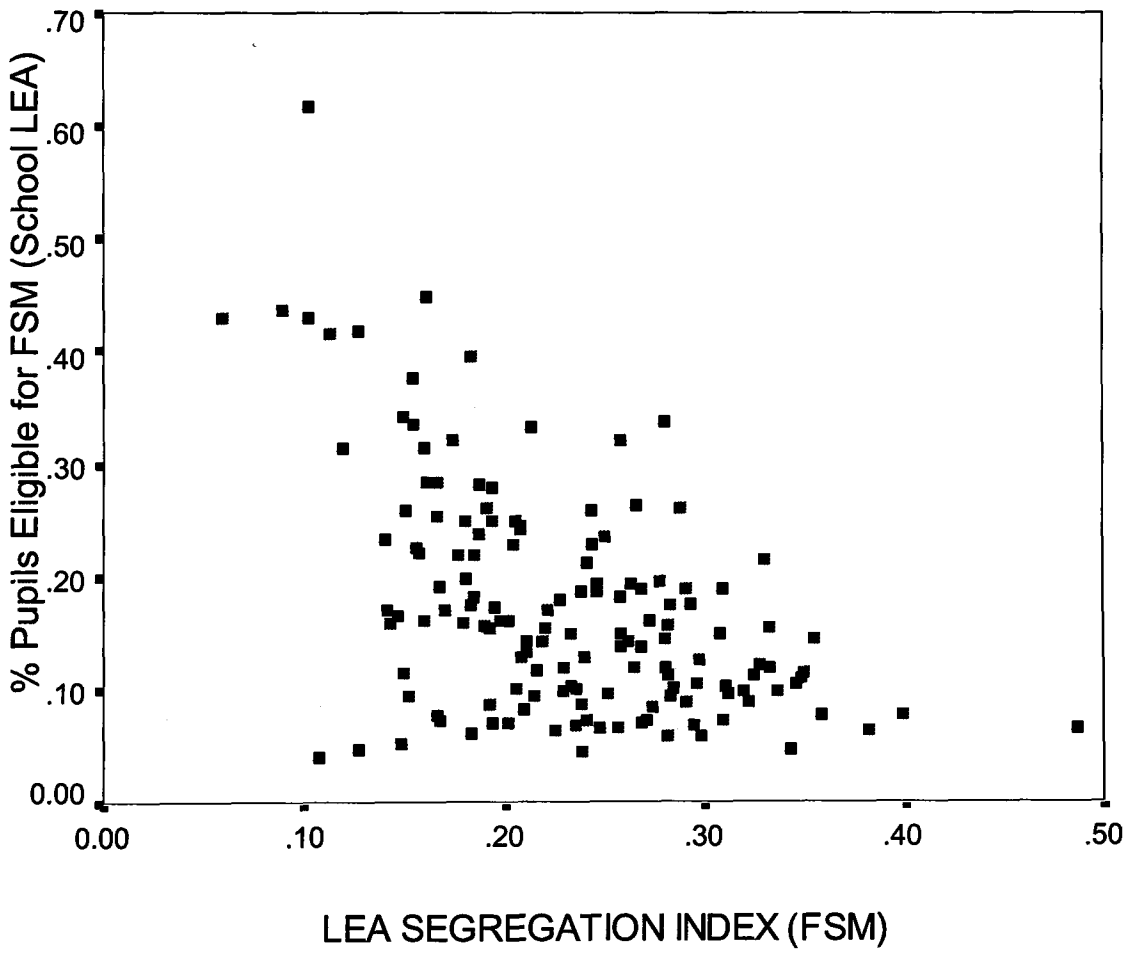
All three LEAs, however, have relatively few secondary schools and experience high levels of inter-LEA movement (explored further later in this Chapter).

[144] The exposure differential is similar to the within-LEA component of Noden's (2000) 'decomposed Isolation Index', which separates exposure into within and between-LEA elements. The only change is that in the current analysis the LEA-wide FSM proportions are based on the pupil's LEA of residence and not the LEA of the school attended.

[145] Gorard (2003) claims that despite the relationship between overall FSM proportions and segregation levels, the *change* in segregation at the LEA level does not correlate with the change in the proportion of pupils that are eligible for FSM through time.

changes in schools are due to changing pupil enrolments based upon choice or whether they are simply due to larger residential and economic shifts that affect the eligibility and number of FSM pupils in different schools. In other words, if local socio-economic variability decreases, then school segregation figures for that locality tend to decrease even in the absence of any market effect (Gorard and Fitz, 2000). Variations in both the eligibility[146] and take-up patterns of in-work benefits can also constitute additional, exogenous influences on FSM totals. Because vulnerability to unemployment tends not to be distributed equally across a population (Evans *et al*, 2002), those schools catering to a disproportionate number of disadvantaged families may be hit most severely by rising unemployment, witnessing a subsequent rise in FSM pupil numbers as a result.

Figure 6.3 **FSM SEGREGATION AND OVERALL POVERTY LEVELS, by LEA, 2002**



Because of the above factors, the results of longitudinal studies such as Gorard and Fitz's on the segregation of FSM pupils across schools, and the effect of market

[146] The expansion of in-work benefits has arguably meant fewer beneficiaries eligible for IS and hence FSM. For example, when the work requirement for Family Credit eligibility decreased from 24 to 16 hours in 1992, take-up of the benefit rose significantly in subsequent years, from 341,000 recipients in 1991 to 780,000 in 1999. The advent of the more generous WFTC has seen claimant numbers soar to over 1.1 million (DWP, 2001).

forces/availability of choice upon segregation, will remain problematic and controversial. Given the nature of the FSM indicator and the *segregation index*, it is easier to determine (as Gorard *et al* (2002) have subsequently also done) the predictors of local area segregation between areas within a single time frame (e.g. one school year) than to isolate the factors that contribute to the fluctuating levels of FSM segregation in a single area through time. For example, when the segregation of FSM pupils (unevenness) is entered into a linear regression of several LEA level variables for 2002, including local disadvantage, residential segregation, school diversity and market activity, a five-factor model emerges that explains about three quarters of the variance (Table 6.4).

The strongest predictor of segregation across secondary schools in 2002, explaining almost one half of the variance between areas, is the segregation of FSM and non-FSM pupils by their areas of residence. Also of significance, as it was in predicting the level of 'active choice' within areas, is the level of variation in the performances of LEA schools on GCSEs. The more variation in schools' performances within LEAS, the higher the likelihood of finding segregated schools (though of course, the reason schools perform at different levels is in part a result of segregation levels—segregation and performance inevitably interact and influence each other). Unsurprisingly, the overall proportion of pupils eligible for FSM in an LEA is significantly and negatively related to the unevenness of FSM pupils across schools for the reasons discussed above. Finally, how evenly FSM pupils are distributed across LEA schools also appears to depend upon the movement of pupils across LEA boundaries as well as into the independent sector. In general, FSM pupils tend to be more segregated within local authorities that import pupils from neighbouring areas and do *not* have a high proportion of children attending independent secondary schools.

Table 6.4 **PREDICTING THE SEGREGATION OF FSM PUPILS (UNEVENNESS), LEA LEVEL, 2002**

Explanatory Variables	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	T	Sig.
Constant	-.0027		-.841	.000
Local School Segregation Index **	.581	.506	10.874	.000
School level performance variance (GCSE points score)	.012	.404	9.393	.000
Proportion of LEA pupils eligible for FSM	-.185	-.268	-5.561	.000
Pupil net import/export ratio	.105	.176	3.907	.000
Proportion of LEA pupils attending independent schools	-.160	-.118	-2.640	.009

R-squared: 0.760, df=5.

** Reflects the residential segregation of secondary school pupils.

The above regression results illustrate both the importance of residence for school segregation levels and the role marginal values (i.e. proportion of FSM pupils) can play in measures of unevenness. The wider significance of each would be difficult to tease out with only LEA level data (as has been the case for most school segregation studies); however, with PLASC data, such a regression constitutes only the start of a more fundamental analysis of the relationship between school and neighbourhood segregation. It is also because of the longitudinal data limitations listed above that PLASC-based analyses should take on added importance for researchers. Although ideally the impact of market forces on segregation would be traceable across the relevant period after legislative reform, the comprehensive nature of the PLASC data and the possibility of market 'counterfactuals' provides an opportunity to attempt more robust answers to many of the research questions tackled by Gorard and others.

The Role of Residence in School Segregation

'Stratifying Principles': Modelling Influences on School Segregation

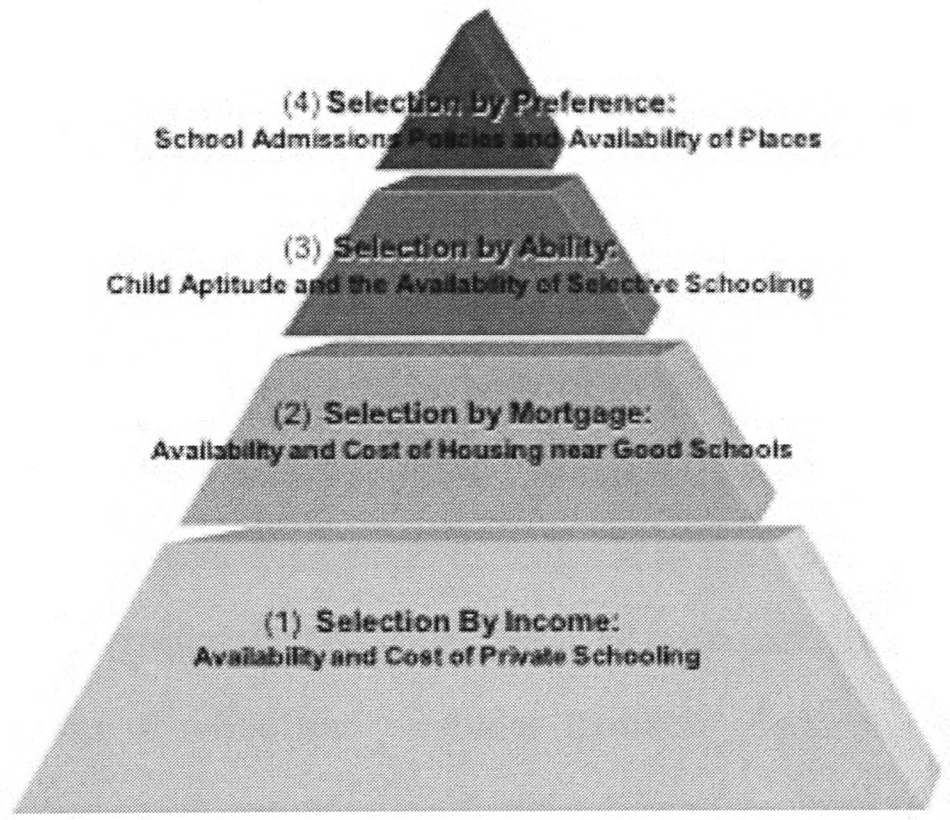
The potential for increased parental choice to stratify pupils by socio-economic status across schools must (as confirmed by the earlier regression models of 'active choice' and school segregation levels) be understood within the context of several forces acting to segregate pupils. Pupils in English secondary schools have always found themselves stratified—either between schools or between different 'streams' within schools—along a number of dimensions including gender, wealth, social class, ability, ethnicity, religious belief and preference. In modelling what leads to the segregation of pupils by socio-economic status in the current secondary school market one must recognize the 'stratifying principles' (Coleman, 1992) relevant to the education system and dimension of interest. In England, where the compulsory schooling structure has been highly influenced by the reproduction of social class advantage, the four principles contained in the model below (Figure 6.4) each make relevant contributions to the social compositions of secondary schools.

Years of educational reform and development have in many ways created a structural basis in the educational system for these *stratifying principles*, which clearly mirror the 'circuits of schooling' outlined in Chapter 3. All of the above factors also notably came through as significant predictors of school segregation levels in the regressions above. In order to more clearly isolate the contribution of open enrolment and market-based choices to overall school segregation levels, it is useful to consider the role that each of these factors plays in determining how pupils select (or are selected into) the secondary schools they ultimately attend.

Looking at Figure 6.4 (below), selection factors 1 and 2 constitute fundamental forms of choice that are available to those families that are willing and able to pay private school fees or take up residence in neighbourhoods with desirable schools in order to further their children's educational opportunities. For the purposes of investigating choice within the education market, however, they largely represent

'structural' influences that are the product of housing availability, residential segregation and inequalities in wealth and cultural capital that have influenced school compositions for decades prior to the market reforms. Nonetheless, these factors must be given a thorough consideration in order to isolate the role of choice-based factors in the social compositions of schools.

Figure 6.4 **FOUR PRIMARY 'STRATIFYING PRINCIPLES' IN ENGLISH SECONDARY EDUCATION (and what each depends upon)**



Based on classification made by Fitz, Taylor and Gorard (2002).

The option of attending private, fee-paying schools—taken by about 8% of England's 11-15 year-olds—arguably comprises the most basic form of school segregation. An entire segment of the school-age population, over 25% in some local authorities, never factors into the social compositions of a majority of the country's secondary schools. An alternative generally available to only the most affluent families[147], the 'creaming off' of an area's most able and advantaged pupils generally

[147] There are now, for example, several moderately funded fee-paying Islamic schools that charge lower fees than other schools in the independent sector and also cater to a more disadvantaged population on average.

results, as we have seen, in lower school segregation levels among the children remaining in the state sector (in a sense because separation and segregation has already occurred). Data on the residence and backgrounds of independent sector pupils is not collected in PLASC and therefore will not factor into the following analysis; however, it is important to keep in mind that in many areas the numbers of children not in maintained schooling is significant and relevant to overall segregation levels.

Among state school attendees, the dominant stratifying principle has always been residence. Early choice proponents (Friedman, 1962, Coons and Sugarman, 1977, Joseph, 1982, Coleman, 1992) recognized that the primary reason that children of different social classes and races did not interact in school was endemic residential segregation, a feature made even worse in developed nations by the growth of suburban areas after the Second World War. Residential neighbourhoods may be highly segregated for a variety of reasons. A large body of literature in the U.S. (e.g., Massey, 1990; Cutler *et al*, 1999; Saporito, 2003) suggests that social segregation of neighbourhoods can arise from even small differences in the residential preferences of different population sub-groups, and typically derive in large part from the 'the race- and class-oriented decisions of white and wealthier families' (Saporito, 2003: 198). In densely populated urban areas, the stock, cost, and nature of the local housing tenure can remarkably influence the social composition of neighbourhoods, and, disadvantaged families that possess the fewest affordable housing options often becoming increasingly concentrated within the least desirable areas (Smith, 1999).

Residential decisions (especially for families with young children) are influenced as well by the desirability of local schooling, which ranks near the top of most surveys of reasons for residential relocation (Findlay and Rogerson, 1993; Gibson and Machin, 2001). Economists (e.g., Tiebout, 1956; Friedman, 1962; Hoxby, 1994) have long been aware of the exercise of residential mobility amongst consumers of public goods, or 'Tiebout Choice.' Hence, in many areas there is a premium attached to housing that is located close to desirable social services (the 'Belfast model' of local housing (Gorard, 2003)) and, within zoning-based school systems, the presence of a popular school adds

value to the average house price in that school's area (Cheshire and Sheppard, 1995; Barrow, 1999; Des Rosiers *et al*, 2001).

Even within an open enrolment system such as England's proximity to good schools retains considerable market value given the priority given to local children in most schools' over-subscription criteria (West and Hinde, 2003). Researchers (Rosenthal, 2000; Leech and Campos, 2003) as well as estate agents (Worpole, 1999) estimate that a school ranked highly in the annual league tables can add as much as 10-15% to the price of local houses[148]. The strong relationship between the housing and education markets provides yet another channel for the application of social advantage to act within, encouraging residential and school segregation hand in hand and effectively preserving the 'ability to pay' even in areas with comprehensive school admissions policies (Leech and Campos, 2003). Policies such as zoning that compel families to use local schools will therefore not disadvantage those who can already exercise some choice regarding where they live. The key question that remains, however, is whether —after controlling for these more structural inequalities—parental choice allows for the further compounding of that social advantage.

Relocation Spaces: Residence, School and Segregation Across Different Spatial Levels

The compositions of schools, once private sector opt-outs and residential choices are set, are largely determined by the interplay of preferences and availability (constrained or broadened by the local context as we saw in Chapter 3). In the diagram of 'stratifying principles' above (Figure 6.4), factors 3 and 4 represent the segregation that potentially arises from preference, selection and non-residential pupil movement: the choosing of schools based on inclination, ability and interests (accomplished through residential movement or private schooling by some, but available to all pupils in the more limited form of open enrolment). In theory, the ability of agents to exercise preferences will exacerbate the structural segregation of some groups and improve that of others, and

[148] There is no evidence yet to suggest whether or not popular or high performing schools raise local rent levels.

choice in education provides a unique opportunity 'to observe how much individual preferences factor in segregation independent of the institutional forces that channel the flow of children across social space' (Saporito, 2003: 184).

As qualitative studies attest to, and, as we saw in the differential pupil mobility levels presented in Chapter 5, sub-groups of pupils (e.g., FSM, ethnicity) may engage with the education market in different ways. Such engagement, however, as Gorard (2000) and others have pointed out, does not necessarily 'have to lead to segregation unless it is a more stratifying process than that of allocation by residence' (313). Still, it is conceivable that increased choice could augment segregation levels by extending choice to previously mixed localities that will then start to segregate (Gewirtz *et al*, 1995). On the other hand, open enrolment policies—by reducing the strength of the correspondence between property values and popular school districts mentioned above—could potentially induce a virtuous cycle of desegregation in which lower levels of segregation between schools are subsequently reinforced by corresponding declines in residential segregation (Gorard and Fitz, 2000). While it is arguably better to have schools that are segregated as a result of merit or behaviour rather than residence and income (Coleman, 1992), such a comparison implies segregation brought about by residence *or* choice when in reality—even under a system of open enrolment—school segregation typically results from residence *and* choice.

Data from PLASC shows that maintained secondary school pupils were *residentially* segregated in 2002 along a variety of dimensions, including ethnicity, mother tongue and disadvantage (Table 6.5). The isolation indices illustrate, for example, that FSM pupils, who comprised 15% of the secondary school population nationally in 2002, were exposed to each other in higher numbers both in their neighbourhood (SOA) (25%) and ward (20%) of residence as a result of residential segregation. FSM pupils were exposed to each other at only a slightly higher rate in their SOAs and wards of residence than were pupils from ethnic minority backgrounds or with a mother tongue other than English, despite the fact that they form a larger minority group. Thus, it is clear when one considers the size of the respective groups within the

overall schooling population that ethnic minority and non-English pupils were relatively more segregated by residence than FSM pupils were in 2002[149].

Table 6.5 **RESIDENTIAL SEGREGATION (EXPOSURE): SELECT SECONDARY PUPIL GROUPS, 2002**

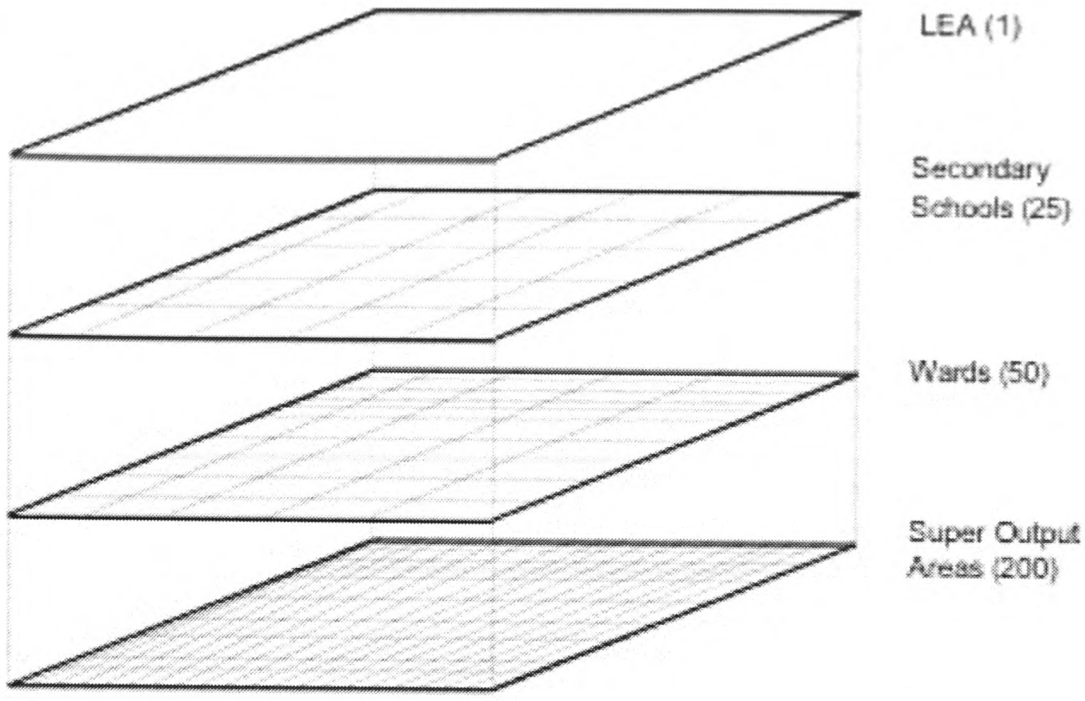
	% of Population (National)	SOA level Segregation within LEAs (Exposure)	Ward level Segregation within LEAs (Exposure)
ETHNIC MINORITY PUPILS	10	22	18
PUPILS WITH NON-ENGLISH MOTHER TONGUE	9	22	18
FSM PUPILS	15	25	20

Again, as illustrated within all groups in Table 6.5, the scale of the areas involved influences the level of segregation reported. This is true for both measures of exposure and evenness. It is thus important, when moving from residential area to school level measures of segregation, to bear in mind the different scales at which these spaces operate (shown in Figure 6.5). Therefore, ceteris paribus, one would expect the segregation (unevenness and exposure) levels of minority groups to decline at higher levels of spatial aggregation (Wong, 1997). It is far more likely that FSM pupils, for instance, will be more unevenly spread over approximately 200 neighbourhoods (SOAs) (and hence also more likely to encounter each other within the neighbourhoods) than across 50 wards within a local authority. Secondary schools in England, totaling slightly less (3,470) than half the number of residential wards (7,969), thus also represent a distinct spatial aggregation level, and one which would be expected to exhibit moderately lower segregation levels in the absence of additional segregation forces.

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[149] As measured by the exposure differential between the proportion of the relevant sub-group in the population at large and the level of exposure at the neighbourhood level (SOA). Ethnic minorities, for example, have a 127% exposure differential—they are about one and a quarter times more likely to be exposed to each other in their neighbourhoods of residence than within an evenly distributed population (v. 65% for FSM pupils). The segregation of disadvantaged (FSM) pupils, however, continues to be the primary focus of researchers and policymakers.

Figure 6.5 **RELATIVE SCALE OF AREAS IN ENGLAND* , 2002**



* Based on average LEA figures.

Given these problems of scale, how then can the true residence-based component of school segregation be accurately identified? Previous studies of ethnic segregation in U.S. schools (Rivkin, 1994; Reardon, 2000) have attempted to divide school segregation levels into geographical (i.e. residence-based) and assignment (school admissions, parental preferences) components that measure the segregation of pupils between and within school districts respectively[150]. By separating out the geographic locations of pupils from the admissions policies of administrative areas these studies provide useful illustrations of how successful within and between district integration (e.g., bussing) policies would be at lowering ethnic segregation levels given strong residential segregation; however, within the more complex market dynamic in England simply considering *between*-area segregation as residentially-driven and attributing *within*-area variation to school processes fails to adequately capture the degree of pupil movement occurring across boundaries and between schools.

[150] These studies found that about two thirds of ethnic segregation in schools was attributable to residential segregation and one-third to school assignment practices, helping to show the rather marginal impact that integration policies in urban U.S. schools would have in the context of pronounced residential segregation.

In order to accurately control for area scale and to isolate the additional segregation (or desegregation) brought about by parent and pupil preferences/movement, 'residence-based' school segregation levels can be calculated using the *local school catchment* counterfactual laid out in Chapters 4 and 5. In this way, the segregation present within a hypothetical secondary schooling system based exclusively on residence, or *local school segregation*, can be compared with the *actual school segregation* that is the product of both residential and school decisions. Using the isolation index, it is possible to measure the degree of exposure that FSM pupils have with one another as they move across (or relocate themselves) between neighbourhood and school environments—what I will refer to as *relocation spaces*.

Table 6.6, which shows the average (weighted by population) isolation indices for all local authorities in England, demonstrates the effects of scale as well as the micro- and macro-level residential segregation of disadvantaged (FSM) pupils in 2002. The average disadvantaged secondary school pupil in England will find that about 25% of the pupils she encounters in her neighbourhood are also eligible for FSM and 20% of those she encounters across her ward of residence. If all pupils attended their local secondary schools the level of exposure between FSM pupils would continue to decline to 18%, not far above the actual proportion of the population eligible for FSM (15%). Thus, using the local school counterfactual, it appears that at the spatial level of the secondary school (25 schools per LEA on average), the effect of residential segregation is to raise the exposure of FSM pupils from 15% to 18%. However, in reality, the *actual* distribution of disadvantaged pupils across schools results in an average exposure of about 20%, suggesting that non-residential sorting factors are injecting some *additional* segregation into the compositions of schools that would otherwise not be present within a pure residential (zoning) system.

Table 6.6 **EXPOSURE* TO OTHER DISADVANTAGED PUPILS, BY RELOCATION SPACE, 2002**

	% of Population	Neighbourhood (SOA) (1)	Local Area (Ward) (2)	*Local* School (3)	*Actual* School (4)
FSM PUPILS (2002)	15	25	20	18	20

*All figures are isolation indices weighted by LEA population size.

(1) SOA level residential segregation within LEAs.
(2) Ward level residential segregation within LEAs.
(3) Secondary school level segregation within LEAs under local school model.
(4) Actual secondary school level segregation within LEAs.

In essence, the fact that pupils are not obliged to attend their local secondary schools means that secondary schools remain, at least for disadvantaged pupils, as highly segregated as wards (effectively canceling out the scale effects associated with higher spatial levels). In other words, in the absence of additional segregation forces, one would expect pupils to be less segregated across schools than neighbourhoods because schools have more pupils (and draw from wider areas) and are thus less likely to be as homogeneous as neighbourhoods. However, in the current market system this scale effect is not present; therefore, some additional segregation force(s) must be working in the opposite direction.

A similar difference in segregation is found if the *segregation index* (rather than the isolation index) is used to compare how evenly disadvantaged pupils are distributed in local and actual scenarios. As discussed above, in the average LEA in 2002 about 25% of FSM pupils would have to be redistributed to have equal proportions across all secondary schools. That figure declines to 21% when all pupils are assigned to secondary schools based wholly on their area of residence, providing further evidence that secondary pupils that are eligible for FSM would actually be less segregated in a zoning or catchment-based school system than under the current market[151].

[151] The data does not allow for the observation of 'equilibrium effects' (Cullen et al, 2000), which might include pupils that would have chosen independent schools if choice had not been available in the maintained sector.

Local v. Actual Segregation: Relationship of Neighbourhood and School Communities

Comparing the different levels of social segregation present in hypothetical local schools based on pupil residence with those present within actual schools in the current education market may be done at a variety of levels and for different sub-groups within PLASC. First, it is interesting to contrast the segregation of FSM secondary pupils across neighbourhoods and schools with the segregation of secondary pupils from ethnic minority backgrounds (Table 6.7). Ethnic minority pupils in secondary schools, as we have seen, are more segregated nationally than pupils eligible for FSM (76% v. 35% more segregated in schools than within the population at large); however, a far greater proportion of this segregation appears to be attributable to residence as the local school counterfactual from PLASC allows one to calculate (see the Local Exposure Differential in Table 6.7). Ethnic minority pupils would be 66% more segregated in school (16%) than in the population at large (10%) if all pupils attended their local schools. In other words, white and ethnic minority pupils would be highly segregated across secondary schools even within a school system based on residential zoning. Non-local school choice and other non-residential factors do appear, as some scholars (e.g., Ball, 2003) have predicted, to increase the segregation of ethnic minority pupils (though only slightly, from 16% to 17%).

Table 6.7 **RELOCATION SPACES: EXPOSURE OF FSM AND ETHNIC MINORITY PUPILS*, 2002**

	% of Population	Neighbour-hood (SOA) (1)	Area (Ward) (2)	*Local* School (3)	*Actual* School (4)	*Local* Exposure Diff. (5)	*Actual* Exposure Diff. (6)
FSM PUPILS	15	25	20	18	20	21	35
ETHNIC MINORITY PUPILS	10	22	18	16	17	66	76

*All figures are isolation indices weighted by LEA population size.

(1) SOA level residential segregation within LEAs.
(2) Ward level residential segregation within LEAs.
(3) Secondary school level segregation within LEAs under local school model.
(4) Actual secondary school level segregation within LEAs.
(5) Difference in exposure between population at large and *local* secondary school.
(6) Difference in exposure between population at large and *actual* secondary school.

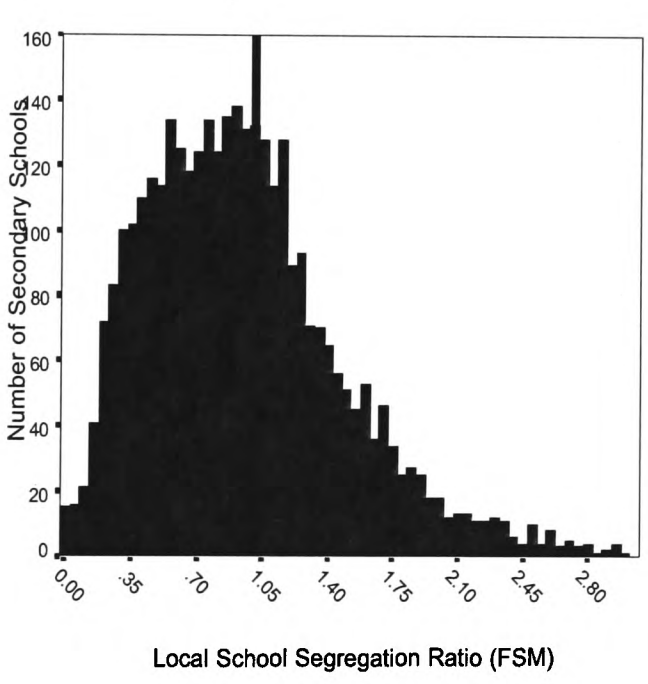
Nonetheless, school segregation levels in the current secondary education market are not always more pronounced than residential segregation: in six local authorities in 2002, FSM pupils were less segregated under the market than under residence and in 13 there was little appreciable difference (Figure 6.6). In the majority of LEAs (117), however, disadvantaged pupils are exposed to each other in higher numbers within the schools they attend than they would be within their 'local' schools, and this is particularly true in selective local authorities such as Kent, Buckinghamshire and Lincolnshire as well as in most London boroughs and LEAs in the south. Some of the reasons for these differences between local and actual segregation levels will be explored further in the case studies presented in the last section of this chapter.

