Research Report
No 314

Patterns of Educational Attainment in the British Coalfields

Tony Gore and Nicola Smith

CRESR, Sheffield Hallam University

ISBN 1 84185 635 5
November 2001

CONTENTS **Page**

Acknowledgements i

Executive Summary ii

1. Introduction 1

2. Data Sources and Standard Indicators 4

3. Geographical Definitions and Issues 8

4. Key Indicators of Educational Attainment during Compulsory Schooling 10

5. Key Indicators of Post-16 Educational Attainment 39

6. Conclusions 47

References 50

Appendices

1. Data Issues and Study Methods 52

2. The CRESR Ward-based Definition of the Coalfields 57

3. Coalfield Profiles and Comparator Areas 63

4. Attainment Indicators for Individual Coalfield and Comparator Areas 76

Acknowledgements

The authors would like to thank Ann Claytor, the project manager, and Susanna Greenwood, both of Analytical Services in DfES, for their help and support during the study. Thanks are also due to all those who attended meetings of the project Steering Group: Yvonne Smith of Analytical Services; Felicity Winter, Mandy Marshall and Beverley Swaby of Regional Policy Division; Ian Thomson of Schools Policy Directorate; John Fletcher and James Geehan of Analytical Services (all in DfES); and Joan Dixon and Steven Fothergill of the Coalfield Communities Campaign. Tina Beatty, Research Fellow in CRESR, has also given invaluable assistance in an advisory capacity.

This report would not have been possible without the data sets specially extracted at our request and delivered in timely fashion. Thanks for these are expressed to Gillian Blair, Martin Harris and Ian Taylor (Statistics Division, DfES); Mal Cooke, Chris Williams and Rachel Lloyd (Statistical Directorate, National Assembly for Wales); and Adam Krawczyk, Martin Johnson, Graham Rogers, Thomas Robertson and Lindsay Dick (Education Statistics Division, Scottish Executive).

EXECUTIVE SUMMARY

Introduction

In January 2001, the Department for Education and Employment (now Department for Education and Skills, DfES) commissioned the Centre for Regional Economic and Social Research (CRESR) at Sheffield Hallam University to undertake a comparative research study investigating recent patterns of educational attainment in the British coalfields. The work involved:

- calculation of standard measures of educational attainment at various ages between 7 and 18 years for the coalfield areas of Great Britain and for socio-economically similar areas;
- a review of how levels of attainment in the coalfields compare with national averages and with the selected comparator areas during the period 1998-2000.

Key findings

- Up to age 16 years, educational attainment in both coalfield and comparator areas was below the national average.
- The disparity in attainment increased with age, so that the gap to the average for those finishing compulsory education was much greater than for those just starting it. This pattern reflects that found nationally among schools classed as deprived according to levels of entitlement to Free School Meals – performance which is somewhat below average at primary level becomes more markedly so through secondary school.
- Between 1998 and 2000, there was convergence between coalfields/comparators and national averages with respect to attainment at Key Stages 1 and 2 in England. By 2000, performance at Key Stage 1 in the English coalfields was at the level of the national average.
- However, the larger differences at Key Stage 3 and GCSE showed little change over the three years, with the most marked disparities to be found at higher levels of achievement (in England, the proportion achieving 5 or more GCSE passes at grades A* to C in coalfields and comparators was 7-10% below national average).
- A similar pattern of disparity is to be found in post-16 education, with performance levels at GCE A/AS Level in coalfield and comparator areas falling well below national averages, especially at higher levels of achievement (in England, the proportion achieving 2 or more passes at A/AS level was 3-5% below national average, reflected in a point score 1.0 – 2.3 points below average).

Background

Below average levels of educational attainment have been identified as a key problem facing the regeneration of coalfield areas in Britain. The Coalfields Task Force report (1998) claimed that this may be linked to local traditions where working in coalmining did not require formal qualifications, and, for some tasks, only minimal literacy and numeracy. A DETR report (2000) noted "the evidence suggested that educational under-attainment and lack of training were particularly important sources of disadvantage....., especially when combined with the continuing problem of the higher proportion of the unemployed who were in the 16-24 year old age range." However, there have been no published studies examining levels of educational performance in coalfield areas in a comprehensive manner. This study represents an important contribution to filling this gap.

Aims of the research

DfEE (now DfES) commissioned a research study with the aim of establishing whether children and young people living in coalfield areas in Britain perform better or worse on measures of educational attainment, at various ages between 7 and 18 years, by comparison with national averages and averages for areas of similar socio-economic composition. The study was undertaken by CRESR at Sheffield Hallam University between February and July 2001.

Study methods

Standard Indicators

The central task of the study was the production of a set of standard indicators for coalfield and comparator areas, and an assessment of the extent to which these converged or diverged from equivalent national averages. The indicators were based on Key Stage and exam performance data for all schools and FE colleges located within coalfield or comparator areas. Wherever possible, separate indicators were produced for boys and girls for the three most recent years for which data were available (i.e., 1997/98; 1998/99; and 1999/2000). Because of differences in the structure and content of their education systems, the study also separated out the indicators for England, Scotland and Wales.

Geographical Frames of Reference

The study employed two main geographical frames of reference:

- *the CRESR definition of the British coalfields based on resident employment in coal-mining and associated industries at ward level in 1981.* This definition identifies coal-mining areas more precisely than others which have been used, which usually rely on classifying existing administrative areas according to the presence or absence of coal-mining employment within them. The CRESR definition captures those areas most severely affected by the rapid contraction of the coal-mining industry in the 1980s and 1990s. It includes 20 separate areas across England, Scotland and Wales, ranging from large scale coalfields (e.g. Yorkshire) to much smaller areas (e.g. Kent). According to 1991 Census figures, these coalfield areas contained just over 5 million inhabitants (2 million households).

- *a set of custom-defined "comparator areas", matched against the profile of the coalfield areas by means of the ACORN geodemographic classification.* This exercise resulted in the selection of 18 areas, which together contained a similar number of residents and households to the coalfields. Again, the size of individual comparators varies considerably, from large urbanised tracts such as the West Black Country to much smaller zones like North East Scotland. They were included in the study to ascertain whether there is a particular "coalfields effect", or whether similar patterns of educational attainment are to be found in areas of similar social composition.

Key indicators of educational attainment in England during compulsory schooling

Relative performance levels were calculated on the basis of the percentage points difference between the standard indicators for coalfield and comparator areas on the one hand, and national averages on the other. These differences may be taken as representing the proportion of pupils in the coalfields and comparators who might have been expected to reach a given standard or number of qualifications, but who did not do

so.

Up to age 16 years, educational attainment in both coalfield and comparator areas was below the national average. These negative differences were generally of the same magnitude for both coalfield and comparator areas. (Figures given below were calculated by aggregating the scores for individual coalfields and comparators to produce coalfield and comparator averages. Looking at the outcomes for individual comparators and coalfields, there was wider variation in attainment amongst comparators than amongst coalfields, some comparators performing better than average and some doing very badly, whereas performance in coalfield areas tended to be more uniformly below average.)

The disparity between coalfields/comparators and the national average grew with age, so that the gap for those finishing compulsory education was much greater than for those just starting it. Gaps at Key Stages 1 and 2 were fairly small (up to 3% at Key Stage 1 and 1-6% at Key Stage 2, percentages varying across subjects and years). The size of the gap lessened considerably over the 1998 to 2000 period. By 2000, performance at Key Stage 1 in the coalfields was equivalent to the national average.
There were much larger differences at Key Stage 3 and GCSE. These showed little change over the three years. Key Stage 3 performance was 4-9% below average. The widest gap was to be found at higher levels of achievement at GCSE - the rate for 5 or more passes at GCSE grades A* to C was 7-10% below average.

As nationally, girls performed better than boys at most stages in both coalfields and comparator areas. However, the gaps in attainment to the national average were virtually the same for boys and girls.

