

**AN INVESTIGATION OF CHANGING PATTERNS OF  
ENTRY FOR GCSE GEOGRAPHY:  
CHOICE, DIVERSITY AND COMPETITION**

by

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## **ABSTRACT**

This study investigates issues of subject choice at 14. Geography is a popular optional subject choice in England and Wales at age 14 but between 1996 and 2010 numbers entering for the General Certificate of Secondary Education (GCSE) examination declined by 35.6% although total entries for GCSE had increased. This study sought to help the geography subject community better understand the reasons for this decline.

The research has used NPD/PLASC data to investigate patterns of entry for geography at the national level. This secondary data analysis was developed further through a study of five schools which investigated curriculum diversity and competition between subjects at the school level. A conceptual model of the option choice system is used as the framework for analysis.

The results showed there was segregation in entry patterns with high attaining students and students in less deprived rural counties being more likely to study geography. Government policy had both direct and indirect influences on geography entries through curriculum decisions made by schools. Teachers and their pedagogy played a significant part in student choice but their influence on numbers choosing the subject can be constrained by whole school curriculum and option choice systems.

## **DEDICATION**

To my long-suffering family

## **ACKNOWLEDGEMENTS**

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## ABBREVIATIONS

### Schools

CT	Clifftop
LV	Lakeview
PL	Parkland
RS	Riverside
SV	Southvale

AHT	Assistant Head Teacher
ALIS	Advanced Level Information System
APG	Action Plan for Geography
CPVE	Certificate of Pre-Vocational Education
CSE	Certificate of Secondary Education
CVA	Contextual Value Added
DCSF	Department for Children, Schools and Families
DES	Department of Education and Science
DfE	Department for Education
DfEE	Department for Education and Employment
DfES	Department for Education and Science
DT	Design-Technology
EAL	English as an Additional Language
Edubase	Database of Educational Establishments in England and Wales
FSM	Free School Meals
GA	Geographical Association
GCE	General Certificate of Education
GCSE	General Certificate of Secondary Education
GIS	Geographic Information Systems
GNVQ	General National Vocational Qualifications
GSIP	Geography Schools and Industry Project
GTE	Geography Teacher Educators

HoD	Head of Department
HoH	Head of Humanities (Faculty)
ICT	Information and Communications Technology
IDACI	Income Deprivation Affecting Children Index
JCQ	Joint Council for Qualifications
KS	Key Stage
KS4meanG	Mean points score for KS4 examinations (NPD)
LA	Local Authority
LSOA	Lower Super Output Area (UK Census)
MFL	Modern Foreign Languages
MFTS	Media, Film and Theatre Studies
Midyis	Middle Years Information System
NC	National Curriculum
NPD	National Pupil Database
NQT	Newly Qualified Teacher
NVQ	National Vocational Qualifications
OCB	Option Choice Booklets
OFSTED	Office for Standards in Education, Children's Services and Skills
Ofqual	<b>Office of Qualifications and Examinations Regulation</b>
ONS	Office for National Statistics
PLASC	Pupil Level Annual School Census
QCA	Qualification and Curriculum Authority
Quango	Quasi-autonomous non-governmental organisation
RGS	Royal Geographical Society
SEN	Special Educational Needs
SI	Segregation Index
SP	School Prospectus
SR	Segregation Ratio
SMT	Senior Management Team
TGAT	Task Group on Assessment and Testing

ToE	Type of Establishment
TVEI	Technical and Vocational Educational Initiative
VA	Value Added
WO	Welsh Office
WS	Websites
Yellis	Year 11 Information System

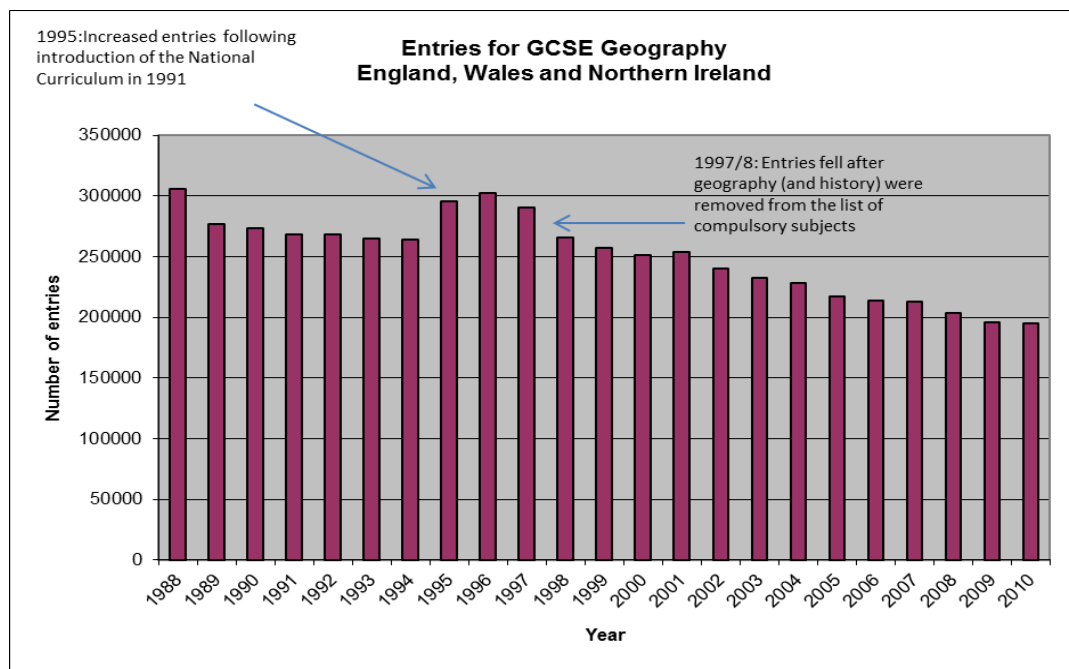
## CHAPTER 1: INTRODUCTION

This study investigated issues in subject choice at 14 through a detailed enquiry into entries for geography. Geography is a popular optional subject choice in England and Wales at age 14 but between 1996 and 2010 numbers entering for the General Certificate of Secondary Education (GCSE) examination declined by 35.6% although total entries for GCSE had increased. In 2010 under a third of all GCSE students studied geography and in some schools there were no candidates. This study arose from the interest within the geography subject community in better understanding the reasons for this decline.

*'Increases are greeted with satisfaction, even joy, while decreases cause gloom, despondency and much soul searching.'*

(Westaway and Rawling, 2001: 108).

Figure 1.1: Changes in the national entry for GCSE geography: 1988-2010



The research question initially proposed was:

**Why have the numbers of students choosing to study geography at age 14 changed over time?**

A study (Weeden, 2002) investigating the changes in one Local Authority undertaken for the Qualifications and Curriculum Authority (QCA) had suggested a number of different areas that might be contributing to the decline in entries but also that little was known about the patterns of entries for geography at a national, regional and local level. This led to the first objective for this research and a sub-question.

**Objective 1: To better understand changes in the patterns of entry for GCSE geography.**

**What changes in the patterns of geography entry can be identified over time?**

The starting point was **national trends** in entry patterns, the scope of which was extended when the literature and other sources suggested entries differ as the result of diversity in **student characteristics** such as ability, social class, deprivation, gender or ethnicity.

The QCA study had shown there were differences in geography entries for schools with different types of intake located in different geographical areas, for example geography entries from suburban grammar schools appeared higher than those for inner city comprehensives. This suggested it would be useful to explore diversity between different **school 'types'** and their **geographical location**.

Geography was one of a number of subjects available at Key Stage 4 (KS4) for students to choose between. Entry numbers were influenced by the relative popularity of different subjects which suggested an investigation of changes in **other subjects** might provide insights into change in geography numbers.

It soon became clear that the scope of the investigation would prove problematic, so it was decided to initially focus on **three diverse local authorities** as a manageable sample that would be representative of the national picture. As familiarity with data grew and awareness of the potential of national data was realised the analysis widened. The issue of manageability and focused investigation was ever present.

Examination entries are the outcome data of processes that have taken several years. The literature suggested a number of different factors that could influence the choices students made but understanding the way the option choice system operated in each school and the interactions between different elements had already proved complex. The breadth of avenues that could be explored meant decisions were required about which were likely to be most relevant, fruitful and feasible; one of the first tasks, therefore, was to try to conceptualise the option choice system. This proved a useful analytical tool and led to the second objective:

**To use the conceptual model of option choice as a framework for analysing change in geography entries at school level.**

The model identified many different influences but five were focused on.

The first area was the influence of national policy on subject entries which arose from historical trend evidence for different subjects that being included or excluded from the required national curriculum had a profound effect on GCSE subject entries. This idea was developed into a question after encountering Bowe et al.'s policy analysis model in Rawling's (2001) book on the effect of government policy on geography:

**What evidence is there that changes in government policy have influenced entries for geography?**

The second focus considered how schools constructed their KS4 curriculum, how decisions were made about subjects to be included and whether there should be a common option system or pathways for different students which led to the question:

**What influence does the structure of the curriculum at KS4 have on geography entries?**

A third related area was the effect of change within the system such as the introduction of new subjects which led to the question:

**Has curriculum change affected entries for geography?**

The fourth area of interest was the relationship between teachers and students. The QCA project had shown that some departments were more 'successful' in recruiting students than others which led to the question:

**What impact do teachers and departments have on the numbers taking geography?**



The final area was students' experience and perceptions of geography. Literature on school option systems and the ways that students made their decisions (Stables, 1996; Adey and Biddulph, 2001) had suggested that individual student' decisions were based on personality, aptitude, motivations, aspirations and perceptions of the subject. They were also influenced by significant others such as family, peers, community and teachers. The research question was:

### **Why do students choose to study geography?**

The development of the conceptual model of decision making in schools, which is then used as the organising framework for the rest of the study, is outlined at the end of chapter 2. The remainder of chapter 2 discusses literature relevant to the study: the geography of education; the influence of government policy on schools; the classification and diversity of school types; KS4 curriculum construction; teachers and subject departments; and influences on students. Chapter 3 considers the methodology used in the research, including the use of large secondary data sets and surveys of local authorities and schools. The chapter also provides the rationale for the choice of methods. Chapter 4 describes the changes in national, regional and local patterns of geography GCSE entry using secondary data analysis while chapter 5 uses the survey data from the three Local Authorities and five sample schools to illustrate the diversity of responses to the challenge of developing a KS4 curriculum. Chapter 6 discusses the findings and outlines implications for the geography education community.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 INTRODUCTION**

The research examined an educational issue, changing entries for GCSE geography, with a 'geography of education' perspective. However much of the literature either ignored or played down this perspective and focused more on educational, sociological, economic and political perspectives. The approach adopted here drew on many of the above perspectives but also examined geographical variations in the phenomena studied and recognised the importance of geography in explaining some of the observed phenomena (Bradford, 1990; Taylor, 2009). Patterns of entry were analysed at different scales (national, regional and local) and the importance of place and space in providing insights into these patterns was recognised (Taylor, 2009, p.660).

The literature review starts by outlining the range of literature consulted (section 2.2). The geography of education perspective (section 2.3) provides a context for the rest of the literature review which considers five areas that were important in the development of the conceptual model (section 2.9) formulated as the organising framework for this research. The five areas were the influence of government policy (section 2.4); the classification and diversity of school types (section 2.5); KS4 curriculum construction in schools (section 2.6); teachers and subject departments (section 2.7); and influences on students (section 2.8). Section (2.9) outlines the conceptual model initially developed from Leithwood and Levin (2005) and Stables (1996) but refined through an iterative process of further reading (see for example Adey and Biddulph, 2001; Ball, 1990; Busher and Harris,

2000; Hopwood, 2004; Kent, 2006; Trend, 2005) and discussion with teachers and geography education experts. Section 2.10 revisits and develops the research questions.

## **2.2 THE RANGE OF LITERATURE**

Option choices have been studied by researchers from different disciplines such as education, geography, sociology, philosophy, political science and economics. They have investigated social determinants such as gender, ethnicity and social background, student motivations, structure and agency, school management, national policy, school effectiveness and improvement.

The list below focuses on the type of literature rather than disciplinary source.

1. Literature reviews that identified key themes relevant to option choice; geography of education; curriculum; school organisation and policy (Bradford, 1990, 1991; Reynolds, 1992; Stables, 1996; Lord and Harland, 2000; Lord, 2001, 2002, 2003; Payne, 2003; Adnett and Davies, 2005; Leithwood and Levin, 2005; Wright, 2005; Taylor, 2009;).

These reviews of literature provided summaries of previous findings from researchers who had used different research methodologies at a range of different scales. They provided starting points for investigation and suggested other literature to be consulted.

2. Quantitative studies that used large data sets to identify overall entry patterns. New opportunities for analysis resulted from the recent growth in measurement of

performance and the increased availability of national/school data sets. Data sources included the National Pupil Database (NPD) and Pupil Level Annual School Census (PLASC) data set, the Middle Years Information System (Midyis) and Year 11 Information System (Yellis) data sets. Researchers used statistical models to identify 'causal' factors, descriptive statistics to describe patterns and time sequence data to analyse trends. These data sets were secondary sources but provided more comprehensive data than most researchers can collect (Gorard, 2001; Davies et al., 2008, 2009; Smith, 2008; Leckie and Goldstein, 2009; Burgess et al 2010).

3. Small scale quantitative research studies into students' interests and subject preferences (Stables and Wikeley, 1997; Adey and Biddulph, 2001; Weeden, 2002; Colley and Comber, 2003; Norman and Harrison, 2004; Fraser, 2005; Trend, 2005) undertaken with schools local to the researcher. Questionnaires were the commonest research method used because they provided an overview and easily analysed data. This data was more limited in scope but provided opportunities for asking specific questions of individual students that were not addressed within the national data sets.
4. Small scale qualitative research studies into students' perceptions of geography and other subjects (Biddulph and Adey, 2003, 2004; Hopwood, 2004;). These used instruments such as interviews and posters with smaller cohorts to obtain 'richer' but possibly less generalisable data.

5. Literature from government, government agencies or commissioned reports. This took the form of statutory documents such as the National Curriculum and other curriculum requirements (DfES, 2001), policy documents such as white papers (DfE, 2010), reports on particular issues such as gender or social mobility, guidance on implementation or Ofsted reports about schools or issues. These texts were written in a number of ways by individuals, committees, experts, bureaucrats or politicians and were research based or politically influenced (Rawling, 2001; Bell, 2005).
6. Literature that described, analysed and evaluated patterns, development and change within systems, structures or policies. These were historical reviews or political commentaries that were research or literature based (Pratt et al. 1984; Goodson, 1993; Rawling 2001; Ross, 2000; Hodgson and Spours, 2005; Brighouse, 2003; Newsam, 2003, Pring et al 2009; Gillard, 2011).

## **2.3 THE GEOGRAPHY OF EDUCATION**

The contribution of geography to understanding educational patterns and processes is complex because of the way the disciplines of geography and education both draw upon other social sciences such as economics, sociology and political science. Bradford (1990) conceptualised two different approaches to the use of geography in educational research. The first saw education and/or geography as 'objects' of research where understanding of social, economic and political processes was informed by education and geography. The second was when education and/or geography were the 'subjects' of the research with

other social, economic and political processes informing understanding of the patterns and processes that emerged.

There were also questions about the level at which geography informed educational research. Taylor's model of different geographical approaches to educational research (figure 2.1) moved from more limited interactional expertise to more sophisticated contributory expertise.

This is, rather crudely, the difference between education researchers being fluent in the language of geography and education researchers having the tacit knowledge to practise or 'do' geography.

(Taylor, 2009, p.651).

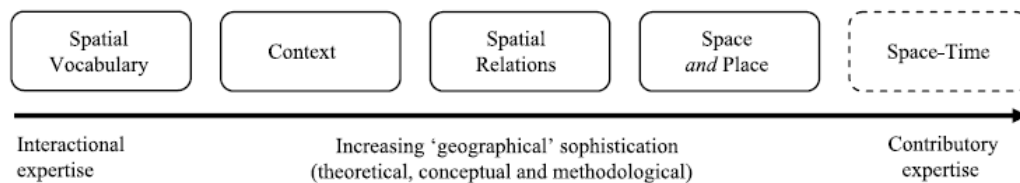


Figure 2.1: Geographical approaches to educational research (Taylor, 2009, p. 664)

With interactional expertise geographical vocabulary was used in relatively limited ways.

At the other end of the scale researchers could develop contributory expertise in both geography and education research approaches. Education researchers should move beyond merely using spatial language to making contributions that developed geographical understanding. There should be a two way dialogue that constructively breached the subject divide but it was recognised this might be difficult to achieve because it required the importing or exporting of expertise between the subject disciplines (Taylor, 2009, p. 664).

Historically geography has undergone a number of paradigm shifts that have provided different potential perspectives for the geography of education (Taylor, 2009, p.653). Early 'regional' approaches described and categorised places and spaces by broad areal differentiation which tended to play down diversity within regions and 'did not explore political and social issues in any depth' (Lambert and Morgan, 2010, p.7). The modernist quantitative revolution of the 1960s moved geography beyond the descriptive to being a law-making and explanatory science, including focus on spatial distributions for example the distributions of independent schools (Bradford, 1990). Critique of this positivist approach led to '(renewed) interest in Marxist analyses of social justice and inequality' (Harvey, 1973 quoted in Taylor, 2009, p.653) and in the mid- 1980s a shift to locale and place, structure and agency, and the socio-spatial dialectic (Soja, 1989, quoted in Taylor, 2009, p.653). More contemporary approaches considered the relationship between the curriculum, labour markets and globalisation, or education and spatial mobility. Another area of interest was the relationship between time and space, including how space was constituted through time (Taylor, 2009).

These different approaches influenced the way that geographers have researched education but was further complicated by internal debates about the nature of geography and education including their intersection and overlap with other social sciences. What emerged was an increasing interest in research that incorporates both geography and education through an interest in 'space' and the spatial turn (Massey, 1999).

The geography of education research community therefore has diverse interests that can be conceptualised at a variety of different scales (figure 2.2), ranging from the learner / child, the site of learning (school/household), the community of learners / neighbourhood, local authority / region to the national level (Taylor, 2009: p.657-660).

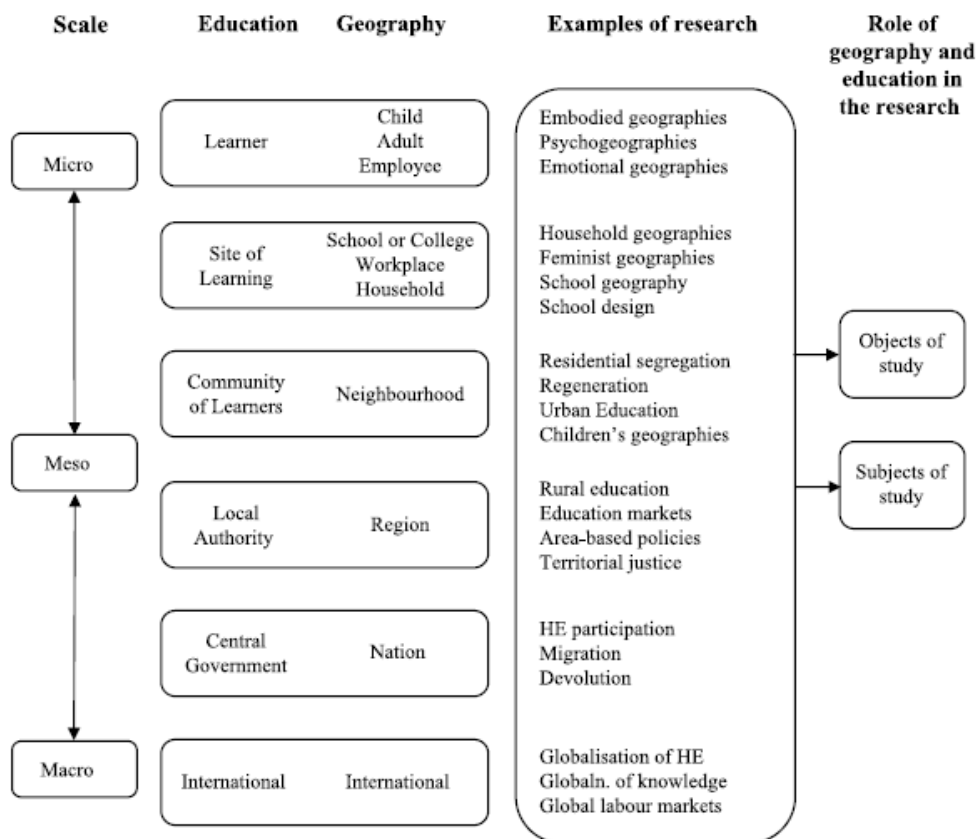


Figure 2.2: Towards a geography of education (from Taylor, 2009: p. 658)

This led to a number of possible research roles for geography (Taylor, 2009, p.660), such as studies:

- where geography provided a context for researching educational phenomena, such as the effect of school location on student intake (Webber and Butler, 2007);



- where geographical patterns were examined; such as the distribution of different types of school (Bradford, 1990) and,
- more rarely, where geography was an important determinant of the educational phenomena studied, for example where it provided a critique of attempts to measure school effectiveness because the complexity of possible variables influencing school performance was discussed from a geographer's viewpoint (Bradford, 1991).

Common to all three types of study were the concepts of place, space and scale.

Taylor suggested there were few examples of research that explored issues at a range of scales, although some educational issues such as differential educational attainment lent themselves to this sort of study. Indeed many studies in this area lacked an explicit geographical context. Gorard (2009b) in discussing academies limited his discussion to measuring social deprivation through eligibility for Free School Meals and the spatial distribution of academies was only mentioned in passing. Similarly, Davies et al (2008) and Telhaj et al. (2009), using nationally derived data (Yellis), looked at the impact of socio-economic characteristics, but did not mention geographical contexts, patterns or influences. In contrast Gordon and Monastiriotis (2007) examined neighbourhood and sub-regional effects on examination performance, Hamnett et al (2007) looked at the changing geography of East London and the links to school performance while Gibbons and Telhaj (2007) analysed whether there was an increase in intake segregation in schools at the regional scale over time.

Research data on residential segregation demonstrated that geographical factors (place) were important when assessing school performance (Bradford, 1991) but suggested these effects were rarely considered in the complex (contextual) value added models being developed. This study also suggested it was difficult to disentangle school effects from the social geography of a locality and that the effects observed in one place were not necessarily transferrable to another (Bradford, 1991: p.319).

Geography of education studies using school performance data have looked at the relationships between school performance and location. Inputs that can affect school performance outcomes include community effects such as pupil ability and family background and school effects such as teacher quality and school management. The most important appear to be the performance of the pupil at an earlier Key Stage and the type of neighbourhood in which a pupil lives (Gibbons and Telhaj, 2006; Webber and Butler, 2007). School intakes were affected by the rigidity of school catchments, the ability of schools to 'select' students and parents' varying capacity to access preferred schools (Gordon and Monastiriotis, 2007). There were some outcomes that demonstrated the importance of having both a geographical and sociological perspective, for example inner city schools with high ethnic minority intakes did better than relatively affluent schools on the outskirts of large conurbations and northern cities with high concentrations of students from semi-skilled or self-employed White British families (Webber and Butler, 2007).

There was some evidence that the quasi-market operational in England, Scotland and Wales since 1988 increased residential segregation as middle class parents sought to maximise educational opportunities for their children (Cheshire and Sheppard, 2004). This was more pronounced in the metropolitan urban area of London than elsewhere in England since across England 8% of students attended a school outside their home LA which rose to 20% in London where net shifts out of areas with concentrations of ethnic minorities or working class families occurred (Butler and Hamnett, 2007, p. 1163; Gordon and Monastiriotis, 2007). The children of middle class families living in disadvantaged areas travelled further and this also applied to rural areas (Gordon and Monastiriotis, 2007). This residential segregation might result in increased segregation of student intake between 'good' and 'bad' schools although the evidence for this was unclear and disputed (Gibbons and Telhaj, 2007).

Other relevant spatial trends included performance outcomes and appeals against first choice allocations of schools being strongly correlated with deprivation (high deprivation and low performance / appeals) (Gordon and Monastiriotis, 2007, p.1207). Spatial diversity in populations, both within a locality and a school was therefore important for understanding both outcomes and policy decisions.

If educational provision were homogeneous over space (within a nation-state or region), if different groups in the population were distributed equally over space and access to education was based solely on place of residence, with income, race, religion or other social characteristics playing no role in pupil selection, such that social composition of all schools was identical, it would be expected that there should be no variations in educational outcomes over space. All children would be educated equally irrespective of their background or where they lived. Performance tables would be irrelevant and parents would not try to get their children into particular schools or to avoid others: it would be a

pointless exercise. A pupil would simply be allocated to his or her nearest school and all schools would perform equally, although there would be differences in individual pupil performance according to variations in ability and background sociodemographic characteristics.

(Butler and Hamnett, 2007, p. 1164)

Methodologically the use of digital maps and GIS had revolutionised the analysis of spatial patterns by enabling the rapid display and analysis of large data sets so they could be made more 'public'. Other methodological changes included the use of advanced spatial statistics such as network analysis, space-time analysis, multi-level modelling and other hierarchical approaches to statistical modelling (Gibbons and Telhaj, 2007; Gordon and Monastiriotis, 2007; Webber and Butler, 2007).

The recent refocusing on 'place' (Cresswell, 2004, quoted in Taylor, 2009) provided an alternative methodological approach to studying education issues. In this approach place was studied in its full diversity with a return to locality studies (as in the 1960s) that were rooted in relevant processes at the regional, national and global level and concerned with spatial dimensions (patterns, processes, inequalities etc.) within these locales. The implication of this approach was that mixed methodologies were appropriate using both quantitative and qualitative data within a spatially integrated framework of analysis (Taylor, 2009, p.663).

A 'geography of education' perspective therefore created a framework for analysis that utilised place, space and scale in understanding patterns of entry for geography GCSE and

provided an additional perspective frequently omitted from discussion of educational issues.

## **2.4 THE INFLUENCE OF GOVERNMENT POLICY**

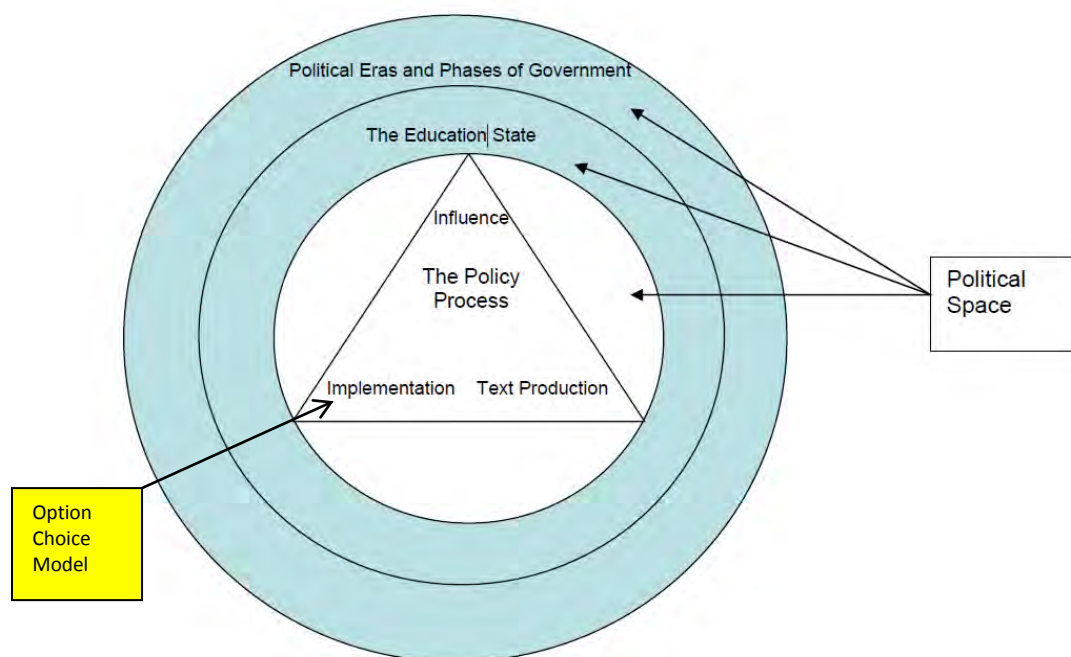
### **2.4.1 Introduction**

Understanding the contribution of central government policy to the status of geography within schools was an important aspect of this research. Changing the Subject (Rawling, 2001) highlighted the ways that policy change between 1980 and 2000 had influenced geography at the national level while the increasing availability of performance data allowed analysis of some of the changes at different scales (national, regional and local). A significant model used to frame this analysis was the policy process model (figure 2.3) which focused on the relationships between those creating and implementing policy (Bowe and Ball with Gold, 1992; Hodgson and Spours, 2005).

The original policy process triangle identified an on-going often 'messy' cycle of change as different groups lobbied for their interests (influence), ideas were sifted during the process of writing a curriculum (text production) but then were adapted, modified and sometimes resisted by schools and teachers when the policy was implemented (Bowe and Ball with Gold, 1992). Influence shifted between groups of people at different points in this cycle. For example practitioners might exert little influence in devising policies but could subvert or change policy during the implementation phase (Hodgson and Spours, 2005, p.5).

This model was further developed to include a historical perspective that identified political eras and phases of government, included an analysis of underlying ‘values’, identified key players (The Education State) and included the idea that there was political space, the opportunity to either open up or close down the debate at any particular time (Hodgson and Spours, 2005).

Figure 2.3: The Policy Process Model



(Hodgson and Spours 2005, p. 2 – developed from Bowe and Ball with Gold, 1992)

From the 1980s the ‘market’ approach to education that prioritised competition was the dominant ideology for 14-19 education pursued by both Conservative and New Labour governments (Hodgson and Spours, 2005, p.2). More students were encouraged to stay on in full time education or training but the form of the curriculum available was contested as evidence from national and international sources was debated. Key players

such as government institutions, quangos, professional associations, teacher unions, think tanks, education media and influential individuals were part of the 'education state' where power was exercised through structures and steering mechanisms such as performance tables and funding (Hodgson and Spours, 2005, p.4).

Policies and their implementation therefore had important implications for the curriculum in schools. Senior Management Teams (SMT) had to consider the implications for their KS4 curriculum, for example whether they already met the requirements of the policy, whether there needed to be changes or whether they would resist, ignore or subvert the change. Over the last twenty years there have been many changes, some major, some more subtle that schools have responded to in different ways. The importance for this research was that it appeared likely that many of these changes had influenced entries for geography. A number of the changes will be outlined to contextualise the later data analysis and discussion. Literature sources include original policy documents, policy analysis literature, some geography specific sources and personal experience as an examiner, geography educator and advisory teacher.

#### **2.4.2 The Policy Context: the state, economy and education**

Government policy had both direct and indirect effects on entries for different subjects. The overarching political shift of the last thirty years was described as a move from the 'welfarist' to the 'post-welfarist' state; and a 'shift from a relatively decentralised education system, to a centralised system, in which funding, teaching and curriculum are centrally controlled' (Tomlinson, 2005: 1) but where schools were accountable for

outcomes. There was an increased role for the 'market' both in school choice and school type. The policy rhetoric was about personalisation and choice at the individual level alongside increasing accountability for schools and teachers to raise standards. The state moved from 'rowing to steering' and changed the organisational form of schools from 'bureau-professionalism to entrepreneurial-managerialism' (Ball, 2008: 194).

Alongside this shift there were two other policy 'themes' relevant to this study. One was the need to create a workforce equipped to meet the economic priorities of an increasingly global market place; the other was a commitment to inclusion and equality of opportunity. The former had its roots in changes to the national economy that started in the 1960s but were accelerated during the 1980s. 'The post war consensus that had shaped Britain's political and economic landscape broke down in the 1970s' and the idea that governments should attempt to redistribute wealth was replaced by a market philosophy that assumed wealth would trickle down (Lambert and Morgan, 2010, p13). In reality social divisions increased and geographers produced a series of accounts that were effectively 'cartographies of distress' (Mohan, 2001, quoted in Lambert and Morgan, 2010, p.13). Changes to the economy resulted in a shift from traditional manufacturing to finance, service and high technology industries that competed in a global marketplace. There were shifts in employment patterns with the loss of many traditional unskilled or semi-skilled (male) industrial jobs that were replaced by (female) jobs in service industries. Spatial variations were important in understanding the complexity of the issues.



Education policy from the 1990s emphasised the need for a highly skilled workforce able to develop the science, engineering and knowledge based (technology) industries necessary for maintaining position in the global market. Concern over equality of opportunity and the lack of progress made by many students in schools (DfE, 2012a) was expressed, but in line with the move to the post-welfarist state, responsibility for social justice shifted from the state to the individual or local institution with support and challenge given to 'feckless' families and 'failing schools' and penalties associated with non-compliance (Rawling, 2001, p.123; Tomlinson, 2005; Ball 2008).

Thus, the relationship between the state, economy and education was reworked by both Conservatives after 1979 and New Labour after 1997. There were continuities such as the use of quasi-markets, the unravelling of the post-war consensus of education as part of the state system controlled locally, the increased use of private companies to deliver education services and private sponsorship to reduce costs to the state. New Labour differed by including more investment in schools and increased specification of teaching strategies with less emphasis on traditional curriculum forms. There were debates about how best to target support but the creation of Education Action Zones that provided resource for localities rather than individuals partially recognised geographical differentiation.

However it was also suggested there was failure to learn historical lessons and that the outcomes were a return to the past:

Current education policy is marked by circularities or reinventions of the past – for example class and segregation, privatisation, voluntarism and philanthropy, IQism (gifted and talented) and the role of faith schools.

(Ball, 2008, p.98)

### **2.4.3 Centralised control and influence over the curriculum**

Government began to more directly influence the curriculum from the early 1980s. This followed the 1970s debate about the proposal ‘that there should be a centrally determined common curriculum in all schools, as there is in most other countries’ (Kelly, 2004, p.192). The increasing need to widen participation in education and provide qualifications for all students at age 16 following the raising of the school leaving age in the mid-1970s created further curriculum dilemmas.

The exercise of increased central control will be explored in two contexts. The first was the creation of a National Curriculum (section 2.4.4); the second was the use of the assessment system at Key Stage 4 to ‘raise standards’ (section 2.4.5). In both these contexts the logic of the policy reform will be explored. This used structures such as centrally specified frameworks and ambitious targets alongside devolved responsibility to achieve change. The ‘policy conundrum of balancing national prescription with schools leading reform’ (Hopkins 2009, p.203) led to the Conservative government of the early 1990s introducing performance measures while New Labour prioritised capacity building through universal professional development in national priorities (literacy, numeracy, ICT).

#### **2.4.4 The impact of the Education Reform Act and the National Curriculum**

The Education Reform Act (1988) introduced a National Curriculum for all maintained schools that was controlled more or less directly by government. The first version of the National Curriculum created a subject based 'traditional' curriculum that appeared briefly to guarantee the status of the ten National Curriculum subjects, including geography and history, to be studied up to age 16. This was subsequently modified in response to political and practical pressures so the ten subjects became more or less important within the curriculum.

In the period before its introduction (the context of influence) two different models for the national curriculum were debated – 'the 'professional' based on 'areas of experience' advocated by HMI and the 'bureaucratic' based on traditional subjects favoured by the DES' (Higham and Yeomans, 2007, p.287). At one time it looked as if geography might not even get a place (Rawling, 2001). The subject based version prevailed although there was still intense debate about its form and content (Higham and Yeomans, 2007, p.287) with different groups in the education state seeking to influence subsequent revisions (1995, 2000 and 2007). Direct political interference over content was greatest in the first few years as the National Curriculum was being established (Daugherty, 1995; Rawling 2001), diminished during the New Labour years where the priority shifted away from subject knowledge to pedagogy and broader aims of education but has resurfaced with the coalition government that is seeking to impose a particular view of subject knowledge (DfE, 2010).

One debate relevant to this research was whether all children should have a broad and balanced curriculum of ten National Curriculum subjects at KS4. This is common in some countries (Stables, 1996) but the traditional system in England gave students the opportunity to choose subjects or courses from a relatively large menu of options determined by the school (SCAA, 1995; QCA, 1998). Immediately there was conflict between establishing a common core framework of National Curriculum subjects at age 14-16 and the tradition of allowing more choice of subjects (Daugherty, 1995, p121-2).

The broad and balanced common curriculum did not last long because powerful groups in the education state resisted the proposed change. In 1991 Geography and History were made alternate subjects. During 1992 intense lobbying from a number of influential groups and individuals resulted in the Dearing Review (Dearing, 1993) and a further change of policy in 1994 (Daugherty, 1995). This had a significant effect on geography and history entries for GCSE because schools were no longer required to ensure all students studied either geography or history (QCA, 1998).

This was an example of 'political space', an abrupt change of policy as the result of a political imperative. Some subsequent revisions to the National Curriculum have been similarly dramatic while others have had more limited effects. Important changes to the requirements of the National Curriculum relevant to this research included:

- the introduction of short courses in Design & Technology, Geography, History, Information Technology, Modern Foreign Languages and Physical Education, 1996.
- opportunities to dis-apply Science, Modern Foreign Languages and Design-Technology for some students, 1998.

- The downgrading of the status of certain subjects. Arts, Design-Technology, the Humanities and Modern Foreign Languages became entitlement subjects and areas, 2004.
- the ending of disapplication for Science, 2006.

(Higham and Yeomans, 2007, p.289)

The 'core' subjects of English, Mathematics and Science were therefore the only subjects to retain their compulsory status during the research period. All other National Curriculum subjects had to face different pressures as the result of policy decisions. The impact of changing policy on other subjects was relevant to this study because of the potential knock on effects for geography.

Technology was the only 'new' subject in the National Curriculum. It was developed from vocational initiatives in the 1970s and 80s but was soon split into Design and Technology (DT) and Information and Communications Technology (ICT). ICT quickly had an established place as a mandatory core skill but DT was first able to be dis-applied (1998) and then lowered in status in 2004 to an entitlement subject (Higham and Yeomans, 2007). Modern Foreign Languages (MFL) had a similar trajectory and by 2004 had become an entitlement subject. The consequences for MFL GCSE entries have been catastrophic (Higham and Yeomans, 2007, p.289-90) with numbers falling by 100523 (61%) over nine years (JCQ, various).

Science had a different trajectory. The National Curriculum cemented its place in the curriculum although different priorities have led to increased differentiation in the courses offered. The outcome was that in 2007:

There is a statutory entitlement to science study leading to two GCSEs and the Government is anxious that at least 80% of students will continue to do this amount of science. Thus notions of choice, flexibility and differentiation which have come to animate the 14–16 curriculum are closely mirrored within a science curriculum which aims to cater for: (a) those who are likely to complete their science education at age 16 and for whom scientific literacy is the main aim and (b) those who may wish to continue to study some form of science post-16 and possibly into higher education who need additional more specialised knowledge.

(Higham and Yeomans, 2007, p.290)

Science can therefore now be taken as a single or double ‘balanced’ subject with a focus on general applications of science within the world or as three separate subjects (Biology, Chemistry and Physics) in preparation for further academic study.

In addition to the move away from a large broad and balanced curriculum of ten subjects New Labour also promoted basic (or core or key or functional) skills.

Communication, numeracy and ICT skills were prioritised because of the concern about the need for a workforce or society that was literate and numerate and could use new technologies. The incorporation of English and mathematics into ‘league table’ scores in 2004 further prioritised this aspect of the curriculum (Higham and Yeomans, p.290).

#### **2.4.5 The Assessment of Key Stage 4: GCSE a Common Examination**

The introduction of a new common examination system for 16 year olds in England – the GCSE, which was first examined in 1988, reduced the diversity in the public examination system. GCSE merged the two previous examination systems, the General Certificate of Education (GCE) ‘O’ level and the Certificate of Secondary Education (CSE).

National Criteria that governed all syllabi and assessment schemes were introduced:

We see publication of the national criteria as an historic step. For the first time, the partners in the education service have pooled their wisdom and experience in order to produce nationally agreed statements on course objectives, content, and assessment methods for all the subject areas most commonly examined in the final years of compulsory schooling.

(DES/WO, 1985a, p.1 quoted in Daugherty, 1995, p.126)

GCSE was intended to be a common examination at 16+ but there was some confusion as to what this meant and how it would be examined. It should have been an 'end to institutionalised differentiation in assessment regimes and approaches at age 16' (Higham and Yeomans, 2007, p.287) but the reality was that differentiation was perpetuated and in some cases extended.

Examination boards were merged and although each board could offer different syllabuses it was more difficult for mode 3 (teacher led) examinations to be developed so the wide range of school based local examinations disappeared (Higham and Yeomans, p.287). The national criteria and subsequent subject criteria also began to impose uniformity although examination boards were creative in their responses recognising that teachers wanted choice in the type and content of the syllabus they followed. A common grading scale (A-G) was introduced which aimed to allow all students to show what they 'knew understood and could do' but some examinations were differentiated by having two or three tiers of examination.

#### **2.4.6 The Assessment of Key Stage 4: Measuring Performance**

The introduction of the National Curriculum caused problems because the GCSE grading scale was different from the criterion referenced 10 point scale proposed for the National Curriculum (TGAT, 1988). The conflict arose because the system of assessment for the NC proposed by the Task Group on Assessment and Testing (TGAT) had four potentially conflicting purposes (Broadfoot and Gipps, 1996, p.152). For government the key purpose was accountability through the use of a nationally imposed common assessment scheme that meant pupil attainment in different schools could be compared with confidence. This policy was fundamental to the quasi-market strategy being introduced because the logic was that parents would use the data to choose schools and force poorly performing schools to either improve or close.

After a period of intense debate during which the incompatibility of the two assessment systems was identified and concerns about the quality and standards of the GCSE examination were called into question by ministers and opponents (Daugherty, 1995, p.138) the 'political state' (Hodgson and Spours, 2005) provided a solution to the conflict. The Dearing Review (Dearing 1994) recommended that GCSE grades should be used to grade students at KS4. Both sides gratefully, if in some cases reluctantly, accepted the resolution of the conflict (Daugherty, 1995, p.140). Grades A-C were prioritised because they were equivalent to passes at GCE O-level and they soon came to be regarded as the 'gold' standard of performance although there was limited educational rationale for making this the 'pass' mark.



One outcome of the Education Reform Act (1988) was the collection of large amounts of longitudinal data about individual children that was used to both inform policy and to influence schools (Smith, 2008; Hopkins, 2009). This provided data about education in England that were not previously available. The New Labour Government stated the purposes of the National Pupil Database (NPD) were to:

inform, influence and improve education policy and to monitor the performance of the education service as a whole. For example, the NPD is used to calculate contextualised value added (CVA) to measure school effectiveness and is also used to compare pupils' national curriculum assessment, GCSE and post-16 attainment by key pupil characteristics such as ethnic group, special educational needs status and free school meals eligibility to help set and measure national indicators and targets.

(Hansard, 2010)

The cohort analysis used within this study was derived from this longitudinal database (NPD/PLASC), first more widely available in 2002 (Palmer 2011). This database was therefore an assessment and qualification policy tool (Rawling, 2001, p.101) increasingly used to support the policy themes initially introduced in the 1980s, formalised in 1992 by the Choice and Diversity white paper (DFE/WO, 1992) and continued by subsequent governments. The data was often used with limited reference to spatial diversity. New Labour argued that social context was no excuse for poor performance although there was recognition that some 'places' required more resources. To this end the NPD was used to target resources at the local level:

The inclusion of postcode data allows for residency-based analyses to help target resources as effectively as possible; for example, matched data extracts are routinely provided to local authorities to help monitor indicators and targets and inform their funding formula.

(Hansard, 2010)

At the school level government promoted the use of data derived from the NPD to measure performance both internally and externally (QCA, 1998). Planning within schools was increasingly driven by the NPD with analyses such as Raiseonline and Fischer Family Trust used to compare performance of different subjects and set performance 'targets'. The data became a major element of Ofsted' judgements about school performance and parental school preferences were informed by 'performance ('league') tables.

Over time their use by OFSTED and government became more sophisticated. Complex statistical procedures were developed to measure the Value Added (VA) and the Contextual Value Added (CVA) scores of a school to make these measures more valid and meaningful. Despite their increased importance for judging the performance of schools the data was questioned in a number of ways. VA data were questioned because it was recognised that overall school performance was strongly related to performance on entry and this was strongly linked to school location. CVA data that attempted to compensate for local contexts were questioned because of the potential for large inbuilt errors in the statistics (Gorard, 2010b) and their complexity which made outcomes difficult to understand. The use of league tables for parental choice was questioned because they reflected historical patterns (the student intake was five years previously) so were poor predictors of the performance of the current cohort (Leckie and Goldstein, 2009).

It has therefore been argued that league tables result in three types of 'consequential accountability'. Increased availability of information about past school performance may increase social segregation as some parents opt for more 'successful' schools. A second

consequence was that education authorities would either implicitly or explicitly use the data to influence change in schools (Burgess et al, 2010, p.2). A third was that schools would begin 'gaming' with the curriculum by focusing on more 'important' subjects, students at 'cut off points' (C/D borderline) and by introducing 'easier' subjects to boost performance (Hanushek and Raymond, 2005, p.300).

3. More young people are achieving qualifications, but it is no coincidence that many of the qualifications which have grown in popularity recently are not those best recognised by employers and universities, but those which carry the highest value in school performance tables. Schools have become skilled at meeting government targets but too often have had their ability to do what they think is right for their pupils constrained by government directives or improvement initiatives.

(DfE, 2010, p. 8)

These measures were therefore 'high stakes' assessments for schools that influenced funding (school income was dependent on student numbers) and could even cause the closure of schools. The schools most under pressure to meet these targets were those in deprived areas where the intake was mostly in the bottom 25% of the cohort, or where there were a number of grammar or private schools that 'creamed' the highest achievers.

## **2.5 WHOLE SCHOOL CONTEXTS: SCHOOL TYPES AND GEOGRAPHICAL LOCATION**

### **2.5.1 Introduction**

This section considers literature on the diversity of secondary schools and their patterns of geographical location in England. England has a diverse, complex and hierarchical pattern of schools with differences in student intake, governance, gender, age range, religious

affiliation and curriculum specialism occurring within and between Local Authorities (LAs). Government policies at both local and national level have been influential in determining the structure of school systems, but the differences also reflect other factors such as historical change/inertia, geographical location, leadership priorities, parental and community priorities. Over time new systems have been superimposed on previously existing systems as competing local and national policies and interest groups have sought more or less successfully to promote their own priorities. Alongside Local Authority maintained schools there are also independent schools that are not funded by the state and an increasing number of schools that are state funded but not under local authority control.

Investigating the diversity of schools was considered significant because the initial QCA project (Weeden, 2002) had discovered that geography entries were higher in some types of school.

This research which was based on the GCSE entries for geography and history for 72 local authority maintained secondary schools in one Local Authority had demonstrated there was diversity between schools with a mean entry for geography of 33.9% of the Y11 cohort but a maximum of 83.2% and a minimum of 4.3%. Entries for geography were compared with those for history because in the curriculum they were often grouped together and sometimes seen as being in direct competition.

Table 2.1: Entries for geography in one LA (Types of School)

Group A: High entry (> 40%) in both geography and history (10 schools)

This group was composed of more 'academic' schools, six selective grammar schools, two foundation and two community schools. Eight were 11-18 and five were single gender. They tended to be located in 'leafy suburbs' and the inner city schools had catchment areas that extended beyond the local area.

Group B: Large disparity (> 15%) between geography and history entries (36 schools)

Half of the schools were in this group. Twenty two had higher entries for geography. Thirty were community, two were selective grammar and two were foundation schools. Of the single gender schools four out of five boys schools favoured geography but the girls were split 3:3. Twelve out of seventeen '11-16' schools had higher geography entries. The schools were located throughout the city.

Group C: Medium entry (26-47%) for both geography and history (14 schools)

The criteria for selection here was that there was less than 12% difference in the entries and neither subject had less than 26% entry. Ten were mixed community schools and they were located throughout the city.

Group D: Low entries (both < 26%) for geography and history (12 schools)

All were community schools located in relatively deprived areas of the city either inner city or on local authority housing estates. Ofsted reports for three of the schools showed that the schools had low achievement combined with high mobility and deprivation (Free School Meals) rates. Some schools had large numbers of 'English as an Additional Language' (EAL) students.

(Weeden, 2002)

Four different entry patterns were identified (table 2.1) that appeared to be linked to the diverse types of school and their geographical locations. Geography had higher entries in 'academic' schools with a traditional curriculum structure, while it was least successful in community schools in what were known to be relatively deprived areas of the local authority (although there was no supporting evidence about deprivation).

### 2.5.2 Policy Themes: Choice, Diversity and Equality of Opportunity

The government are determined that every child in this country should have the very best start in life. The drive for higher standards in schools has been a hallmark of the government over the last decade. Now this White Paper carries this great programme of reform further forward.

Our reforms rest on commonsense principles – more parental choice, rigorous testing and external inspection of standards in schools; transfer of responsibility to individual schools and their governors; and, above all, an insistence that every pupil everywhere has the same opportunities through a good common grounding in key subjects. Few people would now argue with these principles. They are all helping to shape a more open, a more responsive and a more demanding system of education.

...

I am not prepared to see children in some parts of this country having to settle for a second class education. Education can make or mar each child's prospects. Each has but one chance in life.

That is why the great themes of quality, diversity, parental choice, school autonomy and accountability run through the White Paper. They are the way to secure what I believe to be essential – to ask the best *for* every child: to ask the best *from* every child. Excellence must be the key word in all our schools; that is what our children deserve. That is what we intend to achieve.

John Major (DfE /WO, 1992, p.iii)

The themes expressed by John Major in 1992 have dominated the last thirty years of education in England. Raising standards through the market principles of choice and diversity have been difficult to reconcile with the stated aim of equality of opportunity for all students.

More recently the issues have been restated:

Throughout history, most individuals have been the victims of forces beyond their control. Where you were born, both geographically and in class terms, was overwhelmingly likely to dictate your future. Jobs were rarely a matter of choice and normally decreed by who your father was. Opportunities for women outside the home were restricted. Wealth governed access to cultural riches. Horizons were narrow, hopes limited, happiness a matter of time and chance.

Our schools should be engines of social mobility, helping children to overcome the accidents of birth and background to achieve much more than they may ever have imagined. But, at the moment, our schools system does not close gaps, it widens them.

(DfE, 2010, p.6)

These statements recognised structural differences in society and suggested that schools would play an important part in social mobility, possibly suggesting that the ideal was to progress to middle or upper class status. The idea of equality of opportunity was loosely defined but placed a responsibility both on schools and the child themselves. Michael Gove (Secretary of State for Education, 2010) went on to identify that there were large differences in children's attainment and social skills on entry to school and that these were persistent throughout their school career, again placing responsibility on schools to correct these deficit. The contested nature of this vision of society was not expressed and there was little consideration of the ways that social structures can open up or limit possibilities for individuals (Lambert and Morgan, 2010, p.19). It appears that Basil Bernstein's statement that 'education cannot compensate for society' (quoted in Pring et al, 2009, p.202) has been forgotten in recent policy with the development of post-welfare society attitudes (Jones, 2003; Tomlinson, 2005).

### **2.5.3 Classifying School Types in England**

The history of secondary education in the last 100 years has seen increasing access to education and qualifications for all children. This was achieved by gradually raising the school leaving age which reached 16 in 1972 and will be raised again to 18 in 2015, by creating new types of school and introducing new qualifications. A major change occurred after 1945 when a tripartite system of education was created, based upon ability rather than social class. Grammar, technical and secondary modern schools were created that catered for different abilities and aptitudes but in effect it was a bipartite system because few technical schools were built. Within this system there were faith schools (largely Church of England and Roman Catholic) that had more control over their admissions and curriculum (Ball, 2008; Pring et al. 2009)

Dissatisfaction with the selection procedures for grammar schools and the limited places available saw the establishment of comprehensive (non-selective) schools between the 1950s and 1970s in most local authorities, although a few retained selection. Successive governments have continued to alter the system and introduce new schools or change the governance. One major change has been a shift towards more central government control, albeit through policy rather than direct control, more powers to individual schools and a lessening of control by local authorities. Important changes introduced in the 1990s were the ability of parents to express a preference for the school that their child would attend (school choice) and the publication of information about school performance (league tables). Other recent changes have encouraged schools to specialise in certain aspects of the curriculum (Ball, 2008). This increased the diversity of schools in a locality as



they increasingly made decisions that differentiated them from neighbouring schools. Secondary schools in the 2000s were therefore classified in a number of different ways (table 2.2).

Table 2.2: Classification categories for mainstream secondary schools

<b>Admissions policy</b> Comprehensive; Selective; Secondary Modern;
<b>Governance and funding (Type of Establishment – ToE)</b> Community; Foundation; Voluntary Aided; Voluntary Controlled; City Technology Colleges; Academies
<b>Religious Affiliation</b> Church of England; Roman Catholic; Jewish; Muslim; Other denominations; None;
<b>Gender</b> Mixed; Male; Female;
<b>Geographical location</b> Urban; Town and Fringe; Village; Hamlet and Isolated Dwellings;
<b>Age group</b> 11-16; 11-18; 13-18;
<b>Specialisation</b> Arts (can be Media, Performing Arts, Visual Arts, or combination of these); Business & Enterprise; Engineering; Humanities; Languages; Mathematics & Computing; Music; Science; Sports; Technology;
<b>Other</b> including Beacon; Leading Edge; Training;

The government used the Type of Establishment (ToE) classification based upon governance and funding for statistical analyses which gave seven mainstream school

categories (Community; Foundation; Voluntary Aided; Voluntary Controlled; City Technology Colleges; Academies; Independent).

Another attempt to capture the diversity of English schools was the eight fold classification of schools proposed by Newsam (2003) based upon performance on intake (table 2.3).

Table 2.3: A School classification based upon intake performance.

School type	Description	Student Intake
1	Super-selective (e.g. Manchester Grammar)	Most students from the top 10% of the top performers at 11+
2	Grammar	Most from the top 20% (sometimes as far as 30%/40%) performers in standardised tests
3	Comprehensive 'plus'	All abilities, but heavily skewed (by catchment area, partial selection or parental choice) to the top 50% of performance range
4	Comprehensive	More or less even mix across the performance range
5	Comprehensive 'minus'	Students of all abilities, but very few from the top 25% of the performance range
6	Secondary modern	In an area served by designated grammar schools which gets none of the top 25%, but a fair mix of the rest
7	Secondary modern 'minus'	None of the top 25% and less – sometimes far less – than its fair share of the next 25% (because such students are in types 1-6) plus students excluded or 'counselled out' of types 1-6
8	Sub Secondary modern	None of the top 25%, few of the next 25% and an intake heavily weighted towards the lower parts of the bottom 50%

This classification can be interpreted from a geographer's perspective. Location had an effect on the intake of a school because where different socio-economic groups lived influenced the student population. In cities there were few truly 'comprehensive' schools, with a balanced intake whereas in rural areas or small towns they were common. This was a function of distance between schools as rural comprehensives had large catchments and limited choice whereas urban schools closer together provided increased choice. The outcome was a hierarchy of urban schools largely based upon examination performance (Brighouse, 2003, p. 5).

#### **2.5.4 The impact of school choice on segregation between schools**

One persistent educational debate has been the impact of school type on student performance. Policy over the last thirty years provided parents with choice and increasing diversity in schools because of the belief that market forces and competition would promote improved performance and drive 'failing' schools out of the system. Research on the impact of this policy of choice on student intake has been undertaken from a number of perspectives, geographical, sociological, historical and economic.

Geographical research showed that diversity in school performance had a geographical and socio-economic dimension because of variation in attainment on entry (see for example Bradford, 1990) which led to the introduction of Value Added and Contextual Value Added measures that attempted to reduce these effects. Another study at a local scale found that 'where pupils live within a catchment area affects their attainment' partly associated with community effects and the shared attitudes of friends and neighbours

(Moulden and Bradford, 1984 quoted in Bradford, 1990: 8). A further outcome of this research was the tentative suggestion that where choice of school had been exercised children had higher attainment.

‘Good marketing or an existing good reputation may then, in itself, by attracting large numbers of motivated pupils from outside its old catchment area, improve the attainment level of its pupils.’

(Bradford, 1990)

This paper suggested that school choice was not equal since there was less choice available in rural than urban areas and parents / pupils attitudes to schools were likely to be influenced by friends and neighbours. Deprivation would also affect choice if parents could not afford to pay for transport.

These ideas have been developed over time with other reasons for the educational segregation of schools including:

patterns of residential segregation, contrasting approaches to allocating schools places (such as banding or catchment areas) and the proportion of schools not sharing their local authority approach to allocating places (such as faith-based or selective schools)

(Gorard, 2009a, p 641).

Another study (Gibbons and Telhaj, 2007) comparing stratification (segregation) in schools showed large variation in intake between types of school but little change over the time period analysed (1996-2002). Comparing different types of school to community comprehensive schools they found, as expected, selective grammar schools had a higher mean score and a narrower spread of ability while secondary modern schools had a lower mean intake and a slightly lower spread of ability. Foundation and Voluntary Aided schools also had slightly higher means and a compressed ability range. Community comprehensive

schools were the largest group and had a mean intake score lower than the mean for all schools, as was the spread of ability. Voluntary controlled schools that did not have control over admissions have mean intake scores and spread of ability similar to community comprehensive schools. City Technology Colleges that could select on the basis of aptitude and interest in science and technology, but were also required to admit the full ability range, in reality had a mean score above average and a much smaller ability range. Secondary schools in more densely urbanised settings had a narrower ability range although the authors suggested this might be as much to do with residential segregation as school choice. These schools also had much lower mean intake scores which was to be expected given what was known about 'the concentration of poverty and disadvantage in cities' (Gibbons and Telhaj, 2007, p. 1300) The authors emphasise that they had not studied stratification based on income, race, social class or other demographic factors that might have changed.

The impact of residential segregation on differences between schools has been debated further. Segregation might be increased by admission policies even if there was no selection. Two-thirds of non-denominational comprehensives prioritise admissions from the local area which means the intake reflected residential segregation patterns. It might also lead to increased segregation if aspiring parents moved into the area (Coldron et al. 2010, p.29). Cheshire and Sheppard (2004, p.423) found evidence that house prices of family friendly homes increased in areas where secondary schools were historically seen to be better suggesting that economically privileged parents were prepared to move for perceived educational benefit. It has also been suggested that attempts to reduce inequity

through engineering mixed residential neighbourhoods may not be an optimal solution for social and economic reasons relating to the economic and social capital associated with living in less deprived areas (Cheshire, 2007). Residential segregation in itself is therefore probably not the primary cause of educational segregation but reflects underlying social responses:

Rather, choice of where to live and choice of school are driven by the same mechanism of individualised hierarchical differentiation broadly correlated with volumes of economic, cultural and social resources. Solidarity with people recognised as like oneself operates powerfully to maintain both residential and educational separation (Southerton 2002). Residents of all backgrounds wish to relate to others who they perceive to be like them.  
(Coldron et al., 2010, p.28)

The large and increasing number of faith schools had different admission policies and influenced perceptions of the school (Coldron et al. 2010). They tended to have higher than average performance intake and a wider catchment area. It was suggested this was the result of admissions being school controlled and that they were more likely to draw from a restricted socio-economic group who attended church. Catholic schools however had a wider ability spread than other voluntary aided schools possibly reflecting the less affluent social profile of Catholics. Grammar schools were selective and had a lower deprivation rate measured by FSM uptake. It was suggested that 'the proximate cause of segregation here was the greater education and wealth of middle class parents combined with a greater motivation arising from the fear of downward mobility' (Coldron et al., 2010, p30). Residential segregation by ethnic grouping can also lead to some schools having students from predominantly one ethnic group (e.g. White British, Asian British)

and segregation increased if students from other ethnic groups chose different schools for cultural and social reasons.

The evidence of segregation as the result of school specialisms was less clear. Specialist schools have been introduced in the last ten years and now about 90% of schools have at least one specialist area that can influence their curriculum priorities (Davies et al. 2009). There was some evidence that schools select less than 5% of students by specialism (West and Hind, 2003) but there was little conclusive evidence that this led to more segregation of student populations (Davies et al. 2008).

Access to NPD/PLASC data enabled analysis of the segregation that exists between types of school and whether it increased as a result of the choice and diversity policies. Many critics of these policies asserted that the 1988 Education Reform Act would increase diversity and segregation in schools, while proponents argued that better information and changes to admission regulations would allow all parents to make better choices and decrease segregation (Coldron et al. 2010). The research evidence was inconclusive partly because there were significant methodological debates that will be discussed further later (Gorard, 2009; Allen and Vignoles, 2007). It was suggested that between 1989 and 1995 segregation as measured by Free School Meals fell but rose again from 1997 to 2001 and subsequently stabilised or fell slightly up to 2005. Academies were introduced by New Labour to improve the performance and change the social mix of 'failing' schools usually in inner city locations but there was disagreement about whether performance increased and they have become less segregated. The Audit Office (2010) using Free School Meals

measures suggested segregation was being reduced but was still higher than in other schools. Burgess and Allen (2010) challenged this finding by comparing the numbers of students in the lowest performance quartile and suggested that it showed little change over time.

While the evidence overall for increased segregation in schools as the result of the choice and diversity agenda was inconclusive, segregated cohorts were still an enduring feature of schools. Gibbons and Telhaj (2007, p. 1301) commented on the disparity between schools: 'the average ability of pupils going into the 'best' comprehensive schools is some 30 percentiles of the pupil ability distribution above the average ability in the worst'. They suggest that these differences reflect residential segregation, but that the disparity also fuels much of the speculation and comment about school performance. Another analysis of segregation exploring the reasons why segregated schooling persists suggests that:

Ultimately the drivers of segregated schooling are in the fundamental wish of individuals and families to optimise their social position given the resources at their disposal. While this is shared by parents of all backgrounds, existing inequalities in social position and wealth largely determine different approaches to and returns on engagement with choice of school. The great social distance between the most advantaged and the least, the benefits of solidarity and the effects of social policing lead the majority of both groups to opt for segregated schooling.

(Coldron et al., 2010, p.32)

An additional factor in the school diversity and choice debate was that alongside the state funded system there was a small (7%) independent 'public school' system which was privately financed and 'cream skimmed' the state sector. The effects geographically were uneven - for example 13% of students in Central London were educated in private schools



(Gibbons and Telhaj, 2007, p.1287) and the proportions were higher or lower elsewhere.

Differential regional patterns of education in independent schools had been identified with higher numbers in the South and differential growth in the period 1977-86 (Bradford, 1990). Suggested reasons for these changes were dissatisfaction with schools in Greater London and more people in the south being 'receptive to private forms of consumption' rather than class differences.

The conclusion to this section of the literature review is that the diverse range of publicly funded schools was best understood by analysing the geographical and historical conditions that influenced their individual development. Many of the categories used to compare schools by national government ignored the variations that existed between schools and the differences in the intake that was related to place and space, especially as the result of residential segregation. It was clear there was no such thing as a 'bog-standard comprehensive' (Campbell, quoted in Ball, 2008) but instead a diverse group of schools that reflected the communities from which they were drawn.

## **2.6 THE CONSTRUCTION OF THE CURRICULUM FOR 14-16 YEAR OLDS**

### **2.6.1: Introduction**

The Choice and Diversity white paper (DFE/WO, 1992) which developed the market principles for schools established during the 1980s, also had the aim of raising standards for all children through a National Curriculum which provided objectives and standards to be met:

1.12 ... Debate is no longer about the principle of a national curriculum but about the detail. It is about how the subjects should be developed within the National Curriculum and about the crucial testing arrangements associated with them. ...

1.13 The Government is firmly wedded to quality within the framework provided by the National Curriculum, measured by the school assessment and examination process and – very – importantly judged by a powerful and independent new inspectorate.

(DfE / WO, 1992, p.3)

These policy statements identified two elements of the KS4 Curriculum that were important for this research – how the curriculum was constructed and student performance assessed. This section will explore the social constructionist classification of the curriculum and the place of geography within that classification. While this is only one way of looking at the curriculum it contextualises some of the curriculum debates and provides possible explanations for some of the influences on patterns of entry for GCSE geography.

Between 1950 and 1980 central government did not see their role as having anything to do with the curriculum. That was for schools and teachers to determine with guidance from LEAs (Pring et al., 2009; Gillard, 2011). This was a time of change and experiment in schools as they coped with the curriculum consequences of the tripartite school system (Rawling, 2001, p.23; Higham and Yeomans, 2007, p. 284; Ball, 2008. pp.65-73). The creation of the Schools Council in 1964, maintained the government's hands off approach as a number of nationally funded curriculum projects led by educational researchers and teachers were commissioned, including two for geography (Lambert and Morgan, 2010). The impact of these projects for different subjects and schools was patchy as different

implementation strategies were adopted, but the two 14-16 geography projects reached most secondary geography departments although there was diversity in their use (Rawling, 2001).

A major change occurred in 1976 when James Callaghan opened up what was called 'The Great Debate' that led 14 years later to the introduction of the National Curriculum.

... The goals of our education ... are clear enough. They are to equip children to the best of their ability for a lively, constructive place in society, and also to equip them to do a job of work. Not one or the other, but both. For many years the accent was simply on fitting a so-called inferior group of children with just enough learning to earn their living in a factory ... there is now widespread recognition of the need to cater for a child's personality, to let it flower in the fullest possible way. The balance was wrong in the past. We have a responsibility now to see we do not get it wrong in the other direction  
(Callaghan, 1976)

This speech referred to the differentiated often inadequate and socially determined curriculum of the past and implied that education should now be for all. The traditional curriculum had three strands academic, vocational and occupational that were linked to social classes. It has been argued that these divisions still persist today although the classification is now framed in terms of ability (Pring et al., 2009).

As already discussed one debate has been about how to cater for different needs and abilities while ensuring that every student has equality of opportunity. Education policy for 14-16 year olds over the last thirty years has promoted 'increased choice, flexibility and differentiation' while being driven by the twin aims of increased social inclusion and international economic competitiveness (Higham and Yeomans, 2007, p.281). The aim has

been to motivate and engage more students to participate in education to a higher level. This has been associated with greater expectation that all students will gain qualifications as alternative vocational and occupational routes into the workplace have disappeared. The social constructionist curriculum classification (Young, 1998; table 2.4) has some overlaps with the traditional three fold curriculum classification with vocational and occupational grouped in the type 2 curriculum. It also introduces a third type of curriculum that places more emphasis on pedagogy and less on subject knowledge. There are other more epistemological views of curriculum such as those of Hirst (1965, 1974) (quoted in Rawling, 2001, p. 20) who argue that there is an underlying structure of knowledge known as ‘forms of knowledge’ that determines the scope of major long established disciplines such as mathematics. Geography in this view is a ‘field of knowledge’ because it does not have such tight underlying structures. This view of curriculum was not used in this analysis.

Table 2.4: Social Constructionist Classification of Curriculum Types

<b>Type of curriculum</b>	<b>Type 1</b>	<b>Type 2</b>	<b>Type 3</b>
Blyth (1967)	Preparatory	Elementary	Developmental
Skilbeck (1976)	Classical humanist		Progressivism
Lawton et al. (1978)	Subject-centred/ knowledge-centred	Society-centred	Child-centred
Goodson (1987)	Academic	Utilitarian	Pedagogic
Golby (1989)	Liberal humanist	Technocratic	Child-centred progressivism
Ross (2000)	Content-driven	Objectives-driven	Process-driven

(after Ross, 2000:98)

The type 1 curriculum which had its origins in the traditional curriculum of the English Public and Grammar Schools was originally intended as a curriculum for the ruling class designed to prioritise particular types of learning and to pass on a traditional view of a class divided society (Ross, 2000). The type 2 curriculum was appropriate for the aspiring working class who were being prepared for a specialised trade and would contribute to the economic well-being of the country. Type 3 developed during the 20<sup>th</sup> Century as a reaction to the rigid structures of the type 1 and type 2 curricula as applied in schools in the early part of the century (table 2.5).

Table 2.5 Characteristics of different types of curricula

Type 1 – The academic, content-based, curriculum ... has ‘clearly demarcated subjects, classified by ...subject knowledge ...’ (Ross, 2000: 3) This type of curriculum has high-status and reflects the knowledge appreciated by elite interest groups. This high-status is often so encultured that all groups in society prioritise it over other types of curriculum.

Type 2 – The utilitarian, technocratic, objectives-driven curriculum ... aims to prioritise the needs of society and preparing students for work so there is a strong vocational component, but as result may have low status. One of the arguments for its promotion is that there is a skills deficit in the workforce that can be attributed to an inappropriate curriculum in schools.

Type 3 – the child-centred, progressive, process-driven curriculum claims to be determined by the nature of the learner rather than the artificial boundaries of subjects. Many of its advocates have developed this type of curriculum as a reaction against the constraints and boundaries of the academic curriculum. This does not mean the pupil has total freedom to determine the direction of learning but that the learner is guided and closely supervised by the teacher.

(Young, 1998: 138).

### **2.6.2 The place of geography as a subject within the curriculum**

Throughout its history as a school subject geography re-formulated itself to justify a place within the curriculum and there were usually a number of diverse approaches co-existing at the same time. There was always a type 1 academic curriculum followed by the majority of schools, if entries for different examination specifications are a guide, but elements of each type of curriculum can be found in geography teaching today as different traditions have competed for influence (Rawling 2001, p.32):

Geography – as a school subject – provides a way of helping young people in schools to learn about and reflect on aspects of the world. This engagement with the world means that geography is constantly changing as society changes although as we will see, this connection is not simple and straightforward. This is true of other school subjects such as history and English too, though of course they look at the world through different perspectives and with different methods. This is another way of saying that the school curriculum is a reflection of the culture of society. It is a selection from that culture and, as such, there are always arguments and discussions about how that selection should be made, and who gets to decide.

(Williams, 1961, quoted in Lambert and Morgan, 2010, p.3)

Geography's type 1 place in the curriculum at age 14-16 was partly established by its place within the examination system. Geography was one of the first school subjects examined by the Universities of Oxford and Cambridge examination boards established in the late 1850s. It was taught in many elementary schools and was one of the subjects included in the first guidance from central government in 1904 (Annual Regulations for Schools). It was also included in the general and higher certificate examinations from 1917 and 1922 respectively (Walford, 2001, pp.83-85). During the 1920s and 30s it became established as a subject in Grammar Schools but 'did not yet... have the cachet of

being a subject suitable for first class brains' (Walford, 2001, p.141). It was also not so popular in independent schools.

The original subject based examinations (GCE O-level, 1952) were limited to students in grammar schools (Walford, 2001). When CSE examinations were introduced in 1965 geography was one of the most popular subjects and there were opportunities for local curriculum development through consortia of schools or even by individual schools. It has been suggested the introduction of CSE examinations had two contradictory effects. One was to strengthen the divide between academic teaching (GCE O-level) and non-academic (CSE) and led to increased segregation in schools through the use of streamed classes. On the other hand it led to teachers asking questions about the most appropriate curriculum for different groups of students and the promotion of new approaches in geography (DES, 1973; Lambert and Morgan, 2010, p.11-12). This was supported in the 1970s by two Schools Council curriculum development projects which saw new approaches to geography teaching being developed and successfully implemented by many teachers (Walford, 2001, p175-178). These two projects covered the whole range of abilities with one curriculum project being originally targeted at 'O'-level (Bristol 14-18 project) and the other at lower ability students (Geography for the Young School Leaver). However it has been suggested that these projects 'had the potential to engage with a range of economic, social and cultural changes', but relied too much on academic geography and found it hard fully to address the question of 'whose geography?' which led to the subject being socially selective (Lambert and Morgan, 2010, pp. 19-20).

The development of comprehensive schools in the 1960s and 70s might have led to a common curriculum for all but tended to perpetuate diversity because there were curricula for different groups of children (Ball, 1981; Benn and Simon, 1970, quoted in Higham and Yeomans, 2007 pp.284-285). Students were channelled into 'appropriate' courses and there were descriptions of the subtle and not so subtle mechanisms used to differentiate students (Ball, 1981). At the subject level there tended to be less curriculum diversity within geography compared with other subjects such as mathematics, but not all students were given the opportunity to study the subject.

There were three criticisms of what was happening. Firstly the lack of central government control or knowledge of the curricula in schools was causing concern at a time of economic uncertainty. Secondly the concepts of 'breadth and balance' were gaining ground as ways of judging curricula from the DES, the inspectorate and academic curriculum theorists. Thirdly comprehensive schools themselves were beginning to expand their core curriculum, sometimes associated with a move to mixed ability teaching. These strands began to lead to a rethinking of the curriculum and demands for 'a comprehensive (common or core) curriculum for comprehensive schools' (Higham and Yeomans, 2007 p.286).

There were other more vocationally based (type 2) initiatives developed during the 1980s and 1990s with the development of a number of qualification and curriculum initiatives such as the Certificate of Pre-Vocational Education (CPVE), the Technical and Vocational Education Initiative (TVEI), The Geography, Schools and Industry Project (GSIP) and



General National Vocational Qualifications (GNVQ) (Sutton, 1996). Some geographers played an active part in these initiatives but they were all relatively short lived and were of less direct importance for geography in the long term than the changes in the more academic GCSE qualifications.