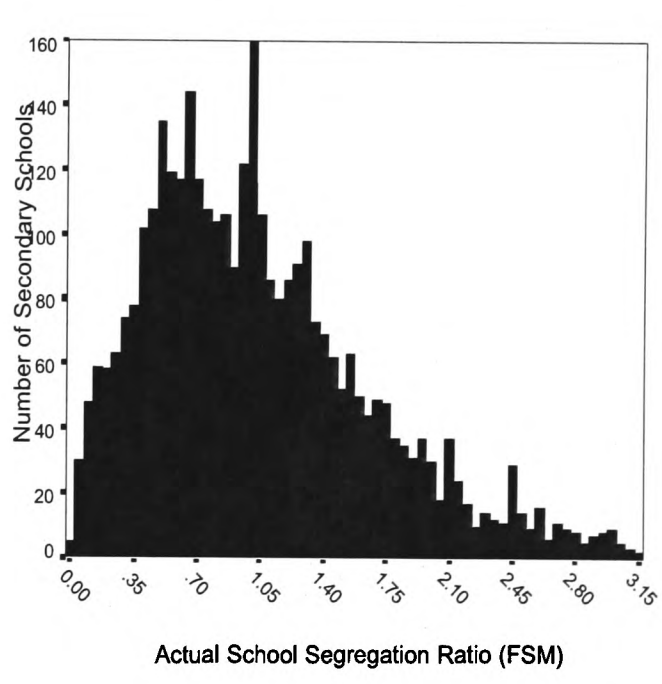
Figure 6.6 **% DIFFERENCE IN THE ACTUAL AND LOCAL EXPOSURE LEVELS OF FSM PUPILS, by LEA, 2002**



The picture is more mixed at the school level but a comparison of the *segregation ratios* (measuring how close schools are to their 'fair share' (=1.00) of an LEA's pupils) of all secondary schools under the current market and under the local schools model, reveals that schools would move closer to a more equitable share of disadvantaged pupils under a local school system. As Figure 6.7 illustrates, under a local schooling model, a greater number of secondary schools would have had closer to their fair share of disadvantaged pupils in 2002 than under the actual market that year, which produced a much broader distribution. Thus, although many secondary schools would—because of residential segregation—still have disproportionate numbers of FSM pupils under a local school model, the movement of pupils beyond their local schools increases school variability overall.

Figure 6.7 **SCHOOLS' FSM *SEGREGATION RATIOS*: DISTRIBUTION UNDER LOCAL AND ACTUAL SCHOOL ATTENDANCE MODELS (2002)**





Of course not all non-local attendance has a segregating effect. If one compares the segregation ratios of pupils' *local* and *actual* schools in 2002, then it is evident that 30% of all secondary pupils (and a majority of non-local attendees) actually bypassed their nearest school for a secondary school that had closer to its fair share of a local authority's disadvantaged pupils (Table 6.8). However, breaking down this movement

further reveals that about two-thirds of these pupils (19% of all) are bypassing their local for a school with a more advantaged school composition (even if it does have closer to its fair share[152]). Nonetheless, it is important to note that not all non-local school attendance has a polarizing effect upon school social compositions. The role that non-local 'choice'—in both its more traditional and newer market forms—plays in school segregation levels is the subject of the next section.

Table 6.8 **FAIR AND UNFAIR MOVEMENT: COMPARING SEGREGATION RATIOS OF PUPIL'S LOCAL SCHOOL AND SCHOOL ATTENDED, 2002**

	% of Pupils Attending
LOCAL SCHOOLS	44
NON-LOCAL SCHOOLS	**56**
Fairer Share but More Advantaged than Local	19
Fairer Share and More Disadvantaged than Local	11
Total Movement to Schools with Fairer Share	**30**
Less Fair Share and More Advantaged than Local	17
Less Fair Share but More Disadvantaged than Local	9
Total Movement to Schools with Less Fair Share	**26**

The Role of Choice in School Segregation

Separating 'Old' and 'New' Choice

Thus far it has been evident from the local school counterfactual derived from the PLASC data that the residential segregation of FSM pupils explains a large part of the segregation that we see across secondary schools today. Even across a residentially based school system, English secondary schools would be around 20% more segregated by socio-economic status than they would be if the population of disadvantaged pupils was evenly distributed across the country. What factors, however, explain the even greater segregation of FSM pupils experienced under choice? Clearly, although not

[152] For example, this might include movement from a local school with a 1.75 segregation ratio (more than its fair share of FSM pupils) to one with a 0.75 segregation ratio (closer to its fair share but on the more advantaged side of 1.00).

related to residence, these factors are not necessarily related to the workings of the education market post 1988. There exist numerous reasons that a pupil may not be attending his or her nearest secondary school, not all of which are relevant to the new freedom created by the market reforms[153]. One of these is clearly ability and the successful entry into selective education such as grammar schools (stratification principle #3 above). Another is the preference for denominational schooling. Both of these factors involve largely distinct admissions processes that have been left relatively undisturbed by the introduction of the 'new' and more formal education market. Before and after the 1980 Acts, pupils inclined and able to attend grammar and church secondary schools have been relatively free to do so—their admission hinges on many factors like the availability of places or adherence to a particular faith but not upon a policy of open enrolment for all schools[154].

These two longstanding aspects of school choice in England—the preference for selective and denominational education—together form the pillars of what may be labelled 'old choice', they embody forms of non-residential school choice that pre-date the advent of the education market[155]. *Old choice* also presumably has played a part in the segregation of disadvantaged pupils since well before the fears of polarisation engendered by the present arrangement. It is therefore necessary, as with residence, to attempt to isolate the influence of these forms of old choice because they cannot strictly be said to have contributed to the impact of the market, or forms of 'new choice,' upon school compositions. *New choice*—the selection of non-local schools as a result of

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[153] As mentioned in Chapter 4, non-local school attendance may in the cases of some older pupils simply reflect the fact that they have remained in the same secondary school even as their family has relocated residentially.

[154] Some denominational schools, of course, do not demand proof of religious affiliation from attendees, and church schools—many of which are comprehensive—are also limited by local authority boundaries and other constraints. Nevertheless, a majority of pupils attending denominational schools could likely have done so even without a policy of open enrolment, although some may arguably have been more encouraged to do so after 1988.

[155] Arguably the same applies to single-sex schools although many of these are subsumed within the selective-denominational classification and those that are not are generally comprehensive schools that are subject to the new market forces (even if only for consumers of one gender).

previously restricted market alternatives—is of course not entirely 'new' and in some areas has existed alongside selective and denominational choice for decades.

In many cases, all that changed following the market reforms was a shift of the onus of justifying (or not justifying) choice from parents to local authorities, and pupils undoubtedly attended non-local schools in high numbers even under the former. Moreover, some *new choice* will merely entail the movement of pupils into pragmatic, local options that before were obstructed by various administrative barriers (e.g. local authority boundaries). Still, as we have seen, the large majority of local authorities operated catchment-based admissions systems prior to 1988 and as the numerous research studies and the decade long rise in admissions appeals attest to, attending non-local schools has increased considerably as a result of the 'new' market.

Within the current education market, 16% of pupils attend non-local *old choice* schools (i.e. selective and denominational) and 41% attend non-local *new choice* schools[156] (Table 6.9). Disadvantaged pupils are even more likely than the general population of schoolchildren to be found in non-local *new choice* options. Ideally, large scale surveys on parental reasons for school choices or pupil census data going back more than two decades would make it easy to extract the roles of old and new choice in school segregation and to say whether or not the current market system is less stratifying than the previous pre-1988 arrangement; however, in the absence of these, it is still possible to construct counterfactuals based upon the cross-sectional data for 2002 contained in PLASC. It must nevertheless be kept in mind that not all non-local school attendance reflects factors related to different types of choice (e.g., positive, constrained, or even negative 'choice') but may instead merely reflect the fact that some pupils remain in the same secondary schools following relatively short residential relocations by their families.

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[156] Many more attend local schools that may be selective or denominational in character but for the purposes of examining the potential for further non-residential based segregation, attendance of non-local schools is the most relevant movement.

Table 6.9 **OLD AND NEW NON-LOCAL SCHOOLING DECISIONS, 2002**

	% in Local	% in Non-Local 'Old Choice' School	% in Non-local 'New Choice' School
All Secondary School Pupils	43	16	41
FSM Pupils	42	11	47

The Stratifying Impact of Non-local Choice

To measure the stratifying impact that *old choice* has above and beyond a residentially based school system (before the introduction of new choice) it is useful to build an *old choice counterfactual* in which attendance at denominational and selective schools is preserved while the rest of the pupil population remains assigned to local schools (based on residence)[157]. This is accomplished in PLASC by 'locking in' the choices of pupils that attend denominational and selective schools and assigning all remaining pupils to the most proximate of the remaining schools[158]. In 2002, there were 724 secondary schools in England that were either denominational or selective (or both), containing around 600,000 pupils or 20% of the secondary population. Once the 'old choices' of these pupils are isolated, it is possible to evaluate a model of schooling that entails denominational/selective schooling for some and local schools for the remaining majority. This provides a means of (at least roughly) quantifying the additional stratifying effect of school choices that are largely unrelated to the impact of the market and also of estimating the role of the market itself in school segregation levels.

Given the relatively lower numbers of disadvantaged pupils attending selective and denominational schools (only one grammar school in the above analysis had a fair

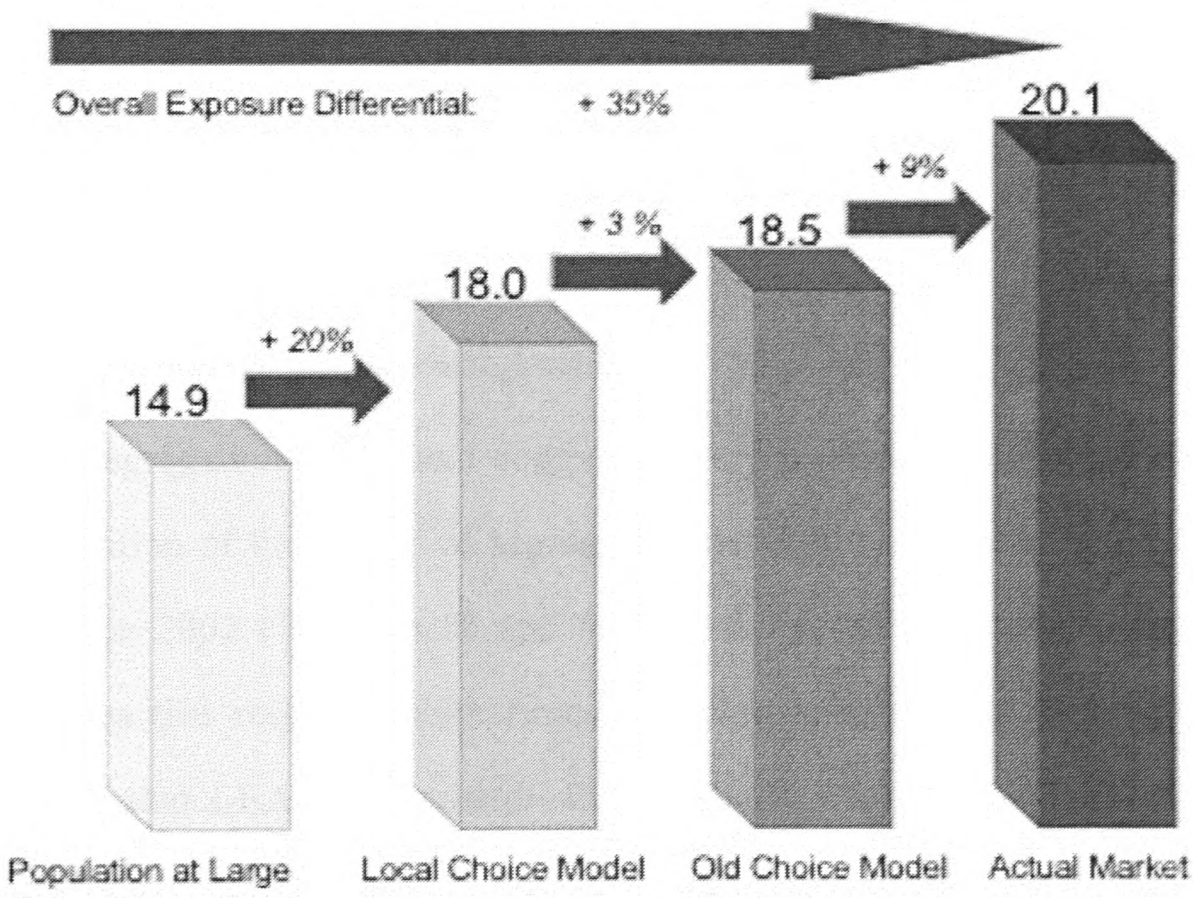
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[157] As with the *local school counterfactual*, this scenario inevitably creates some schools with unrealistic pupil numbers. Such outliers were remarkably few, however, likely as a result of how well the distribution of schools matches the distribution of pupil population in space. Nonetheless, such outliers were excluded from the subsequent analysis.

[158] Aside from those whose local school is a denominational or selective school, in which case the pupil was assigned to the nearest (non-denominational or selective) community school (done for approximately 330,000 cases).

share of its LEA's pupils), it is perhaps unsurprising that the ability of some families to exercise the option of sending their children to selective or denominational schools further stratifies the social composition of secondary schools. The exercise of *old choice*, however, has only a moderate impact, raising exposure levels for disadvantaged pupils by about 3% in 2002, from 18.0 (under the local school model) to 18.5 (under the *old choice model*) (Figure 6.9). Under the actual market in 2002, however, English secondary schools were even *more* segregated than they would have been under an old choice model. On average, a disadvantaged pupil was exposed to 9% more disadvantaged peers in her secondary school than she would have been in a system based purely on residence *and* old choice school selection.

Figure 6.9 **FSM ISOLATION INDICES FOR DIFFERENT SCHOOLING MODELS, 2002**



In terms of real school figures, this means that the average disadvantaged pupil attending a secondary school with 1,000 pupils in 2002 found that there were about 15 more disadvantaged pupils attending her school than under the residence/old choice model (or 50 more than if pupils were evenly distributed across all schools). While this is not a particularly significant increase in segregation when compared, for example, to levels of

racial segregation in U.S. cities, or even when compared to the level of school segregation attributable to residence in England, it nevertheless represents clear evidence of further school segregation under the current market.

As mentioned earlier, it is impossible to know how much of the additional segregation present under the actual education market should be attributed to the novel mechanisms of the education market and to the creation of grant maintained and specialist schools, City Technology Colleges, league tables, open enrolment, cross-boundary selection and other market initiatives/potentialities. As used above, 'new choice' represents a residual category that encompasses and conflates several processes related to non-local school attendance, many of which have little to do with class-based differences in playing the market (e.g., residential relocations, transport routes, the availability of school places). Strictly speaking, however, most of these sorting factors are (at least potentially) facilitated by the existence of open enrolment (and far less likely to be restricted by it), and taken together they have the overall effect of *further isolating* the population of disadvantaged pupils across secondary schools.

Stratification Factors at the Local Area Level

As usual, segregation levels and components are more variable at the local area level. An examination of the causes of segregation within the most and least segregated local authorities in 2002 (Tables 6.10 and 6.11) illustrates well this local diversity and the various roles that residence and choice can play in stratifying pupil populations. The most segregated LEAs in England—those in which the largest exposure differentials exist for disadvantaged pupils[159]—reflect the influence of different stratifying principles.

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[159] The designation of 'most' and 'least' segregated authorities will be made in the following analysis on the basis of the differences in exposure levels for FSM pupils in a local authority's population and secondary schools (as opposed to unevenness of the pupils that attend the authority's schools). Thus—because under the current market a great deal of cross-border school migration occurs—these differentials may be slightly misleading as they refer to two different populations in the case of some LEAs, those pupils that live in the authority and those that attend secondary school there.

Table 6.10 **THE TEN MOST SEGREGATED LOCAL AUTHORITIES IN ENGLAND, BY FSM, 2002**

LEA	% FSM in Pupil LEA	Isolation Index FSM Pupils (Exposure in School)	Exposure Differential (%)	% Additional Segregation within a model based on...		
				Residence (1)	Old Choice (2)	New Choice (3)
Wokingham	3	8	200	51	30	52
Buckinghamshire	7	19	186	112	2	33
Bedfordshire *	9	19	108	94	3	3
Milton Keynes	10	20	106	49	6	30
Solihull	10	20	93	83	2	3
Trafford	11	21	91	51	12	13
Northamptonshire *	9	18	88	52	0	24
Lincolnshire	8	14	79	38	8	21
Havering	11	18	74	34	2	27
Bexley	11	18	72	43	8	11
ENGLAND	**15**	**20**	**35**	**20**	**3**	**9**

* Indicates that local authority possesses middle schools that may not be treated appropriately under local school modelling (e.g. 14 and 15 year old pupils may be wrongly assigned to a nearby middle school).

The last three columns in Table 6.10, like the bars describing national levels of segregation in Figure 6.9 above, represent the amount of additional segregation created as each new aspect of school choice is added to the counterfactual model created from PLASC (described above). For example, Wokingham LEA, with relatively few disadvantaged pupils in residence, possesses particularly segregated schools as a result of several factors, including residential segregation, the migration of more advantaged pupils to grammar schools in surrounding areas such as Reading (old choice), and the importing of pupils from more disadvantaged neighbourhoods (particularly South Reading) (new choice)[160]. Clearly school segregation levels can have as much to do with the nature of cross-border inflows and outflows as with the social composition of the residential population.

[160] Wokingham, along with Reading and West Berkshire, were formerly part of the same Berkshire LEA so it is likely that much of this pupil movement existed prior to open enrolment.

In some areas such as Solihull and Bedfordshire, however, school segregation levels are driven almost entirely by pronounced residential segregation. Interestingly, the distribution of disadvantaged pupils in Buckinghamshire—which possesses large numbers of grammar schools—is determined overwhelmingly by residence (though exacerbated by 'new' choice) and 'selection by ability' does not inject much extra segregation into schools that would have already been heavily polarized by residence[161]. Some local authorities with full comprehensive admissions policies such as Havering and Northamptonshire also demonstrate similar patterns of residentially-based school segregation made higher by 'new choice', which may be the result (as in Northamptonshire) of highly localized, disadvantaged comprehensives existing alongside more advantaged specialist schools serving less local populations.

Some of the exposure differentials for the least segregated authorities (Table 6.11) also demonstrate the influence of cross-border movements. Six of the ten LEAs are in London, which, as we saw in Chapter 4, demonstrates very high inter-borough mobility. Camden, for example, achieves a 40% net increase in secondary age pupils from Islington and other boroughs. The majority of these are non-FSM, effectively 'watering down' Camden's rate of disadvantage: the borough goes from having 38% of its resident pupils eligible for FSM to having only 28% of its school attendees eligible. Thus, the segregation levels for Camden, and for Westminster, are somewhat misleading, and would be higher if only the population of school attendees, and not borough residents, was the basis for comparison[162].

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[161] Needless to say, this does not necessarily mean that the *same* advantaged pupils are attending grammar schools as would be under a residence-based system, just that a similar balance of school compositions would be present.

[162] Camden's exposure differential would be 27% (and not –7%) if the 28% of its school attendees eligible for FSM were the baseline for comparison. Thus, the pupils that attend Camden schools are inarguably segregated. However, since residence and relocation spaces are the basis for the local and old choice models, the proportion of an authority's resident pupils serves as the baseline figure. In some London boroughs and other areas such as Wokingham where large inter-area mobility occurs, these segregation levels will therefore need qualification.

Table 6.11 **TEN LEAST SEGREGATED LOCAL AUTHORITIES*, 2002**

LEA	% FSM in Pupil LEA	Isolation Index FSM Pupils (Exposure in School)	Exposure Differential (%)	% Additional Segregation within a model based on...		
				Residence (1)	Old Choice (2)	New Choice (3)
Camden	38	36	-7	-5	1	-3
Westminster	37	38	2	2	2	-2
Tower Hamlets	62	66	7	0	4	3
Hackney	42	45	8	1	4	2
Southampton	18	19	9	7	-5	7
South Tyneside	23	26	11	2	3	6
Shropshire	8	9	13	13	2	-2
Barking and Dagenham	25	29	13	2	2	8
Newham	41	46	13	1	7	5
Manchester	41	46	14	6	2	6
ENGLAND	**15**	**20**	**35**	**20**	**3**	**9**

* Kensington and Chelsea and Rutland excluded from list due to the small number of secondary schools in both authorities.

In other London boroughs such as Hackney and Newham, the exact opposite is occurring. These boroughs are experiencing a considerable net loss in secondary pupils, which helps to inflate disadvantage levels and lower school segregation. The segregation that is present within these boroughs is primarily attributable to 'old choice' and the fact that voluntary aided schools are not taking their fair share of disadvantaged pupils. In Manchester, on the other hand, denominational schools do take their fair share of FSM pupils but the authority's disadvantaged schools tend to serve more local populations than its more advantaged schools, reflecting segregation based on both residence and 'new choice' factors. In the next section, the impact of mobility on school segregation levels in local areas will be explored further, and an attempt will be made to reconcile these findings with those of previous qualitative and quantitative studies.

Up Close: Local Area Segregation

School Segregation and Mobility: Area Clusters

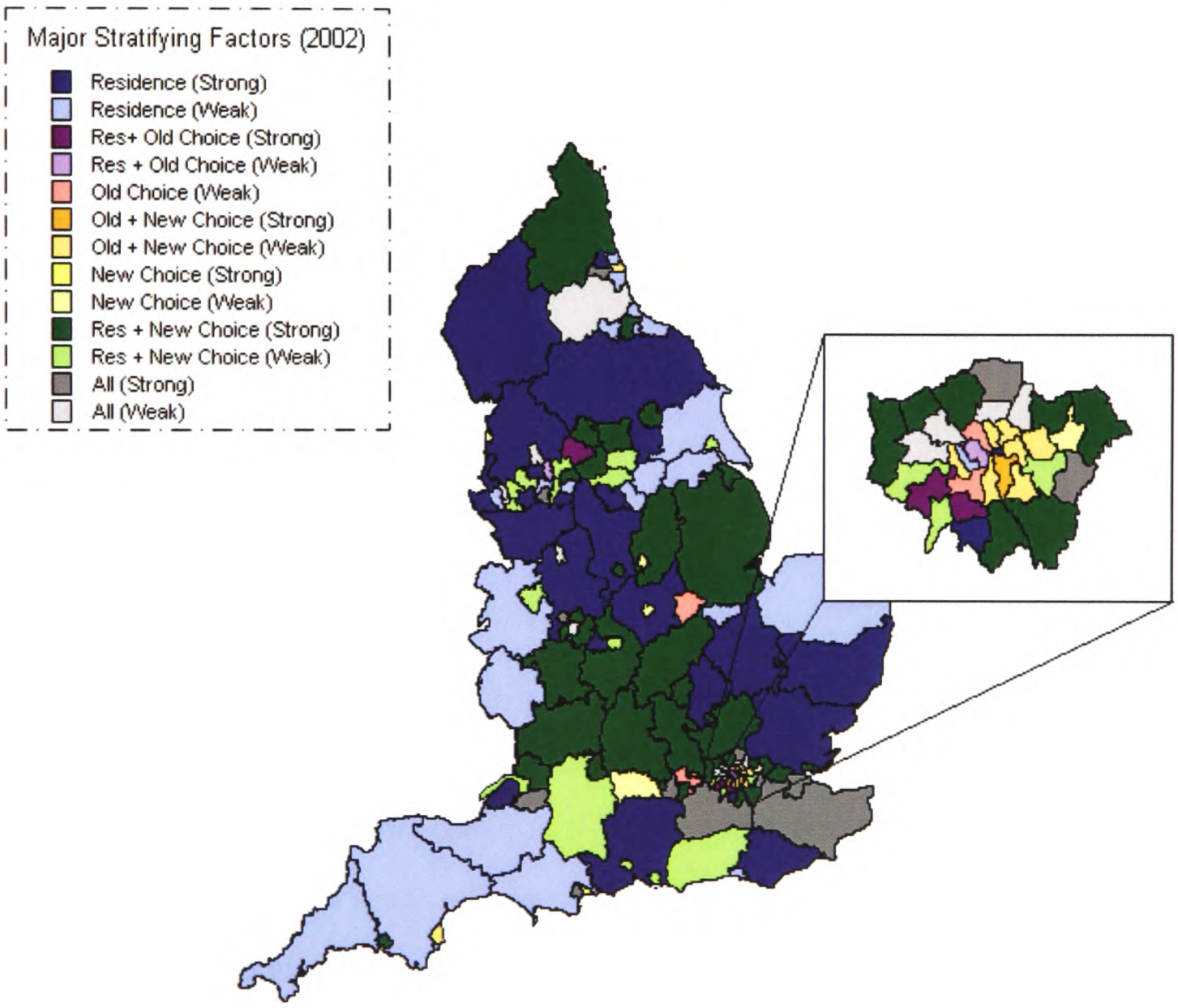
The color-coded map contained in Figure 6.10 illustrates the various combinations of stratifying forces at work in different local authorities across the country. The three primary forces—residence, old choice, and new choice—are depicted by the colors blue, red, and yellow respectively, with intermediate colors representing the interaction of more than one factor within a particular area. Additionally, the resulting colors are shaded darkly or lightly to represent the strength of the forces influence in stratifying schools within each local authority.

The color schemes broadly reflect the LEA 'clusters' presented in Chapter 3. Local authorities grouped along the lines of local social geography, school admissions practices, and social compositions also tend to have similar stratifying factors influencing the social segregation of pupils across their secondary schools (as would be expected from the significance of these factors in the regression analyses above). Inner London boroughs (Cluster 1 in Chapter 3) primarily represent modest segregation arising from factors related to both old and new choice. This combination is especially apparent in LEAs such as Lambeth and Hammersmith and Fulham that have a mixture of community and voluntary schooling options. As discussed above with Camden, however, segregation levels in London are complicated greatly by large movements of pupils across local authority boundaries, which may lead to the 'indirect' segregation of pupils that remain in their home borough to attend school (more on this effect below).

Interestingly, 'old choice' only plays a significant role in school segregation levels in a handful of local authorities. In some LEAs, as in London, old choice tends to coexist with new choice, and indeed may blend into it as voluntary schooling options become chosen for reasons more instrumental (i.e., educational attainment level) than traditional (i.e., denominational decisions) (Walford, 2003). However, in LEAs where old choice does play a noticeable role in polarizing school compositions, non-local attendance of selective and denominational schools appears to correlate strongly with

FSM pupils being more localized in schools than their peers[163]. Somewhat surprisingly, selective local authorities (Cluster 2)—although their segregation levels are exacerbated by pupils attending non-local grammar and voluntary schools—are more strongly segregated along residential and new choice lines. Most selective local authorities, however, are segregated by all three factors (e.g., Kent, Trafford, and Medway, shaded gray in Figure 6.10) though all are affected by a combination of residence and new choice (e.g., Lincolnshire and Buckinghamshire, shaded in green).

Figure 6.10 **MAJOR FACTORS IN SECONDARY SCHOOL SEGREGATION LEVEL, by LEA, 2002**



[163] Pearson correlation coefficient =.466, significant at .01 level.

Local authorities with large numbers of foundation schools (Cluster 3) likewise demonstrate strong segregation, driven mostly by residence plus new choice. Typical of this category are urban counties in the South such as Milton Keynes, Bournemouth, and Poole that had a number of schools opt for grant maintained status during the 1990s and that today are highly segregated as a result of non-local school attendance patterns. A statistical analysis of the relationship between mobility and segregation variables at the LEA level reveals that, in general, local authorities in which choice introduces the most additional segregation have:

1. Higher rates of non-local school attendance (Correlation = .203, p= .05)
2. FSM pupils more localized than their peers (Correlation = .183, p =.05)
3. Greater variance in school performance on GCSE (Correlation = .389, p=.01)

Although these figures indicate relatively modest correlations between the above factors, taken together they paint a picture commensurate with the expectations of the education market's critics. In roughly three quarters of local authorities, non-local school attendance (of non-denominational and non-selective schools) injects further social segregation into local schooling markets, and, areas in which new choice contributes most to segregation tend to also be characterized by high levels of pupil mobility and more definitive school performance hierarchies. Nonetheless, it is worth noting that the above relationship between choice and the differential mobility of pupils of different social classes is not particularly strong (Correlation = .183, p =.05). Indeed, differential mobility rates are more highly correlated with the added segregation produced by non-local attendance of 'old choice' schools (Correlation = .400, p =.01). Thus, in many local areas in England, class-based choice likely plays only a marginal role in school segregation levels once other stratifying factors are taken into account.

In local authorities with secondary schooling that is predominantly comprehensive (Cluster 5), for example, residential segregation represents the dominant influence on school segregation levels (depicted in blue and light blue in Figure 6.9). Comprehensive LEAs in the South such as Solihull, East Sussex, and North Somerset

(Cluster 5B) tend to have schools that are both more segregated and more affected by residential segregation than comprehensive authorities in the Metropolitan districts of the North (Cluster 5A) such as Rotherham, Doncaster, and North Tyneside[164]. Rural authorities (Cluster 6) like Devon, Norfolk, and Shropshire also have lower levels of segregation and mobility, with what segregation there is being driven by local geographic and residential factors. Thus, as discussed earlier, residential segregation generally constitutes the single greatest influence on school segregation, even within largely comprehensive authorities. A statistical analysis (i.e., correlation matrix) shows that areas in which residential factors largely structure school segregation also tend to have:

1. A smaller proportion of pupils attending independent schools (Correlation = -.309, p = .01)
2. Fewer pupils exiting the LEA for school (Correlation = -.316, p = .01)
3. Non-FSM Pupils that are more localized than their FSM peers (Correlation = .195, p = .01)
4. Lower levels of disadvantage and higher levels of school segregation in general.

The above relationships remind us that in many areas of England, the advent of the market has changed very little in what was already a very segregated schooling landscape. Where the residential segregation of social classes has through time generated local schooling markets that mirror this segregation, more advantaged pupils have less need of formalized parental choice since they already possess local schools of high quality and with advantaged intakes. This likely explains why rates of LEA exits and independent sector attendance are lower in these areas, as well as why non-FSM pupils tend to attend local schools in greater numbers than their more disadvantaged

[164] It is important to note that some comprehensive authorities such as those formerly part of the Berkshire LEA have undergone re-organization and therefore pupil attendance patterns in the new market may be difficult to isolate because of the 'modifiable areal units problem' (see Chapter 3 for an explanation).

peers. Despite this differential class mobility in favour of poor pupils, however, the market appears to do little to ameliorate school segregation levels overall. Longitudinal data of segregation and mobility levels, however, is required to fully address this phenomenon, which is why it is important to compare the findings of this chapter with the early work of Stephen Gorard and others on the changing levels of school segregation in England throughout the 1990s.

Reconciling with the Choice Literature

On the whole, the stratifying impact of non-local school attendance patterns within the new education market found thus far corroborates the detrimental effects posited by the early qualitative studies of class-based choice by Stephen Ball and others. Although such patterns may be most relevant to schooling markets like those that exist in London and other metropolitan areas, differential mobility rates undoubtedly underlie and exacerbate current school segregation levels in the majority of local authorities in England. How then do these findings compare to the more longitudinal segregation findings of Stephen Gorard and colleagues, who found that social segregation levels actually declined across most local authorities' schools during much of the 1990s?