The results suggest that, in terms of educational attainment, the coalfields and comparator areas share similarities with other areas characterised by high levels of deprivation. When entitlement to Free School Meals (FSM) is used as a proxy for disadvantage, schools with high levels of FSM show a similar pattern to that found here – performance which is somewhat below average at primary level becomes more markedly so through secondary school. Although none of the individual coalfield areas may be amongst the worst performing in the country when compared with some inner city LEAs, the consistency of the shortfall between their figures and national averages, especially at secondary level, gives cause for concern. The relative improvements shown by pupils at primary school level have not yet been mirrored by similar developments at secondary school.

Key Indicators of Post-16 Educational Attainment

Indicators of post-16 educational attainment were included in the study in order to provide an indicative illustration of the relative patterns in coalfield and comparator areas. However, difficulties related to the elective nature of post-16 education and the greater degree of cross-boundary movement likely at this stage mean that the analysis is less robust than that for pre-16 attainment. The focus was exclusively on GCE A/AS Level examination results.

As with pre-16 education, the percentage point differences from the national average at A/AS Level for both coalfield and comparator areas show consistent disparities. The most marked disparities are again found at the higher end of achievement - the proportions obtaining two or more A/AS Level passes were 3-5% below the national average. This is underlined by average points scores in coalfield and comparator areas which are 1.0 - 2.3 points below an average of 14.4 – 17.5.

Scotland and Wales

Findings for Scotland and Wales broadly mirrored those for England. However, in both countries the smaller number of coalfield and comparator areas, and factors peculiar to each country, resulted in some variations in the outcomes.

Conclusions

The findings of the study confirm the perceptions of commentators and policy-makers at national, regional and local levels that educational attainment in the coalfields consistently lags behind the national average. However, the similar patterns revealed for comparator areas indicate that this situation is not the result of a particular "coalfields effect", but appears to be common to areas that have experienced economic decline and have relatively high levels of deprivation. Although there is evidence of some improvement at primary level, further action is required, especially directed at those in their teenage years. The geographical scope of such action needs to be wider than a small number of schools or a limited selection of relatively small neighbourhoods.

1. INTRODUCTION

Aims and Objectives

1.1 This report sets out the findings of a comparative research study investigating recent patterns of educational attainment in the British coalfields. The study was commissioned in January 2001 by the Department for Education and Employment (DfEE, now the Department for Education and Skills - DfES).

1.2 The aim of the study was:

- to establish whether coalfield areas in Britain perform better or worse on measures of educational attainment and participation, at various ages between 7 and 18 years, by comparison with national averages and average for areas of similar socio-economic deprivation characterised by associated economic decline.

1.3 This aim was then subdivided into three main tasks:

- the calculation of standard measures of educational attainment at various ages between 7 and 18 years for the coalfield areas of Great Britain;
- a review of how levels of attainment in the coalfields compare with national averages on the one hand, and with selected comparator areas on the other; and
- an assessment of the degree to which these relative positions have changed over the last three years.

Regeneration in the British Coalfields

1.4 The British coal-mining industry has experienced a gradual decline in scale and vitality throughout the post-war period. However, its most rapid and dramatic contraction came with the series of pit closures that occurred in the 1980s and early 1990s. The scale of this more recent decline may be judged by the fact that in 1981 there were 211 collieries still working in Britain; this has now shrunk to 12. Over the same period the number employed in the industry fell from 279,000 to just over 8,000. Given the geological dictates of the coal-mining industry, nearly all of the burden of adjustment to this collapse in economic activity and labour demand has fallen on a small number of specific localities.

1.5 This adjustment has varied from area to area, but, as various studies have revealed (Edwards, 1992; Turner, 1993; Critcher et al., 1995; Coates and Barratt-Brown, 1998), in most places it has resulted in a number of socio-economic problems:

- relatively high levels of unemployment (on both claimant and ILO measures) and economic inactivity;
- a growing divide between households with two or more wage earners, and those where no-one has a job;
- selective out-migration of the young, the better qualified and the professionally trained in search of better prospects;
- physical and mental health problems, including general disillusionment and detachment from mainstream society.

1.6 The scale and closely inter-related nature of these problems prompted the newly elected Labour government to establish the Coalfields Task Force (CTF) in October 1997. Its aim was “to set a framework which will empower coalfield communities affected by pit closures and job losses to create their own sustainable new start” (Coalfields Task Force, 1998, p.5). Its report was published in June 1998, and amongst other things noted the consistently below average standards of educational attainment in coalfield areas. It was claimed that these patterns were linked to local traditions where working in the coalmining industry did not require formal qualifications, and, for some tasks, only minimal literacy and numeracy. The report went on to argue for the range of new national level policy initiatives being spearheaded by the DfEE to be "....implemented in ways which fully benefit the coalfields."(ibid., p.35) and which would "...raise the level of attainment in coalfield (areas).... to at least the national average."(ibid., p.35)

1.7 More recently, a report to the Department of the Environment, Transport and the Regions noted that ".....evidence suggested that educational under-attainment and lack of training were particularly important sources of disadvantage....., especially when combined with the continuing problem of the higher proportion of the unemployed who were in the 16-24 year old age range. A good part of the adjustment problem, therefore, seems to have shifted over the years from those who were made redundant by pit closures to their sons and daughters." (DETR, 2000, p.3)

1.8 Much has been written about the social and economic problems facing coalfield areas in Britain, and about the regeneration initiatives that have been taken to tackle them (see, for example, Edwards, 1992; Turner, 1993; Beynon et al., 1994; Critcher et al., 1995; Bennett et al., 2000). However, these have tended to concentrate on issues such as business development, job creation, infrastructure improvement, vocational training, provision or upgrading of social facilities and services, and community regeneration. Where education and training have been covered, it has tended to focus on retraining and

lifelong learning for ex-miners and others of working age, rather than formal education of young people. Certainly no comprehensive studies examining levels of educational performance in coalfield areas have been published. This report represents an important contribution to filling this gap.

1.9 One difficulty in assessing educational attainment in the coalfields in a robust manner has been the use of statistics either at individual school or aggregate Local Education Authority (LEA) levels. In relation to the coalfields, such indicators only tell part of the story. First, where results for selected schools are used, there is often no way of telling whether these are representative of coalfield areas as a whole. Second, at the broader scale, the considerable variation in the size of LEAs makes any comparisons between them difficult. Third, the boundaries of most LEAs incorporate places with widely differing characteristics. Thus, very few LEAs coincide exactly with areas that might be classified exclusively as coalfields; in most cases, they also serve adjacent areas that may be quite different in terms of social composition and levels of economic prosperity. This means that educational performance in the coalfields proper cannot be isolated satisfactorily from that in other demographically dissimilar parts of the LEA.

1.10 Indeed, previous research on other topics in the coalfields has demonstrated that use of a finer-grained definition reveals markedly different patterns to studies conducted at the District Council or LEA level. All of these investigations have been based on a ward-based definition of the coalfields developed by the Centre for Regional Economic and Social Research (CRESR) at Sheffield Hallam University. In this light, it was felt that a similar approach should be adopted for the current study, in order to allow a more accurate picture of the levels of educational attainment in the British coalfields to emerge. This involved the assembly and aggregation of relevant performance data for schools located in the areas included in this objective definition of the coalfields. To provide essential context, the study also included equivalent indicators for both comparator areas (i.e., those with a similar socio-economic profile to the coalfields) and, more importantly, national level benchmarks (England, Scotland and Wales). These geographical frames of reference are explained more fully in the next section.

2. DATA SOURCES AND STANDARD INDICATORS

Data Sources and Coverage

2.1 The central task of the study was the production of a consistent set of standard indicators of educational attainment for coalfield and comparator areas, and an assessment of the extent to which these converged or diverged from the equivalent national averages. The aim was to do this separately for boys and girls for the three most recent years for which data were available (i.e., 1997/98; 1998/99; and 1999/2000). Because of differences in the structure and content of their assessment and examination systems, the study also separated out the indicators for the three UK countries in which coalfield areas are located (England, Scotland and Wales).