The 1960s and 1970s saw the development of approaches to organising the curriculum that challenged the subject based curriculum. These led to humanities, social studies and environmental studies courses, developments that tried to link different subject areas (Goodson, 1993; Lambert and Morgan, 2010, p10). These initiatives were often locally based, for example there were strong humanities traditions developed in LEAs such as Leicestershire and Bristol. Sometimes they resulted in examinations but they were also formalised in schools by the creation of Humanities departments where subjects were linked. In recent years there have been type 3 challenges to subject based approaches through initiatives such as 'Opening Minds' (RSA, 2011) and 'Learning to Learn' where the emphasis is on pedagogy more than subject knowledge (Lambert, 2009).

The National Curriculum and GCSE discussed in sections 2.4.4 and 2.4.5 appeared to enshrine geography within the type 1 curriculum elite and to impose uniformity through the creation of a common curriculum framework. However there was still opportunities for diversity both within the management of the overall curriculum in schools SCAA (1995) and QCA (1998) and within subjects by the creation of different examination specifications. Diversity within the subject was developed further in 2004 when a pilot GCSE was introduced that incorporated both academic and vocational elements and an

innovative approach to assessment (GA, 2006). This pilot was short lived although some elements were incorporated into GCSE specifications introduced in 2009. Geography as a subject has therefore tended to fit more comfortably with the academic, type 1 curriculum although there have been attempts to broaden its appeal and even within this tradition there were many different approaches:

The new specifications offered by the A(warding) B(odie)s give the opportunity for geography teachers to choose from a number of contrasting perspectives on the subject. The subject content shows great variation and appears to allow teachers the chance to develop courses which will allow for personal interests and expertise to inform relevant and exciting geography.

(Johns and Wood, 2008, p.106)

## **2.7 TEACHER AND DEPARTMENTAL INFLUENCES ON SUBJECT CHOICE**

### **2.7.1 Introduction**

The literature reviewed in this section looks at both the quality of geography teaching in the classroom and more general literature on the way that subject leaders influenced the strategic direction, popularity and status of the subject. During KS3 students normally studied at least twelve different subjects and were taught by many different teachers. Their perceptions of subjects were influenced by the quality of teaching and their opinion of their teachers.

Over the years an extensive practitioner literature on approaches to teaching the subject and ways to make it interesting and appealing to students developed. Much of this literature originated from the Geographical Association (GA) and drew more on the personal experiences of academics, teacher educators and teachers than evidence based

research (see for example Bailey and Fox, 1996; Balderstone, 2006). This was supported by journals such as *Teaching Geography* and more recently the Action Plan for Geography (APG), a government funded project that ran from 2006-2011 which produced an extensive range of materials and CPD activities that are largely web-based (APG 2011). This literature demonstrated the range of approaches and content used in the classroom. Different authors have examined the current position of geography teaching through historical and analytical overviews of the different ideological and geographical traditions (for example Hall, 1976; Marsden, 1995; Rawling, 2001, p.32; Lambert and Morgan, 2010). There is not space to rehearse the arguments and discussions here or to examine the changing approaches over time but the idea that approaches to the content, pedagogy and mission of geography were diverse, contested and might result in differences in entries was an area considered for investigation.

Over the last twenty years there has been discussion about 'scholarly teaching' (Brooks, 2010) and 'What it means to be a teacher of geography' (Lambert and Morgan, 2010) where teachers were able to use their subject knowledge effectively to provide interesting and relevant geographical experiences that encouraged students to study the subject. One debate (Marsden, 1997) considered the relative importance of Mission (educational aims), Method (pedagogy) and Matter (subject) and suggested that over time there were imbalances between the three. For example if the focus was too much on pedagogy then students would do lots of exciting and interesting activities but learn little. Marsden argued that the issues based education of the 1980s lost sight of the subject and focused too much on pedagogy and social purpose. At the beginning of the 1990s the first National

Curriculum orders only contained content and provided little idea of mission or pedagogy (Brooks, 2010, p.67). Instead it appeared they were being turned into technicians 'delivering' content imposed from outside (Lambert, 2004).

The relevance for this study is that 'good' teachers and departments appear to have a significant effect upon entries but pinning down what this meant in terms of teaching in the classroom and organisation of the department proved beyond the scope of this research. The evidence from the literature presented here therefore focuses more on the activities and strategies that make subject leaders and teachers more effective.

### **2.7.2 Reasons for the decline in entries for geography**

There was relatively little 'hard' evidence in the literature to identify reasons for entry trends for geography. There was speculation from the Royal Geographical Society (RGS, 2000) with a report on exam entries:

Geography – on the edge?

The reasons for the decline in Geography candidates ... at Key Stage 4 in the mid-1990s are well documented. However it is difficult to see why Geography is still declining in entry numbers when subjects such as History, Art and Design, Drama and a second modern foreign language, for example Spanish, are maintaining or even increasing their numbers.

(RGS, 2000, p.1)

Analysis of the comments from this report demonstrated the limited evidence and the way that speculation can become received wisdom:

The fact that Geography has a tiered entry system at GCSE when History has a single entry level may deter some pupils from taking the subject. Although the decision about level of entry does not need to be made until half-way through

the second year of the course, the fact that it is often taught at both levels in a mixed ability class situation may make the subject seem too difficult to some students. This idea is then passed on to students in lower years.

(RGS, 2000, pp.1-2)

While this speculation might be true there was little supporting evidence for the comments. Possible sources for statements like these might come from research into the impact of mixed ability teaching but there was no evidence presented for this. It might come from conversations with teacher(s) who have speculated about the situation in their school, it might be influenced by the commentator's views on mixed ability teaching or might even be the result of their experiences with their own children. While these ideas provided some potential avenues for investigation the implication for this research was that generalisations like this should be supported by the responsible use of data (Gorard, 2002).

Another comment on teaching quality from Ofsted provided several other possible explanations.

Recent OfSTED reports have shown that the quality of teaching in Geography at Key Stage 3 is not as good as other Humanities subjects. This may affect students when they are making their decision as to which GCSE subjects to study. There could be many reasons for this poorer quality teaching but there is evidence to show that teaching at Key Stage 3 is not always undertaken by subject specialists. Recent recruitment of Geography teachers has been difficult due to the shortage of teachers in this area and this may result in non-specialists teaching the subject in the crucial year of choosing GCSE option subjects. Geography is often taught in the Humanities Faculty in maintained schools and adverts in the TES indicate the Head of Humanities is often a Historian!

(RGS, 2000, p.2)

The statement that the 'quality of teaching of geography is not as good as other humanities subjects' became 'received wisdom' and was frequently quoted. The source of this data should be reliable since it comes from the national inspection service (Ofsted) but it is dangerous to take statements like this entirely at face value as 'secondary data can be used to make powerful and often contentious comparisons between different groups...' (Smith, 2006, p.34).

For example Ofsted summary reports on the 'state of geography', based upon formal observations in classrooms and departments may have an additional 'political' purpose associated with school improvement and influencing policy. In their report, 'Geography in secondary schools' (Ofsted, 2005a) there were 'factual' statements derived from lesson observations about the quality of teaching at Key Stages 3 and 4 and judgements at least partially based on the perceptions of the author(s) about the quality and content of GCSE specifications that might be judged as having political intent.

Other suggestions came from subject officers at QCA who speculated from their annual surveys and data analysis that that the fall in entries was the result of the curriculum offered, the over-use of one textbook, the result of teaching by non-specialists or geographers with other responsibilities or increased competition from new subjects and vocational qualifications (Westaway and Rawling, 2001). Evidence from individual schools included reports that changes to the option system were reducing numbers in successful geography departments (Dowgill, 1999).

Overall therefore the evidence about the reasons for the fall in numbers was limited.

Official reports had status and weight associated with their origin. They provided some possible reasons for the decline in numbers but were also attempting to exert influence over government to change policy. Data can be manipulated by those in power so should still be open to the same scrutiny and scepticism that research documents from other sources should receive (Smith, 2006, pp. 26-33)

### **2.7.3 Subject leadership within a school**

The process of subject choice meant that in year 9 'optional' subjects were competing for limited resources (students). In many schools the option choice structure tried to limit overt competition but in reality competition existed because students were being asked to make choices between subjects and they were making their decisions in more or less rational ways. This section considers some literature on the way that effective subject leaders can exert influence within their department and the school.

The geography literature on promoting geography in schools (Kent, 1999; GA; 2011a, b) was largely practitioner derived giving practical examples of strategies to encourage students to take the subject. They focused on 'marketing' the subject to a variety of different audiences and promoting its place within the school through emphasising the relevance and topicality of the subject. One emphasis was increasing accountability and scrutiny of examination results and the impact of management decisions about option blocks (Cambers, 1996, p.273). There was also considerable emphasis upon development

plans, self-assessment, acting as a leader within the department and a two way communicator between SMT and the department.

These subject specific ideas can be placed within the broader more empirically derived school effectiveness literature which suggested that good schools were led by head teachers who enabled their staff to perform and subject leaders did the same for their departments (Harris et al, 1996; Sammons et al, 1997) where they create positive subject cultures by their management, leadership and influence. As middle managers subject leaders were responsible for the operational work of classroom teachers and strategic development of the subject.

One method of influencing departments was a rational technicist model derived from business. This controlled and influenced school performance and teachers' practice through emphasising organisational structures (Ball, 1999, p.197) rather than teacher or pupil needs (Fielding, 1999a in Busher and Harris, 2000).

Thus subject leaders might influence strategic direction and development of the subject, teaching and learning, lead and manage staff and effectively deploy staff and resources. Critics of the rational organisational model suggested that successful subject leaders needed to employ other factors including moral and value dimensions (Hodgkinson, 1991) and political processes within organisations (Blase and Anderson, 1995) to develop the position of their subject. There was therefore debate about how subject leaders actually promoted better performance in their areas of responsibility.



The personal qualities of individual subject leaders mattered (Greenfield and Ribbins, 1993) because they were important in creating social cohesion, reducing disaffection and promoting change. Their leadership role however could be complicated because of the web of managerial relationships operating within schools as they managed members of the SMT and were managed by pastoral or other academic subject leaders.

Busher et al (2000) identified five dimensions of the subject leader's role:

- **bridging or brokering**, a transactional role with senior staff and colleagues where they use power to get working agreements on subject and school goals. Their influence is partly dependent on number of students taking the subject.
- **Creating social cohesion** using a transformational leadership style that is people oriented and empowers others to create a shared vision of successful practice. Ideally they will help others alter their feelings, attitudes and beliefs and cope with organisational structures
- **Mentoring** which aims to improve staff and pupil performance through supporting professional development. It encourages critical and communal reflection on practice.
- **Creating professional networks** which requires awareness and involvement with outside bodies, including liaison with public examination and subject knowledge associations, knowledge of changing government policy and liaison with local authority support and parents
- **Using power** within and through organisational structures

The extent of the subject leaders' influence within the whole school therefore depended on their ability to influence senior managers by using their power within the school system. It was suggested this would partly depend on the age and influence of the subject leader (Busher et al., 2000).

Geography departments tended to be small and were placed within a federal, confederate or impacted structure (table 2.6) which might affect their status within the school. Even if they were within a federal structure they could wield less power than a science department because external perceptions gave them lower status. Within both federal and confederate structures there were likely to be rivalries for status which might affect option choices. In the department context there were national and school structures that impact on subject choice. Senior management decisions about timetabling, resourcing and staffing could therefore affect a department in ways they might have little influence over.

Table 2.6: Typology of departmental structures

Area	Characteristics
Federal	Multi-subject; large (staff, rooms, budget) strong centre with integrated domains (science faculty)
Confederate	Similar to federal, but a weak centre; subdomains hold key power and collaborate (or not) over resources; an administrative convenience
Unitary	Single subject but large (staff, rooms, budget) Leadership and management functions can be shared corporately by members
Impacted	Single subject small (staff, rooms, budget); Can form part of a federal department or be free standing
Diffuse	Single subject or focus; taught across subject areas/most classrooms; Small/large combination (taught in one room by many teachers or in many rooms, sometimes by one teacher only)

(Busher et al, 2000)

Structural changes to the option system could have a profound negative influence on the numbers opting for geography even where the subject had previously been very successful (Dowgill, 1999; Weeden 2005a). Successful and more powerful subject leaders were likely to respond strategically by ensuring their interests were understood by senior management decision makers. This might involve lobbying with evidence derived from

school level data at review meetings or engaging in dialogue with option choice managers (Howes, 2009).

In summary therefore teachers and subject leaders had an important influence on students' perceptions of and interest in the subject. If the quality of teaching, organisation of the department and curriculum experience was positive then students were more likely to study the subject. Geography was most successful where there was a stimulating, challenging, enjoyable KS3 geography experience, good GCSE results and good reports of geography in years 10 and 11 circulating on the school grapevine (Weeden, 2002, 2007a). Effective geography subject leaders promoted the subject in a number of different ways within the school but might be hampered by the relative status and influence of the subject within the school aims and priorities.

## **2.8 STUDENT DECISION MAKING**

### **2.8.1 Introduction**

Student decisions were at the centre of the option choice process so it was important to understand both the explicit and implicit reasons for subject choice even though this became only a limited aspect of the research. While the subject (option) choice process in most schools appeared relatively simple in reality there were a variety of direct or indirect influences on students. This area of literature was researched extensively in 2004-2005 when the Royal Geographical Society commissioned a report on students' perceptions of geography in preparation for a bid to the government for funds for the Geography Action

Plan. The main findings and early results from the option choice research formed the basis of a journal article for Geography (Weeden, 2007a).

One starting point was the recognition that students have a unique experience of schooling. Their approach to learning was the result of their own individual abilities, interests and motivations, their life experiences and their interactions with the institution. A policy analysis perspective suggested there were two types of 'incentive' that affected decision making about courses to follow (Keep and James, 2010, p.4-5). The basic premise was that there were push and pull factors influencing decisions about investing time, energy and money in learning:

- Push factors include the 'resources, expectations and social relationships which enable and sustain learning'. These might include financial support of any kind and social support which encourages students to engage with learning or provides opportunities such as books and educational learning opportunities.
- Pull factors are the 'opportunities both to learn and to then utilise that learning, either for personal pleasure (intrinsic reward), to benefit others (altruistic reward), or for tangible gain through some form of paid employment'

(Keep and James, 2010, p. 5)

These push and pull factors lead to two types of incentive that will be more or less important for different individuals.

- Type 1 incentives are where there are positive attitudes to learning as the result of intrinsic interest. They are related to 'curriculum, pedagogy, assessment regimes and opportunities for progression'.
- Type 2 incentives come from rewards that are generated in wider society and are external to the learning process. They may come from pay rewards, cultural and parental expectations about the value of learning, career progression, social status and labour market regulation that require particular qualifications for access to jobs.

(Keep and James, 2010)

Studies that were focused on the students' voice (see Stables, 1996, pp. 23-28 for the details of pre 1990s research; Adey and Biddulph, 2001) reported the following factors were important for students' decision making:

- their liking for or interest in the subject, in terms of subject content and their response to the pedagogy used by their teacher (section 2.8.2);
- their conception of the usefulness and importance of the subject (section 2.8.3);
- their ability and success in the subject (section 2.8.4).

The three different approaches to understanding student decision making overlapped and complemented each other because while they provided slightly different perspectives and research contexts the outcomes were similar. The next section is organised using the three headings (liking for and interest; usefulness and importance; ability and success) and will focus on the literature relating to geography. The final area considered will be the literature on 'causal' factors that affected subject choice such as gender, social background, influence of important others, careers advice and economic circumstances.

### **2.8.2 Students' liking for and interest in the subject**

Students reported that liking a subject and being interested in it were major influences on their decision making. Very few studies attempted to report or analyse the ways that interest was created but there was an emerging literature that identified two underlying constructs, 'individual' and 'situational' interest that have been relatively clearly conceptualised and a third less well defined concept of 'topic' interest (Trend, 2005).

Individual interest was conceptualised as being ‘the interest held by learners which they bring to any new learning experience’ while situational interest was developed through significant experiences that stimulated individual learners to engage with particular subject content. There was clear evidence that teacher interventions could influence students’ interest in both positive and negative ways (Trend, 2005 p. 277).

While Trend was the only author that classified interest in this way other authors commented on the difficulty students had in separating liking for subject content from enjoying the activities that they were doing (Adey and Biddulph, 2001: p. 445; Biddulph and Adey, 2004: p. 3; Norman and Harrison, 2004)

The interrelationship between situational and individual interest appeared to be an area worth further investigation. Students who are already interested in a topic appeared to be unlikely to lose interest even if the learning activity was boring, but where they come to a topic with no prior knowledge or individual interest then the learning activity can play an important part in developing more robust on-going interest (Trend, 2005: p. 280).

Most studies reported students’ likes and dislikes in broad terms and rarely referred to the specific themes or places of the Geography National Curriculum.

Geography is learning about the world, how it works and the people in it. ... I like learning about natural disasters best because they have a big effect on the world. ... Geography is about things in the news and important things because earthquakes and volcanoes are always in the news.

(Zoe quoted in Hopwood, 2004 pp. 356-7)

Zoe's vision suggested that some geographical topics were inherently more interesting to students and showed how individual interest in a topic could be strengthened when students were able to make connections with personal life experiences ('... my mum lived by the sea...').

The subject content of geography was generally liked but some topics such as physical geography, weather and mapwork (Norman and Harrison, 2004) appeared to divide students into groups that like or dislike them.

Overall the 'content' of the subject generally came in for little criticism although one study reported that KS4 students enjoyed learning new aspects of subject content rather than revisiting a previously studied topic in more depth (Biddulph and Adey, 2003). However there was also evidence that students have unclear conceptions of geography (Hopwood, 2004; Biddulph and Adey, 2003). This might reflect their perception that geography was a "subject with no overarching or unifying theme or concept" or it might be the result of limitations in the data collection methods (Hopwood, 2004).

Pedagogy with its links to situational interest had an impact on students' perceptions of the subject with students moving from a position of neutrality about topics to one of positive interest as the result of different teaching approaches. The importance of pedagogy rather than subject content was striking in all the studies.

Most students reported enjoying learning where the lesson had them actively involved in activities. Overall they wanted variety in the methods and approaches used in geography lessons. Many also liked activities that challenged them and encouraged their thinking (Adey and Biddulph, 2001; Norman and Harrison, 2004, Trend, 2005). Students did not like being passive recipients of knowledge. They disliked geography lessons that relied mainly on writing and it is possible that the kind of writing most experienced by students at KS3 may influence their perceptions of the difficulty of the subject (Adey and Biddulph, 2001: p. 449).

In general the literature suggested that geography was successful in competing with other subjects when it was relevant, topical, up to date, reflected the cutting edge of geography, was fun and interesting. However even where these conditions were met and students had expressed an interest in studying geography many opted for other subjects because they 'preferred' them in a limited option choice system (Adey and Biddulph, 2001, Fraser, 2005). This emphasised the role of the 'quasi-market' in any subject choice system where students have to make often difficult decisions between subjects.

Students' perception of geography as a GCSE subject was important in their decision making. There was evidence that students perceived geography as a demanding subject that involved a lot of reading and writing (Biddulph and Adey, 2003). This had implications for the way geography was presented to those who have difficulty with literacy skills but had a good conceptual understanding (Adey and Biddulph 2001). Perceptions of coursework were mixed. Some students and teachers regarded it as a selling point while



others considered it a handicap (Biddulph and Adey, 2003 Weeden, 2002, Baynham, 2005, Fraser, 2005).

GCSE students found 'geography was significantly different' from KS3 and that it was a demanding subject compared with other GCSEs (Biddulph and Adey, 2003). Changes from KS3 included an increased emphasis on 'issues' and expressing their own opinions which was challenging and difficult at first. A more objective comparison with other GCSE subjects placed geography as easier than single sciences and modern foreign languages, similar to mathematics and English but harder than media studies, sport, design-technology and vocational qualifications, although it recognised there might be other factors such as motivation and curriculum time involved as well (Coe, 2008).

### **2.8.3 Students' conception of the usefulness and importance of the subject**

The subject choice literature suggested some students make choices based on their perception of the potential of subjects for future careers or lifelong learning because '...usefulness for a future career was given more weight than the criterion of liking or general interest' (Ryrie et al., 1979; Stables and Wikeley, 1997). There was evidence that the majority of students felt that geography would be useful in future careers or for life skills (Adey and Biddulph, 2001; Fraser, 2005; Hopwood, 2004; Norman and Harrison, 2004) but when asked to qualify their answers their understanding of 'usefulness' was ill-defined.

Other studies specifically investigated the skills that students' perceived they gained from studying geography. Map reading was the commonest skill associated with geography and in terms of perceptions of life skills was seen as important for students who want to be pilots, work in the leisure industry or travel. All of these studies were undertaken prior to the common use of satnav technology so it may be that this perceived need is now less important. A further key skill was the ability to listen to other viewpoints and be open-minded about problems and issues that affect the world (Hopwood, 2004).

#### **2.8.4 Students' ability and success in the subject**

There was very little in the literature reviewed about the importance of 'success' in the subject on students' option choices. However the regular reporting of performance allowed students to compare how well they were doing in subjects before they made their choices. Adey and Biddulph (2001) found that 10.6% of students reported being influenced in their choices by the school pass rate for geography.

The issue of comparability of standards between subjects was problematic because although the GCSE grades attained in different subjects were accepted as common currency and therefore 'represent the same standard of achievement', in reality the awarding bodies administering these examinations know differences exist and have attempted to alleviate them through the use of statistical techniques (Coe, 2008, pp. 609-10). The detail of the arguments about comparability are beyond the scope of this literature review but have been discussed extensively (Coe, 2007). There is however still a

requirement for awarding bodies to establish comparable standards as part of the code of practice for national examinations:

The awarding body's governing council is responsible for setting in place appropriate procedures to ensure that standards are maintained in each subject examined from year to year (including ensuring standards between GCE and VCE qualifications in similar subjects and between GCSE and GCSE in vocational subjects are aligned), across different specifications within a qualification, and with other awarding bodies. (QCA, 2004a, para 1)

(Coe, 2008, pp. 209-10)

Establishing comparable 'standards' was important because GCSE grades were used for comparing the performance of schools in 'league tables'. In reality equivalence is slippery and difficult to achieve (Goldstein and Cresswell, 1996; Coe, 2008, p. 610-11). The implications were profound however if students, teachers and parents believed that some subjects were easier than others because this might influence their decisions about subjects to study.

In any system where the same grade in different subjects is accorded equal value, and where either students have a choice about which subjects to enter or schools have a choice about which to offer, there must be an incentive for candidates to take subjects in which their chances of success are greatest.

(Coe, 2008, p.632)

### **2.8.5 Causal or explanatory factors**

Some of the literature also attempted to identify causal or explanatory factors that influenced subject choice. A note of caution: It is relatively easy to establish relationships between variables, but more difficult to know if they were causal or whether there were other 'hidden' variables that were the real causal factors. The areas covered will be

gender, social background, influence of important others, careers advice and economic circumstances.

The influence of gender on subject choice has been extensively studied. Equal opportunities legislation in England in 1975 removed some of the barriers to studying 'gendered' subjects but there were persistent patterns. Studies of student preferences found gender differences (Pratt et al, 1984; Bell, 2001; Stables and Wikeley, 1997; Colley and Comber, 2003) with the traditional male preferences for maths, PE, ICT, physical science and male craft subjects and female preferences for drama, English, Modern Foreign Languages, history, art and female craft subjects still in existence. These differences may be explained by persistent gendered views of society or gender personality traits (Stables, 1996).

An academic quantitative investigation into the influence of social background and gender using Yellis data found differential effects for six different subjects (Davies et al. 2008). Social background was more important than gender for history and business studies and for females rather than males. They found that there were between school differences that reflected the intake of students. The proportion of students eligible for free school meals had a significant effect on the entry for history, geography and German suggesting that social background may have a direct influence on interest, motivation and aspirations and concluded that policies designed to increase subject choice within and between schools would increase the effect of socio-economic differences.

The Nuffield Review of 14-19 education (Pring et al. 2009) developed these ideas further and drawing on a range of data provided a critique of recent policy initiatives. They suggested National levels of attainment at GCSE were predictable based on gender, social class and ethnicity (Pring et al. pp. 64-65) and reported concern that levels of attainment amongst some social groups or geographical areas remained persistently lower than in other developed countries. Policy had sought to emphasise the importance of education, training and skills but the problem had proved persistent. Policy makers had promoted vocationally oriented qualifications (NVQs, GNVQs and the short lived Diplomas) but employers and students were often less enthusiastic (Pring et al. 2009, p. 135).

It was suggested that there were strong links between subject choice and family background / local economic conditions (Payne, 2003). The expectation that qualifications were necessary had become more universal although there were still 5% of students in England in 2007 who reached age 16 without any qualifications. There were strong links between poverty and educational achievement and recently a decrease in social mobility (Goldthorpe and Mills, 2004, quoted in Pring et al. 2009, p.32). There was a clear relationship at national level between parental occupation and performance at GCSE. Students with parents who had a 'higher' status parental occupation were more likely to follow the academic 'royal route' through to A-levels and university (Pring et al. 2009, p.48).

Adults and systems influenced students in their decision making. Schools and teachers gave explicit or implicit messages about subject importance, difficulty or appropriateness

for particular students. Parents, peers and other adults conveyed messages about the subjects that students might study as the result of family or community expectations and aspirations. One area of potential interest that was under-researched was the relative weight that students attached to advice from different sources and the ways that advice was communicated. Students appeared to consider parental advice to be far more important than teacher advice (Reid et al, 1974; Ryrie et al, 1979; Bardell, 1982) and that any advice would take the form of 'subtle messages received over time' (Adey and Biddulph, 2001, p. 443).

Students received information about the usefulness of subjects for future careers as the result of school career guidance and their personal desire to seek out extra information. A number of commentators and researchers have recently attempted to influence policy making in this area (Pring et al. 2009; Keep and James, 2010; Wolf, 2011). They have highlighted the promotion of low level vocational qualifications at age 16 which appeared to have been of little benefit and more for accountability purposes (Wolf, 2011, pp.7-12). There was criticism of the quality of advice provided to students and the way that students were allocated or guided towards particular courses (Pring et al., p.165-7). It was speculated that policy makers attempting to increase social mobility and teachers giving the advice in schools had themselves usually followed the 'royal route' through A-levels to university and assumed this would work for everyone (Pring et al, 2009, p.148).

Finally there was evidence from the geography literature that students had limited information about the reality of jobs and made limited connections between subjects and

future careers for example seeing geography as useful for airline pilots or lorry drivers (Biddulph et al, 2003; Norman and Harrison, 2004). The geography community has attempted to promote more knowledge and realistic expectations of potential careers through publications (GA, 2011a) and the 'geography ambassadors' scheme run by the Royal Geographical Society (RGS, 2011).

### **2.8.6 Conclusion**

The economic / management / policy literature identified two types of incentive that were factors in subject choice. Type 1 incentives related to factors that promoted a positive attitude to learning and these were replicated by students who reported their choice of subjects was directly influenced by factors such as interest, usefulness or success in the subject. Type 2 incentives were societal rewards and were external to the learning process. These were pay, social status, family expectations towards learning or required qualifications. Students also reported they made decisions that were influenced by their life history and experiences. Individual students adopted different strategies when making decisions. They gathered evidence to a greater or lesser extent and weighed up the options available to them. The outcome was that students made decisions using logic, reason and guidance or without much thought (Wright, 2005).

## **2.9 MODELS OF OPTION CHOICE AND THE CONCEPTUAL MODEL**

### **2.9.1 Introduction**

Providing students with the opportunity to 'choose' subjects to study between the ages of 14 and 16 (KS4) has a long history in England and is in contrast to many other countries

where tracking of students based upon ability tends to be more common (Stables, 1996, p.4). The advantages and disadvantages of early specialisation have been debated extensively for many years and there have been a number of different national initiatives aimed at raising 'standards' (Pring et al, 2009, pp. 2-3). The range of subjects and courses on offer varied from school to school along with the process by which the choices were made and subjects allocated. Since 1990 there has been a statutory National Curriculum framework that all local authority maintained schools must work within. The statutory framework changed over time but the version that was in existence following the Education Act 2002 is shown in Table 2.7. Independent schools, including City Technology Colleges and Academies were not restricted by this framework, although most used it as a guideline for constructing their curriculum.

Table 2.7: Key Stage 4 Statutory requirements (post 2002)

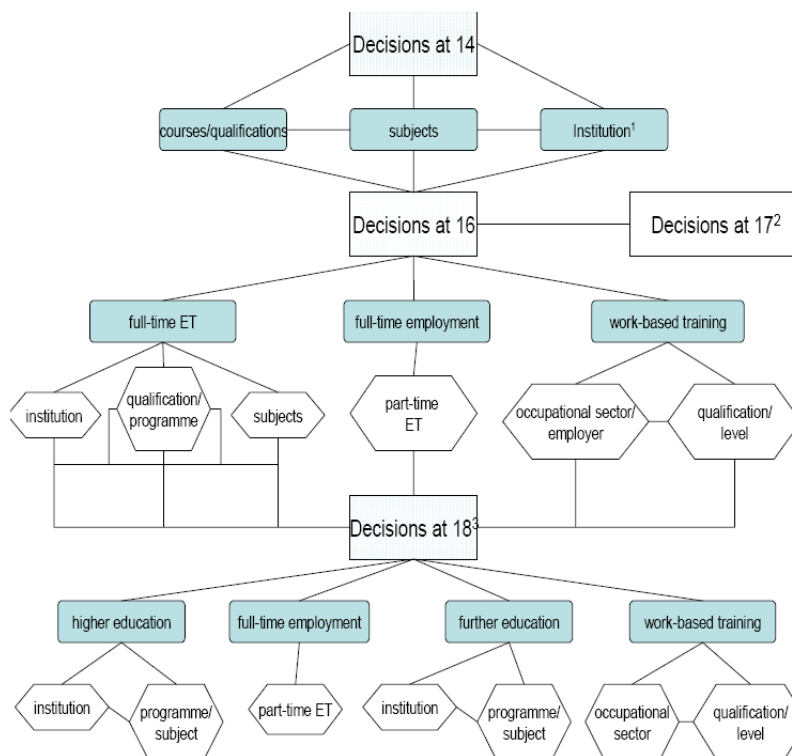
<p>The Key Stage 4 statutory requirements are:</p> <ul style="list-style-type: none"> <li>• a small group of compulsory subjects, comprising English, mathematics, science, ICT, citizenship, PE and RE</li> <li>• compulsory areas of learning, comprising careers education, sex education and work-related learning</li> <li>• entitlement areas, comprising the arts, design and technology, humanities and modern foreign languages</li> <li>• statutory entitlement to have access to a course leading to two science GCSEs.</li> </ul> <p style="text-align: right;">(DfE, 2012b)</p>
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The commonest outcome was that students had a KS4 curriculum that consisted of the 'core' subjects (English, Mathematics and Science) and the opportunity to choose two to six 'options' from a menu of 15-20 other subjects. All of these were usually examined externally at age 16, mostly through the General Certificate of Education (GCSE)



qualification although increasingly alternative vocational and other qualifications were also available. Students also had to study the other compulsory subjects and areas of learning outlined in table 2.7 but often these were not formally examined.

Figure 2.4 Decision points in 14-19 education and training



<sup>1</sup> If in a 3-tier system or on certain programmes (e.g. IFP)

<sup>2</sup> If on a one year course or re-enter ET, same as at 16

<sup>3</sup> If on a two year course or re-enter ET

(Wright, 2005)

For most students this was the beginning of a series of decisions that could have a profound influence upon their future lives because the 'choices' they made about pathways and courses affected their later educational career, employment or interests

(see figure Figure 2.4 – Wright, 2005). At age 14 decisions tended to be about subject and course choice because in England most students move schools at the end of year 6 (age11).

It should be noted that some schools began to alter the system of option choices after 2007 as more freedom was introduced into the secondary school curriculum to promote more individualised learning. Schools began to look at new curriculum models that shortened KS3 and introduced GCSEs during year 9. These changes will largely be ignored in this study which focuses on the period 2000-2007 but they may have an important influence in the future.

The relative freedom each student had in choosing subjects and the constraints placed upon them in different institutions emerged early on as an important theme alongside the discovery that there were three main types of decision making models in the literature: economic, structuralist and hybrid (pragmatic rationality) (Payne, 2003, pp. 10-14; Wright, 2005).

### **2.9.2 Economic models**

Economic models saw decision-making as the process of collecting evidence, weighing up the pros and cons and making rational decisions based on the evidence. They suggested students had control over the decision making process and used the data they collected in a rational manner (Foskett and Hesketh, 1997). It was recognised that students varied in their approaches to the decision making process with some students

‘falling’ into situations based on antecedent assumptions without considering alternatives, while others would carefully ‘gather information and weigh up different options’ (Wright, 2005:3). Research underpinned by this model (Foskett and Hesketh, 1997) studied older age groups (age 16-18) and acknowledged that there may be cultural, social or institutional factors that obscured a totally rational approach to decision making. There was also discussion in the literature about the feasibility of 14 year olds making rational decisions because of their lack of maturity and experience (Stables, 1996, p. 16-18).

### **2.9.3 Structuralist models**

Structuralist models suggested that decisions about subjects studied were largely out of the control of the individual. Factors such as background, family, school, government priorities, economic conditions and peers influenced the options available so individuals had little ‘meaningful choice’ over their education. An extreme example was a school or school system where students were assigned to ‘tracks’ based upon their attainment at a particular age as occurred in many countries (Stables, 1996, p.4-13). In England, where there was, ostensibly, a comprehensive school system promoting equal opportunity, the model suggested factors such as gender, ethnicity, social class, academic potential, local labour market, institution, teachers or peers influenced students, knowingly or unknowingly, when opting for different subjects (Payne, 2003, p.11-12). Gender was an example where the effect of legislation (Sex Discrimination Act, 1975) had limited the structural differences in option choices but the reality was different. Some subjects such as Design Technology (Food) or DT (Electronics) were still

regarded as predominantly 'girls' or 'boys' subjects even though everyone studied them at KS3.

#### **2.9.4 Hybrid models**

Hybrid models suggested that while there was an element of individual choice, decisions were made within constraining external structures. This model suggested that students had the opportunity to make some choices within the constraints of national and local priorities, the institutional environment and their own background and motivations. The relative freedom they had to make choices was dependent on their personal background and the context of the school attended.

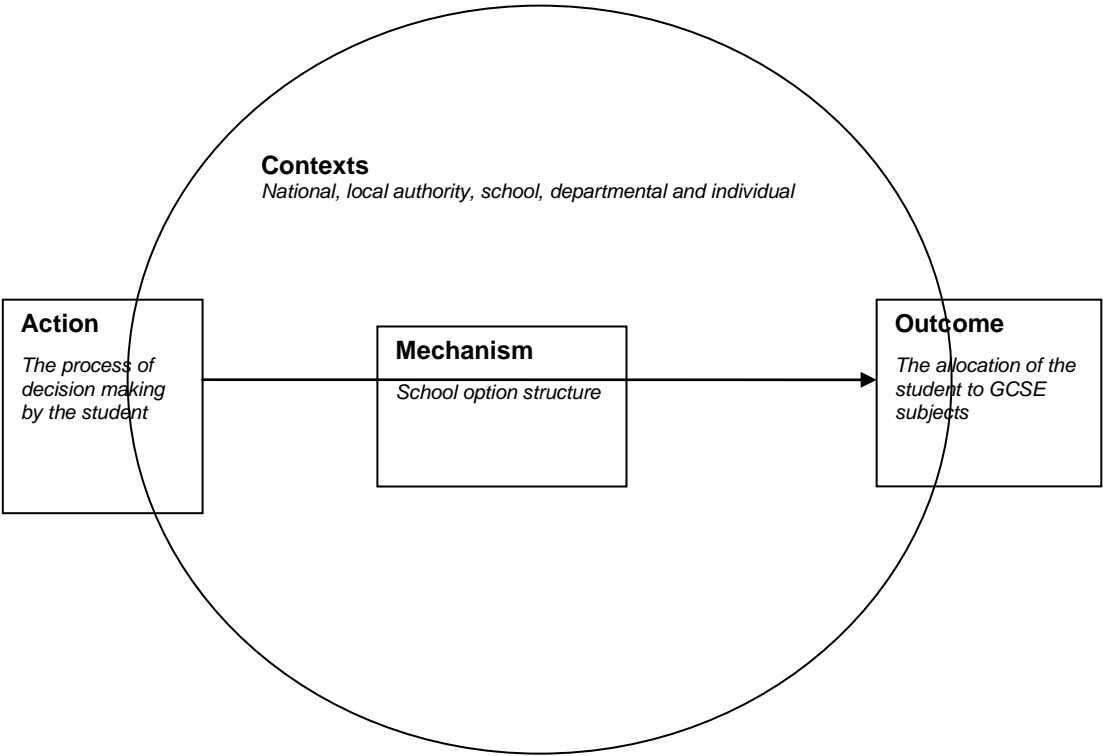
#### **2.9.5 The Conceptual Model of the Option Choice Process at KS4**

The creation of the conceptual model started early in the research but its current form was the result of an iterative process of checking and refinement in response to new sources and ideas. The option choice process at its simplest can be shown in a diagram based on the model of realist explanation (Robson, 2002, p.31), where actions lead to outcomes within particular contexts through the operation of mechanisms (figure 2.5).

In this research the *outcome* (the choice and allocation of subjects that a student will study at GCSE), of the *action* (the process of decision making) follows from *mechanisms* (the structure of the option system) acting in particular *contexts* (national, local authority,

school, department and individual conditions that result in the particular option system available).

Figure 2.5: The model of realist explanation applied to the choice of GCSE subjects.



The option choice model (figure 2.6) used here as the organising structure for this research is a hybrid model. It is an original model that evolved from a model (see figure 3.1, p. 99) proposed by Leithwood and Levin (2005) for analysing leadership effects and provides a framework for describing and analysing the interactions between pupil, teacher and school contexts at both micro and macro levels. It proved a useful tool for understanding individual decisions within particular school contexts but also for analysing differences between schools. Further complexity was introduced by recognising that

decisions were also influenced by parents, peers, community and other factors external to the school.

The option choice model (figure 2.6, p.83) identified the contexts influencing students' decisions about subjects to study at the end of KS3 and grouped them into the areas of literature discussed in this chapter (Whole School Context and External Contexts; Option Choice System; KS4 Curriculum and Examination Entries; Subject Department Contexts; Student characteristics). These contexts were both nested and overlapping. The student made decisions about the subjects to study at GCSE by choosing from the optional 'subjects' offered in the school's KS4 curriculum (SCAA, 1995; QCA, 1998). Decisions about the subjects offered were made by the school management and were influenced by whole school factors and national or local policies. The structure of the option system restricted student choice if there were distinct 'pathways' to which students were allocated. It assumed student choice (agency) was more or less rational influenced by factors such as their personality, aptitude, motivations, aspirations and perceptions or by people such as parents, peers and teachers.

While the school was conceptualised as a relatively discrete system (there was a hard edged boundary), in reality all the elements in the system were influenced by contact with outside bodies and people. The model therefore conceptualised that while there were systems common to many schools driven by central government targets (Hopkins, 2010) there were also factors dependent on the unique location of the school and the actors (staff, students, parents and community) involved with the school.

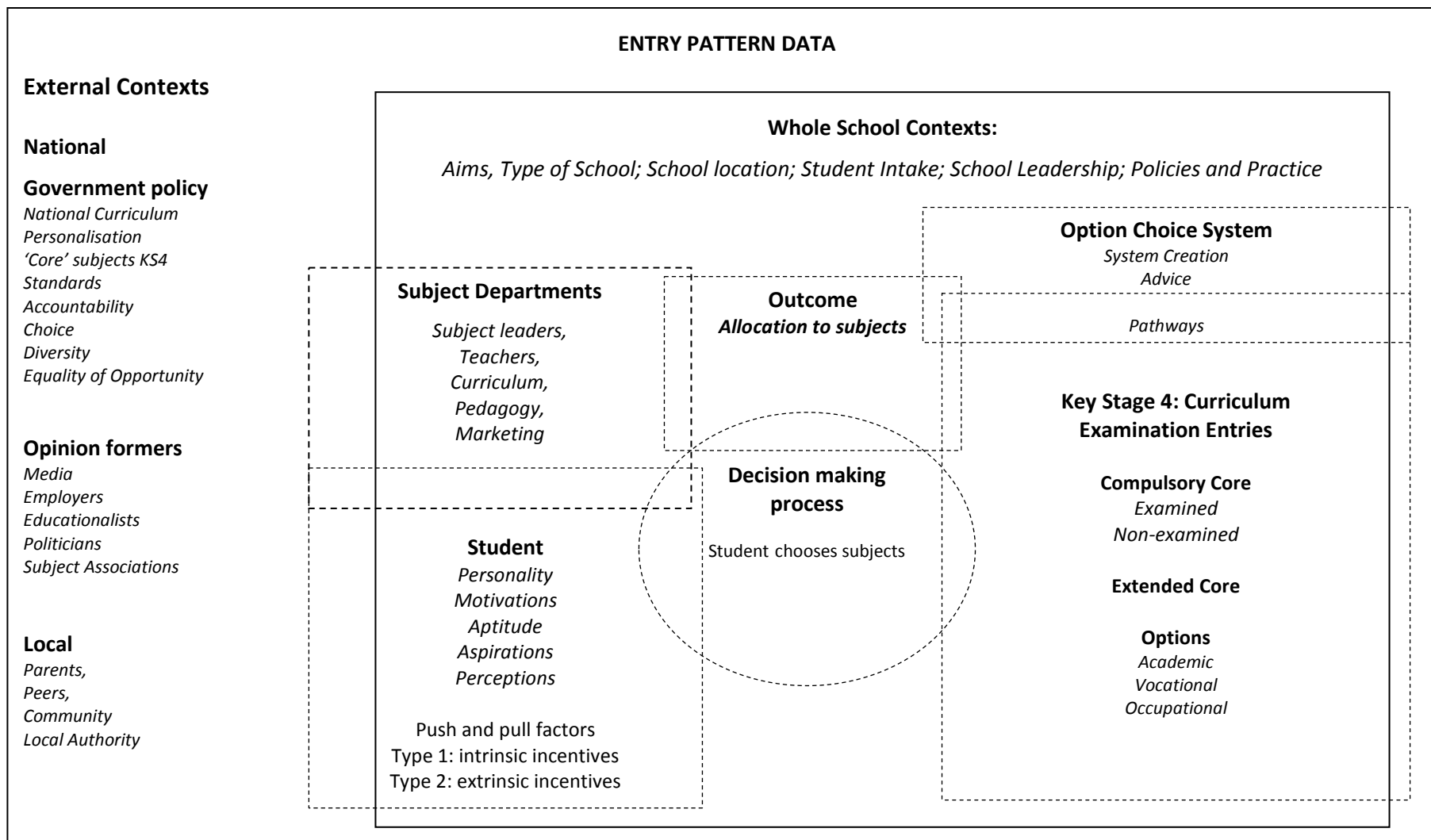


Figure 2.6: A Conceptual Model of the Option Choice Process at KS4

The story of what had happened in each school provided a unique interpretation of the conceptual model dependent on place, space and the 'imagination' of the actors (Stables, 2010). In this research it was the commonalities and diversity created by these complex interactions that were of particular interest.

## **2.10 AN OVERVIEW OF THE RESEARCH QUESTIONS**

This overview will revisit the main research questions in the light of the literature review.

This research was studying the place of one subject, geography, in the curriculum for 14-16 year olds in England. The subject was consistently one of the top ten GCSE subjects by entry (Walford, 2001, p230-1, Weeden, 2011) but numbers fell after 1996. The overarching question was:

**Why have the numbers of students choosing to study geography at age 14 changed over time?**

The changes in the numbers taking GCSE geography took place within the wider context of the whole school system and government policy. Expectations of schools and the curriculum have changed over time. The National Curriculum in England was only created in 1988 and implemented fully during the 1990s. Before the 1980s the curriculum was determined by schools with limited interference from central government (Pring et al, 2009; Gillard, 2011). Recognition that schools had become more accountable as the choice and diversity agenda was implemented in different ways by successive governments led to the question:



**What evidence is there that changes in government policy have influenced entries for geography and other subjects?**

Expectations of the sort of education appropriate for different groups of students changed over time but while the rhetoric of policy also changed, in practice the change from a hierarchical view of students based largely on social class was slow (Pring et al, p.3; Coldron et al. 2010). In terms of gender the curriculum for girls and boys was different until equal opportunities legislation in 1975 forced schools to change and provide common opportunities. Attitudes were more difficult to shift as there were still areas of the curriculum that were regarded more favourably by boys or girls when choices were provided (Davies et al., 2008). There were also observed differences in subject preferences between students linked to deprivation and ethnicity. These socio-economic factors were likely to influence decisions about subject choice in many institutions (Davies et al., 2008) and led to the question: **Was the pattern of entries for geography influenced by social class, gender, deprivation or ethnicity?**

Linked to changing attitudes about the outcomes of education was changing attitudes to secondary schools, with particular concern over schools that were 'failing' the students that attend them. Successive governments since the 1980s attempted to improve student performance through the use of 'market' forces and increased accountability. This involved structural changes to school governance, increased information about the performance of schools (published in 'league tables') and more 'open' admission so parents could express a preference for the secondary school their child would attend. The

extent to which school outcomes were improved by market forces was disputed. School performance was strongly linked to geographical location. School mean student performance was consistently lower in more deprived areas (Gorard, 2009a; Coldron et al., 2010) and the effect of school differences on student outcomes was contested. It has been argued that educational markets led to increased segregation and a hierarchical 'pecking order' of schools (Brighouse, 2003) as aspirant parents were more likely to seek to send their children to a school with better performance outcomes. The evidence for change was inconclusive but there was strong evidence of persistent segregation in schools (Allen and Vignoles, 2007; Gorard, 2009a; Coldron et al. 2010) so this research explored: **Does the type of school and geographical location influence geography GCSE entries?**

England did not have a common imposed national curriculum at age 14-16, although for a short time this seemed possible in the late 1980s (Daugherty, 1995). Instead there was a curriculum framework within which schools were able to decide on their own priorities (SCAA, 1995; QCA, 1998). Diversity was encouraged by successive governments which led to the question: **What influence does the structure of the curriculum at KS4 have on geography entries?**

Schools have changed the curriculum in a variety of ways specific to their context. These changes had differential effects that might be possible to identify which resulted in the question: **Has curriculum change influenced geography entries?**

Student' interest in subjects and motivation for learning was strongly influenced by teachers and subject departments. Good teaching and subject leadership can be difficult to define but might be reflected in the numbers choosing to study geography because teachers make the subject interesting and relevant or dull and boring. This resulted in the research question: **What impact do teachers and departments have on the numbers taking geography?**

Ultimately entries for geography were dependent on students choosing to study the subject. Student interests, expectations and motivations have changed over time.

Changing lifestyles and work patterns have required changes in attitudes to education and qualifications (Pring et al. 2009) and there have been subject debates about the relevance of the geography curriculum to students in the 21<sup>st</sup> Century (Rawling, 2000; Lambert and Morgan, 2010) which led to the research question: **Why do students choose to study geography?**

## CHAPTER 3: METHODOLOGY

This chapter has two underlying purposes. Firstly it describes the evolution of the research and the methodological approach adopted. Secondly it outlines the rationale for choice of data sources, the methods used to collect or obtain data, discusses approaches to using potentially rich but complex data, their analysis and limitations.

Five aspects of the research methodology will be considered. The **objectives (3.1)** of the research state the underlying purposes and provide the framework for the later analysis of data. The **approach (3.2)** discusses the methodology adopted and provides a justification for the decisions made during the research process. The development of the **conceptual model (3.3)** of the option choice process was central to the research process because it provided a framework for analysis. The advantages and disadvantages of **using secondary data (3.4)** as the major source for the analysis of entries will be discussed along with how the data sets were analysed at national, Local Authority and school levels. Finally the methods used to collect data about five **sample schools (3.5)** are outlined including the use of questionnaires, semi-structured interviews and official reports.

### 3.1 OBJECTIVES

This research has been an iterative process of collecting data, analysing it, identifying patterns and then revisiting the same areas using additional or reworked data to check understanding. The conceptual model outlined at the end of chapter two has underpinned

the research and provided a framework for answering the questions. It also provides two objectives that are used to organise the rest of this report.

The initial study undertaken for QCA had suggested that there was diversity in entries for geography between different types of school but there was insufficient evidence to reach substantive conclusions about either patterns of entries or underlying causes of change.

The starting point was to gain a better informed view of geography entries so the overarching research question was:

**Why have the numbers of students choosing to study geography at age 14 changed over time?**

The literature search identified different socio-economic, school and policy factors that might be contributing to the changes and these formed the basis for the two research objectives. The list has been amended over time as areas of interest have been added or removed, usually because there was insufficient time or data to pursue a particular line of interest. The research questions have been organised into two objectives that structure this report. The first objective investigated national patterns of entry.

There was informed speculation in practitioner journals about the possible reasons for the changes but the evidence was largely anecdotal and specific to individual schools. The desire to understand the patterns better led to the first research objective which was to have an informed evidence base about the GCSE geography patterns of entry. The range of areas to consider was potentially large but limited by availability of data. There was

little research on this topic partly because funding was limited and until the late 1990s statistical data was difficult to acquire. The creation of the National Pupil Database (NPD) has transformed the availability of data for researchers and led to the growth of a whole new industry of data analysis within government, schools and the research community. As a result it is possible to investigate these patterns in new ways.

**Objective 1: To better understand changes in the patterns of entry for GCSE geography**

*What changes in the patterns of geography entry can be identified over time?*

The patterns reported here are:

1. *National trends*
2. *Student characteristics: performance, gender, deprivation, ethnicity*
3. *Type of school*
4. *Spatial patterns*
5. *Other subjects*
6. *Three sample local authorities*

The conceptual model of the option choice process (figure 2.6, p.83) was initially created from the literature review but was modified in the light of data collection and analysis along with comments from teachers. It attempts to show the overlapping nature of the process and the potential range of influences on entries. Many potentially interesting lines of research have not been investigated or abandoned because of lack of time or data.

The research was seeking explanations for the changes but it was recognised early on that each school provides a unique context within which the different factors interact to produce the KS4 curriculum for each student. This means that while generalisations can be made the reality for individual schools, students and departments can be very different. It

was hoped that the conceptual model would provide a framework for better understanding and interpreting what was happening in individual school contexts.

**Objective 2: To use the conceptual model of option choice as a framework for analysing change in geography entries at school level.**

The following questions were identified as relevant and are linked to different areas of the conceptual model.

- a) What evidence is there that changes in government policy have influenced entries for geography?**
- b) What influence does the structure of the KS4 curriculum have on geography entries?**
- c) Has curriculum change influenced geography entries?**
- d) What impact do teachers and departments have on the numbers taking geography?**
- e) Why do students choose to study geography?**

### **3.2 APPROACH**

From the start of the research there was a strong practical underlying purpose that arose from my work within the geography education community. An interest in assessment and membership of the Assessment and Examinations Working Group of the Geographical Association (GA) had brought me into contact with the geography subject officers at the Qualifications and Curriculum Authority (QCA). As part of their role monitoring examinations they were aware of the entry trends for GCSE and in 2001 wrote an article (Westaway and Rawling, 2001) suggesting that numbers might have declined because:

- Geography was not a 'core' National Curriculum subject at KS4
- Entries for vocational courses especially GNVQ Leisure and Tourism courses which are often associated with geography departments had increased. There was the

caveat that total GNVQ entries were small and Leisure and Tourism had only increased by 800 in 2000 compared to the 5 500 drop in geography entries.

- Geography was reported as having relatively poor quality teaching (Ofsted, 2001). This might be associated with the numbers of non-specialists teaching at KS3.

The article emphasised that they did not actually know what was causing the decline in numbers and asked teachers to contribute by contacting them: 'Our collective understanding of the issue – and how we may best address it – can only be improved by pooling our various experiences' (Westaway and Rawling, 2001, p.111).

My interest in the question 'Why have the numbers taking GCSE geography fallen?' led to a small scale research project in 2001/2 commissioned by QCA (Weeden, 2002). There was widespread interest in the findings within the geography education community especially from the Geographical Association, the Royal Geographical Society and the Geography Teacher Education (GTE) group. The QCA subject officers were able to provide national data about entries for the years 2000-2002 and this demonstrated the power of secondary data for analysing entry patterns at a variety of different scales. The knowledge that local authorities had data for individual schools and that these were used by local authority advisers and headteachers to analyse school performance suggested another possible avenue for data collection. It quickly became clear that these large secondary data sets were going to be the main research resource but that they could be supported and developed by collecting primary data from schools to triangulate the findings and to provide individual case studies that illustrated what was happening in individual school contexts.



This initial research demonstrated the complexity of potential responses to the apparently simple question: Why have the entries for GCSE geography declined? Even though the sample was relatively small and the data set limited there was complexity and variety in the patterns of entries from different types of school. It was also clear that although there were patterns and hypotheses emerging there was still many interesting unknowns that would modify understanding. The initial study had deliberately started from a point of having few preconceived ideas but objectively exploring the data seeking patterns – the inductive process.

Although not realised at the time the design of the pilot study was a two-stage ‘new political arithmetic’ research approach (Smith, 2006, p.44).

In the first stage, a problem (trend, pattern or situation) is defined by a relatively large scale analysis of relevant numeric data. In the second stage, this problem (trend, pattern or situation) is examined in more depth using recognised ‘qualitative’ techniques with a subset of cases selected from the first stage (Gorard, 2002: 251)

The next stage would be to continue to test the emerging patterns and relationships in a more systematic and deductive way in:

‘a back and forth movement in which the investigator first operates inductively from observations to hypotheses, and then deductively from these hypotheses to their implications, in order to check their validity...  
(Mouly, 1978 quoted in Cohen et al., 2000, p.4)

It was already becoming clear that although general patterns were emerging it would not be possible to say that relationships held in every case or that statistical analysis based purely on the performance data could explain underlying reasons for subject choices. It

was therefore not 'pure' scientific experimental research but 'real' world research that was likely to be messy and needed to draw on a number of different research methods to gain a better understanding (Robson, 2002).

The range of responses from teachers and students gave an insight into the variety of different interests, motivations, aspirations and perceptions of individuals and the contexts in which they worked. Generalisations might be made about different types of school but in reality the interactions in each school created a unique context. As a geographer being taught in the 'regional' tradition but having taught the 'new' systematic geography that was introduced in the 1960s I was aware of the problems this poses.

#### Geography in the 1960s

underwent a shift from a regional, descriptive approach to a systematic, 'scientific' subject. For instance it was argued that there were no formal rules for recognising, defining, delimiting or describing 'regions', and regional approaches were seen as focusing on the unique and failing to identify more general laws... In the 1950s and 1960s geographers became more interested in developing more general models ...

(Lambert and Morgan, 2010, p.9)

There is a tension between the 'scientific' process of making sense of the world through the use of models, generalisations or theories that describe and explain common features and patterns such as land use in towns and understanding the unique features of a place. The models and generalisations give geographers a language and grammar that facilitates communication of ideas but do not explain the detailed interaction of factors that contribute to the uniqueness of a town like for example Ludlow or Royston. Furthermore

the way each individual experiences and 'imagines' a place will also be unique and affected by their purposes, perceptions and context.

The objective of the research was therefore to use a systematic approach to develop a general 'model' that could be used to better describe, explain and understand unique contexts. This model would be developed through further reading and tested through a systematic process that involved both consultation with teachers and continuing analysis of the data. This process was likely to be iterative with the model being refined and developed as evidence emerged that supported or challenged the model – the classic scientific research process.

Different approaches to researching the question were considered, but in the end it was decided that a critical realist non-experimental fixed design approach (Robson, 2002, p156) was the most appropriate. The approach adopted has used mixed methods of data collection that have involved analysing large national data sets to investigate correlations between variables at a national, local authority and individual scale alongside questionnaires and interviews to gather both quantitative and qualitative data at the school and individual level.

The methodology is underpinned by a scientific approach where the research is seeking to be systematic, sceptical and ethical (Robson, 2002, p. 18; Cohen, Manion and Morrison, 2000, pp.10-11). Part of the research process has been to develop a conceptual model (theory) that describes the patterns observed and explains some of the processes

operating in schools. The conceptual model is multi-layered involving mechanisms and processes operating at individual, school and national levels (Robson, 2002, p.32). It evolved over a lengthy period as the result of trying to map the interactions in the option choice process. Initial models were developed by asking teachers to comment and add ideas. These were then incorporated and the model refined to fit the reality being described by teachers and senior management. Throughout there was a dialogue between teachers and the researcher where the current results and thinking were shared with teachers and colleague geography educators who could comment and possibly use some of the ideas to inform their actions in the workplace. The emphasis was that this was practical policy research with:

An emphasis on the substantive or practical importance of research results rather on merely 'statistically significant' findings, and second a multi-disciplinary approach which in turn leads to the eclectic and catholic use of any and all research designs which might prove helpful in answering questions posed. (Hakim, p.172 quoted in Robson, p.10)

One downside was that the continuing dialogue with the real world led to distractions from completing the central research. Along the way there were commissions to write papers about the research or related topics. In some ways they were useful because the work undertaken has fed into the research. The first was a review of the literature on student' perceptions of geography (Weeden, 2005), commissioned by the RGS as part of the successful bid for government money for the 'Action Plan for Geography' which started in 2006 and ran until 2011 (APG, 2011). This was further developed with an early version of the model and written up as a published article 'Students' Perceptions of Geography: Decision Making at Age 14' (Weeden, 2007). A more recent article was

commissioned on 'Inequalities of opportunity and the take up of GCSE Geography' (Weeden, 2011). Aspects of the work have also been presented at conferences (Weeden, 2005; 2006a; 2006b, 2009, 2010a, 2010b).

Other possible methodologies that were considered were positivist and relativist. The complexity of the contexts and variables made it difficult to investigate this research question using a rational scientific positivistic methodology (Cohen et al., 2000, p.16), although the data available provided opportunities to test hypotheses in a potentially positivist manner. Positivistic methodology is predicated by the ontological assumption that social reality is external to individuals (Cohen et al, 2000, pp.5-6). This methodology also requires the researcher to hold an epistemological position that there are identifiable causes for the decline that can be objectively measured and would be constant from one context to another (Robson, 2002, p.21; Cohen et al, 2000, pp.6-7). This epistemological position is problematic for this research question because individual decisions are made in very different contexts (home, locality, school, classroom) and will be the result of the unique experiences of individual students (interests, aspirations, relationships with teachers). Thus while it is possible to identify relationships between variables and to develop a theory of decision making based on the large quantities of data generated about entries and performance in GCSE examinations it is virtually impossible to identify scientific 'laws' that would satisfy the extreme positivist position. The complexity of the social interactions involved in student' decision making does not easily fit the positivist ontological and epistemological assumptions.

Alternatively a relativist approach to the question might suggest that the answer to the question was socially constructed and therefore totally context specific. This approach is based on the nominalist ontology that 'there is no external reality independent of human consciousness; there are only different sets of meanings and classifications which people attach to the world' (Robson, 2002, p.22). A relativist approach emphasises the complexity of the situation and views the research process 'as generating working hypotheses rather than immutable empirical facts' (Robson, 2002, p.25). However an extreme relativist stance can be criticised because 'the idea that there is no reality separate from conceptual systems employed by people accords quite ludicrous powers to human thought' (Robson, after Trigg, 1989, p.24).

The position adopted by the researcher is therefore 'realist' (Robson, 2002, pp.29-44). This is based upon a view of the world that there are no 'facts' that are beyond dispute and that knowledge is created by social and historical interactions. It assumes there is a reality outside of the observer. This position draws upon scientific method while recognising the complexity of the social context. An important feature of realism is that 'observations are not the rock bottom of science, but are tenuous and always subject to reinterpretation' (Manicas and Secord, 1983 quoted in Robson, 2002, p.34)

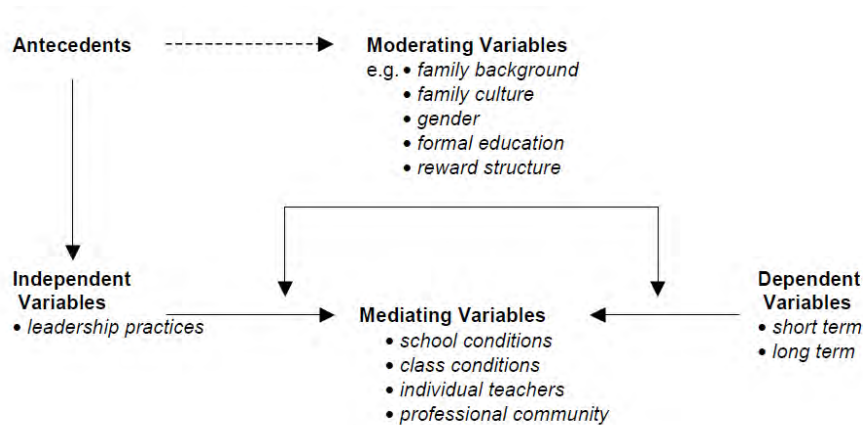
In this research it is acknowledged that the researcher's starting point was not as an entirely objective observer because as part of the geography education community there was a desire to understand the reasons for a situation that is of concern to geography teachers. The outcome sought is a better understanding of the relationships between the

variables that will enable schools and teachers to take actions that will reverse the current situation. While seeking to look at the evidence as objectively as possible the researcher was also an active participant attempting to influence the situation by providing a theoretical model that is tentative and flexible enough to be used by schools and teachers in different contexts and at different levels; individual, group, institutional and societal (Robson, pp.32-33).

### 3.3 THE DEVELOPMENT OF THE CONCEPTUAL MODEL

This current research was started in 2003 and built upon the previous study. A conceptual model was initially developed to help the researcher make sense of the factors influencing subject choice. Possible influences on subject choice were derived from literature searches and discussions with teachers or teacher educators.

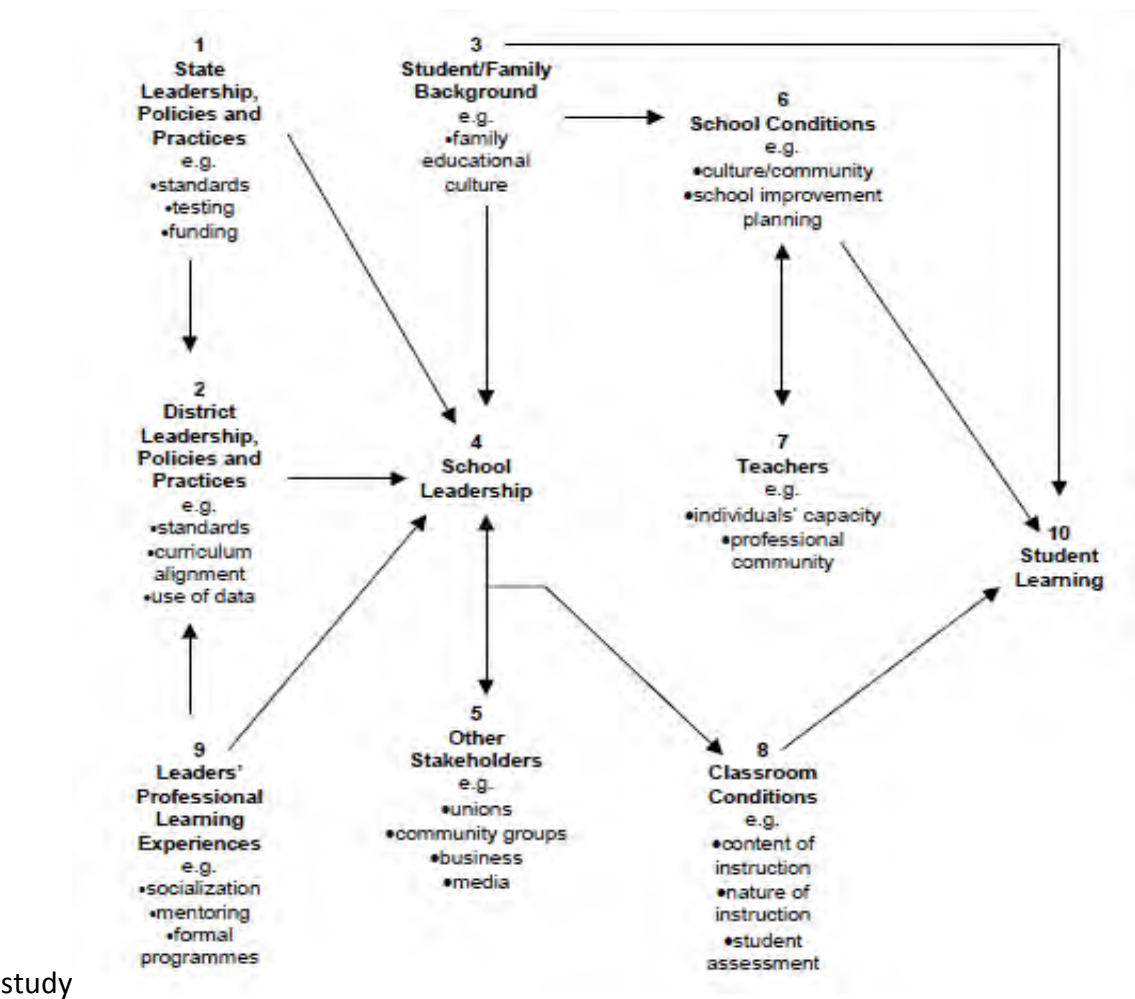
Figure 3.1 A General Framework for Guiding Leadership Effects Research



(Leithwood and Levin, 2005: p. 13)

A paper by Leithwood and Levin (2005) on ‘leadership’ provided initial ideas for the model (figures 3.1 and 3.2). This section will discuss how this model was developed and three elements of the model (student decision making, curriculum creation and subject department influences) were conceptualised.

Figure 3.2 Framework for the Wallace-supported leadership



study

Leithwood and Levin (2005, p.38)

The general framework helped with understanding the potential complexity of the factors that can influence decisions and actions in a school context. The relevance to this study is



that while the student is the person who makes the decision about the subjects they want to study, they do it within a context that is constrained by the decisions and actions of others. For example government policy on the curriculum, qualifications or accountability measures influences Senior Management and Governors in their decisions about the subjects to offer in a school. This model also provided a range of potential areas to investigate, many of which have been subsequently ignored as beyond the scope of this study.

The way that this general model could be developed for specific studies was of particular interest. Of the three models produced by Leithwood and Levin, figure 3.2 was deemed especially relevant because it began to identify some of the influences on different groups of people in the school system that could be investigated. One of the biggest issues has been to limit the focus of the study when all areas are potentially interesting and influential.

The model gradually evolved to its current form (figure 2.6) through an iterative process of identifying factors in the literature and testing in the field. Literature in fields as diverse as subject choice, government policy, school management and learner motivation were important sources of ideas. The intention was to identify as wide a range of possible Influences with the intention of narrowing the focus later. The outcome was that influences were identified at National, Local, School, Department and Individual levels with shifts in emphasis over time. Early versions of the model were presented to a number of different audiences (teachers, teacher educators,

school' managers, researchers) to test its veracity and applicability in different contexts (Weeden, 2005b; Weeden 2006a; Weeden, 2006b). The underpinning principle of the model was that while the framework has validity in aiding overall understanding of the processes involved, each institution provides a unique site within which the different influences interact in complex ways.

The model conceptualises the complexity by showing the nested and overlapping nature of contexts within which individual student decisions are made. It shows that while the student is at the heart of the process their 'choice' may be constrained by the influences operating within an individual institution. The ideas for these influences came from many different sources including research and practitioner literature, teachers and school management teams, official documents from bodies such as DfES, DCSF, DFE, QCA, Ofsted, Ofqual, JCQ, awarding bodies, personal experience of teaching, governors meetings and educational news.

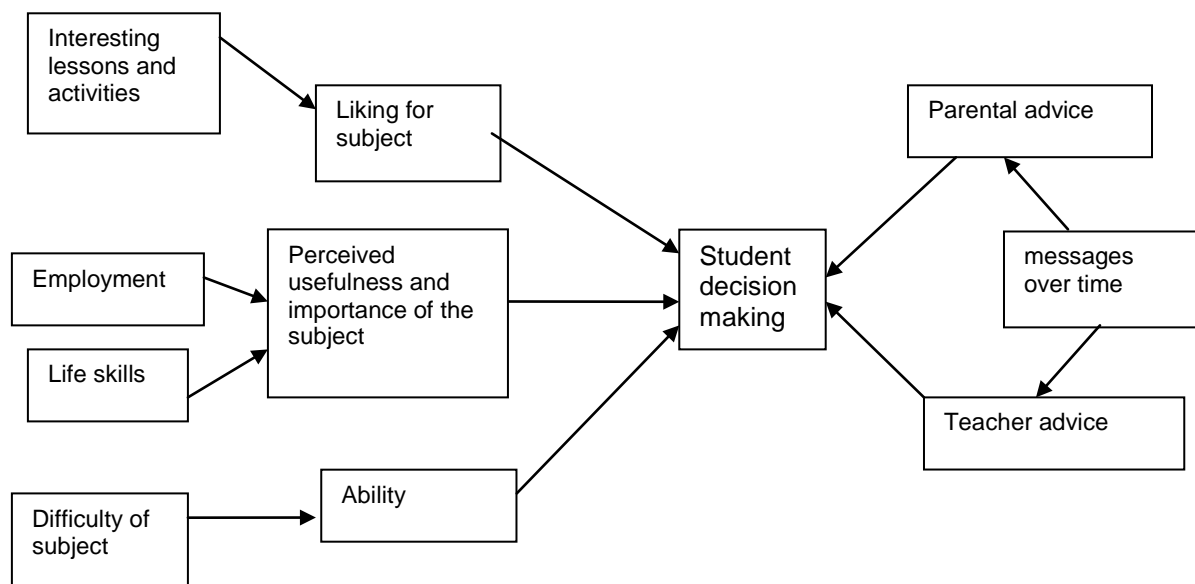
The conceptualisation of potential links between three aspects of the model (students' decision making, teacher and department effects, the creation of the KS4 curriculum) will be outlined because they played an important part in decisions about types and methods of data collection.

### **Student decision making**

The literature suggested one potential line of study was the factors that influenced pupils' decisions to study subjects, especially geography, at GCSE. This could look at their

motivations and aspirations, perceptions of geography as a subject, their experience in lessons, their ability in the subject and the advice they received when making choices. A further useful incentive to conduct a detailed research review of this area arose because the Royal Geographical Society commissioned a research report when bidding for government money to support the Action Plan for Geography (Weeden, 2005a) which was later developed into an article for the journal 'Geography' (Weeden, 2007). One result was a conceptual diagram of influences on student decision making (Figure 3.3).

Figure 3.3: Variables affecting student decision making



The research review suggested that compared with some other potential research strands this was relatively well understood with previous studies reaching consistent conclusions (Stables, 1996; Adey and Biddulph, 2001). A decision was made that this was not going to

be the main priority for the study. However it was also felt that it was important, in a study about student choice, that the student voice was heard. Potential data collection methods were therefore identified such as interviews, questionnaires, observations and school performance management data. It was also recognised that an in depth investigation of these influences was likely to involve spending considerable amounts of time in schools working alongside students and gaining access to parents, teachers and others that might be logistically problematic.

Ethical and practical considerations played a part in the decision to limit this aspect of the study. The researcher was not working in a school but a university so day to day access to students was limited, although there was the advantage that over a year there was contact with 20-30 different schools and departments through Initial Teacher Education visits. However access to students would have to be negotiated with schools along with the appropriate ethical approval.

The ethics of asking students about option choices was only problematic if the questions asked were inappropriate. There was therefore a choice to be made – should the questions be restricted to factual data about the subjects chosen aspirations and attitudes to subjects or should they explore some of the potentially more interesting questions about the personal lifestyles of students and their families? Some of this data is collected by organisations such as the Centre for Educational Measurement (CEM, 2011) through their Midyis, Yellis and Alis programmes and has been used to look at the effects of different social indicators on subject choice (Davies et al., 2008), but at the start of this

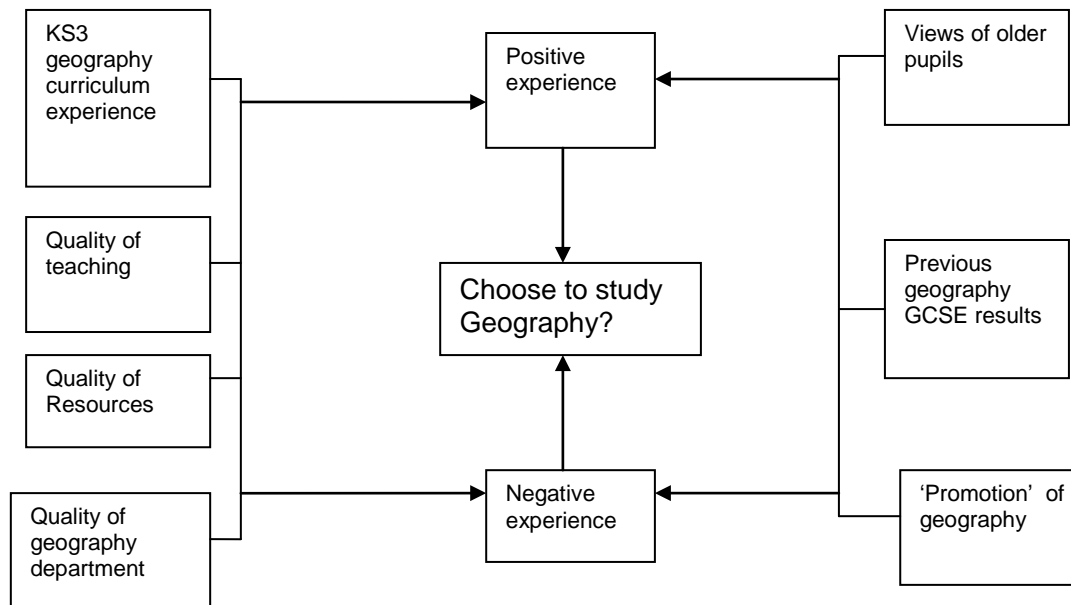
study, when making decisions about research foci there was limited knowledge of this data source and its potential. While aware that senior managers and departments have access to this sort of data for use in individual schools it would require considerable negotiation to obtain access to the data for an external researcher.