One explanation for the discord between the evidence presented here (and found in the qualitative literature) and Gorard's findings is that the year to year FSM segregation indices presented by Gorard are primarily driven by larger factors such as the 'economic tide' going in and out (Noden, 2000). As mentioned in Chapter 2, Gorard's segregation trends directly mirror the proportion of secondary pupils eligible for FSM—as FSM numbers went up in the early 1990s, segregation levels correspondingly declined. Because segregation indices are so highly dependent upon the scale of the minority group whose evenness or exposure is being measured, the changing numbers of FSM pupils thus acts to blunt and to mask the impact of other factors on segregation.

While such a feature is inevitably present nationally, at the individual local authority level, as Gorard himself as demonstrated (Gorard, 2000), the economic tide does not so effectively explain away the segregation trends present during the 1990s.

Thus, other explanations must be sought to reconcile Gorard's findings with the apparent stratifying impact of non-local choice demonstrated here by PLASC and by other small-scale quantitative studies. One important factor in the changing segregation levels, and one which is related to the economic environment, involves the movement of pupils across local authority boundaries. Local authorities whose school segregation levels increased the most between 1997 and 2001 (after the declines found by Gorard between 1991 and 1996) experienced a large population influx, lowering FSM eligibility levels in these authorities below what they would otherwise be, and thus likely raising segregation levels in turn.

Another possibility is that the opportunities presented by choice, which allowed middle class families to secure a new educational advantage, largely replaced older channels of advancement after 1988 rather than adding substantially to them. Thus, the additional segregation created by new choice in the above model may somewhat reflect 'reconstituted' old choice as middle class families through the 1990s increasingly chose non-local, high performing foundation, specialist, or distant comprehensive schools to advance their children's education instead of more traditional grammar or denominational options. Such a phenomenon is readily observable in the gentrified areas of central London, where the housing and education markets are imperfectly aligned for the middle class families migrating into small neighbourhoods within largely disadvantaged communities that possess relatively poor local secondary schools (Butler and Robson, 2002). In these circumstances, the availability of non-local school choices allow middle class families to preserve relative educational advantages by creating one large marketplace (not unlike the one governed by the former ILEA) for them to pursue more 'adequate' schooling alternatives when the independent sector and housing market effectively price them out of more traditional routes of advantage.

One final explanation for the absence of a pronounced market impact in the 1990s given the segregation effects found in this chapter is that, as Taylor (2002) points out, changing segregation levels within a local authority may be the product of more 'indirect' mobility effects. Such effects only serve to further illustrate the difficulties

with measuring school segregation levels without individual level data. In high mobility areas such as London only one half to two-thirds of secondary school attendees are actually from the same borough as the school. Thus, when school segregation levels increase (or decrease as during the mid 1990s) this difference might be attributable to the differential choices and mobility of an authority's neighbours, not its own pupils. Camden, for example, is one of only a handful of LEAs that experienced a segregation trend from 1989 to 1996 that ran entirely counter to the national trend. The borough witnessed a considerable decline in segregation from 1989 to 1991, after which segregation levels rose as other authorities' levels were falling during the 1990s. Camden's unique trend may in part reflect the popularity of its schools and the potential, after the Greenwich Judgement of 1991, for other areas' pupils (mostly non-FSM) to flood the borough, lower rates of disadvantage and increase school segregation levels (above what they would be for local pupils).

In the same way that Camden is a good example of pupil inflow increasing segregation, Windsor and Maidenhead illustrates how pupil inflow may have a desegregating effect in certain contexts. In contrast to most local authorities, Windsor and Maidenhead has both low disadvantage and social segregation, and saw its school segregation levels decline steadily during the entire 1990s. This strange arrangement appears to result, at least in 2002, from a group of pupil imports from Slough and other neighbouring authorities that were more disadvantaged than the LEA's local population. Thus, it appears that in this particular circumstance at least, the inflow of disproportionately disadvantaged pupils—increased in part by the availability of choice—helps to even out school compositions and actually mitigate some of the segregation effects created by residence and old choice within Windsor and Maidenhead[165].

Increased choice may also facilitate outflows of pupils that have similar desegregating effects on the authorities they leave behind. Under this phenomenon, the

[165] The secondary education market in many of these more affluent areas thus acts efficiently to fill spare places created by demographic trends that lead to declining pupil numbers.

converse of that experienced by Camden above, the evacuation of more advantaged pupils to neighbouring areas leaves a higher percentage of disadvantaged pupils in a local authority's schools than were originally resident in its area (and thus makes lower rates of segregation likely as a result). This 'indirect desegregation' is found primarily in northern metropolitan districts with failing schools like Knowsley and London boroughs such as Haringey and Southwark in which neighbouring LEAs hold more attractive schooling options for families willing to pursue them.

The above examples demonstrate how, even where class-based patterns of non-local school attendance are present, a desegregating effect can be observed at the local authority level if, as in Gorard's main research, only LEA level data is used to observe longitudinal changes in the segregation of disadvantaged pupils. It is clear then how the individual level data by PLASC can render a much more refined picture of the complex workings of local secondary school marketplaces. Even PLASC, however, is limited by the FSM indicator itself and cannot explain the full significance of the market for families of all social class backgrounds. One distinct possibility, largely unapproachable by either Gorard's research or the present study, is that choice has opened up channels of (formerly unavailable) educational opportunity to working class families who are not disadvantaged enough to be eligible for free school meals but who nevertheless have had their options constrained by more traditional modes of educational advancement. Given the similarity in mobility rates exhibited by FSM pupils and pupils from working class areas (derived from the Census in the previous chapter), however, it is unlikely that the fundamental impact on choice diverges too much between the two groups.

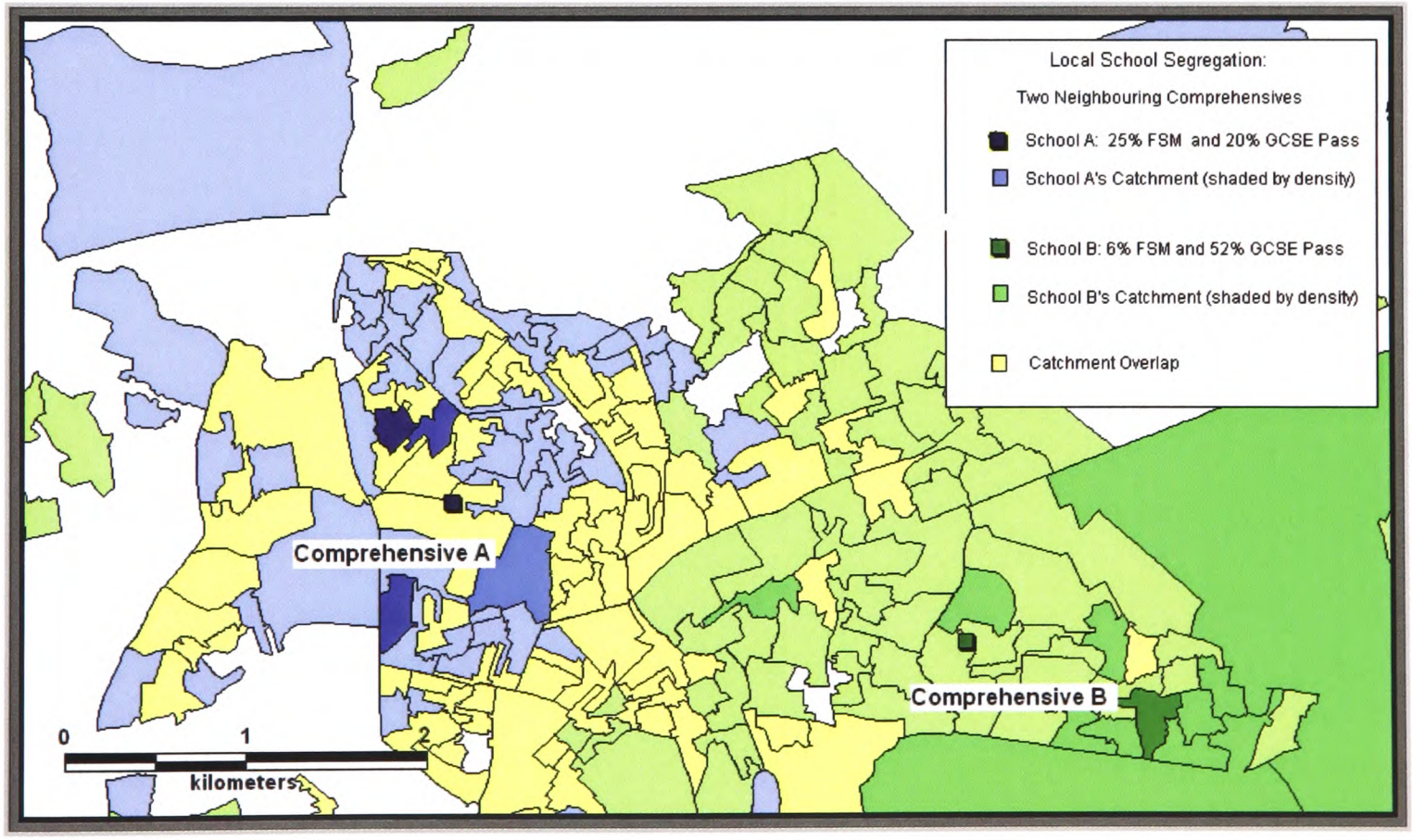
Conclusions

Through the use of counterfactual models based on the individual pupil data contained in PLASC, this chapter has demonstrated that in 2002, non-local school attendance led to school segregation levels beyond what would be expected based upon both residence and old methods of choice in place before the advent of open enrollment. The data contained in PLASC, as exhibited in Chapters 4 and 5, provides for further investigation of the

geography of the education market and of school segregation that are beyond the scope of this study. It is possible, for example, as illustrated in Figure 6.11 with two actual urban comprehensive schools, to examine what the influence of different stratifying forces looks like in practice.

In what appears to be a fairly common market scenario, the map illustrates how School A with a high rate of disadvantage and low GCSE pass rate sees its catchment area (depicted in blue) encroached upon by a better performing and less disadvantaged school's (School B) broader catchment net (depicted in green with OAs with pupils attending both schools depicted in yellow). Thus, the map below highlights the stratifying effects of both residence and choice. School B's attendees are composed of those pupils fortunate enough to reside in its immediate area as well as those pupils in School A's catchment that are both willing and able to make the three kilometre or more

Figure 6.11 **LOCAL SCHOOL SEGREGATION: TWO NEIGHBOURING COMPREHENSIVES, 2002**



trip to attend School B, not to mention those lucky enough to be admitted despite its oversubscription. Those pupils leaving School A for School B are also more advantaged

than those pupils remaining behind. School B's significantly higher GCSE pass rate undoubtedly provides the major impetus for this mobility, and it is the relationship between pupil background, mobility, and local school performance levels that is the subject of the next chapter.

-7-

Performance and the Education Market

One of the primary policy expectations accompanying the introduction of the education market in England was the positive effect that market forces would have on educational attainment levels. Readily available consumer choice and the expansion of schooling options would, it was argued, help to drive up pupil performance levels as schools competed to attract 'schooling consumers' and as children found schools better suited to their needs and abilities. As the past three chapters have shown, hundreds of thousands of pupils in England are taking advantage of choice to enroll in non-local schools. If the overall tendency is for this movement to further isolate disadvantaged pupils and to allow relatively advantaged pupils to 'upgrade' in disproportionate numbers to better performing schools, then a critical question becomes whether or not the education market is actually having a beneficial impact on educational outcomes at the secondary level.

Given the potential benefits of mixed ability schools on the attainment of lower performing (and often socially disadvantaged) pupils, it is important to investigate further the relationship between the workings of the education market and the performance of the pupils and schools that must operate within it. Are children segregated by ability as well as disadvantage across secondary schools today? To what extent do 'league table' hierarchies based on school performance exist within local schooling markets? What role does enhanced choice play in ameliorating or reinforcing school hierarchies and performance differentials? In many ways, the local markets that exist for secondary education in England cannot be understood independent of school attainment levels and the 'performance culture' that creates and responds to them. This chapter will explore these questions via the individual data on the more than half a

million pupils who took examinations at Key Stage 4 in 2002, and, in doing so, attempt to provide some preliminary insights into the interaction of performance and choice in the secondary education marketplace.

Raising Pupil Performance: Standards and Structures

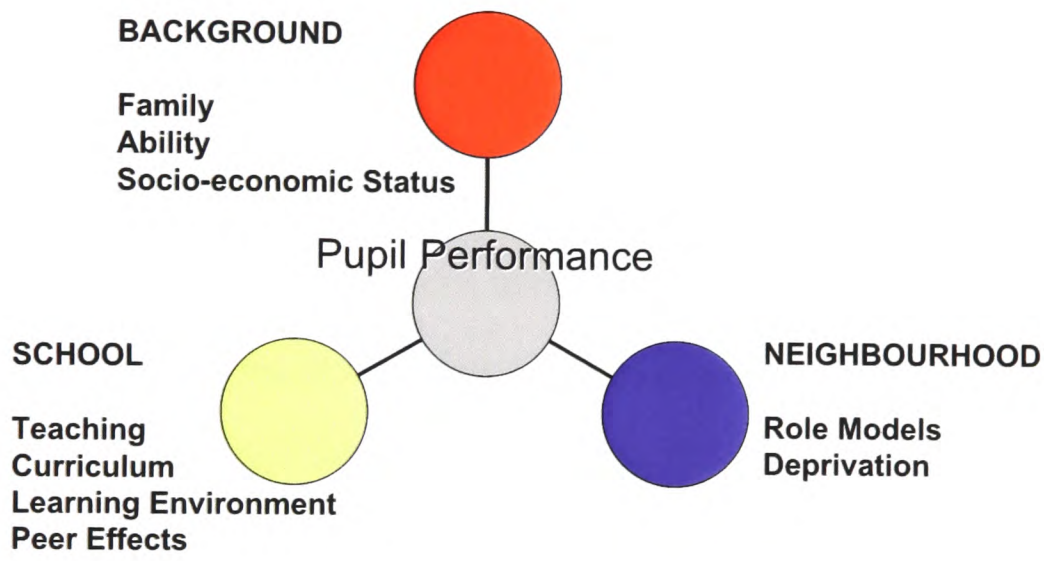
Educational Attainment Levels and the Role of the Market

As discussed in Chapter One, the architects of the education market in England felt that increasing the scope for parental choice, especially in concert with a devolved pupil-led funding system, would help create the 'right incentives' in education. Since 1997, the Labour government arguably has altered nothing of consequence within the market system established during the 1980s. Instead, they have endorsed a 'standards, not structures' (DfES, 1997) approach to schools that emphasizes diversity, flexibility and raising educational attainment levels without any attempt to erect the uniform, equitable 'structure' of comprehensive schooling (which formed the core of Labour's educational commitment in previous decades). While this new commitment inevitably reflects certain political realities such as the popularity of parental choice within particular segments of the population (e.g., because of the 'compositional advantages' it offers middle class families), it largely fails to address the true interaction between 'standards' and 'structures' within an educational system that has become increasingly competitive and dependent upon school league tables and narrowly defined pupil outcomes.

At the individual level, educational attainment (as measured by exam performance) depends on a variety of factors including effects related to pupil background, school processes, peer influences and area characteristics (Figure 7.1). Several studies have found some evidence that school effectiveness—the impact of school processes and features such as class size—correlates with educational outcomes at the secondary and primary level in the UK, but it is generally agreed that school effects have only a minor influence on pupil performance compared to social background factors (e.g., Rutter *et al*, 1979; Mortimore *et al*, 1988). There is some evidence,

however, that the ability levels of a pupil's peers have a positive impact upon performance levels: all other factors being equal, lower performing pupils appear to gain from a mixed ability schools and classrooms (Robertson and Symons, 1999; Thrupp, 1999). Additionally, 'neighbourhood effects'—area-based factors that influence individuals independent of family or other background factors —may also play a part in the pupil attainment through local role models or competition (Bradford, 1990; Brooks-Gunn, *et al*, 1993)). If the new education market does indeed impact pupil attainment levels, then it would be expected to do so via these established channels of influence.

Figure 7.1 **PRIMARY DETERMINANTS OF PUPIL EXAM PERFORMANCE**



Since 1988 the competition between secondary schools within the education market appears to have helped bolster the overall efficiency of schools—real school budgets declined while performance (as measured by standardized exams) rose during the 1990s (Levacic and Hardman, 1998). The market also appears to have rewarded higher performing schools with increased pupil numbers and budget share (Bradley *et al*, 2000). Pupil attainment levels have also risen consistently during the past two decades. There is no easy way, however, to determine how much of this rise should be attributed to market forces, especially given the problem of comparing standardized exams through

time as well as the number of other educational reforms that occurred during the same period (e.g., National Curriculum) (Gorard, 2000).

Despite the difficulty in effectively isolating the role of the market in the rise of educational performance levels over the past two decades, it is possible to piece together from a variety of sources, the plausible influence that the education market has upon standards and structures in secondary schooling. Such an examination reveals the inadequacy of the Government's 'standards not structures' approach to secondary education. One aspect of the schooling landscape that the this approach fails to confront, for example, is the fact that standards already vary considerably (and are distributed unequally) *within* existing educational structures such as different school types (see Chapter 3). The Government's emphasis on improving standards (especially for low performing pupils) while leaving selective schooling and other structures undisturbed means ignoring the effects that different structures may have in shaping standards and impacting educational opportunities[166]. Not only do grammar schools perform twice as well as comprehensives on the GCSE exams taken at Key Stage 4 and send a far greater number of pupils into higher education, but they also, as we shall see in more detail below, depress the performance of surrounding schools by consistently drawing the most able children.

Notwithstanding its 'standards' emphasis New Labour has continued the proliferation of new educational structures begun in the 1980s by the Conservatives: specialist schools, City Academies, Beacon Schools and other structural initiatives now dot the landscape. The interest in diversity represented by these initiatives shows a trust in the dynamic created by open enrolment and the market environment. Although the Government argues that pursuing higher standards through the structure of the market and the medium of parental choice will help raise the quality of education received by all pupils, this strategy also runs the risk of reinforcing current structural inequalities.

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[166] The Secretary of State for Education in 2002, MP Estelle Morris, conceded as much. She proclaimed when announcing the specialist schools agenda in 2002: "If we want to raise standards in the secondary sector, we need to look at the structure of our schools." (*Times Educational Supplement*, 28 June 2002).

Indeed, given the powerful relationship between social disadvantage and educational attainment, and its prominent role in attempts to improve both school standards and structures, this chapter will focus primarily on the market through its role in mediating this fundamental relationship.

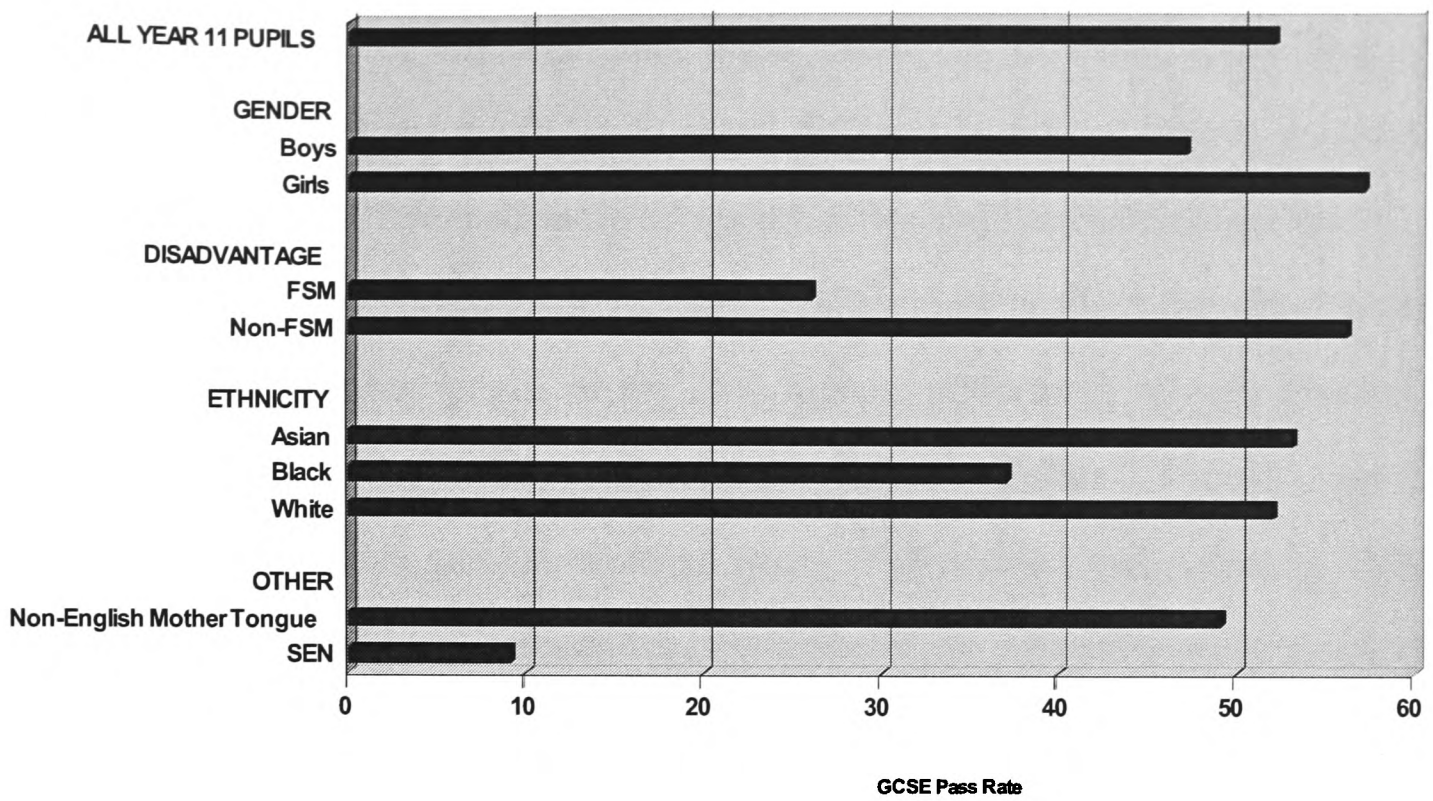
Pupil Background and Performance

In 2002, 51.7% of the approximately 527,000 Year 11 pupils taking GCSEs in English maintained schools achieved 5 or more 'good passes' (grades A*-C)—the most commonly used 'benchmark' for performance at the end of secondary education. This figure has been slowly rising from around 30% nationally since 1988, and gaps in attainment levels between ethnic groups and schooling sectors have declined over the same period (Gorard, 2000). Nevertheless, there remain significant inequalities in educational attainment amongst English secondary pupils today: the highest performing 10% of exam takers nationwide in 2002 had an average GCSE points score almost ten times as high as the bottom 10% [167].

The individually linked pupil records contained in PLASC and the National Pupil Database (NPD) for more than half million taking GCSEs in 2002 also allows for an examination of the performance levels of specific sub-groups of pupils. This analysis shows that despite gains, considerable attainment gaps remained between several sub-groups of the pupils in 2002, particularly between disadvantaged and more advantaged children (Figure 7.2). The performance levels of disadvantaged pupils varied in 2002 depending upon the social compositions of the schools that they attended and the neighbourhoods in which they lived (Table 7.1). Despite the fact that disadvantaged pupils attending relatively less deprived schools performed better as a group than those attending schools with more disadvantaged social compositions, the average

[167] Calculated from the National Pupil Database. The GCSE 'capped' points score is generated by converting marks into an interval points scale (A*=8, A=7, B=6, etc) and summing the best 8 (i.e. maximum score is 64). While the GCSE pass rate--% of pupils attaining five or more A*-Cs—is the most widely used school measure, the points score comes in handy when ranking individual pupils performances within and between schools.

Figure 7.2 **% OF PUPILS ATTAINING 5 OR MORE A*-C GCSEs, By Pupil Background, 2002**



achievement gaps between disadvantaged pupils and their peers remained large, particularly in schools near the middle of the disadvantaged spectrum (quintiles 2-4 below). Similarly, although they outperformed other disadvantaged pupils in 2002, those FSM pupils living in the *least* deprived neighbourhoods also achieve at considerably lower rates than their more advantaged neighbours. The variance between FSM pupils in

Table 7.1 **GCSE PASS RATES, FSM AND NON-FSM PUPILS, BY SOCIAL ENVIRONMENT, 2002**

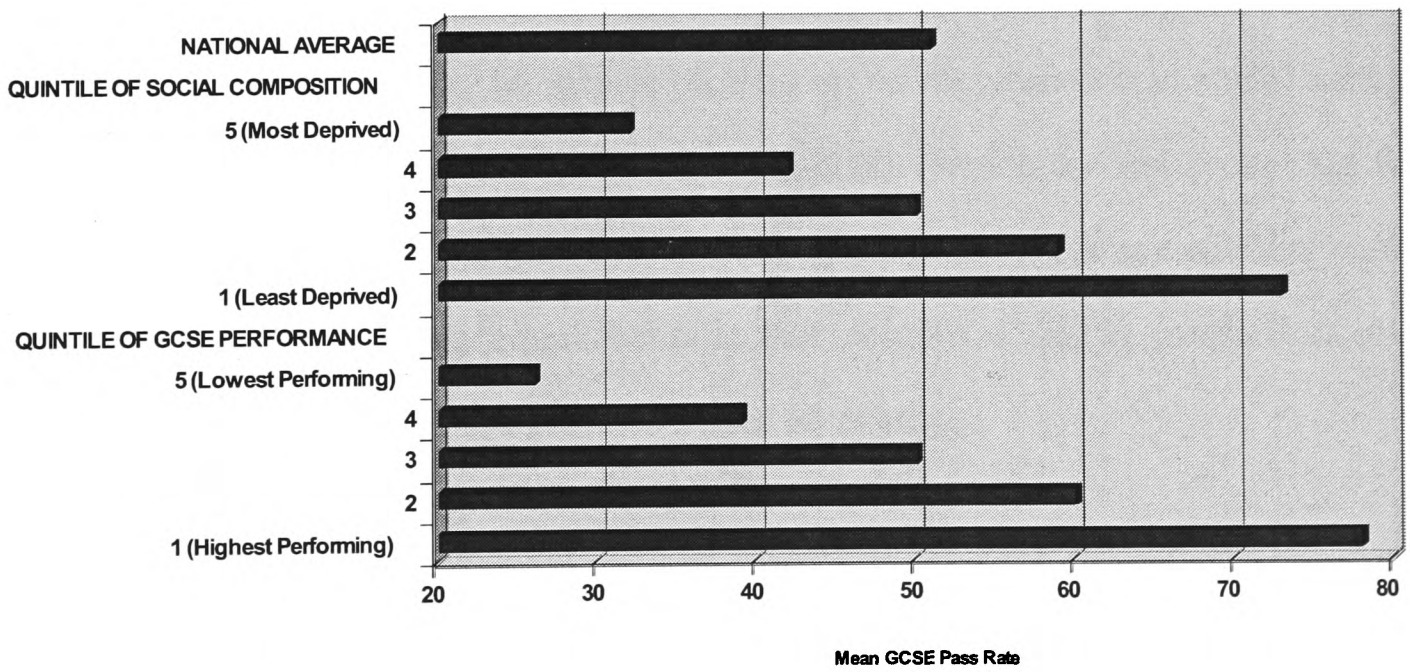
	GCSE Pass Rate (FSM Pupils)	GCSE Pass Rate (non-FSM Pupils)	% Difference in GCSE Pass Rate between FSM and non-FSM
Social Composition of School (Quintile)			
1 (least deprived)	44	74	69
2	31	60	95
3	27	52	97
4	24	45	91
5 (most deprived)	23	37	57
Most Deprived Neighbourhoods (1)	23	35	55
Least Deprived Neighbourhoods (1)	38	73	92

(1) Pupils resident in top and bottom 10% SOAs on ODPM's ID 2004.

different social environments also highlights the fact that pupils eligible for FSM are not a homogenous group of children and those raised in different areas (e.g., less economically depressed ones) will likely spend different lengths of time in poverty and potentially have very different educational opportunities and life chances as a result.

There also exists considerable variation in attainment levels at the school level. In 2002, three times as many pupils in the 20% highest performing schools attained the GCSE benchmark as in the 20% lowest performing schools (Figure 7.3 below), and there is some evidence that this gap has widened since 1992 (Gibson and Asthana, 2000)[168]. Not surprisingly, school level inequalities in attainment are especially pronounced when schools are grouped by levels of social disadvantage (Figure 7.3); however, it appears that during the past decade the most disadvantaged schools (those with 40% or more of their pupils eligible for FSM) have been narrowing the achievement gap with the most advantaged schools (less than 5% FSM), although this in part reflects a 'ceiling' on performance being encountered by the highest performing schools (HCMI, 1998).

Figure 7.3 **SCHOOL LEVEL INEQUALITY: PERFORMANCE ON GCSE, 2002**



[168] Gibson and Asthana's (2000) analysis showed that the gap between the GCSE pass rates of secondary schools in the top and bottom decile of performance in England and Wales widened from 54.6 to 58.1 *percentage points* between 1992 and 1998 although in terms of *percent* improvement in pass rates, low performing schools improved at a higher rate, narrowing the proportionate difference between high and low performing schools (Gorard, 2000).

Many of the above background features, particularly social disadvantage, generally explain much of the difference between the performance levels of individual secondary schools. Selective and comprehensive schools perform at roughly similar levels once social background factors are controlled for (Walford and Pring, 1997) and the rising performance of GM schools during the 1990s was also largely reflective of improving social compositions (Levacic and Hardman, 1998). A linear regression of the GCSE performances of all secondary schools in 2002 again reveals a model of performance dominated by social composition (Table 7.2). Four out of the five most significant explanatory variables relate to the social background of pupils[169]. The factor predicting the largest amount of variance is the extent to which the school has relatively fewer FSM pupils than the population of its local authority[170]. On average, schools had higher GCSE performance levels if they had less disadvantaged pupil populations than their local authority. However, absolute levels of disadvantage (the % of a school's pupils eligible for FSM) and catchment areas with high numbers of manual class residents also constitute significant factors.

Interestingly, the selectivity of the school (measured by its *private state score*[171]) remains significant even once background factors are controlled for in the model. However, this indicator may be in part picking up on the variation in social background within the non-FSM pupils that attend these schools (which are not picked up fully by the FSM indicator). Finally, although a more minor factor, it is nonetheless significant that, all other things being equal, schools that contain a higher proportion of ethnic minority pupils than their LEA perform better on average.

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[169] Additionally, a model based solely on the four social background variables explains almost as much of the variance as the overall model (R squared of .631 for social background compared to an R squared value of .726 for all explanatory factors).

[170] This result corresponds with Levacic and Woods' (2002) finding that schools with lower rates of improvement apparently suffered not so much from possessing disadvantaged social compositions *per se* but rather from being relatively more disadvantaged than neighbouring schools.

[171] See Chapter 3 for an explanation of this variable.