2.2 A wide range of data sets was provided by the statistical services of the DfES, the National Assembly for Wales (NAW) and the Scottish Executive (SE). These covered Tasks and Tests at Key Stages 1, 2 and 3 (KS1, KS2, KS3), GCSE examinations, and GCE A/AS Level examinations in England and Wales; in Scotland, the assessments and examinations covered were at Primary 3 (P3), Primary 6 (P6), Standard 2 (S2), Standard Grade (SG) and Higher/CSYS. Most of these data sets gave counts of male and female pupils in the various categories by school or college for the years mentioned above. However, it was not possible to achieve this across the board because of deficiencies in data coverage. The problems encountered are summarised in Appendix 1.

2.3 The data sets received were subject to a rigorous series of checks for consistency and coverage. This enabled any gaps that became apparent to be filled, anomalies and inconsistencies to be resolved, and duplicate entries to be removed. Wherever possible, all schools located within coalfield and comparator areas were included in the analysis. However, a small number of independent and special schools were excluded from the analysis due to missing statistical returns for some years. A fuller discussion of this issue, and the number of schools involved at each stage is contained in Appendix 1. The resultant database that was used in the analysis contained aggregate pupil performance figures for the following types of establishment:

- all state primary and secondary schools.
- those independent and special schools for which records were available for all three years.

The number of establishments for each year and at each level are shown in separate tables for England, Wales and Scotland in Section 1 of Appendix 4.

2.4 National benchmark indicators for each assessment stage or qualification type were obtained from a number of sources. Most were taken from the regular bulletins and reports issued by the relevant statistical services in DfES, NAW and SE, and readily available on-line on their respective web sites. However, in some cases the raw figures were provided direct, as no equivalents were available in published form. This applied to A/AS Level results in England, and Standard Grade indicators in Scotland. As the majority of independent and special schools were retained in the area analysis, at national level the figures for "all schools" or "all establishments" were taken as the appropriate benchmarks.

Standard Indicators

2.5 The derivation of standard attainment indicators and their comparison with national averages proceeded in a series of stages. These were as follows:

- computer-based geographical referencing of each establishment;
- addition of the appropriate area code to school records;
- aggregation of counts for schools by individual area and type of area;
- conversion of these raw totals into percentages;
- calculation of percentage points differences between these and the national benchmarks.

These methods are explained in greater detail in Appendix 1.

2.6 The standard indicators used for England and Wales are shown in Table 2.1. In these a clear distinction has been made between the compulsory education for boys and girls up to the age of 16 and the elective nature of educational participation post-16, and this division has been adopted for the purposes of the analysis presented in the sections 4 and 5 below.

2.7 The indicators for compulsory education in Scotland are shown in Table 2.2. Due to lack of comparable benchmark data for Scotland, it was not possible to conduct a full analysis and interpretation of post-16 student performance at Higher Grades and CSYS.

Table 2.1 : Standard Educational Attainment Indicators Used in the Study, England and Wales

Test/Exam	Standard Indicator
PRE-16	
KS1 (7 year olds)	% of boys/girls eligible reaching Level 2 or above in English Reading, English Writing, English Spelling and Maths (also Welsh and Welsh Reading, but not English Spelling in Wales)
KS2 (11 year olds)	% of boys/girls eligible reaching Level 4 or above in English, Maths and Science (also Welsh in Wales)
KS3 (14 year olds)	% of boys/girls eligible reaching Level 5 or above in English, Maths and Science (also Welsh in Wales)
GCSE (15/16 year olds)	% of boys/girls in the year entered for 1 or more GCSE
	% of boys/girls in the year obtaining 5 or more passes at grades A* to C
	% of boys/girls in the year obtaining 1 or more passes at grades A* to G
	% of boys/girls in the year entering GCSEs but obtaining no passes
	average points score for boys/girls at GCSE
POST-16	
A/AS Level	% of boys/girls on school or college rolls entered for 1 or more A/AS Level
	% of boys/girls entered for 1 or more A/AS Level obtaining 1 or more pass at grades A to E
	% of boys/girls entered for 1 or more A/AS Level obtaining 2 or more passes at grades A to E
	average points score for boys/girls at A/AS Level

Table 2.2 : Standard Educational Attainment Indicators Used in the Study, Scotland

Test/Exam	Standard Indicator
PRE-16	
P3 (8 year olds)	% pupils eligible reaching Level A or above in Reading, Writing and Maths
P6 (11 year olds)	% pupils eligible reaching Level C or above in Reading, Writing and Maths
S2 (14 year olds)	% boys/girls eligible reaching Level E or above in Reading, Writing and Maths
SG (15 year olds)	% boys/girls entered for SG obtaining 5 or more passes at grades 1 to 3
	% boys/girls entered for SG obtaining 5 or more passes at grades 1 to 6
	% boys/girls entered for SG obtaining no passes

NOTE: although post-16 indicators were calculated for Scotland, lack of equivalent benchmark data meant that these had to be excluded from the analysis.

3. GEOGRAPHICAL DEFINITIONS

Geographical Frames of Reference

3.1 The study employed two main geographical frames of reference:

- a definition of the British coalfields based on resident employment in coal-mining and associated industries at ward level in 1981. A fuller description of the derivation and composition of this coalfield geography can be found in Appendix 2. In summary, under this definition the British coalfields comprise 20 separate areas, together containing just over 2 million households and around 5 million people.

- a set of custom-defined "comparator areas". These were included to act as a check against which the figures for the coalfields could be more rigorously assessed. The definition and selection of comparator areas was based on matched socio-economic profiling, using coalfield areas as the guide. Further details of the methods adopted may be found in Appendix 3. In total 18 different comparator areas were selected. Like the coalfields, these also contained just over 2 million households and a population of around 5 million.

3.2 It should be emphasised that the comparator areas used in this study were selected because of their socio-economic and demographic similarity to the coalfields. The purpose of the comparison was to ascertain whether there is a particular "coalfields effect", or whether similar patterns of educational attainment are to be found in areas of similar social composition. It is notable that the comparator areas by and large exclude the inner parts of the major metropolitan areas, where deprivation levels can be high and there may be high proportions of immigrants, refugees and black and minority ethnic people. This should be borne in mind when interpreting the results of this study.

Catchment Areas and Cross-Boundary Movements

3.3 The combination of school- and college-based data with custom-defined geographical areas opened up the question of catchment areas and the extent to which these overlapped the boundaries of coalfield and comparator areas. This issue of cross-boundary pupil flows was resolved by assuming that there was a balancing of inward and outward movements for all coalfield areas on the one hand, and all comparator areas on the other. In view of this, it was decided that the main focus of the analysis would be on

these two types of area as a whole, rather than on individual areas, although these might merit mention in passing to highlight any notable variations in indicator values. Further discussion of the cross-boundary issue may be found in Appendix 1.

4. KEY INDICATORS OF EDUCATIONAL ATTAINMENT DURING COMPULSORY SCHOOLING

Introduction

4.1 Initial scrutiny of the attainment percentages for pre-16 educational attainment revealed noticeable negative differences between coalfield and comparator areas on the one hand and national averages on the other. These negative differences were generally of the same magnitude for both coalfield and comparator areas. Moreover, this disparity appeared to grow with age, so that the gap for those finishing compulsory education was much greater than for those just starting it. For this reason it was decided to present the indicators for all assessments and examinations for the pre-16 period by year, with separate figures for boys and girls. The rest of this section presents separate analyses of attainment during compulsory schooling for England, Wales and Scotland. Figures for selected individual coalfield and comparators areas may be found in Section 2 of Appendix 4.

England

4.2 Percentage attainment indicators for coalfields, comparator areas and England as a whole are shown in Table 4.1 for boys, and in Table 4.2 for girls; percentage point differences from the national average are set out in diagrammatic form in Figures 4.1 to 4.6 for the coalfields, and Figures 4.7 to 4.12 for comparator areas. Although the use of percentage point differences have been criticised for masking the relative scale of the two indicators involved (Gorard et al., 2001), they can be justified in this case as representing the proportion of pupils in the coalfields and comparators who might have been expected to reach a given standard or number of qualifications, but who did not do so. In other words, the differences accurately depict any gaps that exist between these areas and the country as a whole.