Investigating students likes or dislikes for subjects and attitudes towards teachers might be problematic because students might want to express strong views about particular teachers. However this issue could be resolved if it was made clear to schools, teachers and students that comments should be generalised and that any information collected would be confidential to the researcher. The outcome was that the student voice would be limited to a small number of case studies using questionnaires and interviews to act as triangulation for data collected from other sources. This data would be placed in the wider context of the school situation and would seek to confirm or challenge data from previous studies.

### **Departmental influence**

The literature review suggested a number of ways that departments might influence student choice (Figure 3.4).

Figure 3.4: Departmental influence on students' choice of geography



This was a problematic area for data collection. To obtain information about many of the identified influences would involve observing lessons, examining schemes of work and resources, talking to students about their experiences and collecting data from senior management. In the end it was decided to limit data collection to a small number of case studies of good departments using discussions with teachers and pupils to infer reasons why departments were successful or not (see section 3.5 for details of this process). This again therefore became a more limited area of the investigation.

Some data collection on departments was opportunistic. It became possible to collect data about departmental change, attitudes to different pedagogies and subject content when the QCA subject officer offered to provide access to a group of teachers from two Local Authorities at an annual monitoring meeting. In addition there was an opportunity to

create an appendix for QCAs annual monitoring questionnaire (appendix 4). The design of the questionnaire is discussed in section 3.5. This opportunity coincided with decision making about the selection of a sample of Case Study Local Authorities to study in more detail and as a result these two LAs became part of the detailed study. The questionnaire was then sent by post to schools in the third LA selected.

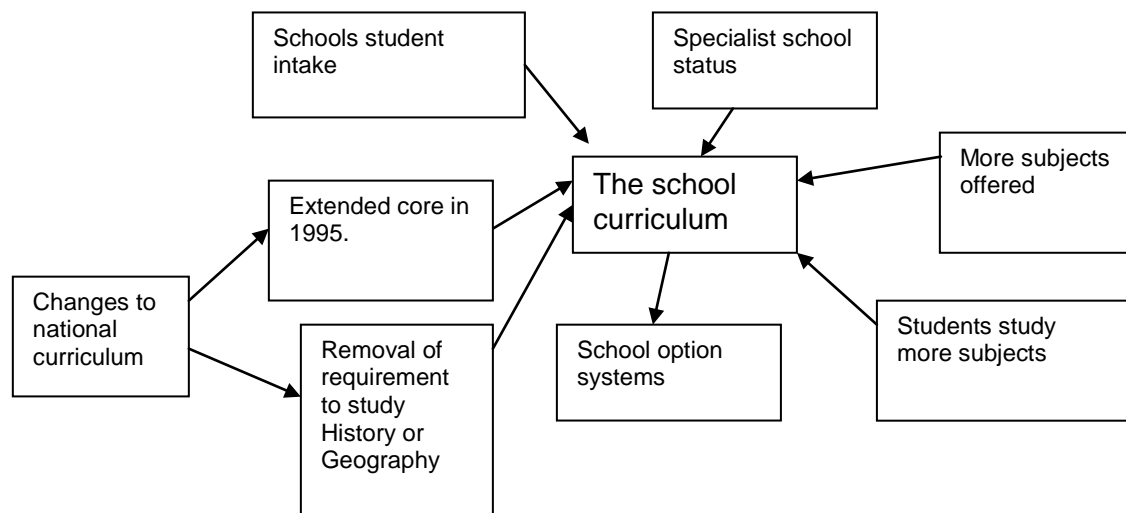
As the study developed a number of other opportunities presented themselves to collect data from groups of teachers about changes to the curriculum. These were used to develop ideas and collect data. In most cases the data collection was opportunistic utilising pre-existing teacher group events to collect data, often in relatively informal ways. This provided a 'richer' source of data about some of the factors in figure 3.4 and helped develop understanding of the developing issues in schools. The sample of schools was often unrepresentative because they were schools that were in partnership with the teacher training institution and therefore likely to be more successful than most schools. One further opportunity for data collection was ITE visits to partnership schools. These were used to keep track of issues that were emerging in different departments and the trends in entry patterns.

### **Influences on the curriculum**

When this research was started there was little knowledge of the pattern of entries for different subjects but there was anecdotal evidence of the pressure on some schools to change their curriculum. The initial study showed evidence of diversity in geography entries by school type and the discovery of the Newsam classification of schools (Newsam,

2003) was highly significant because it provided an alternative classification that confirmed personal experience.

Figure 3.5: Influences on the curriculum at the national and school level



A conceptual diagram was developed to identify these national and local influences (figure 3.5). Increasingly accountability proved a driving force in changing the curriculum and this study used both entry data and case studies to explore different aspects of entry patterns as schools became more strategic in planning their KS4 curriculum.

The area of policy making was of considerable interest and the growing availability of national secondary data on examination entries provided an opportunity to look at the influence of policy on decision making in schools. Initially access to this data was thought to be a problem because much of it was confidential to schools but over time it became clear that anonymised data for individual students was available in the National Pupil Data Base (NPD) and Pupil Level and School Census (PLASC). This data was a rich source of



information. There were limitations, which will be discussed in the data analysis section, but because it provides data for the whole population of students in England it provided previously unavailable information and allowed investigation of geographical and school patterns of entry.

The limitations of the secondary data were that it did not provide insights into the realities of the situation in individual schools so it was decided to collect this data through case studies and opportunistic conversations and data gathering exercises with teachers. This data would be used to provide 'richer' insights into the realities of the situation in schools. The limitation of teacher's perspectives was recognised but allowed triangulation of the findings from the national statistics.

These influences were tracked over time because changes to exam entries reflect historical events. A KS4 course generally takes two years and subject choices will be made six months before that. It may take several years for policy changes to have an impact in schools so data was needed that could track changes over time. The collection and publication of exam entries at different scales provides this sort of data set although direct correlations need to be treated with caution. The NPD and PLASC data sets provide individual student data that can be analysed at both the local authority and school level. It provides a time series that could be analysed in a number of ways to answer some of these questions. At another level the case studies and teacher data provided an insight into the reasons for changes in individual schools. This latter data may be limited because teachers often only have a partial view of what is happening in their school, especially if

they are not involved in decision making at senior management level. How this data was analysed is discussed later.

### **3.4 ANALYSING NATIONAL SECONDARY DATA SETS**

This section will outline the secondary data used in this study, discuss the advantages and disadvantages of using secondary data and describe the 'cleaning' of data. Some characteristics on the national data and its interpretation will be discussed.

The Education Reform Act (1988) and the government's desire for collecting accountability data changed the landscape in England in terms of the availability of data about examinations and student performance at the national and school level. The tracking of students and collection of data about their performance throughout their school career has provided large data sets that are an invaluable tool for analysing national and local patterns (Smith, 2006) in a way that was not previously possible.

The initial study had established there were major differences between entries from different types of school (Weeden, 2002) which suggested an interesting avenue for investigation would be to compare the entries from schools within a sample of Local Authorities (LA). For pragmatic reasons three LAs in the West Midlands were chosen because these were easily accessible to the researcher. The size of the sample was relatively small (178 institutions - about 5% of the whole population of schools in England) that was thought would provide a sufficiently robust sample size for statistical analysis. The three LAs were chosen because they represented different geographical areas (a large

city, a town and a rural county) in proportions roughly equivalent to the national population. However because they were all in one area of England they were not representative of the whole country or all social groups.

At the start of the research the only known data source was held by LAs. Negotiation with LA data managers meant that this data was initially (2005) obtained for the years 2000-2004 for maintained schools in the three LAs but this was later (2008) extended to include the years 2005-2007. This provided an eight year time series of the changes in entries but data came in different formats from the LAs and did not always provide data at the individual student level.

Early in the data collection stage (late 2005) it became clear that the National Pupil Database (NPD) was another potential source that would have the advantage of being relatively unprocessed data. Methodological issues arise from the size of the potential 'population'. There were about 3900 mainstream secondary schools in England between 2003 and 2007 with data potentially available for every student in every school through the NPD. There were between 600,000 and 700,000 students in each year group and the NPD had 203 variables in 2003 and 405 in 2007. Initially it was decided to sample from this population by staying with the sample of three LAs. This NPD data included all students in the LA area, not just those in maintained schools so data for 2003/4 and 2004/5 for the three LAs was obtained from DCSF.

All of these data sets were anonymised at the student level but local authority and school numbers were provided so it was possible to identify individual schools using Edubase (DfE, 2011h). This provided useful contextual information that was not always available in the original data set. The NPD is provided for researchers on the understanding that confidentiality will be maintained so this study has not identified individual schools or LAs by name unless the original source provided this data.

### **3.4.1 Data Characteristics**

Data was available in more or less processed formats. Relatively unprocessed data such as the National Pupil Database and Pupil Level Annual School Census was available for manipulation and analysis while other data such as the annual national performance tables (DfE, 2011d, f) had already been processed for other purposes. Unprocessed data had more potential because it was a larger source of data that was more accurate and complete than could be collected by an individual researcher (Smith, 2006) but was very large and contained irrelevant data that needed filtering and reworking. Processed data was easier to deal with but did not always provide answers to the questions being asked or provide sufficient explanation about the way it was compiled or its sources.

There were also inconsistencies between data sets because they covered different time scales and aspects, such as maintained schools or all schools. Data sets 1 and 2 reported entries from all examination centres while sets 3 and 4 were limited to 'maintained' schools and therefore did not include entries from independent schools and post-16

institutions such as sixth form colleges or tertiary colleges. Seven secondary data sets were used for different purposes within the research

### **1. GCSE subject entries 2001-2008** (Joint Council for Qualifications (JCQ) website)

Annual aggregated statistics for GCSE subject entries from all awarding bodies are published by JCQ (2011) for the three UK countries (England, Wales and Northern Ireland) that have GCSE examinations. For example in the period 2003-7 the data for the nine full course geography GCSE examinations set by five different awarding bodies were aggregated to produce total UK entries and entries by country. The main data set used here was for England only and included all entries from all sources (maintained, independent, post-16 institutions and other entries) and age groups. Some entries were therefore for students not aged 16 or at the end of Year 11. This data set gave the total number of candidates for each subject, entry by gender (male/female) and the percentage of the entry attaining each grade (A\*-U). The total UK data set was used to track the entry changes since the introduction of GCSE in 1988 but the JCQ website does not go back beyond 2001 so earlier records of entries were obtained from other sources such as the Royal Geographical Society, Walford (2001) and Stubbs (2011).

### **2a. National Pupil Database and Pupil Level Annual School Census**

This provided data about performance at different stages in a student's career (Key Stages 2, 3 and 4) and also data about non-sensitive pupil characteristics such as gender, ethnicity, special educational needs (SEN) mobility and deprivation through proxy measures such as free school meals and 'Income Deprivation Affecting Children Index'

(IDACI) scores (CMPO, 2010, p.7). The information provided has changed over the years and some data is restricted. In this case the anonymised data was used so no individual student can be identified although the records for individuals can be accessed.

This was therefore a very large and useful database (Smith, 2006; CMPO, 2011a) that enabled analysis of all entries for any year from 2003 onwards. Researchers have to apply to the DCSF for permission to access this data base and there are confidentiality rules about its usage (DCSF, 2010a).

Early in the study this data was obtained for the three 'case study' local authorities for the academic years 2003-4 and 2004-5. These LA data sets were later supplemented by the national anonymised data set for 2003 and 2007. Originally the NPD and PLASC data sets were provided separately but in more recent years they have been combined making analysis easier. The growth of the information collected and made available posed its own problems. With 623 530 Year 11 students (cases) in 2003 and 673 563 students (2007) and between 200 (2003) and 400 (2007) recorded variables the database was very large. This inevitably led to inaccuracies in data entry, missing cases and incomplete records (Gorard, 2010a) so the data required 'cleaning'.

Working with the data set provided its own problems because despite the speed of modern computers and the sophistication of data handling programs such as Excel and SPSS data processing is time consuming. There were also problems resulting from the researcher's relative expertise at using the Excel and SPSS programs. Both were used but

greater familiarity with Excel made this the preferred program. The 2006-7 database initially proved too large to open in an Excel file so SPSS was a more appropriate format for analysis. A combination of analysis in SPSS and Excel was undertaken because each programme had advantages and disadvantages. Considerable reworking of the data was necessary using pivot tables, calculation and recoding functions. It would have been useful to have become more familiar with SPSS earlier in the research.

The ethical issues arising from using this data set were largely associated with anonymity at the individual, school and local authority level. There were confidentiality issues with the data sets so sensitive data was removed before the data set was provided and a confidentiality / ethical protocol was agreed with the data providing agency (DCSF (DfE), 2010a). The data set used has therefore been effectively desensitised before use.

## **2b. Local Authority Data Sets (2000-2004 and 2005-2007)**

Some of the NPD data was used by Local Authorities to analyse performance of maintained schools. These data were used in many of the initial analyses and allowed exploration of entry patterns. The data lacked contextual information about schools but once the Edubase database had been introduced this could be added, although this was a time consuming process.

## **3. GCSE entries for England analysed by Local Authority and Subject (2001-2007)**

(DfE/BIS/National Statistics, research and statistics gateway)

After 2001 government published annual analyses of GCSE and other 16+ examinations for maintained schools in England derived from the NPD (DfE/BIS, 2011). This data included all schools that were under direct local authority control and semi-autonomous schools such as CTCs and academies but excluded independent schools, sixth form and tertiary colleges. This data therefore covered around 90% of all geography GCSE entries because entries from independent schools were about 10-12% over this period.

The tables analysed GCSE results in a number of ways and were published at different times as analysis was completed. There were variations in the analysis from year to year as government priorities changed. The most useful tables for this research identified total entries in maintained schools for the major GCSE subjects by Local Authority published between 2003 and 2007 (DfE/BIS/National Statistics, 2004, 2005, 2006, 2007, 2008). These tables had been used by a member of the geography education community to produce a hand drawn map of geography entries by Local Authority (Lloyd-Staples, 2006). It became clear there was scope for the use of a Geographical Information System (GIS) package to speed analysis of the data and this was used to compare entries for different subjects and years. Other associated tables analysed national GCSE entries by a range of socio-economic factors which although unused suggested new routes for analysis.

#### **4. Rural/Urban Local Authority Classification 2007** (Office for National Statistics: ONS)

The starting point for this analysis was the administrative structure of England which has developed over many years and contains many 'anomalies'. In some areas there were two tier structures – (metropolitan and non-metropolitan counties subdivided into districts)



while others had single tier unitary authorities. GCSE examination data was only available at the higher level so second tier authorities were ignored. Before this data was found it was thought a relatively simple three fold classification (table 3.1) of local authorities (County, Town, City) would be an appropriate classification but the rural / urban LA classification provided a more sophisticated framework for analysis.

Table 3.1 Original classification of Local Authorities

- **County** is largely rural but most people live in small towns with a population between 5,000 and 60,000
- **Town** is either an independent urbanised area that has a range of functions or may be an administrative area that is part of a multi-nuclei conurbation. The local authority area may lack the highest order functions, such as universities and may contain some lower density 'rural' areas.
- **City** is a highly urbanised area, possibly part of a larger conurbation, containing all the functions of a large settlement, and with a population density of more than 1300 people per square kilometre.

The decision about the sample LAs came from this initial classification and was therefore limited because it did not capture differences between counties that were largely rural such as Norfolk and those that were heavily urbanised such as Surrey or the differences between urban areas. However this realisation came late in the research after several years' data analysis. The discovery in 2008 of the government's rural/urban classification of Local Authorities (ONS, 2004) overcame this problem by providing a more sophisticated categorisation of Local Authorities (table 3.2) based on the population in different types of urban or rural settlements but was too late to change the sample LAs. For this research

the urban/rural classification was slightly modified from the ONS recommendations by retaining the three different urban categories alongside the two rural ones.

Table 3.2 An urban/rural classification derived from government definitions

<ul style="list-style-type: none"><li>• <b>Major Urban:</b> LAs with either 100,000 people or 50 percent of their population in urban areas with a population of more than 750,000.</li><li>• <b>Large Urban:</b> LAs with either 50,000 people or 50 percent of their population in one of 17 urban areas with a population between 250,000 and 750,000.</li><li>• <b>Other Urban:</b> LAs with fewer than 37,000 people or less than 26 percent of their population in rural settlements and larger market towns.</li><li>• <b>Significant Rural:</b> LAs with more than 37,000 people or more than 26 percent of their population in rural settlements and larger market towns.</li><li>• <b>Predominantly Rural:</b> LAs with at least 50 percent of their population in rural settlements and larger market towns.</li></ul>
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(adapted from ONS, 2004)

This classification still had limitations because it was population based and did not capture the historical, economic and political differences between local authorities and the settlements within them. Some settlements had a long administrative tradition but were now in decline and losing functions to other newer rapidly growing settlements. Examples were the relative decline of many medieval market towns or industrial cities in coalfield areas and the growth of suburbs and ‘new towns’ in the twentieth and twenty first century.

## **5. Relative Deprivation 2007 (Communities and Local Government)**

It became clear that socio-economic data was important in this research because there was a well-established link between deprivation and examination performance (Gorard, 2009a). A measure of relative deprivation would be useful to investigate whether there was any relationship between entries for geography and relative deprivation.

A number of proxy measures of deprivation were considered. The commonest proxy used by education researchers is Free School Meals but initially these proved difficult to establish at the Local Authority level. It was discovered that the Communities and Local Government Department creates an index of deprivation every three or four years using multiple indicators (income, employment, health, education, housing, living environment and crime) to rank local authorities which appeared to give a good basis for comparison at this scale.

For the purposes of this study the 2007 ranking was initially used as a measure of the relative deprivation of Local Authorities and comparison was restricted to GCSE entries in 2007. This index generalised the pattern of deprivation because it was based upon Lower Super Output Area (LSOA) enumeration districts but was the best measure available. When the NPD was used at a later stage in the research it was discovered that each student had been assigned a relative deprivation score (IDACI) based upon the same data set and this score was used for some analyses.

## **6. Edubase**

This online database of all schools in England proved invaluable in checking the status and contextual details of individual schools, especially for the sample and for checking the quality of the NPD data set. This allowed information such as the status of a school (open/closed) or the type of school to be checked.

## **7. Ofsted Reports**

Ofsted inspections were conducted on a regular basis and their reports provided an insight into the context of the school and its relative performance. These reports were couched in the broad categories defined by Ofsted inspection criteria but for the period between 2000 and 2005 when detailed subject reports were included in Ofsted reports these provided useful data about schools and the relative strengths of subjects.

### **3.4.2 Using Secondary Data**

This section starts by analysing some advantages and disadvantages of using secondary data and issues associated with reliability and validity. It will then discuss sampling issues using the three case study LAs as an example. Finally issues associated with analysing data in a careful and responsible manner will be discussed using the example of school categorisation.

Many of these data sets were as complete representations of the 'population' that sat examinations in Y11 as can be obtained. While there was inevitably some clerical problems with misplaced data in most cases the 'high stakes' nature of GCSE examinations

meant they were reliable and did not contain too many errors (Smith, 2006, p.22-26). Of more concern for this study was the reliability of the grades assigned to students (Smith, 2006, p.24-26) because these were used to calculate mean performance scores and assign students and schools into quartile groups of performance. The difficulties associated with grading along with the myth that assessment can be totally objective and not subject to error have been extensively discussed (for example Newton, 2005b, p. 471; Cresswell, 1996) However this study was not attempting to analyse in detail small scale school effects and to enter into the realm of school improvement and the minefield of data associated with 'league tables', value added and contextual value added scores (Gorard, 2009b; Leckie and Goldstein, 2009). Thus although there may be some mis-grading and therefore incorrect categorisation the errors will be relatively small and of little importance in the overall analysis.

The normal use of examination data for performance management and accountability did raise an important issue about the 'social construction' of this data set (Smith, 2006, p.28). The value placed upon particular grades (grades A\*-C) or level 2 in the National Qualification Framework was of fundamental importance to this study because it has been known to have important effects on decisions and actions in schools such as targeting borderline C/D candidates (Fitz-Gibbon, 1996, p.411). However this was an outcome of the data set not something that would raise questions about its reliability. Could this data set be manipulated by government? It was produced by organisations outside government control but subject to regulation by government funded quangos, so direct influence was

probably limited. It was decided therefore that despite the size of the data sets wherever possible the full population data sets would be used.

The advantages of these data were that they were easily available, cheap and more accurate than any sampling method I could organise myself (Gorard, 2001, p.44-45). The disadvantages included the fact that they were enormous, complex and take time to understand and analyse. They also did not necessarily answer all the questions being asked in the research and because they were compiled for a different purpose may be biased or selective (Smith, 2006). Therefore throughout there was a presumption that the messages from the statistics should be treated with care and like all data challenged, questioned and supported through the use of other data (Gorard, 2001; Smith, 2006). As with all statistical analysis there was recognition that the relationships were not necessarily causal.

### **3.4.3 Sampling: How representative were the three local authorities?**

The three LAs initially chosen for more detailed study were intended to represent a stratified sample of LAs in England and to be representative of geography entries. Data available at the time the initial choice was made were limited, as was the researcher's knowledge about available data. It was therefore initially not possible to check if entries for geography were representative of all LAs. When data about LAs was collected later it was found that these three LAs all had higher geography entries than expected for their category so they were not representative of national patterns. This was rationalised as an advantage since it would allow investigation of 'success' stories to inform future work by

the geography education community. However it did have the disadvantage of being a biased sample that eliminated LAs that were perhaps more interesting (Gorard, 2001, p.25). An attempt was then made to see how closely this sample matched the national statistics in other characteristics. The sample was only a partial fit and this must be remembered when interpreting the results.

The redefinition of LAs into five categories based on government data (data set 4) took place late in the study when this more precise classification was identified. Using the new classification the LAs can be categorised as Major Urban, Other Urban and Predominantly Rural. This means that two categories were not included. One was the significantly rural category, which is a transitional one between urban and rural areas where there is a dense population often in closely spaced small towns and villages often close to large urban areas. Good examples were parts of the Home Counties around London. The other was the large urban category which were the medium sized usually metropolitan districts with populations over 50 000 people but located within a larger conurbation.

These LAs were selected to be as representative of the national cohort as possible (Gorard, 2001, pp.10-12), although they represented only 3.0% of the total student population and 3.2% of secondary schools. How representative of the national cohort were they?

The student cohort matched the national pattern using the government's seven mainstream ToE school categories (table 3.3). The voluntary aided group was over

represented by 1% and the independent sector was under-represented by 1.6% of the total entry. However there were more schools in the community, voluntary aided and voluntary controlled categories so the average student cohort was smaller in these schools.

Table 3.3 Comparing the National Data Set to the sample of Three Local Authorities

<b>2003</b>	<b>Number of Y11 Students England</b>	<b>Number of Y11 Students: 3 LAs</b>	<b>Percentage of Y11 student cohort: England</b>	<b>Percentage of Y11 student cohort: 3LAs</b>	<b>Percentage of Schools : England</b>	<b>Percentage of Schools: 3 LAs</b>	<b>Average number of Y11 students: England</b>	<b>Average number of Y11 students: 3LAs</b>
<b>Mainstream Schools</b>								
<b>Community</b>	370470	11143	60.9	61.1	50.5	57.5	186	153
<b>Voluntary Aided</b>	80842	2607	13.3	14.3	13.0	15.0	157	137
<b>Voluntary Controlled</b>	20077	633	3.3	3.5	2.4	3.1	209	158
<b>Foundation</b>	93422	2823	15.4	15.5	12.8	10.2	185	217
<b>Independent</b>	40437	867	6.6	4.8	20.7	15.7	49	43
<b>City Technology College</b>	2627	166	0.4	0.9	0.4	0.8	175	166
<b>Academy</b>	543	0	0.1	0	0.1	0.0	181	0
<b>Total Mainstream Schools</b>	<b>608418</b>	<b>18239</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>154</b>	<b>144</b>

The student attainment data suggests the total cohort for the three Local Authorities was a close match to the national situation (table 3.4). The cohort was slightly weighted towards to bottom 75% of attainment with all three of the bottom quartiles being larger than the national spread so the top quartile was under-represented by 2.7%. The table shows the attainment profile of the city and town was weighted towards the bottom end while county was under-represented by 8.2% in the bottom quartile.



Table 3.4 Comparing Student attainment in the three LAs 2003

Location	Bottom quartile	3rd Quartile	2nd Quartile	Top Quartile	Total
City	27.8	26.3	25.4	20.6	100.0
County	15.5	25.4	30.3	28.8	100.0
Town	25.9	25.1	28.7	20.3	100.0
3 LAs	25.1	25.9	26.8	22.2	100.0
National	23.7	25.3	26.1	24.9	100

**Green** = Higher than national mean; **Red** = lower than national mean

The three LAs also showed very different levels of relative deprivation with City being more deprived than either Town or County (table 3.5). It is not possible to use this data to compare the level of deprivation just the rank order, but it does suggest there may be a relationship between deprivation and attainment.

Table 3.5 Relative deprivation of the three LAs 2003

Relative deprivation 2003	City	County	Town	3 LAs
Mean Deprivation	0.33	0.13	0.23	0.28
Standard Deviation	0.19	0.09	0.17	0.19

The ethnic profile was not representative because of the over-representation of ethnic minorities (of all types) in City and the large number of students whose ethnicity was

refused or not obtained in County (table 3.6). Overall the White British group was under-represented in the three LAs by 16.5%.

Table 3.6 Comparing ethnicity in the three LAs (percentage of cohort, 2003)

<b>% Ethnicity of the Cohort (2003)</b>	<b>National</b>	<b>City</b>	<b>County</b>	<b>Town</b>	<b>3 LAs</b>
White British	74.0	47.7	72.5	87.9	57.5
Irish	0.4	1.5	0.1	0.1	1.1
Any Other White Background	1.7	2.2	0.7	1.2	1.8
Bangladeshi	0.9	3.5	0.0	0.3	2.4
Chinese	0.3	0.3	0.3	0.4	0.3
Indian	2.3	7.1	0.2	1.9	5.1
Pakistani	2.2	15.6	0.1	1.2	10.8
Any Other Asian Background	0.5	1.4	0.0	0.3	1.0
African	1.3	1.2	0.0	0.3	0.8
Caribbean	1.4	5.8	0.0	0.4	4.0
Any Other Black Background	0.4	1.0	0.0	0.1	0.7
White and Asian	0.3	0.5	0.2	0.1	0.4
White and Black African	0.1	0.2	0.0	0.0	0.2
White and Black Caribbean	0.6	2.0	0.2	1.0	1.5
Any Other Mixed Background	0.6	1.8	0.2	0.4	1.3
Gypsy / Romany	0.0	0.0	0.0	0.0	0.0
Traveller Of Irish Heritage	0.0	0.0	0.0	0.0	0.0
Any Other Ethnic Group	0.7	1.6	0.1	0.1	1.1
Information Not Obtained	10.4	5.8	11.9	3.3	7.7
Refused	1.9	0.7	13.5	0.8	3.3
Total Entries	100.0	100.0	100.0	100.0	100.0
Total Entries	608418	12394	3664	2181	18239

What this analysis of the sample demonstrated was the difficulty of achieving a sample representative of the national cohort. Although the number of students was representative of the national cohort and the three LAs were approximately correct in

terms of spread in rural / urban categories, in many other respects the sample was unrepresentative. This must be remembered when considering data from this sample. It would be possible to make statistical corrections for the differences but this was not done because there was no attempt to draw correlational inferences from the data. For the purposes of this study one of the key findings was the diversity that exists between different LAs.

#### **3.4.4 Classifying and categorising schools: using data responsibly**

Schools are diverse in so many ways that using a simple classification was difficult. Some classifications were more readily available in the data sets while some potentially interesting differences had to be derived from other sources. This section describes the issues that had to be considered in deciding on classification criteria, the data to be used to classify schools using the Newsam intake performance classification and the formula used.

The methodological problem was how best to classify the different types of school to investigate this issue. It was decided to manipulate the data in different ways to see whether significant patterns emerged that could be further investigated for confirmation and clarification of the findings using other research methods. This was a flexible design research strategy where 'the central aim is to generate theory from data collected during the study' (Robson, 2002, p.90). The advantage of using census data was that any differences that exist are variations in the full population not apparent differences that might result from sampling errors.

The variety of school classifications were identified in chapter 2 (page 50). There were two immediate issues because of the diversity of schools in the English education system and plethora of ways of classifying them. Firstly which of the classification(s) should be used and secondly how easy would it be to obtain the data. Two of the possible classifications are described below with a discussion of possible associated research issues and implications.

**a) Provision: State and independent schools.**

This classification appears to be a relatively straightforward binary classification:

Is the school funded by the state? Yes or No? One implication of this classification is that there can be differences in the curriculum provided by the school. State-funded schools have to follow government regulations and legislation while independent schools do not. However this has become more complex in recent years where the funding of some state schools (City Technology Colleges and Academies) has been removed from local authority control. Instead funding comes directly from the government and may be topped up by private sponsors. These schools are also partly removed from government regulations so they have more freedom to decide on the curriculum taught.

This classification also illustrates that ‘facts’ in the real world are not value free. People’s perceptions of independent schools vary enormously and there is considerable debate about the quality and nature of the education they provide. These differing viewpoints might influence the research questions or respondents interactions with the researcher.

## **b) Type of school**

The English education system has a large number of different types of school with multi-layered categories (such as 11-16, Roman Catholic, Voluntary Aided, Mixed, Comprehensive, Technology school) although most official data uses one classification largely based on governance and selection (ToE). In the NPD this has led to twenty to thirty categories of school of which only seven were mainstream schools (table 3.7). The features outlined in table 3.7 contributed to the diversity of schools because they might result in different aims and approaches to education.

Table 3.7 Similarities and differences between types of school

<b>Governance</b>	<b>Funding</b>	<b>Owned</b>	<b>Admissions</b>	<b>Employer</b>	<b>Curriculum</b>
Community	LA	LA	LA	LA	National
Foundation	LA	Governors	Governors	Governors	National
Voluntary Aided	LA	Charitable Foundation	Governors	Governors	National
Voluntary Controlled	LA	Charitable Foundation	LA	LA	National
Independent	Private fees	Charitable Foundation	Governors	Governors	Governors
City Technology Colleges	Govern ment	Charitable Foundation	Governors	Governors	Governors / National
Academies	Govern ment	Charitable Foundation	Governors	Governors	Governors / National

Table 3.7 does not capture all the diversity within these groups of schools, some of which is the result of the admissions policy of the school (table 3.8).

Table 3.8 Admissions policy for different types of school

Type of School	Admission policy
Comprehensive	All ability
Selective	Highest achievers
Modern	All ability (not most high achievers)
Independent	Varied
City Technology College	All ability
Academy	All ability

Admission policy was also unsatisfactory because it did not reflect the diverse nature of the actual cohorts in schools which the literature review had suggested was likely to be segregated by residential area and social class. An alternative classification that more accurately reflected the actual attainment of the school cohort was the eight school categories proposed by Newsam (2003). The initial study had suggested the attainment of individuals and the cohort was worth investigating because there appeared to be a relationship between attainment and geography entries. Unfortunately none of the data categorised schools in this way so it was decided to do in an alternative way. The initial ideas were to use baseline data collected by schools about entry performance or outcome data such as GCSE performance (5+ level 2 grades or mean points score).

Originally it was thought that it would be difficult to collect intake attainment data because although it was available within schools it was not published so it was decided to use KS4 data instead. GCSE performance data were less problematic to obtain because there are nationally published performance tables that provide performance outcomes at age 16 for every state school. This measure has a strong correlation with entry performance but was not perfect as there are known school effects. One solution might

be to weight schools by their value added (VA) or contextual value added (CVA) scores (DCSF, 2007). However the accuracy and value of these scores is disputed (Leckie and Goldstein, 2009; Gorard, 2009b). The complexity of the calculations used and the margin of error mean it is difficult to be certain whether the school effect is 'real' or 'statistical'.

“Is the variation in school outcomes unexplained by student background just the messy stuff left over by the process of analysis? Or is it large enough, robust enough, robust and invariant enough over time, to be accounted a school 'effect'?” (Gorard, 2009b: p.2).

There are a number of other caveats about the quality of KS4 performance data. Firstly while the data is the result of a national census and can be deemed to be reliable because it is the outcome of a 'high stakes' examination process that is externally administered (by awarding bodies) and monitored (by QCA until 2010 and Ofqual from 2010) there are inevitably some elements of unreliability within the data. Some of these relate to the methods used to compile the data set, some to the impact of using the outcomes of GCSE examinations as a measure of accountability on the behaviour of school managers and some to the underlying principles and processes of GCSE assessment which are beyond the remit of this research.

Secondly a decision had to be made about the performance measure to be used within the data set as there were several alternatives. Average point scores KS4 meanG (2003) and average pts score (2007) were chosen because they gave a continuous measure of overall student performance at Year 11. The more commonly used reported measure of school performance: the proportion of students achieving 5+A\*-C (level 2) grades was a

categorical (binary) variable that just reported: Achieves level 2: True or False. In contrast average point scores were capable of distinguishing between the relative quality of performance. The capped point score (the eight best scores achieved by a student) was not used because it was a more limited reflection of the curriculum followed by some students. The point score was derived from categorical data where the grade obtained in an examination is given a point score. Since there are eight grades at GCSE level this allowed relatively small differences in performance to be identified, although some variation in performance (eg the range of scores within a grade) was lost. The point score was based upon the overall performance calculated from student performance in all approved qualifications entered at age 16.

Table 3.9 Quartile share of the cohort

<b>KS4 mean GCSE performance Mainstream Schools</b>	<b>Top 25%</b>	<b>2nd 25%</b>	<b>3rd 25%</b>	<b>Bottom 25%</b>	<b>Total</b>
<b>Total Students 2003 % of Mainstream Cohort 2003</b>	151228 (24.9%)	159041 (26.1%)	154224 (25.3%)	143925 (23.7%)	608418 (100%)
<b>Total Students 2007 % of Mainstream Cohort 2007</b>	166871 (25.7%)	165968 (25.6%)	164771 (25.4%)	150679 (23.2%)	648289 (100%)

(Source, NPD, 2003, 2007)

Having identified a measure of performance that could be used it was then necessary to use this measure to assign each individual student to one of four performance quartiles. The quartile boundaries were calculated and each student was assigned to one of the four performance groups (Table 3.9). The shares of the cohort are slightly different because all



students with the same performance score were assigned to the same group and students in special schools, who were largely in the bottom 25% of performance, were removed. The numbers of students in each quartile group in each school was calculated using a pivot table. A number of different formulae were used to more objectively and quickly classify the nearly 4000 schools in the NPD. Initially the formulae were tested by comparing the results with those already obtained for the three Local Authorities and decisions (table 3.10) were made about boundaries.

Table 3.10 Classifying schools by intake performance (Newsam)

<b>Selective</b>	More than 75% of students in the top 25% of the cohort performance
<b>Comprehensive plus</b>	More than 60% of students in the top 50% of cohort performance
<b>Comprehensive</b>	Between 40% and 60% of the students in the top 50% of performance
<b>Comprehensive</b>	More than 60% but less than 75% of students in the bottom 50% of performance
<b>Secondary modern</b>	More than 75% of students in the bottom 50% of performance

The underlying principle was that a truly 'comprehensive' school would have approximately the same number of pupils in each performance quartile whereas selective or secondary modern schools would have large numbers of students of similar attainment. The 'comprehensive' group was the most problematic group since this implied that there was equal numbers of students in each of the four performance groups. In reality very few schools had this even profile of performance so a decision had to be made about an

acceptable range from the mean. A judgement was made that comprehensive schools would have no more than 60% of students in either half of the performance cohort.

Only around 30% of schools nationally in any one year had a cohort that was comprehensive (table 3.11) based upon performance at KS4 while nearly 40% of schools had a cohort skewed towards high performers (selective and comprehensive plus). About 31-32% of schools had a cohort skewed to the bottom end of performance. This confirms the assertion above that in reality there are few schools in the country that are truly comprehensive in terms of their students' performance, especially when it is remembered that the definition of a comprehensive school (table 3.10) allowed some fluctuations between the quartile groups.

Table 3.11 Schools assigned to Newsam school types: 2003 and 2007

Mainstream Schools England	Number of Schools 2003	Percentage of Schools 2003	Number of Schools 2007	Percentage of Schools 2007
Selective	433	11.0	417	10.5
Comprehensive Plus	1104	27.9	1048	26.4
Comprehensive	1135	28.7	1267	32.0
Comprehensive Minus	806	20.4	890	22.5
Secondary Modern	473	12.0	341	8.6
Total	3951	100.0	3963	100.0

(Source: NPD, 2003, 2007)

Although this performance segregation is well recognised and diversity is encouraged by politicians there is still sometimes a tendency to talk about ‘comprehensive’ schools as if they were uniform in their student characteristics. What must also be remembered is that this classification is based on performance at KS4 not on intake. This means that any school effects are reflected in the quartile performance of each student. Interpretation of data must be done in a responsible and informed manner (Gorard, 2001).

Table 3.12 Schools assigned to Newsam school types: 2003 and 2007

	2007						
2003	Selective	Comprehensive Plus	Comprehensive	Comprehensive Minus	Secondary Modern	Closed after 2003	Grand Total
Selective	330 (76%)	90 (21%)	1 (0%)	0 (0%)	1 (0%)	11 (3%)	433 (100%)
Comprehensive Plus	71 (6%)	748 (68%)	230 (21%)	12 (1%)	14 (1%)	29 (3%)	1104 (100%)
Comprehensive	2 (0%)	143 (13%)	753 (66%)	206 (18%)	16 (1%)	15 (1%)	1135 (100%)
Comprehensive Minus	2 (0%)	16 (2%)	224 (28%)	443 (55%)	97 (12%)	24 (3%)	806 (100%)
Secondary Modern	2 (0%)	6 (0%)	41 (9%)	195 (41%)	176 (37%)	53 (11%)	473 (100%)
Opened after 2003	10 (6%)	48 (31%)	25 (16%)	37 (24%)	37 (24%)	NA	157 (100%)
Total Schools 2003	417 (10%)	1051 (26%)	1274 (31%)	893 (22%)	341 (8%)	132 (3%)	4108 (100%)

Although the overall numbers of schools in each category were approximately the same in 2003 and 2007, the performance of individual school cohorts varied so schools were not necessarily assigned to the same Newsam group. The 2003 and 2007 cohorts were compared to identify changes (table 3.12). The yellow shading identifies where there is

the greatest commonality between school types in the two years. This suggests about two thirds of schools stayed in the same Newsam group and therefore broadly had the same cohort performance between the two years. However there were differences between different school types with this number ranging from 37% for secondary modern schools and 76% for selective schools. There are many different points that could be made about using this data responsibly but two will be focused on here, the use of percentages and the interpretation of results.

Some of the problems with using percentages can be illustrated using the data from table 3.12. The total number of selective schools fell a little from 433 to 417, a fall of 16 (a fall of nearly 4%) between 2003 and 2007. The number of selective schools that had a slightly less selective intake in 2007 was 90 (21%) while the number of comprehensive plus schools that became more selective was 71 (6%). Although the numbers are similar the percentages are very different because the cohort sizes are different (433 selective; 1104 comprehensive plus in 2003). Because the denominator in the comprehensive plus group is larger the percentage change is much lower. Percentages need to be used responsibly so within this study segregation ratios have often been used to try to allow for cohort size (Gorard, 2001, p. 65-71). There are a number of different indices that have been used over time and some dispute over what they show (Allen and Vignoles, 2007; Gorard, 2009b) but the important point for this study is that where they have been used it is in an attempt to try to make a more realistic assessment of differences between groups.

The second issue about responsible use of data is in the interpretation of the results. Again using data from table 3.12 secondary modern schools showed the most change, partly because of closures (11%) and movement (41%) to the comprehensive minus group. Comprehensive minus schools also showed greater change as 28% of schools moved into the comprehensive group. These changes could be interpreted in different ways. The first might be to say that this shows that the spread of attainment in many secondary modern schools has broadened so the school group has become less segregated. This is further illustrated by the reduction in the number of schools in this category from 473 in 2003 to 341 in 2007. Another interpretation might be to say that half the secondary modern schools in 2007 had failed to change the performance of their cohort from 2003. A third might be to say that secondary modern schools had been more successful in raising the attainment of their students. The differences in these statements illustrate the way that the same data can be interpreted in different ways (Gorard, 2001). These interpretations may be to make a point that supports the case being made or they may just be slightly different phrasing that actually communicates a different message to the reader because of the use of either positive or negative language. Using data in a careful and responsible manner therefore requires an understanding of the methods used, the limitations of the underlying data and a responsible approach to interpretation of data.

### 3.5 SCHOOL LEVEL DATA

The national and local authority data illustrate how while the general patterns can show national trends what happens in the individual school can be very different. To capture a more detailed picture of what was happening in individual schools detailed analysis of five schools was undertaken. The data was collected over a period of time and attempted to identify the trends that have occurred during that time. Methods of data collection included questionnaires, semi-structured interviews, data analysis and documentary evidence. This section lists the data sources, analyses the characteristics of the sample and discusses the strengths and weaknesses of the methods used.

#### 3.5.1 Data Sources

##### a) Three local authorities

Heads of Department in the three sample local authorities also provided data about the state of geography within their school. There were two main methods used:

- 1. Questionnaires completed by Heads of Department** *All heads of department in the three LAs were sent a questionnaire in 2005.*
- 2. Opportunistic data collection** *Groups of teachers in these LAs provided updates on their perception of GCSE geography at a number of different times between 2004 and 2009.*

##### b) Five Schools

These schools were an opportunistic sample representing a range of schools from two of the three local authorities. All were schools where geography was relatively successful.

The data sources and methods used were:

- 1. Head of department interviews** *A semi-structured interview was conducted with the heads of department in all five schools (2005-6)*
- 2. Pupil interviews** *Semi-structured group interviews were conducted with a sample of pupils in three schools (2005-6)*
- 3. Pupil questionnaires** *Questionnaires were given to a sample of pupils in all five schools (2005-6)*
- 4. Option choice manager' interviews** *A semi-structured interview was conducted with the Senior Manager responsible for designing and implementing the option choice system in all five schools (2005-6)*
- 5. Documentary evidence** *(Ofsted) Reports from 2000-2006 provided a commentary on subject departments. These were consulted for all the sample schools. Web sites, school prospectuses, option choice booklets and choice forms were also consulted to collect additional information*

The sample was stratified and opportunistic rather than random and did not attempt to be representative of all the different types of school categorised in this research. Data for each school was explicitly compared with national and Local Authority data to demonstrate diversity but also similarities where they occur. The rationale was that it was more important to capture 'success' than to have a random sample and that any bias could be highlighted by comparing the sample against the whole cohort of schools. It was intended this sample would provide 'richer' data that identified commonalities and

differences between schools that was not captured in the trends and patterns of the national and local data.

### **3.5.2 Sample**

The five schools were chosen using the following criteria. They:

- represented different types of schools eg Grammar; Comprehensive plus; comprehensive minus; modern comprehensive 11-16, 11-18; type of governance; single gender, mixed;
- had diverse locations within the three LAs so that the socio-economic characteristics of their catchments varied;
- had good entries for geography so represented successful departments;
- were accessible to the researcher;
- had staff and pupils who were willing to participate.

The five schools will be known as:

- Lakeview (LV); Riverside (RS); Clifftop (CT); Parkland (PL); Southvale (SS)



Some of the school characteristics are outlined in table 3.13

Table 3.13: School Characteristics for the Five Schools

Characteristics	Southvale	Riverside	Lakeview	Parkland	Clifftop	National
DfE categories	Community	Community	Voluntary Aided	Community	Voluntary Controlled	
Gender	Mixed	Mixed	Boys / Mixed	Girls	Mixed	
% Female 2007	51	51	32	100	53	50
Age range	11-16	11-16	11-18	11-16	11-18	
Deprivation 2003	0.43	0.11	0.17	0.41	0.09	0.21
Deprivation 2007	0.41	0.10	0.13	0.36	0.10	0.19
Admission	Comprehensive	Comprehensive	Selective	Comprehensive	Comprehensive	
Newsam Category	Secondary Modern	Comprehensive	Selective	Comprehensive	Comprehensive	
FSM 2011	65%	8%	3%	50%	4%	14% (2004)
Specialism (s)	Arts 2005	Science 2003	Humanities 2004 Science	Technology 1996	Technology 2001	
Performance 2003 Capped point score	23.0	38.4	53.6	42.6	39.6	34.8
Performance 2007 Average total point score per student	238.8	439.4	555.3	476.9	386.6	378.2

The data for this analysis is summarised in table 3.14 and comes from documentary, statistical and interview sources.

Table 3.14: Data sources used in comparing the five schools

Characteristics	Southvale	Riverside	Lakeview	Parkland	Clifftop
Ofsted Inspection Reports	Yes	Yes	Yes	Yes	Yes
School Prospectus	Yes	Yes	Yes	Yes	Yes
Web Sites	Yes	Yes	Yes	Yes	Yes
Option Choice Booklets	Yes	Yes	Yes	Yes	Yes
LA data 2000-2007	Yes	Yes	Yes	Yes	Yes
NPD / PLASC 2003/2007	Yes	Yes	Yes	Yes	Yes
Edubase	Yes	Yes	Yes	Yes	Yes
SMT* interview	Yes	Yes	No	Yes	Yes
HoH interview	No	No	Yes	No	No
HoD interview	Yes	Yes	Yes	Yes	Yes
HoD questionnaire 2005	Yes	No	No	Yes	Yes
Student Y9 interview	15	No	9	No	4
Student Y10 Interview	0	No	8	No	4
Student Y9 Questionnaire Total (M/F)	15 (6/9)	32 (22/10)	9 (5/4)	19 (0/19)	4 (2/2)
Student Y10 Questionnaire Total (M/F)	0	29 (11/18)	8 (2/6)	21 (0/21)	4 (1/3)
Other contact	Teacher Training	No	Geographical Association	Teacher Training	Governor

\*SMT: Senior Management Team; HoH: Head of Humanities; HoD: Head of Department

Three heads of department (HoD) completed the LA questionnaire in 2005. Interviews using a semi structured format were conducted with four Senior Managers (SMT) responsible for designing and implementing the option choice system, one head of humanities (HoH), who was also an assistant head teacher and five heads of geography (HoD). There were group interviews with Year 9 (Y9) and Year 10 (Y10) students in three schools. Students in all five schools also completed a questionnaire about their choices and subject preferences. The main period of data collection in schools was between April 2005 and July 2006.

### **3.5.3 Teacher Questionnaire**

In 2005 a questionnaire was sent to geography Heads of Department in 125 schools in the three case study Local Authorities. This questionnaire was sponsored by the QCA geography subject officers and the stated aims were:

- To investigate trends in geography entries for GCSE between 1999 and 2004
- Identify the main influences on student choice of geography as a subject to study

The design of the questionnaire involved analysis of the style of question used by QCA so that the questionnaire looked similar. Questions were designed to provide both relatively easily processed data through the use of closed or likert scale questions about specific topics or factual information relevant to the study. Examples are the questions that were asked about staffing and changes over time. These were very specific to speed coding and analysis. Wording of these questions was important to reduce the risk of respondents mis-

interpreting the question and answering questions that had not been asked (Robson, 2002, p.242).

Some questions were however more open-ended to allow more discursive answers. These were amongst the most significant questions because the responses were so diverse. However this meant that analysing them was more problematic because they required coding and sorting into categories. Reporting these comments was also problematic because of the diversity but also the range of interesting 'quotes' produced. These were not acknowledged individually because of the number of responses and issues of confidentiality.

One area that did not work well and produced little meaningful data was the questions about pedagogy and approaches to teaching and learning. In hindsight a questionnaire approach was probably not a reliable or valid way to collect this data, but there were two specific problems with the questions as written. Twelve statements about approaches to teaching derived from Rawlings classification of educational ideologies (Rawling, 2001, p. 32) were created using a semantic differential scale (Robson, 2002, p.302). Responses to these were intended to give an indication of the preferred ideological approach(es) of the teachers to see whether there were then entry effects. In reality there are so many flaws in the underpinning assumptions about this and also in the way that teachers responded to these questions that the outcomes were deemed worthless and this data was not utilised. This reinforces the need to be clear about intended outcomes and the danger of spreading the research focus too widely.

The representativeness of the returned questionnaires was checked. The total population of mainstream secondary establishments, including independent schools, in the three Local Authorities was 135 but ten small schools with less than 25 students in the Y11 cohort were excluded because the cohorts were too small for significant choice to occur. Completed questionnaires were received from 70 (56%) schools. There was a more positive response from the town and county heads of department (67%) because questionnaires were completed during an INSET day for these two authorities. The questionnaires to city schools were a postal survey and a relatively high return rate (51%) for surveys of this type was achieved after three mailings. The sample size and response rates reflect the relative size of the local authorities but are likely to under-represent the schools that have relatively poor results (Gorard, 2001).

Table 3.15 Response rates for the three LAs

<b>HoD Questionnaire 2005</b>	<b>Returned</b>	<b>% returned</b>	<b>Not returned</b>	<b>% not returned</b>	<b>Total</b>
<b>City</b>	41	51%	40	49%	81
<b>Town</b>	10	67%	5	33%	15
<b>County</b>	19	66%	10	34%	29
<b>Total</b>	70	56%	49	44%	125

The sample was a fair representation of the national school cohort with no type of school being more than 2% different. Geography entries were 1.4% higher than the national mean (32.8%) and there were 1.8% more females than expected nationally (49.0%). Pupils were generally educated in larger schools and the sample was representative of mean performance. Differences between the sample and non-returns were small although in

county and town lower performing students were slightly over-represented. Geography entries were higher (+20) in the sample group compared to the non-returns suggesting more successful departments responded. The gender balance was similar but levels of deprivation were lower (0.06) in the sample group which means that the most deprived students were under-represented.

The data from the questionnaires were entered onto a series of spreadsheets to enable easy analysis of the quantitative responses. Where more open ended questions were asked the responses were coded and incorporated in the report where appropriate.

#### **3.5.4 Semi-structured interviews** (see appendices 1 and 2)

Semi-structured interviews were used with all the staff in schools because the main areas of interest were already known so these could be used as the framework for the questions. There were a series of main heading followed by prompts that were used as reminders of areas it was important to cover. In some cases some areas were pre-empted. In all cases the procedure was similar. Introductory comments were followed by specific questions using the pre-designed interview schedule. At the end the interview was concluded by thanking the interviewee for their help with the study and there was often an informal discussion about issues but this was not recorded or used in the analysis.

The interviews were recorded and notes were made during the interview because the interviewer found it useful to organise their own thoughts through making a record and it also meant that data was not lost if one or other collection method failed. These notes

were relatively detailed so the tapes were only consulted where the notes were unclear or a particular section was worthy of further analysis.

Some questions were relatively closed to obtain specific information such as details of teaching history but most were relatively open-ended and were followed up with probing questions as necessary. Writing and delivering questions is important because it is relatively easy to guide or confuse interviewees by using long, complicated or leading questions. These questions were designed to allow the interviewees to discuss issues in a relatively discursive manner and the check list was only required to ensure that areas of interest were covered. There were only a limited number of questions and most of the interview was encouraging interviewees to express their views and opinions in an open manner. There were differences between the interviewees because some of them knew the interviewer in other contexts while others had never met. Interviews also have problems where interviewees say what they think the interviewer wants to hear.

The data collected has been re-analysed and collated under a series of different headings. The method of analysis was to use the headings on the semi-structured interviews as the reporting basis.

### **3.5.5 Documentary data**

Documentary data included Ofsted inspection reports for the period 1999-2008 (various), School Prospectuses (SP), Web Sites (WS) and Option Choice booklets (OCB). The documentary data was analysed to collect factual data about the location of the school, the characteristics of the student intake and the overall performance of students within

the school. Perceptions of the school from different sources (Ofsted, prospectus, web site) were analysed to identify commonalities, areas of disagreement and change over time. Documents were analysed for evidence of school priorities, the quality of leadership (at senior and middle management levels), student performance, what the school does well and what needs to be improved.

### **3.5.6 Students** (see appendix 3)

Data was collected from students through questionnaires and small group interviews. The questionnaires were designed to be quick to complete and to elicit information about the students interest or lack of interest in geography, their aspirations, the range of subjects they had considered and the reasons for their choices. The questions asked were never intended to probe deeply into some of the more complex factors that were discussed in the literature. As a result the outcome was that they provided generalised responses that were insufficiently focused to get beyond the outcomes of previous studies.

The small group interviews provided a number of methodological problems that were not satisfactorily resolved. Establishing the procedures for the interviews depended upon the goodwill of teachers and pupils. To facilitate access interviews were conducted during lesson or tutorial time with groups that were selected by the staff. Sampling the cohort was therefore an issue because ideally the group would be representative of the school cohort and include students that were going to study geography or other subjects. The size of the interview groups was small so this was difficult. The age group posed another



problem. Y9 had a better memory of their choices than Y10 because of the length of time since the decision making.

The procedure for conducting the interview was also important (Robson, 2002, p.284-5) and a limited set of questions were designed to attempt to elicit relevant information. Facilitation of interactions within the group also had to be handled and considerable thought was given to how the quieter members could be given a chance to express their opinion. This was achieved by formally asking each member of the group to respond before opening up to a more general discussion. The decision to use group interviews was because it was an efficient technique for collecting data, tends to eliminate extreme or silly views, was quick and is generally enjoyable. Students are also less constrained talking to a stranger than in a one to one situation. Disadvantages include limits to the questions that can be asked, avoiding or handling conflicts within the group, students being influenced by responses from others, confidentiality over sensitive areas and the findings are not generalisable (Robson, 2002, p.284-3). Some of these limitations operated in this situation so the usefulness of the data for this study was limited. As a result data collected from students has not been used extensively within this report.

### **3.5.7 Conclusion**

In conclusion data were collected in different ways so that the findings could be triangulated to check reliability and validity. Most data were quantitative and used to seek patterns and possible explanations for the changes in entries. There was an emphasis on

trying to establish understanding that would provide usable information rather than merely interesting statistical relationships.

Results relating to Objective 1 are reported and analysed in chapter 4. This sets the context for chapter 5 where the conceptual model of option choice is used as a framework for data reporting. Not all aspects of the model are discussed and in many areas the focus will be deliberately limited.

**Objective 1: To better understand changes in the patterns of entry for GCSE geography**

**What changes in the patterns of geography entry can be identified over time?**

The patterns reported in chapter 4 are:

1. National trends
2. Student characteristics: performance, gender, deprivation, ethnicity
3. Type of school
4. Spatial patterns
5. Other subjects
6. Three sample local authorities

**Objective 2: To use the conceptual model of option choice as a framework for analysing change in geography entries at school level.**

The following questions identified as relevant and linked to different areas of the conceptual model are reported in chapter 5.

**a) What evidence is there that changes in government policy have influenced entries for geography?**

- b) What influence does the structure of the KS4 curriculum have on geography entries?**
- c) Has curriculum change influenced geography entries?**
- d) What impact do teachers and departments have on the numbers taking geography?**
- e) Why do students choose to study geography?**

# CHAPTER 4: PATTERNS OF ENTRY FOR GEOGRAPHY

## 4.1 INTRODUCTION

The research aim was to investigate the reasons for the decline in numbers taking GCSE geography that first occurred in 1996. While overall trends had been presented in graphs such as figure 4.1 the study wanted to see if further insights could be gained from comparing geography entries with those for other subjects. The analysis process has been on-going and iterative as new data has been collected and different ideas tested. The intention was to gain a more comprehensive understanding of existing entry patterns and trends over time.

**Objective 1: To better understand changes in the patterns of entry for GCSE geography.**

*What changes in the patterns of geography entry can be identified over time?*

The patterns reported here are:

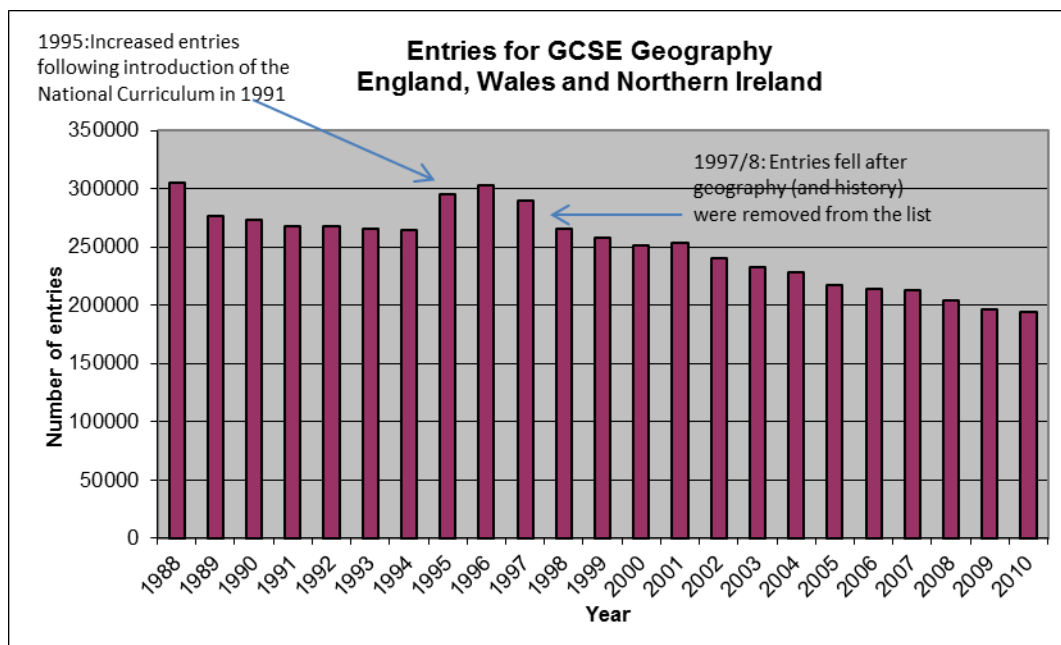
- 4.1 *National trends*
- 4.2 *Student characteristics: performance, gender, deprivation, ethnicity*
- 4.3 *Type of school*
- 4.4 *Spatial patterns*
- 4.5 *Other subjects*
- 4.6 *Three Local Authorities*

## 4.2 NATIONAL TRENDS

The starting point was the national entry data for geography since the introduction of the GCSE in 1988 (figure 4.1). This data showed that entries started high in 1988 (over 300 000), fell to 1994, rose for two years and then fell from 1996 to 2010. It is worth noting that the accuracy of the data for 1988 to 1999 was difficult to verify because the source

data was not easily accessible. The source used (Walford, 2001: 230-1) did not cite sources or give any indication of geographical coverage (England or UK). It is probable that the source was a predecessor of the Joint Council for Qualifications (JCQ) who annually produce reports on examination entries and the geographical coverage was the UK (England, Wales and Northern Ireland). This was established by comparing Walford's data with another site covering GCSE results for 1993-2010 (Stubbs, 2011) and the JCQ data for the last ten years. The source data for the years 2000-2010 came directly from the JCQ website. This graph was developed on an annual basis as entry numbers were published each August. Unfortunately the trend showed a continuing fall.

Figure 4.1 Trends in National Entries for GCSE Geography 1988-2010

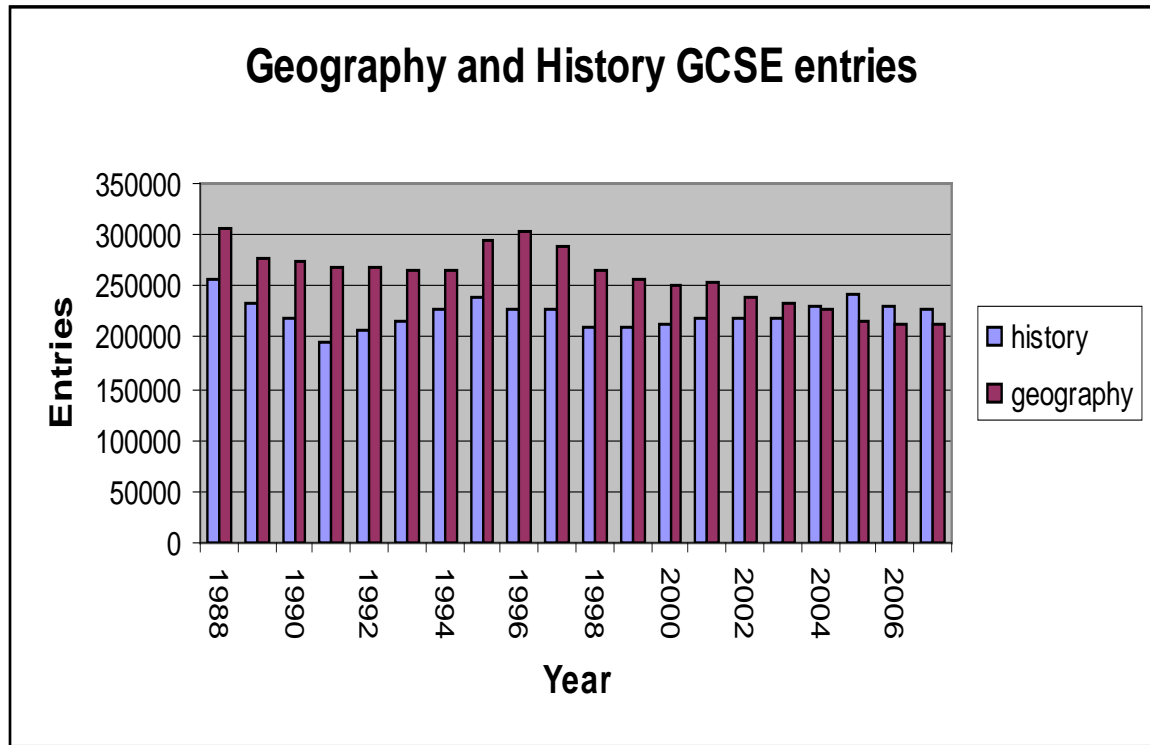


(Source Walford, 2001; JCQ Various)

There was initial uncertainty whether the rise in entries in 1995 and the fall after 1996 could be directly attributed to government policy. The literature search provided supporting evidence that others thought changing policy during the introduction of the National Curriculum in the early 1990s was a direct cause (Daugherty, 1996, Butterfield and Chitty, 1998, p.4-5). My experience of working as an advisory teacher between 1990 and 1992 was that many schools changed their option system at KS4 to one that required students to study either geography or history in line with the National Curriculum requirements in operation between 1991 and 1993. This change took two to four years to show up in GCSE entry data because the GCSE course is two years long and a change in policy requires a lead in time before implementation.

The requirement to study either geography or history was short lived because there were complaints that it reduced student choice and other optional subjects were suffering (Daugherty, 1996; Butterfield and Chitty, 1998; Rawling, 2001). The Dearing review of the National Curriculum (Dearing, 1993) re-established the view that in England 14-16 year olds should have a larger choice of subjects to study. Thus political pressure resulted in a change of this policy in 1993-4 and a return to the pre-national curriculum situation where students were no longer required to study geography or history at KS4. Over the next four years there was a drop in entries of 51293 with the largest fall (36725) two years immediately after the change of policy (1997 and 1998). This trend seemed clear and led to the idea that the influence of government policy should be investigated further.

Figure 4.2 A comparison of entries for Geography and History 1998-2007



The hypothesis that government policy influences entries for GCSE was tested by analysis of entries for history. History provided a useful comparison because it had broadly comparable entry numbers to geography, experienced the same status changes in the 1990s and is often a direct competitor in option choice blocks (figure 4.2).

The comparison between geography and history suggested that this hypothesis might be only partially true. While the patterns of entry were broadly similar in terms of peaks and troughs the timings were subtly different and history entries stayed at a much more consistent level. There was a sharp decline in history entries between 1988 and 1991 followed by an increase between 1992 and 1995 but unlike geography numbers did not reach 1988 levels. With the removal of statutory status in 1995 numbers declined (like

geography) but the drop was relatively small and lasted only until 1999. Subsequently there were small gains until by 2004 entries overtook geography and reached a peak in 2005 that was almost at 1988 levels. The conclusion was that while changes in government policy appeared to have had some influence on history entries, the impact was smaller and entries over time were more stable. Of particular interest was the difference in the trends in the period 2001-2005 where history increased its entries and for the first time became more popular than geography. This led to questions about the causes of the differences between the subjects but it was decided to retain the geography focus while tentatively exploring differences and similarities between the subjects.

Other potential research areas initially considered also later became beyond the scope of this research. They refer to the content, pedagogy and appeal of different subjects and their media profile.

- Was the nature and content of other subjects (eg history, media, PE) more exciting and interesting than geography?
- Was the teaching of other subjects better?
- Was the media profile of other subjects higher than geography?

### **4.3 STUDENT CHARACTERISTICS**

Four student characteristics, **gender, performance, deprivation and ethnicity** were investigated to gain a better understanding of entry patterns.



### 4.3.1 Gender and performance

Geography has consistently had a gendered entry with more boys studying the subject.

The gender ratio has been remarkably consistent given the fall in entries over time with 44-45% of entries being female (figure 4.4). This is a ratio of 9 girls /11 boys.

Table 4.1 Entries for GCSE geography (UK) by gender 2001-2010

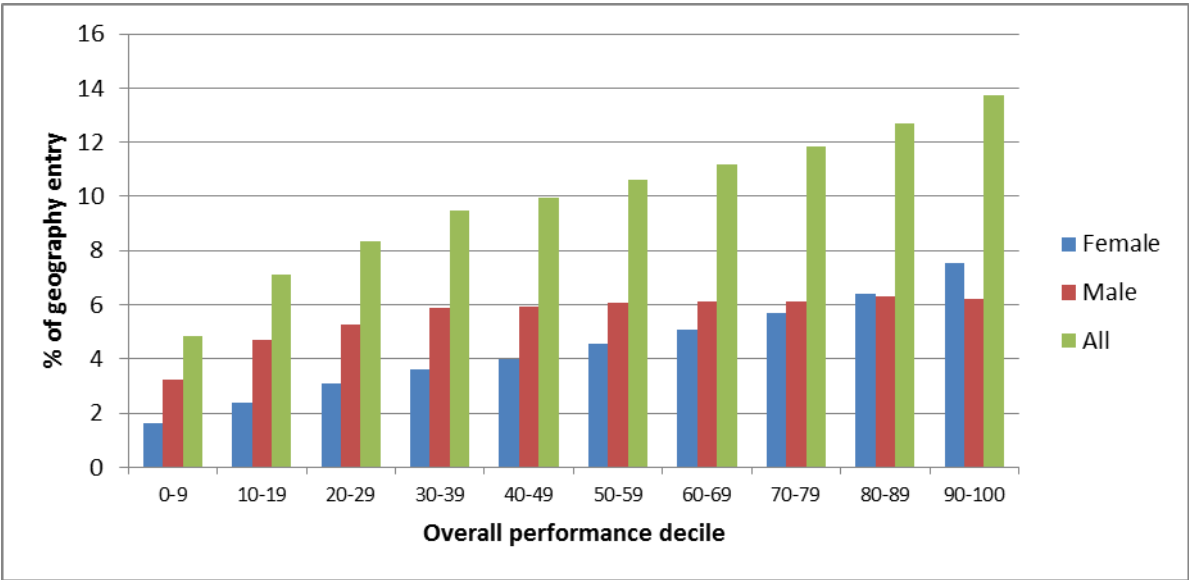
Year	Percentage entry for Geography (female)	Percentage entry for Geography (male)
2001	44.3	55.7
2002	44.0	56.0
2003	44.0	56.0
2004	44.0	56.0
2005	43.8	56.2
2006	44.3	55.7
2007	44.7	55.3
2008	44.5	55.5
2009	44.8	55.2
2010	44.6	55.4
Mean	44.3	55.7
SD	0.32	0.32

(Source JCQ, various years)

The performance entries for geography were further analysed using the NPD data for 2003 and 2007. The cohort is slightly different from the JCQ data because the entries are for England only (about 90% of the UK entries). Initially the 623 530 students in the NPD for 2003 were ranked and grouped by mean performance using their average examination points score. 31 267 (5.0%) had no data for performance at KS4 so were ignored. The remaining 592 263 pupils were grouped into deciles with 0-9 being the lowest performing

students and 90-100 the highest. The total number of entries for geography in each decile was calculated categorising them by gender (figure 4.3).

Figure 4.3 Entries for geography by performance and gender (2003)



(Source: NPD, 2003)

As performance increased so the overall entry for geography increased (by about 1% for each decile). The 0-9 decile was low for both boys and girls because many students in this group were not entered for any examinations (they were in special schools or performing below the GCSE entry level). There appeared to be differential entry patterns with about 60% of boys entering for geography in each of the top seven deciles whereas the proportion of girls appeared to increase with performance, from a low of 17% in the bottom decile to 75% in the top decile. However this pattern does not take account of gender differences in the performance of the cohort. Girls have consistently performed better than boys at GCSE for many years so the relative share of boys and girls in each decile varied. For example in table 4.2a the expected number of students in each quartile

is about 152 000. If the genders were not segregated then there would be about 76 000 boys and girls in each box of the table. In reality there were almost 12 000 more girls in the top 25% of performance so girls were 18% over-represented. There were fewer girls in the bottom 25%.

Table 4.2a Performance by gender 2003 (all students)

2003 KS4	Female	Male	All Students
Top Group (24.9%)	1.18 (87971)	0.83 (63257)	1.00 (151228)
2 <sup>nd</sup> Group (26.1%)	1.05 (82411)	0.95 (76630)	1.00 (159041)
3 <sup>rd</sup> Group (25.3%)	0.94 (71457)	1.06 (82767)	1.00 (154224)
Bottom Group (23.7%)	0.83 (58849)	1.17 (85076)	1.00 (143925)
All students (100.0%)	49.5% (300688)	50.5% (307730)	100.0 (608418)

Table 4.2b Performance by gender 2007 (all students)

All students 2007 KS4	Female	Male	All Students
Top Group (25.7%)	1.15 (94012)	0.85 (70363)	1.00 (164375)
2 <sup>nd</sup> Group (25.6%)	1.04 (84880)	0.96 (79501)	1.00 (164381)
3 <sup>rd</sup> Group (25.4%)	0.95 (76838)	1.05 (86621)	1.00 (163459)
Bottom Group (23.2%)	0.84 (61793)	1.16 (86815)	1.00 (148608)
All students (100.0%)	49.5% (317523)	50.5% (323300)	100.0 (640823)

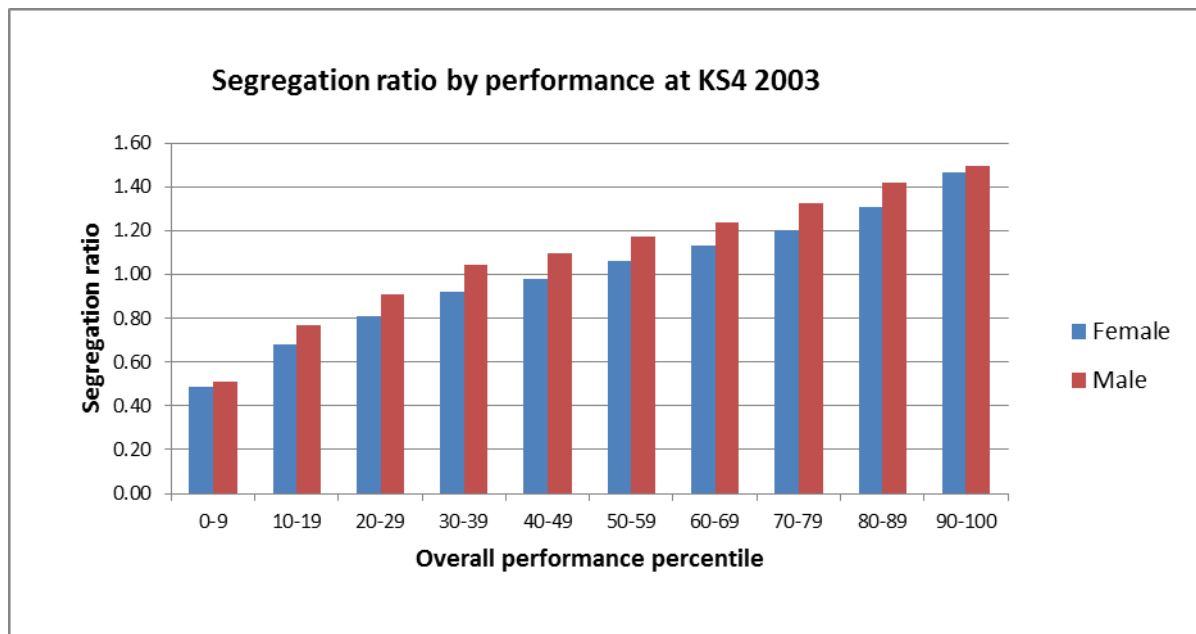
Girls outperformed boys overall in both 2003 and 2007 so there were more girls in the highest performing deciles. This meant there were two trends to be considered. One was the proportion of females in each decile; the other was the proportion of geography entries in each decile. A segregation ratio (SR)<sup>1</sup> was used to deal with these trends. If the

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<sup>1</sup>  $SR^{f \text{ or } m} = (g^{f \text{ or } m} / t) / (G^{f \text{ or } m} / T)$

SR = 1 the group in question is perfectly represented. If it is less than one, the group is under-represented, so 0.7 means that the group has 30% less entries than expected (Gorard, 2001, p.69).