Table 7.2 **PREDICTING SCHOOL GCSE PERFORMANCE, 2002**

Explanatory Variables	*Unstandardized Coefficients (B)*	Standardized Coefficients (Beta)	T	Sig.
Constant	74.473		67.536	.000
Relative Disadvantage (% FSM more than LEA)	-.090	-.281	-19.140	.000
Selectivity (Private State Score)	2.449	.271	25.326	.000
Absolute Disadvantage (% FSM)	-.549	-.359	-28.350	.000
Manual Class Catchment	-.616	-.218	-18.558	.000
Relative Ethnic Composition	.016	.072	7.170	. 000

R Squared= .726, df= 5

The effect of social composition upon secondary school performance is well documented and has been found to explain the majority of variance in attainment levels throughout the period in which the education market has been in operation (Gorard, Taylor and Fitz, 2003). The predominance of social background factors (as well as school type, which also partly reflects pupils' social status) in models of school performance suggests that open enrolment and the associated market activity of pupils may make the biggest impact upon pupil outcomes through the role they play in shifting the *relative* disadvantage of schools' within their local marketplaces. This raises the important possibility that the improvement in attainment levels demonstrated by secondary schools over the past two decades may signal not only improving standards of teaching and learning, but also the changing nature of school intakes.

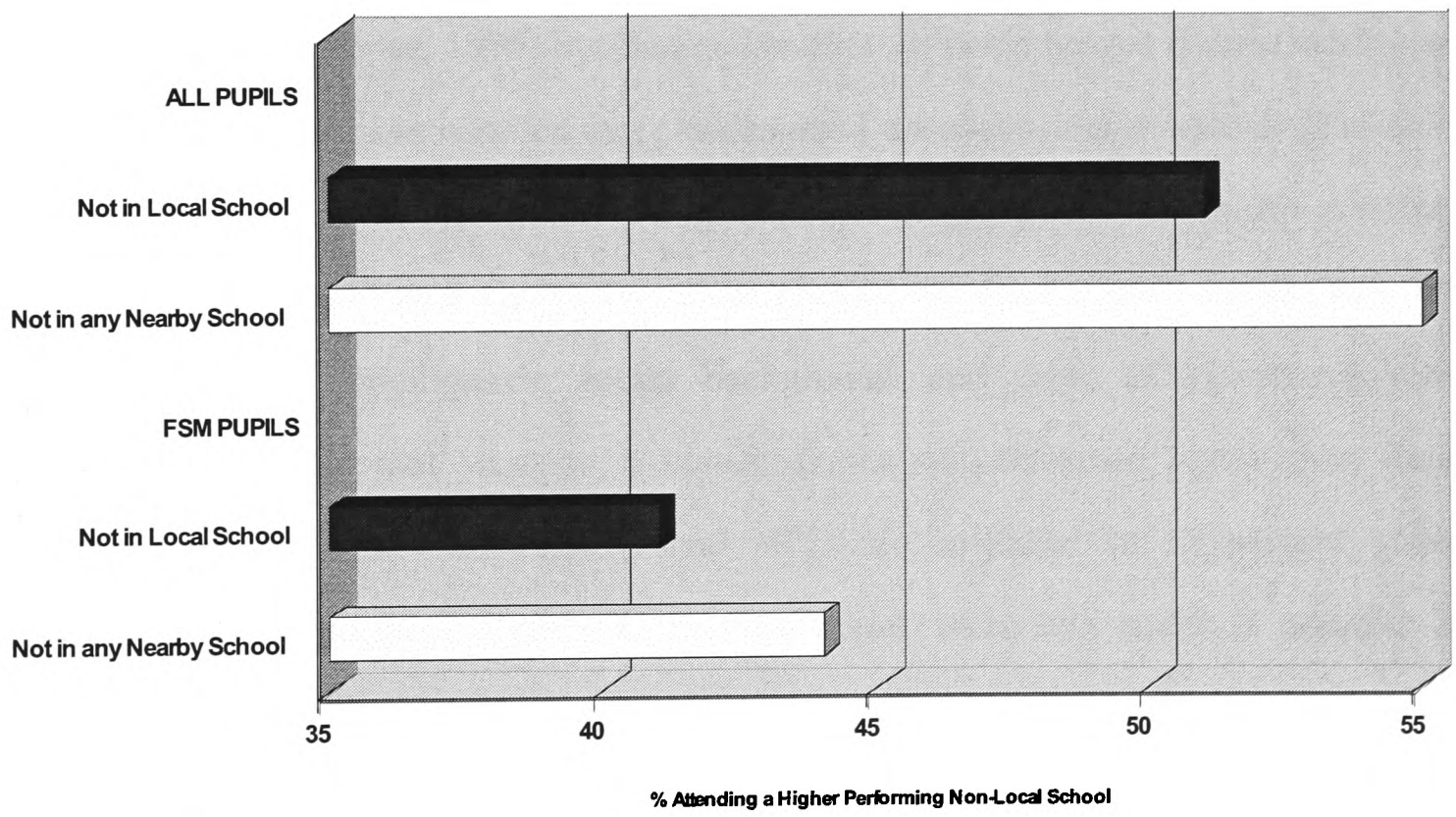
Mobility and Outcomes: The Performance of 'Choosers'

There are several ways in which the enhanced availability of choice may influence the performance of pupils and of the schools they choose to attend. First, at least in theory, choice enables pupils to attend non-local schools that are of 'better' overall quality (or at least better suited to the individual pupil) than local alternatives. We have seen that pupils attending non-local schools, on average attend schools that have higher mean

GCSE scores than their local schools (Chapter 4) and that this varies by pupil background with non-FSM pupils 'upgrading' at higher rates than their FSM counterparts (Chapter 5).

A closer examination of the destinations of 'choosers' shows that 51% of pupils bypassing their nearest secondary school, and 54% of pupils bypassing all nearby schools, are opting for non-local schools that have higher (more than 5%) GCSE averages (Figure 7.4). Although this is not a high percentage of pupils—after all about 46% of pupils attending non-nearby schools in 2002 did not attend schools with notably better GCSE performances—the rate for all pupils was noticeably higher than for FSM pupils attending non-local and non-nearby schools, only 41% and 43% of which upgraded to a better performing school (Figure 7.4).

Figure 7.4 **PUPIL MOBILITY TO BETTER** SCHOOLS, 2002**



** Represents an upgrade of 5% or greater in the average points score of the school (relative to the pupil's local school).

The individual level pupil data in PLASC and NPD also illustrates how 'choosers' themselves performed in 2002 relative to their peers. Overall, Year 11 pupils attending non-nearby secondary schools in 2002 had a 10% higher GCSE pass rate than

pupils attending their local schools. Amongst Year 11 pupils eligible for FSM, 'choosers' performed better than those FSM pupils attending local schools: 12.6% more FSM pupils in non-local schools, and 15.1% more in non-nearby schools, attained the GCSE benchmark than in local schools—a rate that is slightly higher than the average for all Year 11 pupils (see Table 7.3 below). Although some Year 11 pupils attending non-local schools in 2002 were not necessarily 'active ' choosers (for the reasons mentioned earlier), the data for 2002 indicates that in general non-local school attendees performed better on GCSE than their more localized counterparts.

Do these findings suggest that choosing a non-local school boosts a pupil's performance or simply that pupils with characteristics associated with higher attainment are electing disproportionately to bypass local schools? On this question, there is mixed evidence. Researchers in the U.S. have found that students who participate in the choice offered by small scale voucher systems improve their performance relative to comparison groups (Rouse, 1998) but that no benefits for performance from choosing are apparent in areas that have adopted more widespread open-enrolment systems (Cullen *et al*, 2000). In England, few quantitative analyses have attempted to answer this question. From a sample of 13-15 year old pupils in Manchester, Bradford (1990) found that, once other factors (e.g., intelligence, social background and areas of residence) were controlled for, pupils that went to a non-local school performed better than those attending local schools. As PLASC and NPD are collected in subsequent years, however, such longitudinal studies at the individual level will make it possible to determine whether 'choice' itself plays a role in these performance differentials or whether pupils of higher aptitude are indeed more likely to opt for non-local schools to begin with.

Finally, it is evident that choosers—although they upgraded to higher performing non-local schools in 2002—tended *not* to have as high a GCSE pass rate as the other pupils in their destination school, although they did significantly outperform the other pupils in their local neighbourhoods of residence (Table 7.3). This suggests, as did the

Table 7.3 **PUPIL GCSE PERFORMANCE BY MARKET ACTIVITY, ALL YEAR 11 TEST-TAKERS, 2002**

	GCSE Pass Rate	% Improvement on Pass Rate of Pupils in Local Schools	Mean GCSE Pass Rate of Pupils in Destination School	Mean GCSE Pass Rate of Pupils in Local Neighbourhood
All Pupils				
In Local	50			
Not in Local	53	6.0	54	47
Not in any Nearby	55	10.1	56	47
FSM Pupils				
In Local	24			
Not in Local	27	12.6	42	44
Not in any Nearby	28	15.1	43	43

exploration of 'mobility gains' in Chapter Five, that many of the highest performing pupils at the secondary level in 2002 already lived in areas with relatively high performing local schools. Non-local school choice appears in this scenario to provide a channel for upwardly mobile choosers to join high performing local attendees at good schools (and for lower performing choosers to in turn take their place in an above average school—the 'hand me down' gains phenomenon). Although FSM choosers outperformed FSM pupils remaining in local schools, the gains of non-local school attendance were negligible in terms of the GCSE performance of their peers in their neighbourhood as compared to those in their destinations schools. The overall effect of this upward percolation of more advantaged pupils, as we shall see, is to generate local school markets that are stratified along the factors like social class that are related to the exercise of choice.

Local Market Hierarchies: The Structure of Standards

Segregation by Ability

The availability of choice not only impacts the performances and school experiences of those who attend non-local schools but also may, through increased pupil mobility, result in significant changes in school compositions, and hence in the performances and

experiences of the other pupils attending those schools. The social mix of schools, as we have seen, is affected negatively by the additional segregation of choice (Chapter 6), reducing the scope for interaction between pupils of different social classes and backgrounds. However, what is perhaps equally important—especially given the beneficial 'peer effects' found in more heterogeneous schools—is the segregation of pupils by ability. Ability is closely associated with social background but they are not the same thing. Although there are many ways in which to measure pupil ability, and many factors contributing to pupil ability levels, the following analysis will *only* examine the more traditional, and undoubtedly narrow, definition of ability as it is measured in performance on standardized exams[172]. If peer effects and mixed ability environments do indeed matter to the educational outcomes of pupils (particularly low performing ones), then the segregation of pupils by ability across schools at its core represents an inefficient allocation of the most important of all school inputs, its children[173] (Vandenberghe, 1998).

Within many local authorities, school performance on GCSE varies considerably across schools: nationally the average standard deviation for schools' mean GCSE in 2002 was 7.5 points, or 20% on the rate of pupils achieving the GCSE benchmark. The variation in performance levels *between* schools, however, is not as pronounced as the average spectrum of ability *within* schools. An analysis of pupil performance within PLASC and NPD reveals that the average standard deviation in pupil GCSE performance within an English secondary school in 2002 was 12.9 points, although this varies by the type and nature of the school attended. In general there was far less variation in performance within grammar and foundation schools than within comprehensive and lower performing schools (Figure 7.5). Although the segregation of pupils by ability, and the impact of market forces, calls for a closer examination of *between* school

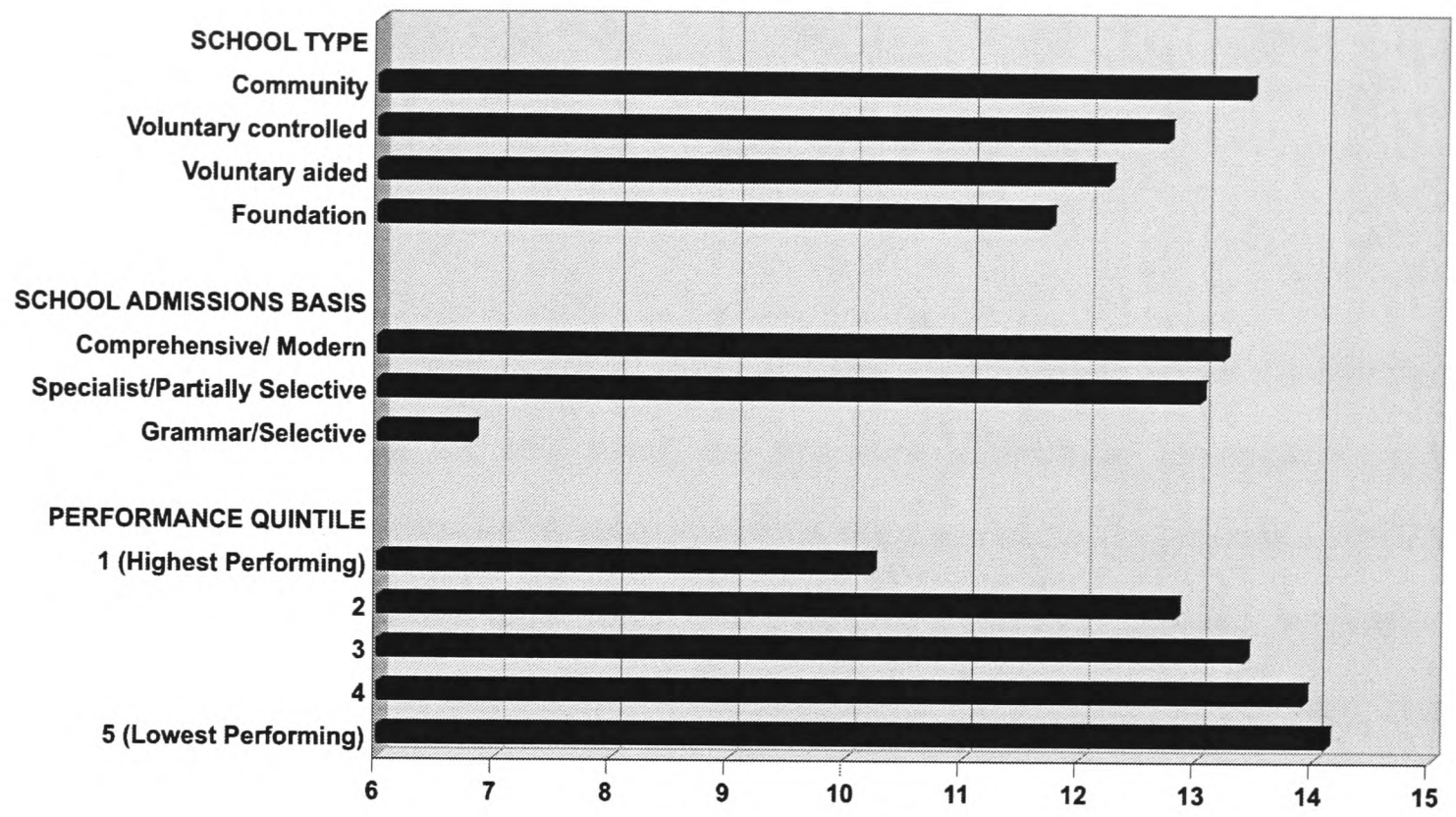
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[172] Thus, the term 'pupils of high ability' will regrettably be used as a shorthand reference to those pupils passing with 5 or more A to C GCSEs in 2002.

[173] Of course, for many aspects of the education market, there is no aggregate benefit or loss to all, only a redistribution among the relevant population: for example, the positive gain associated with an able pupil coming to one's school is offset by her absence from another school (Adnett and Davies, 2002).

segregation, it must not be forgotten that even local authorities with a healthy balance of school performances may nevertheless possess great gaps in pupil ability *within* schools.

Figure 7.5 **VARIANCE IN PUPIL GCSE PERFORMANCE WITHIN SCHOOLS, BY SCHOOL TYPE**



To get a fuller idea for how segregated English secondary pupils were by ability in 2002, PLASC/NPD can be used to examine the performances of the more than half a million Year 11 pupils taking GCSEs that year. Although no longer a minority of the population, the segregation of the approximately 273,000 pupils (51.7%) scoring 5 or more A*-C GCSEs ('GCSE benchmark') may be treated in a similar fashion to that of FSM pupils (in Chapter 6). Like pupils eligible for FSM, pupils scoring above the GCSE benchmark are more exposed to each other in schools than in the population at large and 13.4 % of them would have to be redistributed in order for all schools to have equal proportions (as measured by the segregation index, Table 7.4).

Table 7.4 **SEGREGATION IN SECONDARY SCHOOLS, YEAR 11 PUPILS SCORING 5 OR MORE A*-C GCSE'S AND PUPILS ELIGIBLE FOR FSM, 2002**

	% of Relevant Population (1)	Exposure in Schools (Weighted LEA mean)	Exposure Differential	National Segregation Index (Weighted LEA mean)
Pupils with 5+ A*-C GCSEs, 2002	51.7	57.9	12.0	13.4
Pupils Eligible for FSM	14.9	20.1	35.0	25.0

(1) All GCSE exam takers in Year 11, and all Secondary School pupils.

Were secondary school pupils in England more segregated by social disadvantage or ability in 2002? On the one hand, the *exposure differential* (calculated as the percentage increase in exposure in schools versus the population) experienced by FSM pupils is higher although this is in part a result of their original population proportions (51.7% v. 14.9%). On the other hand, if one calculates the exposure differential using percentage points (rather than percentages), then pupils with the GCSE benchmark have a higher differential (6.2 compared to 5.2 percentage points). The comparative value of using percentages or percentage points in measuring marginal differences is the subject of ongoing debate in the social sciences (See Gorard (2000) and Hammersley (2000)); however, for the purposes here of comparing social and ability segregation, it is useful to see what these proportions mean as far as the comparative effort involved in *desegregating* the respective groups.

If only Year 11 FSM and exam-taking pupils are considered, then about *36,000* (13.4% of 273,000) pupils attaining the GCSE benchmark would have to be redistributed to desegregate the population, while only *18,000* (25% of 74,000 Year 11 FSM pupils) pupils eligible for FSM would need to be reassigned to different schools[174]. Thus, balancing ability in Year 11 would require a redistribution of roughly twice as many pupils as remedying social background differences in schools. In this sense—although

[174] These figures of course reflect the relative sizes of the two groups of pupils but nonetheless provide an indication of the numbers of pupils involved in producing the segregation levels found in the population.

disadvantaged pupils find themselves more isolated than 'high ability' pupils—schools, in terms of practical intractability, are effectively more segregated by ability than by socio-economic status.

Figure 7.6 **GCSE EXPOSURE DIFFERENTIALS, BY LEA, 2002**



Across almost all local authorities, pupils are more segregated by ability in schools than in the general population (Figure 7.6)[175]. Six LEAs—Wokingham, Harrow, Windsor and Maidenhead, Islington, Richmond upon Thames and Knowsley—possess negative *exposure differentials*, largely as a result of high performing resident pupils exiting the LEA for school (meaning that the high ability pupils who stay are exposed to fewer peers like themselves in school than in the resident population). The local

[175] As measured by the exposure differential for pupils attaining the GCSE benchmark. As with FSM pupils, this measure correlates highly (.810 p=.001) with the unevenness of pupils (segregation index) at LEA level.

authorities with the largest differences between the school and area segregation of pupils by ability include largely selective LEAs such as Kent and Buckinghamshire as well as inner London boroughs like Hammersmith and Fulham and Richmond. A regression analysis of LEA ability segregation levels helps to pinpoint why such differences may exist.

A model explaining two-thirds of the variance in segregation includes several factors that are significantly related to the extent to which pupils are segregated by ability in schools across a local authority (Table 7.5). First, high sorting by ability within an LEA's schools is primarily associated with the existence of more local schooling

Table 7.5 **PREDICTING THE SEGREGATION OF HIGH ABILITY PUPILS (UNEVENNESS) BETWEEN SCHOOLS (LEA Level), 2002**

Explanatory Variables	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	*T*	Sig.
Constant	.118		4.473	.000
Density of Local Schooling Options	.127	.335	5.249	.000
Residential Segregation of High Ability Pupils	.471	.258	4.099	.000
Average Selectivity of Choice School	.017	.350	5.743	.000
% GCSE Benchmark (LEA)	-.245	-.400	-5.509	.000
Segregation of FSM Pupils (Evenness)	.244	.333	5.172	.000

R-squared: .650, df=5

options (presumably increasing the options of more able pupils). Ability segregation across schools also correlates highly with ability segregation by residence, as well as with the degree of selection present in the LEA's schools. Additionally, more segregated LEAs are associated with lower overall performance levels and also greater segregation of disadvantaged pupils between schools. In a similar analysis of open enrolment policies and ability segregation in Belgium, Vandenberghe (1998) also found that low ability pupils tended to be more isolated from more able pupils when those more able

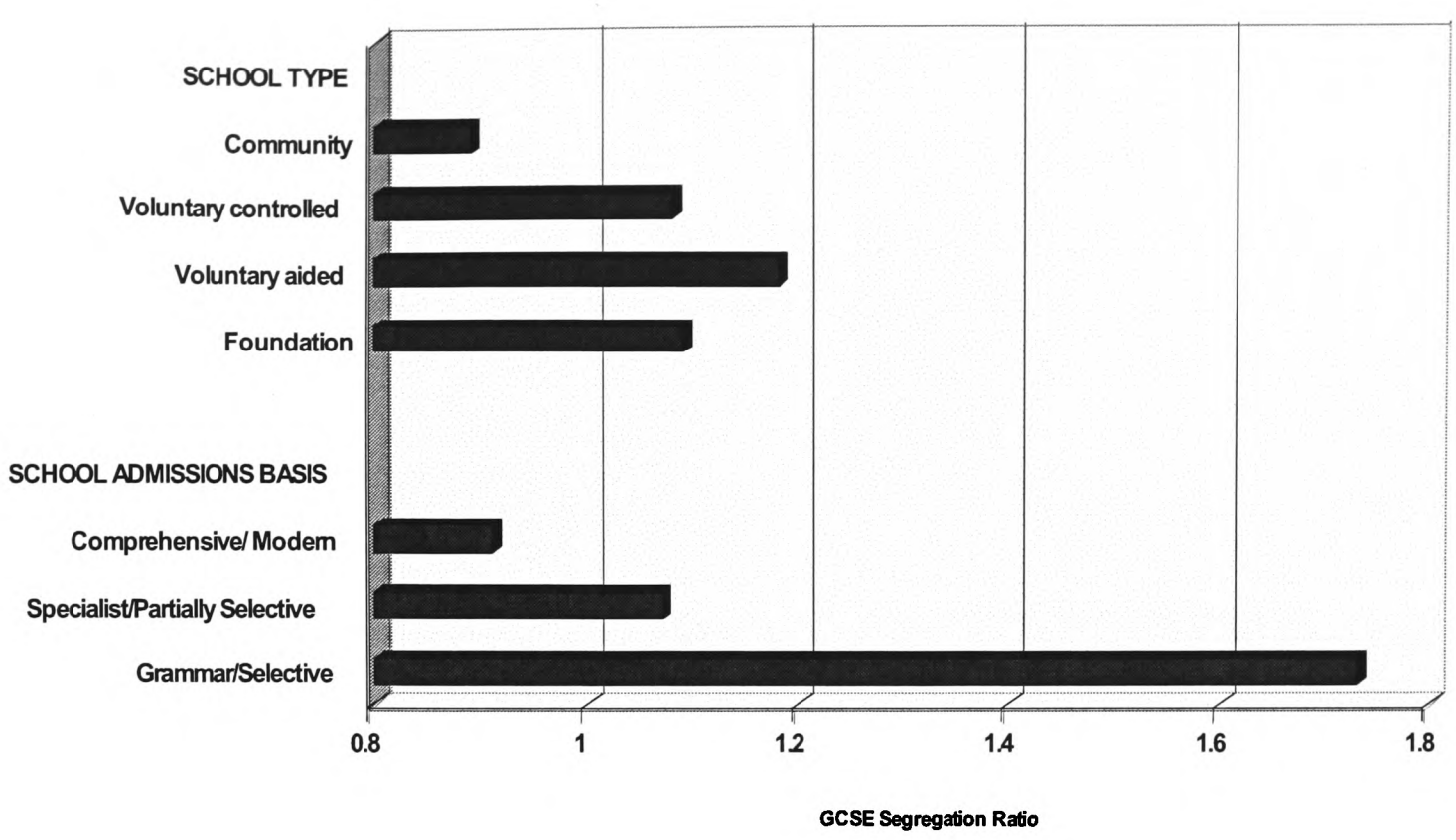
pupils possessed higher numbers of schooling options to choose from. The implications of such a correspondence, and its relation to the potential for choice to augment sorting by ability, will be examined shortly; first, however, it is important to investigate school hierarchies—the structures that help enable, reinforce and sustain such high levels of ability and class segregation in English schools.

Local School Hierarchies

A 'status hierarchy of schools' will inevitably exist in any local education system as long as schools vary in the nature, quality and appeal of their provision (Woods et al, 1998: 200). Within the education market present today, however, English secondary schools inhabit particularly rigid hierarchical structures that are overwhelmingly related to schools' relative performances on standardized exams, and to those factors like social disadvantage that are related strongly to such outcome measures. As with their social compositions, English secondary schools vary considerably in the extent to which they take more or less than their fair share of high ability pupils (those achieving the GCSE benchmark) (Figure 7.7). As one might expect from their higher average performances on GCSE, grammar schools have far more than their fair share of the population of high ability pupils within their local authority. Voluntary, foundation and specialist schools also contain relatively more than their fair share while community and comprehensive schools on average have less than their fair share of high ability pupils.

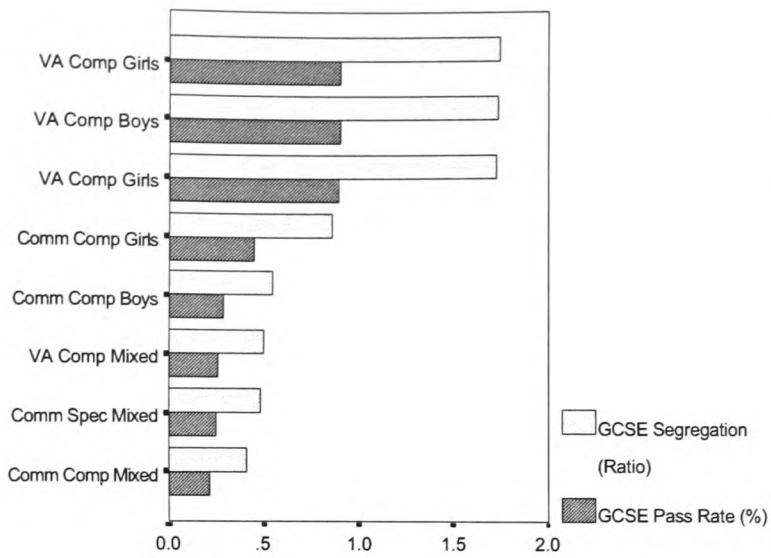
While some individual schools do succeed at 'adding value' to their pupils above what might be expected given their backgrounds these broad differences between school types more than likely reflect the tendency for different types of schools to attract and retain pupils from more advantaged backgrounds and with relatively higher aptitudes to being with. Within the education market, preserving the status associated with possessing high ability pupils is aided for many schools by the publication of league tables, which—via the one-dimensional yardstick of exam performance levels—help to reproduce and reinforce existing schools differences, arguably misrepresenting the relative desirability of local school options (Whitty *et al*, 1998).

Figure 7.7 **SCHOOL ABILITY SEGREGATION RATIOS, By School Type, 2002**

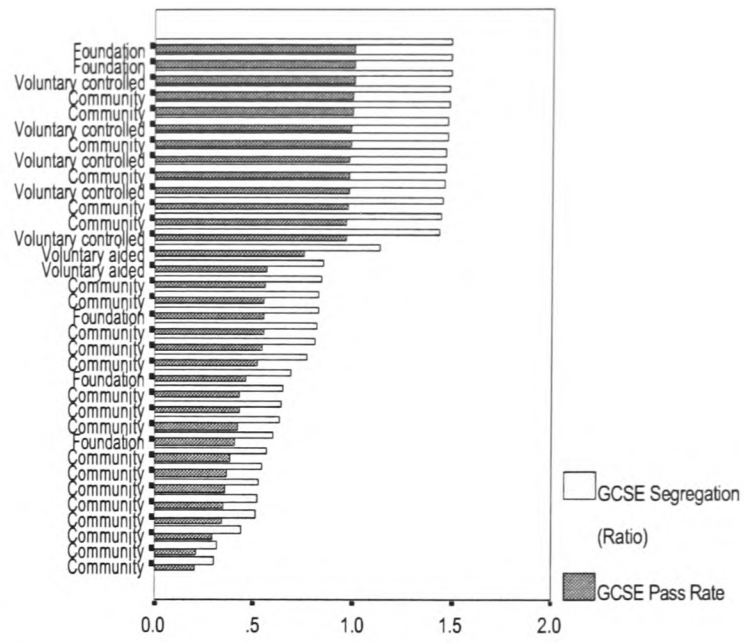


The uneven playing field experienced by so many secondary schools results largely from the zero-sum nature of hierarchical competition spaces and the advantages for attracting new pupils enjoyed by schools that are already positioned near the top of their local schooling hierarchies. Such a dynamic occurs to various extents within different local authorities and undoubtedly pre-dates the advent of open enrolment. A look at two local authorities that were among the most segregated by ability in 2002—Hammersmith and Fulham and Buckinghamshire —reveals clear local school hierarchies with single sex, denominational and other non-community schools possessing more than their fair share of high ability pupils and thus unsurprisingly higher performance levels on GCSE (Figure 7.8). Other local authorities, however, such as Tower Hamlets and Windsor and Maidenhead (Figure 7.8), possessed noticeably less pronounced hierarchies in which mixed-ability comprehensive schools formed the structural norm (even with a different mix of voluntary and community provision).