4.3 *Coalfields and national averages:* The diagrams illustrate the deterioration in performance with age for both boys and girls. Thus, the gap in the coalfields at KS1 was fairly small in 1998, and had lessened or even disappeared by 2000. Some improvement over time was noticeable for KS2 as well. However, the differences at KS3 showed no real change over the three years, hovering around the 5 to 6 percentage points mark. Relative performance at GCSE also remained much the same over the three years. The widest gap related to higher levels of achievement (5 or more passes at grades A* to C), where

the difference persisted at just under the 10 percentage point mark. The disparities for those obtaining one or more GCSE pass on the one hand, and for those entering for GCSE but achieving no passes on the other, were only a little smaller than this. In terms of individual coalfield areas, most followed the overall pattern and recorded negative differences from national averages, especially for older pupils. However, some areas do stand out as performing particularly badly across the different stages; these include East and West Durham, North Staffordshire and Nottinghamshire. Only one coalfield area showed any attainment that was consistently above the average (Lancashire at KS1 and KS2). However, at the later stages this area recorded below average figures that were more in line with the coalfields as a whole.

4.4 *Comparator areas and national averages:* The patterns described for the English coalfields were by and large replicated by the English comparator areas. In general the differences were very similar in order of magnitude for the two types of area. However, there was much greater variation between individual comparator areas than between coalfield areas. Some comparators had consistently large disparities with national averages, and in some cases these exceeded the figure for comparator areas as a whole by as much as ten percentage points. These areas included Hull, North Lincolnshire, South West Essex, Teesside and West Black Country. On the other hand, some comparators emerged in a fairly healthy position relative to national averages, in many cases recording better results; these included Furness, Mid-Cheshire and Mid-Northants.

4.5 *Average points scored at GCSE - coalfields and comparators:* Both coalfield and comparator areas shared relatively poor levels of performance at the higher end of GCSE attainment (5 or more passes at grades A* to C). Another way of examining the overall standard of performance at this stage is by reference to the average points[1] scored by boys and girls who have managed to obtain one or more passes. As Table 4.3 shows, again there were marked differences of 6 to 7 points for both boys and girls between the coalfields and the comparators on the one hand, and national averages on the other. However, the gap did narrow down to 3 points in 2000. This must reflect a marked relative improvement in the performance of those gaining GCSE passes in the coalfields and comparators, since the proportion actually obtaining one or more pass showed only marginal change. The other pertinent point to note is that the comparator

[1] Points are awarded on the basis of the pass grade obtained.

Table 4.1 : Percentage Attainment Indicators for Boys in Pre-16 Education, England, 1998-2000

(Percentages)	England			Coalfield Areas			Comparator Areas		
Standard Indicators	**1998**	**1999**	**2000**	**1998**	**1999**	**2000**	**1998**	**1999**	**2000**
Key Stage 1									
Level 2+ Reading	75	77	77	73	76	79	72	74	77
Level 2+ Writing	76	78	80	75	77	80	73	75	78
Level 2+ Spelling	60	66	67	59	65	68	58	63	65
Level 2+ Maths	83	85	89	82	84	88	80	83	87
Key Stage 2									
Level 4+ English	57	65	70	52	61	66	51	60	66
Level 4+ Maths	59	69	72	56	66	69	54	65	68
Level 4+ Science	70	79	84	67	77	82	65	75	82
Key Stage 3									
Level 5+ English	56	55	55	50	49	49	49	50	49
Level 5+ Maths	60	62	64	55	58	60	53	56	58
Level 5+ Science	57	55	61	53	50	57	51	49	55
GCSE									
Pupils Entered	94	94	95	94	94	94	93	94	94
5+ Passes at A* to C	41	43	44	32	34	35	34	35	36
1+ Passes at A* to G	92	93	94	84	86	86	84	85	85
No Passes	2	1	1	8	7	8	9	8	8

Table 4.2 : Percentage Attainment Indicators for Girls in Pre-16 Education, England, 1998-2000

(Percentages)	England			Coalfield Areas			Comparator Areas		
Standard Indicators	**1998**	**1999**	**2000**	**1998**	**1999**	**2000**	**1998**	**1999**	**2000**
Key Stage 1									
Level 2+ Reading	84	86	86	83	86	87	83	85	86
Level 2+ Writing	86	88	89	85	87	89	84	86	88
Level 2+ Spelling	72	77	77	70	77	78	70	75	76
Level 2+ Maths	86	88	91	85	88	91	85	86	90
Key Stage 2									
Level 4+ English	73	76	79	69	72	77	68	72	76
Level 4+ Maths	58	69	71	55	67	69	53	65	68
Level 4+ Science	69	78	85	66	76	84	63	75	83
Key Stage 3									
Level 5+ English	73	73	73	69	67	68	67	66	67
Level 5+ Maths	59	62	65	55	58	61	52	54	59
Level 5+ Science	55	55	58	49	48	54	47	46	51
GCSE									
Pupils Entered	96	96	96	95	96	96	95	95	95
5+ Passes at A* to C	52	53	55	42	45	46	42	44	46
1+ Passes at A* to G	95	95	95	89	90	90	87	88	89
No Passes	1	1	1	6	5	5	7	6	6