Figure 4.4: Entry by relative performance (Segregation Ratio) KS4 2003



(Source: NPD, 2003)

This calculation showed that gender was less important than overall performance (figure 4.4). The entry was between 2 and 10% higher for boys than girls at every performance level, which reflects the national pattern of a 10% difference in total entry (boys 55%: girls 45%). As overall performance increased so entries from both genders increased at similar rates so that there were nearly 50% more entries from both genders in the highest attaining group than expected. The gap between genders in the top group was also only 2% so slightly more of the highest attaining girls entered for geography.

f = females; m = males; g = geography entry<sup>(female or male)</sup> in the decile; t = total geography entry in the decile; G = total geography<sup>(female or male)</sup> entry; T = total geography entry.

Table 4.3: Change in geography entries by performance and gender 2003 and 2007.

Geography KS4	Female 2003	Female 2007	Male 2003	Male 2007	All students 2003	All Students 2007
Top 25%	1.34 (33462)	1.45 (35207)	1.39 (32039)	1.52 (33343)	1.34 (66501)	1.46 (68550)
2 <sup>nd</sup> 25%	1.09 (26227)	1.09 (23956)	1.18 (32916)	1.19 (29404)	1.13 (59143)	1.14 (53360)
3 <sup>rd</sup> 25%	0.89 (18727)	0.80 (15983)	0.99 (29873)	0.92 (24903)	0.96 (48600)	0.88 (40886)
Bottom 25%	0.51 (8716)	0.43 (6946)	0.55 (17074)	0.48 (13112)	0.55 (25790)	0.47 (20058)
Total	44.1% (88132) 0.89	44.9% (82092) 0.91	55.9% (111902) 1.11	55.1% (100762) 1.09	1.00 (200034)	1.00 (182854)

(Source NPD, 2007)

Change in geography entries over time was also calculated. This time entries for geography in 2003 and 2007 from the NPD were split into quartiles and segregation ratios calculated (table 4.3). The overall entry for geography was again unevenly spread between the different performance groups in both 2003 and 2007. However the segregation increased over time with the highest performing quartile group increasing from being 34% over-represented in 2003 to 46% in 2007. Similarly the bottom group became 8% more segregated. The gender split was smaller than performance. The slightly lower numbers of girls in each group reflected the overall lower entry by girls. This data shows that the share of geography entries in the bottom 50% of the cohort fell between 2003 and 2007 and rose in the top 25%. The use of segregation ratios is appropriate because there were changes in the total cohort, change in geography entries and change in the size of the quartile groups. For example geography entries fell overall by 17 000 but the overall cohort increased by 32 000.

The patterns of entry for geography and history were examined in more detail (Table 4.4) to investigate the differences in entries and changes over time. This data showed that there were bigger differences in 2003 than 2007. History entries in 2003 had a higher proportion in the top quartile and lower in the bottom two quartiles. By 2007 the geography cohort had become more like the history cohort because the losses were greater in the bottom two quartiles and there were gains in the top quartile.

Table 4.4: Comparison of entry profile for geography and history 2003:2007 National Cohort

		Geography			History			Total		
		2003	2007	2003-2007	2003	2007	2003-2007	2003	2007	2003-2007
Top Quartile	Entries	66501	68550	2049	75669	81793	6124	151228	164375	13147
	%	33.2%	37.5%	4.2%	38.8%	40.4%	1.6%	24.9%	25.7%	0.8%
	SR	1.34	1.46	0.12	1.56	1.58	0.01	1.00	1.00	1.00
2nd Quartile	Entries	59143	53360	-5783	56468	58504	2036	159041	164381	5340
	%	29.6%	29.2%	-0.4%	29.0%	28.9%	-0.1%	26.1%	25.7%	-0.4%
	SR	1.13	1.14	0.01	1.11	1.13	0.02	1.00	1.00	1.00
3rd Quartile	Entries	48600	40886	-7714	41965	42646	681	154224	163459	9235
	%	24.3%	22.4%	-1.9%	21.5%	21.1%	-0.5%	25.3%	25.5%	0.2%
	SR	0.96	0.88	-0.08	0.85	0.83	-0.02	1.00	1.00	1.00
4th Quartile	Entries	25790	20058	-5732	20696	19466	-1230	143925	148608	4683
	%	12.9%	11.0%	-1.9%	10.6%	9.6%	-1.0%	23.7%	23.2%	0.5%
	SR	0.55	0.47	-0.07	0.45	0.41	0.03	1.00	1.00	1.00
Total	Entries	200034	182854	-17180	194798	202409	7611	608418	640823	32405
	%	32.9%	28.5%	-2.8%	32.0%	31.6%	1.3%	100.0%	100.0%	5.3%

#### 4.3.2 Deprivation

Deprivation is known to be related to performance. It was hoped this study would have the opportunity to consider the relationship between deprivation and geography entries. No deprivation indicator is perfect and at the start of the research it appeared it would be difficult to investigate this relationship because there did not appear to be an easy way of obtaining the commonest measure Free School Meals (FSM). A number of other possibilities were explored but they all proved unsatisfactory.

However when analysing the NPD/PLASC data later in the study an index of deprivation, the Income Deprivation Affecting Children Index (IDACI) for each student was discovered. This comes from generalised data for the 34 378 lower layer super output (LSOA) areas of the census (LGID, 2011). There were 20 843 students, largely from independent schools, for whom data was missing in 2003. It is a proxy measure because PLASC collects the home postcode of each student which can then be linked to local census areas

“called lower layer super output areas ... each with an average population of 1500 people. IDACI measures the proportion of children under 16 in each area that are eligible for certain income-related benefits. IDACI scores range from zero<sup>2</sup> (least deprived) to one (most deprived).”

(DCSF, 2009, p.8)

The disadvantage of this measure is that, unlike Free School Meals (FSM), it does not measure individual pupil deprivation. For the purposes of this study it was chosen because it is a broader measure of deprivation that captures the general level of deprivation within the area. It has been argued that the alternative commonly used

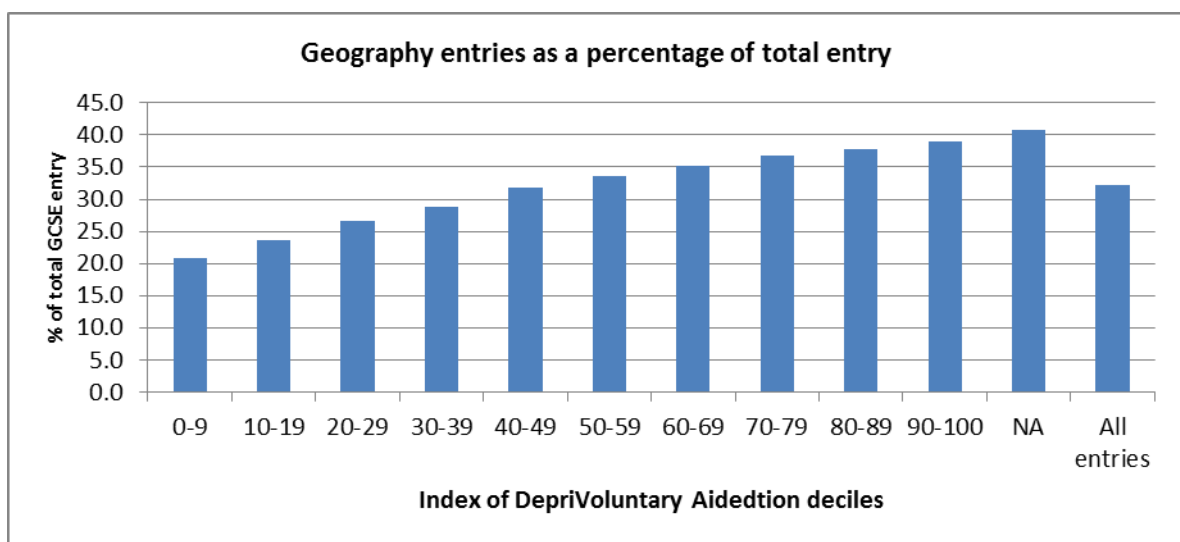
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<sup>2</sup> An IDACI score of 0.24 means that 24% of children aged less than 16 in that SOA are living in families that are income deprived.

measure (FSM) is also imperfect because it does not pick up all the students who experience deprivation (DCSF, 2009, p.8).

The NPD cohort for 2003 was split into deciles (0-9 is most deprived) and the percentage entry for geography for each decile was calculated (figure 4.5). Geography entries (table 4.5) were much lower in the most deprived areas (21%) compared to the least deprived areas (38%) while the NA column (assumed to be largely students in independent schools) is even higher (>40%). The known correlation between deprivation and performance is deprivation here.

Figure 4.5: Geography entries and deprivation

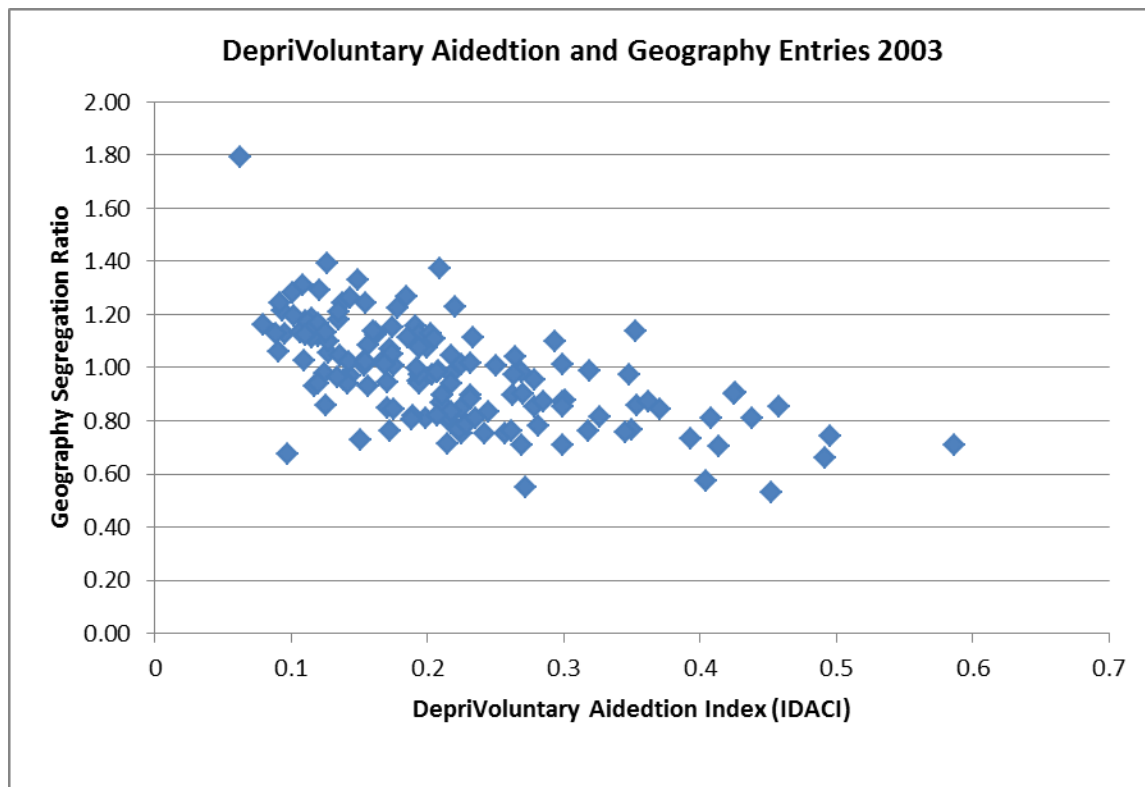


(Source: NPD, 2003)

This relationship was further analysed by investigating overall deprivation in a LA and the number of entries for geography using the 2003 NPD/PLASC data (figure 4.6).



Figure 4.6 Average deprivation and Geography Entry for all English LAs 2003



(Source: NPD, 2003)

A Segregation Ratio<sup>3</sup> was used to reduce the impact of the differing sizes of LAs. The graph suggests that in general the more deprived a Local Authority (higher IDACI score) the lower the geography entry (figure 4.6), although there are exceptions. This is not surprising because it is commonly recognised that there is a relationship between deprivation and overall performance although it is not possible to suggest that the relationship is causal.

### 4.3.3 Ethnicity

Another unknown at the start of this study was the patterns of entry for different ethnic groups. Were certain ethnic groups under or over-represented in the geography cohort?

<sup>3</sup> (Geography Entries (LA) / Total Cohort (LA))/(National Geography Entries/ Total National Cohort).

Because the White British group is so much larger (75% of the cohort) than all other groups and therefore distorts percentages the best way to make meaningful comparisons was to use a segregation ratio. However even using the segregation ratio the variation in the White British group was lower than the other ethnic groups where entries were more influenced by relatively small changes.

Ethnicity was derived from the PLASC data although there were a large number of missing entries (12.3% in 2003 and 9.6% in 2007). It can be assumed that the majority of the data in the 'None' category is from independent schools since the percentages (7.1% and 7.9%) closely correspond to the numbers educated in independent schools in those years. The patterns were analysed for both 2003 and 2007 to check for consistency and change (Tables 4.5a and b). The consistency between the two years was high. Data for PE and media were only available in 2007.

The patterns for geography, history, RS and triple science were similar with the same ethnic groups tending to be over or under-represented suggesting some ethnic groups prioritised these subjects. For geography over-represented ethnic groups ( $>1.10$ ) were Chinese and Indian while under-represented groups ( $<0.9$ ) were Bangladeshi, Pakistani, African, Caribbean and mixed race groups. History, French and Triple Science had similar patterns. Religious Studies was very different with fewer White British students (8-9%) and more in almost every other ethnic group. The largest over-representation was the Irish group (2-3 times more than expected), many of whom probably attended catholic schools that make RS a compulsory subject.

Table 4.5a Entries for different subjects by ethnicity 2003

Entries for selected Subjects 2003	Grand Total	Percentage of cohort	Geography	History	French	RS	Triple Science
White British	450455	74.0	0.99	0.98	1.00	0.91	0.71
Irish	2165	0.4	0.97	1.24	0.95	3.13	0.93
Any Other White Background	10165	1.7	0.88	0.95	0.92	1.42	0.81
Bangladeshi	5295	0.9	0.87	0.75	0.66	1.41	0.24
Chinese	2018	0.3	1.19	0.86	1.06	0.98	1.75
Indian	13902	2.3	1.14	0.88	1.03	1.12	0.92
Pakistani	13199	2.2	0.82	0.83	0.66	1.36	0.47
Any Other Asian Background	2987	0.5	1.10	0.88	0.97	1.34	1.14
African	7745	1.3	0.78	0.80	0.96	1.80	0.50
Caribbean	8350	1.4	0.63	0.72	0.82	1.42	0.36
Any Other Black Background	2383	0.4	0.68	0.76	0.84	1.29	0.40
White and Asian	1760	0.3	1.08	1.09	1.09	1.40	1.36
White and Black African	771	0.1	0.75	0.86	0.96	1.43	0.63
White and Black Caribbean	3633	0.6	0.66	0.77	0.85	0.98	0.48
Any Other Mixed Background	3756	0.6	0.86	0.92	0.97	1.30	0.75
Gypsy / Romany	218	0.0	0.54	0.59	0.58	0.81	0.59
Traveller Of Irish Heritage	151	0.0	0.95	0.72	0.70	1.41	0.76
Any Other Ethnic Group	4165	0.7	0.81	0.71	0.82	1.33	0.69
None	43468	7.1	1.37	1.54	1.33	1.28	4.91
Information Not Obtained	20232	3.3	0.92	0.90	0.89	0.77	0.62
Refused	11600	1.9	0.93	0.93	0.99	1.03	0.77
Total Entries	608418	100.0	1.00	1.00	1.00	1.00	1.00
Percentage of cohort			32.9	32.0	50.1	18.7	7.0

Green shading = over-represented (>10%) Mauve shading = under-represented (>-10%) (Source NPD, 2003)

Triple science was dominated by the 'none' (probably independent) group with but the Chinese and Indian groups were also over-represented (in 2007). RS and Media were the only subjects where African, Caribbean, Other Black students, Bangladeshi and Pakistani were consistently over-represented. There were no significant changes for geography between 2003 and 2007.

Table 4.5b: Entries for different subjects by ethnicity 2007

Entries for selected Subjects 2007	Grand Total	Percentage of cohort	Geography	History	French	RS	Triple Science	PE	Media
White British	481670	75.2	0.98	0.98	0.92	0.92	0.78	1.09	1.06
Irish	2188	0.3	0.99	1.26	1.11	2.49	1.08	0.93	0.79
Any Other White Background	12769	2.0	0.89	0.94	1.00	1.18	0.85	0.83	0.98
Bangladeshi	5562	0.9	0.84	0.78	0.57	1.56	0.56	0.47	1.57
Chinese	2108	0.3	1.20	0.93	1.35	0.99	1.99	0.54	0.94
Indian	13141	2.1	1.17	0.93	1.19	1.28	1.19	0.61	1.27
Pakistani	14180	2.2	0.78	0.82	0.60	1.50	0.54	0.45	1.24
Any Other Asian Background	4845	0.8	0.97	0.77	1.13	1.28	1.21	0.61	1.00
African	11069	1.7	0.76	0.82	1.07	1.61	0.61	0.94	1.16
Caribbean	8162	1.3	0.58	0.70	0.79	1.35	0.42	1.08	1.41
Any Other Black Background	2585	0.4	0.62	0.73	0.87	1.37	0.47	1.00	1.37
White and Asian	2779	0.4	1.03	1.07	1.17	1.34	1.31	0.86	0.98
White and Black African	1338	0.2	0.77	0.87	1.02	1.17	1.00	1.12	0.98
White and Black Caribbean	5477	0.9	0.65	0.71	0.72	1.00	0.45	1.26	1.22
Any Other Mixed Background	4955	0.8	0.85	0.93	1.02	1.20	0.92	0.99	1.12
Gypsy / Romany	345	0.1	0.33	0.36	0.26	0.25	0.07	0.41	0.45
Traveller Of Irish Heritage	141	0.0	0.22	0.38	0.31	0.59	0.09	0.44	0.47
Any Other Ethnic Group	5212	0.8	0.83	0.75	1.00	1.22	0.76	0.65	1.07
None	50908	7.9	1.49	1.48	1.94	1.08	3.49	0.57	0.14
Information Not Obtained	5403	0.8	0.92	0.92	0.83	0.80	0.47	1.03	0.90
Refused	5986	0.9	0.94	0.97	0.88	0.93	0.91	1.01	1.06
Total Entries	640823	100.0	182854	202409	188677	153926	50571	154188	58317
Percentage of Cohort			28.5	31.6	29.4	24.0	7.9	24.1	9.1

(Source: NPD, 2007)

#### **4.4 ENTRIES BY 'TYPE' OF SCHOOL: 2003 and 2007**

The complexity of the categorisation of schools was an issue from the start of this research. The pilot research study had shown that the categorisation commonly used by government statisticians failed to capture the complexity of the differences between schools and this had further increased as a result of successive government's desire to implement increased choice and diversity in schools. Three from the numerous different characteristics of schools were investigated: gender; government categories; intake and performance. The main source of the data used was the NPD / PLASC data sets for 2003 and 2007. This section starts by outlining some of the characteristics of the whole cohort and then focuses on geography entries.

##### **4.4.1 The National Cohort**

The NPD/PLASC data provided a large resource of data but needed manipulating and understanding before analysing geography entries. It was important to have a sound knowledge of the characteristics of the schools and their cohorts. This first section explains how this was achieved.

The NPD categorised schools using the 'Type of Establishment' (ToE) category in Edubase which is largely based upon differences in funding, governance and special educational needs. In total there were between 20 and 30 different 'types' of school. This research 'cleaned' the NPD databases for 2003 (table 4.6a) and 2007 (table 4.6b) to create 'working' databases of Y11 students in seven types of 'mainstream' schools that educated about 96-98% of all secondary age students. The small number of students (2% in 2003

and 4% in 2007) that were educated in special schools or further education were removed because relatively few (between 2 and 3%) of them studied geography in either year and they were outside the scope of the research.

Table 4.6a Number of students by type of mainstream institution: 2003.

<b>2003</b>				
<b>Mainstream Schools</b>	<b>Number of Y11 Students</b>	<b>Percentage of Y11 mainstream student cohort</b>	<b>Number of Schools</b>	<b>Average number of Y11 students</b>
<b>Community</b>	370470	60.9	1997	186
<b>Voluntary Aided</b>	80842	13.3	515	157
<b>Voluntary Controlled</b>	20077	3.3	96	209
<b>Foundation</b>	93422	15.4	506	185
<b>Independent</b>	40437	6.6	820	49
<b>City Technology College</b>	2627	0.4	15	175
<b>Academy</b>	543	0.1	3	181
<b>Total Mainstream Schools</b>	<b>608418</b>	100.0	<b>3952</b>	<b>154</b>

(Source: NPD, 2003)

Table 4.6b Number of students by type of mainstream institution: 2007.

<b>2007</b>				
<b>Mainstream Schools</b>	<b>Number of Students</b>	<b>Percentage of Y11 mainstream student cohort</b>	<b>Number of Schools</b>	<b>Average number of Students</b>
<b>Community</b>	368862	56.9	1864	198
<b>Voluntary Aided</b>	86387	13.3	522	165
<b>Voluntary Controlled</b>	19367	3.0	87	223
<b>Foundation</b>	117346	18.1	593	198
<b>Independent</b>	48007	7.4	865	55
<b>City Technology College</b>	1773	0.3	11	161
<b>Academy</b>	6547	1.0	41	160
<b>Total Mainstream Schools</b>	<b>648289</b>	<b>100.0</b>	<b>3976</b>	<b>163</b>

(Source: NPD, 2007)

There were fewer than 4000 mainstream secondary schools in both 2003 and 2007 in the seven ToE categories (tables 4.6a and b). Exploratory analyses of the database were

carried out using SPSS and the graphs produced are presented here to demonstrate how understanding of the most important factors developed. In some cases the limitations of the graphs will be identified, but the additional data required will not be presented for time and space reasons.

The ToE categorisation ignores differences in the performance of students at intake which have been shown to have a profound effect upon GCSE performance. Other factors that might influence the curriculum and entries for different subjects are the gender of the school intake (Boys, Girls or Mixed), age groupings (11-16; 11-18; 13-18) and specialist status which became increasingly important over time. None of these were amongst the variables in the NPD so further analysis of the available data was required. This was only possible for performance and school gender. Independent schools were included in this analysis because although the numbers were a relatively small (6.6% and 7.4%) proportion of the total cohort entries for geography were higher than expected.

The performance group (quartile) of each student was used to analyse differences in performance of school group cohorts (table 4.7a and b). There was clear segregation in the cohorts which may have been the result of the teaching within the schools but was more likely to reflect the performance of the cohort on entry. The greatest differences were between Independent schools (concentrated in the top 25%) and Academies (most students in the bottom 25%). City Technology Colleges also had more students in the top 50% of performance and few in the bottom group.

Table 4.7a Performance of the cohort in mainstream schools 2003

<b>KS4 mean GCSE performance</b>	<b>Top Group</b>	<b>2nd Group</b>	<b>3rd Group</b>	<b>Bottom Group</b>	<b>Total</b>
<b>Community</b>	66193 (17.9%)	95568 (25.8%)	103708 (28.0%)	105001 (28.3%)	370470 (100%)
<b>Voluntary Aided</b>	22423 (27.7%)	23107 (28.6%)	19954 (24.7%)	15358 (19.0%)	80842 (100%)
<b>Voluntary Controlled</b>	6019 (30.0%)	5353 (26.7%)	4769 (23.8%)	3936 (19.6%)	20077 (100%)
<b>Foundation</b>	24997 (26.8%)	26389 (28.2%)	23276 (24.9%)	18760 (20.1%)	93422 (100%)
<b>Independent</b>	30718 (76.0%)	7409 (18.3%)	1913 (4.7%)	397 (1.0%)	40437 (100%)
<b>City Technology College</b>	866 (33.0%)	1140 (43.4%)	465 (17.7%)	156 (5.9%)	2627 (100%)
<b>Academy</b>	12 (2.2%)	75 (13.8%)	139 (25.6%)	317 (58.4%)	543 (100%)
<b>Total</b>	151228 (24.9%)	159041 (26.1%)	154224 (25.3%)	143925 (23.7%)	608418 (100%)

Table 4.7b Performance of the cohort in mainstream schools 2007

<b>KS4 mean performance GCSE and equivalents</b>	<b>Top Group</b>	<b>2nd Group</b>	<b>3rd Group</b>	<b>Bottom Group</b>	<b>Total</b>
<b>Community</b>	67830 (18.5%)	93759 (25.6%)	103039 (28.1%)	101518 (27.7%)	366146 (100%)
<b>Voluntary Aided</b>	25054 (29.3%)	23798 (27.8%)	21073 (24.6%)	15679 (18.3%)	85604 (100%)
<b>Voluntary Controlled</b>	5374 (27.9%)	5047 (26.2%)	4905 (25.5%)	3903 (20.3%)	19229 (100%)
<b>Foundation</b>	31642 (27.2%)	31062 (26.7%)	29744 (25.5)	23997 (20.6%)	116445 (100%)
<b>Independent</b>	33035 (73.2%)	8605 (19.1%)	2551 (5.7%)	951 (2.1%)	45142 (100%)
<b>City Technology College</b>	648 (36.7%)	682 (38.6%)	340 (19.3%)	96 (5.4%)	1766 (100%)
<b>Academy</b>	792 (12.2%)	1428 (22.0%)	1807 (27.8%)	2464 (38.0%)	6491 (100%)
<b>Total</b>	164375 (25.7%)	164381 (25.7%)	163459 (25.5%)	148608 (23.2%)	640823 (100%)



Figure 4.7a Share of the cohort by performance and ToE group 2003

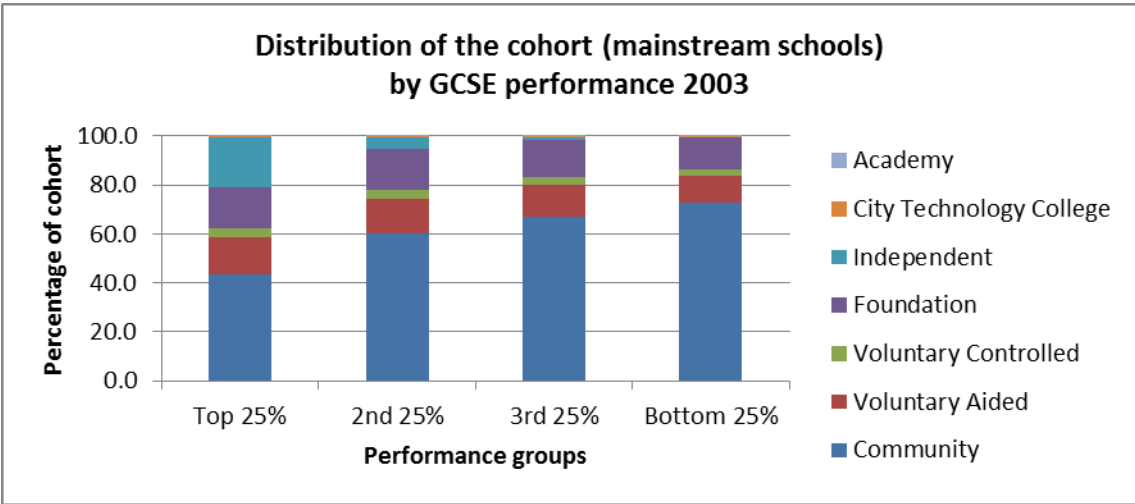
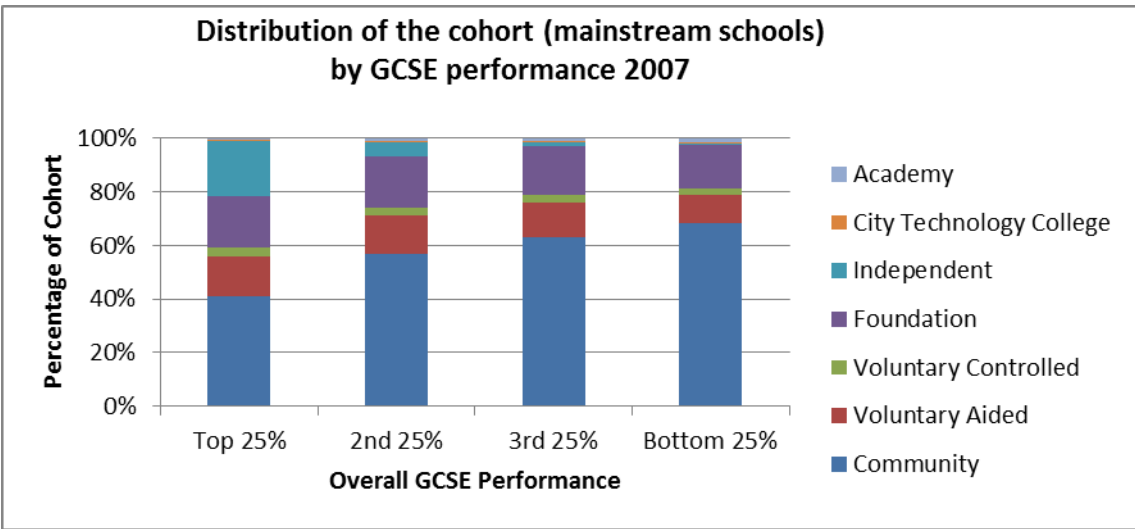


Figure 4.7b Share of the cohort by performance and ToE group 2007



The dominant type of school in terms of numbers was the Community school but it was under-represented in the top 25% of performance and over-represented in the bottom 25%. Voluntary Aided and Foundation schools were the next largest groups and had a more even spread of the cohort while students in Independent schools were concentrated in the top performance group (figures 4.7a and b).

A clearer picture of the relative segregation within schools was obtained using a segregation ratio (table 4. and figures 4.7a and b).

Table 4.8 Segregation ratio of performance in mainstream schools, 2003 and 2007

Cohort performance Segregation Ratio	Top 25%		2nd 25%		3rd 25%		Bottom 25%	
Year	2003	2007	2003	2007	2003	2007	2003	2007
Community	0.72	0.72	0.99	1.00	1.10	1.10	1.20	1.20
Voluntary Aided	1.12	1.14	1.09	1.08	0.97	0.97	0.80	0.79
Voluntary Controlled	1.21	1.08	1.02	1.02	0.94	1.00	0.83	0.88
Foundation	1.08	1.05	1.08	1.04	0.98	1.00	0.85	0.89
Independent	3.06	2.81	0.70	0.76	0.19	0.22	0.04	0.10
City Technology College	1.33	1.43	1.66	1.51	0.70	0.75	0.25	0.23
Academy	0.09	0.47	0.53	0.86	1.01	1.09	2.47	1.64

The share of the cohort stayed much the same over time with the three most segregated school types being Independents, City Technology Colleges and Academies (figures 4.8a and b). Independents and City Technology Colleges were heavily weighted towards the top end of the cohort, with most of their students in the top 50% of the performance cohort while Academies had more in the bottom 50%. City Technology Colleges and Academies made up less than 1% of the total cohort so the effect was exaggerated with relatively small differences resulting in big performance differences. The data also suggested that Community schools, which have around 60% of the cohort, overall had fewer (-28%) than expected students in the top group. This ratio was the same in both 2003 and 2007

suggesting it is likely to be systemic and is probably the result of the ‘creaming’ of top performers by all the other types of school.

Figure 4.8a Segregation ratio of performance in mainstream schools, 2003

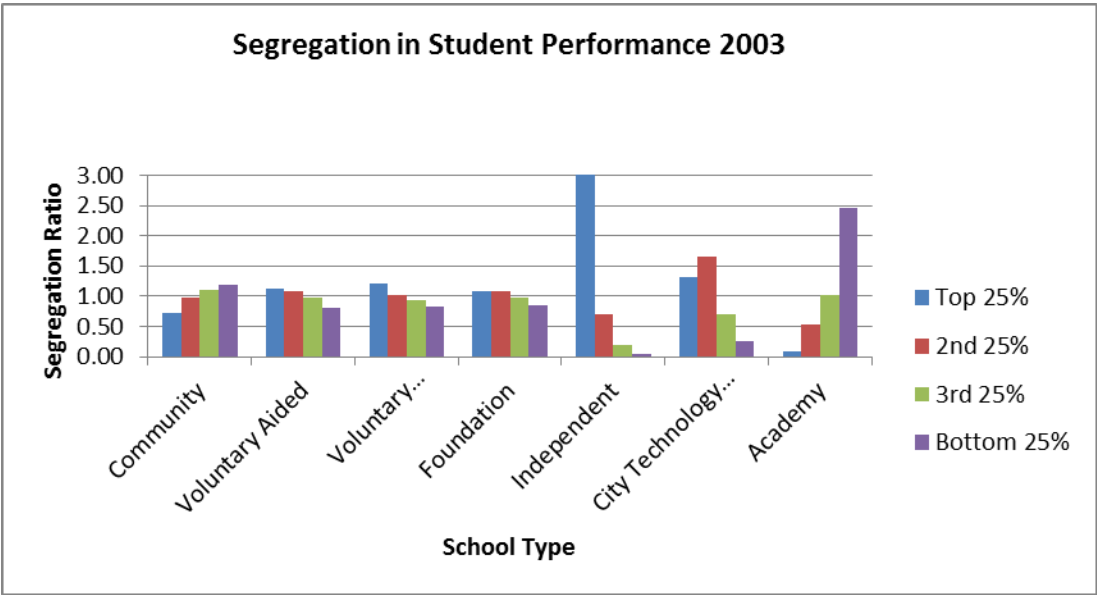
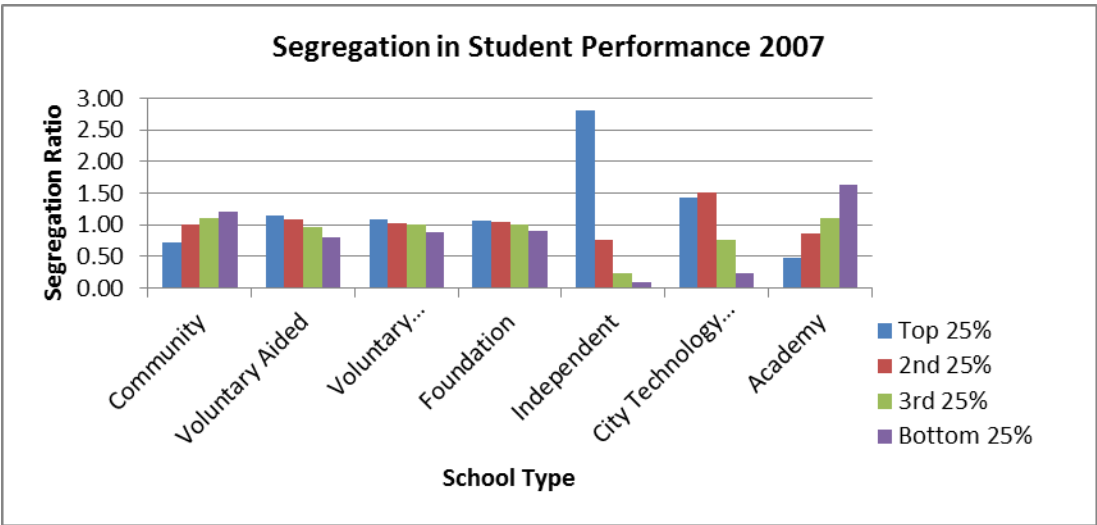


Figure 4.8b Segregation ratio of performance in mainstream schools, 2003



Students were unevenly distributed amongst the seven mainstream school types with community schools (60-56%), foundation schools (15-18%) and voluntary aided schools (13%) having about 90% of the cohort in both 2003 and 2007 (table 4.9). There were a number of changes in the population of these schools between 2003 and 2007. Overall there were slightly fewer schools (24) but there was movement between school types. There were more Foundation schools (+87), Independent schools (+45) Academies (+38) and Voluntary Aided schools (+7) but fewer Community (-133), Voluntary Controlled (-9) and City Technology Colleges (-4). The loss of schools and larger cohort resulted in an overall increase in the average number of students in all schools apart from City Technology Colleges and Academies. The Y11 cohort grew by 32 405 between 2003 and 2007 with over half of the increase in Foundation Schools (+23023) but Independent (+4705), Academy (+5948) and Voluntary Aided Schools (+4762) also gained students while Community (-4324), Voluntary Controlled (-848) and City Technology Colleges (-861) lost students (Table 4.8).

Table 4.9: Change in total entries by type of mainstream institution.

<b>Mainstream Schools</b>	<b>Total Entry</b>		
<b>Type of School</b>	<b>2003</b>	<b>2007</b>	<b>Change 2003-7</b>
<b>Community</b>	370470	366146	-4324
<b>Voluntary Aided</b>	80842	85604	4762
<b>Voluntary Controlled</b>	20077	19229	-848
<b>Foundation</b>	93422	116445	23023
<b>Independent</b>	40437	45142	4705
<b>City Technology College</b>	2627	1766	-861
<b>Academy</b>	543	6491	5948
<b>Total</b>	<b>608418</b>	<b>640823</b>	<b>32405</b>

(Source: NPD, 2003 & 2007)

#### 4.4.2 Geography entries by type of school

The ToE school category will be discussed first. Geography entries and changes were different (table 4.10). The entry in community schools went down by 19202 which because the majority of entries were in these schools only moved the segregation ratio (SR) from 0.95 (2003) to 0.92 (2007), a 3% loss. Academies loss was much larger (-37%) because of the small number of schools and students. The SR 2007 value 0.51 meant that there were nearly 50% less students taking geography than expected. Foundation schools increased their entry but lost 2% of their share because the cohort increased. Independent schools increased their share of the total entry from an already high number, 1.45 (SR 2003) to 1.63 (SR 2007) These findings demonstrate the importance of interrogating statistics carefully to try to reach as accurate an interpretation of what was happening as possible (Gorard, 2001, Smith 2006).

Table 4.10: Change in geography entries by type of mainstream institution.

Mainstream Schools	Geography entry					
Type of School	2003	2007	Change 2003-7	Segregation Ratio 2003	Segregation Ratio 2007	SR Change
Community	114653	95451	-19202	0.94	0.91	-0.03
Voluntary Aided	26077	25030	-1047	0.98	1.02	0.04
Voluntary Controlled	6707	5504	-1203	1.02	1.00	-0.01
Foundation	32400	34313	1913	1.05	1.03	-0.02
Independent	19295	21037	1742	1.45	1.63	0.18
City Technology College	746	580	-166	0.86	1.15	0.29
Academy	156	939	783	0.87	0.51	-0.37
Total	200034	183026	-17008	1.00	1.00	0.00

These findings were investigated in a different way by looking at the geography entry for 2003 (table 4.11).

Table 4.11: Geography entries by mainstream institution: 2003.

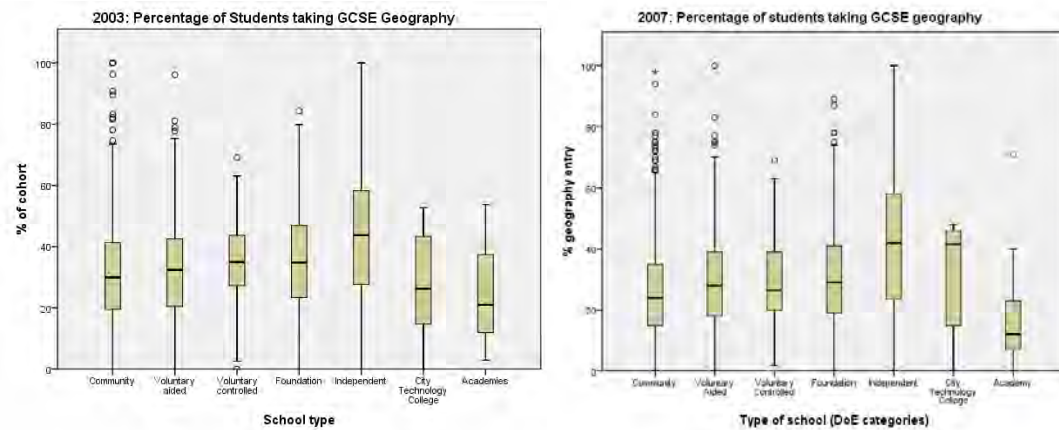
<b>Mainstream Schools</b>	<b>Cohort 2003</b>	<b>Geography Entries 2003</b>	<b>% Taking GCSE Geography 2003</b>
Community	370470	114653	30.9
Voluntary Aided	80842	26077	32.3
Voluntary Controlled	20077	6707	33.4
Foundation	93422	32400	34.7
Independent	40437	19295	47.7
City Technology College	2627	746	28.4
Academy	543	156	28.7
<b>Total Mainstream Schools</b>	<b>608418</b>	<b>200034</b>	<b>32.9</b>

(Source: NPD, 2003)

The mean entry for independent schools was much higher than the national mean, while Community Schools had below average entries. City Technology Colleges and Academies were also lower than average although they accounted for less than 0.5% of the total entry. Voluntary Aided and Voluntary Controlled schools entries were close to the mean while Foundation Schools were just above average. The difference between the means for these four schools types was relatively small, less than 4%.

Variation in entries within these school types was larger than the variation between the means. A boxplot (figure 4.9) visually showed that the inter quartile (IQ) range (the 50% of schools around the mean) was similar for the four main school types and was larger for independent schools. All school types had some schools where there were no entries and some with very high entries. CTCs were ignored because there were not many schools. The Academies graph for 2007 however showed a significant drop and a smaller range although there were now 41 academies.

Figure 4.9: Percentage of cohort taking GCSE geography 2003 and 2007



The share of the cohort by performance in the different types of schools demonstrated significant segregation and will be illustrated using the 2003 data (table 4.12). As already discussed entries for geography were highest in the top quartile group but the numbers and percentages were worth further analysis. In terms of total numbers in this group the largest cohort was in community schools (27 941) but the highest percentage was in independent schools (78.8%). This illustrates the different nature of the cohorts in the schools. It is also worth noting that there are small numbers of students in independent schools in the bottom 50% of the cohort which is a reminder that there are a wide variety of independent schools catering for different groups of students. It is also worth noting that community schools had more entries from the second quartile group whereas the other four larger school types (Voluntary Aided, Voluntary Controlled, Foundation, Independent) all had their largest entries in the top quartile. Academies were concentrated in the bottom quartile but this was with very small numbers.

Table 4.12: Geography entries by type of school and GCSE performance

<b>Geography entries 2003</b>	<b>Top 25%</b>	<b>2nd 25%</b>	<b>3rd 25%</b>	<b>Bottom 25%</b>	<b>Total</b>
<b>Community</b>	27941 (24.4%)	35221 (31.5%)	32870 (28.7%)	18621 (16.2%)	114653 (100%)
<b>Voluntary Aided</b>	9119 (35.0%)	8205 (31.5%)	6024 (23.1%)	2729 (10.5%)	26077 (100%)
<b>Voluntary Controlled</b>	2550 (38.0%)	1977 (29.5%)	1484 (22.1%)	696 (10.5%)	6707 (100%)
<b>Foundation</b>	11362 (35.1%)	10025 (30.9%)	7450 (23.0%)	3563 (11.0%)	32400 (100%)
<b>Independent</b>	15212 (78.8%)	3375 (17.5%)	638 (3.3%)	70 (0.4%)	19295 (100%)
<b>City Technology College</b>	315 (42.2%)	321 (43.0%)	97 (13.0%)	13 (1.7%)	746 (100%)
<b>Academy</b>	2 (1.3%)	19 (12.2%)	37 (23.7%)	98 (62.8%)	156 (100%)
<b>Total</b>	66501 (33.2%)	59143 (29.6%)	48600 (24.3%)	25790 (12.9%)	200034

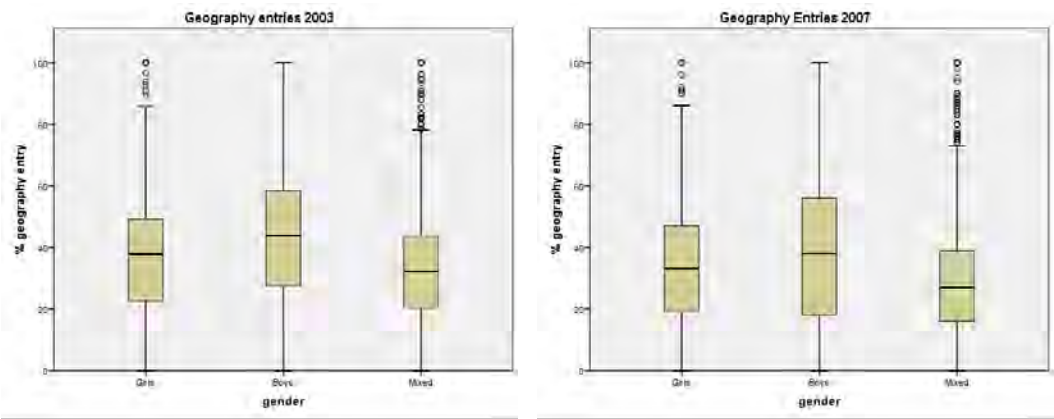
The second school classification that was relatively easily analysed using the NPD was school gender. Even this needed some manipulation of the data as the NPD did not classify schools in this way but did identify students by gender. The gender of the school was identified by a series of pivot table manipulations that produced a list of all schools and their entry by the gender of the students. All schools with more than 98% of students boys or girls were then classified as single sex boys or girls schools and the remainder of the schools were categorised mixed.

On visual inspection boys schools had the highest mean geography entry (figure 4.10), followed by girls schools and mixed schools were the lowest. The mean fell in all three types of school by about 5% (the national change) but the Inter-Quartile range increased for boys schools. There were 486 girls schools, 297 boys schools and 3193 mixed schools in



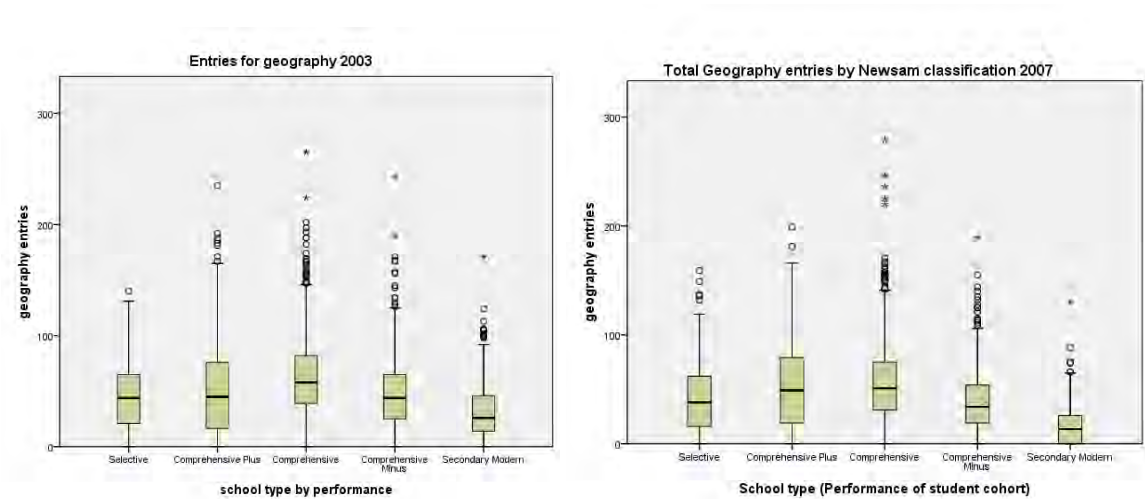
2007 and since many of them are independent or selective schools other factors such as the performance of the cohort may be more important than gender.

Figure 4.10: Entries for geography by gender of the school 2003 and 2007.



The third category of school was based on performance and followed the Newsam Classification. Initial visual inspection (figure 4.11) of entries by type of school showed that the largest groups were in comprehensive schools in 2003 but that this had fallen by 2007.

Figure 4.11: Total geography entries by Newsam school type: 2003 and 2007



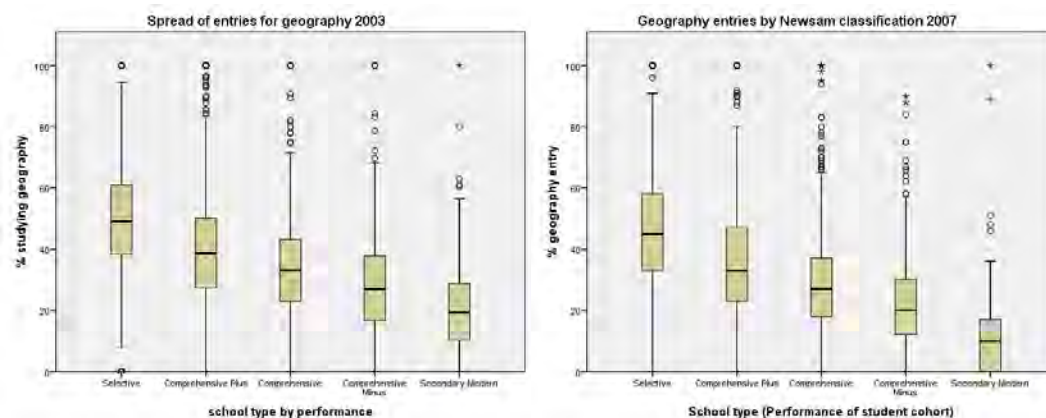
Mean entries for geography in each school showed changes between 2003 and 2007 (table 4.13). The largest entries were from comprehensive schools, because these were generally the largest schools, but comprehensive minus schools with almost the same size cohorts had fewer students. Selective schools had much smaller average cohorts but relatively large entries..

Table 4.13: Mean group size – Newsam school type 2003 and 2007

School Type	2003 Mean group size	2007 mean group size	2003 total cohort	2007 total cohort
Selective	45	40	89	88
Comprehensive Plus	50	53	131	154
Comprehensive	62	55	188	195
Comprehensive Minus	49	39	176	180
Secondary Modern	31	18	148	130
All schools	50	46	154	161

Secondary modern and comprehensive minus schools saw the largest drop in average entry size (13 and 10 respectively). Comprehensive plus schools saw an increase in entries but this was not in line with the increase in their total cohort.

Figure 4.12: Percentage of cohort taking geography (Newsam School type) 2003 & 2007



Percentage entries illustrate the differences and changes more starkly. Entries fell only slightly in selective schools while the drop in secondary modern entries was dramatic. However it is worth noting the variation within groups is much larger than the variation between groups.

Table 4.14: Cross-tabulation for ToE category and Newsam Group. Comparing 2003-2007

Percentage entries	Selective		Comprehensive Plus		Comprehensive		Comprehensive minus		Secondary Modern		All Schools	
	2003	2007	2003	2007	2003	2007	2003	2007	2003	2007	2003	2007
Community	50	42	39	35	34	28	28	21	21	14	31	26
Voluntary Aided	49	41	35	32	32	28	27	23	21	11	32	29
Voluntary Controlled	50	47	39	40	29	26	24	23	30	12	33	29
Foundation	51	47	39	33	34	28	29	23	21	15	35	29
Independent	51	48	44	40	33	36	25	29	12	3	48	47
City Technology College	0	34	29	34	0	28	14	0	0	0	28	33
Academy	0	24	0	42	0	6	0	13	29	8	29	14
Total	51	46	38	34	33	28	28	22	21	14	33	29

To get an overview of the changes the two main school types were cross-tabulated (table 4.14). This shows that there were falls in entries in all types of school (except CTCs) but that the fall was least in independent schools (1%). The largest falls were in academies (15%). Falls were across the board in terms of Newsam group categories but were slightly larger in the secondary modern and comprehensive minus schools.

In conclusion this section has shown that there is segregation between different types of school. The classification that demonstrates the segregation most clearly is one based upon the performance of the cohort (Newsam classification) which suggests that the schools intake influences students' likelihood of entering for geography. Selective cohorts are most likely to study geography while secondary modern cohorts have much less opportunity. However within each group of schools there are wide variations from none to all suggesting that there are other factors operating and this will be discussed further in chapter 5.

#### **4.4.3 OTHER SUBJECTS**

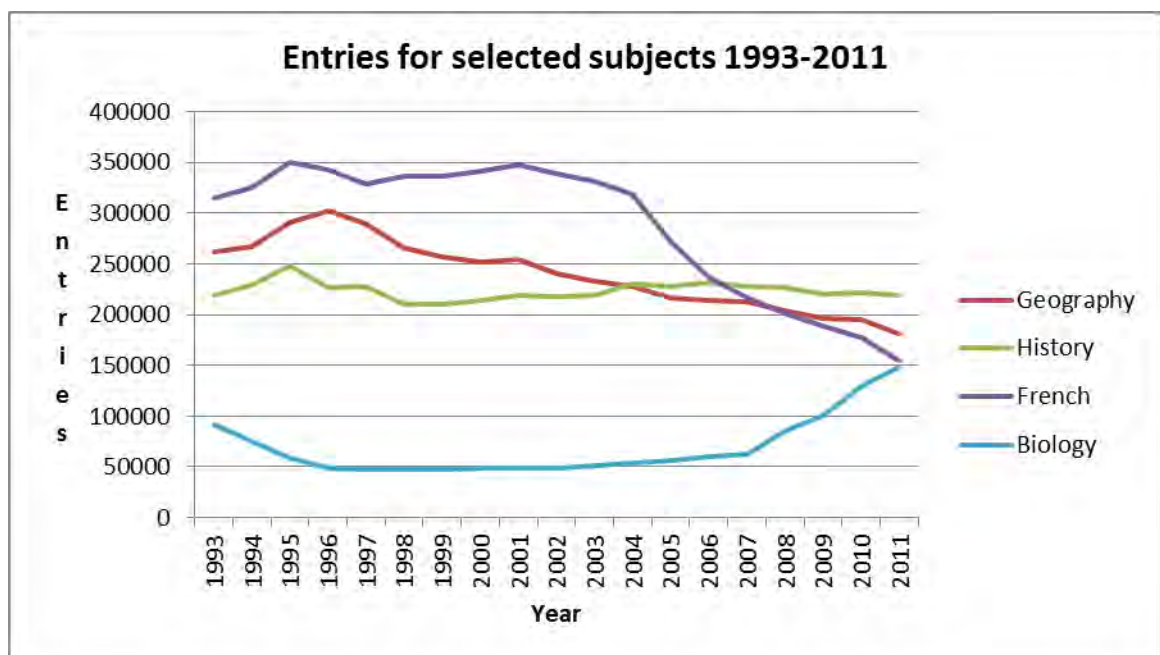
As the study progressed geography entries were compared to a number of other subjects to get a broader picture. Criteria for investigation were that they should have relatively large entries, have experienced significant growth or loss over time or intervention by changes in government policy. French was chosen as the largest entry MFL and because with DT its status was downgraded by government policy in 2004. Religious Studies was included because entries had grown rapidly and it was also often considered a humanities subject and in direct competition with geography.

Triple science was included because although science was a core subject there was debate about the curriculum and form of the examination. The debate has been about whether GCSE science is a preparation for future scientists or a more general understanding of issues relating to the use of science in society (Millar and Osborne, 1998: 1). Changes to the science curriculum in 2006 and government policy have increased diversity in the provision of science

GCSE courses away from everyone taking the more general double science course to high attainers taking three single sciences (biology, chemistry and physics) and some low attainers taking a single science. The move from double to triple science potentially reduced option spaces in the timetable for high attaining students who in many cases already find it difficult to make choices between subjects.

PE and Media, Film and Theatre Studies (MFTS) were included because they have been growth subjects and often cited by commentators and teachers as being subjects that students were choosing instead of geography. The other area investigated was the impact of vocational qualifications although it soon became clear this would be more problematic because the data was not reported in the same way as GCSEs. Not all the investigations undertaken are reported here.

Figure 4.13: Entries for different subjects 1993-2011



The entries for four subjects were compared over the period 1993-2011 (figure 4.13). This shows that geography, history and French increased their entries in 1994 but that the patterns since that time have differed. Geography rose rapidly and fell as quickly by 1999. Since 2001 it has steadily dropped. History did not rise so much and fell earlier (1995) but since 1998 it has basically plateaued increasing numbers slightly until 2007 when they fell slightly. French stayed high until 2001 since when it has fallen dramatically. Biology (as a proxy for triple science) fell from 1993 to 1996, then stayed the same until 2003 when it began to rise slightly. The increase has been dramatic since 2007 so that now it has reached the same entry numbers as French. These changes can be directly linked to changes in government policy and the changing status assigned to the different subjects.

Entries for a number of different subjects by the ToE school type and the Newsam school type were produced to investigate the schools that these subjects were most likely to be taught in. Box plots (for example figure 4.14) show the median and distribution of the cohort for different subjects. The solid blocks are the interquartile range (the range within which 50% of the cohort lies) with the median value as the solid line within the solid block. The 'whiskers' above and below the solid block are the top and bottom 25% and any circles are deemed to be outliers. If the whiskers are uneven lengths the distribution of values is deemed to be skewed.

History entries were similar to those for geography with community schools having lower median entries and independents having higher entries (figure 4.14). Voluntary Controlled schools median entries fell more between 2003 and 2007 than Voluntary Aided and

Foundation schools. Inter-quartile ranges were slightly larger for Voluntary Aided and Foundation schools. Academies had much lower mean entries.

Figure 4.14: Percentage of cohort taking GCSE History 2003 and

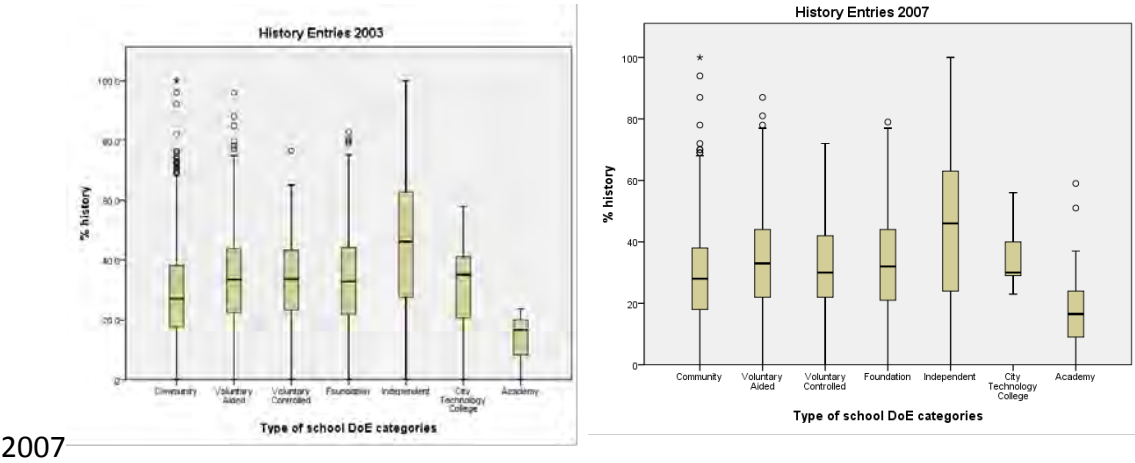
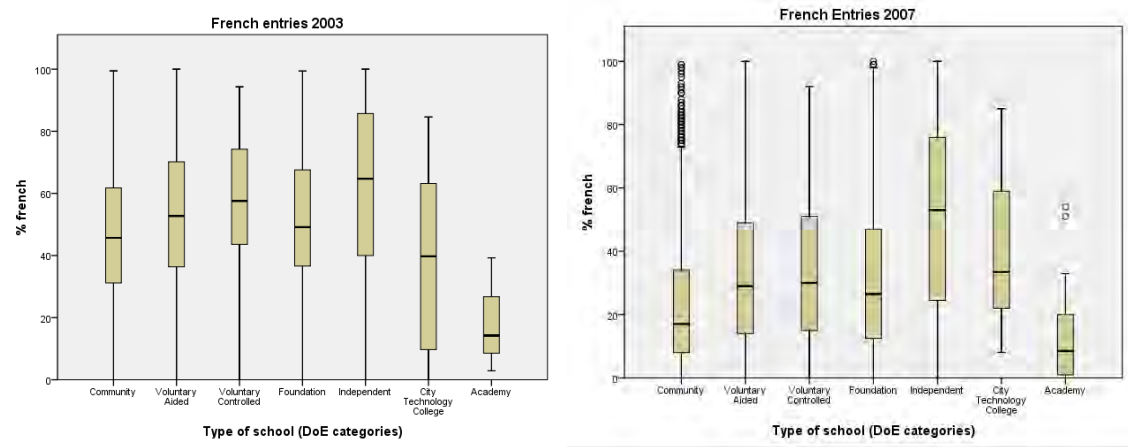


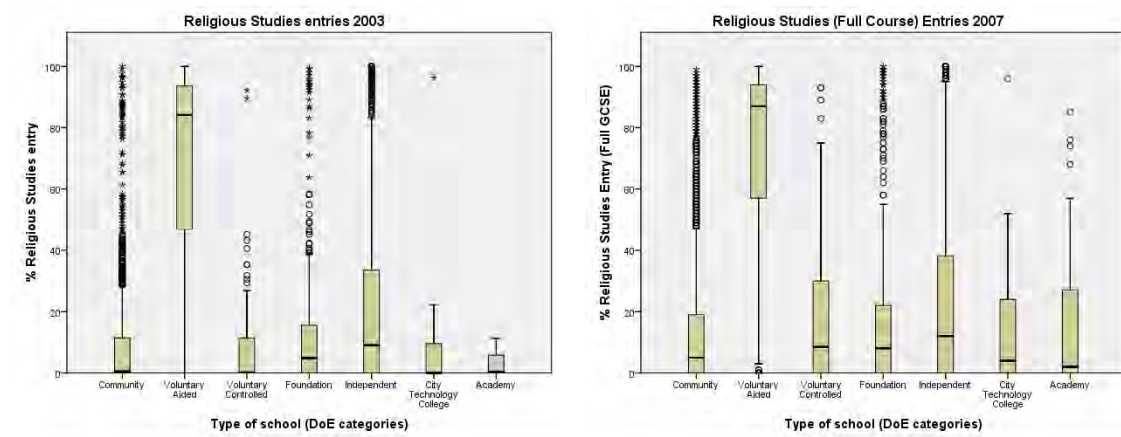
Figure 4.15: Percentage of cohort taking GCSE French 2003 and 2007



French saw significant changes in entry with median entries falling in every school type, although the drop was far smaller (10%) in independent schools (figure 4.15). Most schools saw the numbers taking French halving between 2003 and 2007 with the loss

being greater in community schools (nearly 30%). The Inter-quartile range was wider in all school types than for geography and history and in both years there were some schools where 100% of students took the subject. Academies had very low entry numbers in both 2003 and 2007.

Figure 4.16: Percentage of cohort taking GCSE Religious Studies (Full) 2003 and 2007



Entries for Religious Studies were very different with only Voluntary Aided schools having consistently high mean entries. In most other school types, except Voluntary Controlled there were some schools where 100% of the cohort was entered (figure 4.16). The medians in all the groups rose slightly between 2003 and 2007 but median entries were still heavy skewed with most of them being less than 15%. The Inter-quartile range also grew for most school types suggesting that diversity between schools increased.

The evidence suggests that segregation between schools was even greater for three science entries (figure 4.17). In both 2003 and 2007 most students in community, Voluntary Aided, Voluntary Controlled and Foundation schools did not take three sciences since the mean entry was at or near zero. However for all four school types there were



some schools that entered nearly all the cohort and by 2007 the IQ range had grown suggesting there were more triple science entries. The trend in Independent schools and City Technology Colleges was slightly different because students were more likely to be entered for triple science in 2003 but the mean entry fell by 2007.

Figure 4.17: Percentage of cohort taking GCSE Three Sciences, 2003 and 2007

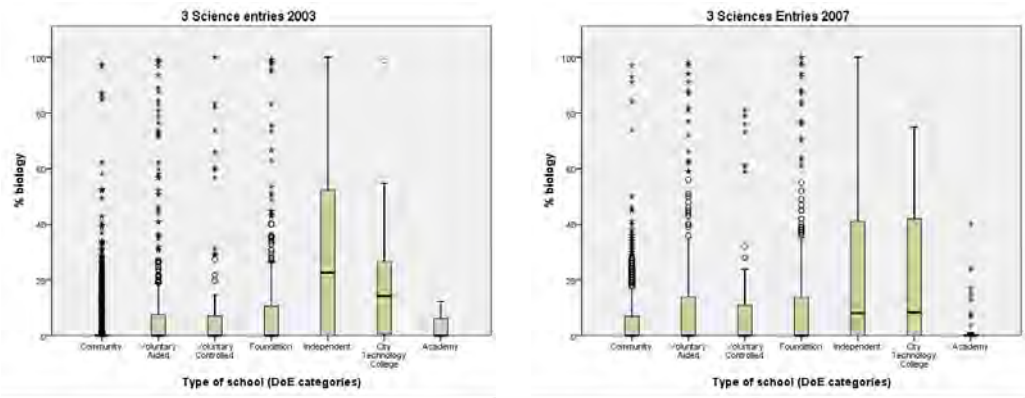
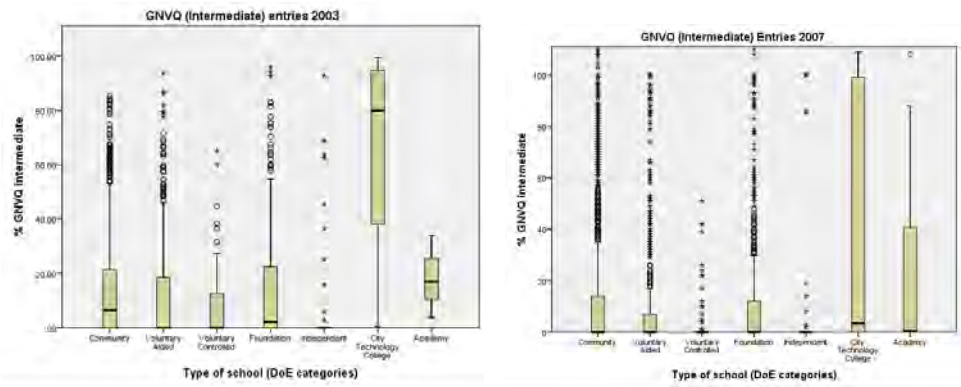


Figure 4.18 Percentage of cohort taking Intermediate GNVQs, 2003 and 2007

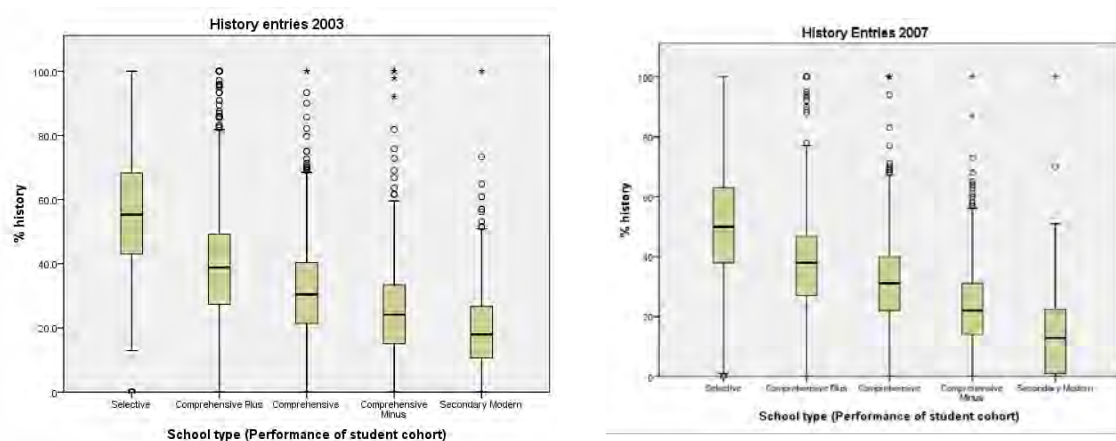


GNVQs were most popular in City Technology Colleges and academies although the mean had fallen by 2007 because this was their last examination year (figure 4.18). Community

schools had the next highest entries in 2003 and some schools were still using them in 2007. Very few independent schools entered students.

The patterns for the Newsam type classification were also compared with geography entries. History entries were segregated in the same way as geography (figure 4.19). Median entries were far less in comprehensive, comprehensive minus and secondary modern schools. Selective schools had median entries that were much higher than all the other school types. The median dropped most in secondary modern schools but the inter-quartile range also grew. However there were also schools that had no entries for history.

Figure 4.19: History entries – Newsam school type 2003 and 2007



French entries had similar patterns but the falls in 2007 were far larger in comprehensive, comprehensive minus and secondary modern schools (figure 4.20). In the bottom two performance types the subject largely disappeared. Only in selective schools were entries maintained near 2003 levels. The spread of entries ranged from none to 100% in all groups even though there were only one or two high entry secondary modern schools in 2007.

Figure 4.20: French entries – Newsam school type 2003 and 2007

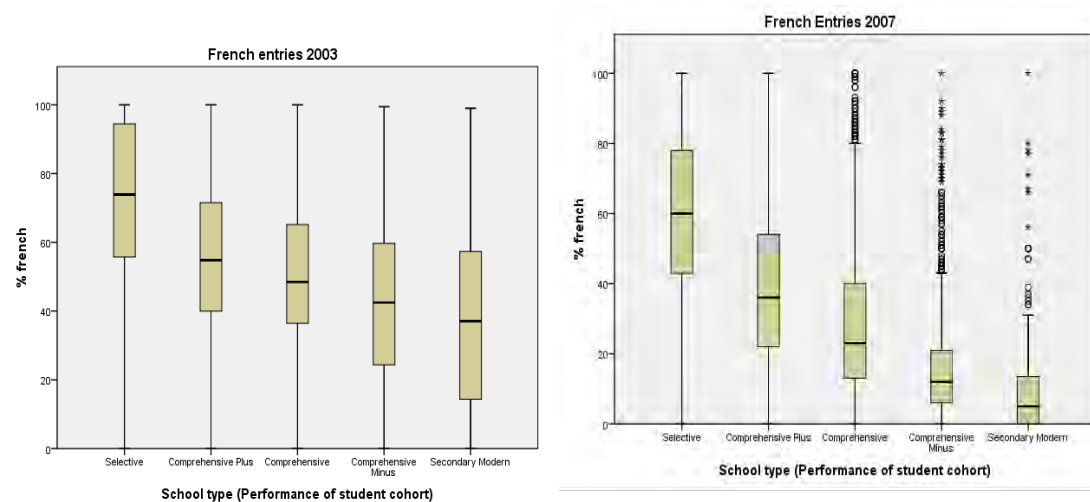
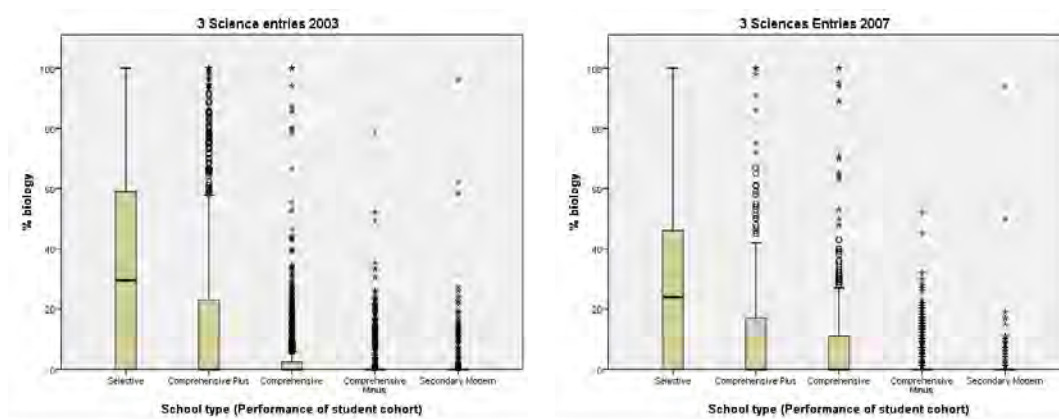
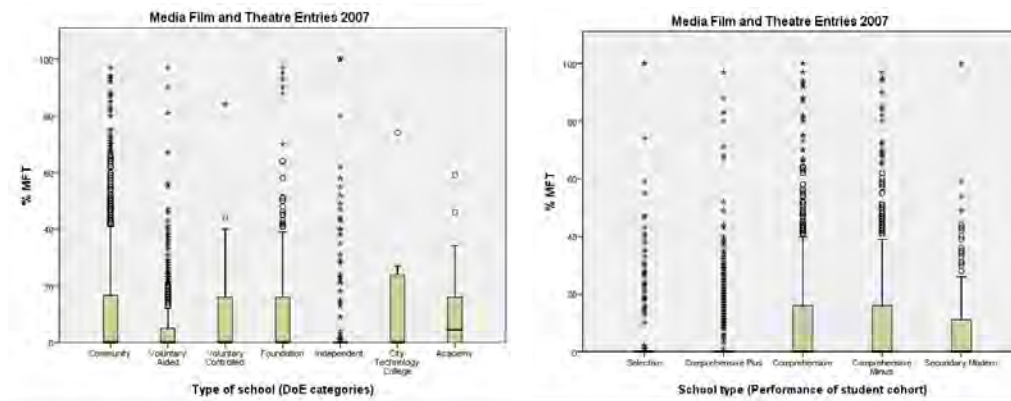


Figure 4.21: Three sciences entries – Newsam school type 2003 and 2007



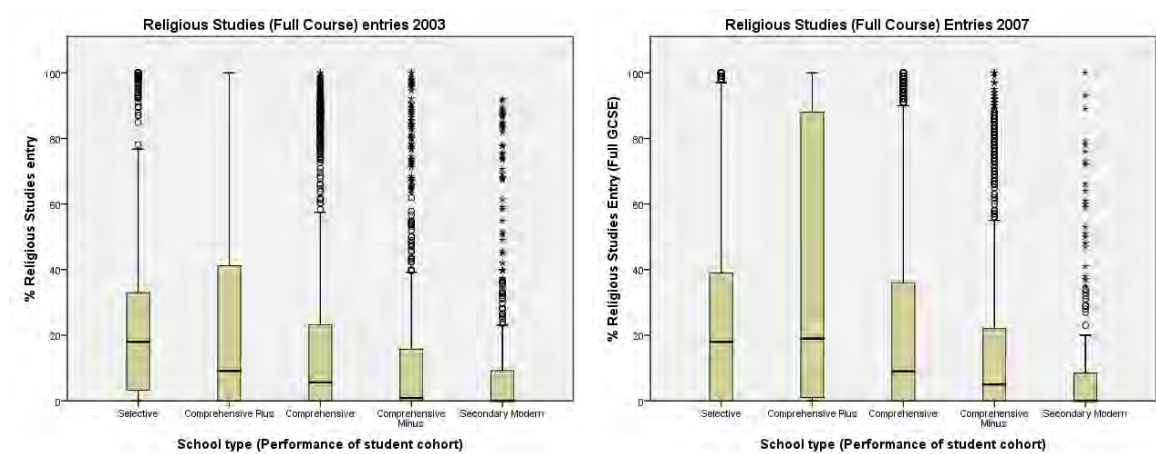
Three sciences were restricted to selective schools and a few comprehensive plus schools (figure 4.21). Entries were very low in comprehensive, comprehensive minus and secondary modern schools in 2003. By 2007 median entries had fallen in selective and comprehensive schools but there were more entries in comprehensive schools.