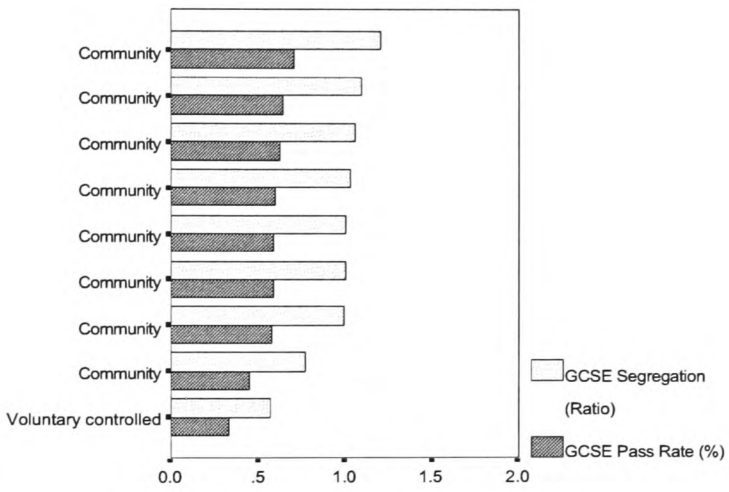
Figure 7.8 **SELECTED LEA PERFORMANCE HIERARCHIES, 2002**



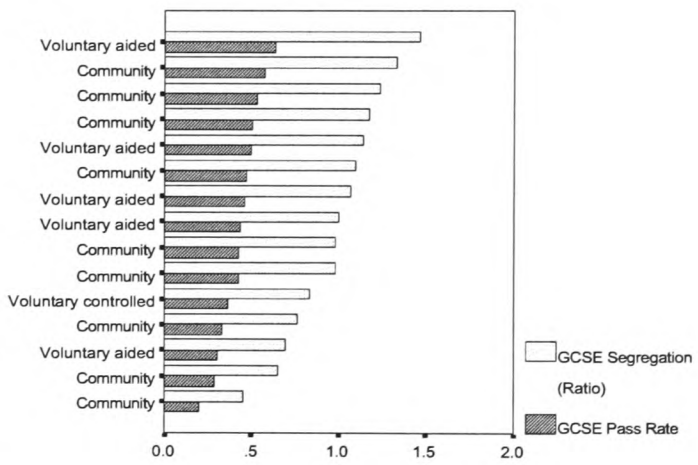
Hammersmith and Fulham Secondary Schools



Buckinghamshire Secondary Schools



Windsor and Maidenhead Secondary Schools

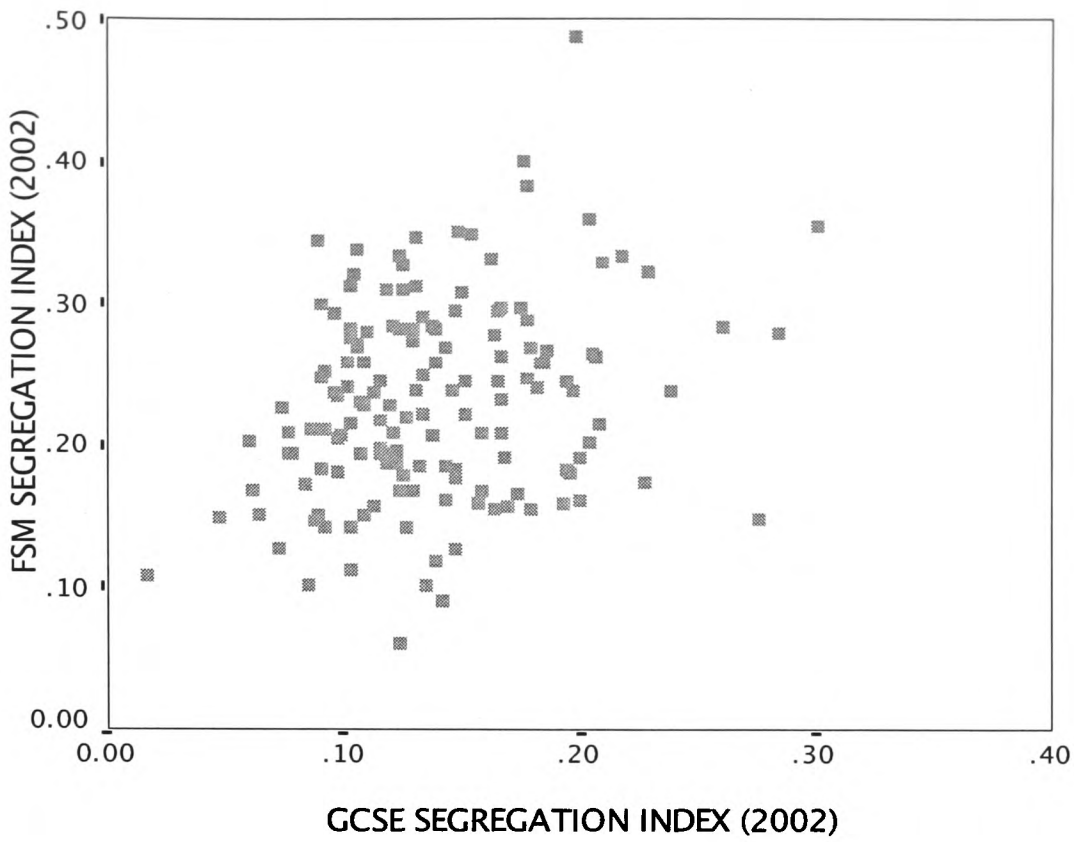


Tower Hamlets Secondary Schools

School Compositions and Performance Hierarchies

The position of secondary schools within the above performance hierarchies strongly relates to the social background of their pupil intake. This relationship presents itself at several levels. First, at the local authority level, a strong relationship between the segregation of pupils by ability and by socio-economic status is evident (Figure 7.9). As was also shown in the above regression model, local authorities in which disadvantaged pupils are unevenly distributed across schools also tend to be segregated along the lines of pupil ability.

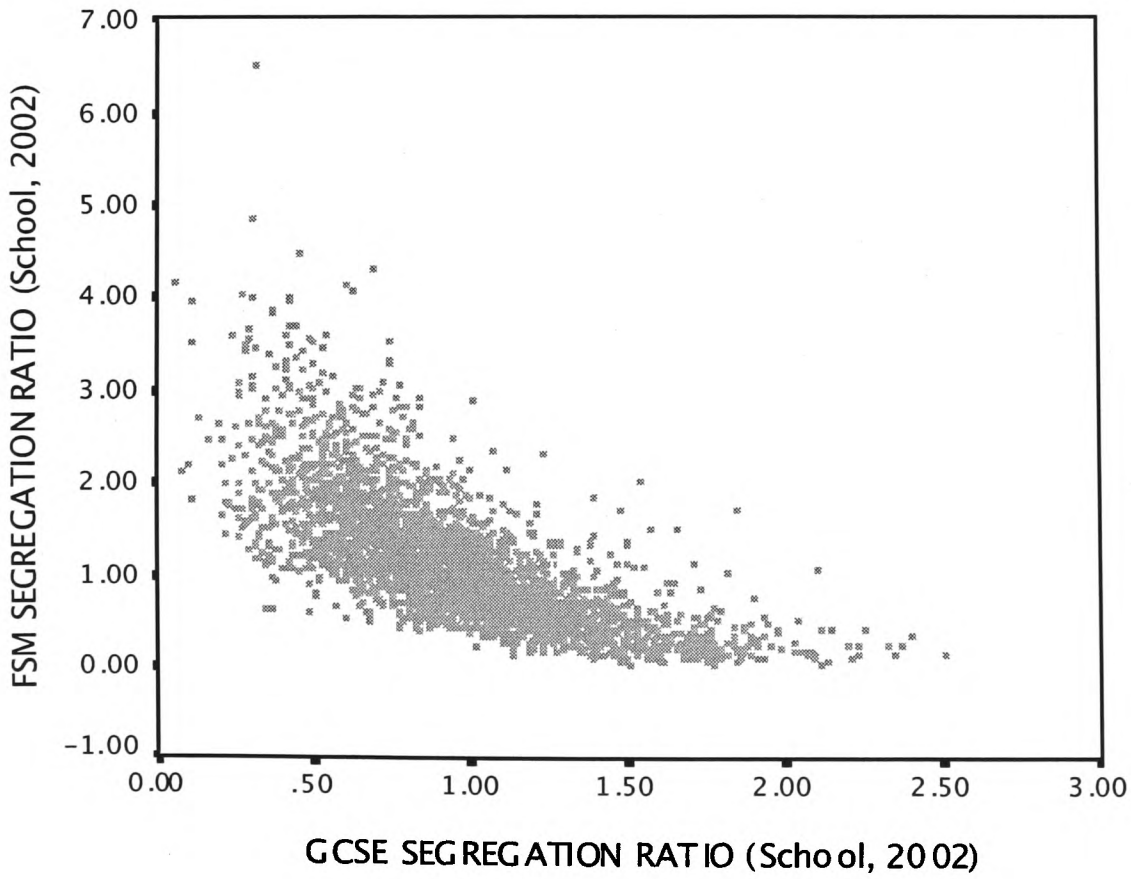
Figure 7.9 **RELATIONSHIP BETWEEN FSM AND GCSE SEGREGATION (LEA LEVEL), 2002**



Pearson correlation coefficient: .278 , significant at p=.01 level (1-tailed)

Figure 7.10 **RELATIONSHIP BETWEEN FSM AND GCSE SEGREGATION (School Level), 2002**

FSM SEGREGATION RATIO (School, 2002)



Pearson correlation coefficient: -.745 , significant at p=.01 level (1-tailed)

The relationship between social background and ability is even more pronounced at the school level. Secondary schools that had more than their fair share of FSM pupils in 2002 overwhelmingly tended to have less than their fair share of high ability pupils, and vice versa (Figure 7.10). Social background factors clearly play a role in determining a school's position within a local school hierarchy. A school's average GCSE performance, and relative status in its local hierarchy, directly relate to the nature of its social catchment: schools in the top quintile of performance on GCSE's have higher numbers of pupils from areas with more service class employees and adults with basic educational qualifications and fewer pupils eligible for FSM or from areas with relatively more manual class employees (Table 7.6). At the school level, a regression analysis reveals that the average proportion of persons from manual class backgrounds in a school's social catchment is significantly, and negatively, related (R squared = -.568, significant at the .01 level) to a school's average performance on GCSEs (although this is not as severe as the relationship between a schools percentage of FSM pupils and its GCSE performance (R squared = -.681, significant at the .01 level)). Stratification of pupils by ability thus overlaps significantly with, and indeed entails, the stratification of pupils by social background.

Table 7.6 **SOCIAL CATCHMENTS OF SCHOOLS, BY QUINTILE OF GCSE PERFORMANCE, 2002**

	% FSM	% Manual in Pupil OA	% Service in Pupil OA	% Level 2 Adult Qualifications in Pupil OA
Pupils in GCSE Quintile				
1 (highest performing)	5	23	32	53
2	9	27	29	48
3	14	31	25	43
4	21	33	21	40
5 (lowest performing)	32	35	18	36

Given the influence of social background on attainment, true 'value added' performance league tables would adjust the level of a school's exam performance to

reflect the nature of its intake (Bradford, 1990). An adjusted 'social' league table can be constructed by using the data contained in PLASC to create the necessary explanatory variables for insertion into a school level performance regression model similar to the one produced earlier in the chapter. For example, inputting a school's social composition—including the percentage of its pupils eligible for FSM along with other background variables—into the regression equation predicting GCSE performance generated above, produces a 'predicted GCSE pass rate' for that school in 2002 given its social composition that year (either for all pupils or solely those in Year 11 taking GCSEs)[176]. A comparison of schools' eventual GCSE results with their predicted pass rates provides a rough guide to how well schools perform given the social backgrounds of their pupils (See Methods Annex).

Finally, the way in which pupils of varying backgrounds are sorted into schools occupying different places in the league tables can be appreciated further by using PLASC to chart the origins and destinations of pupils as they go from neighbourhoods with certain social compositions to attending schools with varying levels of exam success. As the cross-tabulation in Table 7.7 demonstrates, the majority of pupils attend

Table 7.7 **AREAS OF ORIGIN AND SCHOOLS OF DESTINATION, 2002**

% from each quintile attending	Origins: Social Catchment (% FSM) of Residence				
Destination Schools	**1 (least deprived)**	**2**	**3**	**4**	**5 (most deprived)**
GCSE Quintile					
1 (highest performing)	**53.0**	14.0	15.7	13.2	11.6
2	20.3	**51.0**	11.7	12.7	11.7
3	10.2	21.8	**46.7**	11.9	13.9
4	9.1	7.0	19.1	**46.5**	15.0
5 (lowest performing)	7.4	6.2	6.9	15.6	**47.8**
Total	100.0	100.0	100.0	100.0	100.0

[176] This sort of analysis is already performed by OFSTED in its annual school Performance AND Assessment (PANDA) Reports, and has recently been done with the aid of variables derived from the individual level data in PLASC and the NPD.

schools whose performance is commensurate with the social nature of their local area (as measured by the social catchment of their local school): pupils from less deprived areas are able to secure far more spots in high performing schools than those from more disadvantaged neighbourhoods. The extent to which this is due either to residential differences, the various exercise of non-local choice, or other factors is the subject of the next section.

Hierarchies of Choice: The Role of the Market in Ability Segregation

Market Activity and School Performance

Given the tendency of high performing pupils to upgrade to non-local schools with better exam pass rates than their local schools, not to mention the attraction of parents to high performing schools within an education market, it is perhaps not surprising that the more 'active' schools with larger non-local pupil populations generally perform better on exams than other secondary schools. Schools with larger nets, or 'actual' catchment areas, have lower proportions of pupils attending from nearby areas but higher GCSE pass rates, although GCSE performance appears to level off in schools with pupils living farther away than 4-5km on average[177] (Table 7.8).

***Table 7.8* SCHOOL CATCHMENT AREA, MARKET ACTIVITY, AND GCSE PERFORMANCE, By Catchment Size, 2002**

	Mean Distance to School (km)	% Pupils in Nearby School	% GCSE Pass Rate
School Size: Actual Catchment Cluster			
1	1.57	72	46
2	2.94	55	61
3	4.29	52	68
4	6.71	46	69
5	9.26	39	69
6	11.01	31	70

[177] This likely represents, however, the counterbalancing effect of high performing grammar and other schools alongside lower performing rural comprehensives. A good illustration of how aggregate school averages do not tell the whole story.

Looked at another way, schools with higher proportions of non-local pupils possess more than their share of high ability pupils as well as higher GCSE pass rates on average (Table 7.9). This reflects in part school type, as show in Chapter 4, since grammar and voluntary schools generally have larger actual catchment areas and non-local pupil populations than community schools. Finally, it is worth noting that a school's GCSE performance correlates strongly (Pearson= .370, significant at p=. 01 level) with the mean distance ratio (ratio of distance in kilometers of the school a pupil attends and the school that is nearest to them) of its attendees. In other words, in 2002 at least, the more pupils a school had that were traveling proportionately further beyond their local school, the higher its performance tended to be.

Table 7.9 **SCHOOL'S GCSE PERFORMANCE, By Decile of Market Activity, 2002**

	GCSE Pass Rate (Unweighted Mean)	GCSE Segregation Ratio (Unweighted Mean)
% Non-Local Pupils (Decile)		
1 (> 70% non-local)	69	1.30
2	58	1.10
3	55	1.05
4	52	.98
5	51	.99
6	48	.93
7	47	.91
8	46	.89
9	42	.82
10 (< 8% non-local)	42	.81

Does a school's market activity predict its performance once other factors such as the social background of its area and intake are controlled for? Interestingly, in the earlier regression model of school performance, several market-related variables such as a school's retention rate, its number of non-local pupils and the size of its actual catchment are all significant (and positive) predictors of a school's GCSE pass rate; however, each measure drops out of the model once social background indicators are introduced. This signifies, in the strictest sense, that, *ceteris paribus,* knowing the social

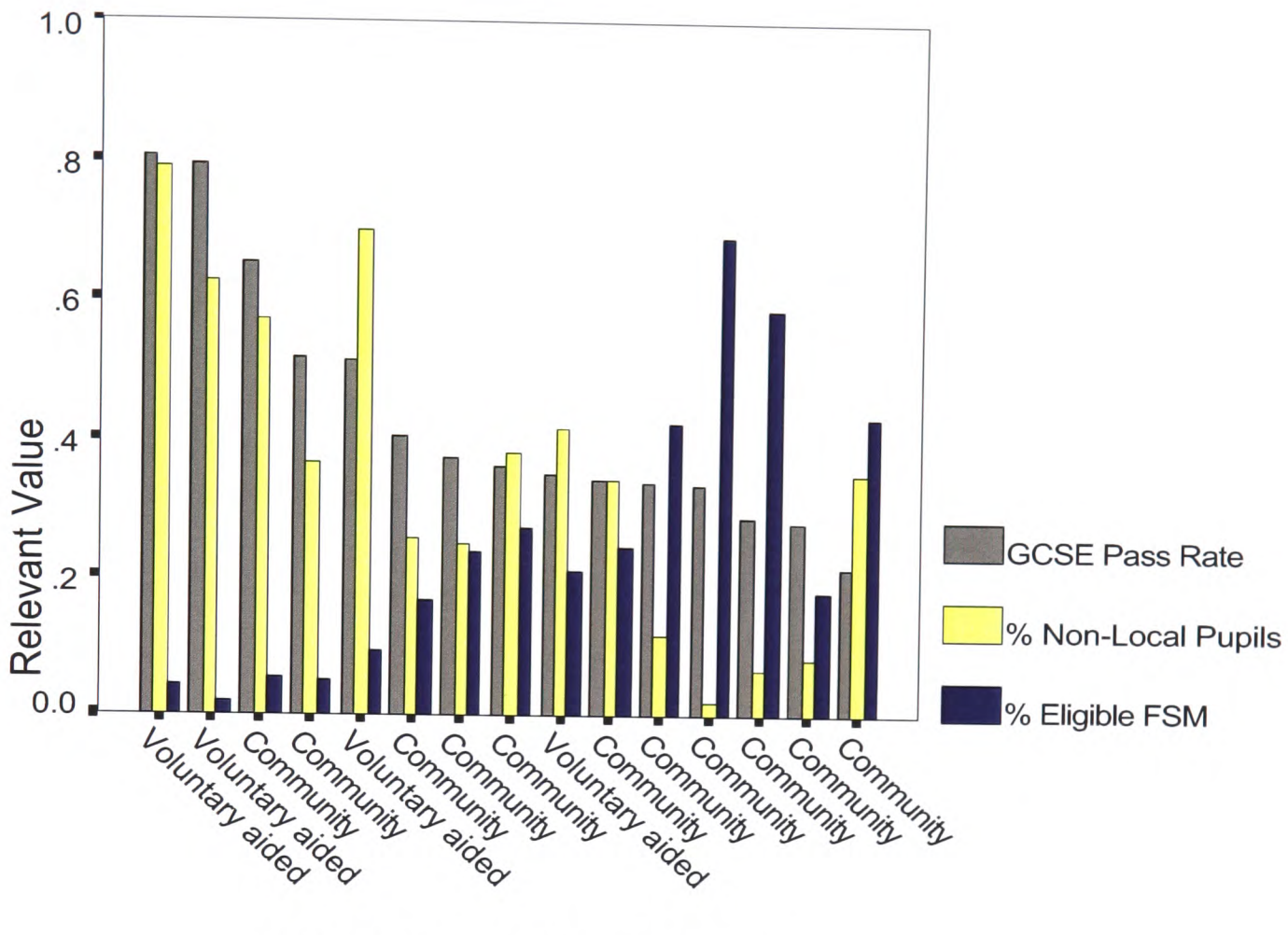
backgrounds of a school's pupils will provide a better means for predicting the school's consequent GCSE performance than identifying what level of choice and mobility those pupils have exercised in order to attend that school.

Nonetheless, given the significance of both sets of social background and market variables in predicting school performance, and the interaction of these two sets of factors in determining individual performance, it is likely that market activity and social class are linked in determining educational attainment (or at least its distribution across schools). The most obvious model situates the impact on performance in terms of the role that the weaker set of variables—those related to market activity—play in facilitating the impact of the stronger set—those related to the social background of a school's pupils. In this scenario, the significance of market factors in predicting school level exam success merely reflects the disproportionate use of mobility and choice by more advantaged pupils interested in upgrading to better schools.

If true, this interaction suggests that the position of schools within performance hierarchies should, at least in most cases, be related to their performance and social composition as well as their ability to preserve these two via success in the market, either through retaining high numbers of local pupils, attracting non-local pupils or both. A re-examination of the school hierarchies presented earlier illustrates the mobility differences exhibited by schools at different points along the league table rankings. Oldham (in Figure 7.11 below) provides a good example of the both the overall relationship between performance, market success, and social intakes across English LEAs as well as how some individual schools may nevertheless run counter to the general trend. The local secondary school market in Oldham clearly exhibits stratification along the lines discussed above: if ranked by school performance, the schools at the top of the local hierarchy possess more non-local, and fewer disadvantaged, pupils than the schools beneath them, a trend that varies consistently along the spectrum with only a few exceptions. These exceptions may include high performing schools with small non-local populations, or low performing schools with

relatively large non-local populations, but rarely, however, do they cut against the general relationship between a school's performance and its social intake.

Figure 7.11 **LEVELS OF MOBILITY AND LOCAL PERFORMANCE HIERARCHIES: OLDHAM, 2002**



Oldham Secondary Schools

The question that remains, however, is to what extent do the additional choices present for parents in the new education market serve to exacerbate the key relationship between school disadvantage and performance underlining most local market hierarchies. To more intricately examine the role of choice in school hierarchies, it is necessary to, as in Chapter 6, compare segregation levels and movement within different counterfactual models.

Residence, Choice and Segregation by Ability

Between 1951-1964—the years in which the comprehensive schooling ideal took shape in England—several factors such as the growth of suburbs and the increase in social housing helped to obstruct any hope of truly integrated schooling (Lowe, 1988). And, as discussed in Chapter 1, comprehensive schooling came into existence within an

education system that was already considerably hierarchical in nature. Indeed, given the level of residential segregation at the time (and presently), a comprehensive system based on local schooling arguably undermines any attempts at true equal educational opportunity (Dore and Flowerdew, 1981). The intractable difficulty that residential segregation represented for mixed ability, mixed class schools was noted in the landmark Circular 10/65:

> But particular comprehensive schools will reflect the characteristics of the neighbourhood in which they are situated; if their community is less varied and fewer of the pupils come from homes, which encourage educational interests, schools may lack the stimulus and vitality that schools in other areas enjoy. The Secretary of State therefore urges authorities to ensure, when determining catchment areas, that schools are as socially and intellectually comprehensive as is practicable (paragraph 36).

In the current education market in England, around 95% of secondary pupils attend schools with either comprehensive, secondary modern or specialist admissions policies[178] (i.e., not fully selective); however, as we have seen, pronounced school hierarchies exist in which pupils are strongly segregated by ability. The individual data in PLASC provides us with a good opportunity to examine to what extent local performance hierarchies are the result of pre-existing disparities in ability and socio-economic status across different local areas or of non-local school attendance patterns facilitated by parental choice.

In much the same way as the segregation of FSM pupils was explored in Chapter 6 using the power of the PLASC data to reassign pupils to alternative schools based on residence and other factors, the segregation of Year 11 pupils by their demonstrated ability on GCSEs may be compared within various models of school attendance. This sort of hypothetical exercise is not completely unproblematic. A pupil's GCSE score is not a fixed characteristic in the same way as his or her social background, and cannot so readily be re-assigned to alternative schools—the school a pupils actually attends may of course have a great deal to do with that score. Nevertheless, given the large role played

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[178] Growing numbers of comprehensives are becoming specialist schools—1,685 as of 2004—with the ability to select up to 10% of their intakes.

by background, and not school factors, in pupil performance, and the sheer number of pupils available in any hypothetical involving PLASC, it is an extremely useful exercise to consider the segregation of pupils by ability within a local schooling scenario.

First, the segregation index can be used to compare how evenly high ability pupils (i.e., those that attain the GCSE benchmark) are distributed under a local hypothetical compared to under the attendance patterns they actually demonstrated in 2002. When the segregation indices for these two scenarios are compared, it is evident that the average LEA goes from needing 13% of its high ability pupils to be redistributed (in order to have equal proportions across all secondary schools) to only 9% when all pupils are assigned to secondary schools based wholly on their area of residence. In other words, high ability pupils are around 35% less evenly distributed (or more segregated) under the market than under a catchment-based school system. The exposure of high ability pupils to one another under different attendance models can also be examined (as in Chapter 6) using the isolation index. This likewise shows that the current market increases pupil sorting by ability relative to neighbourhood assignment (Table 7.10). Residential segregation and non-local attendance patterns thus each help to increase the ability segregation of Year 11 pupils by about 6% across secondary schools. Taken together, both structural features suggest that the average Year 11 pupil attaining the GCSE benchmark in 2002 was likely to have 12% more schoolmates with similar attainment levels than she would have had in the population at large.

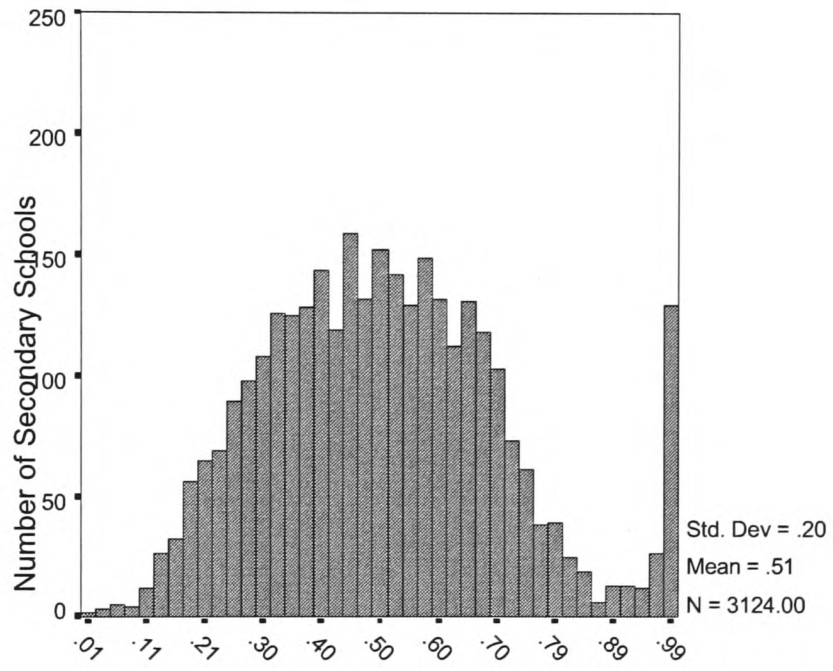
Table 7.10 **EXPOSURE TO OTHER HIGH ABILITY PUPILS, UNDER DIFFERENT MODELS, 2002**

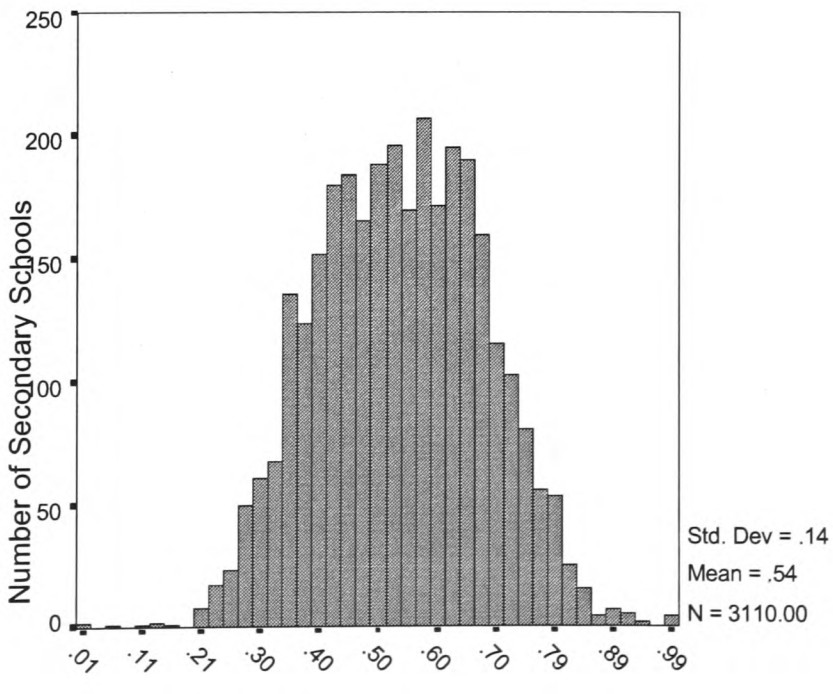
	Isolation Index	% Increase in Segregation from Previous Model	% Increase in Segregation (cumulative)
% GCSE Pass Rate (Population)	51.7		
Local School Counterfactual	54.7	5.8	
Actual Market	57.9	5.9	**12.0**

Given that parents who value education highly will usually attempt to seek out better performing schools for their children, the fact that non-local school attendance moderately increases overall pupil segregation may not seem to be either surprising or of

particular importance. At the school level, it is more clear, however, how the redistribution of ability that parental choice facilitates may lead to, or reinforce, school performance inequalities. Returning to the local school counterfactual, re-assigning pupils to their local schools dramatically alters the variance in secondary school's GCSE pass rates, narrowing the distribution and lowering the inequality in performance levels between schools (Figure 7.12).

Figure 7.12 **DISTRIBUTION OF SECONDARY SCHOOLS BY GCSE PASS RATE UNDER ACTUAL MARKET AND LOCAL SCHOOL MODEL, NATIONWIDE, 2002**





One of the most conspicuous effects of this re-assignment is the shrinkage of the left tail of the distribution—those schools with the lowest GCSE pass rates. Indeed, if one considers the number of secondary schools with less than 20% of its pupils attaining the GCSE benchmark—generally deemed the minimum score for prospective entry into higher education, as well as a common threshold that 'failing' schools on special measures fall below (Byrne and Rogers, 1996)—an interesting pattern emerges. Under the current education market in 2002, 150 schools fell below this threshold; however, when pupils are assigned to their local schools, only six schools fall below the same threshold. This suggests that a number of secondary schools are being avoided at all costs by some parents in the current marketplace, and that in the absence of this avoidance, schools would vary less in terms of average performance levels. While market proponents may concede this pattern of low performing schools, they would likely argue that more schools should be allowed to fail in the marketplace in order to achieve the larger goals of promoting cost efficiency and providing incentives to improve performance. One of the problems with the 'public market' in English secondary education, as noted in Chapter 2, is that so few failing schools actually do close in practice. In this way, the market appears to allow a sub-strata of 'sink schools' to persist while at the same time providing some escape for the most discontented parents (thus arguably avoiding some of the political costs and trials involved in school closure).

As the spike on the right-hand of the upper distribution in Figure 7.12 also reveals, open enrollment (along with traditional choices of selective schooling) appears to facilitate the congregation of high performing pupils within a small percentage of schools that achieve GCSE pass rates of over 90%. It is surely the latter distribution, however, that is more equitable and that would be pursued by policymakers interested in creating school structures conducive to integrating pupils from diverse social backgrounds and allowing for the operation of 'peer effects' within schools.