Figure 4.1: Pre-16 Attainment Gaps for English Coalfield Areas, Boys 1998

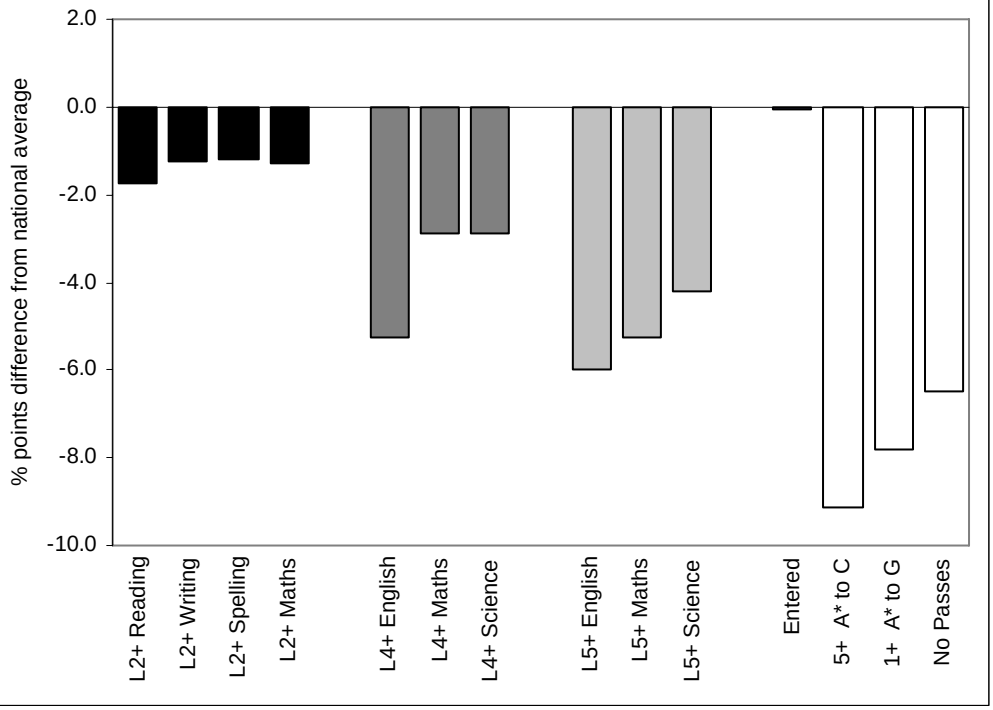


Figure 4.2: Pre-16 Attainment Gaps for English Coalfield Areas, Girls 1998

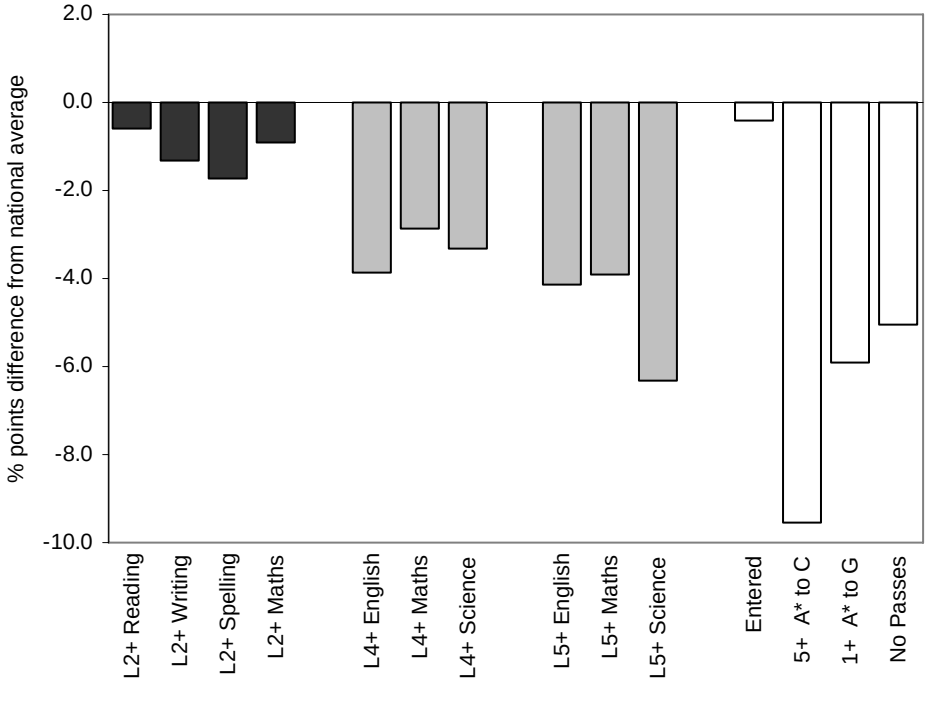


Figure 4.3: Pre-16 Attainment Gaps for English Coalfield Areas, Boys 1999

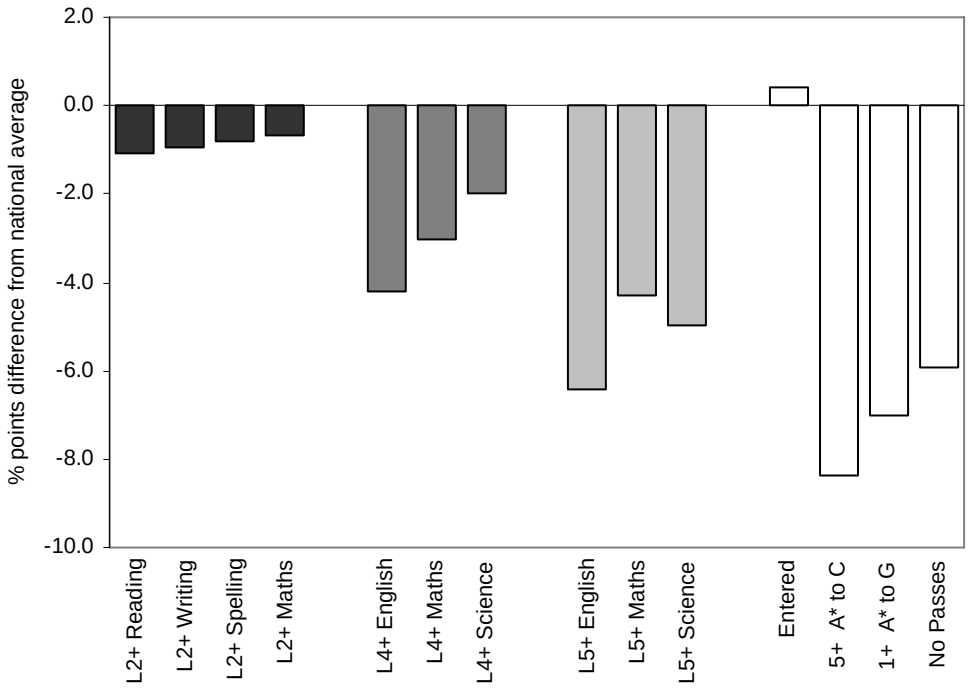


Figure 4.4: Pre-16 Attainment Gaps for English Coalfield Areas, Girls 1999

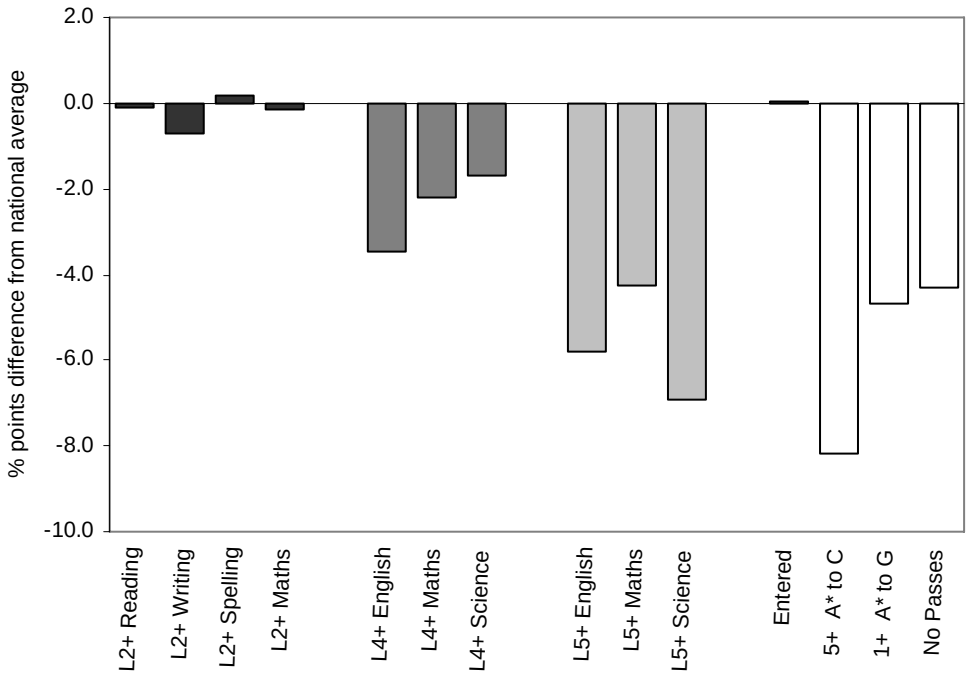


Figure 4.5: Pre-16 Attainment Gaps for English Coalfield Areas, Boys 2000

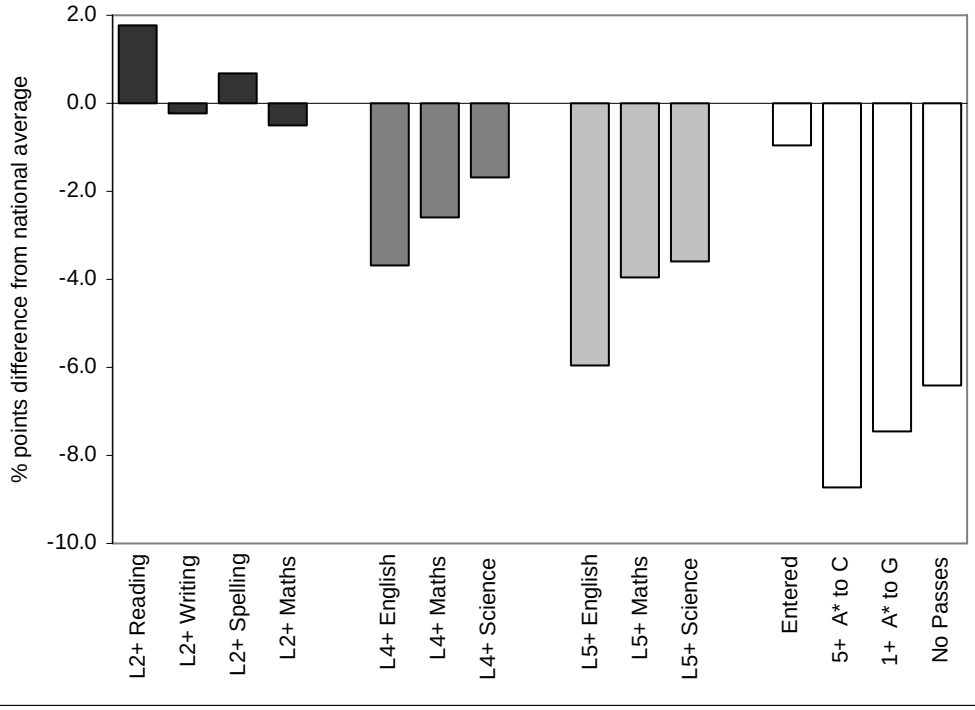