Figure 4.22: Media, Film and Theatre Studies entries – Newsam school type 2003 and 2007



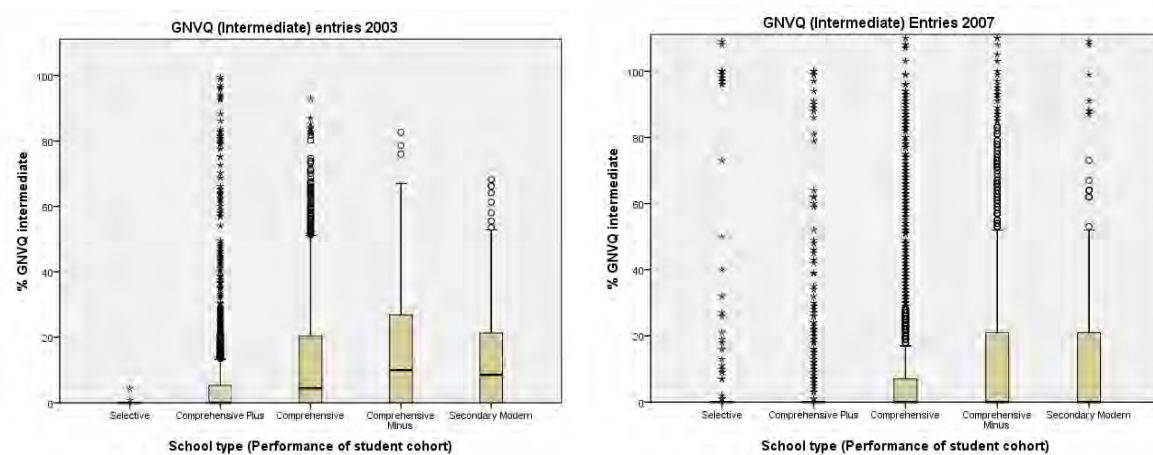
Media, Film and Theatre Studies (figure 4.22) was not reported in 2003 but it was a growth subject over the last ten years going from 34 812 in 2003 to 67767 in 2010. Entry was patchy with most schools not entering any students. It was more likely to be offered in comprehensive, comprehensive minus and secondary modern schools and rarely in independent schools. Entries in community, voluntary controlled, foundation and academies were similar.

Figure 4.23: Religious Studies entries – Newsam school type 2003 and 2007



Religious Studies were also segregated by school type but the pattern was less clear cut than other subjects (figure 4.23). There was growth in entries in all school types between 2003 and 2007 but especially in comprehensive plus schools. In most secondary modern schools it was not taught.

Figure 4.24 GNVQ Intermediate entries – Newsam school type 2003 and 2007



The pattern of GNVQ intermediate entries illustrates the changes that have occurred over the period 2003-2007 (figure 4.24). The highest entries were in comprehensive minus and secondary modern schools in both years but there were also entries from selective schools by 2007. The range of entries is large with some schools entering all students while many entered none. The phasing out of GNVQs in 2007 has also had an impact on these scores with schools changing their patterns of entry. The largest entries were for GNVQ Information and Communications Technology (ICT) and schools have moved onto other qualifications. In some cases these are done by all students – hence the large number of outliers.

These patterns for other subjects show the complexity of the interactions that are occurring. History, geography and French are experiencing the same trends, although in the case of French it is far more extreme with only selective schools retaining relatively high numbers. History was experiencing the same losses in secondary modern schools as geography but possibly less in other Newsam types. Triple science was concentrated in higher performing schools but showed some growth in comprehensive schools. Religious Studies growth appeared to be in every school type apart from secondary moderns. Entries in ToE schools remained focused on faith schools but were seeing growth in all other types of school as well. GNVQs were falling as they were phased out but there were probably switches to other vocational qualifications. They along with media studies entries were concentrated in schools with comprehensive or below performance so might account for some of the losses to all the traditional subjects in these schools.

It was unclear what effect these changes would have on geography entries. There was no one obvious change that could be directly causal for geography but not history. The implication was that there were probably subtle changes in different ways in different school contexts that cumulatively contributed to the fall in entries.

#### **4.5 SPATIAL PATTERNS OF ENTRY**

Regional and Local Authority (LA) patterns of entry were analysed to see whether there was spatial diversity in geography entries. Geographers have mapped diversity for many years and have identified patterns such as north-south or urban-rural divisions. The annual data set (DCSF, 2003-2007) for maintained schools categorised by LA and subject was used

to analyse entries for geography and a number of other subjects. The data were derived from the NPD but DCSF analysts had removed data for independent schools. This data therefore only referred to students in Y11 taught in all forms of maintained school (about 93% of students). This annual data analysis created a number of different tables about GCSE entries but only produced this particular data set during the years 2003-2007.

There were 150 LAs that acted as Local Education Authorities in England in the period 2003-7 but this was reduced to 148 because the Isles of Scilly LA was small so their data was merged with Cornwall and the City of London had no maintained secondary schools. The total entry for any subject depended on the size of the Local Authority so to provide a measure of comparison the entry for a subject was calculated as a percentage of the total entry within that LA. For example the smallest authority (Rutland) had an entry for geography in 2003 of 196 but this was a high proportion (45.8%) of the total number of GCSE students (421). Leicestershire had an entry of 1499 for geography in 2003 but this was a low proportion (21.1%) of the total number of students (7094).

Differential entries for subjects in the independent and maintained sector was confirmed relatively late on in the analysis when JCQ produced an analysis of entries (JCQ, 2009). Independent schools are over-represented in some subjects (triple sciences) and under-represented in others such as Media (table 4.15). This means subjects like geography and history were under-represented in this analysis because they have a higher than expected entry in independent schools. This is further complicated by the uneven distribution of independent schools which can educate between 0 and 37% of the population in any LA

area. It should be noted that the JCQ data covers all entries for a subject irrespective of the age of the student. This made direct comparison between the DCSF data and the JCQ data problematic.

Table 4.15: Entries for different subjects by examination centre type (2009)

	Maintained Schools	Independent Schools
All Subjects	90.5	8.7
English	88.9	6.4
English Literature	92.4	7.5
Mathematics	90.1	4.3
Science	94.7	4.3
Additional Science	95.1	4.7
Biology	79.4	17.6
Chemistry	80.6	18.3
Physics	81.2	17.8
Media / Film / TV studies	97.6	1.1
Design and Technology	96.4	3.7
Performing / Expressive Arts	96.2	2.9
Physical Education	94.3	5.6
Religious Studies	92	7.9
Music	89.4	10.6
History	88.7	11.1
Geography	88.3	11.7
German	89.1	10.6
Information Technology	91.3	7.9
French	85	14.7
Number on Roll % of cohort(DCSF)	89.4	7.6

(Source, JCQ, 2009)

The numbers for some subjects do not add up to 100% because the JCQ data also included entries from Further Education institutions which have not been presented here.



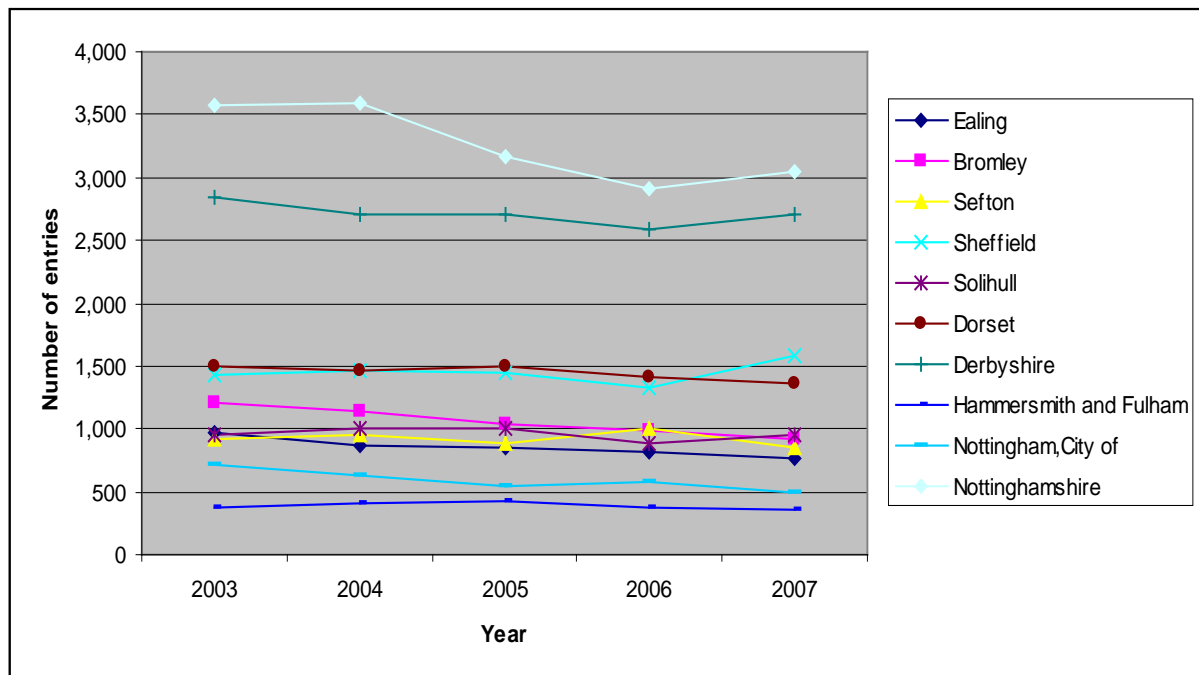
Initially the maximum, minimum and mean entry for the 148 LAs was calculated (table 4.16). The trend in the mean entry was consistently downwards and the range between the highest and lowest LA stayed consistently large (about 30% over the five year period).

Table 4.16: Range of entries for GCSE geography (Local Authority 2003-7)

	2003	2004	2005	2006	2007
Maximum entry	47.0	45.9	46.4	42.4	41.9
Mean entry	32.8	31.0	29.5	28.6	27.9
Minimum entry	16.0	17.2	16.4	11.0	11.5

Aggregated data tends to obscure annual variations so a random sample of ten LAs were chosen to investigate whether the trend was always downwards (figure 4.25). This showed there were no consistent trends.

Figure 4.25: Changes in GCSE geography entry for ten randomly selected LAs (2003-7)



The different size of entries within the LAs is partly the result of variations in the total student population. To remove this population effect a segregation ratio<sup>4</sup> was used. The changes in entries were rather more random (figure 4.26) than was initially suggested by the total entry numbers (figure 4.11).

Figure 4.26: Geography entry for ten randomly selected LAs by segregation ratio (2003-7)



Most of the LAs had relatively small cohorts so a small change in numbers could result in large swings. This graph was useful in identifying LAs that consistently had a higher or lower than expected entry, those that had large changes in entries and whether there were any locational trends. The three LAs with lowest entries were Nottingham, Sefton and Sheffield, all of which were industrial urban areas. The highest entries were from Hammersmith and Fulham, Ealing, Nottinghamshire, and Dorset, two suburban and two counties. Three LAs, two suburban (Bromley and Solihull) and one county (Derbyshire) had

<sup>4</sup> The formula used was  $(lge^y/GE^y)/(lae^y/AE^y)$  where  $lge$  is the geography entry for the local authority;  $GE$  is the total geography entry for England;  $lae$  is the candidate entry for all subjects in a local authority;  $AE$  is the total candidate entry for England and  $y$  is the year.

just above average entries in most years. This did not immediately suggest any clear trends although it appeared that more industrial urban areas had lower entries than suburban and county LAs. To investigate this further the LA entries were mapped.

The LA level data being analysed here was aggregated data from between one and a hundred diverse secondary schools in any LA. This smoothed diversity between schools and accentuated variability in small LAs. The data was for maintained schools only and underestimated the entry for geography because it ignored the 4% extra entry from independent schools and the uneven spread of independent schools. This was checked in some LAs with high proportions of students in independent schools such as Bristol LA where 20% of students were educated in independent schools and 41% of geography entries came from these schools in 2003. The data suggested that there were several LAs in and around London that had high percentages of the cohort in independent schools. This data was used in preference to the NPD data because it was obtained at an earlier date and was more continuous over the five year period. The data was available for all five years not just 2003 and 2007.

The starting point for this investigation was to gain a better understanding of the distribution of entries nationally and whether this gave some clues to possible causes or relationships. This mapping was first done in 2006 when the existence of the DCSF data set was drawn to my attention (Lloyd-Staples, 2006). Initially the investigation merely sought to explore the patterns of entry so entries were mapped using a GIS programme.

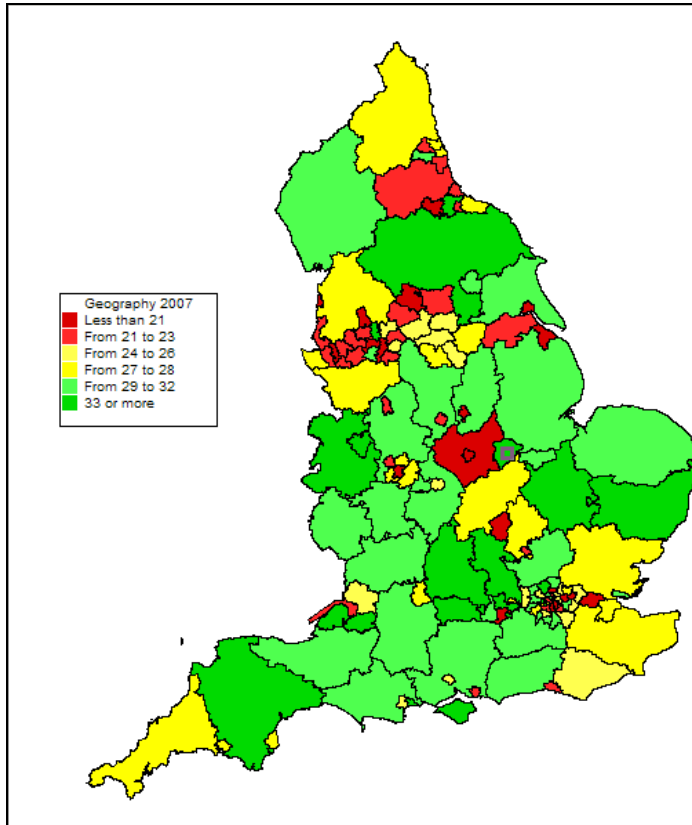


Figure 4.27a: % Entries for geography by LA (2007)

Key

- High Entries
- Medium Entries
- Low Entries

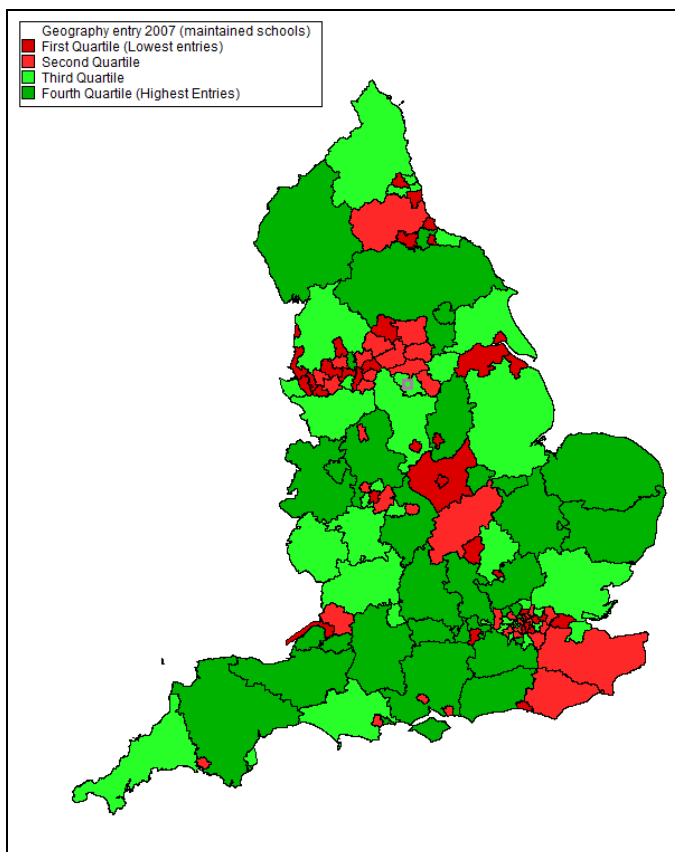
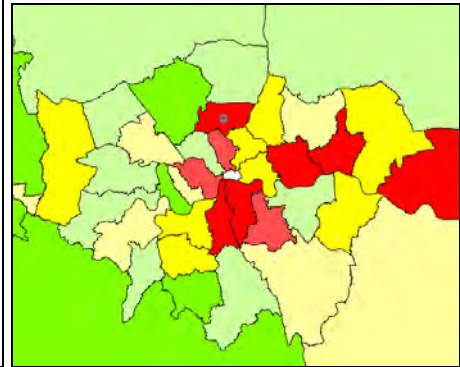


Figure 4.27b: % Entries for geography by LA (2007)

Key

- Top 25%
- 2<sup>nd</sup> 25%
- 3<sup>rd</sup> 25%
- Bottom 25%

The initial programming was problematic because it was difficult to find the appropriate base map, but once this had been created the GIS programme was a powerful tool. It was possible to link the large data set of 148 LAs to the entry data for subjects over the time period 2003-2007 and produce maps for each of the years and subjects. This allowed iterative analysis using for example different categorisations (three, four, five or six groups) (figure 4.27a and b) and the comparison of entries for subjects (figure 4.28).

One early form of analysis split the 148 LAs into three groups (High, Medium and Low entries) because this would clearly identify where entries were most and least buoyant and mirrored Bell's (2001) analysis of entries. The LAs were ranked from 1 (high entry) to 148 (low entry) for each year and the boundary points of the three groups established. For simplicity the actual entry percentages and the size of the LA were not considered.

Different categorisations provided subtle differences in the patterns (Kent, East Sussex and Bedfordshire are all below average in figure 4.27b but about average in figure 4.27a) so choice of groupings was important. However the overall pattern was similar with both maps showing that rural counties had the highest entries for geography and urban areas the lowest. The patterns on the map corresponded with known spatial diversity in wealth, social class and ethnicity. These are well known factors affecting the performance of schools in general:

For any set of schools, if we rank them by their student scores in assessments of learning ..., then we would tend to find that schools at the high and low ends differed in more than their student assessments. Schools in areas with more expensive housing ..., schools that select their student intake by ability, aptitude or even religion, and schools requiring parents to pay for their child's attendance, will be more prevalent among the high scores. Schools with high student mobility, in inner-cities,

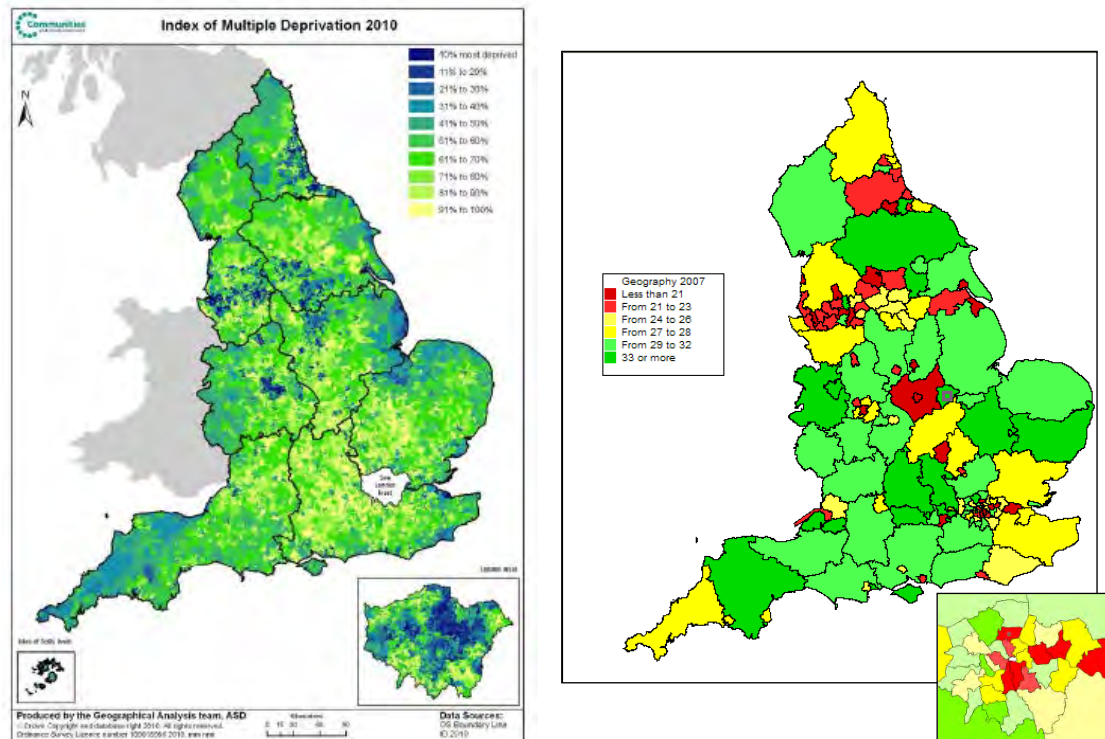
taking high proportions of children living in poverty or with a different home language to the language of instruction, may be more prevalent among the low scores.  
(Gorard, 2010b, p. 746)

The proposition was therefore that an inner city LA in a major urban area with a larger proportion of schools with students from 'deprived' households in terms of a range of socio-economic characteristics was more likely to have a lower entry for geography than a suburban or rural LA where there are a larger proportion of schools with students from 'affluent' households. Early in the research finding data about levels of deprivation and degree of rurality was difficult and a number of different measures were considered. Later when the IDACI deprivation index (DCLG, 2011) and the index of rurality (Defra, 2011) were found there were difficulties in obtaining aggregated data corresponding to the educational LA areas.

A simple visual inspection identified there was a broad correlation between relative deprivation and geography entries (figure 4.28), but that because deprivation also has a core-periphery element there are a number of remote places (Devon, North Norfolk, Lincolnshire, the Welsh Borders) that are relatively deprived but have high entries for geography. In general urban LAs with relatively high deprivation such as the North West cities, Bristol, West Midlands, Inner London had lower geography entries. Of the counties County Durham had relatively low entries but also areas of high deprivation possibly because of its industrial legacy. Leicestershire was relatively less deprived but low entries for geography. This is because the county has a tradition of teaching humanities rather

than separate geography and history and there are high entries for humanities. In London the relatively less deprived suburbs tended to have higher entries for geography.

Figure 4.28: Index of multiple deprivation (LSOA level) / entries for geography



Source: DCLG

Note this is not a map of IDACI scores but a more generalised deprivation index

In general there was an urban, suburban, rural divide in geography entries. Rural and suburban areas tended to have higher entries while urban areas had lower entries. The regional distribution of these authorities can be partially explained by the historical geography of England with the largest concentrations of population being concentrated in the capital and the old coalfield locations in the Midlands and North.

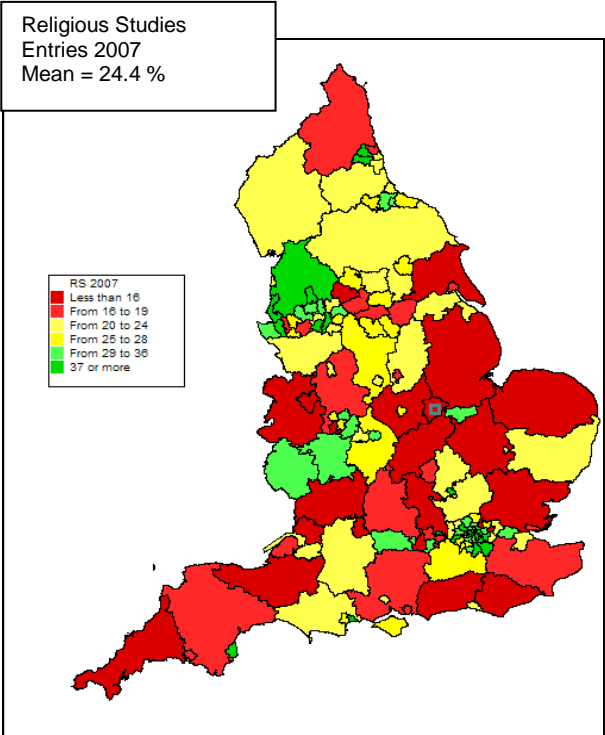
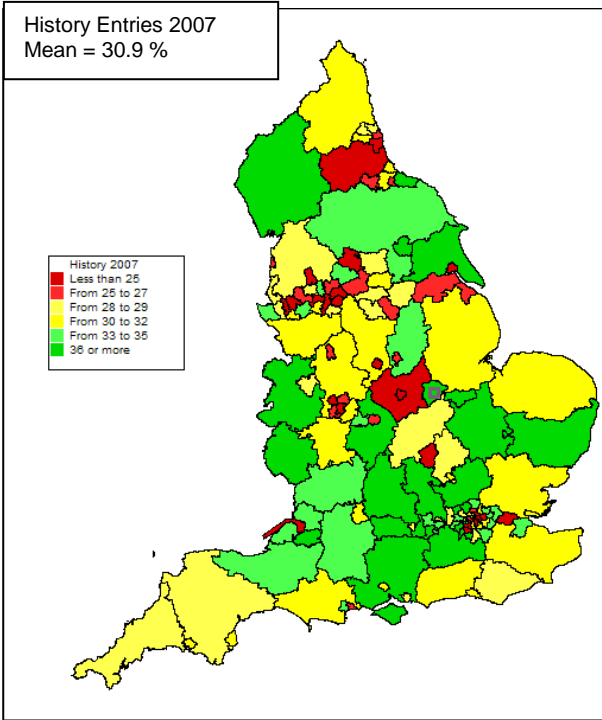
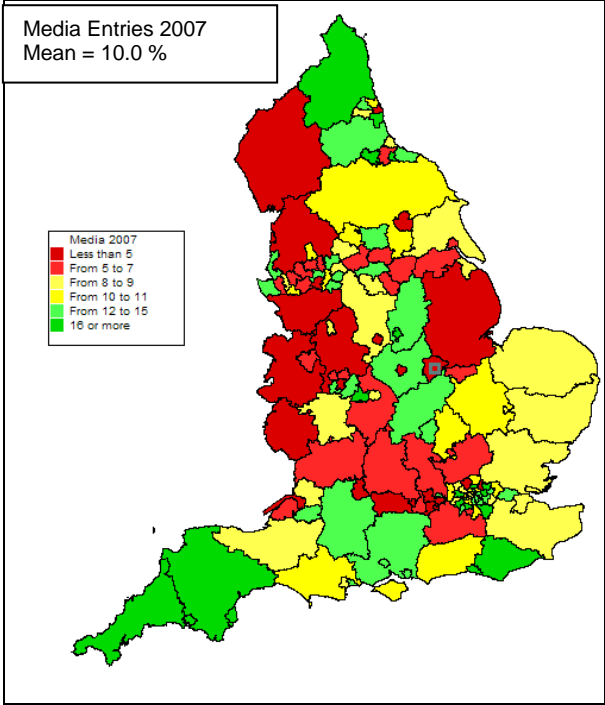
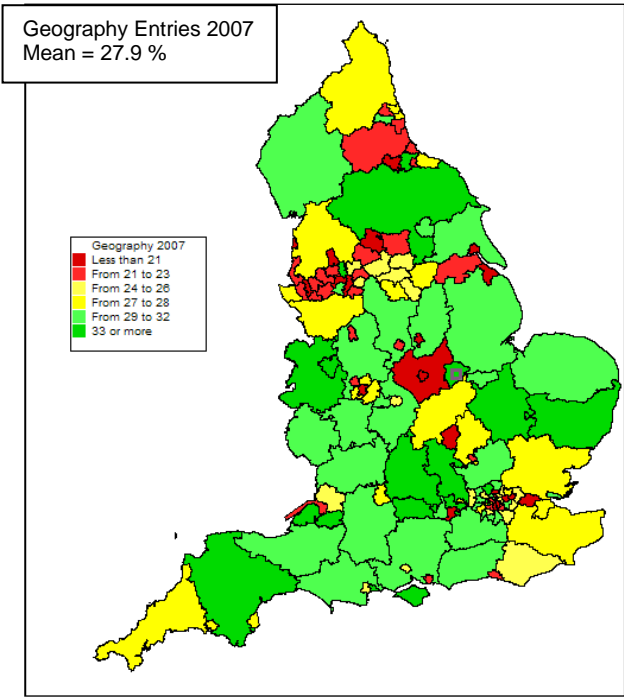
The entries for geography were compared with the patterns for three other subjects, history, Religious Studies and media, film and theatre studies (figure 4.12). The patterns for history and geography were similar with low entries in urban areas and higher entries in rural counties.

Entries for media were different. Overall entries were considerably smaller (mean = 10% of total entry). The highest entry LAs were mostly in London and many low entry areas were rural. At first this pattern was rather puzzling but then closer analysis at the LA level showed that entry at school level was very patchy. Only a few schools in any local authority offered media studies but where they did it was often a popular option.

Religious Studies was also more concentrated in London and other metropolitan areas such as the West Midlands, North West and North East and tended to be lower in rural LAs. This can be explained by the ethnicity of the cohort that studies RS. All the minority ethnic groups were over-represented and these groups are concentrated in urban areas.



Figure 4.29: Comparing entries for geography with other subjects



## 4.6 THREE LOCAL AUTHORITIES

The final section in this chapter describes some of the earliest analysis within the research which collected data about all the schools in three local authorities in the West Midlands.

Getting familiar with the schools in the area was a slow and often complicated business because of lack of familiarity with potential data sources but gradually a detailed list of schools and their characteristics was compiled. The number of mainstream schools in the three local authority geographical areas was obtained from a number of different sources (BBC League tables, NPD / PLASC, 2004; School Directory, Edubase, LA data managers).

The data was added to over time and the initial analysis was revisited and refined to further develop understanding as new patterns emerged. This provides contextual information for the sample study of five schools that is described in chapter 5.

### 4.6.1 School characteristics

There were 135 'mainstream' Secondary Schools in the three local authorities in 2003 with 18343 students (table 4.17).

Table 4.17 Number of schools and students in three Local Authorities (% in brackets)

3 LAs 2003	Maintained		Independent		Total	
	Schools	Students	Schools	Students	Schools	Students
City	75 (56%)	11657 (64%)	15 (11%)	625 (3%)	90 (67%)	12282 (67%)
Town	13 (10%)	2009 (11%)	2 (1%)	223 (1%)	15 (11%)	2232 (12%)
County	22 (16%)	3387 (19%)	8 (6%)	442 (2%)	30 (22%)	3829 (21%)
Total	110 (81%)	17053 (93%)	25 (19%)	1290 (7%)	135 (100%)	18343 (100%)

(Source: NPD, 2004)

Entries from special schools and post-16 institutions were initially investigated but then ignored because geography entries from these institutions were very small. Data was obtained from each Local Authority, initially for the period 2000-2004 and then for 2005-2007. This data did not include pupils being educated in independent schools so entry trends for independent schools were not investigated in this phase of the research.

Table 4.18 Number of maintained schools in each local authority 2003-7

Sample	2003	2004	2005	2006	2007
City	75	75	75	75	75
County	22	22	22	22	22
Town	13	13	13	12	12
Total	110	110	110	109	109

(Source, NPD, 2004)

The number of schools varied slightly from year to year as schools opened and closed (table 4.18). The two main changes were in Town where one school became an academy and therefore beyond Local Authority control and another school closed in 2006 but was replaced by a new school. The government's academy programme was only just beginning to have an impact during this period.

The 'sample' of 110 maintained schools included a wide variety of types of school and appeared to approximate to the national cohort in a number of different respects such as the rural / urban distribution of population in England with about 80% of the schools 'urban' and 20% 'rural' and proportion of students educated in independent schools (7%).

It was only much later in the analysis as more secondary national data was obtained that it was possible to check whether this held true for other characteristics.

The format of the LA data provided varied so required transformation to enable meaningful comparisons. For most years detailed analysis of entries for all subjects was possible but for Town the 2006-7 data only covered a limited range of humanities subjects. The overall richness of the data meant the changing nature of entries for different subjects and type of qualifications over time could be investigated. It was decided to focus on the period 2003-7 because this corresponded with the national data set. A number of different ways of classifying schools were investigated but the one that appeared to explain the variation in entries best was one based upon student intake into the school. The 110 schools were grouped using the five-fold (Newsam) classification based on overall GCSE performance, Ofsted reports and teacher self-report.

There was an uneven distribution of Newsam school types within the three LAs with City and Town having more schools with differentiated cohorts (table 4.19). The groups with the largest cohorts were the comprehensive and comprehensive minus groups, but the spread of schools was different between the three Local Authorities. County had the most 'true' comprehensives, while both City and Town were weighted towards schools with most pupils in the lowest 50% of attainment. In both cases over 50% of schools were in the bottom two categories. Newsam and Brighouse argue this is because the close proximity of schools in urban areas and the socio-economic segregation of neighbourhoods allow segregation of pupil entry (Brighouse, 2003; Newsam, 2003).

Table 4.19 School Type (Newsam) by Local Authority

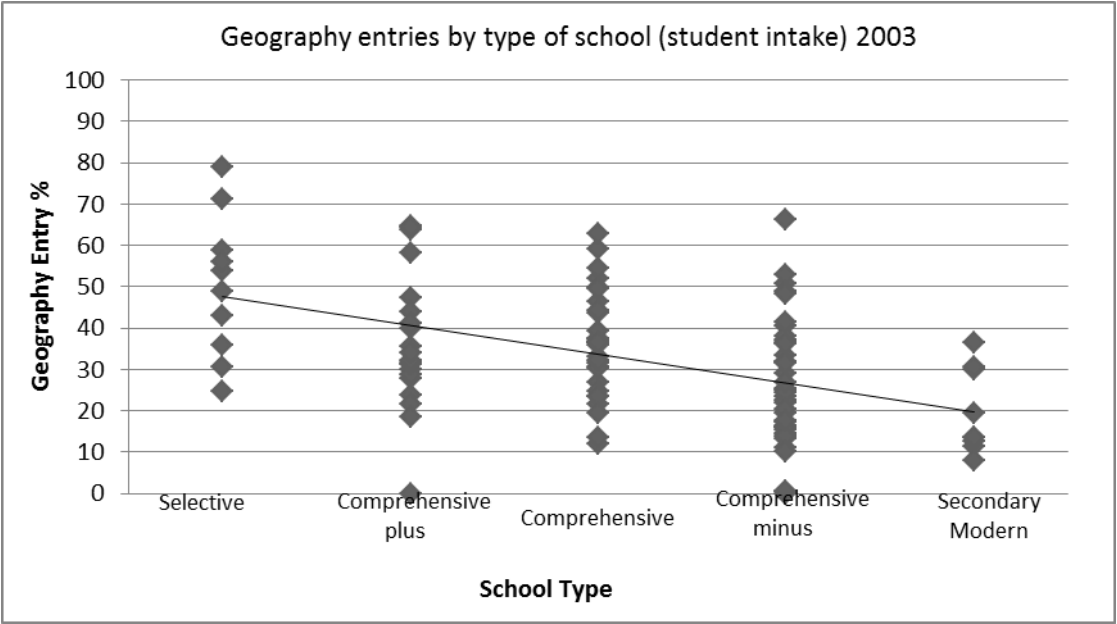
<b>Newsam School Type</b>	<b>City</b>	<b>County</b>	<b>Town</b>	<b>3 LAs</b>
<b>Selective</b>	8		2	10
<b>Comprehensive Plus</b>	11	9	1	21
<b>Comprehensive</b>	16	11	3	30
<b>Comprehensive minus</b>	32	2	6	40
<b>Secondary Modern</b>	8		1	9
<b>All Schools</b>	75	22	13	110

#### 4.6.2 Geography entries 2003-2007

Segregation also occurs in geography entries between the three Local Authorities. The lowest overall entries were in City (7% below the national average) while Town had entries above the national average (10%) and County was well above (41%). The smaller number of schools in each group in County and Town means that the patterns of entries fluctuated more. County was the one area where there was little segregation between the different types of school.

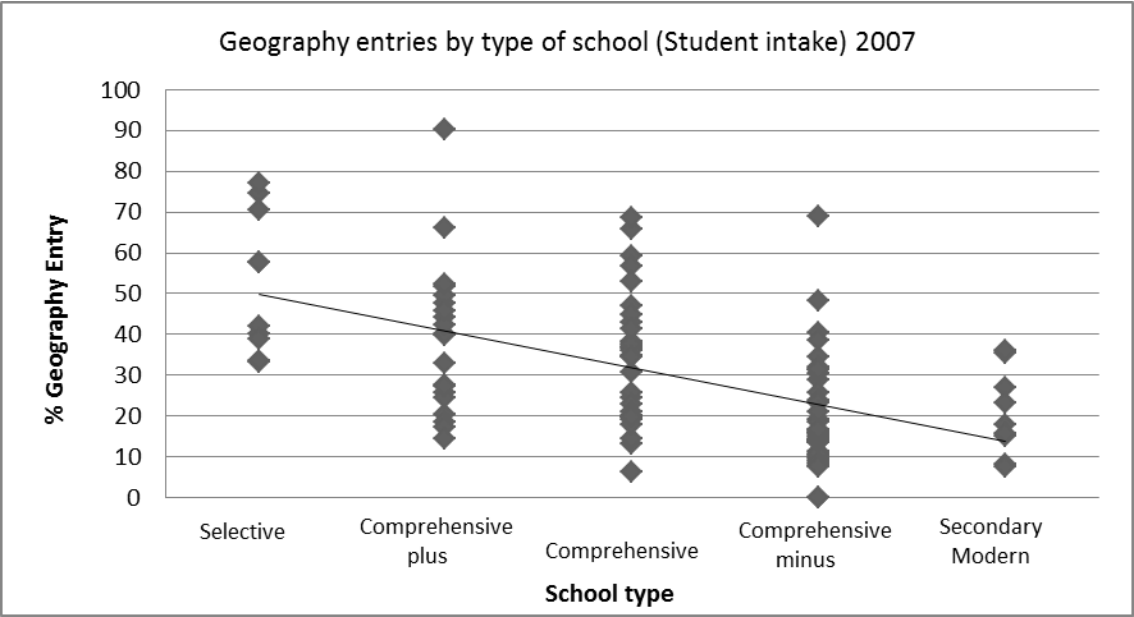
The majority of entries were concentrated in a relatively small number of schools, especially in City where nineteen schools out of seventy five accounted for half of all entries. In Town it was five schools out of thirteen and nine out of twenty two schools in County. The greatest diversity occurred when schools were categorised using the Newsam school type classification. While the diversity in entry numbers within the schools categories was greater than the difference in the between group means clear trends emerged (figures 4.30a and b).

Figure 4.30a: Entries for geography GCSE in 3 LAs by School Type (Newsam) 2003



(Source 3 LAs, 2003)

Figure 4.30b Entries for geography GCSE in 3 LAs by School Type (Newsam) 2007



Each diamond represents one school

(Source 3LAs, 2007)

Geography entries as a percentage of the cohort were largest in school groups with high attaining student cohorts (figures 4.30a and b).

Table 4.20: Entries by School Type (Newsam)

3 LAs		2003		2004		2005		2006		2007	
Row Labels	Number of schools	All students	Geography Entries	All students	Geography Entries	All students	Geography Entries	All students	Geography Entries	All students	Geography Entries
<b>Selective</b>	10	1142	557	1148	550	1154	611	1158	569	1153	588
<b>Comp. Plus</b>	20	3376	1252	3541	1364	3502	1358	3628	1416	3627	1437
<b>Comp.</b>	31	5172	1828	5262	1808	5150	1652	5317	1797	5406	1866
<b>Comp. minus</b>	40	5597	1543	5687	1400	5682	1194	5963	1054	5993	1189
<b>Secondary Modern</b>	9	1640	322	1593	254	1573	294	1441	294	1603	350
<b>All Schools</b>	110	16927	5502	17231	5376	17061	5109	17507	5130	17782	5430

(Source 3LAs, 2003-2007)

There were a number of changes and trends in the student population over time (tables 4.20a and b). There were between group variations in both cohort numbers and geography entries. The selective and secondary modern cohorts stayed much the same but the other three school groups increased their cohort by between 300 and 400 students (Table 4.21). Between 2003 and 2007 there was a reduction in the total geography entry of 72 students for the 3 LAs although the cohort grew by 855. However only the comprehensive minus group (-354) had lower geography entries even though the school cohort had increased by 396. As a percentage of the total cohort (table 4.20b)

geography entries were highest in selective schools (48-53%) and lowest in comprehensive minus (18-28%) and secondary modern schools (16-22%).

Table 4.21 Mean entry for geography by School Type (Newsam)

3 LAs	2003		2004		2005		2006		2007	
Row Labels	% of LA entry	% geography entry	% of LA entry	% geography entry	% of LA entry	% geography entry	% of LA entry	% geography entry	% of LA entry	% geography entry
Selective	7	49	7	48	7	53	7	49	6	51
Comprehensive Plus	20	37	21	39	21	39	21	39	20	40
Comprehensive	31	35	31	34	30	32	30	34	30	35
Comprehensive minus	33	28	33	25	33	21	34	18	34	20
Secondary Modern	10	20	9	16	9	19	8	20	9	22
All Schools	100	33	100	31	100	30	100	29	100	31

(Source 3LAs, 2003-2007)

These three LAs increased their share of the national entry over the 2003-7 period even though total entries fell both locally and nationally (table 4.22). In 2003 entries were 2% more than expected but in 2007 (which saw an increase in entries compared to 2006), they were 12% more than expected. Entries were consistently highest in selective schools and lowest in comprehensive minus and secondary modern schools. Over time inequalities increased as selective schools increased their share of geography entries by 35% while comprehensive minus schools decreased by 10%. However the trends were not consistent over time as entries varied from year to year (table 4.21a).



Table 4.22 Entries for geography by School Type (Newsam) (Segregation Ratio)

School type	Number of schools	2003	2004	2005	2006	2007
Selective	10	1.53	1.60	1.78	1.66	1.88
Comprehensive Plus	20	1.13	1.23	1.27	1.32	1.39
Comprehensive	31	1.10	1.14	1.12	1.21	1.22
Comprehensive Minus	40	0.82	0.77	0.70	0.62	0.72
Secondary Modern	9	0.59	0.49	0.62	0.79	0.73
All 3 LAs	110	1.02	1.03	1.03	1.05	1.12

(Source 3LAs, 2003-7; JCQ, 2003-7)

The analysis by school type (Newsam) for the 3 LAs was further demonstration of a relationship between performance and mean entry for geography. Selective, comprehensive plus and comprehensive schools had higher entries and over time increased their share. Comprehensive minus and secondary modern schools were well below expectations in terms of entries and fluctuated up and down from that low starting point (table 4.22).

Another measure of segregation (Segregation Index) shows how unevenness in geography entries between the different school types increased between 2003 and 2006 (table 4.23 – all schools) although there was a fall again in 2007. This measure of segregation shows the percentage of students that would have to move to another type of institution for the entries to be evenly spread (Gorard, 2001, p.70). It allows for the differences in size of the cohorts in each school type but shows very similar patterns to table 4.22 with four school

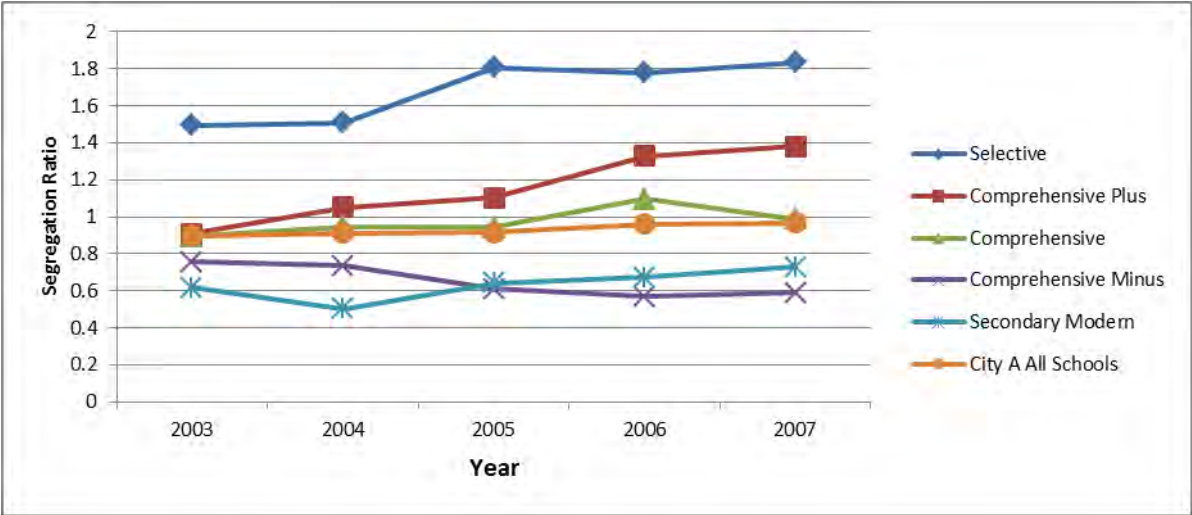
types becoming increasingly segregated and the comprehensive minus group showing the largest change (-0.034 between 2003 and 2007). This represents 3.4% of the total cohort.

Table 4.23 Entries for geography by School Type (Newsam) (Segregation Index)

<b>School Type</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
<b>Selective</b>	0.017	0.018	0.026	0.022	0.022
<b>Comprehensive Plus</b>	0.014	0.024	0.030	0.034	0.030
<b>Comprehensive</b>	0.013	0.015	0.011	0.023	0.020
<b>Comprehensive minus</b>	-0.025	-0.035	-0.050	-0.068	-0.059
<b>Secondary Modern</b>	-0.019	-0.023	-0.017	-0.012	-0.013
<b>All schools</b>	0.089	0.115	0.134	0.160	0.144

Diversity between the three LAs was also investigated. This focused on City and County because there were too few schools in any category in Town for any realistic trends to be identified. Overall entries were higher in County and there was less diversity of entries between the three school type groups suggesting that these schools may be more similar. The comprehensive minus group in County was only two schools so yearly variations were larger. The between school group differences in City (figure 4.21a) were clear with selective and comprehensive plus schools taking a larger share of the entries.

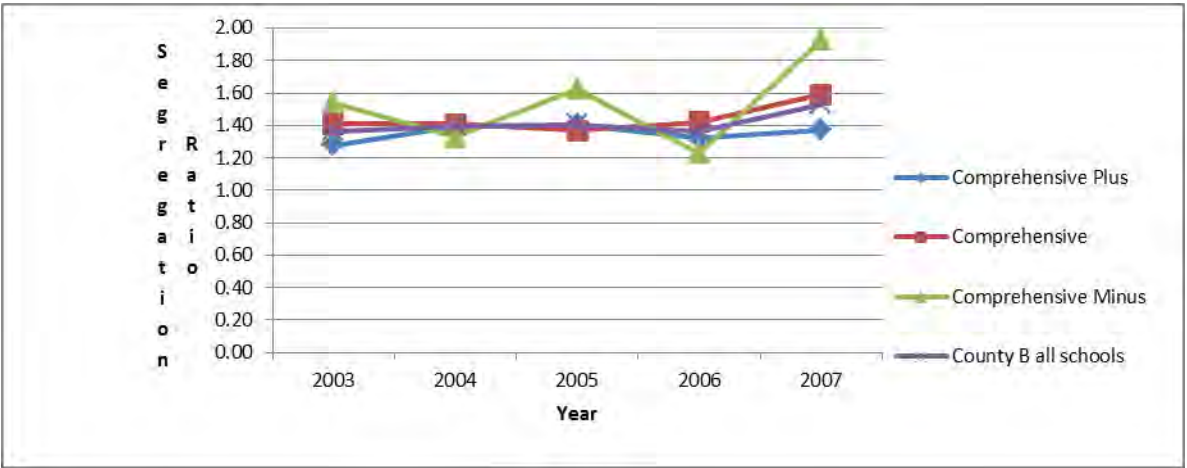
Figure 4.31a: City: Changes in entries by school type (Newsam) Segregation ratio



(Source 3LAs, 2003-7; JCQ, 2003-7)

Figure 4.31b: County: Changes in entries by school type (Newsam) Segregation

Ratio



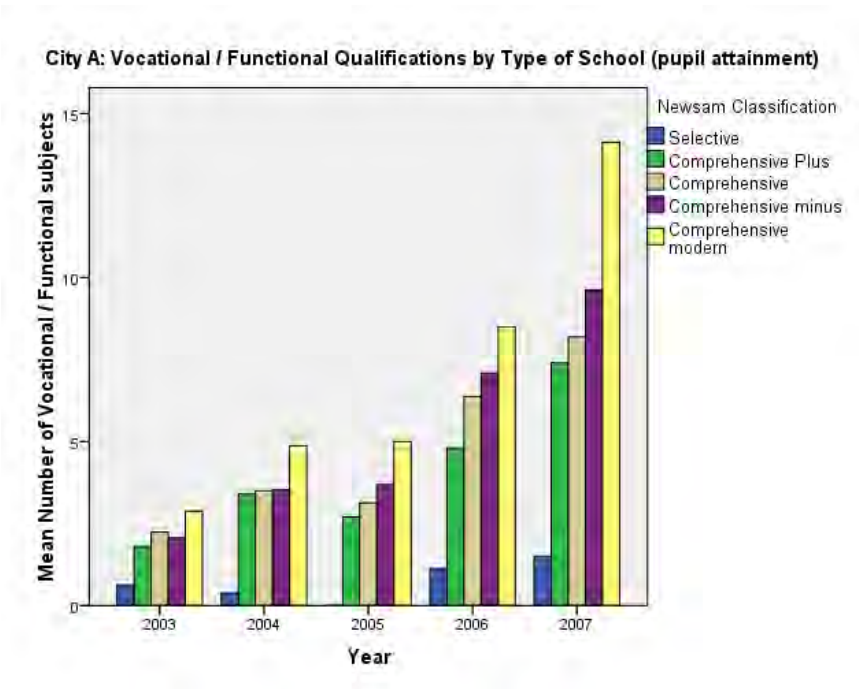
(Source 3LAs, 2003-7; JCQ, 2003-7)

4.6.3 Changing curriculum

Evidence of changes to the curriculum was investigated using the local authority data sets. Analysis of these had suggested that the number of subjects being offered was both

increasing and becoming more diverse. The traditional GCSE qualifications were being supplemented or replaced by the introduction of vocational and functional skills qualifications. Changes in the number of vocational and functional qualifications offered by the different types of school were calculated for the 110 schools in the three LAs. The greatest change occurred in City where the growth in vocational and functional qualifications offered was striking (Figure 4.32).

Figure 4.32 Number of vocational / functional qualifications offered 2003-2007



There were clear differences between types of school. Selective schools introduced few vocational qualifications while secondary moderns introduced, on average, an additional fourteen vocational / functional skills qualifications between 2003 and 2007. All types of comprehensive school increased the number of vocational courses offered but the growth was greatest in comprehensive minus schools. There was some growth in vocational qualifications in the other two LAs but the change was less pronounced.

#### **4.6.4 Geography entries by school**

During the research it became clear that in most schools the numbers studying geography went up and down from year to year, sometimes for relatively unexplainable reasons.

When numbers increased teachers were pleased, when they went down they were concerned. To obtain some sense of the relative size of annual changes at LA level and within schools changes were analysed in groups that represented half the maximum group size (15). The annual changes within a school were usually small with two thirds of changes being less than fifteen students up or down (table 4.22). In most years less than 10% of schools had a change in entry that was more than thirty pupils either way (one class).

LA size appeared to have little influence on the overall patterns. Overall within a local authority gains and losses balanced each other out so total change was relatively small.

The numbers provided an insight into the scale of change required to make a difference at the national level. If entries in all 148 LAs moved the same way, for example had a loss or gain of 100 students this would be a change of  $\pm 14800$  students. The largest annual change recorded in the last twenty years was over 30000 students and the mean annual change was 8783 which is a change of about 60 students in each LA. The implication is that large scale change at the national level is made up of relatively small changes at the LA or school level and that probably in any one year there will be both gains and losses.

Table 4.22 Change in entries 2003-7: City, County and Town

City	change 2003-4	% change 2003-4	change 2004-5	% change 2004-5	change 2005-6	% change 2005-6	change 2006-7	% change 2006-7
change >-30	4	5%	7	9%	1	1%	4	6%
change -15 to -29	6	8%	8	11%	13	18%	6	9%
Change -1 to -14	26	36%	24	32%	15	21%	19	27%
change 0 to 14	26	36%	23	31%	28	38%	31	44%
change 15 to 29	8	11%	10	14%	13	18%	8	11%
change >30	3	4%	2	3%	3	4%	2	3%
Total schools / change in cohort	73	-39	74	-189	73	181	70	54

County	change 2003-4	% change 2003-4	change 2004-5	% change 2004-5	change 2005-6	% change 2005-6	change 2006-7	% change 2006-7
change >-30	1	5%	2	9%	2	10%	0	0%
change -15 to -29	2	9%	3	14%	3	15%	2	10%
Change -1 to -14	9	41%	5	23%	4	20%	6	29%
change 0 to 14	7	32%	10	45%	6	30%	9	43%
change 15 to 29	3	14%	1	5%	5	25%	2	10%
change >30	0	0%	1	5%	0	0%	2	10%
Total schools / change in cohort	22	-31	22	-45	21	-43	20	91

Town	change 2003-4	% change 2003-4	change 2004-5	% change 2004-5	change 2005-6	% change 2005-6	change 2006-7	% change 2006-7
change >-30	1	9%	1	9%	0	0%	0	0%
change -15 to -29	2	18%	1	9%	2	17%	0	0%
Change -1 to -14	3	27%	3	27%	7	58%	1	8%
change 0 to 14	4	36%	5	45%	3	25%	8	67%
change 15 to 29	0	0%	1	9%	0	0%	2	17%
change >30	1	9%	0	0%	0	0%	1	8%
Total schools / change in cohort	11	37	11	-32	12	-74	12	155

## **4.7 SUMMARY**

Chapter 4 has analysed data in a variety of ways to answer the question

### **What changes in the patterns of geography entry can be identified over time?**

Some of the major findings were:

#### **4.1 National trends**

Major national trends have occurred for geography and for other subjects that can be clearly linked to changes in national policy, either intended or unintended.

#### **4.2 Student characteristics: performance, gender, deprivation, ethnicity**

The geography cohort is segregated by performance with larger numbers of higher performers studying the subject

There is a consistent gender imbalance in entries with an 11:9 split in favour of boys. This does not appear to have changed significantly from year to year.

Students from more deprived areas are less likely to enter for geography.

There are differences in the entries from ethnic minorities that do not appear to have changed over time. More students from Indian and Chinese backgrounds enter and there were less from all the other ethnic minority groups.

#### **4.3 Type of school**

There are small differences in entries between the five large mainstream types of school but these appear to more related to overall cohort performance than school governance.

However since type of school can be segregated by residential location the two are likely to co-relate.

The within group variance is wider than the between group variance in median entries.

This implies that there are within school factors that contribute to the diversity of entries between schools.

Selective schools tend to be smaller than all other school types. There appeared to be growing segregation in schools over time as comprehensive and comprehensive plus schools grew in size.

#### **4.4 Spatial patterns**

Entries tend to be higher in rural and suburban less deprived LAs and lower in urban more deprived LAs.

#### **4.5 Other subjects**

Academic subjects have similar entry patterns to geography although the changes in entries for history have been less dramatic while those for French have been spectacular.

Vocational subjects and media studies are more common in schools with lower performing cohorts. Triple science entries which are concentrated in higher performance cohort schools has grown rapidly since 2007 .

#### **4.6 Three Local Authorities**

Similar patterns of entry to those outlined above were found at LA level. County had less segregated schools than City or Town and a higher performing overall cohort.



All schools began to offer vocational qualifications after 2003 with the largest number in secondary modern schools.

The findings about the different influences on geography entries that occur within schools will be described in chapter 5.

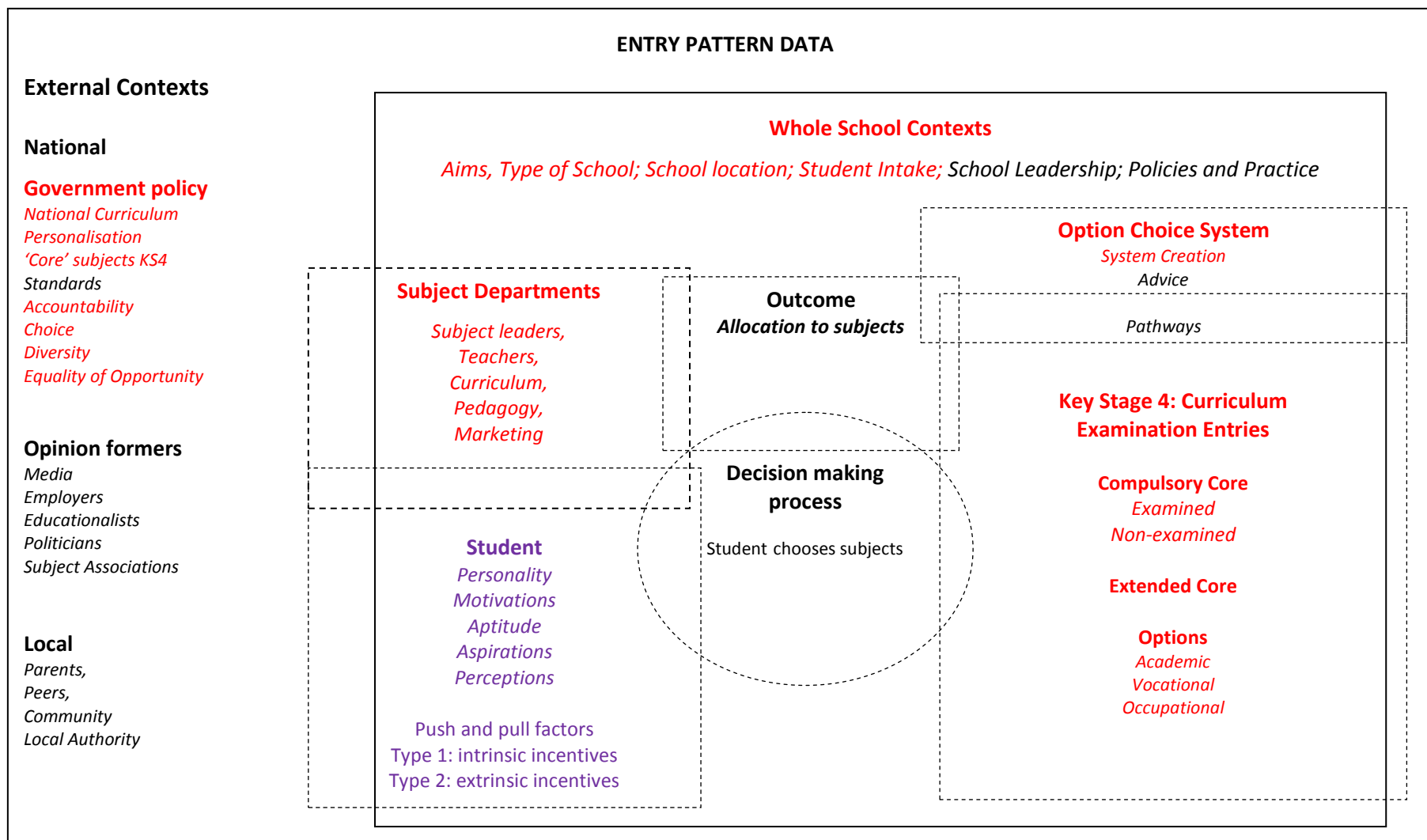


Figure 5.1: A Conceptual Model of the Option Choice Process at KS4: Focus areas for analysis Red major focus; Purple: minor focus

# **CHAPTER 5: CHANGE IN GEOGRAPHY ENTRIES**

## **AT THE SCHOOL LEVEL**

### **5.1 INTRODUCTION**

The analysis of national data on student performance provided a clearer picture of patterns of geography entry suggesting there was a diversity of response that could partially be related to student attainment and school type. While speculative causes could be attributed to these differences it was clear from the start of the research that an extra dimension would be added by more focused research at the school level that looked at individual schools and their contexts. The intention was never that this study would provide definitive causal answers to the question but rather that it would provide individual examples of the reality of diverse school contexts. Initially the ambition was to study three LAs and ten schools but issues of manageability meant that the school sample was reduced to five.

The conceptual model (figure 5.1) provided focus areas and the results will be reported using the five questions below which are linked to the highlighted sections of the diagram. The areas interact with each other so there will be occasions where the analysis overlaps. This chapter therefore uses the five questions earlier as the organising framework for analysis. The first section (5.2) describes the geographical context of each of the five sample schools.

**Objective 2: To use the conceptual model of option choice as a framework for analysing change in geography entries at school level.**

The following questions were identified as relevant and the following sections in this chapter are linked to different areas of the conceptual model.

**5.3 What evidence is there that changes in government policy have influenced entries for geography?**

**5.4 What influence does the structure of the KS4 curriculum have on geography entries?**

**5.5 Has curriculum change influenced geography entries?**

**5.6 What impact do teachers and departments have on the numbers taking geography?**

**5.7 Why do students choose to study geography?**

Evidence comes from the questionnaires, surveys, interviews and examination data discussed in chapter 3 so will start by describing the characteristics of the schools and heads of department that responded to the questionnaire and contextual information about the five schools. The five schools came from City (3) and County (2).

#### **5.1.1 Questionnaire Sample**

In 2005 a questionnaire (appendix 4) was sent to geography Heads of Department in 125 schools in the three case study Local Authorities. This questionnaire was sponsored by the QCA geography subject officers and the stated aims were:

- To investigate trends in geography entries for GCSE between 1999 and 2004
- Identify the main influences on student choice of geography as a subject to study

Contextual information about the schools will be outlined to show the response rates and some of the contextual data obtained from the questionnaires. The total population of mainstream secondary establishments, including independent schools, in the three Local Authorities was 135 but ten small schools with less than 25 students in the Y11 cohort were excluded because the cohorts were too small for significant choice to occur.

Completed questionnaires were received from 70 (56%) schools. There was a more positive response from the town and county heads of department (67%) because questionnaires were completed during an INSET day for these two authorities. The questionnaires to city schools were a postal survey and a relatively high return rate (51%) for surveys of this type was achieved after three mailings (table 5.1). The sample size and response rates reflect the relative size of the local authorities but are likely to under-represent the schools that have relatively poor results (Gorard, 2006: 19-31).

Table 5.1 Response rates for the three LAs

<b>HoD Questionnaire 2005</b>	<b>Returned</b>	<b>% returned</b>	<b>Not returned</b>	<b>% not returned</b>	<b>Total</b>
<b>City</b>	41	51%	40	49%	81
<b>Town</b>	10	67%	5	33%	15
<b>County</b>	19	66%	10	34%	29
<b>Total</b>	70	56%	49	44%	125

The sample was a fair representation of the national school cohort with no type of school being more than 2% different. Geography entries were 1.4% higher than the national mean (32.8%) and there were 1.8% more females than expected nationally (49.0%). Pupils were generally educated in larger schools and the sample was representative of mean performance. The difference between the sample and non-returns was small although in

county and town lower performing students were slightly over-represented. Geography entries were higher (+20) in the sample group compared to the non-returns suggesting more successful departments responded. The gender balance was similar but levels of deprivation were lower (0.06) in the sample group which means that the most deprived students were under-represented.

Table 5.2 Teacher characteristics from the questionnaire

LA Area	Type of school	Teachers	Schools	Teachers per School	New teachers per school	Segregation ratio (new teachers: total teachers)
<b>City</b>	Secondary Modern	33	7	4.7	2.4	1.24
	Comprehensive Minus	54	14	3.9	1.7	1.07
	Comprehensive	74	11	6.7	2.4	0.84
	Comprehensive Plus	10	3	3.3	2.3	1.68
	Selective	21	6	3.5	1.7	1.15
	Total	192	41	4.7	2.0	1.05
<b>County</b>	Comprehensive Minus	9	3	3.0	1.3	1.07
	Comprehensive	49	11	4.5	1.8	0.98
	Comprehensive Plus	8	2	4.0	0.5	0.30
	Selective	9	2	4.5	1.5	0.80
	Total	75	19	3.9	1.5	0.90
<b>Town</b>	Secondary Modern	5	1	5.0	3.0	1.44
	Comprehensive Minus	27	5	5.4	1.8	0.80
	Comprehensive	9	2	4.5	2.0	1.07
	Selective	7	2	3.5	1.5	1.03
	Total	48	10	4.8	1.9	0.95
	All 3 LAs	315	69	4.5	1.9	1.00

The nature of the teacher cohort was of interest to understand the relative mobility of the workforce (table 5.2). There were 1.9 new geography teachers per school over the five

year period with the maximum change being seven teachers and only ten schools having no change. There was lower teacher mobility in County (-10%)<sup>5</sup> and town (-5%) than City (+5%). The differences between types of school were slightly larger with secondary moderns having the largest number of changes (+27%). Comprehensive minus and comprehensive schools had less change than comprehensive plus and selective schools. There were new heads of department (HoD) in half the schools. Newly Qualified Teachers (NQT) (60) were more likely to be employed than more experienced teachers (30). Reasons for staff change were: Promotion: within the school (41), outside the school (22); long term staff absence through sickness or maternity leave (28) retirement (21) and other reasons (20). Over the five year period turnover of staff was therefore about one third of the teacher cohort with more change in the subject leaders

Teachers were asked to categorise their school using the Newsam Eight category scale (table 5.3) and this illustrated the diversity of schools, especially on City and Town. The majority of truly comprehensive schools were in County. 45 schools (64%) had specialist status but there was only one with a humanities specialism. Teaching time at KS3 and KS4 had not changed in 82% of schools over the last five years but in 15% it had decreased and only 3% had an increase. The modal number of teachers was three or four (44% of schools) while 21% of schools had six or more teachers of geography. There was a mean of 4.5 teachers per school. A minority (36%) taught only geography and many (40%) had other posts of responsibility. Non-specialists were common (29%) but there was no

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<sup>5</sup> To compensate for the variation in numbers of schools and teachers per school a segregation ratio was calculated to allow better comparison. All percentages are deviations from the mean for the sample.

indication they taught many lessons. Most will only teach a few lessons per week but this question was not asked. Non specialists taught almost exclusively in KS3 with more in Y7 (49%) and Y8 (44%) than Y9 (37%) and very few in KS4 (5%). They were more common in comprehensive schools (66%) than other school types (30-40%).

Table 5.3 Teacher categorisation of school

Type of School	City	County	Town	Grand Total	percentage of schools in 3 LAs
Super selective	1		1	2	3%
Selective	4	1		5	7%
Comprehensive plus	4	3	1	8	11%
Comprehensive	6	12	1	19	27%
Comprehensive minus	18	3	7	28	40%
Secondary modern	2			2	3%
SM minus	3			3	4%
None	3			3	4%
Grand Total	41	19	10	70	100%

### 5.1.2 The Diversity of the LAs and Sample Schools

The LAs and schools are diverse in their student' intake and one way of exemplifying this is by analysing the ethnicity patterns (table 5.4). This shows that City has an ethnic mix that is different from the national pattern and that all three City schools had higher than average ethnic minority cohorts. In 2003 county had large numbers of parents refusing to provide ethnicity data to schools but it can be surmised the majority of these students were White British. These numbers are highlighted in orange. Cohorts that show large differences from the national cohort are highlighted in yellow. Overall therefore County and to a lesser extent Town



have lower than national average ethnic minority populations while City has higher proportions of almost all ethnic groups.

Table 5.4: Ethnicity of the cohort for the three LAs and five schools 2003

Entries for selected Subjects 2003	National	City	County	Town	3 LAs	Southvale	Parkland	Lakeview	Riverside	Clifftop
White British	74.0	47.7	72.5	87.9	57.5	55.4	6.4	65.6	66.2	95.3
Irish	0.4	1.5	0.1	0.1	1.1	0.0	0.0	2.0	0.0	0.0
Any Other White Background	1.7	2.2	0.7	1.2	1.8	2.2	0.0	4.0	1.9	1.7
Bangladeshi	0.9	3.5	0.0	0.3	2.4	0.5	7.2	0.7	0.0	0.0
Chinese	0.3	0.3	0.3	0.4	0.3	0.0	0.0	0.7	0.0	0.0
Indian	2.3	7.1	0.2	1.9	5.1	4.8	4.8	7.3	0.0	0.6
Pakistani	2.2	15.6	0.1	1.2	10.8	4.8	56.8	6.6	0.0	0.6
Any Other Asian Background	0.5	1.4	0.0	0.3	1.0	1.6	4.0	2.0	0.0	0.0
African	1.3	1.2	0.0	0.3	0.8	1.6	0.8	0.0	0.5	0.0
Caribbean	1.4	5.8	0.0	0.4	4.0	22.0	7.2	4.0	0.0	0.0
Any Other Black Background	0.4	1.0	0.0	0.1	0.7	0.5	0.0	0.0	0.0	0.0
White and Asian	0.3	0.5	0.2	0.1	0.4	0.0	0.0	0.0	0.5	0.0
White and Black African	0.1	0.2	0.0	0.0	0.2	0.0	0.0	0.7	0.0	0.0
White and Black Caribbean	0.6	2.0	0.2	1.0	1.5	0.0	7.2	2.0	1.9	0.6
Any Other Mixed Background	0.6	1.8	0.2	0.4	1.3	4.8	0.0	2.6	0.0	0.0
Gypsy / Romany	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traveller Of Irish Heritage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0
Any Other Ethnic Group	0.7	1.6	0.1	0.1	1.1	0.5	5.6	1.3	0.0	0.6
None	7.1	4.7	10.1	3.3	5.6	1.1	0.0	0.0	1.4	0.0
Information Not Obtained	3.3	1.1	1.8	0.0	1.1	0.0	0.0	0.0	0.0	0.0
Refused	1.9	0.7	13.5	0.8	3.3	0.0	0.0	0.0	27.8	0.6
Total Entries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

## 5.2 THE ‘GEOGRAPHICAL’ CONTEXT OF THE FIVE SAMPLE SCHOOLS

The five sample schools provided additional focused information about option choices and entries for geography. Data was gathered through interviews and other documentary sources. The people interviewed are detailed below. All the geography HoD were relatively young. The contextual description of each of the schools sets the scene for the later discussion of the findings.