Not all local schooling markets in England, however, demonstrate the same pronounced differences between segregation levels under local and market conditions,

though the same general relationship holds in most locales. When examined at the LEA level, the variation in GCSE attainment levels between schools declines under a local schooling model in all but eight local authorities (Figure 7.13). The average LEA

Figure 7.13 **VARIANCE IN SCHOOL GCSE PASS RATES, CHOICE and LOCAL MODELS, LEA, 2002**

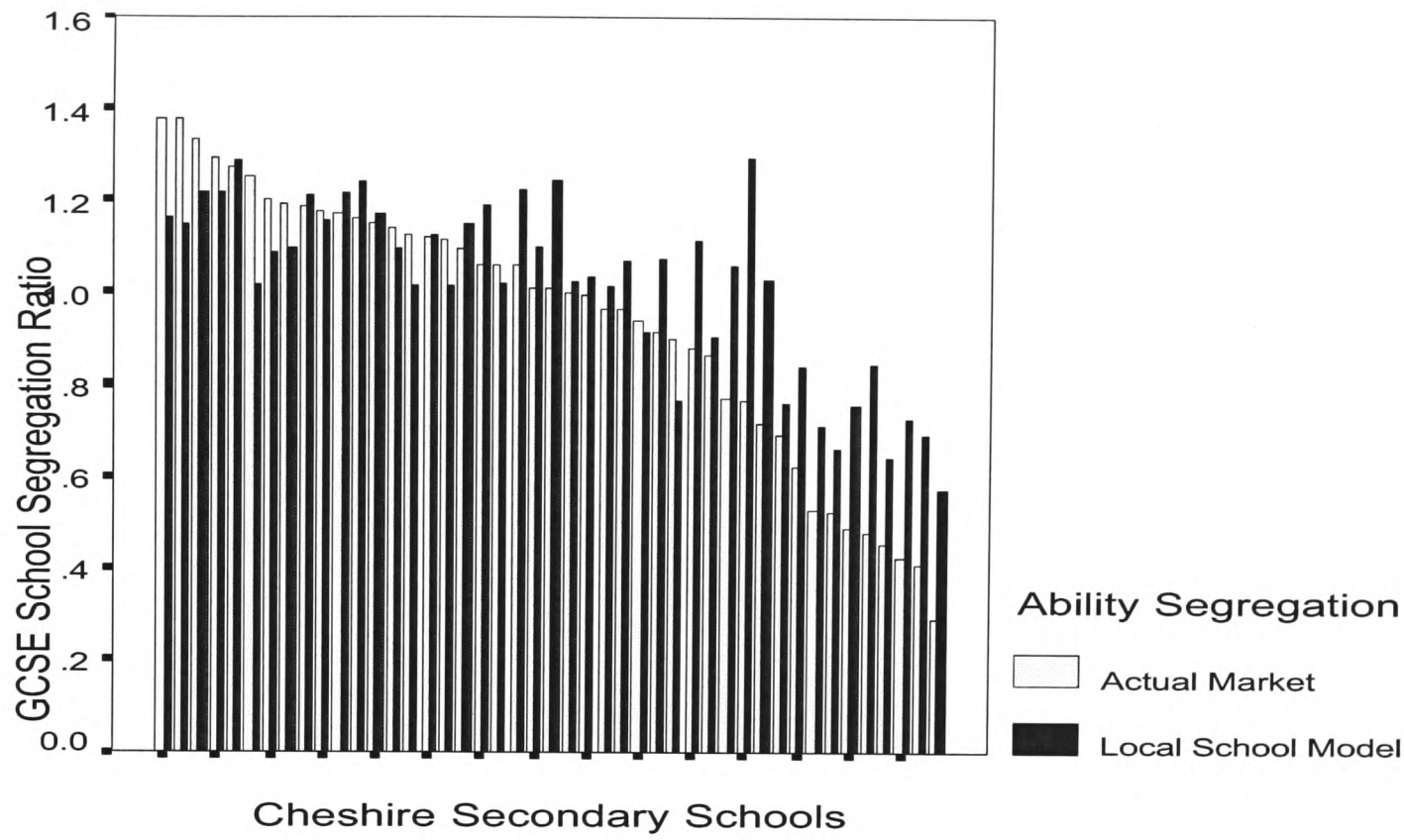


possessed a standard deviation of 18 percentage points in the GCSE pass rates of its secondary schools in 2002, and an average deviation of 12 percentage points under the local schooling model. Moreover, as Figure 7.13 shows, the most pronounced differences between actual and local performance variation unsurprisingly exist in selective LEAs that possess 'old' and 'new' choice channels.

An examination of how ability segregation shifts between the 44 secondary schools within the Cheshire LEA—the LEA most representative of the national trend—from the actual market to a local school model reveals how the performance hierarchy of

schools present in the actual education market (shown in the lighter shaded bars in Figure 7.14) balances out under a local schools model (dark bars).[179] If Cheshire's

Figure 7.14 **SEGREGATION BY ABILITY, LOCAL V. MARKET MODELS, CHESHIRE LEA (2002)**



schools are ranked according to their GCSE school segregation ratio—a measure of whether they have more or less than their fair share of GCSE passers—then it is clear that under a local schooling arrangement school performance levels would be more equal than under the current hierarchy, even though there would still be a moderate hierarchy (evident in slope of the dark bars) because of the residential segregation of high ability pupils.

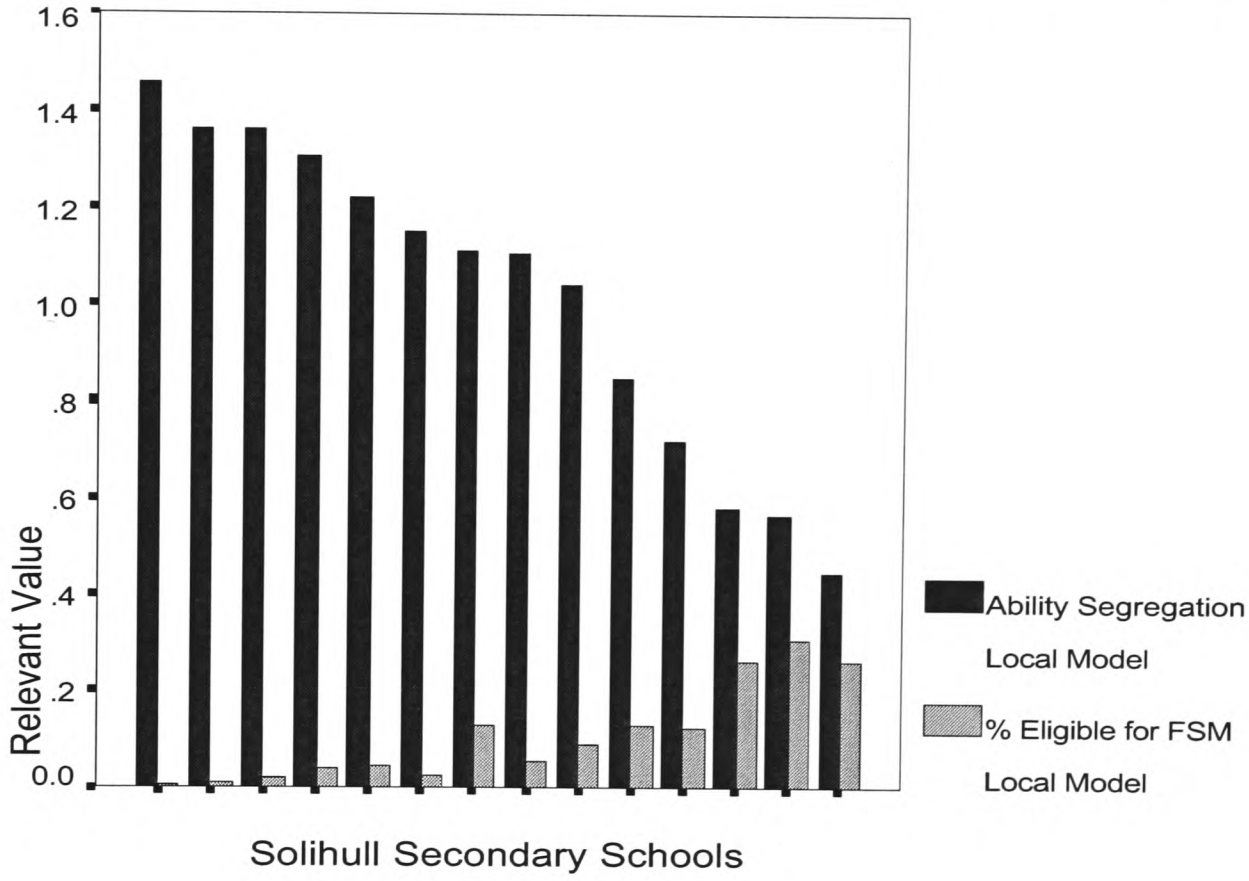
Local schooling based on neighbourhood assignment—although a model that in general generates local school hierarchies that are less segregated by ability and socio-economic status—nonetheless leaves significant imbalances and inequalities in place across numerous local authorities. Even in a local school system around one quarter of

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[179] This analysis treats LEAs as self-contained local markets when in fact, as demonstrated in Chapter 4, the degree of pupil movement across LEA boundaries can be significant in some areas.

local authorities would still need to redistribute more than 10% of their high ability pupils to create even distributions across schools. This is primarily a product of residential segregation, particularly of different social classes. Where residential segregation is most pronounced as in Solihull (Figure 7.15), schools, even under a local school scenario, demonstrate high levels of ability and social segregation.

Figure 7.15 **LOCAL (SOCIAL AND ABILITY) SEGREGATION BETWEEN SCHOOLS, SOLIHULL, 2002**



It is thus apparent that, even in the absence of market forces, residential segregation can have a highly polarizing effect on the ability levels and social compositions of schools.

Conclusions

Although much more can be done to examine the relationship between open enrolment and the creation and persistence of school performance hierarchies, this chapter has attempted to locate some of the general relationships between non-local school attendance patterns and school performance levels. Notwithstanding the Labour Government's emphasis on standards and not structures in education, the secondary school marketplace in England is one in which standards and school performance levels (both real and perceived) create market hierarchies that lead to *de facto* schooling

structures that stratify children from different backgrounds and that largely reproduce themselves each year thanks in part to performance league tables and other narrow indicators of school value.

While the variation in secondary school performance levels currently found in England is driven on the surface by factors other than open enrolment such as the social compositions of schools and the existence of selective schooling (as revealed in the regressions in this chapter), the availability of choice—by enabling children from more advantaged backgrounds disproportionately to attend non-local schools—strengthens the role such factors play in maintaining school hierarchies. In the absence of open enrolment (and assuming of course that pupils score the same on GCSEs regardless of the schools they attend), school performance hierarchies would be noticeably less severe even in a local school system in which social classes are already residentially segregated.

-8-

Conclusions

The central aim of this study has been to better understand the dynamics of local schooling markets and how the new school attendance patterns resulting from the enhanced choice that characterizes an open enrolment system affect the social compositions of schools in different areas across England. This conclusion will draw together the research findings contained in the preceding chapters and discuss the implications of these results for how policymakers and local administrators approach the issues surrounding choice-based education policies in England and elsewhere.

Using Administrative Data to Measure the Impact of Choice-based Admissions Policies

Over the past two decades, the education market created during the 1980s in England has attracted a great deal of attention from both policymakers and researchers in education. Despite the numerous studies performed to date, however, one key issue surrounding the reforms continues to present a formidable challenge to researchers: how the introduction of open enrolment affects the social compositions of schools and whether, at least at the secondary level, the new choices afforded parents and pupils by open enrolment allow social advantages to be directly translated into additional educational opportunities for those most capable of 'playing' the market.

Numerous studies have contributed significant, but often conflicting, answers to this research puzzle. While qualitative, small-scale studies, which focused on the *process-side* of choice (e.g. Gewirtz *et al*, 1995), have largely found that choice is disproportionately utilized by those families with higher incomes, subsequent quantitative analyses, on the other hand, have suggested that pupils of low socio-economic status may have actually become more evenly distributed between schools since the advent of open enrolment (e.g., Gorard and Fitz, 2000). Although several

recent quantitative studies (e.g., Parsons *et al*, 2000; Taylor, 2002) have utilized individual pupil data within a few local authorities to make more detailed empirical conclusions about the relationships between pupil background, residential segregation, and school compositions, until 2002 there had not been sufficient data to really pursue a fuller quantitative analysis of the impact of the education market in all of its various area contexts.

The *Pupil Level Annual School Census* (PLASC), first collected in January 2002, however, has provided educational researchers with individual pupil data for the entire country that can be used to explore relationships between pupils' backgrounds, neighbourhoods and schools. In particular, PLASC and other individual level educational datasets allow for the modeling of different school attendance scenarios, which can shed light on the role played by residence, admissions and 'choice' in the distribution of disadvantaged pupils across secondary schools in England. The quantitative analysis contained in this thesis has attempted to use the data contained in PLASC to disentangle how pupil background, school admissions policies and residential factors contribute to the social compositions of secondary schools under the system of open enrolment present in England. This analysis has used PLASC, in combination with other data sources and mapping software, to help better understand one research question that is at the heart of the evaluation of choice-based admissions policies: do the new school attendance patterns resulting from the enhanced levels of choice present within an open enrolment system bring about school compositions that are more segregated by socio-economic status than would be expected under a local, residentially-based school allocation system?

In using the data in PLASC to operationalize 'choice,' this study, like others before it (e.g. Echols *et al*, 1990; Smith *et al*, 1999; Taylor, 2001), has used the extent to which pupils bypass their nearest secondary school as an indicator of 'active choice.' It is important to note that analyzing 'active choice' through non-local school attendance rates is a useful but imperfect method. Attending a non-local school may reflect past residential relocations and not educational decisions, and some of the apparently

'mobile' disadvantaged pupils may include those that have moved residences but remained in the same secondary school (though this is, of course, a kind of choice itself). The analysis of the transition from primary to secondary school performed in Chapter 5 by linking PLASC data from 2002 and 2003, for example, showed that around 15% of pupils changed residences between the two census dates, with disadvantaged pupils being slightly more residentially transient than their peers. Undoubtedly, a segment of the population of pupils moving residences (usually short-range movers) will elect to attend the same school as previously, which will show up as non-local attendance decisions within the data analysis and thus distort the 'active choice' figures.

Attending a particular non-local school may also not adequately reflect the actualization of a real preference. In many cases, for example, choice may not be sufficient to allow pupils and parents to obtain entry to the most desirable schooling alternatives in their area because of capacity constraints. Choice, in this instance, may serve rather as a means of *avoiding* undesirable schools. A measure of active choice based on non-local attendance thus cannot account for the different alternatives canvassed by parents, or for how 'frustrated' their choice may have been by the number of realistic options. Attending a non-local school may also not indicate an affirmative exercise of a particular schooling preference but may instead be a product of a 'forced' choice (e.g., for excluded pupils compelled to attend school elsewhere). Finally, for those pupils who already live in areas with high quality local schooling (generally more affluent areas), choosing a non-local secondary school will not be necessary.

Despite these caveats, however, non-local school attendance remains a valuable indicator of 'active choice' within the education marketplace. Indeed, given the fact that the majority of parents will opt for the convenience of their local school if it meets certain basic standards (e.g., Adler *et al*, 1989; Gewirtz *et al*, 1995), that a majority of schools have (both historically and under open enrolment) operated local catchment areas based upon residential proximity, and that school transport systems generally encourage parents to use the nearest school, it is not unreasonable to consider attendance at a non-local school as the best indicator of active choice. Therefore, 'active choice,' as

operationalized in this study, provides a fairly robust measure of secondary school attendance patterns in 2002, and allows particular insight into what non-local school attendance accomplished for different sub-groups of pupils in terms of standard measures of school quality, as well as into how social segregation levels vary within a number of attendance models.

Discussion: Pupil Mobility and the Social Composition of Schools within the Market

English secondary school pupils in 2002 demonstrated levels of non-local school attendance commensurate with the widespread exercise of parental choice. Although the size of secondary school catchment areas within the education market varies by geographical area and school type, it appears that open enrolment policies have helped to facilitate high levels of pupil mobility across England. Indeed, even after the School Standards and Framework Act 1998 strengthened the ability of local authorities to use distance and catchment-based measures to allocate school places, the *actual catchment areas* of secondary schools in most areas nonetheless appear significantly larger in size than the hypothetical *local catchment areas* of those same schools.

Around two-thirds of secondary pupils in England attended a reasonably proximate school in 2002, with the greatest levels of non-local school attendance occurring in urban areas. This corroborates the perceptions of many scholars and local authority administrators, who have argued that the policy of open enrolment established in 1988 was primarily aimed at providing more schooling options to parents in areas like London, and that it has therefore had only a marginal impact on attendance patterns in less populated rural counties and other areas (Gewirtz *et al*, 1995). The comprehensive picture of the 'lived marketplace' for secondary school education provided by the data in PLASC illustrates how complex the 'exchange of pupils' between local authorities has become in urban areas like London. This exchange creates problems with school funding and organization in local authorities that are being 'swamped' by pupils from neighbouring areas (e.g., Richmond by Wandsworth pupils) as well as imbalances in the

social composition of school intakes (e.g., in LEAs such as Camden where indirect segregation occurs as a result of an inflow of more advantaged pupils).

As shown in Chapter 4, the approximate benefits of non-local school attendance can be examined through comparing the local schooling options of pupils with those secondary schools that they actually attended. The roughly 35% of secondary pupils that attended non-local schools in 2002 were more likely to 'upgrade' to secondary schools that performed better, were more selective, and had fewer disadvantaged pupils than their local schools. For non-local school attendance patterns to validate the concerns of market opponents about the potential for class-based choice and school segregation, however, it must be shown that the landscape of local schooling markets is fundamentally uneven and that pupils of different socio-economic backgrounds differ in their inclination and ability to play the market. The analysis performed in Chapter 5 suggests that the social compositions of English secondary schools in 2002 were the result in part of differential mobility rates for sub-groups of pupils, although such differences were not as pronounced as one might expect from the qualitative literature on choice. In general, pupils from areas with more manual class households were more localized in their school attendance patterns. However, one of the more surprising findings of this research was that pupils from the most disadvantaged backgrounds (FSM pupils) were not any less likely to attend non-local schools than their more advantaged peers were in 2002. In fact, in the majority (56%) of English secondary schools, FSM pupils actually demonstrated more mobile attendance patterns than their peers. Many disadvantaged pupils and their families thus appear to be making 'active choices' within the schooling marketplace in order to take advantage of non-local schooling options (although this may partly reflect the relatively higher levels of employment turnover and residential movement in disadvantaged areas).

The more striking differences, however, emerge in what is actually accomplished through non-local school attendance: pupils from disadvantaged backgrounds did not accrue the same level of educational benefits from their non-local school attendance as their peers. While bypassing their local schooling options at a slightly higher rate than

other secondary school pupils, disadvantaged pupils were 'relocating' to secondary schools that held little, if any, noticeable advantage in quality over their local schools.

Despite the imperfections inherent in using spatial representations of 'choice', the scope and detail of the PLASC data provide clear evidence about the differential market activity of disadvantaged and non-disadvantaged pupils. In general, pupils from more advantaged backgrounds that attended non-local schools in 2002 travelled proportionately further to their schools than FSM pupils did and chose schools that were, on average, more selective and higher performing. The secondary schools that had more mobile FSM populations in 2002 (noted above) tended to be lower performing and to include more comprehensives than schools in which FSM pupils represented the more localized population. Combined with the differential mobility gains made by FSM and non-FSM 'choosers' (including at the all-important point of transition between primary and secondary school), the 2002 data depicts a public market for secondary education that confers largely secondary ('hand-me-down') benefits upon pupils from more disadvantaged backgrounds. While these pupils may avail themselves of the market, for a large number realizing 'choice' means filling the spots made available in average-performing schools by their more advantaged peers, who have themselves used choice to attend schools that are even higher up the local league table.

Although the data in PLASC cannot supply the subjective motivations behind these attendance patterns—it may be that disadvantaged pupils have in some sense chosen second-best schooling alternatives—the use of individual pupil data can nonetheless provide a means for examining the consequences that such patterns have for the social compositions of schools. Overall, the ability of pupils to attend non-local secondary schools in 2002 led to school compositions that were more segregated by socio-economic status than they would be in the absence of open enrolment. While residential segregation was, as it has likely always been, the primary determinant of social segregation in schools, the availability of non-local school choice beyond traditional selective or denominational schools appears to have further stratified most English secondary schools by socio-economic status.

Context, however, remains essential to understanding the scope and the validity of the above effects. In many areas, residence is almost wholly responsible for school compositions, and in others the new channels of choice may substitute for, rather than enhance, the previous methods of educational advancement utilized by advantaged families. Moreover, some local authorities, although they themselves demonstrate relatively balanced educational landscapes, are nonetheless strongly influenced by neighbouring marketplaces and often experience 'indirect' segregation effects as a result (e.g., Camden). What almost all local schooling markets in England have in common, however, is a discernible hierarchy of secondary schools based upon traditional performance measures and rooted in the social composition of their intakes. Whatever 'specialization' they may take on, secondary schools will continue to be judged on, and rewarded by, their exam results, and the interaction of social and market variables in predicting school performance will remain important subjects for research. The position of schools within market performance hierarchies, as illustrated in Chapter 7, should continue to reflect their favorable performances and social compositions as well as their ability to preserve these two aspects via success in the marketplace by retaining high numbers of local pupils, attracting non-local pupils, or a combination of both.

Conclusions: Equity and the Differential Impact of Open Enrolment

Theories about the equity of market-based education reforms are typically debated in the abstract. For some scholars, social stratification in education is inevitable within any policy environment that presents an opportunity for families from different social backgrounds to exercise their varied capacities. For others, market mechanisms provide an invaluable means of empowering groups to alter established obstacles to educational advancement and social mobility. In reality, of course, social policies must be implemented within specific social, political, and economic contexts that may subvert even the best theories or political intentions.

The Education Reform Act 1988 and associated legislation represented a landmark shift in the manner in which school-age children in England were allocated to

schools, and thus possessed enormous potential for affecting the distribution of educational opportunities across the country. Previous research, as well as the present analysis of the market in 2002, suggests that the education marketplace created by this legislation has had a mixed impact on the equity of local schooling arrangements. On the one hand, overall levels of pupil performance and school efficiency seem to have risen during the past two decades. Pupils from disadvantaged backgrounds also appear to be taking advantage of some of the choices afforded by the education market. On the other hand, the rising levels of overall attainment and school choices come in the context of differential market access, usage, and outcomes. The marketplace created by the choice legislation is far from homogenous—both in its structural features and in the outcomes it generates—and its equity may depend upon the particular context that is being evaluated. As mentioned earlier, the additional options provided by choice are impractical in some areas (e.g., rural) or severely constrained in others (e.g., because of popular and oversubscribed schools). In these areas, school admissions polices, local demographic trends, and pre-existing residential segregation will likely play a larger role than the market in the allocation of pupils and the distributions of opportunities.

The non-local attendance patterns discussed above make more plausible the notion (so prevalent in qualitative studies of choosing) that parental choice provides an additional tool for middle class parents to pursue class-specific educational interests, and one that is particularly important in areas (such as gentrified neighbourhoods in London) where the housing and economic markets align imperfectly with local schooling markets and parents must expand their market horizon to find an 'adequate' school (Ball, 1993; Butler and Robson, 2002). While there is no easy way to isolate the types of choices made in 2002 from those made during the 1990s or prior to 1988, the counterfactual models that can be devised from PLASC provide a wealth of evidence regarding what happens to school compositions in different social environments when the allocation of school places is dislodged from its traditionally local foundations. The schooling market created by open enrolment—which reaches its most visible expression in non-local school attendance patterns—augments pre-existing geographic barriers to equal

educational opportunities rather than furnishing a means of breaking them apart. In short, instead of weakening the traditional connection between class, community, and educational opportunity, parental choice, as argued by the qualitative studies of the education market, appears in many contexts to forge an additional link in this chain.

In the areas in which choice is most utilized, it appears to have inequitable effects on the social compositions of school intakes and the corresponding distribution of educational opportunities. The differential mobility of more advantaged pupils into schools occupying higher positions in the local schooling hierarchy fortifies existing cultural norms and channels of social reproduction, reducing the chances of social integration or educational equality. Given these findings, the primary question with respect to the opportunities of disadvantaged pupils and the equity of the education market becomes: is having *a* choice better than having *no* choice, even if it is a choice that ultimately contributes to *unequal* outcomes?

There is no easy answer to this dilemma, especially given the fact that some choices may 'correct' some problems while creating others. Choice, for example, may allow some disadvantaged pupils to escape a local sink school and some of the educational consequences of residential segregation, while at the same time permitting others to be left behind at an underperforming school after an exodus of their peers. This duality highlights the fundamental inequity of the education market: even when the market system operates in the way that it is designed to operate, it generates winners and losers among individual pupils as well as schools. Thus, while the gains to the winners may engender some systemic gains (in the form of greater efficiency or performance), they also entail corresponding losses to both individual pupils and schools, and it will be up to policymakers, parents, school officials, and local administrators to weigh the acceptability of these losses against the gains, and to consider whether policy reform or local-based alternatives to the present market structure are necessary.

Implications for Policy and Research

The most obvious, though perhaps the most difficult, way of addressing some of the inequities associated with open enrolment is to create an educational landscape in which the negative externalities of successful choices are not so significant. This can be done by reforming the market or by abandoning it entirely. Since 1997, the Labour Government has taken some steps to modify the secondary education market, most notably on the supply side. By attempting to inject more diversity into the market (e.g., through the creation of specialist schools) they have tried to ameliorate some of the disparities present between schools within the traditional tri-partite structure. The advent of 'value-added' school performance tables also represents an attempt to prevent stratifying choices that reinforce traditional school hierarchies based upon narrow performance indices. Finally, the School Standards and Framework Act 1998, establishing Codes of Practice, Admissions Forums, and local Adjudicators, also constitutes a further step away from the marketplace established in 1988 by providing a way for local authorities to influence school admissions procedures and to increase the amount of information available for schooling consumers.

There is more, however, that might be done to lessen some of the negative consequences of the market. These range from procedural adjustments such as providing extra funds to disadvantaged families for travel or child care (in order to help them to take advantage of more schooling options) to more drastic solutions such as abolishing league tables entirely or ceding control of admissions to local authorities or groups (or 'colleges') of schools. Adjusting the market channels through which choice moves may not be effective, however, if choices, as the qualitative literature suggests, really reflect class-based preferences. To combat the sorting effects of such differential preferences it might be best to attempt to blunt the market effects of differential market mobility by focusing even more resources on the lowest performing schools, or by providing funding to help popular schools to expand in order to accommodate increased demand. This,

however, may exacerbate the possibility of 'sink schools' in the marketplace as more and more pupils migrate into higher performing schools.

Thus, to counter the social segregation of secondary schools, and combat the stratifying influences of both residence and the market, it will likely be necessary for policymakers to consider more radical departures from the current marketplace. One such solution, already being attempted in several City Academies in central London, is a 'banding' admissions system in which pupil preferences are filtered through larger sorting mechanisms designed to ensure mixed ability, mixed background schools. Similar proposals have also focused on using a lottery-based admissions procedure to judge between competing pupil preferences (West and Hinde, 2003). Both of these methods help to neutralize some of the class-based effects of choice within the market, but they do little to confront the arguably larger effects of residential segregation and selective schooling.

However, short of the abolition of selection or the institution of large-scale bussing schemes in urban areas it will be difficult to counter such segregating influences in the short term. In the long term, the best way of minimizing the stratifying effects of choice, residence, and selection is to invest in schools that serve disadvantaged children, something the Government has already initiated with the institution of City Academies and Education Action Zones. To make a real difference, these Academies will need to be expanded and must be careful to ensure mixed intakes through 'banding' or other appropriate admissions procedures. Even if such schools succeed, however, as long as more fundamental inequalities in income and status exist across society, the strong relationship between a school's social intake and performance (and desirability) will persist and more advantaged schools will consistently thrive within the market environment.

The problems confronting British policymakers with respect to policies of open enrolment, as well as other measures such as City Academies, have direct corollaries in other nations, and the findings specific to the English education marketplace inevitably bear upon the decisions of policymakers elsewhere who are still considering the

expansion of choice-related education schemes. In the United States, for example, the two most prominent reform measures, analogous to the reforms listed above, are the school 'voucher' and the charter school. The more controversial of the two, the voucher, provides parents with a financial grant for the purchase of education for their child at any participating public or private school. Proponents in the U.S., much like market advocates in England, argue that the voucher system is the best way of using parental choice for the improvement of school efficiency and effectiveness, and of promoting the educational opportunities of minorities and the poor (Witte, 1990).

Studies into early voucher programs targeted at low-income minority pupils in Milwaukee and Cleveland suggest that satisfaction amongst parents whose children are already enrolled in voucher programs is high, and that vouchers produce modest performance increases amongst African-American children in private schools (Rouse, 1998). Findings related to the equity of voucher programs have also been reasonably encouraging since programs designed with income qualifications have been shown to succeed at placing low-income, low-achieving minority students in better schools (Gill *et al*, 2001). These findings, along with the Supreme Court's ruling in *Zelman* upholding the constitutionality of the Cleveland voucher scheme, have prompted choice advocates to push for several new choice initiatives in states across the U.S. Over the past four years, Florida and Colorado, among others, established new choice programs, Congress approved the first federal school voucher program for Washington, D.C., and over twenty states proposed voucher legislation.[180]

While the majority of these examples are based loosely on the successful targeted schemes established in Milwaukee and Cleveland, many states are pushing for more complete open enrolment policies that are not limited to low-income or minority groups. With no system-wide open enrolment policies in place in the United States, policymakers, advocates, and school officials would be wise to consult the findings of researchers in other nations such as England and New Zealand that have dealt directly

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[180] National Conference of State Legislatures, School Vouchers, available at: http://www.ncsl.org/programs/educ/ voucher.htm.

with the impact of such policies on the segregation of pupils across schools. Although the implementation of open enrolment will inevitably vary by local and national context, the overarching similarities between many Western nations with respect to residential geography and the inequalities of educational achievement among pupils of different social and ethnic backgrounds suggest that roughly analogous outcomes, including an increase in school segregation levels, might be expected from the 'marketization' of secondary education.

The role of the market, competition and choice in school segregation and pupil outcomes is only just beginning to be fully understood. The continued collection and analysis of administrative data, in particular, will provide an extremely useful tool for evaluating the education market in England. Subsequent research and data collection should be able to expand the findings of this study and to improve upon the limitations of the current analysis. The primary analytical shortcomings capable of remedy in future market analyses include the need for: 1) more detailed data on school admissions policies and criteria, 2) more sophisticated mapping techniques for modelling distance-based measures of 'active choice', 3) the development of longitudinal data-sets depicting mobility through time, and 4) better indicators of pupils' socio-economic status.

This study has relied on the 'private-state' score measure of school selectivity as well as general LEA admission classifications in examining the influence of admissions procedures on market outcomes. A more advanced investigation of marketplace mobility would require admissions procedures and criteria for every admissions authority in the country. Such data is not yet publicly available but would be of great use in analyzing the ways in which admissions policies influence pupil choice and attendance patterns. Recent developments in mapping software and technology also make it possible to calculate home to school distances based on roads and other transport routes. Constructing local catchment areas and labelling 'nearby' schools could be done more accurately by using such a scheme instead of the 'crow-flies' distances utilized in this study.

As more years of PLASC and NPD data are collected, further research possibilities will likewise arise. Large-scale individual datasets that can be linked over time afford researchers additional tools for investigating pupil mobility and performance in the education market. For example, longitudinal data provides a way of quantifying the influence of residential relocations on school attendance patterns and how such relocations relate to area and school-level disadvantage. Moreover, such individual longitudinal studies will make it possible to determine whether 'choice' itself plays a role in pupil performance differentials or whether pupils of higher aptitude are more likely to opt for non-local schools in the first place. It will also be possible to conduct regression analyses to see how non-local school attendance strengthens or weakens the powerful relationship between performance and social background. Comparing the influence of social background on performance in areas with 'high' and 'low' market activity through time will allow for an even more direct examination of the role that choice is playing in the attainment levels of pupils from different social backgrounds.