Figure 4.6: Pre-16 Attainment Gaps for English Coalfield Areas, Girls 2000

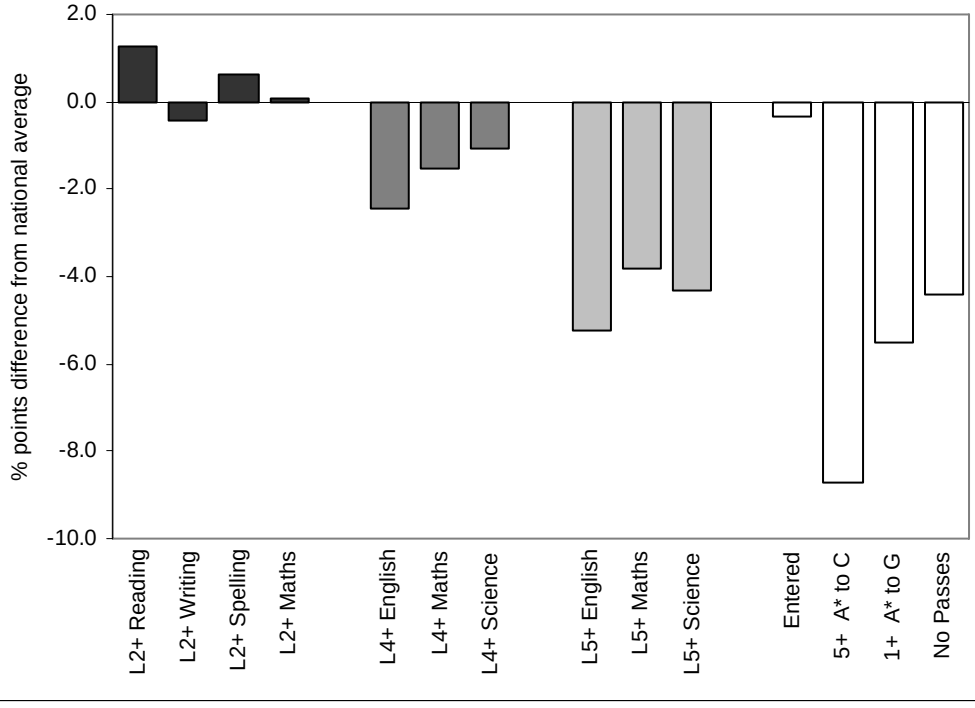


Figure 4.7: Pre-16 Attainment Gaps for English Comparator Areas, Boys 1998

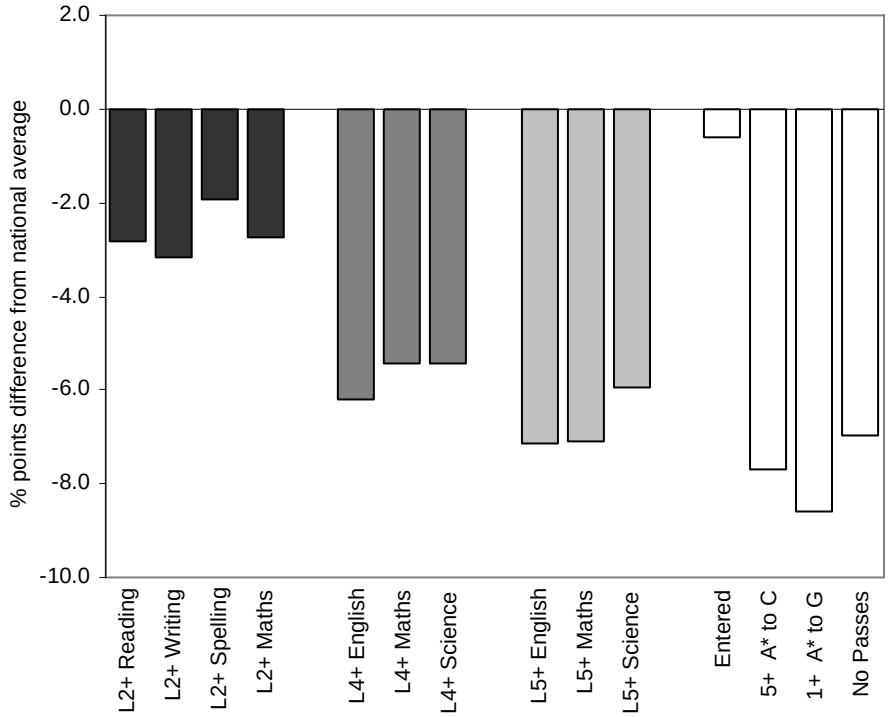


Figure 4.8: Pre-16 Attainment Gaps for English Comparator Areas, Girls 1998

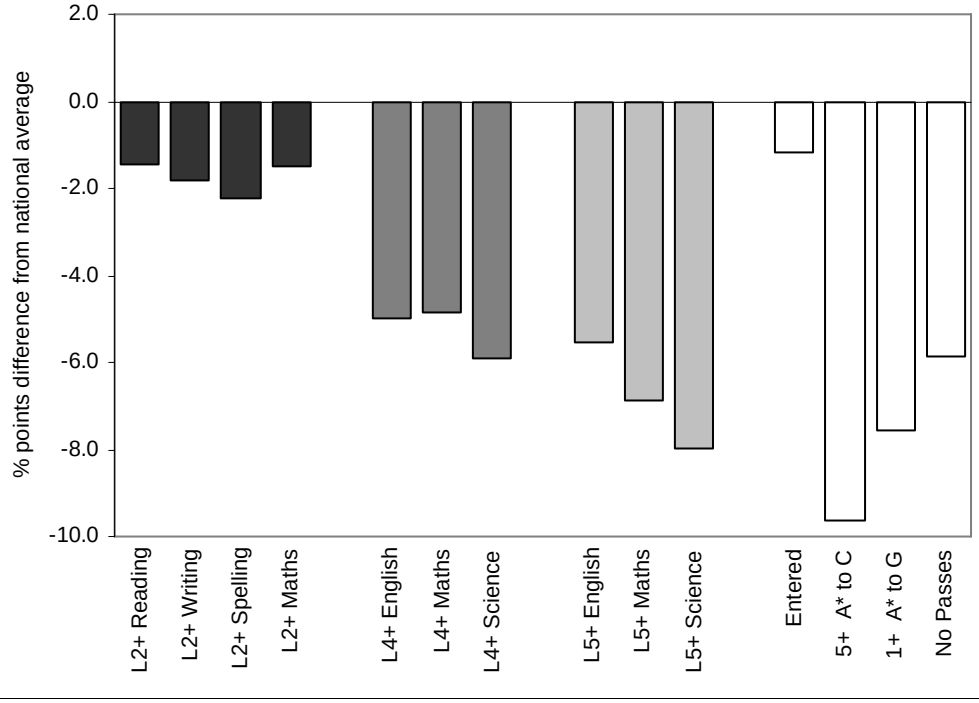


Figure 4.9: Pre-16 Attainment Gaps for English Comparator Areas, Boys 1999

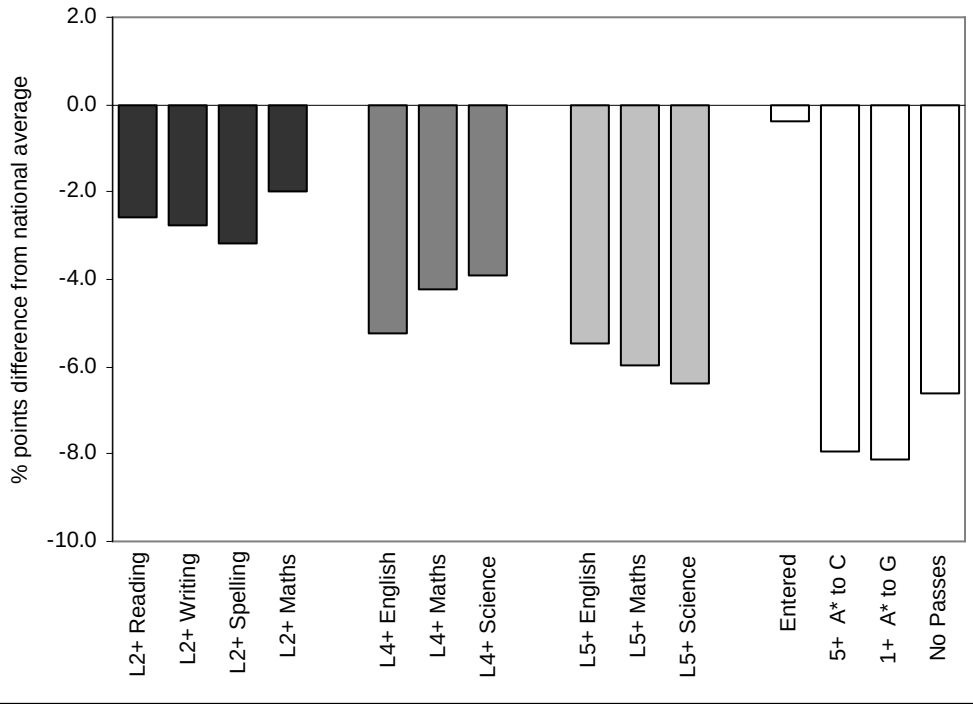


Figure 4.10: Pre-16 Attainment Gaps for English Comparator Areas, Girls 1999

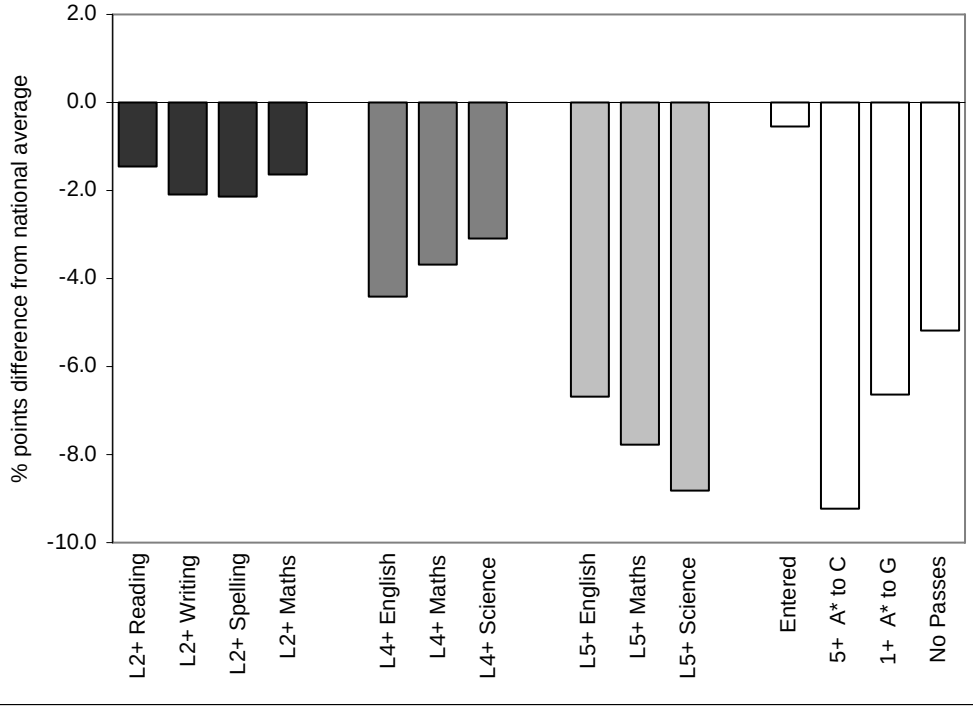


Figure 4.11: Pre-16 Attainment Gaps for English Comparator Areas, Boys 2000