Table 5.5 Interviewees

School	Role	Years teaching	Number of schools	Time in post	Gender
Lakeview	HoD	11	3	3 years	F
Lakeview	AHT & Hd of Hums.	15	4	18 months	M
Southvale	HoD	2	1	1 year	F
Southvale	AHT	30	3	5 years	F
Parkland	HoD	8	2	5 years	M
Parkland	AHT	22	3	3 years	M
Clifftop	HoD	15	2	8 years	M
Clifftop	AHT	25	3	12 years	M
Riverside	HoD	15	3	1 year	M
Riverside	AHT / HT designate	25	4	5 years	F

### 5.2.1 Southvale (SV)

Southvale is an 11-16 mixed community ‘comprehensive’ school with around 1000 pupils. The school gained Arts specialist status in 2005. It has a comprehensive admissions policy but is effectively a secondary modern school in terms of its student’ intake. The school is located three miles from the city centre in an area of low rise suburban social housing estates. This is an area of social and economic disadvantage. Students come from both the

local social housing estates and from deprived areas near the centre of the City so that the mean deprivation score is higher than the national average. It was reported that students came from seventy feeder primary schools in 2005-6 (SV-HoD).

The student intake reflects the deprivation of the catchment area with a much higher than average proportion of students known to be eligible for free school meals and a high proportion of students with learning difficulties and disabilities. Over 40% of pupils in 2003 were from minority ethnic groups with 24% of Afro-Caribbean origin and over 10% Asian (Table 5.4). The proportion of pupils whose first language is not English is higher than most schools nationally but not necessarily within the city. The largest identifiable groups of pupils are White Working Class and Afro-Caribbean while the number of Asian students has declined.

School priorities are associated with behaviour, attendance, punctuality, improving performance, developing key skills and students' initiative and ability to take responsibility. Behaviour is poor in some lessons but is better in stimulating, interesting and interactive lessons. Poor attendance can result in many students losing opportunities to learn. Ofsted suggests that the students often have low aspirations.

One member of staff suggested that retention and recruitment of staff is a problem and expressed concerns that some staff are not up to job. They suggested the head has a recruitment policy of employing young and motivated staff.

### **5.2.2 Riverside (RS)**

Riverside is a high achieving 11-16 mixed community comprehensive school with about 1200 students. It became a specialist Science College in 2003 and has an increasingly broad curriculum (Ofsted, 2005). The school is situated in a relatively prosperous well established suburb of the County Town but the catchment also includes a few estates with more deprived social conditions. In 2003 there were very few ethnic minority students (<3%) mostly from mixed race backgrounds (Table 5.4) and deprivation is lower than the national average. It serves both the town and neighbouring rural areas (Ofsted, 2005). There is a perception amongst parents that there is another school in the town (there are six in total) that is better in terms of performance but the data doesn't support this (HoD). The school describes itself as:

'a caring and cheerful community committed to developing the academic, personal and social skills of all our students to the highest standards. Our principal aim is to enable them to lead happy and successful lives, both at school and when they leave. We encourage our students to be self-confident, to enjoy learning and to be motivated to achieve the best they can, now and in the future... We are proud of our reputation as a successful and vibrant school with high expectations; we are committed to providing a stimulating and high quality learning experience for all.'

(Riverside website, June 2007)

### **5.2.3 Lakeview (LV)**

Lakeview is a voluntary aided, selective, co-educational 11-18 grammar school with over 1100 pupils in 2006. It has a long tradition having been established 120 years ago as a boys' grammar school. It became co-educational in 1998 and has grown from 850 pupils in 2000. There is a large sixth form of 350 students. In 2003 about 30% of students came

from ethnic minority backgrounds with 17% from the Asian community (Table 5.4). The school gained specialist humanities college status in 2004 and is a national leader within the geography community with links to the Royal Geographical Society, Geographical Association and the Ordnance Survey. In September 2005 the school achieved International Status and created educational links worldwide. The school has an excellent reputation within the city and the region.

The school provides an outstanding academic curriculum for its pupils; ... there is opportunity to study a second language and separate sciences in KS3. There is an extremely wide range of GCSE and GCE A level subjects offered. Humanities and Arts are particularly strong and these subjects are local and national leaders. There are a wide range of enrichment activities provided.

(LV-Ofsted, 2005).

#### **5.2.4 Parkland (PL)**

Parkland was a popular, smaller than average (750), 11-16 girls' community comprehensive school that had been steadily growing in size (710 in 2000). The school gained specialist school status for technology in 1996 and was recognised nationally for its success in improving academic achievement.

The school was located in a leafy Victorian suburb on the south side of the City, four miles from the city centre but few students came from the local area which was dominated by student housing. The school's catchment area covered a much wider area with many girls travelling by minibus, organised by parents, from the inner city. There were a large number of feeder primary schools, ten made significant contributions but the total was closer to 20-30 (HoD). It was popular with parents from an Asian Muslim background

because it provided a 'safe environment' for their daughters (Ofsted, AHT). In 2003 less than 10% of the cohort came from a 'white' background and over 60% were from the Pakistani and Bangladeshi community. Many students did not have English as a first language but very few are at an early stage of learning English. Eligibility for free school meals (50%) was well above the average both locally (31%) and nationally (15%). The proportion of students with learning difficulties and disabilities was broadly average (Ofsted, 2006). The intake was perceived by the HoD to be skewed towards the lower attainment levels and literacy across the curriculum was an issue.

The school prided itself on being a 'good school with many outstanding features'. Its priorities were to provide a safe learning environment where students are encouraged to aspire and achieve (AHT-ICG). The school had 'a strong learning ethos and students are rightly proud of their school. Attendance is good; students' behaviour and attitudes to learning are excellent...' (PL-Ofsted).

Ofsted reports suggested the school was aware of its areas of weakness and continued to make improvements. In 2000 the headteacher was described as a 'visionary ... who leads by example and tackles anything.' The head was supported by a strong senior and middle management teams. Leadership was described as being good although the role of middle managers in developing teaching and monitoring progress was considered to be 'underdeveloped' (PL-Ofsted 2000).

### **5.2.5 Clifftop (CT)**

Clifftop is a voluntary controlled, mixed, 11-18 comprehensive school with 1000 pupils on roll. It is a specialist technology college having attained this status in 2001. The school is one of two secondary schools in a small market town serving an area of above average socio-economic circumstances. Many of the population are commuters working in the nearby conurbation but living in rural villages. Students attend from the town and the surrounding rural areas with many travelling to school by bus.

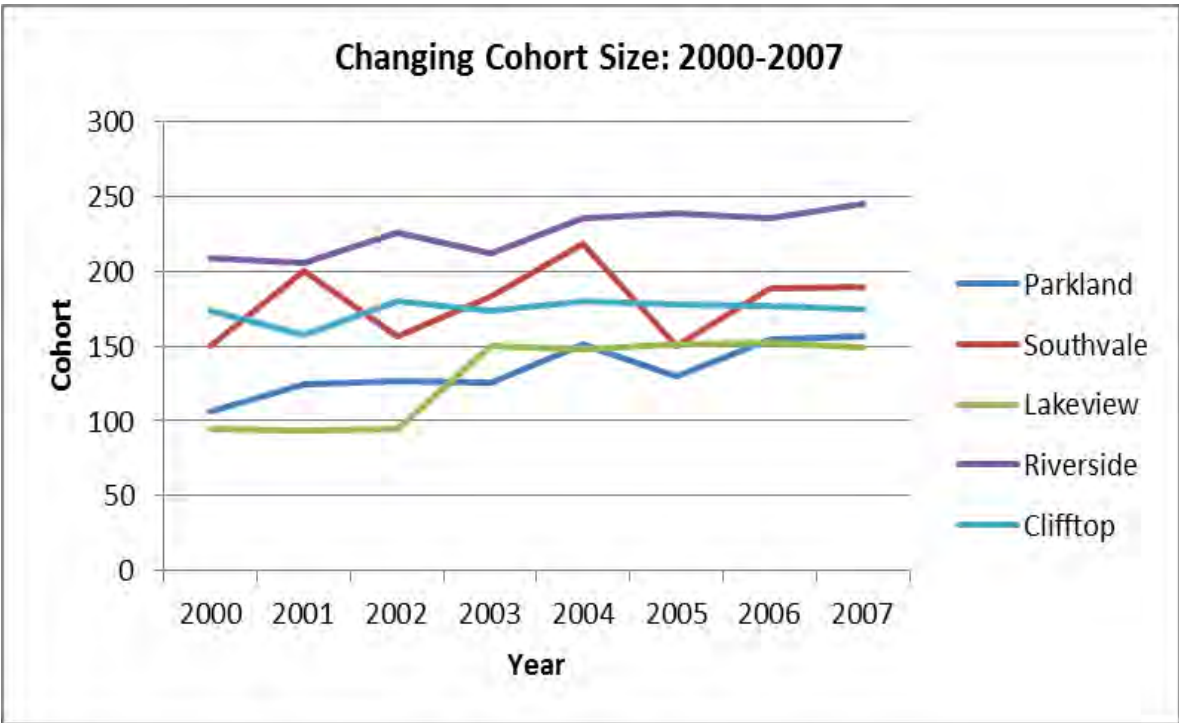
Over 95% of students are from a White British background. The school has a specialist unit for students with learning and behavioural difficulties. Around 40% of students make the decision to opt for this school rather than their local school.

### **5.2.6 Student intake and performance**

The cohorts of the five schools have changed over time (figure 5.6). All of the schools have planned admission rates but for three of the schools these have been increased because of their popularity. Parkland had its admissions target increased in 1996 to 125 and in 1999 to 150 as the result of increasing demand for places in this successful girls' school. Lakeview became co-educational school in 1998 and at the same time had an increase in admissions to 150 from 95. As a grammar school in an urban location it had no problem with meeting its admission target and students are prepared to travel long distances. Riverside is regarded by Ofsted and parents as being a successful school and as a result has gradually grown in size from 210 in 2000 to 245 in 2007. This trend corresponds to the

changes observed in the national data where the cohort in better performing schools was growing.

Figure 5.2 Changing cohort size 2000-2007



Clifftop has maintained its numbers at about its admission number of 175, although there are slight fluctuations from year to year. Its position as one of two schools in the town means that it is competing for numbers on an annual basis but was generally been regarded as the more successful school. Many students come from its rural hinterland and some travel from a neighbouring conurbation.

Southvale is the one school that on a regular basis does not meet its admissions target number. Cohort numbers fluctuate on an annual basis by as much as  $\pm 70$  students. Some



students have to travel relatively long distances from the inner city. Again this reflects the loss of average cohort numbers in the secondary modern group at the national level.

Table 5.6: Five schools cohort performance at GCSE 2003 and 2007

School	Year	top 25% GCSE percentage	2 <sup>nd</sup> 25% GCSE percentage	3 <sup>rd</sup> 25% GCSE percentage	bottom 25% GCSE percentage
Southvale	2003	2	17	26	55
	2007	3	14	30	53
Riverside	2003	23	29	30	18
	2007	28	27	30	15
Lakeview	2003	76	23	1	0
	2007	83	16	1	0
Parkland	2003	24	43	32	1
	2007	19	38	27	15
Clifftop	2003	28	34	22	17
	2007	20	34	30	16

The distribution of students in the schools was compared to national performance for 2003 and 2007 based upon their mean GCSE grades at KS4, which was judged to be the best comparison measure available (table 5.6). Its limitations have been discussed previously since it can be influenced by both differential school effectiveness and 'gaming'.

There was relatively little change between 2003 and 2007 in terms of the spread of performance suggesting that admissions were relatively consistent. Two schools demonstrated the effects of selection and/or social segregation on the school cohort. Southvale had a minimal (2-3%) number of students in the top 25% and over 50% of students in the bottom 25% while Lakeview had around 75-85% in the top 25% of the cohort and effectively none in the bottom 50%. The other three schools had more

comprehensive cohorts although they lacked students in the bottom 25%. Quartile variations occur that may be the result of changes to the cohort in the school, schools being more or less effective or changes in national performance. Riverside and Clifftop appeared to largely be a reflection of the expected intake of students from their catchments which are less disadvantaged. The students at Parkland came from census areas that were nearly as deprived as Southvale and might therefore be expected to have a similar performance profile but it is closer to Riverside and Clifftop. There might be curriculum, gender or other socio-economic effects operating that explain the differences. These are difficult to isolate (Davies et al. , 2008; 2009) but the rest of this section will attempt to shed further light on the differences.

Table 5.7: Performance at GCSE 2000-2007 (Percentage achieving 5+ level 2 passes)

Year	Southvale	Riverside	Lakeview	Parkland	Clifftop	National (Maintained schools)
2000	18	55	100	62	64	49
2001	19	63	100	65	62	50
2002	13	66	98	70	61	52
2003	20	64	99	82	69	52
2004	12	71	100	82	59	53
2005	34	75	100	84	67	54
2006	30	69	99	86	64	56
2007	30	69	99	81	69	61

In terms of the standard level 2 performance indicator (5+ level 2 qualifications) Lakeview (table 5.7) was the most successful with nearly all students achieving this target every year, followed by Parkland, Riverside and Clifftop which were all above the national average. Southvale struggled to meet the minimum standards expected by the

government (30% achieving 5+ level 2 qualifications). Apart from Lakeview performance on this measure fluctuated from year to year.

When the more challenging performance measure (5+ Level 2 qualifications including English and Mathematics) was used the pattern changed. Lakeview still had most students achieving this target while Riverside and Clifftop were still above the national average and Southvale was still performing poorly. Parkland had the largest change in performance and was now closer to expected scores based upon the student cohort, implying that school was employing some very effective ways to boost their overall performance.

Table 5.8: Performance at GCSE 2003-2007 (Percentage achieving 5+ level 2 passes, including English and Mathematics)

Year	Southvale	Riverside	Lakeview	Parkland	Clifftop	National (Maintained schools)
2003	12	48	99	38	52	42
2004	6	57	99	43	43	43
2005	25	61	100	43	46	44
2006	19	55	98	39	48	45
2007	16	49	99	39	52	46

Data from the other sources provided insights into the differences between the schools. Lakeview, with its selective entry, consistently enabled almost all students to achieve this threshold and the more challenging 5+ level 2 passes including English and mathematics (table 5.8) which was first reported in 2003. As a result internally it measured its performance in terms of numbers achieving A\* and A grades (LV-HoD). Pupils' attainment placed the school in the highest 5% nationally of all schools and in the top 10-15% of

grammar schools in the country (Ofsted, 2005; DCFS; LV-AHT). The school was reported (LV-Ofsted, 2005) as being 'a highly effective school with outstanding leadership and management'. The leadership and vision of the head teacher were praised as was the rise in standards (from an already high level) since the previous inspection in 2000.

Outstanding areas were pupil's attendance, behaviour and attitudes to learning along staff commitment. The gaining of specialist humanities status had 'a direct and beneficial impact on the school and the curriculum'. This encouraged the development of further local, national and international links and partnerships. There had been changes to the staffing structure which was improving the quality of departmental management. Senior managers were also monitoring departments closely and prioritising the improvement of teaching and pupils' learning. (LV-Ofsted, 2005)

Parkland has very high scores compared with similar schools but when English and mathematics are included scores dropped by 40%. Ofsted reported that:

The progress the students make through their time in school puts it in the top 1% in the country. The teachers go out of their way to encourage, support and assist the students to improve their examination results in Years 10 and 11, and students respond to this very well. There is now a stronger emphasis on making use of assessment to focus teaching and learning, and this has helped the students to know what they need to do to improve further. The school sets itself challenging targets and exceeded them in 2005.

(PL-Ofsted, 2006a)

The curriculum was broader than in many other girls' schools or similar size comprehensives and the school had introduced additional learning opportunities such as 'successful 'super learning' days and Saturday morning revision clubs which have led to outstanding achievements at Key Stage 4.

Southvale struggled to reach the government set national minimum score of 30% and as a consequence was subject to regular OfSTED and LA inspections and support to raise achievement. GCSE performance reached a nadir in 2004 when it had the worst GCSE 5+ level 2 pass results (12%) in the city and was in the bottom ten schools nationally. There was some slight improvement in 2005 and 2006 associated with a number of different initiatives and the appointment of a new head teacher. However Ofsted still considered the school to be seriously underperforming so it was subject to regular monitoring inspections, was eventually closed and re-designated an academy at the beginning of 2010.

Riverside had above-average levels of attainment on entry to the school and KS4 scores above the national average but these dropped by 15-20% when English and mathematics were included. The 2005 Ofsted report suggested that the 'good progress consistently made by middle and higher ability students is now shared more equally by lower ability students' and that the school had an ethos of trying to improve:

'... good leadership and management ensure that standards are continually and rigorously monitored. Good use of data has increased managers' insight into how the school and individual subjects are performing. Initiatives to improve teaching and learning further are carefully paced and thoroughly implemented. Most subjects are well led, but the performance and leadership of some subjects require improvement.'

(RS-Ofsted, 2005)

Students entered Clifftop school with above average standards. Progress in most subjects at KS3 and GCSE was above average but there were some problems identified with English and Mathematics which led to poorer performance on these key measures of performance (CT-OfSTED, CT-AHT). Leadership of the school was recorded as being good, with a good understanding of what needed to be improved and appropriate systems and

procedures in place, although there was some inconsistency in implementation by staff. There were many positive aspects to the school and performance in most subjects was good but English and Mathematics gave cause for concern. Students knew their targets and were regularly assessed on how well they were progressing. Form tutors often gave good academic guidance but this was not consistent and students were not always suitably challenged. Marking was inconsistent and sometimes failed to inform students how to improve. (CT-Ofsted, 2008).

Table 5.9: Average number of subjects

Year	Southvale	Riverside	Lakeview	Parkland	Clifftop
2003	7.9	10.5	11	10.8	9.9
2004	8.3	10.6	11.1	11.4	10.4
2005	8.3	11.1	11	11.7	9.9
2006	8.5	10.9	10.6	12.3	10.2
2007	7.9	10.5	11	12.5	9.9

The number of qualifications gained by students varied between the five schools (table 5.9). Nationally the mean number of subjects taken by students is nine or ten subjects but in recent years this has varied between schools and the calculation has become more complex as new qualifications (short courses worth 0.5 of a GCSE, vocational qualifications worth 1, 2, 3 or 4 GCSEs, basic or key skills qualifications) have been introduced. There were differences between the means for the five schools with Southvale having the lowest mean (around 8), Clifftop (10), Riverside (10.5), Lakeview (11) and Parkland (12). In four schools they tended to stay the same over the five years but Parkland increased mean entry from 10.8 to 12.5 over this time.

The 4.6 subject entry difference in 2007 between the two schools (SV and PL) both with students from the most deprived neighbourhoods was striking. At the start of the study it was known anecdotally that Parkland students entered all students for some vocational qualifications that could potentially boost their performance but the case studies were an attempt to explore the observed differences in more detail.

This contextual information shows the diverse nature of the schools and was useful in understanding the ways that schools create their KS4 curriculum and the influence this has on geography entries. The interactions between the whole school context, the staff, the curriculum and the students conceptualised in the option choice model have framed the five questions that form the rest of the chapter. This uses data from the questionnaire, interviews with staff, entry data and other documentary evidence to discuss the variety of different influences on geography entries.

### **5.3 WHAT EVIDENCE IS THERE THAT CHANGES IN GOVERNMENT POLICY HAVE INFLUENCED ENTRIES FOR GEOGRAPHY?**

Six changes in government policy were identified as having had a direct influence on the curriculum, and teachers' perceptions of their influence on geography entries are outlined. The first change was the removal of MFL and DT from the core curriculum, the second was the increased pressure to introduce vocational qualifications, the third was the position of Religious Education in the core curriculum after 2002, the fourth was changes in accountability measures, the fifth was changes to the science curriculum and the sixth increased personalisation of the curriculum.

The removal of DT and MFL in 2004 from the list of required curriculum subjects was explored through the data from the case study schools. Exemplars from two schools will illustrate the changes that have occurred for both DT and MFL.

### **5.3.1 Design Technology**

Design Technology had a number of different examination opportunities and schools provided choices from within the suite of available qualifications dependent on staff expertise. School priorities had a significant impact upon entries. Both technology specialist schools still required students to study a technology after 2004. The other schools especially Lakeview welcomed the freedom to develop other aspects of the curriculum. This academic school felt that technology was not appropriate for many of their students.

Parkland's entries for design technology subjects were consistently high, above 90% after 2001, reflecting the technology status of the school as all students were required to study a technology subject (PL-WS, 2011). The subjects offered were gendered and limited to more traditionally female oriented subjects. Food and textiles have traditionally been subjects with a high female entry while the curriculum for resistant materials became more female friendly since it moved away from being focused on woodwork and metalwork. The manufacturing vocational qualification also focuses on textiles (PL-WS, 2011). There was a reasonably even split between the four different options suggesting there were limits on the numbers in any group (table 5.10).



Table 5.10 Design Technology: Parkland

Subject Name	2000	2001	2002	2003	2004	2005	2006	2007
Cohort Size	106	124	127	125	151	130	154	156
DT Food Technology	32	40	36	21	33	32	35	32
DT Graphic Products					26	31	31	41
DT Resistant. Materials	27	32	44	33	44	32	42	35
DT Textiles Technology	28	41	37	60	40	36	39	41
All DT	87	113	117	114	143	131	147	149

ICT was also a compulsory subject at Parkland taken either as a vocational qualification (worth 2 or 4 GCSE grades) or as a single GCSE. Two thirds of students have taken the vocational course since 2002. Both courses were largely assessed through tasks undertaken rather than by a final written examination. Students were very successful and this course contributed significantly to the consistently high 5+ level 2 performance of the school (PL-AHT).

Table 5.11: Entries for Design Technology: Southvale

Subject Name	2000	2001	2002	2003	2004	2005	2006	2007
Cohort	150	200	156	183	218	150	188	190
DT Food Technology	18	34	15	34	18	20	61	23
DT Graphic Products	25	23	32	30	19			25
DT Resistant. Materials	20	45	27	26	8			
DT Systems & Control				16	16	26		
DT Textiles Technology	39	31	1	22	13			
All DT	102	133	75	128	74	46	61	48

Southvale always had lower numbers taking DT (between 50 and 75%) until 2003 and from 2004 the numbers dropped to 25-35% of the cohort in any one year (table 5.11). The options available over time were greater (five) but only one (food) had entries in every year between 2000 and 2008. If groups were not large enough then the option did not run and the change from 2003 to 2005 shows the impact of falling numbers (SV-AHT).

### 5.3.2 Modern Foreign Languages

Most schools offered a choice of different languages to study when MFL was compulsory. The move to making the subject optional appears to have taken place at different times. The changes will be illustrated by examples from different schools.

Table 5.12 Entries for Modern Foreign Languages: Lakeview

Subject Name	2000	2001	2002	2003	2004	2005	2006	2007
<b>Cohort</b>	95	94	95	150	148	151	152	149
<b>German</b>	51	77	25	107	34	98	26	58
<b>French</b>	59	28	73	61	124	64	91	56
<b>Arabic</b>						2	1	1
<b>Chinese</b>			1	1				
<b>Gujarati</b>	1		1			1	3	1
<b>Modern Hebrew</b>	1							
<b>Panjabi</b>	1				2	1	1	1
<b>Spanish</b>					1			
<b>Urdu</b>						1	1	
<b>ALL MFL</b>	113	105	100	169	161	167	123	117
<b>% of cohort</b>	119	112	105	113	109	111	81	79

Entries in Lakeview started high with some students taking more than one MFL subject (table 5.12). They fell slightly after 2005 when students were no longer required to take at least one MFL subject (LV-AHT) but around 80% of the cohort were still taking a language,

although this number might be lower as some might be taking two languages. The main languages were French and German but there were entries for other subjects, probably reflecting the diversity of the languages spoken in some homes. This school regarded MFL as more worthwhile than DT and so students were encouraged to take at least one language. This prioritisation was also reflected in student comments.

Table 5.13 Entries for Modern Foreign Languages: Southvale

<b>Southvale</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
<b>Cohort</b>	150	200	156	183	218	150	188	190
<b>French</b>	72	68	55	98	174	19	24	
<b>Spanish</b>	18	18	41	38	35	22		
<b>German</b>		18					1	1
<b>Panjabi</b>	2	1						
<b>Urdu</b>	3	3	2					
<b>Dutch</b>							1	1
<b>All MFL</b>	77	90	57	98	174	19	26	2
<b>% of cohort</b>	63	54	63	75	96	28	14	1

The Southvale entry pattern was significantly different (table 5.13). 55-75% of students studied a modern foreign language between 2000 and 2003. In 2004 numbers increased to 96%, because all students were expected to take a language and then in 2005 plummeted to 28% and by 2007 had disappeared. There were individual entries for other languages probably reflecting mother tongue or languages spoken at home.

In Riverside the senior manager expressed concern that subject numbers varied from year to year (RS-AHT) because this complicated staffing decisions. This was compounded in 2004 when government requirements removed MFL and DT from the required core. Until then languages were holding steady but since then French had dropped to less than 50%

and German was struggling to recruit. The department is being proactive in years 7-9 in an attempt to interest students.

### **5.3.2 Vocational Qualifications**

Only the selective school appeared to be under no pressure to offer vocational qualifications (LV-AHT). In other schools all were considering vocational options or diplomas for any students who wanted to do them (CT-AHT). In his opinion applied GCSEs were more challenging than GCSE but staff were not keen to develop them.

The introduction of diplomas in 2008 was requiring schools to re-think their systems. Federations of schools were being organised to cope with staffing several different qualifications but this did lead to logistical problems of transporting students large distances in a rural county. The problem with the diplomas was changing people's perceptions of them. The students that choose to take them are likely to be the low attainers; who may not be the most appropriate group (RS-AHT). The Parkland HoD wondered whether it was possible to offer a vocational geography qualification and the Southvale HoD thought that geography was going to be under pressure over the next five years from vocational qualifications so the department was actively engaged in teaching leisure and tourism. Parkland was considering increasing their vocational subjects but not moving too quickly because there were limitations on the variety that could be offered in a small school.

Entry data showed the trend (tables 5.14a and b) was a move away from more traditional academic subjects (broadly GCSEs) towards vocational, occupational and functional skills qualifications. The changes in City accelerated from 2002 onwards so that by 2007 academic entries had dropped by 15% in six years. The trend in County for 2005-2007 was similar although the fall was smaller and later.

Table 5.14a Entry for different types of qualification (CITY) Percentage of total cohort

<b>Academic</b>	2000	2001	2002	2003	2004	2005	2006	2007
GCSE	93	93	91	89	85	83	80	77
GCSE short	6	6	6	7	7	8	7	7
Total Academic	99	99	97	95	93	91	87	84
<b>Vocational</b>								
Vocational GCSE	0	0	0	0	3	4	4	3
GNVQ	1	1	3	5	3	4	4	3
BTEC	0	0	0	0	0	0	1	1
Total Vocational	1	1	3	5	6	7	8	8
<b>Occupational</b>								
NVQ	0	0	0	0	0	0	0	0
Other General	0	0	0	0	0	0	0	2
Vocationally Related Qualifications	0	0	0	0	0	0	1	2
Total Occupational	0	0	0	0	0	0	1	4
<b>Functional Skills</b>								
Basic Skill	0	0	0	0	0	0	2	2
Key skill	0	0	0	0	0	0	0	1
Total Functional Skills	0	0	0	0	0	0	2	3

The diversity of qualifications available can be illustrated by the fact that in City there were over 500 different subject qualifications offered during this period and while many of these were duplications at different levels there were probably at least 100 different subjects for schools to choose from.

Table 5.14b Entry for different types of qualification (County) Percentage of total cohort

<b>Academic</b>	2005	2006	2007
GCSE	85	83	80
GCSE short	9	9	7
Total Academic	94	92	87
<b>Vocational</b>			
GNVQ	3	4	4
BTEC	0	0	0
Total Vocational	3	4	4
<b>Occupational</b>			
NVQ	0	0	0
Other General	0	0	2
VRQ	0	1	2
Total	0	1	5
<b>Functional Skills</b>			
Basic	0	0	2
Key	0	0	0
ELQ	2	2	2
Total Functional	2	3	4
<b>Total entries</b>	100	100	100

### 5.3.4 Religious Studies

Religious Studies was not part of the National Curriculum but was required by the 1944

Education Act and this position has been re-affirmed in a number of later Acts of

Parliament and guidance.

As RE remains statutory beyond the age of 14 for all pupils in schools, ... it is important that it continues to be part of a coherent curriculum that enables them to draw on their own values and beliefs in making independent decisions and choices, as they prepare for adult life. (DCSF, 2010b: 34).

Schools interpreted this requirement in different ways. Four of the schools required most students to take a Religious Studies qualification, with three schools using the short course (a half GCSE) qualification (table 5.15). Parkland was different because most students entered for the full course but this dropped to 75% in 2006 with the other 25% taking a

short course. The VA (LV) and VC (CT) schools had over 90% of students taking an RS qualification but the patterns were different with Clifftop starting with a quarter of students taking the full course but moving to no entries after 2004 whereas Lakeview started with no full course entries but in 2007 had an entry of 26%. Southvale did not enter any students for Religious Studies.

Table 5.15 Entries for Religious Studies

RS % of cohort		2000	2001	2002	2003	2004	2005	2006	2007
Parkland	Full	64	85	94	99	87	98	75	72
Parkland	Short	36	14	3	1	1	0	3	0
Parkland	All	100	98	97	100	87	98	79	72
Southvale	All	0	0	0	0	0	0	0	0
Lakeview	Full	1	0	0	0	1	2	26	30
Lakeview	Short	99	98	98	99	99	97	72	69
Lakeview	All	100	98	98	99	100	99	98	99
Riverside	Full	na	8	4	4	5	3	0	4
Riverside	Short	na	86	91	95	89	91	93	94
Riverside	All	na	94	95	100	94	94	93	98
Cifftop	Full	na	25	25	16	0	0	0	0
Cifftop	Short	na	0	69	78	92	94	94	97
Cifftop	All	na	25	94	93	92	94	94	97

### 5.3.5 Accountability

Changes to the measurement of performance in league tables may have influenced the curriculum in Southvale. Until 2004 entries for core subjects were often below 80% (table 5.10). From 2005 this changed so that all core subjects had at least 90% entry and often over 95%. There was a change of headteacher in 2003 which changed expectations (SV-HoD) but this was also the time when school performance measures were changed and schools were measured on the percentage of students gaining 5+ level 2 qualifications including English and mathematics.

Table 5.16 Southvale entries for core subjects

<b>Academic</b>	2000	2001	2002	2003	2004	2005	2006	2007
	150	200	156	183	218	150	188	190
English	117	144	115	159	179	148	172	186
% English	78	72	74	87	82	99	91	98
English Literature	104	133	97	150	175	146	171	174
% English Literature	69	67	62	82	80	97	91	92
Mathematics	125	157	124	165	177	150	177	187
% Mathematics	83	79	79	90	81	100	94	98
Double Science	119	150	114	160	173	150	181	40
% Double science	79	75	73	87	79	100	96	21
Single Science				3				146
% Single Science	0	0	0	2	0	0	0	77

### 5.3.6 Changing science examinations

The effect of changes in examinations and expectations of science were also apparent, although the trend became more pronounced after the study period. Entries for triple science were initially restricted to Lakeview and the specialist science school Riverside. Lakeview with its selective intake had between 40 and 60% of students taking three sciences. Some students specifically mentioned they valued the opportunity to free up option choices by not taking a third science because they wanted to study non-science options. Subsequently Lakeview has become a specialist science school and in 2011 their website suggests they have an expectation that all students will study three sciences.

Riverside with a more comprehensive intake became a specialist science school in 2003.

Triple science was taken by students who attained overall higher average point scores (49 points, 2005; 44 points, 2007) compared to double award (37 points, 2005; 38 points 2007). From 2005-2007 they offered an alternative vocational or applied science for 10-15% of students, usually lower attainers (35 points, 2005; 29 points, 2007). It might be



thought that this could boost their overall score but comparing overall points score against points for science for 2007 showed that half of these lower attaining students underperformed.

None of the other three schools offered triple science in the period 2000-7 entering all students for double award instead. Southvale shifted in 2007 from most students taking double science to most (75%) taking a single science. These entries appear to not merely demonstrate different approaches in schools but also the on-going debate about the appropriateness of the science curriculum. Changes were made to the KS4 science specifications in 2006 making them more relevant, up to date and providing a wider choice of qualifications (Ofqual, 2010, p.5) but there has been debate about whether the new 'science' course prepares students adequately for later academic study.

### **5.3.7 Personalisation**

One development was in response to the government's push towards increased personalisation of the curriculum. The freedom to reduce KS3 and begin GCSEs in Y9 was welcomed by two schools (LV, CT). This thought this would give students flexibility to do more subjects or to improve their grades. It was also considered to be a marketing tool by default (CT-AHT). The two curricula from 2011 (tables 5.17 and 5.18) illustrate how they have developed this idea in different ways but the outcome has been that students have the opportunity to take more subjects and possibly progress onto AS levels more quickly. Clifftop argue that it also allows them to support lower attaining students better and to boost their motivation.

Table 5.17 Clifftop Development Curriculum 2011 (Years 9, 10 & 11)

<p>(years 10 – 11 &amp; Y9 from Sept 2010)</p> <p>All pupils follow a core curriculum, reflecting the requirements of the National Curriculum, which includes English, Maths, Science, RE, Personal, Social and Health Education (PSHE) and Core PE.</p> <p>In addition to the core, pupils will have a number of choices to make about additional subjects. Some of these subjects will last for one year, some two, allowing pupils to build up a portfolio of level 1 and 2 qualifications, either GCSE, BTEC or the new Diploma qualifications. One subject will be a technology subject e.g. Electronics, Textiles, Graphics, Engineering, IT or Food technology. Beyond that there is a choice covering subjects such as Art, Business Studies, Drama, French, Geography, History, Music, Spanish and Society Health and Development.</p> <p>The development curriculum gives flexibility of choice by offering courses that will be one or two years in length and an 'Options' process at the end of years eight, nine and ten.</p> <ul style="list-style-type: none"> <li>• Art and Design BTEC</li> <li>• Art GCSE</li> <li>• ASDAN Key Skills (Y10 and 11 only)</li> <li>• Business Studies GCSE</li> <li>• DT GCSE</li> <li>• English GCSE</li> <li>• Modern Foreign Language GCSE (French and Spanish)</li> <li>• Geography GCSE</li> <li>• ICT Functional Skills (Y9) and OCR Nationals (Y10/11)</li> <li>• PE GCSE</li> <li>• Religious Education GCSE (Short Course)</li> <li>• Science GCSE</li> </ul>
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The direct impact of these changes on geography entries is unclear. In Lakeview students have to take a humanities subject and geography is popular anyway. It is too early to see if more students overall study geography because they take more subjects overall.

### 5.3.8 Conclusion

Change had occurred in all schools in response to government initiatives. In Riverside the system was changed in 2003 to make it more 'personalised'. There was a move away from a block system where students had to choose for example between French or Leisure and Tourism to one where the students choose five subjects (and two reserves) from an

Table 5.18: The Lakeview curriculum 2011

Lakeview 2011: Key Stage 4

In year 9, pupils move into Key Stage 4 and begin GCSE courses. All pupils take a core of subjects including English, mathematics, biology, chemistry, physics, ICT and Religious Studies. All pupils take at least one language from a choice of French, German, Spanish, Latin and Mandarin and at least one humanity subject, history or geography. They have two further choices from: art, drama, expressive arts, music, Physical Education, food technology, product design, systems and control or an additional humanity subject or language. Pupils also follow a course in Physical Education and in PSE which incorporates careers education and work related learning. When they reach Year 11, pupils have further choices of subject, some at AS level to challenge the most able.

Year Group	Key Stage	Curriculum
<b>9</b> Age 13-14	<b>4</b>	Compulsory core: English, Maths, 3 separate Sciences, ICT, Religious Studies. Options: a language, a humanities subject plus 2 further choices from creative and practical subjects, 2nd language and 2nd humanities subject. Non-examined: Physical Education and Games, PSE <b><i>No external examinations in Year 9</i></b>
<b>10</b> Age 14-15	<b>4</b>	Compulsory core: English & English Literature, Maths, 3 separate Sciences, ICT, Religious Studies. Options: a language, a humanity subject plus 2 further choices from creative and practical subjects, 2nd language and 2nd humanities subject. Non-examined: Physical Education and Games, PSE <b><i>GCSE examinations in options and some core subjects in May/Jun</i></b>
<b>11</b> Age 15-16	<b>4</b>	Compulsory core: English & English Literature, possibly a 2nd Maths, 3 separate Sciences, Religious Studies, AS General Studies or Science in Society. Options: language, AS or further GCSE in new block (1 yr). Non-examined: Physical Education and Games, PSE, Enrichment <b><i>GCSE/AS examinations in remaining subjects in May/Jun</i></b>

offering of 14. The purpose of this change was to broaden choice (increased differentiation) and to help raise achievement (accountability) for all students. As a result some subjects (business studies, history, MFL) had been losers (RS-AHT). There was an ICT quadruple option (RS-Hod).

Questionnaire responses from HoD demonstrated aspects of other government initiatives. The growth of specialisms, the introduction of qualifications in ICT and an emphasis on the core subjects were seen as potential threats to numbers. The promotion of vocational qualifications by senior management teams, possibly to boost A\*-C grades was of concern in three comprehensive minus and secondary modern schools. Other subjects mentioned as being in competition with geography were PE and Religious Studies which had a higher profile in a catholic school.

Structural changes as the result of both strategic school decisions and national initiatives were threatening staffing even in successful departments: 'I am very concerned about the effect of specialist school status on my dept. This has led to increased curriculum time for other subjects and (as a result) geography appearing in less option blocks.' This had reduced the numbers opting for geography even though there had been consistently good GCSE results and students wanted to choose the subject. Some were unable to because they now had fewer choices than previously. Another threat was the school decision to increase time for Personal, Health and Social Education (PHSE) in response to government policy making citizenship and sex education compulsory. The time had been taken from

humanities subjects so combined with the reduced numbers at GCSE it was now difficult to justify geography staffing.

The growth of the core was further compounded by other compulsory subjects being offered in some schools such as 'the ICT/RE half course GCSE's' or where 'most of the able students (are) 'guided' to do ICT based KS4 qualifications in school'. Other pressures came from the 'pull of vocational qualifications' where 'the major problem for me has been the fact that GNVQ Business or ICT are 'worth' 4 GCSE's while geography is only 'worth' one GCSE! Pupils are very aware of this'. Specialist status was limiting numbers in some schools where 'since we are now a language college so an MFL is not an option and pupils are encouraged to take a second MFL' or 'reduced choice at GCSE is due to our specialist status which keeps design as a compulsory subject'. In another school the biggest pressure came from recently added GCSE option subjects like drama, PE and Psychology

In Clifftop the introduction of citizenship had required taking teaching time off science but this had gone ahead despite protests from all HoDs (CT-HoD). The requirement for all students to do a short course RE qualification (CT-HoD) and enterprise education (CT-AHT) also put extra pressure on the timetable.

There is therefore clear evidence that government policy has directly influenced schools in making decisions about what to prioritise in the curriculum and how to fit extra subjects or options into the curriculum. What is unclear is why there were differential responses between subjects.

## **5.4 WHAT INFLUENCE DOES THE STRUCTURE OF THE KS4 CURRICULUM HAVE ON GEOGRAPHY ENTRIES?**

Curriculum structures were identified in three ways. One was through the analysis of option choice booklets provided by 23 schools in 2004-5, the second was from detailed analysis of subject entries for the five study schools and the third was from interviews with staff. The curriculum in the five sample schools was analysed using secondary data from the Local Authorities, information from interviews with Assistant Head Teachers (AHT) responsible for the option process and Heads of Department (HoD), data from Ofsted reports, Edubase and the government's performance website.

Four of the schools had relatively simple option structures with choices from between ten and twenty different subjects. In all the schools these choices grew over time and there was considerable variation in the subjects offered beyond the standard National Curriculum subjects.

The pattern of subjects for Southvale, with its secondary modern cohort, was the most complicated and least stable (table 5.19) of all the sample schools. Art was the most successful of the Foundation National Curriculum subjects with entries increasing from 30% to 40% of the cohort between 2000 and 2004 although it declined slightly in 2005-2007. The proportion of students achieving level 2 was high for the school (SV-HoD). The application for Arts Specialist Status built upon the relative strength of the performance studies, drama, media and dance subjects even though none of them had more than 20% of the cohort. Geography and history both had entries of about 20% with geography being

slightly more successful. Child development and Business Studies also maintained a group throughout the period but other subjects ran in some years but not others. Sport / PE studies, after its introduction in 2001, maintained about the same percentage of entries (6-9%) over time, but did not run in 2005.

Table 5.19 Southvale: Entries for optional subjects 2000-2007

Subject Title	2000	2001	2002	2003	2004	2005	2006	2007
Cohort	150	200	156	183	218	150	188	190
Art and design	44 (29%)	59 (30%)	63 (41%)	47 (26%)	89 (41%)	49 (33%)	53 (28%)	84 (35%)
Dance	11 (7%)	9 (5%)	6 (4%)				1 (1%)	27 (14%)
Performance Stds				9 (5%)	20 (9%)	11 (7%)	33 (18%)	40 (21%)
Drama & Theat.Stds	17 (11%)	20 (10%)	9 (6%)	25 (14%)	16 (7%)	29 (19%)	21 (11%)	40 (21%)
Media/Film/TV Stds	20 (13%)	22 (11%)		16 (9%)	23 (11%)	21 (14%)	10 (5%)	22 (12%)
Music	9 (6%)	5 (3%)	27 (17%)	12 (7%)				
Geography	32 (21%)	28 (14%)	31 (20%)	23 (13%)	19 (9%)	34 (23%)	50 (27%)	51 (27%)
History	27 (18%)	29 (15%)	17 (11%)	29 (16%)	18 (8%)	26 (17%)	44 (23%)	27 (14%)
HE: Child Devt	13 (9%)	16 (8%)	13 (8%)	27 (15%)	34 (16%)	36 (24%)	22 (12%)	13 (7%)
Sport/P.E. Studies		11 (6%)	13 (8%)	17 (9%)	16 (7%)	0	11 (6%)	23 (12%)
Religious Studies				1 (1%)		1 (1%)	1 (1%)	
Law					1 (1%)		21 (11%)	24 (13%)
Bus. Studs:Single	15 (10%)	18 (9%)	27 (17%)	31 (17%)	32 (15%)	38 (25%)	69 (37%)	49 (26%)
Commerce/Off. Stds		23 (12%)	13 (8%)	12 (7%)				
ICT	31 (21%)	50 (26%)	33 (21%)	35 (19%)	31 (14%)			

Entry as a % of cohort in brackets

The growth area was in vocational qualifications which were introduced in 2002 for 15% of the cohort (table 5.20). By 2004 / 2005 entries had increased to about 50% and in 2006 80% of vocational qualification had risen to 80% although this might have been the result of some students taking two vocational subjects.

Table 5.20: Southvale: Entries for Vocational Qualifications 2000-2007

Subject Title	2000	2001	2002	2003	2004	2005	2006	2007
<b>Cohort</b>	<b>150</b>	<b>200</b>	<b>156</b>	<b>183</b>	<b>218</b>	<b>150</b>	<b>188</b>	<b>190</b>
Inform.Tech (VQ)			15 (10%)	27 (15%)	56 (26%)	72 (48%)	87 (46%)	55 (29%)
Manufacturing (VQ)			8 (5%)			8 (5%)	38 (20%)	14 (7%)
Perform.Arts(VQ)					10 (5%)			
Business (VQ)					13 (6%)			
Leis &Tourism (VQ)					14 (6%)			
Health Soc Care (VQ)							29 (15%)	28 (15%)

A new innovation in 2005 was a short course in Sport / PE which started with over half of the students (table 5.21) but had declined to 11% in 2007 when some students were also taking a full course GCSE.

Table 5.21: Southvale: Entries for Short Course GCSEs 2000-2007

Subject Title	2000	2001	2002	2003	2004	2005	2006	2007
<b>Cohort</b>	<b>150</b>	<b>200</b>	<b>156</b>	<b>183</b>	<b>218</b>	<b>150</b>	<b>188</b>	<b>190</b>
<b>Art</b>	1 (1%)		1 (1%)					
<b>French</b>	3 (2%)							
<b>History</b>			1 (1%)					
<b>ICT</b>	3 (2%)					1 (1%)		
<b>RS</b>		1 (1%)		1 (1%)	1 (1%)			
<b>Sport / PE</b>						104 (69%)	86 (46%)	21 (11%)

Overall the emerging pattern was of a school attempting to provide a number of different subjects and qualifications in response to the challenge of raising performance. The advantage of the Arts subjects was that many of them did not require the literacy skills of some of the more academic subjects and as a result the students were relatively successful (SV-HoD). The pattern of offering a wide variety of subjects has continued with its successor academy. The 2011 offering of subjects (table 5.22) contrasts with Parkland (table 5.23) in terms of the number and type of subjects offered.



Table 5.22 Southvale Academy Curriculum 2011

**Years 10 and 11**

All students continue to study the following subjects:

English; Mathematics; Science; Information Technology; Physical Education; Personal, Social and Health Education

In addition, students can choose from a range of GCSE and vocational qualifications:

**GCSE**

- Art
- Business Studies
- Citizenship
- Drama
- Geography
- History
- Photography
- Sociology
- Textiles
- Triple Science

**Vocational Qualifications**

- BTEC Art & Design
- BTEC Business Studies
- BTEC Performing Arts
- BTEC Health and Social Care
- ICT Nationals
- BTEC Media Studies
- BTEC Applied Science
- BTEC Sport
- BTEC Travel and Tourism
- Carpentry and Joinery
- Motor Vehicle Studies
- NVQ International Business Communication (English)
- NVQ International Business Communication (French)
- Skills for Life
- Specialised Diploma in Engineering
- NCFE – Creative Crafts delivered through Resistant Materials, Textiles and Food Technology
- Health & Safety Progression Award
- ABC – Art, Design & Creative Studies

Table 5.23: Parkland Curriculum 2011

**Core Curriculum**

- English; Mathematics; Science; ICT; PE; DT; RE (Short or Full);

**Options**

- History;
- Geography;
- MFL;
- ICT (OCR Nationals);
- Music;
- Performing Arts;
- Art;
- BTEC Health and Social Care;
- BTEC Sport;

#### 5.4.1 Option structures

Three types of option structures were identified from the choice booklets. All schools had core subjects (English, Mathematics and Science) that would usually lead to at least five examinations and take up 40-50% of the timetable (RS-AHT). There were also required subjects such as ICT, Religious Education, Physical Education and some form of grouping that covered the broad areas known as Personal Social and Health Education, including citizenship. Whether these required subjects lead to an examination varied between schools.

The option system then took one of the following forms (in no particular order):

**Option A Groups of subjects** There were compulsory groupings of subjects such as Design Technology; Modern Foreign Languages; Humanities, Arts and then free choice from all other subjects available

**Option B Free Choice** All subjects were listed and students chose three to six subjects from within the list. There might be combinations that were not acceptable and students were often encouraged to design a 'broad and balanced' curriculum.

**Option C Option blocks** Three or four option 'blocks' were identified where the subjects offered were related to slots on the timetable. Predictions were made by the 'timetabler' about the number of students likely to choose each subject and also about the combinations of subjects available in each block to allow students to choose different

combinations of subjects. The number of blocks a subject was 'in' usually reflected the popularity in previous years or the perceived importance of the subject.

Different option choice pathways existed in some schools. Eight 'booklet' schools and three study schools had two to four different 'pathways' for students that were usually allocated by attainment in KS3.

For example Southvale had four pathways:

- Green and blue were basically academic with more or less vocational options;
- Red had a reduced curriculum offer because the students in this group were deemed to be in danger of failing academic subjects. They had increased time for mathematics, English and science to boost their chance of gaining a C-grade.
- The yellow pathway provided an alternative curriculum for students who would normally leave full time school education at age 16, often with low level or no qualifications. This was a group of 15/16 students out of 210 who were taught as a discrete group with college experience built into their timetable (RS-AHT).

Within the pathway system any of option systems A, B or C might then operate. Assigning students to pathways was being supported by increasingly sophisticated data collection and tracking of progress so that predictions about future potential could be made.

Several schools suggested that in the past option A was a more common structure with for example four grouped blocks of subjects such as technology, humanities, performing arts and a language (SV-AHT). The move to pathways by schools was partly a response to the New Labour government's emphasis on personalisation and an attempt to increase

diversity of choice. Riverside and Southvale had introduced pathways because it produced a better outcome for the pupils and resulted in more students obtaining their first choices. 35 pupils out of 210 had some clashes but ten of the subjects offered were not running (RS-AHT).

The design of the option system was organised by a member of the senior management team who was also responsible for organising the timetable (SV-AHT, CT-AHT; RV-AHT). Potential changes were discussed with the rest of the SMT and relevant staff (SV-AHT). Change could be proposed by both SMT and departments. In Parkland departments were asked to propose and develop vocational courses and the geography department agreed to develop leisure and tourism (PL-HoD). In Riverside PE wanted to offer dance and applied PE (a double award GCSE), while science wanted to offer applied science because it offered more coursework and was targeted at middle attainers (RS-AHT).

These initial discussions started at the end of the summer term or early in the autumn term so that the framework for the option process and timetable could be in place during the autumn term (CT-HoD). Changes usually reflected school priorities so Southvale aimed to develop Drama, Art, Music and English after achieving Arts specialist status (SV-AHT). Staffing was an important consideration so schools drew on their existing strengths: 'gifted art and drama teachers', and a feeling that the demand for media studies will grow' (SV-AHT). Historical choices were the starting point for the model design although there was some flexibility if extra funds or staffing capacity was available (CT-AHT).

Perceptions of the process of consultation appeared to depend on the degree of control exercised. Clifftop AHT was clear that HoDs were consulted about their vision of the subject and that SMT listened to their needs and then looked at the constraints. After looking at budget, two to three different models were developed which were shared with all HoD, followed by individual meetings with particular subjects if the model particularly affected them (CT-AHT). After then looking again at the budget and the school development plans the final model was produced and approved.

Clifftop HoD felt that although consultation occurred, decisions had often already been made and the views of departments carried little weight. He did suggest there was some discussion of the formation of option columns. Two other HoDs also reported very little input into the detailed process of designing the option system (LV-HoD; PL-HoD;).

The process Southvale used to allocate students is an exemplar of how students are allocated to the different options. While there were subtle differences the stages were much the same for all five case study schools.

1. **Identifying student performance** The Head of Year 9 and AHT (assessment) allocate the students to pathways and then ask Heads of Department to make final adjustments. This process allocates students to one of the four pathways.
2. **Information about options** There is a timetable of inputs about different options in assemblies, tutor sessions or PSE lessons. All subjects are encouraged to offer 'taster' Y10 lessons. (Students were encouraged to find out about what subjects were needed for the careers or jobs they were considering. They could do this through the

connexions service or 'Fast Tomato' an online careers education and guidance service (Fast Tomato, 2011).

3. **Options Booklet:** A booklet and the option form are given to students.
4. **Options Evening** There is an options evening where parents can meet subject staff, Head of year 9 and others as required. Filling the form in is explained.
5. **Decision making time** The students have two weeks to make their choices. They have to make a number of first choices and give two reserves. Blue and green pathways have four choices while red is restricted to three choices. There is a large number number of choices (25 subjects) that include AS Dance; GCSE; BTECs – double option; Resistant materials; Double ICT; applied GCSEs. Subjects are not allocated to option groups so that students have a free choice..
6. **Processing the choices** A database is used to process the choices. All the data is entered onto a spreadsheet and a clash matrix is used for the first four choices to see which will work.
7. **Eliminating Subjects** Some subjects are then eliminated because they don't meet the minimum entry criteria. A new subject can be guaranteed to run with a minimum of ten students, otherwise the minimum is between 15 and 20.
8. **Staffing checked** The staffing is then checked to see whether all the subject can run. The timetable has to be started at the same time. In 2006 four subjects were 'lost' as a result of stages 7 and 8.
9. **Preliminary allocation** A preliminary allocation to subjects is made which is then refined after discussion with individual students and staff. Several versions have to be

developed. The spreadsheet is used to check for clashes, overlaps and to try to ensure that there is breadth and balance in the subjects chosen.

10. **Final Allocation** The final allocation of students is confirmed and communicated to students.

#### **5.4.2 The impact of curriculum structure on geography entries**

In all the schools geography and history were considered to be roughly equal in terms of the number of students but changes in popularity could occur over time so that one became slightly more popular than the other. In Clifftop geography was slightly more popular five years ago when it had three very big sets while history had three slightly smaller sets. This changed when the structure changed and there was no longer a humanities block. Numbers fell dramatically after this change which coincided with technology specialist status. The opinion was expressed by SMT that historically the humanities block had meant some students were forced to take subjects they weren't interested in (CT-AHT).

The effect of pathways was identified as significant in Southvale where large numbers of students allocated to certain pathways had either less options because they were doing more literacy and numeracy or were being encouraged to do 'easier' vocational qualifications.

The structure of the option blocks was commented on by many teachers. Most of these emphasised the different ways the subject was being squeezed. This could be restrictions

on the blocks that geography was placed in: 'Only in one option block with other popular options such as sociology and business studies'. Numbers may be higher where the 'option block is either geography or history' but lower when there are 'too many alternative subjects/options available for example leisure and tourism' which is 'seen as the easier option so many go for this option'. The number of option blocks the subject was offered in could lead to further decline: 'we have also been placed in less columns due to less people taking the subject so the subject has declined further'. A lack of input into the option choice system by departments was an issue in one school: 'as a subject leader I have no influence on options in YR9. Students know about the availability of options before I do!'

Other impacts on geography entries will be discussed in the next section.

## **5.5 HAS CURRICULUM CHANGE INFLUENCED GEOGRAPHY ENTRIES?**

This question will be considered by comparing the changing fortunes of four subjects, geography, history, MFL and DT over time in the sample schools.

Entries for subjects fluctuated over time in all the schools but the patterns are different.

The four subjects shown here were chosen because they illustrate how schools responded to the removal of DT and MFL from the core and how this affected entries for geography and history. At the time it was suggested that the removal of DT and MFL from the core might help geography and history because students would switch to them. The data suggests any switches were small and did not match any losses that occurred. Each school will be described and then some general conclusions drawn. The data for DT and MFL



combines all the different possible options as an ‘any MFL’ or ‘any DT’ category. In the case of MFL some students might study two languages but it is less likely that they will study two DT subjects.

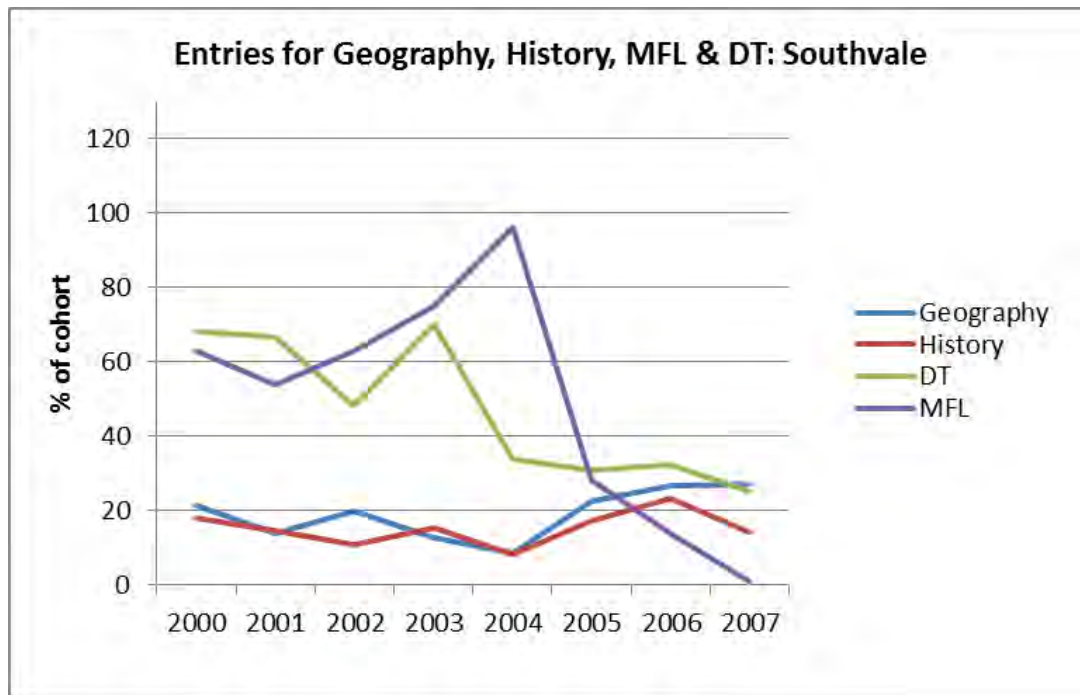
In all the schools geography entries fluctuated from year to year. The mean change (calculated by ignoring whether the change was a gain or loss) was less than 20 but the actual change in any one year was as large as 57 and as small as 0 (table 5.31). Gains tended to be smaller than losses apart from Southvale (2004-2006) and Parkland (2005-6) where gains followed the appointment of new teachers or HoDs. In most years the changes were less than one class and in some cases would have been accommodated by changing the class sizes.

Table 5.24 Changes in geography entries 2000-2007

Geography Change over time	Southvale	Riverside	Lakeview	Parkland	Clifftop
2000 to 2001	-4	Na	-6	3	na
2001 to 2002	3	-36	4	7	-22
2002 to 2003	-8	-24	30	-10	-22
2003 to 2004	-4	10	-27	9	0
2004 to 2005	15	10	21	-4	10
2005 to 2006	16	-33	17	57	-21
2006 to 2007	1	9	-13	-19	-11
Mean change	7	20	17	16	14

### 5.5.1 Southvale

Figure 5.3 Southvale entry trends 2000-2007



Entries for geography and history were low throughout the study period, although numbers increased slightly for geography in 2006 / 2007 (figure 5.3). DT entries declined throughout this time apart from an increase in 2003. Being removed from the core in 2004 appears to have been anticipated in 2002 as numbers fell significantly in 2004 to a level similar to geography. MFL saw a steep growth in 2002 to 2004, probably similar to the trends experienced by the other core subjects as all students were increasingly entered for examinations in subjects they studied. After removal from the core and becoming one of many options it was wiped out by 2007 when there were no entries.

Entries do not however tell the whole story about the success of a subject. The geography department between 2000 and 2007 successfully improved students' attainment at GCSE.

In 2000 the 'Higher-attaining pupils are now being challenged and the lower-attainers well supported' (SV-Ofsted, 2000). After 2005 pupil performance was outstanding with 55-70% of students obtaining level 2 compared with the school figure of 10-35% (SV-HoD). In seven out of eight years there were more boys than girls and the girls have consistently outperformed the boys. This improvement has to be set in the school context where in 2000 Ofsted commented that students':

progress is impeded by low levels of literacy. Many have difficulties with their written work, which is often not clearly expressed and contains errors of spelling, punctuation and grammar. There is too little personal extended writing, and too much written work is left unfinished.

(SV-Ofsted, 2000)

These issues continued since the 2006 Ofsted progress review stated that the school continued to underachieve and that an area for continued development was in key skills.

This improvement in entries and performance coincided with the appointment of an NQT for the academic year 2003-4 who became SV-HoD at the end of her first year of teaching. The academic year 2004-2005 was the first year that the new HoD was in charge and a number of strategies such as extra support for coursework and Saturday study sessions were implemented. The data suggests that candidates at the C/D borderline were successfully targeted since in 2005 the cohort obtained 18 grade Cs and 2 grade Ds but very few grades above C.

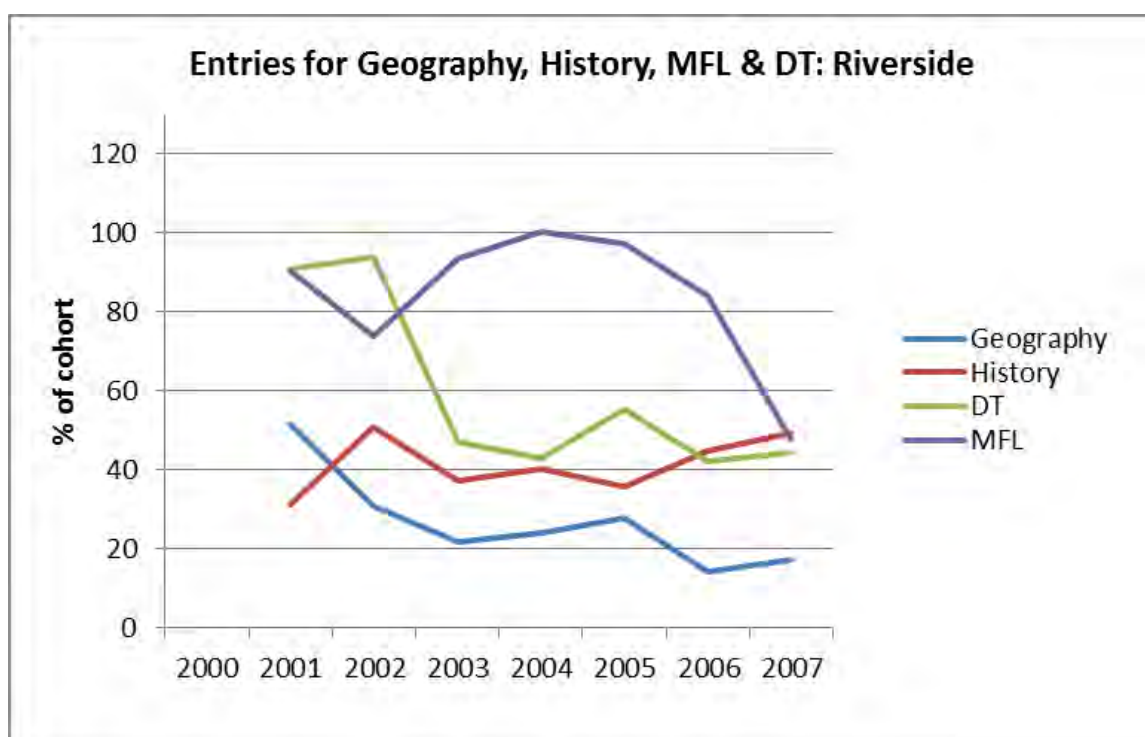
Analysis of the NPDS and PLASC data sets for the years 2004 and 2005 showed that the geographers came from the more able students in the school and had a slightly lower proportion of students eligible for free school meals and fewer with identified SEN.

However when compared with national standards it was also clear that the performance of this group of students was relatively poor and the deprivation indicators were higher than the national average.

### 5.5.2 Riverside

Changes in history or geography were associated with a mirror image change in the other (figure 5.4). Geography fell sharply after 2001 and stayed at a relatively low level until 2006 when it began to increase.

Figure 5.4: Riverside entry trends 2001-2007



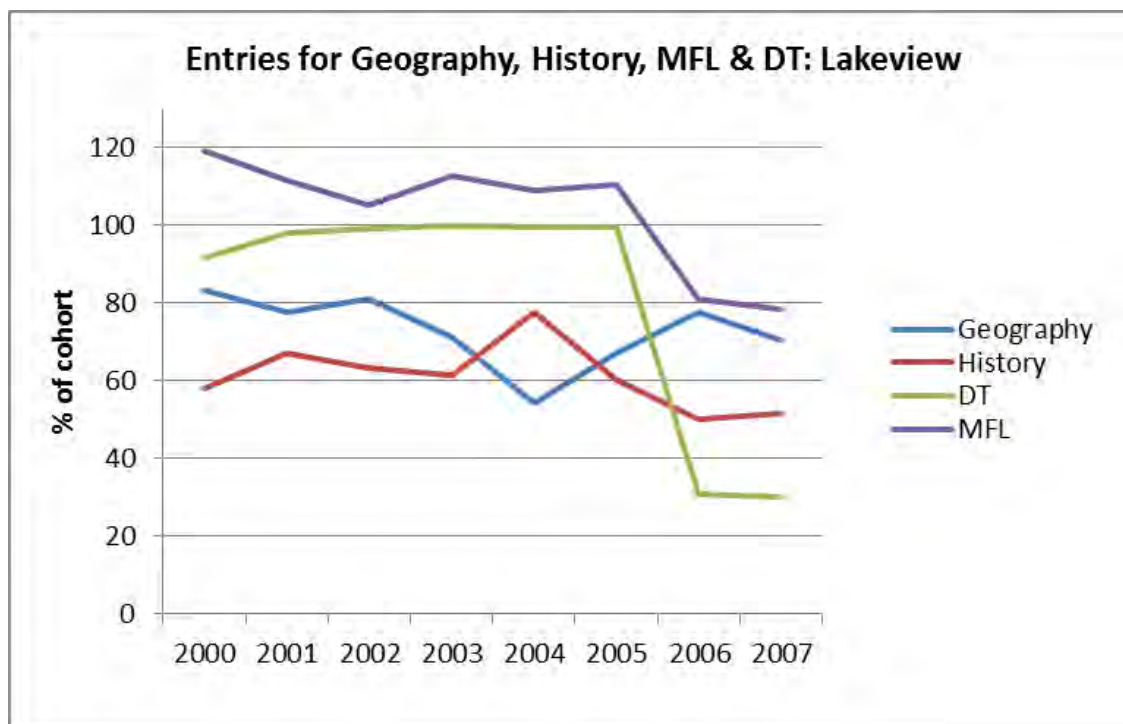
The HoD was absent with long term illness in the academic year 2003-4 and this affected entries in 2006 (RS-AHT). The appointment of a new HoD in 2005-6 had a profound effect

on choices for the GCSE cycle 2006-8 because those choosing to study geography increased to 150 (RS-HoD, RS-AHT). Entries for DT fell after 2001, again predating the government's decision to remove DT the extended core but MFL increased until 2004 and then dropped dramatically between 2005 and 2007. The MFL loss does not appear to have had much impact upon entries for geography and history apart from a very small increase in 2007.

### **5.5.3 Lakeview**

There was a strong relationship between changes in geography or history entries in Lakeview associated with the option choice system because students were asked to choose between them (figure 5.9). However students were allowed to choose both and about 30-40% of students made this choice so that overall entries were very high, between 60 and 80%. The fall in geography in 2004 coincided with a maternity leave for the HoD in 2002. MFL dropped by 30% between 2005 and 2006 but stayed relatively high (about 80%) after removal from the extended core but DT fell dramatically (from 100% to 30%) between 2005 and 2006. This may reflect the academic priorities of the students in this high attaining school where the majority of students expect to enter higher education and the range of subjects is focused on providing the best combinations to achieve this aim. There was little or no demand for vocational qualifications (LV-AHT). The geography department priorities are concerned with achievement at the highest level so they changed their specification after the results in 1999 were slightly below average, especially for the A\*, A and B grades to help them raise the performance of all their pupils.

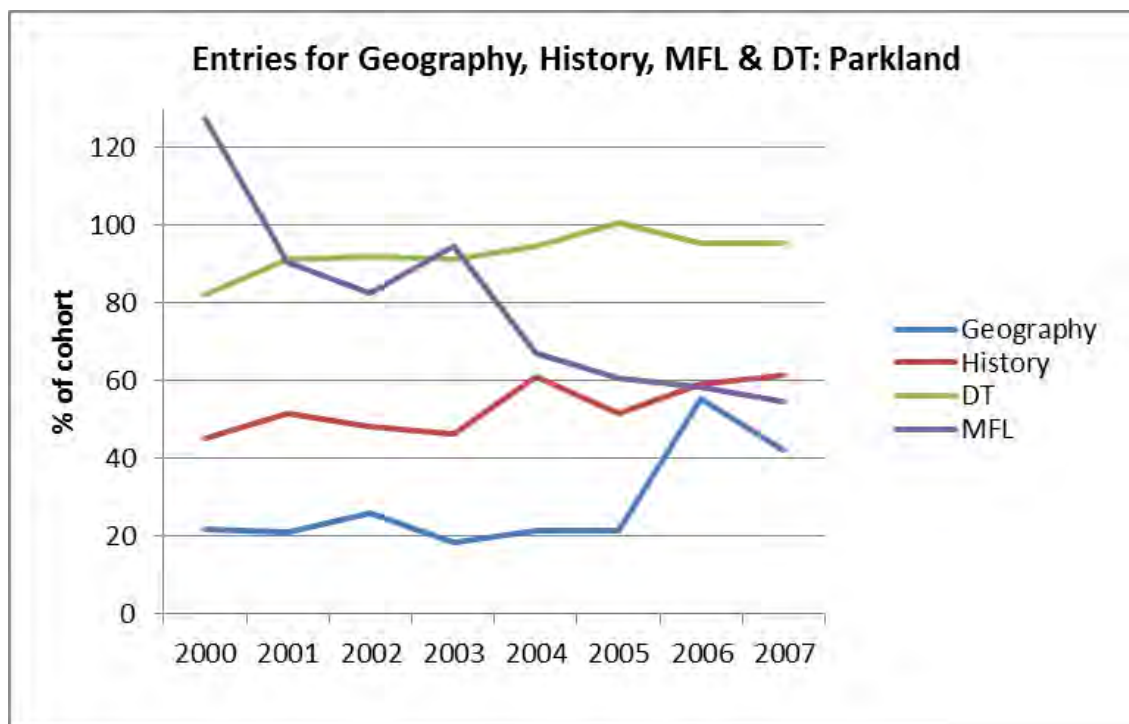
Figure 5.5 Lakeview entry trends 2000-2007



#### 5.5.4 Parkland

History was consistently more popular in Parkland (figure 5.6) although the gap with geography was closed in 2006 and 2007 following the arrival of a new HoD in 2003 when all the ideas that had been implemented in Y7 after the HoD arrived had taken effect (PL-HoD). There was an overall growth in numbers in both geography and history from 2005 possibly related to the fall in MFL entries between 2000 (127%) and 2007 (54%) as students were no longer required to study a language (PL-AHT). In contrast DT grew slightly because all students were still required to take a technology subject as part of the school's technology specialism.

Figure 5.6 Parkland entry trends 2000-2007



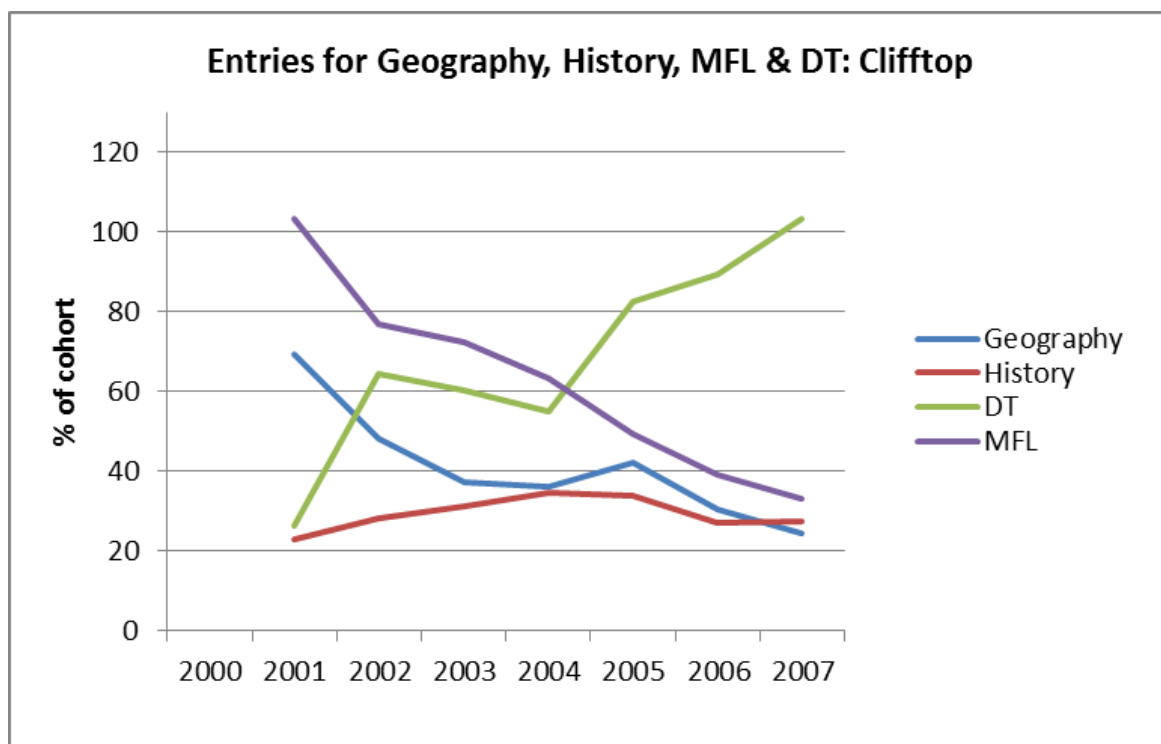
The performance of students in the geography department was variable with a minimum of 48% (2000) and a maximum of 82% (2002) achieving level 2. These were often lower than the numbers achieving %+ level 2 qualifications but were good compared with success rates for English and mathematics and comparable to national performance.

### 5.5.5 Clifftop

Entries for geography were very high in 2001 but fell by 30% between 2001 and 2003 (figure 5.11). This change was attributed to being removed from one option block which by 2005/6 became a technology only block (CT-HoD). DT entries grew by 40% between 2001 and 2002 and overall grew by 70% between 2001 and 2007. MFL entries anticipated the removal from the core with numbers down 25% between 2001 and 2002 (possibly

related to the growth in DT) and a drop of 70% between 2001 and 2007. MFL entries continued to drop steadily to 2007 but students did not move to geography or history which also fell. The geography HoD left for another institution in 2005 and there was a period of instability in the department before a new HoD was appointed and made her mark. Entries rose again significantly in 2009 (43%) and 2010 (55%). The gender balance was about even until 2005 when it became weighted towards boys.