Finally, a complete verdict of the impact of open enrolment on social segregation and educational opportunities will not be possible without the use of additional indicators of social background beyond simply whether or not a pupil is eligible for free school meals. As FSM eligibility is the only indicator of social status traditionally collected by the DfES in administrative datasets, this will be the most demanding improvement for researchers to make. One possible solution would be the creation of census and administrative datasets linkable at the individual level, although this would raise logistical difficulties as well as obvious data protection issues and concerns. This study, however, has attempted to illustrate the power of large-scale administrative datasets and the role they can play in addressing some of the most challenging questions facing policymakers, school officials and researchers in education. In the coming years, this type of data should provide further insights into the links between educational attainment, social background, local geography and school effectiveness. It will also shed more light upon the role that admissions procedures and larger market-based

policies play in mediating these important relationships as well as in creating an educational system that is both efficient *and* fair.

Glossary of Terms

Active choice—proxy measure for parental choice based on a pupil's attendance of a non-local school. Although non-local school attendance does not necessarily indicate the exercise of 'choice' within the market in all cases, it does provide a useful means of examining how the attendance patterns of millions of pupils vary from a system based on local school catchments.

Actual catchment areas—mapped from residential information for individual secondary school pupils, these areas illustrate from what areas a school's pupils are actually coming from to attend school. They are constructed by measuring out an *actual catchment radius* for each school—a length equal to the mean distance travelled to that school plus one standard deviation. Each school's actual catchment area thus encloses a large majority (83%) of the residences of its pupils and provides a good indicator of how large an area a school is actually drawing pupils from.
See also Retention rate, Capture ratio

Capture ratio—measures the extent to which a school 'poaches' the highest performing pupils from the local areas that it serves. The measure is a ratio comparing the average GCSE performances of the pupils attending the school with the average performance of those pupils living in the same areas but attending different schools.
See also, Choice school

Catchment area—the area surrounding a school from which its pupils come. Traditionally, and in many local authorities today, catchment areas are relatively small and used by admission authorities to determine which local areas are eligible to have children attend its school.
See also, Actual Catchment Area, Local Catchment Area

Choice school—popular schools with large numbers of pupils attending from areas outside the school's local catchment. These schools also tend to have high 'capture ratios,' signifying that they are getting the most able pupils from the surrounding areas.
See also, Neighbourhood schools

Choosers—pupils attending non-local secondary schools (even if non-local school attendance does not necessarily indicate that actual 'choice' is being exercised).

Competition space—Taylor (2001) defines a *competition space* as an 'area of interaction between schools in the marketplace' (199) that is based largely on pupil movement and exchanges between areas and schools.
See also, Local Market

Cream skimming—term used to describe the self-interested selection process of oversubscribed schools in which proxy characteristics such as socio-economic advantage are employed to help select the most able pupils.

Cultural capital—describes the many forms of cultural, as opposed to purely economic, resources used by social agents in education, employment and other areas of life, for the purposes of securing opportunities for social and educational reproduction (or advancement).

Differential mobility—the differential patterns of non-local school attendance exhibited by families of different social class backgrounds. This thesis primarily examines the different non-local school attendance rates of pupils eligible and not eligible for FSM.

Distance ratio—the ratio of the distance to the school a pupil attends to the distance to her local school. This provides a rough measure of the degree of 'active choice' exercised by a pupil and the extent to which they are bypassing their local school.

Exchange matrix—a cross-tabulation table illustrating the 'exchange' of pupils between schools' local catchments within a local schooling market. For each school in the matrix, you can tabulate the number of pupils from its local catchment that it is 'losing' (exports) or 'gaining' (imports) from each school it is in competition with.

Exposure differential—the percentage difference between the exposure (as measured by the isolation index) between sub-groups of pupils in a local area under a local and market model.
See also, Isolation index

Isolation index—measure of *exposure* that calculates the chances of a member of a minority group (e.g., FSM pupil) encountering another member of her group in the area of interest.

Lived market(place)—a term first used by researchers in the New Zealand Ministry of Education's Smithfield Project to denote both the formal and informal properties of the competition found within education markets.

Local catchment areas—represent residential spaces around each school in which every point within that space is related only to the circumscribed school. These areas, constructed from Voronoi polygons in MapInfo, provide a *local school counterfactual* in which all pupils living within a school's local catchment area would be assumed to attend that school if they elected to attend their most spatially proximate school. Local catchment areas may be *non-overlapping*, in which all school types are treated equally as lying along a single market space, or *overlapping*, in which different school types are considered as operating within parallel market spaces.
See also, Local school

Localized—describes pupils more likely to be found attending a local or adjacent school.

Local market(place)—the secondary schools in competition with each other for pupils in any given area. Local markets may be largely bound by administrative boundaries, as in comprehensive authorities where the LEA runs admissions authority, but in some areas they may cross local authority boundaries as in central London. Additionally, some popular schools may be participating in several local markets.
See also, Competition space

Local management of schools—The new funding structure introduced by the 1988 Act in which budgets were turned over from LEAs to individual schools, with 80% of funding to be determined solely by pupil numbers.

Local school—the secondary school that is most physically proximate to a pupil's residence, as compared to a 'nearby school', which includes both the nearest school and adjacent community, voluntary, and foundation schools.

Market activity—signifying patterns of non-local school attendance and the correlative (though implied) utilization of the local marketplace. Pupils may demonstrate different levels of market activity by attending local, nearby (local plus adjacent), or non-nearby schools. Schools with high levels of 'market activity' have large numbers of their pupils coming from beyond their immediate local catchment area.
See also, Active choice, Pupil mobility

Market horizon—the scope of realistic or desirable schooling options confronting each parent or pupil within their local marketplace.

Market space—the competition space in which schools of a single type compete. In some areas, community and voluntary (e.g., denominational) schools do not directly compete for pupils and thus, though they exist in the same physical space, compose separate or parallel market spaces.

Mobility flows—an analysis that tracks the composition of a secondary school by dividing its attendees into locals (from its local catchment) and joiners (from other areas) as well as tabulating the number of pupils that leave its local area to attend other schools.

Mobility gains—the benefits of non-local school attendance as measured by pupils 'upgrading' to schools that have higher performance levels, greater selectivity, or lower numbers of disadvantaged pupils.

Nearby school—refers in general to any secondary school that constitutes a local or adjacent school option for a pupil. Attending a *non-nearby* school means going to a school that is neither the nearest overall school nor the closest community, voluntary or foundation school option (that is not the most proximate school).

Neighbourhood school—secondary schools serving traditional, local catchment areas. Technically defined as schools that have retention rates of greater than 50% (i.e., they are the nearest schooling option for more than half of their pupils).
See also, Retention rate

Open enrolment—policy of giving parents and pupils the choice of schools, subject only to the capacity of schools and their corresponding criteria for oversubscription, and therefore not limited by traditional school zones or catchment areas (though many admissions authorities used distance measures as an oversubscription criterion).

Output Areas (OAs)—census output area and geographic unit roughly equivalent to a small neighbourhood. There are over 165,000 OAs in England, and on average they include around 300 residents and 20 secondary school age children.

Parental choice—refers to giving parents the option of selecting which school their child should attend without zoning constraints, and, is usually accompanied by the idea that schools should, in response, be forced to compete for students in a quasi-market atmosphere. The term *school choice* (primarily in the U.S. literature) I will reserve for

the tendency of pupils to be selected by schools in a choice environment characterized by few surplus places and widespread over-subscription.

Performance hierarchy—describes the 'pecking order' of schools within a local schooling market as ranked by GCSE performance and other league table indicators.

Polarization thesis—theory stipulating that socio-economic disadvantages in the ability to choose will translate into disparate educational opportunities as more advantaged children (and their funding) migrate in large numbers to high-performing schools.

Private state score—This measure provides a continuous variable for measuring the rough 'selectivity' of English secondary schools for the purposes of linear regression and mobility analyses. The score, developed by Bradford (1993) and applied by Taylor (2002), is calculated from the continuum pictured on page 81. Schools are scored along three dimensions—gender, admissions, and control—and scores range from 0 for mixed gender community comprehensives to 12 for single sex, selective independent schools.

Public market—one of many conceptual labels that have been used to recognize the partial market nature of the market in public services. I have adopted the term 'public market' to emphasize the public interest side of the equation.

Pupil mobility—the movement of pupils out of their residential area to attend non-local secondary schools. More or less synonymous with 'active choice'.

Relocation spaces—refers to the areas of various scale that can be used for examining pupils segregation levels. A pupil, for example, may be confronted with a different level of segregation within her local neighbourhood than within her larger ward of residence (or within the secondary school she attends).

Retention rate—the degree to which a secondary school's retains the population of local pupils. Measured as a proportion of the pupils living in the school's local catchment area that actually attend the school.
See also, Local catchment area, Neighbourhood school

Segregation index—measure of *evenness* that signals the percentage of a population group (e.g., FSM pupils) that would have to be redistributed (e.g., transfer schools) in order for there to be an equal distribution of that group across all schools, neighbourhoods, etc. in an area. Derived from the dissimilarity index.

Social catchment—the weighted socio-economic status of the areas that a secondary school serves. Calculated by attaching the OA level variable of socio-economic status (e.g., the % of resident pupils eligible for FSM) to individual pupils living in that OA and then finding the average of the individual pupils' scores for each school. This provides an area-based indicator of the socio-economic background of a school's catchment area, which can also be compared to the background of its local catchment area.

Super Output Areas (SOAs)—census output area and geographic unit roughly equivalent to a large neighbourhood. There are over 32,000 SOAs in England, and on average they include around 1,500 residents and 100 secondary school age children.

Upgrade—attending a non-local school that has a higher performance level, greater selectivity, or fewer disadvantaged pupils than one's local school.

Research Methods Annex

A NOTE ON DATA PROTECTION ISSUES

DfES Data Protection Policy

Data from the Department for Education and Skills' *Pupil Level Annual Schools' Census* (PLASC) and *National Pupil Database* are collected at the individual pupil level and pupil records can be linked across different data sets through the use of pupil matching codes. Pupil names are recorded by the DfES for the purpose of linking data where matching codes alone are not sufficient; however, these names are held separately and securely and are not made available to outside researchers. For these researchers (and even for the DfES's own analysts) access to anonymized records alone is allowed.

Getting Access and Permission to use the Data

According to the PLASC Guidance set out by the DfES: 'No data will be copied to other organizations without there being both a clear need for these data and obvious security measures to protect the data.' Having pioneered the application of administrative data to social policy studies, the Social Disadvantage Research Centre (SDRC) at the University of Oxford's Department of Social Policy and Social Work has been a research partner of the DfES, DWP, and other Government departments. The SDRC, for whom I worked for the past three years, acquired both permission and access to PLASC, NPD, and other recent administrative data for use with the *Index of Multiple Deprivation* and other research. Via my position with the SDRC, I was granted permission to access these data sources to perform analysis for several research projects conducted on behalf of the DfES, and, thanks to the efforts of senior officers at the SDRC in acquiring permission from the DfES, I was likewise permitted to use these data sets in this research.

Precautions Taken with the Data

In performing the data analysis for this thesis, I have adhered to the SDRC's standard procedure for working with and publishing the results from individually coded, 'raw'

administrative data sets. This includes both data security measures such as the use of databases, servers, and computers in a separate, secure workplace as well as data output measures such as publishing only results that are sufficiently aggregate in nature (and from which no individual outcomes or characteristics can be ascertained).

CHAPTER 3

Pupil Population Density (Figure, 3.3, p. 75)

The conventional measure of population density, in which the population of a place is divided by its land area, effectively represents the density with which an average piece of land is occupied. One may also take a *population weighted* population density in order to reflect better the densities at which people actually live (Dorling and Atkins, 1995). Over the past decade, England has grown more densely populated over the land but less densely populated from the vantage of the average resident. The more conventional measure will be used in this thesis as it better depicts the distribution of inhabitants in space for the purposes of schooling. The 2001 figures were calculated by dividing the population of children aged 11-15 in an LEA by its area in square kilometres.

Ethnic Minority Population (p. 76)

Ethnic minority populations in England are concentrated primarily within London, the Midlands, and the Northern conurbations. As illustrated in Chapter 4, some ethnic minority pupils travel noticeably further than their peers to attend secondary school, the reasons for which would be a subject that ripe for research within the educational field.

ETHNIC MINORITY POPULATION IN ENGLAND: % NON-WHITE, 2001



Source: The 2001 Census, Crown Copyright

Pupils not in Maintained Secondary Schools (p. 85)

PLASC, in combination with the 2001 Population Census, provides a tremendous opportunity to examine the distribution of independent school pupil's residences across the country. By taking the Census figures (taken in April 2001) for children aged 10-14 in each LEA and subtracting out the same age band from secondary school pupils aged 11-15 in PLASC (taken in January 2002), it is possible to generate an indirect measure of how many pupils aged 11 to 15 residing in each LEA were attending maintained and non-maintained schooling options in 2002. The result, as shown in Figure 3.7 (p. 85), illustrates that in most local authorities in the Southeast and in London more than 10% of resident pupils do not attend maintained secondary schools. In several London boroughs this figure approaches 25-40%.

Growth in the Secondary School Aged Population (p. 91)

Despite declines in pupil numbers during the 1970s and 80s, the trend reversed in 1993 and almost all areas in England experienced a growth of pupils between the 1991 and

2001 censuses (see map below). Some scholars (e.g., Gorard, Fitz, and Taylor, 2001) argue that the growing secondary population has been the primary reason that few secondary schools have entered into 'spirals of decline' within the post 1988 education market.

GROWTH IN SECONDARY SCHOOL POPULATION, 1991 to 2001



Source: *Population Census* (1991, 2001), Crown Copyright, ESRC

Area-based Educational Expenditure (p. 97)

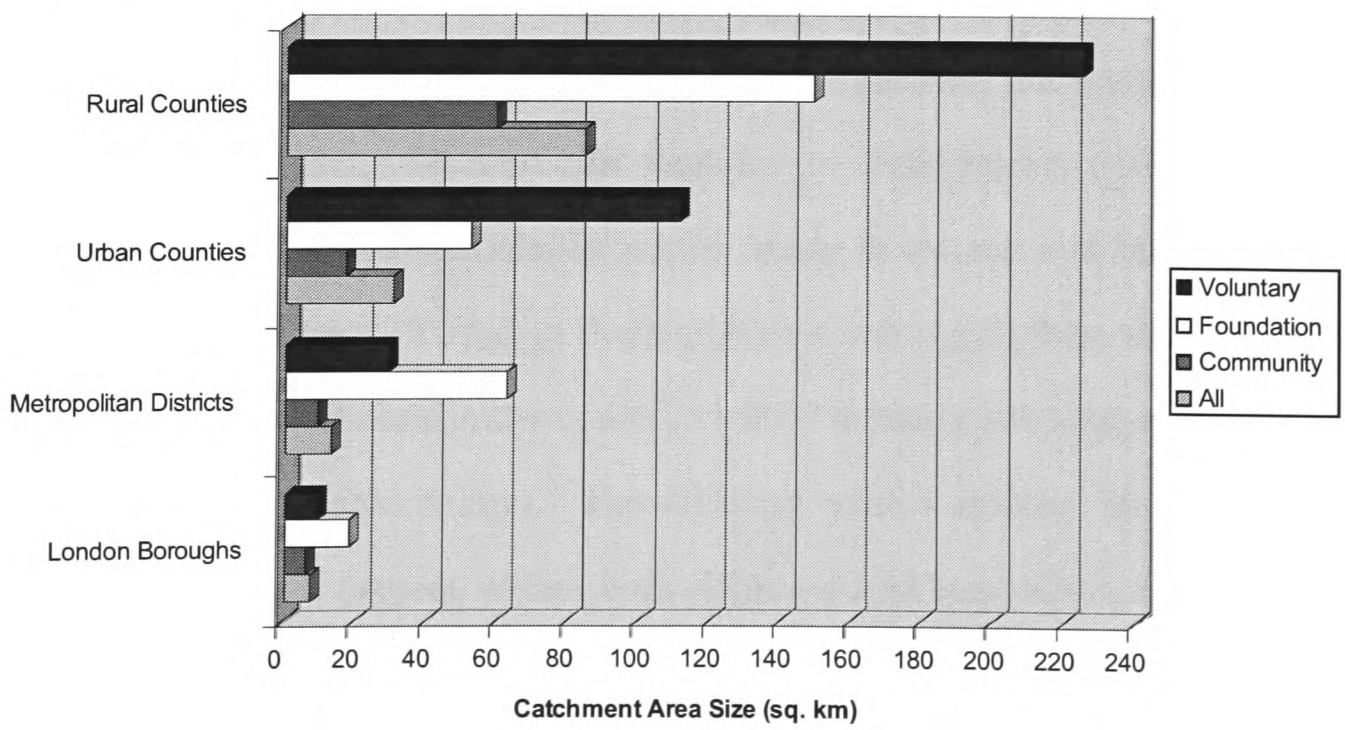
The individual level data in PLASC can be used to generate area-based information on educational expenditures by attaching the average per pupil spend for a secondary school to each of its pupils and then aggregating these figures by the pupil's area of residence. This provides an interesting indication of how much is spent on pupils that live in different areas as opposed to how much schools in different areas receive (see map below). Using PLASC to ascertain pupil mobility levels could potentially provide for a more accurate way of distributing monies to LEAs.

SCHOOL EXPENDITURE PER PUPIL, 2001-02

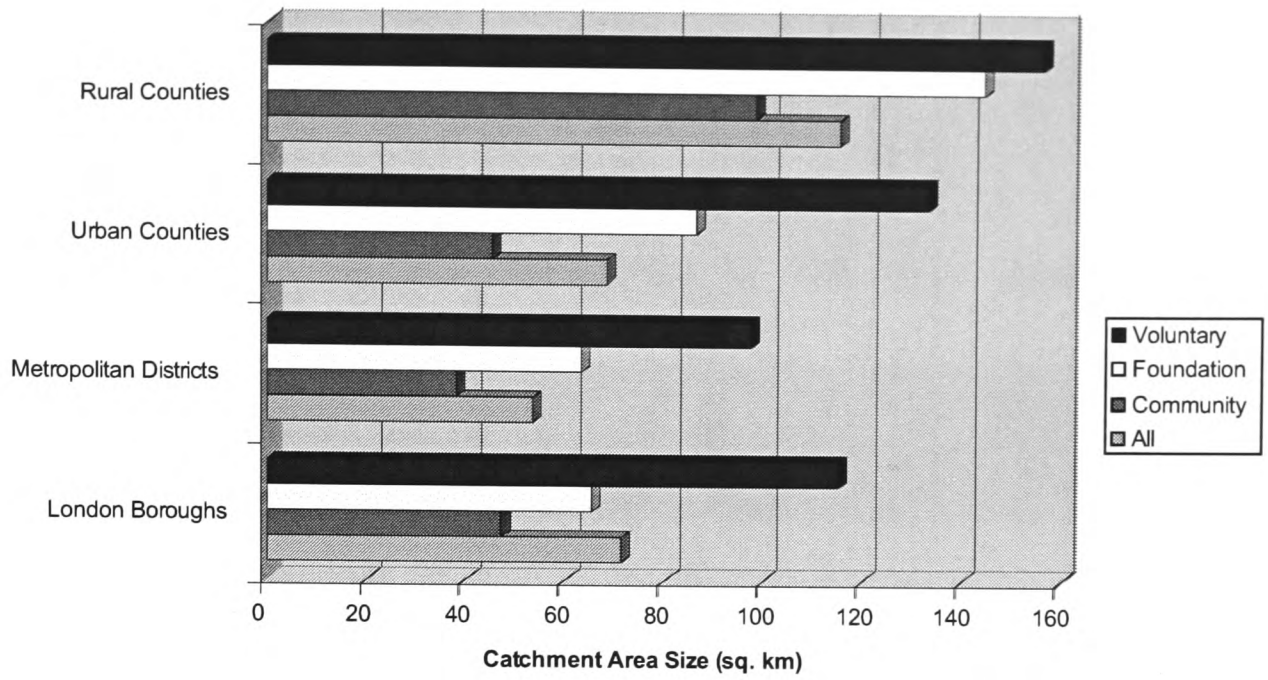


Regional Variation in Local and Actual Catchments Areas (p. 127)

LOCAL CATCHMENT AREAS: BY SCHOOL AND LEA TYPE (2002)



ACTUAL CATCHMENT AREAS: BY SCHOOL AND LEA TYPE (2002)



CHAPTER 5

Differential Mobility in the Most and Least Deprived Neighbourhoods (pp. 168-69)

One further way of isolating the sub-group differences between disadvantaged pupils and their schoolmates is to compare the two groups within disadvantaged and more advantaged areas. It has been a subject of debate whether or not pupils from more disadvantaged areas will be less likely (regardless of their own social background) to attend a non-local school than pupils in other areas because the quality of schooling alternatives is low in deprived areas and thus the 'exit sanction is weak' (Glennerster, 2002: 130). However, a comparison of pupils living in the top and bottom 20% most deprived super output areas (SOAs) in England shows that pupils from the most and least disadvantaged neighbourhoods in the country in 2002 actually attended nearby schools at roughly similar rates (Table below). The different market activity levels of FSM and non-FSM pupils remain present within both deprived and less deprived areas with, for example, non-FSM pupils more likely to bypass their local school if they live in a deprived area than FSM pupils. Perhaps more interesting, however, is the fact that pupils living in the 10% least deprived neighbourhoods in the country in 2002 were the *most*

likely of any decile to be attending their most proximate secondary school. This reflects both the relatively more rural nature of more advantaged areas as well as the quality of local schooling options.

MARKET ACTIVITY: FSM VS. NON-FSM PUPILS IN THE MOST AND LEAST DEPRIVED NEIGHBOURHOODS (SOAs)

By Level of Area Disadvantage	% in Local School	% In a Local or Adjacent School
Top 20% Most Deprived Neighbourhoods (1)		
FSM Pupils	39	67
Non-FSM Pupils	38	65
Top 20% Least Deprived Neighbourhoods		
FSM Pupils	50	66
Non-FSM Pupils	47	64

(1) Measured at the Super Output Area level and based on the neighbourhood classifications made by the ODPM's *Indices of Deprivation* (2004).

A list of the most 'overperforming' and 'underperforming' secondary schools in England can be generated by using regression analysis to control for the influence of social composition on the overall GCSE performance of a school. Such an example of a 'social' GCSE league table for 2002 is shown below. Many schools ranked highly along these terms are not those typically found either at the top of the league tables or of the value added rankings, and it is particularly striking how well many City Technology Colleges in deprived areas are performing despite largely disadvantaged schooling populations.

THE TEN MOST OVERPERFORMING AND UNDERPERFORMING SECONDARY SCHOOLS, BASED ON SOCIAL COMPOSITION, 2002

LEA	Secondary School	% Pupils Eligible for FSM	Actual GCSE Pass Rate	Predicted GCSE Pass Rate	Residual
Over Achievers					
Northamptonshire	Brooke Weston CTC	17	98	43	55
Wolverhampton	Heath Park High School	41	70	20	50
Solihull	The City Technology College	16	95	45	50
Birmingham	Selly Park Technology College for Girls	52	70	26	44
Telford and Wrekin	Thomas Telford School	9	100	56	44
Westminster	The St Marylebone CofE School	33	93	51	42
Birmingham	Frankley Community High School	44	57	16	41
Tower Hamlets	Sir John Cass Foundation and Redcoat CoE	56	63	24	39
Gateshead	Emmanuel College	7	98	59	39
Bradford	Dixons City Technology College	8	94	56	38
Under achievers					
Somerset	Brymore School	5	20	66	-46
Bracknell Forest	The Brakenhale School	11	18	54	-36
Hertfordshire	Onslow St Audrey's School	11	19	55	-36
Lincolnshire	The St Guthlac School	9	18	53	-35
Croydon	Stanley Technical High School for Boys	25	16	51	-35
Merton	Eastfields High School; Mitcham	28	10	45	-35
Lincolnshire	The Aveland High School	13	18	52	-34
Hertfordshire	Mount Grace School	14	28	62	-34
Kent	Swanley School	16	12	46	-34
Bracknell Forest	Garth Hill College	5	31	64	-33

References

Adler, M., Petch, A. and Tweedie, J. (1989) *Parental Choice and Educational Policy*, Edinburgh: Edinburgh University Press.

Adnett, N. and Davies, P. (1999) 'Schooling quasi-markets: Reconciling economic and sociological analyses, *British Journal of Educational Studies*, 47(3), pp. 221-34.

Adnett, N. and Davies, P. (2001) 'Schooling reforms in England: From quasi-markets to co-opetition?', Paper presented at Quasi-Markets and Social Services Workshop, Louvain-la-Neuve, 25 September, 2001.

Adnett, N. and Davies, P. (2002a) 'Education as a positional good: Implications for market-based reforms of state schooling', *British Journal of Educational Studies*, 50(2), pp. 189-205.

Adnett, N. and Davies, P. (2002b) *Markets for Schooling: An Economic Analysis*, London: Routledge.

Anderson, L. (2001) 'A 'Third Way' Towards Self-Governing Schools?: New Labour and opting out', *British Journal of Educational Studies*, 49(1), pp. 56-70.

Audit Commission (1996) *Trading Places: the Supply and Allocation of School Places*, London: Audit Commission.

Audit Commission (2002) *Trading Places: A Review of Progress on the Supply and Allocation of School Places*, London: Audit Commission.

Bagley, C., Glatter, R. and Woods, P.A. (1996) 'Scanning the market: School strategies for discovering parental perspectives', *Educational Management and Administration*, 24(2), pp. 125-38.

Ball, S.J. (1990) *Politics and Policy-making in Education*, London: Routledge.

Ball, S.J. (1993) 'Education markets, choice and social class: The market as a class strategy in the UK and the USA', *British Journal of Sociology of Education*, 14(1), pp. 3-19.

Ball, S.J. (1997) 'Markets, equity and values in education' in Walford, G. and Pring, R. (eds.) *Affirming the Comprehensive Ideal*, London: Falmer, pp.69-82.

Ball, S.J, (2003) *Class Strategies and the Education Market: The Middle Classes and Social Advantage*, London: Routledge Farmer.

Ball, S.J. and Vincent, C. (1998) 'I heard it on the grapevine': 'hot' knowledge and school choice', *British Journal of Sociology of Education*, 19(3), pp. 377-400.

Ball, S.J., Bowe, R. and Gewirtz, S. (1995) 'Circuits of schooling: A sociological exploration of parental choice in social-class contexts', *The Sociological Review*, 43, pp. 52-78.

Barrow, L. (1999) *School Choice Through Relocation: Evidence from the Washington, D.C. Area* (working paper), Chicago: Federal Reserve Bank of Chicago.

Barrow, M. (1998) 'Financing of Schools: a national or local quasi-market?' In Bartlett, W., Roberts, J. and Le Grand, J. (eds.) *A Revolution in Social Policy: Quasi-market Reforms in the 1990s*, Bristol: Policy Press.

Bartlett, W., Roberts, J. and Le Grand, J. (eds.) (1998) *A Revolution in Social Policy: Quasi-market Reforms in the 1990s*, Bristol: Policy Press.

Bates, S. (2002) 'No place for a gamble', *The Guardian*, Tuesday, 18 June, 2002.

Benn, C. and Chitty, C. (1996) *Thirty Years On: Is Comprehensive Education Alive and Well or Struggling to Survive?*, London: Penguin Books.

Bennett, R. and Krebs, G (1993) 'The Demographic Component of Local Government Finance' in Champion, T. (ed.) *Population Matters: The Local Dimension*, London: Paul Chapman, pp. 50-63.

Blundell, R., Dearden, L. (1999) 'Human capital investment: the returns from education and training to the individual, the firm and the economy', *Fiscal Studies*, 20(1), pp. 1-23.

Bourdieu, P. (1986) 'The forms of capital' in Richardson, J.E. (ed.) *Handbook of Theory of Research for the Sociology of Education*, Greenwood Press, pp. 241-58.

Bourdieu, P. and Passeron, J.C. (1990) *Reproduction in Education, Society and Culture*, London: Sage.

Bradford, M. (1990) 'Education, attainment and the geography of choice', *Geography* 75(1), pp. 3-16.

Bradford, M. (1993) 'Population Change and Education: School rolls and rationalisation before and after the 1988 Education Reform Act' in Champion, T. (ed.) *Population Matters: The Local Dimension*, London: Paul Chapman, pp. 64-82

Bradford, M. and Burdett, F. (1989) 'Privatization, Education, and the North-South Divide' in Lewis, J. and Towsend, A. (eds.) *The North-South Divide*, London: Paul Chapman, pp. 192-212.

Bradley, S. and Taylor, J.(1998) 'The effect of school size on exam performance in secondary schools' *Oxford Bulletin of Economics and Statistics*, 60, pp. 291 – 324.

Bradley, S., and Johnes, G. (1999) *School choice, competition and the efficiency of secondary schools in England*, Lancaster: Lancaster University Management School.

Bradley, S. and Taylor, M. (2000a) 'The effect of the quasi-market on the efficiency-equity trade-off', Lancaster: Lancaster University Management School.

Bradley, S. and Taylor, M. (2000b) 'Testing for quasi-market forces', *Oxford Bulletin of Economics and Statistics*, 62(3), pp. 357-90.

Brain, J. and Klein, R (1994) 'Parental choice: myth or reality?', *Bath Social Policy Papers*, 21, Bath: University of Bath.

Brighouse, H. (2000) *School Choice and Social Justice*, Oxford: Oxford University Press.

Brighouse, T. (2002) 'Part 1: Comprehensive Schools then, now and in the future: Is it time to draw a line in the sand and create a new ideal?', *The Guardian*, 28 September, 2002.

Brooks-Gunn, J., Duncan, G., Klebanov, C. and Sealand, N. (1993) 'Do neighborhoods influence child and adolescent development?', *American Journal of Sociology*, 99, pp. 353-95.

Brown, P. (1990) 'The 'Third Wave': Education and the ideology of parentocracy', *British Journal of Sociology of Education*, 11, pp. 65-85.

Brown, P. (1995) 'Cultural capital and social exclusion: Some observations on recent trends in education, employment and the labor-market', *Work Employment and Society*, 9(1), pp. 29-51.

Brown, P. and Lauder, H. (1992) *Education for Economic Survival: from Fordism to post-Fordism*, London: Routledge.

Brown, P. and Lauder, H. (1996) 'Education, Globalization, and Economic Development', *Journal of Education Policy*, 11, pp. 1-24.

Brown, P., Halsey, A.H. and Lauder, H. (1997) 'The transformation of education and society: An introduction' in Halsey, A.H., Brown, P., Lauder, H., and Wells, A. (eds.) *Education: Culture, Economy, Society*, New York: Oxford University Press, pp. 1-45.

Buck, N. (2001) 'Identifying neighbourhood effects on social exclusion', *Urban Studies*, 38(12), pp. 2251-75.

Bullock, A. and Thomas, H. (1997) *Schools at the Centre*, London: Routledge.

Burdett, F. (1988) 'A hard Act to follow? The geography of education after the great reform bill', *Geography*, 73(3), pp. 208-15.

Burgess, S. and Wilson, D. (2003) 'Ethnic Segregation in England's Schools', CMPO Working Paper Series No. 03/086, Bristol: The University of Bristol.

Butel, J. (1988) 'Falling School rolls in one LEA', *Educational Studies*, 14(2), pp. 176-86.