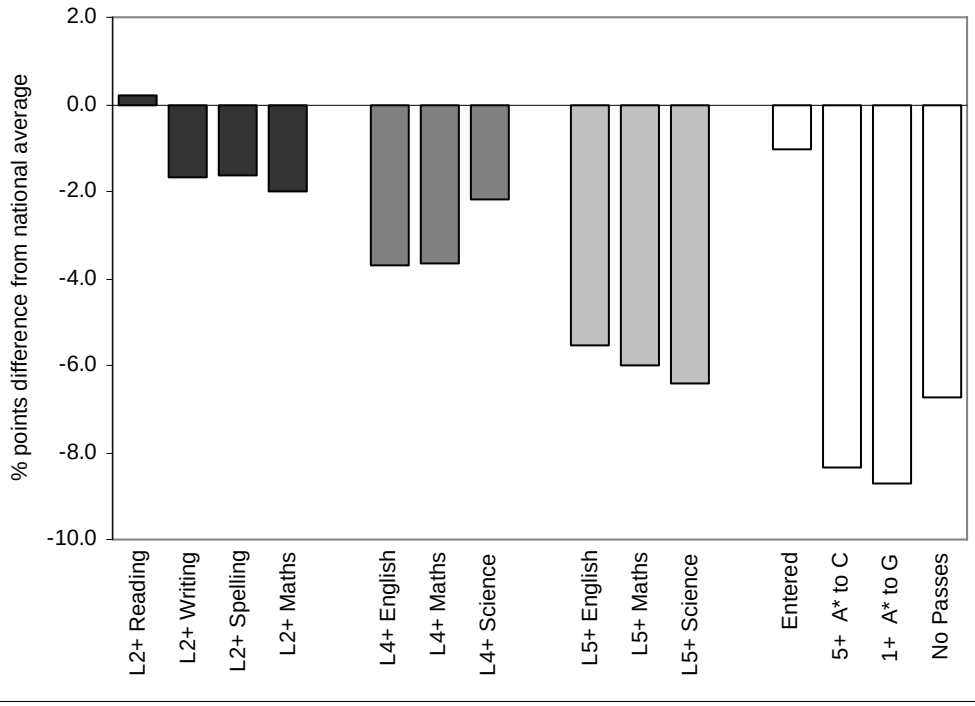


Figure 4.12: Pre-16 Attainment Gaps for English Comparator Areas, Girls 2000

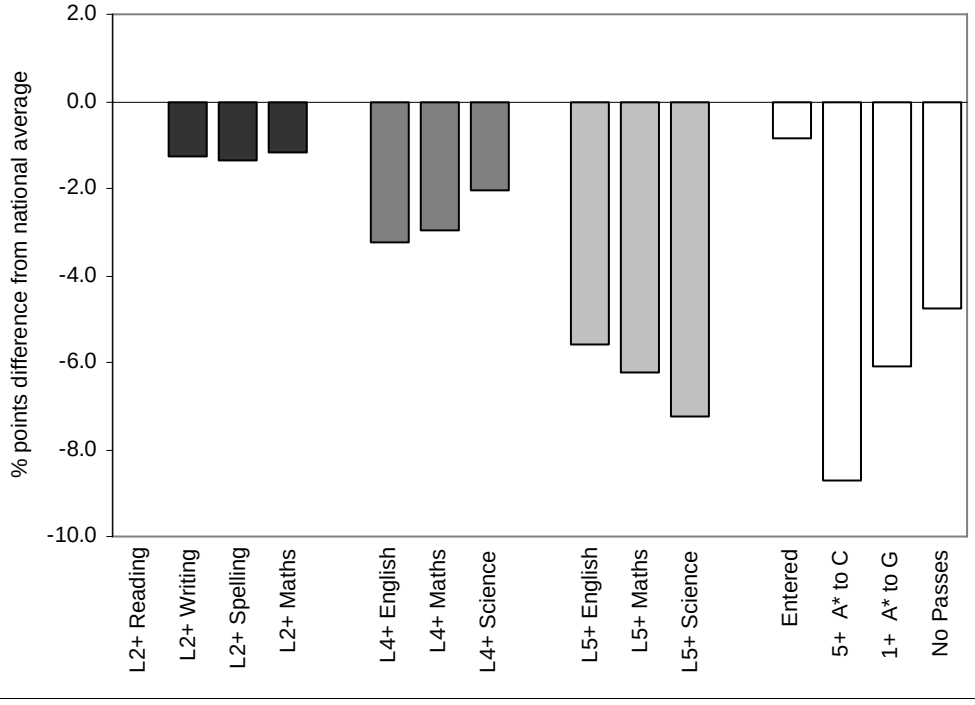


Table 4.3 : Average Points Scored by Boys and Girls at GCSE, England, 1998-2000

	England		Coalfields		Comparators	
	Boys	**Girls**	**Boys**	**Girls**	**Boys**	**Girls**
1998	33.5	38.8	25.9	31.3	27.4	31.8
1999	34.7	40.1	27.5	33.1	28.6	33.4
2000	35.4	40.9	32.1	37.6	32.6	37.8

areas fare a little better than the coalfields on this indicator for both boys and girls across all three years, although again this gap narrowed in 2000.