Figure 5.7 Clifftop entry trends 2001-2007



#### 5.5.6 Changes in the numbers taking geography

It appeared that fluctuation in numbers from one year to the next was common. About one third of schools had increased their cohort, one third decreased and one third stayed



the same. One school commented that numbers had gone from 25 to 70 to 14 in three successive years with no change in their marketing strategy.

Between 1999 and 2004 most (84%) of schools had an increased number of subjects in the option blocks and GCSE subjects while only 4% reported a decrease. Vocational qualifications had also increased in 80% of schools although only one selective school reported an increase. The average number of subjects a student studied had stayed the same in 60% of schools, increased in 17% and decreased in 19%.

Decreased numbers were the result of increased competition within the option system such as the introduction of larger (vocational) qualifications and other new subjects so that there was a wider choice of subjects. Adding extra subjects to the curriculum was resulting in pressure on both the timetable and other subjects. In two schools teaching time had been reduced (PL-HoD; CT-HoD).

The introduction of new (vocational / occupational) subjects had meant the loss of some potential students (CT-HoD) and increased competition (SV-HoD). There were differences of opinion about the target students for vocational qualifications. Vocational subjects were identified as being more popular amongst the lower attaining students in Parkland (AHT) but were felt to be appropriate for all students by Clifftop AHT. In Southvale more of the subjects being offered were vocational and this was felt to be appropriate for most students while GCSEs and academic subjects were only available to the highest attainers (SV-HoD). While the HoD thought that she could maintain and increase uptake for

geography, as a backup the department had become involved in providing Leisure and Tourism for the two lowest bands (SV-HoD).

The impact of specialisms was commented on by teachers in two schools. In Lakeview this had been beneficial for humanities when they were prioritised and students had to choose Geography or History or both (LV-HoD), but the development of a second specialism (Science) and the promotion of the science curriculum was a potential threat because the encouragement for students to do triple science removed one of the four option slots (LV-AHT). Clifftop had seen the introduction of compulsory technology have two effects. Less time was available because all students had to do a full course technology course and at least a short course ICT qualification. Geography was also removed from one of the option blocks and the numbers went from 120 to 90 (CT-HoD).

The evidence suggested that all schools were experiencing some form of curriculum change and there was increasing pressure on the option system in many schools. The pressures and the responses were however diverse dependent on the individual school context. The interaction between senior managers desire to raise standards and departments responses appeared to be playing an important part in the changes occurring. Each school context appeared to have a number of unique interactions occurring however one factor that appeared to be common was the introduction of a new Head of Department or the absence of a good teacher.

## **5.6 WHAT IMPACT DO TEACHERS AND DEPARTMENTS HAVE ON THE NUMBERS TAKING GEOGRAPHY?**

Three themes emerged from the analysis of the responses from teachers. They were staffing, curriculum and pedagogy.

### **5.6.1 Staffing**

Staffing was a key element in creating a successful subject department but there was a diversity of approaches and contexts. All five departments demonstrated the value of both continuity and change. In four of the departments there were long-serving members of staff (over 25 years) who held management posts in the school, including senior management and heads of house or year and were described as 'long serving, talented and committed' (SV-AHT). This gave stability to the department but they were all 'pressurised in terms of the commitment they were able to give to their geography teaching' (LV-HoD). Several of these senior staff (PL, SV, LV) had previously been in charge of the geography department. The Heads of Department and full time geography teachers tended to be younger, ranging from Newly Qualified Teachers (NQTs) to teachers with ten to twenty years of experience. Several of these had masters' degrees. In three schools there were teachers from other departments who taught a few lessons of geography usually to year 7 (LV-AHT; RS-HoD, PL-HoD).

Staff mobility was a significant feature of some departments as teachers were promoted, were absent through sick or maternity leave or retired. This had both benefits and disadvantages. Between 2004 and 2007 the Southvale department moved from a position

of long term stability to one of rapid transition. As senior members of staff retired or were promoted four Newly Qualified Teachers (NQTs) were appointed. All had teaching placements within the school and therefore knew the challenges. This influx of young teachers provided a stimulus that boosted the department which experienced growth in the numbers opting to take geography. Two gained promotion to Head of Department in other schools within three years of starting their teaching careers.

The Southvale HoD also reflected that 'success' was a double edged sword because the energy, initiative and drive of departmental staff was being dissipated as they were being asked to support other 'failing' departments within the school. For example one young member of staff was being 'fast tracked', given responsibility for other areas and within two years had left the school to become HoD in another school. The Southvale HoD was also promoted again after three years to a senior manager post within the school so her energies were dissipated elsewhere. This was a phenomena that was commented on by other schools (LV, PS, CT, RS) where the other members of department had senior responsibilities within the school. Successfully growing numbers at GCSE could also result in a lack of specialists teaching in years 7 and 8 (LV-HoD). Strategic decisions were made about staffing so that the subject specialists were teaching classes in Y8 and Y9 so that they had good experience of geography prior to making their choices (RS).

Numbers could also go down as the result of staff absence, ineffectiveness or promotion. The outcome of a maternity leave and a less successful replacement HoD was a drop in numbers opting for examination in 2009 (LV). In Riverside numbers had been high in 2000

but declined over the next few years and the low numbers in 2006 and 2007 were the result of ill health and absence of the previous HoD. There was some concern about the negative impact of teachers where they lacked subject expertise or did not relate well to students. Increased numbers were the result of marketing, staff expertise (including pedagogy), positive pupil-staff relationships and better resources such as interactive white boards. Increasing cohort size also helped. Strategically one school had deployed the 'right' staff to Y9 to recruit students but only one school suggested that exam success in previous years boosted numbers.

Management, leadership and organisation were also crucial. In Southvale:

Effective leadership of this well organised department has enabled progress to be made since the last inspection ... More attention is being given to developing work appropriate to the needs of the pupils. Resources are well organised and put to good use, and assessment is used to monitor pupils' progress and show where improvements are required. (Ofsted, 2000)

The new head of department (2005) suggested that the previous continuity of staffing and departmental expectations of pupils provided a firm foundation for her start in teaching and the transition to becoming Head of Department (SV-HoD). She suggested it was 'easy' to take over and compared her experience with that of another department in the school where the Head of Department was sick, there was no Scheme of Work, incompetent staff and stated that it would have been difficult to survive in that context. In Riverside the appointment of a new HoD re-invigorated a long standing member of staff who also developed and changed his teaching.

Southvale with its challenging circumstances emphasised the creation of a safe learning environment for the students. There were clear expectations of behaviour both on arrival within the geography area and in lessons.

Their expectations of the behaviour and performance of the pupils are high in most respects and pupils are left in no doubt as to what is expected of them.  
(SV-Ofsted, 2000)

Involvement beyond the school also appeared to be important. Two of the schools (PL, SV) had long standing involvement with teacher training usually taking four trainee teachers each year. Both schools provided 'challenging' placements in different ways, but the support provided by the staff provided a good foundation for teaching and they both had an excellent record of 'success' with teacher training. The Lakeview HoD was an Advanced Skills Teacher, Fellow of the Royal Geographical Society and was actively involved with geography at a national level through the Geographical Association. As part of the Humanities specialism the school was actively involved in working with neighbouring schools and with teacher training. Clifftop's HoD was interested in developing alternative methods of fieldwork and promoted these ideas at the Local Authority and national level.

The Southvale HoD was exceptionally hard working, reflective and self-critical. While recognising the successes the department had achieved the HoD suggested that achievement was still lower than some other subjects, such as drama and music. She suggested that these subjects may do better because they were essentially practical subjects that appeal to the students in the school. This is reflected in the priority given to

these subjects in this school which became a specialist arts college and has developed expertise and success in this area.

Teacher change can therefore work in a number of different ways. A more stable department can establish a good reputation and develop effective ways of working promoting the subject while one in transition may be less effective. However a stable department can also be set in its ways and less innovative with pedagogy or content whereas a new head of department can promote new ways of working if the department is prepared to change.

#### **5.6.2 Curriculum and Pedagogy**

Subject knowledge, pedagogy, innovation and resources were all highlighted as important features of a successful department. The spread of experienced and young teachers led to a variety of different pedagogical styles which were sometimes difficult to resolve, although this was more successful in departments where planning was done together, good practice was shared and there was collaborative teaching (PL-HoD). This also worked well when the scheme of work was planned together and reviewed regularly although this might largely depend on the HoD if other staff were unable to contribute fully (PL-HoD; SV-HoD). Innovation was mentioned by several HoD as one of the things they had contributed to developing the status of the department 'There has been lots of innovation' (CT-HoD) The subject is exciting and innovative, lesson are fun and interesting. (LV-HoD) It was also important to have opportunities to share experiences with other schools (PL-HoD)

Attention was paid to teaching and learning and the way pupils learn. Increased use of active engaged learning was mentioned by all five schools. Examples included less use of text books and worksheets so that more 'traditional' pedagogies were being replaced by the use of more kinaesthetic activities, such as thinking skills, card sorts and role plays so there was pace, variety and fun (RS-HoD) and increased interaction between the students (CT-HoD). Working on the new pilot syllabus was a challenge because there were no textbooks. Lakeview HoD loved it because she had to develop and produce new materials and ways of working. However achieving improvement across the board was seen as difficult, especially when there were a number of changes happening at the same time (CT-HoD).

There was a focus on getting to know students better and one of the ways mentioned by most HoDs was the use of assessment, especially assessment for learning (AFL). It was important that staff and students knew what they were trying to achieve. Assessment of work and using the findings to promote learning was a priority in several schools:

Assessment of the pupils' work is well organised. It is used effectively to review pupils' work and progress and plan changes in teaching and the curriculum. The pupils' books are regularly and thoroughly marked. The teachers provide helpful written comments, setting the pupils targets for improving their attainment.

(SV-Ofsted, 2000)

One school had introduced a structured 'levels' based system of assessment that incorporated extended writing and used AFL to prepare the students better for their examinations (CT-HoD). Another emphasised the importance of feedback on work so speed and frequency of marking books was emphasised within the department. Staff tried to mark books every two weeks and gave both positive criticism and praise (RS-HoD). This



approach was in contrast to work in the department previously where the Ofsted (2000) inspection suggested that geography was a successful subject, but commented that there was insufficient differentiation, particularly in terms of challenge to the high achievers in a mixed ability group and that closed questions gave little opportunity for discussion or extension (RS-Ofsted 2000).

It should be noted that there may be interviewer-interviewee bias in some of these comments. Most of the interviewees knew my interest in pedagogical approaches and Assessment for Learning and this may have influenced their responses.

Making the subject topical, interesting, relevant and fun for the students was important (RS-HoD). Topics such as fair-trade, sustainability and the environment.(LV-HoD) were more relevant than out-dated content such as deep shaft coalmining (Rs-HoD). In the selective school the changes to the KS3 curriculum and the introduction of key concepts allowed the department to teach better geography more closely allied to new places and ideas that are going on in academic geography. (LV-HoD).

Interesting teaching and learning involved lessons that were 'well planned', 'have a varied range of teaching activities', 'learning strategies', are 'interesting lessons in terms of subjects', use a 'variety of skills', promote 'thinking skills' so that 'lessons are fun' and are 'enjoyable at KS3'. This provided a 'positive experience in KS3'. Teachers should also 'have good understanding of the subject'. One teacher suggested they had an 'uncomplicated

approach to Geography' which made it accessible to children and another emphasised that 'Geography is relevant to what's going on in the world'.

All departments commented on the importance of good fieldwork experiences and some were able to make significant international links such as trips to China (LV) and Iceland (SV). Lakeview was able to organise a number of different fieldwork experiences, both locally and residentially further afield but the logistics were more becoming more difficult as numbers grew. In Parkland one member of staff had an allowance for organising fieldwork.

Commitment to the syllabus being taught and the ability to make the content and assessment work for the group of students in the school was important. In Southvale students' literacy issues were supported by the option of having coursework and pre-release materials for the Decision Making Exercise available for three weeks before the examination. The department then provided additional sessions and support for both these parts of the examination. This comment is an example of 'gaming' strategies in schools where teachers attempted to maximise the pass rate through exploiting differences in assessment approach. It also highlights more important questions about the decisions that are made about what is of value to assess and by what methods. GCSE with its increasing emphasis on tightly controlled written examinations favours more literate academic students and this was of concern to some HoDs who felt lower attainers were being penalised or put off studying the subject. An example of the penalties associated with poor literacy and examination technique was associated with the difficult decisions

staff faced when entering students for the higher or lower tier. If a C/D borderline student was entered for the higher tier there was a danger they might fail not because of their geography knowledge but because of their literacy. However the 'safer' entry for the lower put a 'C' ceiling upon the grade they could get (SV-HoD).

The experience with the pilot geography GCSE was very different because the assessment approach was far closer to a vocational modular scheme. This allowed the teaching and activities to be more personalised and provided more depth but provided challenges in terms of monitoring completion of tasks. Even some of these motivated and successful students found time management and organisation difficult (LV-HoD). The new HoD at Riverside had chosen not to change the specification but instead had chosen to study different optional modules so that the content was more relevant to the students (RS-HoD).

There was universal acceptance of the need to develop the use of technology such as Interactive Whiteboards (IWB) but access to hardware in 2005-6 was variable. In the long-established technology specialist college the department had the use of data projector and IWB facilities for their teaching (PL-HoD) whereas the other technology college was still experiencing problems with access to laptops or computer terminals. However they felt that the technology specialist status would in the long term be advantageous to the geography department who were prepared to be innovative in their use and therefore would be at the forefront of innovation (CT-HoD). Two of the other schools were well provided with equipment. In Southvale the HoD has ensured that the department was well equipped with

projectors and Interactive White Boards in the main teaching rooms and an ICT suite shared with French within the departmental teaching area (SV-HoD). The gaining of Humanities specialist status was associated with investment in a large specialist teaching suite and encouragement for one member of staff to develop his training interest in the use of Geographical Information Systems at a national level (LV). The fifth department wanted to incorporate technology more. They used a portable projector frequently and wanted to enhance their teaching further with the use of interactive whiteboards. (RS-HoD)

Support from outside agencies was appreciated because they provided structure and guidance which may be a reflection of the lack of confidence in curriculum development that followed from the introduction of the National Curriculum (Rawling, 2008). There were also strategic decisions based upon the subject strengths of teachers who would pool curriculum and resource development. The support from the Local Authority specialist geography advisor was seen as very helpful because it supported the development of the curriculum through the local network of help and new material

Overall the responses about curriculum and pedagogy suggested that enthusiasm, interest and a real understanding of subject and students were important where departments were successful. What appeared to be happening therefore was that individual teachers could be seen to be having an impact on the students and the rest of the department. This was clearly true in Riverside where the student response from two years groups provided a stark contrast. Year 10, taught by the previous HoD, said that geography was boring, 'just

a load of boring worksheets', whereas Year 9 taught by the new HoD were inspired by geography and numbers were increasing enormously. This HoD also inspired an older colleague who was a head of year to become inspired to teach geography again.

### **5.6.3 Conclusion**

Geography was promoted through interesting teaching and learning (61), topics (60), telling students about careers for geographers (53), actively selling the subject in lessons (51) and using fieldwork as a 'selling' point (40). A key feature of promoting the subject was the teachers and whether pupils 'like the teacher and the way the subject is taught'.

Geography was described as being successful where there were 'enthusiastic', 'committed' and 'dynamic' staff who were able to create 'positive relationships with students' and create a secure learning environment. 'Pupils value (the) subject if they feel valued by their teacher'. A further aspect of this was the 'stability' of the department so that choice was threatened by 'the large number of non-specialists teaching geography at KS3'. It can also come down to personalities with 'popular teachers' sometimes boosting numbers and unpopular teachers deterring students. 'Often pupils take a subject because they like the teacher's enthusiasm and motivation'.

Good teachers can have a profound impact and within this group of schools there were at least two teachers in each school who could be described in this way. This sample of schools may be biased as a result, but it demonstrates what is possible when good teachers are appointed and work together. In Southvale an exceptional NQT was

promoted internally to HoD in 2005 at the end of her first year of teaching because her long standing predecessor was internally promoted to Assistant Head. She was then supported by two more NQTs and within two years the numbers taking geography had increased from 20 to 60. The arrival of a new subject leader in Parkland in 2003 led to an increase from 22% to 55% in the 2006 examination. The same phenomena occurred at Riverside where the numbers opting for geography went from 42 in year 10 (examined 2007) to 150 for examination in 2008. This HoD had the same effect in his previous school where numbers had also increased significantly (from 15% to 50% of the cohort). Senior management recognised this effect and commented that 'the appointment of the new HoD for geography has turned the department around because he is an inspiring teacher and puts the craft of teaching at the heart of the subject' (RS-AHT). In Lakeview the HoD was a dynamic and motivating teacher who actively worked at developing materials for a pilot GCSE geography examination she inherited. Clifftop had two members of the department, the HoD and a Head of House who were recognised as motivating by the Senior Management Team (CT-SMT). When the HoD moved to a different institution he was replaced by another who quickly established herself as a motivating and inspiring teacher.

## **5.7 WHY DO STUDENTS CHOOSE TO STUDY GEOGRAPHY?**

Students' reasons for choosing subjects replicated the literature with the commonest comments being that they were interested in the subject, they enjoyed it, they were better at it and they thought it would be useful in the future. Liking or disliking teachers were mentioned by small numbers of students. There were a few students who were

more strategic giving examples such as having less examinations or being preferable to other options. These answers do not help understanding of what makes them interested or enjoy the subject.

Teachers thought that there were a number of things they could do to promote the subject with students but their view about marketing varied. Two HoDs (CT; PL) were very reluctant to 'sell' the subject because this was against their ethos and were prepared to let students judge quality of the teaching and teachers. Others (SV; RS) marketed the subject from year 7 by talking about GCSE in lessons, displaying notices about exam success in recent years and explicitly showing how geography was useful in later life. However there was also concern that the direct value of geography for jobs could be mis-represented because few geography graduates ended up in pure geography jobs (PL-HoD). Marketing the subject was supported by notice boards in the corridor that were regularly updated with 'Geography in the News' (SV). Encouraging students to consider their own performance in lessons and giving students extension work was proving successful in Riverside. Some students commented that the hard sell in lessons did not always work as it could also be a deterrent.

Subjects were usually marketed for the option choice process through a booklet where each subject had a page to describe what the course covered, the type of qualification and its usefulness in the future. Students were also told about the subject in lessons or an assembly if it was not taught at KS3. One HoD (Clifftop) had concerns about the process especially that some subject teachers 'put other subjects down' during the selling period.

Some departments also produced supplementary handouts. Some strategic long term planning was also done in some departments where the KS3 curriculum was organised so that the most exciting and generally engaging topics were taught in the period just prior to the option choice process. This was not always done explicitly for marketing purposes but could be related to practicalities such as the best time to organise fieldwork (PL-HoD), although the benefits were recognised. In this department the HoD also gave an exemplar lesson to every class, but emphasises students should make their choices carefully.

There were a variety of views about the value of fieldwork with some teachers selling geography through 'extra curriculum visit and project work' or telling students that there was a 'fieldtrip in YR10'. Another thought that 'fieldtrips (were) a big selling point but cannot always be delivered' and 'more opportunity to do fieldwork would help sell the subject'. One commented the school's 'location in a town, set in a rural area with superb physical geography and near a conurbation' made the teaching of geography easy. These comments demonstrate the diversity of teachers attitudes with some making the most of the opportunities and communicating their enthusiasm for the subject and others being more easily put off by potential (and actual) barriers.

The effect of geographical location was alluded to by one teacher in an inner city deprived school: 'we do not feel geography is valued highly enough by the local community, so we've often found parental support weak and pupil enthusiasm lacking'. This led to an erratic uptake for the subject over time which was 'not due to curriculum changes, staff changes or marketing changes so we can only guess that pupils act like sheep each year!'



This department however did find there were some motivated and interested students and that developing good relationships with them meant some took the subject at A-level.

It was suggested that some departments were strategic in encouraging students to take their subjects including starting GCSE coursework in year 9 while the attraction of a field trip to Berlin is used by History. Top-up activities were proposed as a way of raising one department profile.

Teachers had a variety of explanations but there was no clear pattern to their responses.

One teacher emphasised that they had high expectations and made the students work hard which was a motivator for some students but not others and contrasted with some other subjects. 'We make them work hard and think hard at KS3. Other subjects do not and teach 'fun' so students opt on a basis for laziness'. Five teachers commented that the subject was 'hard', with students seeing it as 'too difficult compared with history', 'involves too much work', has 'challenging coursework and too much to revise for the exams'. On the other hand three teachers commented that students think geography is 'an easy GCSE because the results are good' and there is a 'perception that it is easier than some other subjects in the option column'.

One teacher commented that students' 'perceptions of the usefulness of the subject can be low' and another suggested that parents influenced students' views. The reputation of the department tended to be mentioned when it was positive: 'the department has built up a good reputation, many students choose geography because they know they will be

successful (not necessarily aspiring for a grade C+)'. The department has 'good results' which are 'well publicised with GCSE (A\*-C grades) 86% in 2004' or where it had a reputation as an enjoyable subject.

In one highly academic school it was suggested there was an important role for teachers in communicating how geography is useful for a variety of different careers, because many students fail to recognise the transferrable skills that come from studying geography: 'what can I do with a geography degree? is a frequent question.' There are perceptions that the subject is hard compared to others. This can be overcome by imaginative teaching that makes it relevant to their lives.

The content and relevance of the subject was seen as being important: 'I push Geography in KS3 and 4' by telling them 'you 'could be saving the world in 20 years, building flood defences, promoting birth control in x country, reducing pollution levels or working in sea defences. If you study (geography) you could be the ones people really need...' Choosing a relevant syllabus was seen as important, along with introducing it during year 9. One teacher was concerned that the 'content can be very depressing if taught in wrong vein, for example negatively, (emphasising) overpopulation, earthquakes, LEDCs, global warming, we're all going to die syndrome'.

Motivating students was difficult in some low attaining schools: 'Pupils don't generally seem interested in the world around them and its associated environmental issues' although as an afterthought this teacher commented that there were a few who were

interested and motivated'. In contrast another school had 'a really good uptake for GCSE and usually from the 'better' pupils in school.' However retention was a problem as 'most of these then go on to other colleges so few are left to choose geography at A-level'.

Overall therefore while there were many opinions about why students chose to study the subject there was no single factor that would work in every situation. The student voice aspect of the research did not shed any new light on the reasons why fewer students are studying geography. Chapter 6 will discuss the findings of this research.

## CHAPTER 6 DISCUSSION OF FINDINGS

### 6.1 INTRODUCTION

This research set out to develop an informed understanding of the factors that have influenced change in entries for geography GCSE since 1988 focusing on the period 2003-2007. This was an issue of significance for the geography community because the downward trend in entries has consequences for the teaching of geography and the supply of geographers in schools, higher education and employment. The introduction of GCSE for first examination in 1988 and the passing of the Education Reform Act (1988) were important events because the former created a unified examination at age 16 for all students and the latter formalised the educational quasi-market and the move from a welfare to post-welfare approach to education policy.

The idea that governments can influence standards of education on a national or system-wide basis has been attractive because education is now seen to be in the service of an economy in which ideas and the manipulation of abstract symbol systems are deemed vital to competitiveness.

(Lauder, 2009, p.199)

What is emerging here is a new 'architecture of regulation'... It is a new method of state control – a controlled decontrol, the use of contracts, targets and performance monitoring to 'steer' from a distance, rather than the use of traditional bureaucracies and administrative systems to deliver or micro-manage policy systems such as education or health or social services.

(Ball, 2008, p.41)

The contested nature of education policies within England was beyond the scope of this research but trends in the policies themselves were important in understanding pressures

on schools to change their curriculum and the impact on the numbers of students studying geography.

Four policy 'themes' are discussed. Firstly the increased role of central government in influencing and controlling the school curriculum; secondly policies of choice, diversity, equity and meritocracy that influenced school type, and access to different curricula; thirdly the increased emphasis on top down performance management and fourthly attempts to strengthen the capability of schools and individuals to deliver better educational outcomes (Ball, 2008, p.102; Hopkins 2009).

This study adopted a mixed methods approach that utilised data derived from the NPD/PLASC database alongside questionnaires from 70 schools in three LAs and case studies of five schools in two LAs. This approach was chosen because it provided a richer more complex picture while remaining rooted in a scientific enquiring methodology (Smith, 2008). It enabled quantitative analysis of patterns and trends at different scales alongside more qualitative data about the processes operating at the systemic level within a school. The statistical evidence provided a framework within which the actions of students, teachers and senior management teams could be contextualised. The tension throughout the research was in reconciling the demands of analysing large pupil data sets over a number of years with the insights provided by conversations with students, teachers and senior managers at a school level. The data provided opportunity for several different studies and limiting the focus on the research questions rather than exploring all interesting potential avenues, was an issue. This investigation adopted a strategic

approach of studying the 'big picture' and providing an overview at different scales of analysis in different places and spaces (figure 2.2, p.12 ), rather than an in-depth study focusing on one scale or aspect of the process.

The research had two foci. The first analysed entry trends over time and where appropriate incorporated a geography of education approach where the concepts of place, space and scale were used to better understand patterns (Bradford, 1990; Taylor, 2007). The potential of cohort data collected about individual students (NPD/PLASC) was used to provide insights into the variations in entries for different categories of student and at different scales of analysis. This differed from previous speculation about the reasons for change which were largely derived from small scale case study, questionnaire samples or anecdotal evidence from individual schools and teachers. Examples included studies of the influence of policy on the curriculum in schools and the nature of the geography curriculum (Dowgill, 1997; Rawling, 2001; Stott et al, 1997; Westaway and Rawling, 2001); student perceptions of the subject (Adey and Biddulph, 2001; Biddulph and Adey, 2003; Hopwood, 2004, 2008; Weeden, 2005); type of school (Weeden, 2002); teacher 'expertise' (Brooks, 2010); and the influence of the media (Rawling, 2001; Anstey, 2005).

The second focus was at the school level where a conceptual 'model' (figure 2.6, p.83) was developed early in the research process derived from literature (Stables, 1996; Leithwood and Levin, 2005) and prior knowledge of the option process operating in schools. This heuristic model of option choice in the school context developed iteratively through

reading, analysis and discussion with teachers, school managers and geography teacher educators. The model conceptualised the option choice process as a complex system of interactions at the individual, department and management level within schools influenced by external factors such as government policy and community 'needs'. This model could be conceptualised as providing a managerial systemic view of schools where improving performance was the result of pulling the right levers (Hopkins, 2009; Lauder, 2009, p.200) or as a view of a school as an 'imagined' community located in a unique place that can only be truly comprehended by the actors within it (Stables, 2009). While patterns and trends at different scales were identified from the national data these were generalisations that obscured the diversity of schools located in particular 'places' and 'spaces'. 'Within group' variations between schools were large so a further intention was that the model would be a research framework that could be used by teachers, senior managers and interested observers to tell the 'story' of the option choice process in their school and the impact on entries for geography and other subjects. This has already proved possible (Niven, 2012).

The chapter starts by discussing wider contexts: **the impact of national policy on patterns of geography entry (section 6.1)**. The effect of increased central government control over the curriculum on geography entry trends will be analysed with particular attention to attainment, gender, ethnicity and social class. The analysis then considers how the diversity of **school types and their geographical distribution in England influenced geography entries (section 6.2)**. This focuses on the relationship between geography entries and spatial variations in deprivation, rurality, independent and selective schools.

The discussion then moves to the school level to consider decision making within schools. Three elements of the option model will be discussed here. **The creation of the KS4 curriculum in schools (section 6.3)** will be discussed by reference to the diverse responses of decision makers within schools to government policy and whether curriculum structures were created in response to educational or performance priorities. **The role of departments and teachers on students' choice of geography (section 6.4)** will combine two elements of the model to discuss how geography teachers can be a positive influence on entries in a competitive option 'market'. The impact of changes in staffing, subject 'status' and curriculum content will be discussed. Finally there will be a brief consideration of the agency that students exercise within school option choice structures.

## **6.2 THE IMPACT OF NATIONAL POLICY ON PATTERNS OF GEOGRAPHY**

### **ENTRY**

The declining numbers taking GCSE geography was of concern to the geography education community after 1996 when entries reached a peak of over 300 000. Numbers then fell most years so that despite geography's popularity at KS4 its position in the 'top ten' GCSE subjects was threatened and it was overtaken by other subjects. Geography's place in the hierarchy of subjects had always been a topic for debate but the changes from 1996 appeared to be taking place within a political landscape where many aspects of education had changed significantly.



Educational change:

1. took place within an overarching political shift from the 'welfarist' to the 'post-welfarist' state;
2. was part of broader strategies to reform public services which used a continuous series of small moves and the occasional major shift to enable change that may originally have seemed radical or even unthinkable (Ball, 2008, p.101);
3. was a 'shift from a relatively decentralised education system, to a centralised system, in which funding, teaching and curriculum were centrally controlled' (Tomlinson, 2005, p.1);
4. was based on the premise that better education services would be provided if schools were subject to market forces and policies that employed the technologies of choice, performance management and competition (Ball, 2008, p.13);
5. allowed the state to move from 'rowing to steering' and
6. altered the organisational form of schools from 'bureau-professionalism to entrepreneurial-managerialism' (Ball, 2008, p. 194).

It has been argued these changes prioritised the economic functions of education over the social to create a workforce equipped to meet the economic priorities of an increasingly global market place. This did not remove the commitment to inclusion and equality of opportunity, but responsibility for social justice shifted from the state to the individual or local institution. Support and challenge was given to 'feckless' families and 'failing schools' but there were penalties associated with non-compliance (Rawling, 2001, p.123; Tomlinson, 2005; Ball, 2008).

The following discussion will use the policy process model (figure 2.3, p.18) as a framework for analysis.

### **6.2.1 Centralised control and influence over curriculum and assessment**

Government began to more directly influence the curriculum from the early 1980s. This followed the 1970s debate about the idea 'that there should be a centrally determined common curriculum in all schools, as there is in most other countries' (Kelly, 2004, p.192). This had been prompted by the 'Great Debate' speech (Callaghan 1976) that signalled a significant change from the previous 'hands off' approach of government. It was also a consequence of the increasing need to widen participation in education and provide qualifications for all students at age 16 following the raising of the school leaving age in the mid-1970s.

This led to the second aspect of the debate – assessment at age 16, the compulsory school leaving age throughout the research period. The introduction of national criteria for examinations and the launch of the General Certificate of Secondary Education in 1986 rationalised a diverse locally administered national examination system and imposed national standards through the introduction of National Criteria and a single grading system. Although a unified examination the legacy of the previous two-tier system was retained with some examinations having differentiated papers. The National Curriculum proposed a separate assessment system with four different purposes (DES / WO, 1987), the most important of which for this research was the accountability function. This

purpose enabled government to monitor standards in schools by collecting data about all students throughout their school career.

### **6.2.2 The impact of a contested curriculum on geography entries**

The story of the introduction of the National Curriculum and its effect on GCSE geography numbers was of competing groups (the education state) seeking to influence policy in terms of both curriculum and assessment. Debates about the curriculum for 14-16 year olds firstly centred around whether students at age 14 were ready to specialise, thereby risking restricting opportunities later in their education or life or whether they should have a broad and balanced curriculum (Stables, 1996). A second debate was equity of access to the curriculum, should 'all pupils have access to a curriculum of similar breadth and balance irrespective of their level of ability, the school they attend or their social circumstances'? (DES, 1985). These debates might have been settled with the introduction of the National Curriculum between 1988 and 1991 (Great Britain, 1988), but the KS4 curriculum was contested during the influence and text production phases of its development (Daugherty, 1995; Stables, 1996; Rawling, 2001; Torrance, 2009).

Geography's high status as a compulsory subject within the NC at KS4 was short lived because immediately the debates about curriculum breadth, depth and choice re-emerged within schools as the National Curriculum was implemented. A common National Curriculum at KS4 providing breadth and depth was difficult to reconcile with historical beliefs about differentiated pathways that enabled students to achieve to the 'best of their ability' (Daugherty, 1995, Ball, 2008; Pring et al., 2009, p.3). By 1991 geography had

been made an alternate subject with history and in 1994 following the Dearing Review (1993) both subjects returned to optional status (Rawling, 2001, p.101-103). The rise and fall of entries between 1993 and 2000 for geography can be therefore largely be explained by some schools' implementation of the original National Curriculum requirements. From 1991 early implementing schools required students to choose either geography or history within a 'humanities' option block but from 1994 this structure began to be dismantled and many, but not all schools, moved the subjects back into more open option blocks with greater subject choice (SCAA, 1995). The removal from the 'core' of the National Curriculum was the single most important influence on geography entries in the period studied.

The debate about an appropriate curriculum was also linked to beliefs about 'ability'. Only 40 years ago there was an assumption that students were 'academic', 'technical' or 'non-academic' (Pring et al . 2009, p.3) and there is a persistent notion that ability is fixed, definable and measurable from an early age (Gillborn and Youdell, 2000, p.212). These beliefs have influenced decisions about the form of the curriculum in schools. Assessment debates relevant to this research focus on the use of GCSE grades for performance management. This was a central element of policy for all governments following the introduction of the national curriculum and the first publication of 'league tables' in the mid-1990s. Schools were 'encouraged' to raise achievement through the setting of minimum national school performance targets with serious consequences, including closure, if they were not met. There was a diverse response over time as some schools attempted to boost the schools performance by targeting qualifications to different

groups of students which often meant geography was not one of the choices for lower attaining students. These changes were performance and managerially driven rather than educational with senior managers acknowledging that they were 'gaming' the curriculum to boost the school's league table performance (Hanushek and Raymond, 2005, p.300; Torrance, 2010).

These curriculum changes were facilitated by the belief in meritocracy promoted by New Labour. Tony Blair was in favour of ability grouping in schools (Ball, 2008, p. 181). The policy outcome was that New Labour's approach to 'social justice' tackled entrenched patterns of underachievement and 'failing schools' through targeted funding and differentiated curricula.

The principle which runs through New Labour's vision of equality, especially in relation to education policy but also more generally within the third way, is that of opportunity, removing barriers and providing possibilities for those with energy and talent rather than universal provision.

(Ball, 2008, p.181).

This statement suggested that there should be diverse curricula for students of different abilities and led to the promotion of three educational routes the academic, vocational and occupational, formalised by the development of the National Qualifications Framework that attempted to identify equivalences between qualifications. This formalised the historical class based tripartite division but justified it because it was 'differentiation by ability'.

The outcome for the geography education community is that once again the subject must find its place within the contested KS4 curriculum (Walford, 2000; Rawling, 2001; Lambert and Morgan, 2010). Where does geography position itself within these curriculum and assessment debates? To better inform this debate the next section will consider the evidence about the continuities and changes in the cohort that studied GCSE geography during the research period.

### **6.2.3 Patterns of Geography Entries**

This section will discuss the geography entry patterns found within the context of the wider literature and will make comparisons with entry patterns for other subjects. The NPD data by itself did not provide definitive answers about the reasons for student choices but did allow speculation about possible influences on geography entries.

Reference will be made to the policy process model and geographical factors. Geography entries fell by 45000 between 1996 and 1999, were relatively stable between 1999 and 2001, but then fell again on average by about 6500 students per year between 2001 and 2010. This is less than 1.5 students per secondary school each year. Entries in 2010 were down by 35.6% compared with the 1996 entry.

#### **6.2.3.1 Overall attainment and geography entries**

The profile of geography entries was weighted towards higher attainers within the national performance profile. Using a segregation ratio entries in 2003 were 34% over-represented in the top quartile of students and 45% under-represented in the bottom quartile. This entry pattern was similar to 1984 and 1997 (Bell, 2001, p. 215) where high

attainers were more likely to study geography. This pattern became more pronounced between 2003 and 2007 with more entries from the top quartile (12% increase) and less from the bottom quartile (12% decrease).

Geography and history had similarities in entry patterns based on student performance but there were also subtle differences in the profile of attainment (table 4.4, p.162).

Geography students were slightly lower attainers overall than historians but there was a shift in the profile between 2003 and 2007. The entry profile for history stayed much the same between 2003 and 2007 while geography lost more from the lower quartiles and gained entries in the top quartile.

Historically geography entries for GCSE were always higher than history but the pattern was reversed in 2004 and since then there has been differential growth for history. It appears that the cohort profile has changed over time because pre-GCSE there was a broader range of ability for both subjects (Bell, 2001). The (relative) loss of entries for both subjects in the two lowest quartiles between 2003 and 2007 suggested there was competition from other subjects for students in these groups. This pattern replicated a trend previously noted between 1984 and 1997 with greater losses amongst the lowest attainers (Bell, 2001, p.216). Potential subjects to switch to between 2003 and 2007 were vocational qualifications such as leisure and tourism and ICT and 'new' subjects such as media studies and PE. These latter subjects had different entry profiles from geography and history in 2007 with most of their entries concentrated in the middle two quartiles (61% for both subjects) and about 20% in both the top and bottom quartiles.

Extrapolating from these trends it was possible to speculate that the entry profile for geography and history had traditionally been subtly differentiated (figure 4.4, p.162). In the early 1990s when students had to choose between the subjects geography was possibly more popular with lower attaining students because of its utilitarian and vocational emphasis (Rawling, 2001) and because it required less extended writing in the examination. It has been suggested that the more even profile of history entries in the 2000s compared to geography may have been the result of its higher profile in the media through the heritage industry and television programmes (Rawling, 2001; Anstey, 2005). It has also been suggested that the structure of the geography and history GCSE examinations was important (RGS, 2000). Policy in the late 1990s required GCSE examinations to adopt common examination frameworks. History opted for common papers for all students and more open ended questions whereas geography had tiered papers and more structured questions. In a recent comparative study of 'standards' history GCSE papers were judged 'harder' but narrower in content and more predictable (QCA, 2008b) so it may be that some schools and departments 'promoted' history as a more accessible subject in which it was easier to get a 'good' grade.

These findings show that geography has lost an important section of its GCSE cohort and is increasingly becoming a subject for high attainers. Traditionally the geography education community tried to make the subject accessible to all students (Avery Hill project, Pilot GCSE). Are there changes to the GCSE curriculum that can make the subject more



accessible and marketable within option choice systems? Can this debate go beyond performance and re-engage with educational purposes?

#### **6.2.3.2 Gender and geography entries**

Gender appeared to have little influence on entries. Geography was always slightly more popular with boys than girls and the ratio stayed remarkably similar over time although the published data about gender before 2000 was limited. The national ratio of 44% girls to 56% boys that was the pattern between 2000-2010 mirrors the 43% : 57% found in a sample of 90 schools in 1981; the 46% : 54% found by HMI in 1973 before the passing of the Sex Discrimination Act (Pratt et al. 1984, p.33); the 44% : 56% (1984) (APU survey); and 45% : 55% (1997) (NPD) found by Bell (2001, p.214). This pattern reflects the fact that geography effectively remained an optional subject at KS4 throughout this period despite the introduction of the National Curriculum.

Changes occurred in the performance profile with girls outperforming boys in geography by 6-7% in 2003 and this had slightly increased by 2007. The outcome was more girls taking geography in the top quartile in both 2003 and 2007, despite the lower overall girls' entry. This contrasted with the 1980 exam results where entries for level 1 and level 2 qualifications more closely matched the gender share of the entry. This apparent shift in performance may be misleading because there is evidence that girls always outperformed boys post-war in most subjects but were restricted in their choices by beliefs about appropriate curricula (Pratt et al, 1984; Tomlinson, 2005, p.194-196). The overall gender achievement gap widened post 1987 when the GCSE was introduced along with

examination changes such as increased coursework and an expectation that more students gain qualifications (Arnot et al, 1998, quoted in Tomlinson, 2005, p.196).

Entry losses for geography between 2003 and 2007 were greater for boys, the result of the larger losses from lower attainers. The relative imbalance in performance between the genders was smaller than the difference between the performance of the highest and lowest attainers within each gender which supported the assertion that 'the gender gap is considerably smaller than the inequalities of attainment associated with ethnic origin and social class background' (Gillborn and Mirza, 2000, p.23 in Ball, 2008, p161).

This entry pattern contrasts with history where entries by gender were more evenly balanced (Bell, 2001; Davies et. al, 2008) and raises the question why the pattern has not significantly changed over time, given the introduction of equality legislation and changing attitudes. What is it about the curriculum, assessment or pedagogy of geography that appeals more to boys than girls? Debates about whose geography is represented in the curriculum are relevant here and whether the school geography curriculum is still too dominated by male, middle class, white perspectives (Lambert and Morgan, 2010).

#### **6.2.3.3 Ethnicity and geography entries**

There was little prior information about entries for geography by ethnic group. This study only investigated patterns in a limited way at the national scale so there is scope for further research. Geography had more entries from Indian and Chinese ethnic groups but fewer from African, Caribbean, Pakistani, Bangladeshi and mixed race ethnic groups.

Changes in the pattern of geography entries by ethnicity between 2003 and 2007 were small suggesting that the patterns identified were again relatively consistent over time.

The pattern of geography entries by ethnicity was also probably more dependent on attainment than ethnicity. It was likely that low entries for geography were linked to over-representation of some ethnic minorities in low attaining groups. Other research on ethnicity suggested that Indian and Chinese students were 'model' minorities who performed as well as or better than white students. Research from the early 1990s in Birmingham showed that the proportion of Indian and Chinese students achieving 5+ level qualifications was comparable to white students while the other ethnic groups had much lower pass rates (Gillborn and Youdell, 2000, p.38). One study in an independent school found that students from an Indian background could study geography to GCSE but were encouraged to take mathematics and science subjects at A-level because parental aspirations were steering them towards careers in medicine and law (Turner, 2009).

Previous research had also found that the lowest overall performers were Black Caribbean and White-Black Caribbean students but girls in these groups were increasing their achievement faster than boys (Ball, 2008, p.165). Therefore it was likely that low geography entries from some ethnic minorities were related to historic patterns of underachievement, exclusion and labelling (Mirza, 2005b p.117 quoted in Ball, 2008, p.167) because decision making and selection processes worked against the interests of black pupils (Gillborn and Youdell, 2000).

The geographical concentration of ethnic minorities in urban areas of higher deprivation with more 'low performing' schools supported this thesis because overall the entries from these schools were lower. The reasons for this low geography entry were unlikely to be directly linked to ethnicity. It is much more likely that there was a complex interaction of factors operating in individual schools. For example in one case study school where over 90% of students were from ethnic minorities geography was a moderately successful subject within a limited option system but entries increased significantly when a popular new Head of Department was appointed.

#### **6.2.3.4 Social Class and geography entries**

The relationship between geography entries and social class was more difficult to investigate because social class was not categorised within the NPD. Other studies using the Yellis data set were able to more directly determine social class effects from the wider range of personal data available (Davies et al. 2008). The literature suggested there was a well-established relationship between social class and deprivation so some inferences were made assuming that deprivation was a partial proxy for social class (Ennals, 2004, quoted in Ball, 2008, p.173-5).

This study used the IDACI index as a proxy for social class and found that LAs with higher deprivation tended to have lower geography entries. These were mostly located in urban areas especially in the industrial cities of the North and North West and inner city London. There were also a few southern cities (Bristol, Portsmouth, Brighton and Reading). This spatial pattern was unsurprising since Davies et al. (2008, p.246) had found working-class

students were more likely to enter for examinations in 'easier' subjects and geography entries decreased when relative deprivation increased (Davies et al. 2008, p. 246). The research did not investigate whether this link was the result of structure (not being allowed to study geography) or student agency (choosing to study other subjects).

### **6.3 SCHOOL TYPES, THEIR GEOGRAPHICAL DISTRIBUTION AND GEOGRAPHY ENTRIES**

England has a complex often confusing system of secondary schools that has been frequently altered in a piecemeal fashion. Since the 1980s increased school diversity was an underpinning principle of policy following the logic of the quasi-market introduced by the Education Reform Act. Over the period of this study there were nearly 4000 mainstream secondary schools and a variety of different ways of classifying them. There was diversity in school governance, funding, gender, ethnicity, faith, range of student attainment, location and subject specialism. The result was that each school reflected the unique combination of these factors and there was no such thing as a 'bog-standard' comprehensive (Campbell quoted in Ball, 2008, p.95).

#### **6.3.1. School type – governance and spread of attainment (Newsam categorisation)**

The government categorisation of mainstream secondary schools used in many of their data tables hides much of this diversity because it focuses on governance (table 4.14, p.183). This was a poor predictor of entries for geography. The difference between mean geography entries for the four main types of maintained schools (Community, Foundation, Voluntary Aided and Voluntary Controlled) were relatively small (31-35% in 2003; 26-29%

in 2007) and the changes over time were similar – a drop of 1-4% (table 6.2). The exception was independent schools with a much higher than average entry (48%). Change in the two other school types (CTCs and Academies) was difficult to generalise because of the small number of schools.

The student cohort profile within a school was a better predictor of geography entries than governance because as previously discussed there were more entries from higher attainers. The cohort profile of a school is rarely discussed when comparisons are made between schools but in terms of geography entries was important. For example independent schools had high geography entries and the majority of their cohort was in the top quartile of performance nationally while community schools had lower geography entries and more students in lower performance quartiles.

Changes in entries were therefore partly the result of the quasi-market approach and top down performance management strategies used by successive governments. Segregation of school cohorts followed from structural change such as closing or rebranding ‘failing’ schools or creating new types of schools. Accountability measures, such as the publication of league tables and inspection reports, made it easier for parents to compare schools and express preferences. In some ‘successful’ schools the change in geography entry was small between 2003 and 2007 probably because there was little need for curriculum change. At the start of the study it had been hypothesised that Faith schools had a more ‘traditional’ approach to curriculum and therefore change would be less. However Faith schools with ‘secondary modern’ intakes still had falls in entries comparable to other ‘secondary

moderns' because these schools, irrespective of governance, were under the greatest pressure to establish new curricula to raise performance.

It has been suggested that New Labour's desire

to ensure privileges for the middle and aspirant classes, ensured that familial self-interest and the scramble for 'good' schools continued. School education continued to be a divisive rather than cohesive force.

(Tomlinson, 2005, p.114)

The result was a policy of school diversity and prioritising schools that had high performance outcomes. There was a tension between having high expectations of all children and recognising the geographic realities of segregation and diversity. The evidence that segregation both within and between schools disadvantaged certain groups of children appeared to be less important than the desires of middle class and aspirant parents for their children to be educated in 'successful' schools (Ball, 2008). The pattern of geography entries replicated fundamental questions about students' access to schooling and the type of schooling they received (Young 2009, p. 12-13). Strategic parental decisions about residential location influenced access to schools and 'meritocracy' influenced the curriculum available through decisions about streaming, banding and pathways.

Schools with low attaining cohorts were under more pressure to change their curriculum and potentially restrict opportunities for students to study geography. One effect of performance measures on geography entries was to widen the gap between high and low

performing schools. This had a spatial element because 'comprehensive' schools were more frequently found in rural areas and the most segregated schools in urban areas where there was increased choice and less reliance on relatively fixed catchment areas (Newsam, 2003, Brighouse, 2003). This evidence suggests that New Labour policies of meritocracy reduced opportunities to study geography for some students, because the concentration of low attainers in some urban schools encouraged the introduction of alternative qualifications that replaced geography.

### **6.3.2 Patterns of subject entry at the regional / Local Authority scale**

The research demonstrated by extrapolation from the three case study LAs that there was a hierarchy of schools assembled in a piecemeal fashion around the country that reflected the historical class structure (Tomlinson, 2005, p.103-4) and persistent segregation of schooling (Cheshire, 2007; Coldron et al 2010). The spatial patterns of entry for geography broadly reflected the relative attainment profile of the student cohort in each local authority. In general rural and suburban LAs that were 'less deprived' on the IDACI register had higher geography entries than urban LAs with higher levels of deprivation. As discussed above the overall entry profile for geography was weighted to higher attainers and this trend increased over time. Differentials between LAs were large with the highest LA geography entry (47.0%) three times more than the lowest (16.0%) in 2003. This ratio had grown by 2007 (41.9%:11.5%) although the actual decrease was about the same (5.1%:4.5%).



Within LAs there were also large disparities in geography entries from apparently similar schools emphasising the importance of recognising local factors such as the socio-economic characteristics of the students, competition from neighbouring schools and internal factors that will be discussed in sections 6.3 and 6.4. There was little clear evidence of the diversity in entries being the result of location and this would be worth investigating further. There was however some evidence from the case study schools that school choice policies were reducing neighbourhood influences as middle class students exited 'poor' schools and boosted the overall performance of their chosen school. It has been suggested that this effect is larger in London where movement out of poorly performing LAs is large and the cream skimming effect of independent schools is greater because there are more of them (Bradford, 1990; Butler and Hamnett, 2007). Bristol LA also demonstrated this effect because although only 20% of students were educated in independent schools they represented 41% of the entries for geography in 2007. The maintained sector, effectively 'creamed' of many high attainers, had a lower than average geography entry. It was not investigated how many of the students in independent schools were local residents.

There was evidence that local 'cultures' and 'contexts' were important despite the introduction of the National Curriculum. Leicestershire for example had low entries for geography (and history) despite being a less deprived area. Historically alternative versions of the curriculum were promoted within Leicestershire by the LA with humanities taught rather than separate subjects. This tradition apparently persisted despite the move in most other LAs to single subjects following the introduction of the National Curriculum

(Daugherty, 1995; Rawling, 2001). This illustrated how schools with strong traditions and beliefs were able to use the choice and diversity policies of successive governments to retain continuity.

The three case study LAs had relatively high entries for geography. In all three, the advisory service was still providing some support for geography and there were strong teacher networks, something that became less common over time as the role of LAs diminished. Teachers commented that the support available encouraged them to maintain the subject.

History had similar national spatial patterns of entry to geography but the growth subjects of RS and media studies were more concentrated in deprived urban areas suggesting that the curriculum in these areas was changing. The greater concentration of ethnic minorities in urban areas might have influenced the numbers opting for RS since this was a popular option with most ethnic minority groups. This could be the result of the government's policy of promoting RS following 2002 or changes within the RS curriculum that made it more attractive to ethnic minority students.

The 'geography' of grammar schools provided some interesting patterns and would be worth further investigation. They were the legacy of the tripartite school division of the post war era and although this created a hierarchical and largely class divided education system they were heralded because they allowed gifted working class children to succeed. Geographically the 164 remaining grammar schools were unevenly spread, being

concentrated in the south and midlands, mostly in less deprived LAs. Nationally geography entries were higher in grammar schools but this did not result in higher than average geography entries for all LAs with grammar schools. The social impact of cream skinning would be worth investigating further. In the two case study LAs with grammar schools segregation of students between schools was greater than in the rural county without grammar schools. Entries for geography were on average higher in grammar schools in these LAs and the case study grammar school reported there was no demand from parents for the introduction of vocational qualifications so there was little pressure to change the curriculum.

In contrast the use of performance measures (Hopkins, 2010, p.202) to judge schools became important for the poorly performing schools in City who changed their curriculum to boost their performance. The political debate shifted from focusing on structural and socio-economic differences associated with neighbourhood deprivation to emphasising the deficits of 'failing' schools (Ball, 2008). When it was realised that schools were 'gaming' their curriculum by introducing higher scoring vocational qualifications, new performance measures were introduced (5+ level 2, including English and Maths). The debate in most 'failing' schools was less about the educational appropriateness of the curriculum for the students and more about performativity (Torrance, 2010). This focus on performativity spread to all schools later in the research period as even relatively successful schools could be judged to be under-performing if students did not perform as predicted.

Finally spatial patterns at the LA level provided an insight into patterns of entry for geography that were difficult to obtain prior to access to the NPD. This demonstrated the potential of the NPD for research that provides 'objective' if sometimes limited data that can be supplemented by local knowledge or more focused case studies.

#### **6.4 THE CREATION OF THE KS4 CURRICULUM IN SCHOOLS.**

The curriculum debates discussed earlier were also important in schools where decisions were made about the implementation of the KS4 Curriculum. The National Curriculum introduced in the early 1990s ostensibly created a curriculum for all students in maintained schools. However this idea was contested because this could be interpreted either as having a 'common curriculum' or as many authors and policy makers have suggested to mean that not everyone would study the same subjects or even similar content at KS4.

There is no logical connection, however, between the idea of education for all and that of a common curriculum, nor do the demands for educational equality imply that all must have the same educational diet.

(Kelly, 2004, p.196)

This was immediately made clear by the fact that independent schools and CTCs were not required to follow the national curriculum. Choice and diversity were therefore important policy themes that affected entries for geography. Schools could choose from a varied menu of available qualifications. Students at age 14-16 could take GCSEs in over 50 different subjects, (Ofqual, 2009), Diplomas (14), international GCSEs (iGCSEs), Vocational

Qualifications (where there are over 3000 offered by different organisations usually related to specific occupations), Functional Skills, Key Skills and Skills for Life.

Geography GCSE during the research period was also not a single entity. Instead there were eight different GCSE specifications examined at three different levels: entry level, foundation tier (effectively level 1) and higher tier (level 2). This meant that students could study one of eight different conceptions of geography subject knowledge that were adapted to meet the perceived needs of the particular group of students. On top of this although specifications outlined the scope of the subject and the way it was assessed, teachers made decisions about specific content and pedagogy (Young, 2009: 15). This diversity was a recurring issue for geography. Was the subject an elite academic subject merely preparing students for higher education or did it have relevance for all students, including the lower attaining, socially deprived and disenchanted (Hall, 1976, p.167)? Did geography enable all students to engage with their community and transform it (Lambert and Morgan, 2010, p.36;) or was it limited by others' perceptions of an appropriate curriculum that perpetuated social segregation and limited equality of opportunity?

In addition to making choices about the subjects to teach at KS4 schools were also faced with the challenge of New Labour policies and top down guidance that promoted pedagogical strategies because of their belief that educational standards would be raised through central prescription of teaching methods that improved professional standards (Ball, 2008, p.102; Hopkins, 2010). They were prepared to downgrade 'academic' subjects such as geography, history and modern foreign languages in favour of vocational

qualifications and approaches such as learning to learn and opening minds (Lambert and Morgan, 2010). Schools implemented these policies and initiatives in diverse ways.

#### **6.4.1 Policy and the implementation of the KS4 curriculum in schools**

Despite the array of possible qualifications available to schools in reality curriculum choice within an individual school was more limited. The ten 'subjects' of the National Curriculum dominated but at age 14 schools typically also offered some qualifications from outside the National Curriculum. Most schools offered students qualifications in between 22 and 25 different subjects. Individual students studied on average nine or ten 'GCSE or equivalent qualifications' but a few took many more. This number was distorted because some qualifications were counted as double (science and some vocational qualifications) or even quadruple in GCSE equivalent 'value' as the result of government policy assigning them additional value. The ways that this curriculum was organised was also increasingly influenced from the centre by guidance on curriculum models (for example SCAA 1995, QCA, 1998) and the use of education to promote 'better citizens' by New Labour.

The curriculum available to students at KS4 was influenced by decisions about option systems made by school leadership teams. The research compared these curricula through analysing the entry data for all five case study schools and discussing structures with both the curriculum senior managers and geography Heads of Department. In all the schools the curriculum at KS4 consisted of three different categories of subjects that had variable status. The 'core' subjects that all students follow, an 'extended core' that varied over time and optional subjects that varied between and within schools over time.

In many schools the curriculum became broader, more differentiated and opportunities to study geography for some students were more limited. The use of sets, tracks, bands and pathways became more prevalent over time with students' ability being categorised at a relatively early age. In four of the case study schools this meant that low attaining students were not given the opportunity to study geography.

The option choice model (figure 2.6) outlines some of the factors that influenced school decisions about their KS4 curriculum they provided and the impact of these decisions on geography entries. Three aspects will be discussed here - the influence of changing government policy, the school location / catchment and the popularity of the school.

#### **6.4.2 The influence of changing government policy on decisions about the KS4 curriculum**

In most schools continuity of structures from one year to the next was the dominant theme and in many ways it appeared that there had been little curriculum change since the 1960s. This research also found that some aspects of decision making about the curriculum had changed little since 1982 (Bardell, 1982 quoted in Stables, 1996, p.25). A small number of senior school managers made decisions about the structure of the curriculum at KS4 based upon school priorities and the available resources, especially staffing, accommodation, timetabling and examinations. The KS4 curriculum in most schools was largely composed of traditional 'subjects', although between 2003 and 2007 this altered as 'new' subjects, especially vocational and key skills qualifications were added. Reasons for including new subjects or altering the curriculum were largely

economic, strategic or in response to government policies and initiatives and there was evidence that much of this activity was increasingly driven by targets and performance management.

The National Curriculum was a dominant feature of the KS4 curriculum in all schools. The core subjects of English, mathematics and science could take over 50% of curriculum time at KS4 and this continued the curriculum pattern that existed throughout the second half of the 20<sup>th</sup> century (Stables, 1996, p.21). There was however a shift of emphasis under New Labour through the introduction of the literacy and numeracy strategies and the inclusion of English and mathematics in one of the KS4 key performance measures after 2004. The effect on geography entries of changes to the core subjects was probably limited although students predicted to be at the C/D borderline might have additional lessons and lose one option choice as a result.

The increased importance of the third core subject 'science' was almost certainly detrimental to geography entries. The requirement that all students study science was present throughout the research period and therefore had little impact but more recent policies that highlighted the need for students with science, technology, engineering and mathematics (STEM) skills to maintain the competitive economic future of the country led to more high attainers (the elite of the future) studying all three sciences in preparation for A-level and further education (Smith, 2010). Before 2007 this option was largely the outcome of student choice but increasingly after that time the triple science option was expected of all top set students in high achieving or aspirant schools. Science specialist



schools were amongst the first to encourage students to take three sciences but it became increasingly common in high performing schools with a potential negative impact on geography entries because of loss of curriculum time and potential overlaps with subject content.

Successive governments struggled to fit their desired curriculum priorities into a limited time frame at KS4 (Stables, 1996, p.20). Changing policy to introduce new initiatives could have important effects on the curriculum in schools. In 2002 New Labour prioritised a different curriculum vision. They removed the requirement to study MFL and DT, introduced Citizenship and developed vocational qualifications. The fall in the numbers taking MFL and DT in subsequent years was enormous and the effect was greatest in schools with 'secondary modern' intakes. In one case study school no students were entered for a language after 2006. It might have been expected that numbers for geography would rise but the impact in the case study schools was limited. High attainers, the group increasingly studying geography, continued to study MFL and low attainers were encouraged to take vocational qualifications that produced higher performance scores.

Religious Studies also saw a large growth in entries after 2002 coinciding with New Labour's policy changes. The requirement that all students study RS to 16 had been in existence since 1944 but was re-emphasised and appeared to be interpreted by some, especially Faith, schools, as meaning students should take an examination in RS. In three of the case study schools all students were required to take a Religious Studies

examination. These decisions made in response to government policy initiatives could potentially have an effect on GCSE geography entries because compulsory RS reduced option spaces.

All the schools studied had a 'core plus options' strategy for the KS4 curriculum. Within the three LAs studied and five case study schools there was considerable diversity in the options available so that there were over 100 different qualifications offered by the 135 schools. These findings support the research carried out by Stables (1996) where he found that 'choice' was variable and that schools made diverse decisions about the amount of choice within the option system. Many teachers perceived that there was increased competition within the KS4 curriculum as schools changed the curriculum. Threats mentioned were loss of curriculum time or space for optional subjects because of the expansion of the 'core' curriculum or prioritising of subjects linked to a school's specialist status. There were also reports of increased competition from subjects such as PE, drama, media studies and a range of vocational courses. The finding that beyond the common core of the National Curriculum requirements there were so many different qualifications offered reflects continuation of previous practice (Stables, 1996) and suggested schools were using the freedoms of local decision making to pursue local goals with the national framework.

The two case study schools with cohorts from more deprived backgrounds demonstrated local priorities. In both cases geography numbers were relatively low. In one school this was the result of the large core of subjects so geography was competing against several

different subjects in a very small option system (two choices). In the other school students were allocated to pathways based on prior performance. Students in the two lowest pathways were not allowed to study geography.

This research found that debates about the educational value of different curricula, whether students should have a broad and balanced curriculum, whether there should be pathways for different groups of students (Stables, 1996) appeared to be occurring less in the school context and more at national policy level as competing groups (see for example Pring et al, 2009) attempted to influence government ministers. Schools appeared to make curriculum decisions based more upon financial rewards or performance outcomes.

Gaining specialist status with its associated financial rewards changed school priorities and in some schools reduced the number of option slots available to geography. Specialist status often built upon pre-existing strong departments and staff strengths so could prioritise subject areas that were already relatively 'privileged'. The humanities specialism (2004) was created later than technology (1994), languages (1995), arts and sport (1996), business and enterprise, engineering, mathematics and computing, science, (2001) so had a lower profile and fewer schools. Schools applied for specialist status at different times so the effect was incremental but by the time of the closure of the programme in 2010 90% of schools had at least one specialism. The introduction of specialist status often extended the core curriculum because an option block was introduced that prioritised the specialist subject(s). For example the two case study technology colleges required all students to do a technology subject and/or an ICT qualification. The humanities specialist case study

school had large numbers taking both history and geography because students had to choose at least one of them. However because this was a selective school it was already more likely that students would choose these subjects.

Schools were also increasingly driven by performance measures both internally and externally. Internally subjects were held accountable for results and judged both against other departments and national performance. Teachers and senior management often carefully examined the data to compare actual with predicted outcomes. There were differing views about the value of this in raising standards, but several teachers felt it focused their attention better on individual students. Externally Ofsted judgements about schools increasingly relied on performance data and league tables informed parents about 'good' and 'bad schools'. The reliance on performance data to judge schools was a direct consequence of government policy that introduced 'league tables' in 1992 and continued to use relatively simplistic performance data in an attempt to raise standards, despite the evidence that the effects were more limited after a few years (Hopkins, 2009; Torrance, 2009). New Labour introduced contextual value added data to make performance data reflect local socio-economic conditions better but the complexity of the statistics and queries about reliability (Gorard, 2009a; Leckie and Goldstein, 2009) restricted its usefulness. One impact of this detailed internal performance analysis could be that students were more carefully guided towards certain subjects that would boost the school's performance score. If geography was perceived by senior management or students as being a harder subject then numbers might fall.

### **6.4.3 Option structures and geography entries**

The internal market of the 'options system' therefore involved a variable number of 'subjects' arranged in different combinations dependent on decisions usually made by a limited group of senior managers. The choices offered were influenced by decisions about curriculum priorities that arose from staff strengths and the perceived needs of the student intake. The student intake was partially influenced by socio-economic factors arising from the location of the school, but direct place based links to neighbourhood were often limited as the result of the school choice agenda pursued by successive governments. Only one of the five case study schools drew most of its students from its immediate neighbourhood. The grammar school selected students from all over the surrounding region based on ability; the girls' city school attracted students with a largely muslim background from a wide area of the inner city; one small town school had a wide rural hinterland but also attracted students from a neighbouring city where middle class parents were opting to exit from 'undesirable schools' (Butler and Hamnett, 2007); and one suburban school in a working class social housing neighbourhood was undersubscribed and allocated students from inner city areas where there were limited school places. The only 'neighbourhood' school was in a county town, where there were five other competing secondary schools.

The number of students choosing geography has always been dependent on the quasi-market of the option choice system. The effect of changes to subject groupings or the number of teaching groups was important but in most years and schools change was limited, fluctuating up or down around approximately the same number of students or

groups. The diversity of entries from comparable schools was therefore partly due to option choice structures with schools operating a range of option choice systems that opened up or closed down particular choices. The popularity of geography depended on the other subjects they were competing against as has been well known for many years (Stables, 1996). Policy changes and the increased use of data influenced the structure of option systems as subjects were removed, included and prioritised in response to government policy or performance outcomes. Some schools appeared to be faster responders, often as the result of pressure to change from failure to meet minimum targets. Staffing and timetabling were also important constraints with options failing to run if there were insufficient numbers and limits being placed on numbers or groups in some schools.

## **6.5. THE ROLE OF DEPARTMENT AND TEACHERS ON STUDENTS' CHOICE OF GEOGRAPHY**

The research suggested that option choice structures were sometimes less important than departments and teachers. This section will consider the importance of teachers and students' responses to them.

### **6.5.1 Teachers**

Teachers have a 'make or break role in any curriculum innovation' (Kelly, 2004, p.9).

Despite the prescription of content within the original NC document and New Labour's attempts to prescribe pedagogy through the use of the 'strategies' teaching cannot be a 'mechanical largely mindless activity; it requires constant decisions and judgements by the

teacher' (Kelly, 2004, p.9). Expert teachers refer 'to their subject expertise as the guiding principle that enables them to work with or around policies and initiatives' (Brooks, 2010, p.247). Teachers therefore have a crucial role in the implementation of any policy or strategy because their actions can increase student' engagement and motivation.

Teachers in the questionnaire reported that good teachers and departments influenced students' perceptions of geography (or any other subject) through their teaching and the activities undertaken. There was substantial reported evidence that good management, inspiring teachers and 'selling' the value of the subject all influenced student choice. These terms left many unanswered questions. What was good management and was it possible to identify it through questionnaires or interviews? In reality the main evidence was the response of students who chose to study the subject.

The research found that entries for geography increased or decreased significantly when teachers changed. All five case study schools appointed new Heads of Department during the time period of the study. They were all in their first ten years of teaching and were enthusiastic, dynamic subject leaders who introduced new pedagogies and changed subject content to varying degrees. In three case study schools increased numbers were spectacular. In one school year 9 pupils overwhelmingly reported geography as interesting with varied activities while year 10, taught by the previous subject leader, said it was boring because it was all worksheets. The converse was also true. In three of these schools numbers fell when a well-respected Head of Department left although sometimes the dip was only temporary until a new appointment was made.

Staff turnover was an important factor and the reasons for changes were significant. In two schools the move was the result of promotion, one internal and one external. The internal promotion was a teacher in her fourth year of teaching, who had become HoD at the end of her first year of teaching. This teacher was outstanding, with very high expectations of students in a school where general expectations were low. She was prepared to give additional time outside of the school hours but these talents were quickly recognised by senior management as being of value in the wider school context so she was moved away from the geography department into a broader school managerial role. The result for the department was that there was an overall loss of energy and although she continued to have an input into geography teaching and the department remained 'strong' in the school context it lost the initial high impact and numbers fell again.

In another school the outstanding HoD had a period of absence on maternity leave and numbers fell as many students opted for history instead. On her return the following year numbers rose to their previous level. When she took a second maternity leave and resigned from her HoD role she was replaced by a new HoD who lacked her inspirational organisational and pedagogical skills. The result was another fall in numbers. There was some relief within the department when the new HoD resigned after a year.

Teacher effects were not confined to the HoD. There was evidence from at least one of the case study schools of differential uptake dependent on the teacher. In a department of three or four the staff who taught KS3 classes had a significant effect on student choice and often resulted in difficult choices for subject leaders about staff deployment. If there



were increased numbers at KS4 that had to be taught by subject specialists this might mean that there were fewer specialist staff to teach at KS3 and so non-specialists would be deployed. An additional factor in many departments was the dissipation of expertise because of other responsibilities within school. Senior members of staff were usually good geography teachers but less able to devote time to developing student interest in geography.

Investigating the impact of subject content and pedagogy was an early ambition of this study but the difficulties of collecting significant data alongside the quantity of national entry data meant that this aspect of the original research design was only carried out in limited ways. Teachers reported that students needed to regard the curriculum and pedagogy positively but there was no single 'correct' version of this. For example in one inner city school this meant creating a secure learning environment, in a suburban grammar school it meant challenging students to think more deeply and develop a much deeper understanding.

Attempts to collect data about pedagogy through questionnaires and interviews quickly demonstrated that this was an inappropriate methodology. The use of a semantic difference scale that tried to capture teachers' attitudes to six different ideologies (Rawling, 2001, p.32) was also unsuccessful. A self-report of types of lesson and their frequency of use also provided little useful evidence. The conclusion was that a methodology focused more on classroom observation might have provided more meaningful data. This however was not feasible and the attempt to identify whether there

was a link between GCSE entries and the teaching of specific content or the use of particular pedagogies was abandoned.

What the limited research in this area did show was the importance of 'effective' teachers in promoting a subject. The content of the course appeared less important in influencing student choice than the ability of the teacher to make the subject interesting and relevant to students.

#### **6.5.2 Why do students choose to study geography?**

Students reported that they were more likely to study the subject if it was interesting enjoyable and fun which replicated previous research in this area (Stables, 1996; Biddulph and Adey, 2003, 2004; Hopwood, 2004). Student questionnaire and interview responses were very consistent in suggesting that interest in the subject and the activities undertaken were important factors in making their choices.

The structure of the option choice system and student's capacity to make rational informed choices emerged as important themes when making option choices. Students needed to like the subject, see its relevance and be allowed to study it. There were differing perceptions of its difficulty relative to history, especially as coursework and examination regulations changed. However it was difficult to know whether student's perceptions of relative difficulty were real, hearsay or the result of good marketing by some subjects. Some students thought it was hard compared to history: involved too much work, had challenging coursework and too much to revise; Other students thought it

was 'easy because the results are good'. Fieldwork was seen as a selling point for some but off putting for others. The extent to which choices were rational and informed was not investigated further.

Marketing was variable between schools. In some schools it was on-going within the whole of KS3 through the use of displays and signalling the usefulness of the subject. The relative status of the subject within the school was important, and could be both a positive and negative factor dependent on its position compared with competing subjects. Positive publicity about the subject was important to ensure that its reputation within the school community was good.

This area increasingly became less important partly because of the time consuming analysis of national data and also because this was an area that had been investigated by others. However individual student decisions will always be important within a study of option choices and it became clear that some students were given less choice than others because of the continued use of pathways that appeared to be based more on predicted performance than educational need.

## **6.6 SUMMARY**

### **6.6.1 Trends in entries for GCSE geography**

The research question investigated in this study was

**Why have the numbers of students choosing to study geography at age 14 changed over time?**

There was no one single answer to this question because patterns of entries for GCSE were part of a complex system operating at different scales and in different geographical contexts. The national data allowed overall trends to be analysed but did not provide information about reasons for school decision making and individual student' choices. These were investigated through the case study LAs and schools which provided context specific examples from which tentative conclusions were drawn and checked against other research findings.

The average fall in geography entries per school over the last ten years has been about one and a half students per school per year but this figure disguises large variations between schools. Some schools increased or decreased their entries by as many as 50 students in some years but most changes were smaller. Trends over time in individual schools and Local Authorities were inconsistent so it became clear that national trends could be counteracted by school level factors.

Patterns of entry both geographically and in different types of school reflected segregation by overall attainment. High attainers were more likely to study geography and between 2003 and 2007 this segregation increased as fewer low attainers took the subject. Space

and place were important because there were geographical patterns of entry with the highest entries in less deprived rural and suburban areas and the lowest entries in more deprived urban areas. Cohort performance has been correlated with deprivation in other studies and helped explain the broad spatial differentiation of geography entries because rural areas had more schools with comprehensive or comprehensive plus intakes, there were larger number of high attainers in the suburbs and a concentration of low attainers in urban areas. The geographical patterns of geography entries therefore broadly reflected patterns of school segregation (Newsam, 2003; Brighouse, 2003; Butler and Hamnett, 2007) that may have been increased by government market choice policies, although the evidence for this is unclear and contested (Gorard, 2009a; Coldron, 2010).

Attainment appeared to be more important in explaining change in geography entries than other socio-economic factors such as gender and ethnicity. Both of these were relatively stable over time with the ratio of boys to girls staying at about 11:9 over the last thirty years and entries from different ethnic groups staying relatively constant between 2003 and 2007. The variation in geography entries between different ethnic groups reflected patterns found in other studies where attainment was linked to deprivation, social class and aspirations. The higher entries from Indian and Chinese ethnic groups reflected higher overall attainment patterns for these groups and this is an area worthy of further investigation to see whether interest in geography is also influenced by cultural factors. A wider aspect of this question is whether some ethnic minority students were choosing Religious Studies in preference to geography again for cultural reasons? There appears to be little published research into these questions.

The geographical patterns raised as many questions as they answered. While the broad patterns of rural / suburban / urban differences were clear there is scope for more focused investigations of specific 'geographic' variations that reflect the demographic, social and cultural variations within England. For example were there spatial variations in entries as the result of the concentration of independent and grammar schools in some areas (Bradford, 1990) and what was the effect of these schools on neighbouring schools? London has been recognised as 'different' from other parts of the country where the educational quasi-market operates in a particular way – is this reflected both in segregation of schools and geography entries? What is the effect of migration into and out of an area? To what extent are local historical 'educational' traditions important? Are there places other than the East Midlands where particular curriculum models have developed, been shared and remain despite increased centralisation of curriculum? What is the impact of differing levels of subject support for teachers? The support mechanisms available to teachers, such as an advisory service, local teacher groups (GA/RGS), contact with local teacher training establishments were not investigated even though teachers identified this as being important.

The governance of a school had less impact of entries for geography than overall cohort performance. Other studies suggest the differences in attainment as the result of governance are largely the result of parental choice and persistent patterns of residential segregation. This suggests that while aspirant and middle class parents might choose 'good' Foundation, Voluntary Aided or Selective schools because they prioritised traditional academic subjects such as geography in reality the governance had less impact

on the school curriculum than the attainment of the student cohort. Schools with a low attaining cohort appeared to be just as likely to prioritise vocational qualifications irrespective of their governance. The influence of school management on increasing student' expectations and performance was not investigated but the case study schools did demonstrate that SMT initiated change could occur and be maintained.