Butler, T. and Robson, G. (2003) 'Plotting the middle classes: Gentrification and circuits of education in London', *Housing Studies*, 18(1), pp. 5–28.

Byrne, D. and Rogers, T. (1996) 'Divided spaces-divided school: An exploration of the spatial relations of social division', *Sociological Research Online*, 1(2), http://www.socresonline.org.uk/socresonline/1/2/3.html.

Carroll, S. and Walford, G. (1997) 'Parents responses to the school quasi-market', *Research Papers in Education*, 12(1), pp. 3-26.

Champion, T. (ed.) (1993) *Population Matters: The Local Dimension*, London: Paul Chapman.

Champion, T. and Townsend, A. (1990) *Contemporary Britain: A Geographical Perspective*, London: Paul Chapman.

Cheshire P. and Sheppard, S. (1995) 'On the price of land and the value of amenities', *Economica*, 62, pp. 247-67.

Chubb, J.E. and Moe, T.M. (1990) *Politics, Markets, and America's Schools*, Washington, D.C: Brookings Institution.

Coleman, J. (1992) 'Some points on choice in education', *Sociology of Education*, 65, pp. 260-62.

Collins, R. (1979) *The Credential Society: An Historical Sociology of Education and Stratification*, London: Academic Press.

Cookson, P.W. (1994) *School choice: The struggle for the soul of American education*, London: Yale University Press.

Coons, J.E. and Sugarman, S.D. (1978) *Education by Choice: The Case for Family Control*, Berkeley: University of California Press.

Cordato, R. (1992) *Welfare Economics and Externalities in an Open Ended University*, London: Kluwer Academic Publishers.

Cox, C. and Dyson, A. (eds.) (1969) *Black Paper Two*, London: Critical Quarterly Society.

Cox, C. and Dyson, A. (eds.) (1971) *The Black Papers on Education*, London: Davis-Poynter.

Croft, J. (2003) 'Gating communities for children? The perennial problem of school choice, residential location and their (continuing) relationship with neighbourhood', ESRC Centre for Neighbourhood Research, University of Bristol, September 2003.

Cutler, D.M., Glaeser, E.L. and Vidgor, J.L. (1999) 'The rise and decline of the American ghetto', *Journal of Political Economy*, 107(3), pp. 455-506.

Cullen, J. Jacob, B. and Levitt, S. (2000) 'The Impact of School Choice on Student Outcomes: an analysis of the Chicago Public Schools', NBER Working Paper No. 7888, Cambridge: NBER.

Davies, P., Adnett, N. and Mangan, J. (2002) 'Diversity and dynamics of education', *Oxford Review of Education*, 28(1), pp. 91-106.

Dennis R. and Clout H. (1980) *A Social Geography of England and Wales*, Oxford: Pergamon Press.

Dennison, S.R. (1984) *Choice in Education*, London: Institute of Economic Affairs.

DfE (1992) *Choice and Diversity: A New Framework for Schools*, London: HMSO.

DfE (1993) *Circular 6/93: Admissions to Maintained Schools*, London: HMSO.

DfEE (1997) *Excellence in schools*, London: HMSO.

DfEE (1999) *School Admissions: Code of Practice.* DfEE: Nottingham.

DfEE (1999) *Schools Achieving Success*, London: HMSO.

DfES (1980) Education Reform Act, London: HMSO.

DfES (1986) *City Technology Colleges: A New Choice of School*, London: HMSO.

DfES (1988) *Education Reform Act: Local Management of Schools,* London: HMSO.

DfES (1991) *The Parent's Charter: You and Your Child's Education*, London: HMSO.

DfES (2001) *The Role of the Local Education Authority in School Education*, London: HMSO.

DfES (2002a) *National Pupil Database (NPD),* London: DfES.

DfES (2002b) *Pupil Level Annual Schools' Census (PLASC),* London: DfES.

DfES (2004) *Five Year Strategy for Children and Learners*, London: HMSO.

DoE (1994) *Index of Local Conditions: an analysis based on 1991 Census data*, London: Department of the Environment.

Des Rosiers F., Lagana A. and Theriault M. (2001) 'Size and proximity effects of primary schools on surrounding house value', *Journal of Property Research*, 18(2), pp. 149-168.

Dewey, J. (1916) *Democracy and Education*, New York: Free Press.

Dolton, P., Makepeace, G., Hutton, S. and Audas, R. (1999) *Making the Grade: Education, the Labour Market and Young People*, York: Joseph Rountree Foundation.

Dore, C. and Flowerdew, J. (1981) 'Allocation procedures and the social composition of secondary schools', *Manchester Geographer*, New Series 2(1), pp. 47-55.

Dorling, D. and Atkins, D. (1995) *Population density, change and concentration in Great Britain 1971, 1981 and 1991*, London: HMSO.

Dorling, D. and Woodward, R. (1995) 'Social polarization 1971-1991: A micro-geographical analysis of Britain', *Progress in Planning*, 45, p. 2.

Doughty, S. (2002) 'School 'race quotas': Equality code will mean the end of parental choice, say head teachers', *Daily Mail*, 4 March 2002, p. 28.

Dworkin, R. (1988) *The Theory and Practice of Autonomy*, Cambridge: Cambridge University Press.

Echols, F. (1990) 'Parental choice in Scotland', *Journal of Education Policy*, 50(3), pp. 207-22.

Edwards, T., Fitz, J., and Whitty, G. (1989) *The State and Private Education: An Evaluation of the Assisted Places Scheme*, London: Falmer.

Evans, M., Noble, M., Wright, G., Smith, G., Lloyd, M., and Dibben, C. (2002) *Growing together or growing apart*, London: Policy Press.

Findlay, A. and Rogerson, R. (1993) 'Migration, Places and Quality of Life' in Champion, T. (ed.) *Population Matters: The Local Dimension*, London: Paul Chapman, pp. 33-49.

Fiske, E.B. and Ladd, H.F. (2000) W*hen Schools Compete: A Cautionary Tale*, Washington, D.C.: Brookings Institution.

Fitz, J., Gorard, S. and Taylor, C. (2002) 'School admissions after the School Standards and Framework Act: Bringing the LEAs back in?', *Oxford Review of Education*, 28(2), pp. 373-93.

Fitz, J., Halpin, D. and Power, S. (1993) *Grant Maintained Schools: Education in the Market Place*, London: Kogan Page.

Fitz, J., Taylor, C. and Gorard, S. (2002) 'Local Education Authorities and the regulation of educational markets: Four case studies', *Research Papers in Education*, 17(2), pp. 125-46.

Fitzsimmons, P. (1999) 'The New Zealand Qualifications Authority takes the credit for education', *Journal of Education Policy*, 14(2), pp. 139-50.

Foskett, N. (1998) 'Schools and Marketisation', *Educational Management and Administration*, 26(2), pp. 197-210.

Friedman, M. and Friedman, R.D. (1962) *Capitalism and Freedom*, Chicago: University of Chicago Press.

Glennerster, H. (1991) 'Quasi-Markets for Education', *Economic Journal*, 101(408), pp. 1268-76.

Glennerster, H. (1997) *Paying for Welfare: Towards 2000*, London: Prentice Hall.

Glennerster, H. (2002) 'United Kingdom education 1997-2001', *Oxford Review of Economic Policy*, 18(2), pp. 120-36.

Gewirtz, S., Ball, S.J. and Bowe, R. (1995) *Markets, Choice, and Equity in Education*, Buckingham: Open University Press.

Gibbons, S. and Machin, S. (2001) *Valuing Primary Schools*, London: Centre for the Economics of Education.

Gibson, A. and Asthana, S. (2000a) 'Estimating the socio-economic characteristics of school populations with the aid of pupil postcodes and small-area census data: an appraisal', *Environment and Planning A*, 32(7), pp. 1267-85.

Gibson, A. and Asthana, S. (2000b) 'Local markets and the polarization of public-sector schools in England and Wales', *Transactions of the Institute of British Geographers*, 25(3), pp. 303-19.

Gill, B. (2001) *Rhetoric versus Reality,* Washington: Rand Corporation.

Glatter, R., Woods, P.A. and Bagley, C. (eds.) (1997) *Choice and Diversity in Schooling: Perspectives and Prospects,* London: Routledge.

Goldstein, H. and Noden, P. (2003) 'Modelling social segregation', *Oxford Review of Education,* 29(2), pp. 225-37.

Goldthorpe, J. (1987) *Social Mobility and Class Structure in Modern Britain*, Oxford: Clarendon Press.

Goldthorpe, J. and Marshall, G. (1992) 'The promising future of class analysis', *Sociology*, 26, pp. 381-400.

Gorard, S. (1997) 'A choice of methods: The methodology of choice', *Research in Education*, 57, pp. 45-56.

Gorard, S. (1999a) 'Keeping a sense of proportion: The 'politician's error' in analysing school outcomes', *British Journal of Educational Studies*, 47(3), pp. 235-46.

Gorard, S. (1999b) 'Planning ahead in a "market" for schools: Predicting patterns of school choice', *Evaluation and Research in Education*, 13(3), pp. 132-43.

Gorard, S. (1999c) 'Well. That about wraps it up for school choice research: A state of the art review', *School Leadership and Management*, 19(1), pp. 25-47.

Gorard, S. (2000a) *Education and Social Justice: The Changing Composition of Schools and its Implications*, Cardiff: University of Wales Press.

Gorard, S. (2000b) 'Here we go again: A reply to "What's in a Number?" by Gibson and Asthana', *Research Papers in Education: Policy and Practice*, 15(2), pp. 155-62.

Gorard, S. (2000c) 'One of us cannot be wrong: the paradox of achievement gaps', *British Journal of Sociology of Education*, 21(3), pp. 391-400.

Gorard, S. (2000d) 'Questioning the crisis account: A review of evidence for increasing polarization in schools', *Educational Research*, 42(3), pp. 309-21.

Gorard, S. (2001) *How do we overcome the methodological schism (or can there be a 'complete' researcher)?*, Cardiff: Cardiff University School of Social Sciences.

Gorard, S. (2003) 'What is multi-level modelling for?', *British Journal of Educational Studies*, 51(1), pp. 46-63.

Gorard, S. and Fitz, J. (1998a) 'The more things change ...the missing impact of marketisation?', *British Journal of Sociology of Education*, 19(3), pp. 365-76.

Gorard, S. and Fitz, J. (1998b) 'Under starter's orders: The established market, the Cardiff study and the Smithfield Project', *International Studies in Sociology of Education*, 8(3), pp. 299-314.

Gorard, S. and Fitz, J. (2000a) 'Investigating the determinants of segregation between schools, *Research Papers in Education: Policy and Practice*, 15(2), pp. 115-32.

Gorard, S. and Fitz, J. (2000b) 'Markets and stratification: A view from England and Wales', *Educational Policy*, 14(3), pp. 405-28.

Gorard, S. and Taylor, C. (2001) 'The composition of specialist schools in England: Track record and future prospects', *School Leadership and Management*, 21(4), pp. 365-81.

Gorard, S. and Taylor, C. (2002a) 'Market forces and standards in education: A preliminary consideration', *British Journal of Sociology of Education*, 23(1), pp. 5-18.

Gorard, S. and Taylor, C. (2002b) 'What is segregation? A comparison of measures in terms of `strong' and `weak' compositional invariance', *Sociology*, 36(4), pp. 875-96.

Gorard, S., Fitz, J. and Taylor, C. (2001) 'School choice impacts: What do we know?', *Educational Researcher*, 30(7), pp. 8-23.

Gorard, S., Taylor, C. and Fitz, J. (2002) 'Markets in public policy: The case of the UK Education Reform Act 1988', *International Studies in Sociology of Education*, 12(1), pp. 23-41.

Green, A. (1988) 'The North-South divide in Great Britain: an examination of the evidence', *Transactions of the Institute of British Geographers*, 13, pp. 179-98.

Green, A. (1997) 'Educational achievement in centralised and decentralised systems' in Halsey, A.H. et al (eds.) *Education: Culture, Economy, Society*, New York: Oxford University Press.

Halsey, A.H., Lauder, H., Brown, P. and Wells, A.S. (eds.) (1997) *Education: Culture, Economy, Society*, New York: Oxford University Press.

Hardman, J., and Levacic, R. (1997) 'The impact of competition on secondary schools' in Glatter, R. (ed.) *Choice and Diversity in Schooling: perspectives and prospects*, London: Routledge.

Hatcher, R. (1998) 'Class differentiation in education: Rational choices?', *British Journal of Sociology of Education*, 19(1), pp. 5-24.

Hayek, F.A. (1944) *The Road to Serfdom*, London: Routledge.

Hayek, F.A. (1960) *The Constitution of Liberty*, London: Routledge.

Heath, A. (1981) *Social Mobility*, London: Fontana.

Heath, A (2000) 'The political arithmetic tradition in the sociology of education', *Oxford Review of Education*, 26(3), pp. 313-32.

Herbert, D. (2000) 'School choice in the local environment: Headteachers as gatekeepers on an uneven playing field', *School Leadership and Management*, 20(1), pp. 79 – 98.

Hirsch, D. (1997) 'Policies for school choice: what can Britain learn from abroad?' in Glatter, R. (ed.) *Choice and Diversity in Schooling: Perspectives and Prospects*, London: Routledge.

Hirsh, F. (1976) *Social Limits to Growth*, London: Routledge.

HMCI (1998) *Secondary Education, 1993-1997: A review of secondary schools in England*, OFSTED, London.

Hoxby, C. (2000) 'Does Competition among Public Schools Benefit Students and Taxpayers?', *American Economic Review*, 90(5), pp. 1209-38.

Hughes, D. (1996) *Markets in Education: Testing the Polarisation Thesis, The Smithfield Project, phase two, fourth report*, Wellington: Ministry of Education.

Hughes, M. (1997) 'Schools' responsiveness to parents' views at Key Stage One' in Glatter, R. (ed.) *Choice and Diversity in Schooling: Perspectives and Prospects*, London: Routledge.

Hutton, W. (1995) *The State We're In*, London: Vintage.

Jackson, B. and Marsden, D. (1966) *Education and the Working Class*, Harmondsworth: Penguin.

Jencks, C. (1972) *Inequality: A Reassessment of the Effect of Family and Schooling in America*, New York: Allen Lane.

Joseph, K. (1982) *Speech to the Institute of Directors*, printed in full in a Supplement to The Director, May, 3-5.

Kerckhoff, A. and Trott, J. (1993) 'Educational attainment in a changing educational system: The case of England and Wales' in Shavit, Y. and Blossfield, H. (eds.) *Persistent Inequality: Changing Educational Attainment in Thirteen Countries*, Boulder: Westview Press.

Lareau, A. (1987) 'Social class differences in family-school relationships: The importance of cultural capital', *Sociology of Education*, 60, pp. 73-85.

Lauder, H. (1995) 'Education Reform in New Zealand: 1987-1994, Three Lessons and a Silver Lining' in Mackenzie, M. and Wilkinson, J. (eds.) *Celebration of a Centenary*, Glasgow: University of Glasgow Press, pp. 19-28.

Lauder, H. and Hughes, D. (1999) *Trading in Futures: Why Markets in Education Don't Work*, Buckingham: Open University.

Lauder, H. and Hughes, D. (1994) *The Creation of Market Competition in New Zealand. An Empirical Analysis of a New Zealand Secondary School Market 1990-1993*, Wellington: Victoria University.

Leech, D. and Campos, E. (2003) 'Is comprehensive education really free?: A case-study of the effects of secondary school admissions policies on house prices in one local area', *Journal of the Royal Statistical Society,* A, 166(1), pp. 135–54.

Le Grand, J. and Bartlett, W. (eds.) (1993) *Quasi-markets and Social Policy*, Basingstoke: Macmillan.

Levacic, R. (1995) *Local Management of Schools: Analysis and Practice*, Buckingham: Open University Press.

Levacic, R. and Hardman, J. (1998) 'Competing for resources: The impact of social disadvantage and other factors on English secondary schools' financial performance', *Oxford Review of Education*, 24(3), pp. 303-28.

Levacic, R. and Woods, P.A. (2002). 'Raising School Performance in the League Tables (Part 1): disentangling the effects of social disadvantage', *British Educational Research Journal*, 28(2), pp. 1-34.

Levitas, R. (1986) *The Ideology of the New Right*, Cambridge: Polity Press.

Lewis, J. and Townsend, A. (1989) 'Introduction' in Lewis, J. and Townsend, A. (eds.) *The North-South Divide*, London: Paul Chapman.

Lieberson, S. and Carter, D. (1982) 'Temporal changes and urban differences in residential segregation: a reconsideration', *American Journal of Sociology*, 88(2), pp. 296-310.

Lorant, V. (2001) 'Deprivation and mortality: the implications of spatial autocorrelation for health resources allocation', *Social Science and Medicine*, 53, 1711-19.

Lowe, R. (1988) *Education in the Post-war years*, London: Routledge.

Lupton, R. (2001) *Places Apart?*, London: Centre for Analysis of Social Exclusion.

Lupton, R. (2003) *'Neighbourhood Effects': Can we measure them and does it matter?* CASE paper 73, London: Centre for Analysis of Social Exclusion.

Lloyd, C. and Payne, J. (2003) 'The political economy of skill and the limits of educational policy', *Journal of Education Policy*, 18(1), pp. 85-107.

Macbeth, A., Strachan, D. and Macaulay, C. (1986) *Parental Choice of School in Scotland*, Glasgow: University of Glasgow.

Massey, D.S. and Denton, N.A. (1988) 'The dimensions of residential segregation', *Social Forces*, 67(2), pp. 281-315.

Miliband, D. (2003) 'Progressive Universalism', presented at *The Future of Comprehensive Schooling* seminar series at the Department of Educational Studies at the University of Oxford, 5 March 2003.

Ministry of Education (1944) *Education Act of 1944*, London: H.M.S.O.

MORI (2001) *Why and How Parents Choose Independent Schools*, London: Independent Schools Information Service.

Moore, D. and Davenport, S. (1990) 'Choice: the new improved sorting machine' in Boyd, W. and Halberg, H. (eds.) *Choice in Education: Potential and Problems*, Berkeley, CA: McCutchan.

Mortimore, P. (1988): *School Matters: the Junior Years*, Open Books.

Mortimore, P. and Whitty, G. (1997) *Can School Improvement Overcome the Effects of Disadvantage?*, London: Institute of Education.

Noble, M., Penhale, B., Smith, G., Wright, G. (1999) *Measuring Deprivation at the Local Level*, Oxford: Social Disadvantage Research Centre.

Noble, M., Smith, G. and Cheung, S.Y. (1998) *Lone mothers moving in and out of benefits*, York: Joseph Rowntree Foundation.

Noble, M., Smith, G., Penhale, B., Wright, G., Dibben, C., Owen, T. and Lloyd M. (2000) *Measuring Multiple Deprivation at the Local Level: The Indices of Deprivation 2000*, London: DETR.

Noble, M., Wright, G., Dibben, C., Smith, G., McLennan, D., Anttila, C., Barnes, H., Mokhtar, C., Noble, S., Gardner, J., Braswell, S., Covizzi, J., Lloyd, M. (2003) *The English Indices of Deprivation 2004* (Revised), London: ODPM.

Noden, P. (2000) 'Rediscovering the impact of marketisation: Dimensions of social segregation in England's secondary schools, 1994-99', *British Journal of Sociology of Education*, 21(3), pp. 371-90.

Noden, P. (2002) 'Education markets and social polarization: back to square one?', *Research Papers in Education*, 7(4).

Noden, P., West, A., David, M. and Edge, A. (1998) 'Choices and destinations at transfer to secondary school', *Journal of Educational Policy*, 13(2), pp. 221-36.

ODPM (2004) *The English Indices of Deprivation 2004,* London: ODPM.

OECD (1994) *School: a matter of choice*, Paris: OECD.

OECD (2001) *Knowledge and Skills for Life: First Results from PISA 2000*, Paris: OECD.

OFSTED (2001) *National Summary Data Report for Secondary Schools 2001 Data,* London, OFSTED.

ONS (2001) *Neighbourhood Statistics Service* (http://neighbourhood.statistics.gov.uk).

Openshaw, S. (1984) 'The modifiable areal unit problem', *Concepts and Techniques in Modern Geogrpahy*, 38.

Pacione, M. (1997) 'The geography of educational disadvantage in Glasgow', *Applied Geography*, 17(3), pp. 169-92.

Parsons, C. (2000) 'School Catchments and Pupil movements: a case study in parental choice', *Educational Studies*, 26(1), pp. 33-48.

Peach, C. (1996) 'Does Britain have ghettos?', *Transactions of the Institute of British Geographers, New Series*, 21(1), pp. 216-35.

Pierson, C. (1991) *Beyond the Welfare State? The New Political Economy of Welfare*, London: Polity Press.

Pierson, C. (1998) 'The new governance of education: The Conservatives and education 1988-1997', *Oxford Review of Education*, 24(1), pp. 131-42.

Power, S. and Whitty, G. (2002) 'Bernstein and the Middle Class', *British Journal of Sociology of Education,* 23(4), pp. 595-606.

Powers, J. and Cookson, P. (1999) 'The politics of school choice research: fact, fiction, and statistics', *Educational Policy*, 13(1), pp.104-22.

Pyke, N. (2004) 'Bring back banding', *The Independent*, 8 January, 2004.

Ranson, S. (1993) 'Markets or democracy for education', *British Journal of Educational Studies,* 41(4), pp. 333-52.

Reardon, S.F., Yun, F.T. and McNulty, E.T. (2000) 'The changing structure of school segregation: measurement and evidence of multiracial metropolitan-area school segregation, 1989-1995', *Demography*, 37(3), pp. 351-64.

Reay, D. (1996) 'Contextualising choice: Social power and parental involvement', *British Educational Research Journal*, 22, pp. 581-96.

Reay, D. (1998) 'Engendering social reproduction: Mothers in the educational marketplace, *British Journal of Sociology of Education*, 19(2), pp. 195-209.

Reay, D. (2001) 'Finding or losing yourself?: Working class relationships to education', *Journal of Education Policy*, 16(4), pp. 333-46.

Reay, D. and Ball, S. (1998) 'Making their minds up: family dynamics and school choice', *British Educational Research Journal*, 24, pp. 431-46.

Reynolds, D. and Farrell, S. (1996) *Worlds apart?: A review of international surveys of educational achievement involving England*, London: HMSO.

Rivkin, S (1994) 'Residential segregation and school integration', *Sociology of Educatio*n, 67, pp. 279-92.

Robertson, D.J. and Symons, J.S.V. (1999) *Do peer groups matter?,* Discussion paper 311, London: Centre for Economic Performance.

Robinson, V. (1993) 'Making Waves?: The contribution of ethnic minorities to local demography' in Champion, T. (ed.) *Population Matters: The Local Dimension*, London: Paul Chapman, pp. 150-69.

Rosenthal, L. (2000) *The Value of Secondary School Quality in England*, Working Paper No. 2000/06, Keele: University of Keele.

Rouse, C. (1998) 'Private School Vouchers and Student Achievement: An Evaluation of the Milwaukee Parental Choice Program', *Quarterly Journal of Economic*s, 113(2), pp. 553-602.

Rutter, M. (1979) *Fifteen Thousand Hours*, London: Open Books.

Saltman, R. and von Otter, C. (1992) *Planned Markets and Public Competition: Strategic Reform in Northern European Health Systems*, Buckingham: Open University Press.

Saporito, S. (2003) 'Private choices, Public consequences: Magnet school choice and segregation by race and poverty', Social Problems 50(2), pp. 181-203.

Secada, W.G. (ed) (1989) *Equity in education*, London: Falmer.

Sexton, S. (1987) *Our Schools: A Radical Policy*, London: Institute of Economic Affairs.

Sexton, S. (1991) *A Report Commissioned on New Zealand Schools and Current Reforms,* Wellington: New Zealand Business Round Table.

School Standards and Framework Act (1998) London: H.M.S.O.

Sibley, D. (1995) *Geographies of exclusion: Society and difference in the west*, London: Routledge.

Sloane, P., Battu, H. and Seaman, P. (1999) 'Overeducation, undereducation and the British labour market', *Applied Economics*, 31(11), pp. 1437-54.

Smith, G. (1996) 'Urban education: Current position and future possibilities' in Barber, M. and Dann, R. (eds.) Raising *Standards in the Inner Cities*, London: Cassell.

Smith, G.R. (1999) *Area-based initiatives: The rationale and options for area targeting*, CASE paper 25, London: London School of Economics.

Smith, G. and Noble, M. (1998) 'Developing the use of administrative data to study poverty', Paper presented to the Seebohm Rowntree Centenary Conference, University of York, 1998.

Smith, G., McColm, H. and Smith, T. (1999) 'Mapping Secondary School Catchment Areas: Linking Pupil, School and Social Area Data', Presented to BERA Annual Confererence, 2-5 September, 1999.

Smith, G., Lees, R. and Topping, P. (1977) 'Participation and the Home Office Community Development Project' in Crouch, C. (ed.) *British Political Sociology Yearbook: Volume 3.*

Smith, T., Noble, M. and Smith, G. (1995) *Education Divides: Poverty and Schooling in the 1990s*, London: CPAG.

Social Exclusion Unit (1998) *Bringing Britain Together: A National Strategy for Neighbourhood Renewa*l, London: Cabinet Office

Stillman, A. and Maychell, K. (1986) *Choosing Schools: Parents, LEAs, and the 1980 Education Act*, Philadelphia: NFER-Nelson.

Taylor, C. (2001a) 'Hierarchies and 'local' markets: the geography of the 'lived' market place in secondary education provision', *Journal of Education Policy*, 16 (3), pp. 197-214

Taylor, C. (2001b) 'The geography of choice and diversity in the 'new' secondary education market of England', *Area*, 33(4), pp. 368-81.

Taylor, C. (2002) *Geography of the 'New' Education Market*, Aldershot: Ashgate.

Taylor, C. and Gorard, S. (2001) 'The role of residence in segregation: Placing the impact of parental choice in perspective', *Environment and Planning A*, 33(10), pp. 1829-52.

Taylor, C., Gorard, S. and Fitz, J. (2001) *Segregation between schools and levels of analysis: The modifiable areal unit problem*, Cardiff: Cardiff University School of Social Sciences.

Taylor, C., Gorard, S. and Fitz, J. (2002) 'Market frustration: Admission appeals in the UK education market', *Educational Management and Administration*, 30(3), pp. 243-60.

Taylor-Gooby, P. (ed.) (1998) *Choice and Public Policy*, London: MacMillan.

Thomas, R. and Robson, B. (1984) 'The impact of falling school-rolls on the assignment of primary schoolchildren to secondary schools in Manchester, 1980-1985', *Environment and Planning*, A, 16, pp. 339-56.

Thrupp, M. (1999) *Schools Making a Difference: Let's be Realistic!,* Buckingham: Open University Press.

Thrupp M. (2001) 'School-level education policy under New Labour and New Zealand Labour: A comparative update', *British Journal of Educational Studies*, 49(2), pp. 187-212.

Tiebout, C.M. (1956) 'A Pure Theory of Local Expenditures', *Journal of Political Economy,* 64(5), pp. 416-24.

Tomlinson, J. (1993) *The Control of Education,* London: Cassell.

Tooley, J. (1995) 'Markets or democracy for education? A reply to Stewart Ranson', *British Journal of Educational Studies*, 43(1), pp. 21-34.

Tooley, J. (1997a) 'Choice and Diversity in Education: A Defence', *Oxford Review of Education*, 23(1), pp. 103-16.

Tooley, J. (1997b) 'On school choice and social class: A response to Ball, Bowe and Gewirtz', *British Journal of Sociology of Education*, 18(2), pp. 217-30.

Vandenberghe, V. (1998) 'Educational quasi-markets: The Belgian experience' in Bartlett, W., Roberts, J. and Le Grand, J. (eds.) *A Revolution in Social Policy: Quasi-market Reforms in the 1990s*, Bristol: Policy Press.

Vincent, C. (2001) 'Social Class and parental agency', *Journal of Education Policy*, 16(4), pp. 347-64.

Walford, G. (1994) *Choice and Equity in Education*, London: Cassell.

Walford, G. (wd.) (1996) *School Choice and the Quasi-Market*, Wallingford: Triangle.

Walford, G. (2003) 'The educational policies of New Labour and the old problem of inequality' in Gruber, K.H. (ed.) *Education: Consumer Commodity or Citizen's Entitlement*, Vienna: Oesterreichischer Bundesverlag.

Walford, G. and Pring, R. (eds.) (1997) *Affirming the Comprehensive Ideal*, London: Falmer Press.

Waslander, S. and Thrupp, M. (1995) 'Choice, competition, and segregation: An empirical analysis of a New Zealand secondary school market', *Journal of Education Policy*, 10, pp. 1-26.

West, A. and Hind, A. (2003) 'Secondary school admissions in England: Exploring the extent of overt and covert selection', Paper for presentation at TEN/RISE Conference, 3 February 2003.

West, A. and Pennell, H. (1997) 'Educational reform and school choice in England and Wales', *Education Economics*, 5(3), pp. 285-305.

West A. and Pennell H. (2002) 'How new is New Labour? The Quasi-market and English schools 1997 to 2001', *British Journal of Educational Studies*, 50 (2), pp. 206-24.

West A., Pennell H. and West, R. (2000) 'New Labour and school-based education in England: Changing the system of funding?', *British Educational Research Journal*, 26(4), pp. 523-36.

Whitty, G. (2001) 'Education, social class and social exclusion', *Journal of Education Policy*, 16(4), pp. 287-95.

Whitty, G. and Edwards, T. (1998) 'School choice policies in England and the United States: an exploration of their origins and significance', *Comparative Education*, 34(2), pp. 211-27.

Whitty, G. and Power, S. (2000) 'Marketization and privatisation in mass education systems', *International Journal of Educational Development*, 20(2), pp. 93-107.

Whitty, G., Power, S., and Halpin, D. (1998) *Devolution and choice in education: the school, the state and the market*, Buckingham: Open University Press.

Wilms, J.D. and Echols, F. (1992) 'Alert and inert clients: The Scottish experience of parental choice of schools', *Economics of Education Review*, 11(4), pp. 339-50.

Witte, J. (1990) 'The theory of choice and control in education' in Clune, W.H., Witte, J.F. and Robert M. (eds.) *Choice and Control in American Education*, London: Falmer.

Wolfe, J. (1996) *Power and Privatisation*, London: Macmillan.

Wong, D. (1997) 'Spatial dependency of segregation indices', *Canadian Geographer*, 4, pp. 128-36.

Woods, P.A., Bagley, C., and Glatter, R. (1998) *School Choice and Competition: Markets in the Public Interest?*, London: Routledge.

Worpole, K. (1999) 'Driving forces: If parents can buy their way closer to a 'good' education, they will use their cars for ever longer school runs.' *Guardian*, 8 June, 1999, p. 17.

Wrigley, N. (1995) 'Revising the MAUP and the ecological fallacy', in Cliff, A., Gould, P. Hoare, A. and Thrift, N. (eds) *Diffusing Geography*, Oxford: Blackwell.

Wynne, D. (1998) *Leisure, Lifestyle and the New Middle Class*, London: Routledge.