The broad categorisations at the national and regional scale obscured the diversity that existed between schools at the local scale. The option choice model conceptualised the complexity of the systems operating within schools where the numbers choosing to study any particular subject were the result of decisions made by senior management about the overall curriculum structure, the choices and pathways available, the quality of teaching in different subjects, and the agency of individual students when making their choices. While government increasingly tried to control and guide schools through specifying curriculum, pedagogy and performance the implementation of national policy within schools varied as the result of the beliefs, actions and influence of management and teachers.

#### **6.6.2 The impact of policy**

The policy process model (figure 2.3, p.18) suggested understanding change in schools required an understanding of political eras and phases of government, and the contested nature of policy influences, text production and implementation. There were also certain policy technologies (for example target setting and performance measures) or events (inclusion or exclusion from the list of required subjects) that could result in significant change.

National policy interventions such as inclusion or removal from the 'core' curriculum in 1993/4 appeared to have the most direct influence on geography entries. While the relative contribution of this policy would be difficult to establish precisely, the size of the increase in the years 1994-1996 and subsequent fall between 1997 and 2000 was greater than other years. The importance of policy changes like this was confirmed by similar, but smaller, changes in history numbers over the same time period and the massive fall after 2002 in Modern Foreign Languages and Design Technology when students were no longer required to take them. It appears these policy changes were implemented differentially in schools over a number of years. For example some schools immediately moved geography from a restricted compulsory option block to an open option block where competition was greater. Others changed their option systems more slowly.

The use of performance measures to raise overall standards had a similar effect because some schools introduced higher scoring vocational qualifications or potentially 'easier' subjects and returned to or developed the use of pathways for different ability students. Again change was differential as schools made decisions based on local priorities and the attitude of senior managers towards implementing change. Some 'early adopting' schools demonstrated the benefits of these changes through improved performance which then influenced other (local) schools.

The increasing pressure of league tables resulted in more careful monitoring of performance within the school, both of students and departments by senior management.



The impact was differential and dependent on performance of the school cohort. This had the effect of restricting geography entries where students were assigned to lower ability pathways that did not contain a geography option.

The impact of the school choice policy on geography entries was more difficult to identify but it was likely that segregation increased between schools as middle class parents moved or exited undesirable schools, either to the independent sector or to other more desired schools. Four of the case study schools were only loosely connected to their neighbourhood, because many students were not from the local catchment for a variety of reasons, but whether this affected geography entries was not investigated. Other studies have suggested that positive choice of a school can be important in influencing student aspirations and raising attainment. This would suggest that schools where students move in from outside of the catchment would have larger geography entries.

The policy of increasing diversity through the introduction of City Technology Colleges and later specialist schools often reduced opportunities for students to study geography because specialist subjects were prioritised, reducing curriculum time for non-specialist subjects. The introduction of specialisms and specialist schools was started under the Conservatives in the early 1990s but developed under New Labour so that by 2010 90% of schools had specialist status. The incremental effect of this on geography entries was compounded by the late designation of the Humanities specialism and the small uptake by schools.

Recent policy has tended to use a deficit model of performance where differences from the expected norm are judged to be less adequate (Gutierrez and Rogoff, 2009, p.115) and schools have been expected to overcome deficits through performance management and target setting with little consideration of the socio-economic context (Lambert and Morgan, 2010, p.19). It appears that Basil Bernstein's statement that 'education cannot compensate for society' (quoted in Pring et al, 2009, p.202) has been forgotten in recent policy with the development of post-welfare society attitudes (Jones, 2003; Tomlinson, 2005).

### **6.6.3 Designing the curriculum**

Deciding on curriculum priorities has always been a problem for schools and the introduction of the National Curriculum required all schools to reconsider how to organise the KS4 curriculum. Guidance was provided (for example SCAA, 1995 and QCA, 1998) and schools were encouraged to look at 'successful' curriculum models in other schools.

The complexity of the relationships operating in a school is illustrated in the conceptual model (figure 2.6) of the option choice process. Decisions about the number of groups, the subjects in a block and the structure of the blocks were usually made by a senior manager who had to consider the wider school context. This was often out of the control of departments but there was anecdotal evidence from schools that 'successful' departments were able to influence decisions because they had 'status' in the school.

The following 'story' illustrates the way that different factors interacted to increase or decrease geography entries. The option choice structure in any school depended on decisions made by senior manager(s) about their curriculum priorities. The geographical location of the school and type of school was important because they influenced admissions and curriculum priorities. In most years the option structure was a continuation from the previous year but sometimes it changed in response to government policy, community priorities or the student cohort. For example gaining specialist school status might require a radical rethink of the option structure. Other subjects in the school could lose out if the number of option blocks was decreased. Sometimes new subjects were introduced because students requested them or staff suggested them. Additional subjects increased competition and might mean that some subjects were removed or did not run because not enough students chose them. Data about individual student performance became increasingly important to schools because GCSE performance was used to judge their success. Individual students were tracked and predictions were made about the grades they would obtain. In some schools students were assigned to pathways, in others they had a free choice. Some schools introduced vocational qualifications because they were likely to boost performance scores.

#### **6.6.4 Teacher and student effects**

The single most important effect within a school was the influence of 'effective' teachers. This study did not investigate what this meant in terms of pedagogy and interactions with children but it was clear that 'effective' teachers and departments of any subject motivated students to study their subject. However this study found the teacher effect for

any subject could be short lived as teachers moved on or the 'popularity' of subjects waxed and waned. Teachers were influential because their teaching could inspire or turn students off. Good teachers in another subject might reduce the numbers taking geography.

Students made their decisions for many different reasons usually related to interest in the subject, enjoyment and perceiving that it would be useful in the future. In many cases they had difficult choices because they wanted to take several different subjects. The agency they had to make choices depended on their personality and approach to decision making, alongside the amount of freedom they had within the option system. Increasingly it appeared that students were being restricted in their choices based upon their performance in previous years.

The changes to geography entries at the school level were therefore diverse, inconsistent over time and reflected the unique context of individual schools and the competition between subjects for students. While there was no single answer to the question 'why have entries changed?' it was concluded that the biggest changes have been the result of direct government policy initiatives. Inclusion or exclusion from the 'extended core' of KS4 subjects had the most significant impact on numbers but accountability measures could be as important in creating change. Schools in deprived locations were more likely to adopt gaming strategies that restricted the options for many students by assigning them to vocational or occupational pathways. This was largely for managerial rather than educational reasons. Educational debates about broad and balanced curricula or

appropriate curricula appeared to be sidelined by the necessity in all schools to improve performance. Good teaching was important in promoting geography in individual schools.

At the time of writing (2012) the situation for geography looks brighter as another policy initiative favours more traditional academic subjects. The use of the English Baccalaureate accountability measure introduced by the coalition government in 2011 has led to many schools reconsidering their curriculum and early indications suggest that geography (and history) numbers will be rising over the next couple of years. This appears to be less driven by educational reasons than changes to the performance tables. However the situation could change again if there were a government change in the future or even merely a change of minister with different priorities.

## **6.7 IMPLICATIONS**

There were a number of issues arising from this research that the geography community might want to consider.

1. Geographers need to continue to attempt to exert influence at the national policy level if the subject is to continue as a major school subject. The re-defining of the curriculum by policy makers can have a profound influence on numbers and it is important that geographers continue to emphasise the importance and value of the subject within the curriculum. Academic geographers have a role to play in this especially as there is often limited understanding of geography and what geographers do.

2. There needs to be a debate within the geography education community about the appropriateness of geography for all students. Is geography just for more academic students or is it appropriate for everyone? Why is it less popular with girls and some ethnic minorities? Is there a class dimension?
3. There is potential for further geographically based investigations into entries for geography. Does the striking differences in entries for the subject in the urban areas of London, the North and Midlands compared with more rural and suburban areas mean that geography as it is now taught is not suitable for these students? Are different versions of geographical knowledge or pedagogical approaches necessary to increase entries in these areas?
4. There are a number of different versions of geography taught at GCSE that reflect different traditions within the subject. There is an argument for suggesting that this diversity mirrors the choice and diversity of schools and provides opportunities for teachers to make curriculum and pedagogical decisions about content that is appropriate for their students. Does the logic of the educational quasi-market mean that this diversity can continue to exist or will government's desire to exercise central control mean the imposition of uniformity? Will this result in further reduction of examination specifications and tighter control so that outcomes (standards) can be shown to be more reliable? This debate is an educational one that may be overwhelmed by policy decisions about reliability and comparability of performance.

5. There is a conundrum inherent within government policy where there is a desire to both exercise central control and also empower schools to lead reform (Hopkins, 2010). New Labour attempted to develop quality teachers through the 'strategies' and development of complex prescriptive pedagogical documents. The current government has a more hands off approach but is attempting to be more prescriptive about subject content. How can teachers inspire students to study geography within the limitations imposed by national frameworks?
6. There are many expert geography teachers who inspire students with their passion for the subject and demonstrate its relevance to everyday life. To survive as a school subject this expertise needs to be developed further so that teaching and learning is enhanced. This is different from the top-down prescriptive approach favoured by New Labour and should come from the sort of initiatives developed under the scope of the Geography Action Plan. There is scope for the GA and RGS to continue to develop CPD following the demise of LA advisory services in many areas. The regional patterns of entry identified in this study provide opportunities for the geography community to consider where to target resource. Given the demise of the support networks for teachers in most LAs this would be a positive response by subject associations that would be welcomed by many teachers.
7. Geographers in schools should recognise that school management teams have to make a number of difficult decisions about the curriculum in the light of different pressures from government, parents and students. Geography teachers can exert

influence within their school by being more aware of the systems operating and the power relationships within the school. They should be prepared to argue their corner and lobby for proper representation within option structures if the subject is to continue to prosper. They also need to be prepared to 'market' geography effectively to students and parents. Have geography departments been too prepared to accept teaching Leisure and Tourism to low attainers as a way to maintain a subject presence? In schools with high attaining students is there a need to emphasise the value of geography as an academic subject that prepares students for careers that traditionally were seen as the preserve of historians?

This research has provided an overview of an issue of concern to geography educators over the last twenty years. It might be argued that it has provided little that was not already known but I would argue that what it has done is use national data, only available in the last fifteen years, to provide support for other small scale and qualitative research. It has provided new insights into the spatial distribution of entries at the LA scale, demonstrated the increased segregation by attainment of geography entries and provided data that confirms 'hunch, intuition and class prejudice' (Butler and Hamnett, 2007, p. 1173). The geography of education perspective has begun to open up new research areas that are worthy of further investigation. It has shown that while many of the yearly variations in geography GCSE entries were the result of complex interactions between option choice structures, teacher quality in competing subjects and students' approaches to choice, the pressures of performance management and the differential implementation of government policy in schools have had a profound effect on GCSE geography entries.



## APPENDIX 1 SENIOR MANAGEMENT TEAM INTERVIEW

Role – time in job – background (career history)

Describe the school (compare to ofsted / brochure)

*Ensure comments about:*

- *Catchment*
- *Parents*
- *School priorities*
- *Academic / social success*
- *Subject strengths and areas for development*

Describe the process of making choices (students)

*Ensure comments about:*

- *Option system*
- *Information*
- *Limitations*
- *Marketing*
- *Assigning groups*
- *Patterns – groups*
- *Identify strengths and weaknesses*

Describe the process of creating the option system for any year

*Ensure comments about:*

- *the stages of the process*
- *reasons for organising it like this*
- *the key decision makers*
- *the timing of decisions*
- *the differences between GCSE & A-level (if applicable)*

How has the option choice system changed in the last five years?

*Why?*

*Ensure discussion of*

- *Vocational / academic*
- *View of different subjects*
- *Specialist status*
- *Other priorities – federation/beacon/*
- *Staffing*
- *timetabling*

What changes to the curriculum can you predict for the future?

- *Tomlinson?*
- *Vocational*
- *Personalised learning*

## APPENDIX 2 HEAD OF DEPARTMENT INTERVIEW

Role – time in job – background (*career history*)

Describe the school and the geography department (*compare to ofsted / brochure*)

*Ensure comments about:*

- *Catchment*
- *Parents*
- *School priorities*
- *Academic / social success*
- *The strengths and weaknesses of the geography department*
- *areas for development in the department*

Describe the process of making choices (students)

*Ensure comments about:*

- *Option system*
- *Information*
- *Limitations*
- *Marketing*
- *Assigning groups*
- *Strengths and weaknesses*

Can you speculate about why students choose geography?

*Ensure comments about:*

- *The subject*
- *The teachers*
- *Department organisation*
- *Peers / siblings / other teachers / Careers advice*
- *Quality of teaching*
- *Marketing*

Describe your role in the process of creating the option system for any year

*Ensure comments about:*

- *the stages of the process*
- *reasons for organising it like this*
- *the key decision makers*
- *the timing of decisions*
- *the differences between GCSE & A-level (if applicable)*

How has the option choice system changed in the last five years?

*Why?*

*Ensure discussion of*

- *Vocational / academic*
- *View of different subjects*
- *Impact of Specialist status and other initiatives*
- *Staffing & timetabling*

What changes to the curriculum can you predict for the future?

- *Tomlinson?*
- *Vocational*
- *Personalised learning*

### APPENDIX 3 STUDENT GROUP INTERVIEW

Which subjects have you chosen to study?

Why?

What factors influenced your choice

*Ensure comments about*

*Perceptions of the Subject*

*Peers / parents / careers /*

*Teachers*

*Quality of teaching*

Which subjects did you consider choosing to study?

Why?

What factors influenced your choice

*Ensure comments about*

*Perceptions of the Subject*

*Peers / parents / careers /*

*Teachers*

*Quality of teaching*

Which subjects did you not consider choosing to study?

Why?

What factors influenced your choice

*Ensure comments about*

*Perceptions of the Subject*

*Peers / parents / careers /*

*Teachers*

*Quality of teaching*

What is your view of the option system?

Strengths and weaknesses

## **APPENDIX 4: QUESTIONNAIRE**



Qualifications and  
Curriculum Authority



THE UNIVERSITY  
OF BIRMINGHAM

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# Why Students choose (or don't choose) Geography at GCSE and AS/A level

(Version 3)

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To be completed by: the head of geography

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Please write in the name of your school:

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### The purpose of this questionnaire

This questionnaire, which will take about fifteen minutes to complete, is part of a study for QCA that:

- Investigates trends in geography entries for GCSE and AS/A-level between 1999 and 2004
- Identifies the main influences on student choice of geography as a subject to study

You are asked to identify your school so that your responses can be matched to LEA statistical data but your return will remain confidential to researchers at the School of Education at the University of Birmingham. No individual school or department will be identified in the final report.

Contact details have been requested because this questionnaire will be triangulated with data from other sources and will be followed up with more in-depth case studies of a small number of geography departments and schools.

For further information please contact me (details below). The findings from this research will form part of a report to QCA and will be shared with Advisers and other LEA staff. The findings will be made more generally available in due course.

Please post the completed questionnaire in the freepost envelope provided.

Thank you for your time and help

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### Completing the questionnaire

This questionnaire contains the following sections:

- A: Background information about your school
- B: Managing the 14-19 curriculum and qualifications
- C: Changes to the school curriculum and option choices over the last five years
- D: Pupils choosing to study geography at AS/A level

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### Returning the questionnaire

Please complete this questionnaire and return it in the freepost envelope provided to:

Paul Weeden  
School of Education,  
University of Birmingham  
Edgbaston  
B15 2TT

If you have any queries, please contact:

Paul Weeden





## A Background information about your school and the geography department

A1 Does your school have specialist status?

*Tick as appropriate*

☐ Yes, includes my subject

☐ No

☐ Yes, in another subject(s)

A1

A2 Is the school involved in any special initiatives?

*Tick as appropriate*

☐ Beacon ☐ Federation ☐ Training School ☐ Leading Edge ☐ Pathfinder

Other (please specify)

A3 Do you have a sixth form within your school?

☐ Yes

☐ No

A2

A4 Please circle the statement that best describes the attainment of pupils on entry to the school

All attainments, but more students within the top 50% of national performance.	'Super selective' - most students from the top 10% of national performance	No students from the top 25% of national performance, mix of the rest.
All attainments, more or less even mix across the performance range.	'selective' – most from the top 20-30% of national performance	No students from the top 25% of and few of the next 25%.
All attainments, but very few from the top 25% of national performance		No students from the top 25% of national performance, few from the next 25%, most in the bottom 25%.

A5 Has the time allocation for geography changed since last year?

*Please tick one box per column*

	KS3	KS4	Post-16
Yes, has increased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Yes, has decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No, has stayed the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not applicable			<input type="checkbox"/>

A6

---

A6 How many people in total teach geography in your school?

Total:

A3

---

A7 Of these geography teachers how many:

*If none, please enter 0*

Also teach other subjects?

Have other responsibilities (eg head of year)?

Are not geography specialists? (*please answer A8*)


A4

---

A8 If you have non-specialists in your department, which years do they teach?

*Please tick appropriate years*

Year	7	8	9	10	11	12	13

A5

---

A9 What changes have occurred in the staffing of your department over the last five academic years?

<i>Please enter numbers for each year</i>	2000-1	2001-2	2002-3	2003-4	2004-5
New appointment (Head of Department)					
New appointment (NQT)					
New appointment (non-NQT)					
Promotion within school					
Staff leaving school (promotion)					
Staff leaving school (retirement)					
Staff leaving school (other)					
Long term absence eg maternity leave; illness					

---

A10 Compared to other subjects, what do you think the status of geography is within your school?

- ☐ High  
☐ Average  
☐ Low

A7

---

A11 Please comment on your answer to question A10

--

## B Pupils choosing to study Geography at GCSE

B1 How does the number of pupils taking geography in year 10 in September 2004 compare with that in September 2003?

- ☐ Increased, *please answer B2a*  
☐ Decreased, *please answer B2b*  
☐ Stayed about the same, *please go to B3*

E1

B2 Why do you think there has been a change?

**a) It has increased because:**

- ☐ New qualification offered in this area  
☐ New specification offered  
☐ New specialist status  
☐ More successful marketing  
☐ Change in statutory requirements  
☐ Change to school options structure  
☐ Change to how pupils are advised on subject choices  
☐ Better progression opportunities post-16  
☐ Expertise of staff  
☐ More staff availability  
☐ Better resources  
☐ Other reason, *please write in*

**b) It has decreased because:**

- ☐ Wider choice of subjects now available  
☐ Lack of suitable qualifications available  
☐ Students choosing vocational subjects instead  
☐ Larger qualifications within curriculum restrict number of options  
☐ Change in statutory requirements  
☐ Change to school options structure  
☐ Change to how pupils are advised on subject choices  
☐ Limited progression available post-16  
☐ Lack of staff expertise  
☐ Lack of staff  
☐ Lack of resources  
☐ Other reason, *please write in*

E2

B3 Please provide the following information on the numbers of pupils in year 10 and year 11 studying geography

*We are interested in the total number of pupils following a course of some kind in geography and the numbers within that total taking different types of qualification*

	Year 10	Year 11
Number of pupils studying geography		
Number of pupils taking a course leading to a GCSE (full) in geography?		
Number of pupils taking a GCSE short course in geography?		
Number of pupils taking an Entry Level qualification in geography?		

E3

*We are interested in finding out why you chose the main GCSE specification you use.  
Even if you use more than one specification, please just tell us about one.*

---

B4 What is the main GCSE geography specification offered?

*Please tick **one** awarding body and **one** title*

**Awarding body**

- ☐ AQA
- ☐ Edexcel
- ☐ OCR
- ☐ WJEC
- ☐ OCR/WJEC
- ☐ CCEA

**Title**

- ☐ Geography A
- ☐ Geography A short course
- ☐ Geography B
- ☐ Geography B short course
- ☐ Geography C
- ☐ Geography C short course
- ☐ Geography
- ☐ Geography short course

E4

---

B5 Why was this specification chosen?

*Please tick up to **three** boxes*

- ☐ Geographical topics are most relevant
- ☐ Issues-based approach is appropriate
- ☐ Thematic approach is appropriate
- ☐ Place studies are given emphasis
- ☐ There is emphasis on active enquiry-based learning
- ☐ More traditional geographical skills are stressed
- ☐ Strong focus on coursework
- ☐ Not too much focus on coursework
- ☐ Awarding body offers good support/guidance
- ☐ Exam papers are well written/structured
- ☐ Assessment caters for all abilities of pupils
- ☐ Moderation process most suitable for department
- ☐ Other, *please write in*

E5

---

B6 Has the department changed the main GCSE specification in the last 5 years?

☐ Yes

☐ No

*If yes please explain the reasons for the change*

---

B7 Which of these statements best describes how well your department covers the GCSE requirements?

*Please tick one box only*

☐ We are able to meet the requirements with ease, *please go to B9*

☐ We have some difficulties but manage to meet the requirements, *please answer B8*

☐ We have significant difficulties in meeting the requirements, *please answer B8*

E6

---

B8 Please tell us the main reasons why your department finds it difficult to meet the GCSE requirements

*Please tick up to **three** boxes*

☐ Specification is too full/heavy

☐ Expectations too high for pupils

☐ Lack of curriculum time

☐ Lack of time for departmental planning/preparation

☐ Shortage of staff

☐ Lack of teacher subject knowledge/specialism

☐ Not enough professional development/INSET

☐ Budget restrictions/cost

☐ Lack of facilities (eg space, storage, appropriate rooms)

☐ Lack of/poor resources (eg materials, equipment)

☐ Not enough ICT equipment (inc software)

☐ Poor departmental access to ICT

☐ Other, *please specify*

E7

*We are interested in the way geography is taught in years 10 and 11*

B9 Please tell us how often students do these activities during their GCSE lessons

GCSE geography students	Every lesson	Fortnightly	Half-termly	Termly or less frequently
Orally answer questions the teacher asks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Read from a textbook either individually or aloud	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Investigate geographical topics through a "thinking skills" exercise (e.g. card sorting, odd one out)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe geographical patterns on maps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work in a pair or group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use an OS map	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Write answers to questions from a worksheet or textbook	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Listen to teacher exposition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do some extended writing about a geographical topic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Draw graphs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Make decisions about geographical questions (eg where to locate a CCTV camera in a neighbourhood)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use ICT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Copy / make notes from a textbook	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Review their learning from the lesson (plenary)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Practise past exam questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Other frequent activities (please write in)</i>				
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*We are interested in your thoughts on the purposes of geography education at GCSE*

B10 Please identify the purposes of geography education

i) that are prioritised within your current GCSE specification

<i>The purposes of geography education that are prioritised in our current Geography GCSE specification are</i>	Very strongly agree	Strongly agree	Agree	Disagree	Strongly disagree	Very strongly disagree
Studying interesting geographical issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Providing knowledge about countries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Helping students construct their own understanding of the world	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Knowing geographical 'facts' about the world	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Developing students' geographical skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Promoting students' understanding of sustainability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Measuring and recording data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Providing students with the knowledge and skills for work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Developing students' locational knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Knowing the "big ideas" of geography	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Developing key skills such as literacy and numeracy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using geographical enquiry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ii) that you feel are most important for your students' education in years 10 and 11

<i>The purposes of geography education that I believe should be prioritised at GCSE are:</i>	Very strongly agree	Strongly agree	Agree	Disagree	Strongly disagree	Very strongly disagree
Studying interesting geographical issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Providing knowledge about countries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Helping students construct their own understanding of the world	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Knowing geographical 'facts' about the world	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Developing students' geographical skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Promoting students' understanding of sustainability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Measuring and recording data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Providing students with the knowledge and skills for work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Developing students' locational knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Knowing the "big ideas" of geography	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Developing key skills such as literacy and numeracy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using geographical enquiry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## C Changes to the school curriculum and option choices over the last five years

*We are interested in knowing whether the curriculum offered to year 10 and 11 students has changed in the last five years. We also would like to know how the department encourages children to study geography post-14*

C1 Please tell us which of the following changes to the 14-16 curriculum have occurred:

Over the last five years	Increased	Not Changed	Decreased
the number of subjects in each option block has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
the range of subjects offered at GCSE has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
the number of vocational qualifications offered at 14-16 has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
the average number of subjects each student takes has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
the number of option blocks has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
the number of option blocks that include geography has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please state)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C2 Please tell us about the strategies the department uses to encourage pupils to take Geography as a GCSE subject

The department promotes geography in year 9 by ...	Very strongly disagree	Strongly disagree	Disagree	Agree	Strongly agree	Very strongly agree
Ensuring the topics taught in year 9 are interesting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Actively 'selling' the subject to pupils in lessons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using fieldwork as a 'selling' point for the subject	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using interesting teaching and learning strategies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Telling pupils about the careers available to geographers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C3 Please add any other comments you have about why pupils do (or don't) choose geography at GCSE



**D Pupils choosing to study Geography at A/AS level**

If geography is taught in years 12/13 in your school please complete this section.

D1 How does the number of students taking geography in year 12 in September 2004 compare with that in September 2003?

- ☐ Increased, *please answer D2a*  
☐ Decreased, *please answer D2b*  
☐ Stayed about the same, *please go to D3*

E8

D2 Why do you think there has been a change?

**a) It has increased because:**

- ☐ New qualification offered in this area  
☐ New specification offered  
☐ New specialist status for school  
☐ More successful marketing  
☐ Change to school options structure  
☐ Change to how students are advised on subject choices  
☐ Better progression from KS4  
☐ Progression opportunities available  
☐ Expertise of staff  
☐ More staff availability  
☐ Better resources  
☐ Other reason increased, *please write in*

**b) It has decreased because:**

- ☐ Wider choice of subjects now available  
☐ Vocational subjects available  
☐ Larger qualifications within curriculum mean pupils take fewer qualifications  
☐ Change to school options structure  
☐ Change to how students are advised on subject choices  
☐ No appropriate progression available  
☐ Lack of staff expertise  
☐ Lack of staff  
☐ Lack of resources  
☐ Other reason decreased, *please write in*

E9

*Please answer D3*

*We are interested in finding out why you chose the main A level specification you use. Even if you use more than one specification, please just tell us about one.*

D3 Which geography A level specification is offered in your school to the largest number of students?

*Please tick **one** awarding body and **one** title*

**Awarding body**

- ☐ AQA  
☐ Edexcel  
☐ OCR  
☐ WJEC  
☐ CCEA

**Title**

- ☐ Geography A  
☐ Subsidiary Geography A  
☐ Geography B  
☐ Subsidiary Geography B  
☐ Geography  
☐ Subsidiary Geography

E10

---

D4 Why was this specification chosen?

Please tick up to **three** boxes

- ☐ Geographical topics are most relevant
- ☐ Issues-based approach is appropriate
- ☐ Thematic approach is appropriate
- ☐ Place studies are given emphasis
- ☐ There is emphasis on active enquiry-based learning
- ☐ More traditional geographical skills are stressed
- ☐ Strong focus on coursework
- ☐ Not too much focus on coursework
- ☐ Awarding body offers good support/guidance
- ☐ Exam papers are well written/structured
- ☐ Assessment caters for all abilities of students
- ☐ Moderation process most suitable for department
- ☐ Other, *please write in*

E11

To help us keep a check, please indicate approximately how long it has taken you (and any colleagues) to complete this questionnaire.

Minutes to complete:

Thank you for completing this questionnaire. Please make sure you have written your school name on the front cover

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**Final thoughts**

Please use the space below to tell us more about the issues raised in this questionnaire. We particularly welcome hearing any further thoughts you have about why students choose (or don't choose) geography at GCSE / A-level.

**Please return to Paul Weeden University of Birmingham by Friday 22<sup>nd</sup> April 2005**

## REFERENCES

- Adey, K. and Biddulph, M. (2001) The Influence of Pupil Perceptions on Subject Choice at 14+ in Geography and History. **Educational Studies**, 27(4): 439–50.
- Adnett, N. and Davies, P. (2005) Competition Between or Within Schools? Reassessing School Choice. **Education Economics** 13: 109-121
- Allen, R. and Vignoles, A. (2007) What should an index of school segregation measure? **Oxford Review of Education**, 33(5): 643-668
- Andrews R. and Harlen, W (2006) Issues in synthesising research in education. **Educational Research** 48 (3): 287-299
- Anstey, R. (2005) **Popular Perceptions of Geography: description, causality and significance**. [Unpublished undergraduate dissertation]
- APG (2011) **Geography Teaching Today**. [online]  
<http://www.geographyteachingtoday.org.uk/> [accessed 22 September 2011]
- Arnot, M., Gray, J., James, M., Rudduck J. and Duveen, G. (1998) **A Review of Recent Research on Gender and Educational Performance**. London: Ofsted
- Bailey, P. and Fox, P. (1996) **Geography Teachers' Handbook**. Sheffield: Geographical Association
- Balderstone, D. (Ed.) (2006) **Secondary Geography Handbook**. Sheffield: Geographical Association
- Ball, S. J. (1981) **Beachside Comprehensive: A Case Study of Secondary Schooling**. Cambridge, Cambridge University Press.
- Ball, S. J. (1990) **Politics and Policymaking in Education**. London, Routledge.
- Ball, S.J. (2008) **The Education Debate**. Bristol: The Policy Press
- Ball, S.J. (2009) Privatising education, privatising education policy, privatising educational research: network governance and the 'competition state'. **Journal of Education Policy**, 24 (1): 83-99
- Bardell, G. (1982) **Options for the Fourth: the report of an explanatory study in ten schools**. London: Schools Council
- Baynham, J. (2005) **Motivation in Geography**. Unpublished (personal communication)
- BBC (2011) **School League Tables**. [online] <http://www.bbc.co.uk/news/education-11950098> [accessed 13th January 2011]
- Bell, D. (2005) The Value and Importance of Geography. **Teaching Geography**, 30: 12-13.

Bell, J. (2001) Patterns of subject uptake and examination entry 1984–1997. **Educational Studies**, 27(2): 201–219.

Bell, J. (2003) Beyond the school gates: the influence of school neighbourhood on the relative progress of pupils. **Oxford Review of Education** 29(4): 485-502

Bell, J., Malacova, E. and Shannon, M. (2003) **The Changing Pattern of A-level/AS uptake in England**. Edinburgh: British Educational Research Association Annual Conference

Benn, C. and Chitty, C (1996) **Thirty years on: is comprehensive education alive and well or struggling to survive?** London: David Fulton Publishers

Biddulph, M. and Adey, K. (2003) Perceptions v. reality: pupils' experiences of learning in history and geography at Key Stage 4. **The Curriculum Journal**, 14(3): 291-303.

Biddulph, M. and Adey, K. (2004) Pupil Perceptions of effective teaching and subject relevance in history and geography at Key Stage 3. **Research in Education**, 71: 1-8.

Black, P. (1998) **Testing: Friend or Foe? Theory and Practice of Assessment and Testing**. London: Falmer

Blase, J. and Anderson, G. (1995) **The Micropolitics of Educational Leadership : from Control to Empowerment**. London: Cassell

Bowe, R. and Ball S. with Gold, A. (1992) **Reforming Education and Changing Schools: Case Studies in Policy Sociology**. London: Routledge

Bradford. M. (1990) Education, attainment and the geography of choice. **Geography** 75 (1): 3-16

Bradford, M (1991) School-performance indicators, the local residential environment, and parental choice. **Environment and Planning A** 23: 319-332

Brighouse, T (2003) Comprehensive Schools, Then, Now and in the Future: is it time to draw a line in the sand and create a new ideal? **Forum** 45(1) pp. 3-11

Brooks, C. (2009) Why geography teachers' subject expertise matters. **Geography** 95(3): 143-148

Buckingham, D, and Sefton-Green, J. (1994) **Cultural Studies Goes to School**. London: Taylor and Francis

Burgess, S. and Allen, R. (2010) Two observations on the National Audit Office's Evaluation of Academies. [online] <http://www.bristol.ac.uk/cmpo/blog> [accessed 12 June 2011]

Burgess, S., Wilson, D. and Worth, J. (2010) **A natural experiment in school accountability: the impact of school performance information on pupil progress and sorting**. [online] <http://www.bristol.ac.uk/cmpo/publications/papers/2010/wp246.pdf> [accessed 5 June 2011]

Busher, H. (2005) Being a middle leader: exploring professional identities. **School Leadership and Management** Vol. 25 (2): 137- 153

Busher, H. & Harris, A. (1999) Leadership of school subject areas: tensions and dimensions of managing in the middle. **School Leadership and Management** 19(3): 305-317.

Busher, H. & Harris, A. (2000) **Subject leadership and school improvement**. London, Paul Chapman.

Butt, G. with Bradley-Smith, P. and Wood, P. (2006) Gender Issues in Geography. in Balderstone, D. (Ed.) **Geography Secondary Handbook** Sheffield: Geographical Association

Butterfield, S. and Chitty, C. (1998) **In search of Key Stage 4**. London: Association of Teachers and Lecturers

Callaghan, J. (1976) **A Rational Debate based on the Facts Oxford, Ruskin College**. [online] <http://www.educationengland.org.uk/documents/speeches/1976ruskin.html> [accessed 26 January 2011]

Cambers, G. (1996) Managing the Departmental Team. in Bailey, P. and Fox, P. (Eds.) **Geography Teachers' Handbook**. Sheffield: Geographical Association

Campaign for Learning (2011) **Learning to Learn**. [online] <http://www.campaign-for-learning.org.uk/cfl/learninginschools/l2l/index.asp> [accessed 9 September 2011]

cBBC web page (2005) Your geography lessons – good or bad? [online] ([http://news.bbc.co.uk/cbbcnews/hi/newsid\\_4030000/newsid\\_4038700/4038739.stm](http://news.bbc.co.uk/cbbcnews/hi/newsid_4030000/newsid_4038700/4038739.stm)) [accessed 9 January 2006]

CEM (2011) **About CEM**. [online] <http://www.cemcentre.org/> [accessed 24 September 2011]

Cheshire, P (2007) **Are mixed communities the answer to segregation and poverty?** [online] <http://www.jrf.org.uk/publications/are-mixed-communities-answer-segregation-and-poverty> [accessed 9 May 2011]

Cheshire, P. and Sheppard, S. (2004) Capitalising the value of free schools: The impact of supply characteristics and uncertainty. **The Economic Journal**, 114: 397–424.

Chitty, C. (1997) The school effectiveness movement: origins, shortcomings and future possibilities. **Curriculum Journal**, 8: 45-62.

CMPO (2010) **National Pupil Database Key Stage 4 User Guide** [online] <http://www.bris.ac.uk/cmipo/plugin/support-docs/ks4.pdf> [accessed 10 June 2010]

Coe, R. (2008) Comparability of GCSE examinations in different subjects: an application of the Rasch model, **Oxford Review of Education**, 34 (5): 609-636

Cohen, L., Manion, L. and Morrison, K. (2000) **Research Methods in Education**, London: Routledge-Falmer

Coldron, J, Cripps, C and Shipton, L. (2010) Why are English secondary schools socially segregated? **Journal of Education Policy**, 25 (1): 19-35

Colley, A and Comber, C (2003) School Subject Preferences: age and gender differences revisited. **Educational Studies**, 29(1): 59-67.

Coughlan, S. (2011) **EBacc influencing GCSE subject choices** [online]  
<http://www.bbc.co.uk/news/education-14719986> [accessed 9 September 2011]

Cresswell, M. (1996) Defining, setting and maintaining standards in curriculum embedded examinations: Judgemental and statistical approaches. In Goldstein H. and Lewis, T. (eds.) **Assessment: Problems, Developments and Statistical Approaches**

Croll, P. (2008) Occupational choice, socio-economic status and educational attainment: a study of the occupational choices and destinations of young people in the British Household Panel Survey. **Research Papers in Education**, 23 (3): 243-268

Daniels, H., Lauder, H. and Porter, J. (2009) **Knowledge, Values and Educational Policy: A Critical Perspective**. Abingdon: Routledge

Davies, P., Hammersley-Fletcher, L., Mangan, J. and Goates, G. (2005) When 'becoming a 50% school' is success enough: a principal-agent analysis of subject leaders' target setting', **School Leadership and Management**, 25 (5): 493-512.

Davies, P., Telhaj, S., Hutton, D., Adnett, N. & Coe, R. (2004) Institutional and Social background effects on the probability of taking an examination subject at age 16. **British Educational Research Association Annual Conference. UMIST**.

Davies, P., Telhaj, S. Hutton, D., Adnett, N and Coe, R. (2008) Socioeconomic background, gender and subject choice in secondary schooling. **Educational Research** 50 (3): 235–248

Davies, P., Telhaj, S., Hutton, D., Adnett, N. and Coe, R. (2009) Competition, cream-skimming and department performance within secondary schools. **British Educational Research Journal**, 35 (1): 65-81.

Daugherty, R (1995) **National Curriculum Assessment: a review of policy**. London: Falmer

DCLG (2011) **The English Indices of Deprivation 2010**. London: Department for Communities and Local Government [online]  
<http://www.communities.gov.uk/documents/statistics/pdf/1871208.pdf> [accessed 4 September 2011]

DCSF (2008a) **What are Academies?** Standards Site  
[http://www.standards.dfes.gov.uk/academies/what\\_are\\_academies/?version=1](http://www.standards.dfes.gov.uk/academies/what_are_academies/?version=1) [accessed 17 April 2008]

- DCSF (2008b) **CTCs (City Technology Colleges)**. [online]  
<http://www.standards.dfes.gov.uk/academies/ctcs/> [accessed 17 April 2008]
- DCSF (2009) **Deprivation and Education: The evidence on pupils in England, Foundation stage to Key Stage 4** London: HMSO
- DCSF (DfE) (2010a) **Confidentiality of Personal and Commercial Data**. Darlington: Analytical Services (Data and Statistics Division)
- DCSF (2010b) **Religious Education in English Schools: Non-Statutory Guidance**. DCSF-00114-2010 Nottingham: DCSF
- DCSF/ONS (2008) **The composition of Schools in England**. London: DCSF/ONS
- Dearing, R. (1993) **The National Curriculum and its Assessment: Final Report**. London: School Curriculum and Assessment Authority
- Defra (2011) **Rural and Urban Statistics in England: Guidance Notes**. [online]  
<http://www.defra.gov.uk/statistics/files/rural-urban-guidance-notes.pdf> [accessed 4 September 2011]
- DES (1985) **The Curriculum from 5 to 16**. Curriculum Matters 2 An HMI Series. London: Her Majesty's Stationery Office
- DES / WO (1987) **National Curriculum Task Group on Assessment and Testing: A report**. London: DES
- DfE (2004) **Statistics of Education Schools in England 2004**. [online]  
<http://www.education.gov.uk/researchandstatistics/statistics/allstatistics/a00194445/statistics-of-education-schools-in-england-2004-ed> [accessed 22 August 2011]
- DfE (2010) **The Importance of Teaching: The Schools White Paper 2010**. [online]  
<https://www.education.gov.uk/publications/eOrderingDownload/CM-7980.pdf> [accessed 9 May 2011]
- DfE (2011a) **Section 96 Qualifications**. [online] <http://www.education.gov.uk/section96/> [accessed 12 June 2011]
- DfE (2011b) **Neet Statistics: Quarterly Brief, August 2011**. [online]  
<http://www.education.gov.uk/rsgateway/DB/STR/d001019/osr13-2011.pdf> [accessed 9 September 2011]
- DfE (2011c) **GCSE and A Level performance tables and school spend data published**. [online] <http://www.education.gov.uk/inthenews/inthenews/a0072298/gcse-and-a-level-performance-tables-and-school-spend-data-published> [accessed 5 June 2011]
- DfE (2011d) **School and College Performance Tables**. [online]  
<http://www.education.gov.uk/performance-tables/> [accessed 5 June 2011]

DfE (2011e) **School Census**. [online]

<http://www.education.gov.uk/schools/adminandfinance/schooladmin/ims/datacollection/s/schoolcensus> [accessed 21 June 2011]

DfE (2011f) **School And College Performance Tables Statement Of Intent – 2011**. [online]

<http://www.education.gov.uk/performance/tables/Statement-of-Intent.pdf> [accessed 20 August 2011]

DFE (2011g) **A guide to the law for school governors**. [online]

<http://www.education.gov.uk/schools/leadership/governance/guidetothe/b0065507/gttl/eyfs-and-national-curriculum/ks4-changes> [accessed 5 April 2011]

DfE (2011h) **Edubase2: Local Authority codes**. [online]

<http://www.edubase.gov.uk/glossary.xhtml?letter=L> [accessed 5 June 2011]

DfE (2012a) **The English Baccalaureate**. [online]

<http://www.education.gov.uk/schools/teachingandlearning/qualifications/englishbac/a0075975/theenglishbaccalaureate> [accessed 2 May 2012]

DfE (2012b) **About the school curriculum: What is Statutory?** [online]

<http://www.education.gov.uk/schools/teachingandlearning/curriculum/b00200366/about-the-school-curriculum/what-is-statutory> [accessed 16 May 2012]

DfE / BIS (2010) **DCSF: GCSE and Equivalent Results in England, 2008/09 (Revised) SFR01/2010**. [online]

<http://www.education.gov.uk/rsgateway/DB/SFR/s000909/index.shtml> [accessed 6 May 2011]

DfE / BIS (2011) **Search result for GCSE**. [online] <http://www.education.gov.uk/cgi-bin/rsgateway/search.pl?keyw=066&q2=Search>

DfE / BIS / National Statistics (2004) **GCSE/GNVQ Results and Key Stage 3 to GCSE/GNVQ Value Added Measures for Young People in England, 2002/2003 (Final) sfr23/2004**.

[online] <http://www.education.gov.uk/rsgateway/DB/SFR/s000474/index.shtml> [accessed 5 June 2011]

DfE / BIS / National Statistics (2005) **GCSE and Equivalent Results and Associated Value Added Measures for Young People in England 2003/04 (Revised) SFR01/2005**. [online]

<http://www.education.gov.uk/rsgateway/DB/SFR/s000549/index.shtml> [accessed 5 June 2011]

DfE / BIS / National Statistics (2006) **DCSF: GCSE and Equivalent Examination Results in England 2004/05 (Revised) SFR02/2006**. [online]

<http://www.education.gov.uk/rsgateway/DB/SFR/s000631/index.shtml> [accessed 5 June 2011]



DfE / BIS / National Statistics (2007) **DCSF: GCSE and Equivalent Examination Results in England (2005/06) (Revised) SFR01/2007**. [online]  
<http://www.education.gov.uk/rsgateway/DB/SFR/s000702/index.shtml> [accessed 5 June 2011]

DfE / BIS / National Statistics (2008) **DCSF: GCSE and Equivalent Examination Results in England 2006/07 (Revised)**. [online]  
<http://www.education.gov.uk/rsgateway/DB/SFR/s000768/index.shtml> [accessed 5 June 2011]

DfE / WO (1992) **Choice and Diversity**. London: HMSO

DfEE (1999) **Excellence in Cities**. London: HMSO

DfES (2001) **Schools: Achieving Success**. Cmd 5230, London: HMSO

DFES (2003) **Secondary School Achievement and Attainment Tables 2003: Value added technical information**. [online]  
[http://www.dfes.gov.uk/performancetables/schools\\_03/sec3b.shtml](http://www.dfes.gov.uk/performancetables/schools_03/sec3b.shtml) [accessed 6 September 2007]

DFES (2004) **Secondary School Achievement and Attainment Tables 2004: How to read these tables**. [online]  
[http://www.dfes.gov.uk/performancetables/schools\\_04/sec3a.shtml](http://www.dfes.gov.uk/performancetables/schools_04/sec3a.shtml) [accessed 6 September 2007]

DfES (2004) **All approved qualifications and the new scoring scheme**. [online]  
<http://www.education.gov.uk/performancetables/nscoringsys.shtml> [accessed 2 June 2011]

DirectGov (2010) **Qualifications explained**. [online]  
<http://www.direct.gov.uk/en/EducationAndLearning/QualificationsExplained/index.htm> [accessed 19<sup>th</sup> November 2010]

DirectGov (2011) **Education and Learning: Qualifications – what the different levels mean**. [online]  
[http://www.direct.gov.uk/en/EducationAndLearning/QualificationsExplained/DG\\_10039017](http://www.direct.gov.uk/en/EducationAndLearning/QualificationsExplained/DG_10039017) [accessed 24 July 2011]

Dowgill, P (1999) Counting the cost of curriculum changes. **Teaching Geography** 24: 67-69.  
**Education Reform Act (1988)** London: HMSO

Ennals, P. (2004) **Child Poverty and Education**. London: National Children's Bureau

Elsworth, G. R., Harvey-Beavis, A., Ainley, J. & Fabris, S. (1999) Generic interests and school subject choice. **Educational Research and Evaluation**, 5: 290–318.

Evans, R. (2011) **The History of Technical and Commercial Examinations**. [online]  
<http://www.technicaleducationmatters.org/publications/historyexams/chapter1>  
[accessed 24 July 2011]

Exley, S. (2009): Exploring pupil segregation between specialist and non-specialist schools. **Oxford Review of Education**, 35 (4): 451-470

Fast Tomato (2011) **Fast Tomato**. [online]  
<http://www.fasttomato.com/resourcecentre/product/aboutUs.aspx> [accessed 29 August 2011]

Fischer Family Trust (2011) **Data Analysis Project**. [online]  
[http://www.fischertrust.org/dap\\_overview.aspx](http://www.fischertrust.org/dap_overview.aspx) [accessed 24 August 2011]

Fitz-Gibbon, C. (1996) written response to 'League Tables and their Limitations: Statistical issues in comparisons of institutional performance'. **Journal of the Royal Statistical Society, Series A**, 159 (3): 388-443

Foskett, N. and Hemsley-Brown, J. (2001) **Choosing Futures: Young People's Decision making in Education, Training and Career Markets**. London: RoutledgeFalmer.

Foskett, N. and Hesketh, A. (1997) Constructing choice in contiguous and parallel markets: institutional and school leavers' responses to the new post-16 market place. **Oxford Review of Education** 23 (3): 299-319.

Foskett, N. & Lumby, J. (2003) **Leading and Managing Education: International Dimensions**. London, Paul Chapman.

Francis, B. (2000) The gender subject—students' subject preferences and discussions of gender and subject ability, **Oxford Review of Education**, 26: 35–48.

Francis, B., Hutchings, M., Archer, L. & Melling, L. (2003) Subject choice and occupational aspirations among pupils at girls' schools. **Pedagogy, Culture and Society**, 11: 425–442.

Fraser, J. (2005) **Pupils reasons for continuing with geography**. Unpublished (personal communication)

Fullan, M. **The new meaning of educational change**. London: Routledge-Falmer

GA (2011a) **Careers in Geography – Geography in Careers**. [online]  
<http://www.geography.org.uk/resources/careers> [accessed 26 July 2011]

GA (2011b) **Top ten ideas for promoting geography**. [online]  
[http://www.geography.org.uk/download/GA\\_SECTopTenPromotingGeog.pdf](http://www.geography.org.uk/download/GA_SECTopTenPromotingGeog.pdf) [accessed 22 September 2011]

GA / RGS-IBG (2011) **About the Action Plan for Geography**. [online]  
<http://www.geographyteachingtoday.org.uk/about-the-apg/about-the-action-plan-for-geography/> [accessed 20 September 2011]

Gibbons and Telhaj (2007) Are schools drifting apart? Intake stratification in English secondary schools. **Urban Studies** 44 (7): 1281-1305

Gillard D (2011) **Education in England: a brief history**. [online]  
[www.educationengland.org.uk/history](http://www.educationengland.org.uk/history) [accessed 23 July 2011]

Gillborn, D. (2010) The colour of numbers: surveys, statistics and deficit-thinking about race and class. **Journal of Education Policy**, 25 (2): 253-276

Gillborn, D. and Youdell, D. (2000) **Rationing Education: Policy, Practice, Reform and Equity**. Buckingham: Open University Press

Goldstein, H. and Cresswell, M.J. (1996) The Comparability of Different Subjects in Public Examinations: a theoretical and practical critique. **Oxford Review of Education**, 22 (4): 435-442

Goodson, I. (1993) **School Subjects and Curriculum Change**. London: Falmer

Gorard, S. (1997) Market Forces, Choice and Diversity in Education: The Early Impact. **Sociological Research Online**, 2 (3) [online] <http://www.socresonline.org.uk/2/3/8.html> [accessed 20 September 2011]

Gorard, S. (2001) **Quantitative Methods in Educational Research**. London: Continuum

Gorard, S. (2002) The role of secondary data in combining methodological approaches. **Educational Review**, 54 (3): 231-237

Gorard, S. (2007) What does an index of school segregation measure? A commentary on Allen and Vignoles. **Oxford Review of Education**, 33 (5): 669-677,

Gorard, S. (2009a) Does the index of segregation matter? The composition of secondary schools in England since 1996. **British Educational Research Journal**, 35(4): 639-652

Gorard, S. (2009b) What are Academies the answer to? **Journal of Education Policy**, 24(1): 101-113

Gorard, S. (2010a) All evidence is equal: the flaw in statistical reasoning. **Oxford Review of Education**, 36 (1): 63-77

Gorard, S. (2010b) Serious doubts about school effectiveness. **British Educational Research Journal**, 36 (5): 735-766

Gordon, I. and Monastiriotis, V. (2007) Education, Location, Education: A Spatial Analysis of English Secondary School Public Examination Results. **Urban Studies** 44 (7), pp.1203–1228

GovernorNet (2008) **Categories of schools: Overview**. [online]  
<http://www.governorNet.co.uk/publishArticle.cfm?contentid=548&topicArealD=28&pageS>

[tart=1&sortOrder=title&searchWhere=all&searchString=Foundation%20schools](#)

(accessed 17/04/08)

Greenfield, T and Ribbins, P. (Eds) (1993) **Greenfield on educational administration**. (London, Routledge).

Gutierrez, K. and Rogoff, B. (2009) Cultural ways of learning. in Daniels, H., Lauder, H. and Porter, J. (Eds.) **Knowledge, Values and Educational Policy: A Critical Perspective**. Abingdon: Routledge

Hall, D. (1976) **Geography and the Geography Teacher**. London: Unwin

Hammersley, M and Hargreaves A (1983) **Curriculum Practice: Some Sociological Case Studies**. Lewes: Falmer

Hamnett, C., Ramsden, M. and Butler, T. (2007) Social Background, Ethnicity, School Composition and Educational Attainment in East London. **Urban Studies** 44(7): 1255-1280

Hansard (2010) **Education: National Pupil Database** [online]

<http://www.publications.parliament.uk/pa/ld200910/ldhansrd/text/100204w0001.htm#10020451000178> [accessed 12 March 2012]

Hanushek, E. and Raymond, M. Does School Accountability Lead to Improved Student Performance? **Journal of Policy Analysis and Management**, 24 (2): 297–327

Harris, A. and Bennett, N. eds. (2004) **School effectiveness and school improvement: alternative perspectives**. London: Continuum.

Harris, A., Jamieson, I. and Russ, J. (1996) **School effectiveness and school improvement: a practical guide** London: Pitman

Henrie, R., Aron, R., Nelson, B and Poole, D (1997) Gender-related knowledge variations in Geography. **Sex Roles** 36 (9/10): 605-623

Higham, J. and Yeomans, D. (2007) Curriculum choice, flexibility and differentiation 14-19: the way forward or flawed prospectus? **London Review of Education**, 5(3): 281-297

Hodgkinson, C. (1991) **Educational leadership: the moral art** Albany, NY: State University of New York Press

Hodgson, A. and Spours, K. (2005) **14-19 Education and Training in England: A Historical and System Approach to Policy Analysis**. Joint seminar of Education and Youth Transitions Project and Nuffield Review, 15 March 2005

Hopkins, D. (2009) Realising the potential of system reform. in Daniels, H. Lauder, H. and Porter, J. (Eds.) **Knowledge, Values and Educational Policy**. Abingdon: Routledge

- Hopwood, N (2004) Pupils' Conceptions of Geography: Towards an Improved Understanding, **International Research in Geographical and Environmental Education**, 13 (4): 348-361.
- Hopwood, N. (2007) Environmental education: pupils' perspectives on classroom experience. **Environmental Education Research**, 13(4): 453-465
- Hopwood, N. (2008) Values in geographic education: the challenge of attending to learners' perspectives. **Oxford Review of Education**, 34(5): 589-608
- Hopwood, N. Courtley-Green, C. and Chambers, T. (2005) Year 9 students' conceptions of geography. **Teaching Geography**, 31: 91-93.
- Howes, N. (n.d.) **Comparability of performance between subject using level descriptions** (personal communication)
- Howes, N. (2009) How can working with assessment data help students make progress in geography? in Weeden, P. and Butt, G. **Assessing Progress in your Key Stage 3 Geography Curriculum**. Sheffield: Geographical Association
- Ireson, J. Hallam, S. and Hurley, C. (2005) What are the effects of ability grouping on GCSE attainment? **British Educational Research Journal**, 31 (4): 443-458
- JCQ, (2005) **News Release for GCSE, GNVQ and Entry Level Certificate Summer Results 2005** [online] ([http://www.jcq.org.uk/press\\_releases/news/](http://www.jcq.org.uk/press_releases/news/)) accessed 9/1/06
- JCQ, (2006) **News Release for GCSE, GNVQ and Entry Level Certificate Summer Results 2006** [online] ([http://www.jcq.org.uk/press\\_releases/news/](http://www.jcq.org.uk/press_releases/news/)) accessed 6/9/06
- JCQ (2009) **News Release** [online]  
<http://www.jcq.org.uk/attachments/published/1021/GCSE%20News%20release.pdf>  
 (accessed 11 Sept 2008)
- JCQ (2011) **Examination Results: GCSEs Years 2000-2010** [online]  
[http://www.jcq.org.uk/national\\_results/gcses/](http://www.jcq.org.uk/national_results/gcses/) [accessed 6 May 2011]
- Johns, E. and Wood P. (2008) 'The new GCSE Specifications' **Teaching Geography** 33 (3): 103-106
- Jones, G. (1976) Children's Choice of Geography **Geography** 59 (4): 351-54
- Keep, E. and James, S. (2010) **What Incentives to Learn at the Bottom End of the Labour Market?** SKOPE Research Paper No. 94. Oxford/Cardiff: SKOPE
- Kelly, A.V. (2004) **The Curriculum**. (fifth edition). London: Paul Chapman Publishing.
- Kent, A. (2006) Innovation, Change and Leadership in Geography Departments. **Geography**, 91, 117-125.

Lauder, H. (2009) Policy and Governance: Introduction. in Daniels, H. Lauder, H. and Porter, J. (Eds.) **Knowledge, Values and Educational Policy**. Abingdon: Routledge

Lambert, D. (2004) Geography. in White, J. (Ed.) **Rethinking the School Curriculum: Values, Aims and Purposes**. London: RoutledgeFalmer.

Lambert, D. and Morgan, J, (2010) **Teaching Geography 11-18: A Conceptual Approach** Maidenhead: Open University Press / McGraw- Hill

**Learning and Skills Act** (2000) London: HMSO

Leckie, G. and Goldstein, H. (2009) The limitations of using school league tables to inform school choice. **J. R. Statist. Soc. A** 172 (4): 835–851

Leithwood, K. and Levin, B. (2005) **Assessing School Leader and Leadership Programme Effects on Student Learning**. DfES Research Report RR662.

LGID (2011) **Super Output Areas**. [online]

<http://www.idea.gov.uk/idk/core/page.do?pageId=7175806> [accessed 6 May 2011]

Lincolnshire County Council (2011) **Calculation of the School IDACI (Income Deprivation Affecting Children Index) Rank** [online]

[http://home.netlinc.org.uk/ContentStore/\\_Public/Documents/0023100/23148/IDACI%20Guidance.pdf](http://home.netlinc.org.uk/ContentStore/_Public/Documents/0023100/23148/IDACI%20Guidance.pdf) [accessed 14 July 2011]

Lloyd-Staples, C. (2006) **Map of entries for geography by Local Authority**. Unpublished: (Personal Communication)

Lord, P. and Harland, J. (2000). **Pupils' Experiences and Perspectives of the National Curriculum: Research Review**. [online] ([http://www.qca.org.uk/254\\_1956.html](http://www.qca.org.uk/254_1956.html)) [accessed 5/1/06]

Lord, P (2001) **Pupils' experience and Perspectives of the National Curriculum: Updating the Research Review 2000-2001 Research report**. [online] ([http://www.qca.org.uk/254\\_1956.html](http://www.qca.org.uk/254_1956.html)) [accessed 5/1/06]

Lord, P (2002) **Pupils' experience and Perspectives of the National Curriculum: Updating the Research Review 2001-2002 Research report**. [online] ([http://www.qca.org.uk/254\\_1956.html](http://www.qca.org.uk/254_1956.html)) [accessed 5/1/06]

Lord, P (2003) **Pupils' experience and Perspectives of the National Curriculum: Updating the Research Review 2002-2003 Research report**. [online] ([http://www.qca.org.uk/254\\_1956.html](http://www.qca.org.uk/254_1956.html)) [accessed 5/1/06]

Mansell, J. and Hutchings, S. (2005) **Analysis of the 2005 Examination Results and the Current Status of Geography In England, Wales and Northern Ireland**. [online] (<http://www.rgs.org/category.php?Page=maineducation>) [accessed 5/1/06]

Marsden, B. (1997) On taking the geography out of geographical education. **Geography** 82(3): 241-252

Marsden, W.E. (1995) **Geography 11-16: Rekindling Good Practice**. London: David Fulton

Massey, D. (1999) Geography matters in a globalised world. **Geography** 84 (3): 261-5

Millar, R. and Osborne, J. (Eds.) (1998) **Beyond 2000: Science education for the future**. London: Kings College, University of London, School of Education

Ministry of Education (1963) **Half Our Future: A Report Of The Central Advisory Council For Education (England) [Newsom Report]** London: Her Majesty's Stationery Office

Nash, R. (2009) The school curriculum, theories of reproduction and necessary knowledge in Daniels, H. Lauder, H. and Porter, J. (Eds.) **Knowledge, Values and Educational Policy**. Abingdon: Routledge

National Archives (2011) **Education: Secondary Schools**. [online]  
<http://www.nationalarchives.gov.uk/records/research-guides/secondary-education.htm>  
[accessed 24 July 2011]

National Stem Centre (2012) **What is STEM?** [online]  
<http://www.nationalstemcentre.org.uk/stem-programme/what-is-stem> [accessed 14 March 2012]

Newsam, P (2003) Diversity and Admissions to English Secondary Schools. **Forum** 45(1): 17-18

Niven, K. (2012) **Studying student perceptions of a subject at key stage 3 and their influence on option choices: geography at a rural 11-16 village college**. Manchester: GA Conference 2012.

Norman, M and Harrison, L (2004) 'Year 9 students' perceptions of school geography', **Teaching Geography**, 29(1): 11-15.

Norwood, C. (1943) **The Norwood Report: Curriculum and Examinations in Secondary Schools**. [online]  
<http://www.educationengland.org.uk/documents/norwood/norwood00.html> [accessed 9 May 2011]

Nuffield Review of 14-19 Education and Training (2009) **Education for All: The Future of Education and Training for 14-19 year olds**. [online] <http://www.nuffield14-19review.org.uk/files/documents206-1.pdf> [accessed 23 November 2009]

Ofqual (2010) **Review of standards in summer 2009 GCSE Science and GCSE Additional Science**. [online] <http://www.ofqual.gov.uk/files/2010-07-22-review-of-summer-2009-gcse-science.pdf> [accessed 23 August 2011]

Ofqual (2009) **The official student guide to the system**. [online]



[http://www.ofqual.gov.uk/files/GCSE\\_Guide.pdf](http://www.ofqual.gov.uk/files/GCSE_Guide.pdf) [accessed 19 January 2012]

Ofqual (2011) **Qualification and Assessment Framework**. [online]

<http://www.ofqual.gov.uk/qualification-and-assessment-framework> [accessed 12 June 2011]

Ofsted (2005a) **Ofsted Subject Reports 2003/4: Geography in secondary schools HMI 2331**

[http://live.ofsted.gov.uk/publications/annualreport0304/subject\\_reports/secondary/geography.htm](http://live.ofsted.gov.uk/publications/annualreport0304/subject_reports/secondary/geography.htm)) accessed 17/11/06

Ofsted (2005b) **The Key Stage 4 curriculum: Increased flexibility and work-related learning** HMI 070113 [online]

<http://www.ofsted.gov.uk/Ofsted-home/Publications-and-research/Browse-all-by/Documents-by-type/Thematic-reports/The-Key-Stage-4-curriculum-increased-flexibility-and-work-related-learning> [accessed 5 June 2011]

Ofsted (2005c) **The Key Stage 4 curriculum: Increased Flexibility, Work-related Learning and Young Apprenticeship Programmes** HMI 2478 [online]

<http://www.ofsted.gov.uk/Ofsted-home/Publications-and-research/Browse-all-by/Education/Providers/Secondary-schools/The-Key-Stage-4-curriculum-Increased-Flexibility-Work-related-Learning-and-Young-Apprenticeship-Programmes> [accessed 5 June 2011]

Ofsted (2006) **The Annual Report of Her Majesty's Chief Inspector of Schools 2004/05: Geography in Secondary Schools** [online]

<http://live.ofsted.gov.uk/publications/annualreport0405/4.2.6.html> [accessed 6 August 2011]

Ofsted (2008) **Using Data: Improving Schools** London: Ofsted

Ofsted (2011a) **Who we are and what we do** [online] <http://www.ofsted.gov.uk/about-us> [accessed 6 August 2011]

Ofsted (2011b) **Explanation of KS4 point scoring system: Information Sheet 2**. [online]

[www.ofsted.gov.uk/content/download/5044/40166/file/Infosheet%20%20\(Word%20format\).doc](http://www.ofsted.gov.uk/content/download/5044/40166/file/Infosheet%20%20(Word%20format).doc) [accessed 12 June 2011]

Ofsted/DfE (2011) **RAISEonline**. [online] <https://www.raiseonline.org/About.aspx>

[accessed 25 August 2011]

ONS (2004a) **Rural and Urban Area Classification 2004**. [online]

<http://www.ons.gov.uk/about-statistics/geography/products/area-classifications/rural-urban-definition-and-la-classification/rural-urban-definition/index.html> [accessed 10 July 2011]

ONS (2004b) **Rural and Urban Area Statistics in England Guidance Notes**. [online]

<http://www.ons.gov.uk/about-statistics/geography/products/area-classifications/rural-urban-definition-and-la-classification/rural-urban-definition/index.html>



[urban-definition-and-la-classification/rural-urban-definition/index.html](http://urban-definition-and-la-classification/rural-urban-definition/index.html) [accessed 10 July 2011]

Palmer, G. (2011) **The Poverty Site: English National Pupil Database**. [online] <http://poverty.org.uk/technical/npd.shtml> [accessed 21 June 2011]

Payne, J (2003) **Choice at the end of compulsory schooling: A research review**. London: DfES

Pratt, J., Bloomfield, J. & Seale, C. (1984) **Option Choice: A question of equal opportunity**. Windsor, NFER-Nelson

Pring, R., Hayward, G., Hodgson, A., Johnson, J., Keep, E., Oancea, A., Rees, G., Spours, K. and Wilde, S. (2009) **Education for All: The future of education and training for 14-19 year olds**. London: Routledge

QCA (1998) **Key stage 4 curriculum in action: A discussion document for secondary schools**. London: QCA

QCA (2003) **Changes to the key stage 4 curriculum**. London: QCA

QCA (2007) **National Curriculum Secondary Curriculum Key Stages 3 and 4: Values**. [online] <http://curriculum.qcda.gov.uk/key-stages-3-and-4/aims-values-and-purposes/values/index.aspx> [accessed 5 May 2011]

QCA (2008a) **Statutory requirements for the key stage 4 curriculum**. [online] [http://curriculum.qca.org.uk/key-stages-3-and-4/subjects/Statutory\\_requirements\\_for\\_the\\_key\\_stage\\_4\\_curriculum.aspx?return=/key-stages-3-and-4/organising-your-curriculum/the\\_secondary\\_curriculum/index.aspx%23page3\\_p](http://curriculum.qca.org.uk/key-stages-3-and-4/subjects/Statutory_requirements_for_the_key_stage_4_curriculum.aspx?return=/key-stages-3-and-4/organising-your-curriculum/the_secondary_curriculum/index.aspx%23page3_p) [accessed 11/9/08]

QCA (2008b) **Inter-subject comparability studies: QCA/08/3568**. London: Qualifications and Curriculum Authority.

QCDA (2010) **National Curriculum online**. <http://curriculum.qcda.gov.uk/index.aspx> [accessed 7 January 2010]

Raffo, C., Dyson, A., Gunter, H., Hall, D., Jones, L. and Kalambouka, A. (2007) **Education and Poverty: A Critical Review of Theory, Policy and Practice**. York: Joseph Rowntree Foundation

Rawling, E. (2001) **Changing the Subject: The impact of national policy on school geography 1980-2000**. Sheffield: Geographical Association

Rawling, E. (2005) **School geography and the process of curriculum change**. <http://www.nuffield14-19review.org.uk/files/documents100-1.pdf> (accessed 16/10/06)

Rawling, E. (2008) **Developing your KS3 curriculum**. Sheffield: Geographical Association

Reid, M. Barnett, B. and Rosenberg, H. (1974) **A Matter of choice. A Study of Guidance and Subject Options.** Windsor: NFER

Reynolds, D. (1992) School effectiveness and school improvement: an updated review of the British literature. in Reynolds, D. & Cuttance, P. (Eds.) **School Effectiveness: Research, Policy and Practice.** London, Cassell.

RGS (2000) **Exam results analysis 2000: Geography – on the edge?** [online]  
<http://www.rgs.org/NR/rdonlyres/A1FD7968-3582-4234-AA00-D58ABC124AB2/0/Analysis2000.pdf> [accessed 6 August 2011]

RGS (2011) **Geography Ambassadors.** [online]  
<http://www.rgs.org/OurWork/Schools/Action+Plan+for+Geography/Geography+Ambassadors.htm> [accessed 26 July 2011]

Roberson, B.S. and Long, I.L.M (1966) **Teaching Geography.** London: Heinemann

Robson, C. (2002) **Real world Research** (2<sup>nd</sup> Edition) Oxford: Blackwell

Ross, A. (2000) **Curriculum: Construction and Critique.** London: Falmer

RSA (2011) **Opening Minds.** [online]  
[http://www.openingminds.org.uk/Site/Opening\\_Minds\\_Welcome.html](http://www.openingminds.org.uk/Site/Opening_Minds_Welcome.html) [accessed 9 September 2011]

Ryrie, A., Furst, A. & Lauder, M. (1979) **Choices and Chances. A study of pupils' subject choices and future career intentions.** London: Hodder & Stoughton

Sammons, P., Thomas, S. and Mortimore, P. (1997) **Forging links: effective schools and effective departments.** London: Paul Chapman

SCAA **Managing the Curriculum at Key Stage 4.** London: SCAA

**Sex Discrimination Act.** (1975) [online]  
[http://www.legislation.gov.uk/ukpga/1975/65/pdfs/ukpga\\_19750065\\_en.pdf](http://www.legislation.gov.uk/ukpga/1975/65/pdfs/ukpga_19750065_en.pdf) [accessed 9th December 2010]

Smith, E. (2008) **Using Secondary Data in Educational and Social Research.** Maidenhead: Open University Press

Smith, E. (2010) Do we need more scientists? A long term view of patterns of participation in UK undergraduate science programmes. **Cambridge Journal of Education** 43 (3): 281-298

Smithers, R. (2001) **Wales abandons league tables for secondaries.** [online]  
<http://www.guardian.co.uk/uk/2001/jul/21/schools.wales> [accessed 5 June 2011]

Stables, A. (1996) **Subjects of Choice: The process and Management of Pupil and Student Choice.** London: Cassell

Stables, A. (2009) School as imagined community in discursive space: A perspective on the school effectiveness debate. in Daniels, H. Lauder, H. and Porter, J. (Eds.) **Knowledge, Values and Educational Policy**. Abingdon: Routledge

Stables, A. and Wikeley, F. (1997) Changes in preference for and perception of relative importance of subjects during a period of educational reform. **Educational Studies**, 23 (3): 393-403.

Stott, T, Howard, R and Linnett, R (1997) What influences students' choice of geography at GCSE? **Teaching Geography**, 22: 192-193.

Stubbs, B. (2011a) **Student Performance Analysis**. [online]  
<http://www.bstubbs.co.uk/gcse.htm> [accessed 1 August 2011]

Stubbs, B. (2011b) **Student Performance Analysis: GCSE, Short course GCSE & GNVQ points**. [online] <http://www.bstubbs.co.uk/half.htm> [accessed 2 June 2010]

Sutton, A. (1996) The post-16 pre-vocational strand. in Bailey and Fox (Eds.) **Geography Teachers' Handbook**. Sheffield: Geographical Association

Taylor, C. (2009) Towards a geography of Education. **Oxford Review of Education**, 35 (5): 651-669

Telhaj, S., Adnett, N. , Davies, P., Hutton, D. and Coe, R. (2009) Increasing within-school competition: a case for department level performance indicators? **Research Papers in Education**, 24 (1): 45-55

Thomas Telford CTC (2011b) **Courses Available**. [online]  
<http://ttsonline.net/page/courses-available.aspx> [accessed 5 June 2011]

Thomas Telford CTC (2011b) **Mission Statement**. [online] <http://ttsonline.net/page/about-the-school.aspx> [accessed 5 June 2011].

Tomlinson, S. (2005) **Education in a post-welfare society**. Maidenhead: Open University Press / McGraw-Hill

Trend, R. (2005) 'Individual, situational and topic interest in geoscience among 11- and 12-year-old children. **Research Papers in Education**, 20 (3), pp.271-302.

Turner, S. (2009) **An Investigation into Factors that Influence Choice in Geography at Key Stage 4 and Key Stage 5**. Birmingham University, School of Education [Unpublished Master's Dissertation]

Universities UK (2011) **Higher Education in Facts and Figures Summer 2011**. London: Universities UK

Walford, R (2001) **Geography in British Schools 1850-2000**. London: Woburn Press

Webber, R. and Butler, T. (2007) Classifying Pupils by Where They Live: How Well Does This Predict Variations in Their GCSE Results. **Urban Studies** 44(7): 1229-1253

Weeden, P. (1998) **The Role of the advisory teacher.** [unpublished] Bristol: University of Bristol

Weeden, P. (1999) **Changes to GCSE examinations.** [unpublished] paper presented to the annual ITE Geography Educators Conference: University of Bath

Weeden, P. (2002) **Pupil Choice of Geography at 14 and 16: Report for QCA Geography Subject Team.** Birmingham: University of Birmingham (unpublished)

Weeden, P. (2005a) **Pupil's perceptions of Geography: a literature review.** Birmingham: University of Birmingham Report for the RGS

Weeden, P. (2005b) **Subject choice at 14: The role and influence of subject leaders.** Treforest: Paper presented to BERA conference 2005.

Weeden, P. (2006a) **Using large national data sets to explore patterns of subject choice.** Birmingham: University of Birmingham School of Education Student Conference

Weeden, P. (2006b) **Are subject choices at GCSE influenced by attainment?** Warwick University: BERA Annual Conference 2006:

Weeden, P. (2007a) Students' Perceptions of Geography: Decision Making at Age 14. **Geography** 92(1) pp. 62-73

Weeden, P. (2007b) **Why pupils choose (or don't choose) to study geography at GCSE and A-level.** University of Birmingham: Report for QCA Geography Subject Officer (unpublished)

Weeden, P. (2009) **Geographies of student choice: GCSE.** Loughborough: Geographies of Education Conference

Weeden, P. (2010a) **Geographies of student choice: GCSE.** Derby: GA Annual Conference

Weeden, P. (2010b) **Inequalities in entry for GCSE Geography.** London: RGS Annual Conference

Weeden, P. (2011) Inequalities of opportunity and the take up of GCSE Geography **Curriculum Journal**, 22 (3): 401-422

West, A. and Hind A. (2003) **Secondary school admissions in England: Exploring the extent of overt and covert selection** London: Centre for Educational Research Department of Social Policy: London School of Economics and Political Science

Westaway, J. and Rawling, E. (2001) The rises and falls of geography. **Teaching Geography**, 26(3): 108-111.

Whitty, G. (2002) **Making Sense of Education Policy** London: Paul Chapman

Wikispaces (2012) **National Pupil Database** [online]

<http://nationalpupildatabase.wikispaces.com/> [accessed 12 March 2012]

Wolf, A. (2011) **Review of Vocational Education: The Wolf Report**. [online]

<https://www.education.gov.uk/publications/standard/publicationDetail/Page1/DFE-00031-2011> [accessed 9 May 2011]

Worsfold, A. (2010) **A History of School Examinations**. [online]

<http://www.change.freeuk.com/learning/howteach/exams.html> [accessed 29 July 2011]

Wright, S. (2005) **Young people's decision-making in 14-19 education and training: a review of the literature**. Oxford, The Nuffield Review of 14-19 Education and Training.

Young, M (1998) **The Curriculum of the Future: From the 'new sociology of education' to a critical theory of learning**. London: Falmer

Young, M. (2009) What are schools for? in Daniels, H., Lauder, H. and Porter, J. (Eds.) **Knowledge, Values and Educational Policy**. Abingdon: Routledge