4.6 *Gender differences - coalfields and comparators:* Another feature of the graphs is the remarkable similarity in patterns and trends for boys and girls in both coalfield and comparator areas. This is not to imply that their actual levels of performance were on a par with one another; as tables 4.1 and 4.2 indicate, girls in both types of area fared better than boys at all stages and in most subjects save science at KS2 and KS3. This is broadly in line with overall national patterns. What the diagrams show is that the gaps in attainment between the coalfields and national averages were virtually the same for boys and girls. At the same time, it is also important to underline the fact that attainment levels in coalfield and comparator areas have been far from static, with marked improvements in all Key Stage subjects except KS3 English for boys. Even at GCSE there have been marginal improvements in pass rates. The main difference is that at secondary level any improvements have been more or less in line with national trends.

4.7 *Summary and discussion:* The results of the analysis for England suggest that, in terms of educational attainment, the coalfields share strong similarities with other areas characterised by high levels of deprivation. While none of the individual coalfield areas may be amongst the worst performing in the country, the consistency of the shortfall between their figures and national averages, especially at secondary level, should give cause for concern. For both coalfields and comparators, the findings show that the major fall-off in performance occurs during the teenage years. The relative improvements shown by pupils at KS1 and KS2 do not yet appear to be mirrored by similar developments at KS3 and GCSE. Clearly this research can provide no basis to judge whether the recent enhanced performance in the early years will be reflected in subsequent improved levels of achievement when these children reach 14 or 16. This in turn raises the issue of cohort effects. In essence, the argument here is that presenting attainment data for different age

groups in this way may give a false impression of longitudinal progression or change over time. It should be remembered that the results shown are for different age groups (or cohorts) for each year, and with only three years' data to work with, it is not possible to tell the extent to which improving attainment levels at KS1 may be carried through to subsequent stages. Equally, it is not possible to detect whether the level of performance of a given group at a particular stage is maintained over time, or whether it does actually deteriorate in relative terms in the teenage years.

Wales

4.8 In analysing the results of the Welsh pre-16 data two issues need to be kept in mind. Firstly, the two Welsh coalfield areas comprise just under 25% of the population of Wales, with the majority of this resident in the South Wales coalfield. In addition, the two Welsh comparator areas account for 10% of the total population of the country. Given that the two areas combined account for approximately one-third of Wales, their figures will inevitably have some effect on the national averages; it can therefore be expected that any differences between the Welsh coalfields and the national benchmarks will be smaller than those in England. Secondly, in terms of numbers, the two Welsh comparator areas are relatively small; these low volumes may lead to fluctuations in percentage attainment levels, particularly where there are lower numbers of entrants. The possibility of using an England and Wales benchmark was considered, but this was rejected because it would entail exclusion of Welsh language test results from the analysis.

4.9 Percentage attainment figures for the Welsh coalfields, Welsh comparator areas and Wales as a whole are shown in Table 4.4 for boys and Table 4.5 for girls. The percentage points differences from the national average are illustrated in Figures 4.13 to 4.18 for coalfields, and Figures 4.19 to 4.24 for comparator areas. Attainment level patterns, whilst more varied than those for England, do reveal a generally negative difference between coalfield areas and the national average. However, unlike the findings for England, the pattern of these disparities is more inconsistent, and deterioration across the four levels is not as marked. Both findings support the comment made in the previous paragraph, that the sheer size of the coalfields in relation to Wales as a whole is likely to have some statistical influence on national averages, and hence in the differences between the two sets of indicators. That said, there were irregular instances throughout the three years where attainment levels in both coalfield and comparator areas exceeded or were very close to the national average. These occurred primarily in Welsh subjects for both boys and girls at Key Stages 1 and 2, although there were cases in other subjects

Table 4.4 : Percentage Attainment Indicators for Boys in Pre- Education, Wales, 1998-2000

(Percentages)	Wales			Coalfield Areas			Comparator Areas		
Standard Indicators	**1998**	**1999**	**2000**	**1998**	**1999**	**2000**	**1998**	**1999**	**2000**
Key Stage 1									
Level 2+ English Writing	74	76	78	71	73	75	73	76	76
Level 2+ English Reading	74	75	77	72	72	75	72	75	75
Level 2+ Welsh	83	84	84	83	85	81	86	85	86
Level 2+ Welsh Reading	77	77	76	77	77	75	70	75	70
Level 2+ Welsh Writing	67	71	68	70	75	66	64	66	65
Level 2+ Maths	82	84	88	80	81	87	80	83	85
Key Stage 2									
Level 4+ English	56	63	67	53	61	65	54	62	67
Level 4+ Maths	60	67	67	57	66	66	59	66	68
Level 4+ Science	69	77	79	65	76	78	68	76	79
Level 4+ Welsh	59	59	61	58	59	61	56	69	67
Key Stage 3									
Level 5+ English	53	54	51	52	50	49	50	53	50
Level 5+ Maths	60	60	60	58	56	57	58	58	59
Level 5+ Science	56	55	60	53	51	55	55	51	57
Level 5+ Welsh	60	63	61	59	62	60	59	62	62
GCSE									
Pupils Entered	91	92	93	90	92	92	91	92	93
5+ Passes at A* to C	40	42	43	34	38	40	35	38	40
5+ Passes at A* to G	79	80	82	76	78	79	77	80	81
No Passes	11	10	9	12	11	10	11	10	9

Table 4.5 : Percentage Attainment Indicators for Girls in Pre-Education, Wales, 1998-2000

(Percentages)	Wales			Coalfield Areas			Comparator Areas		
Standard Indicators	**1998**	**1999**	**2000**	**1998**	**1999**	**2000**	**1998**	**1999**	**2000**
Key Stage 1									
Level 2+ English Writing	85	87	88	81	85	86	84	86	87
Level 2+ English Reading	84	86	87	81	85	86	83	84	84
Level 2+ Welsh	90	91	91	89	93	91	90	87	94
Level 2+ Welsh Reading	88	87	88	86	88	86	83	79	89
Level 2+ Welsh Writing	81	84	83	81	85	82	75	76	85
Level 2+ Maths	87	88	92	85	87	91	85	86	90
Key Stage 2									
Level 4+ English	74	74	80	72	73	78	71	73	77
Level 4+ Maths	62	67	71	61	68	69	63	65	68
Level 4+ Science	69	77	82	67	78	81	70	77	80
Level 4+ Welsh	72	72	75	72	77	76	71	76	73
Key Stage 3									
Level 5+ English	72	70	68	69	68	66	68	67	66
Level 5+ Maths	60	60	61	56	58	59	58	58	60
Level 5+ Science	54	55	58	49	52	54	51	51	56
Level 5+ Welsh	79	79	78	78	75	76	75	71	83
GCSE									
Pupils Entered	93	94	94	92	93	93	92	93	94
5+ Passes at A* to C	46	48	49	40	43	45	41	43	45
5+ Passes at A* to G	82	83	85	80	81	83	80	83	84
No Passes	9	8	8	10	9	9	10	9	8

Figure 4.13: Pre-16 Attainment Gaps for Welsh Coalfield Areas, Boys 1998

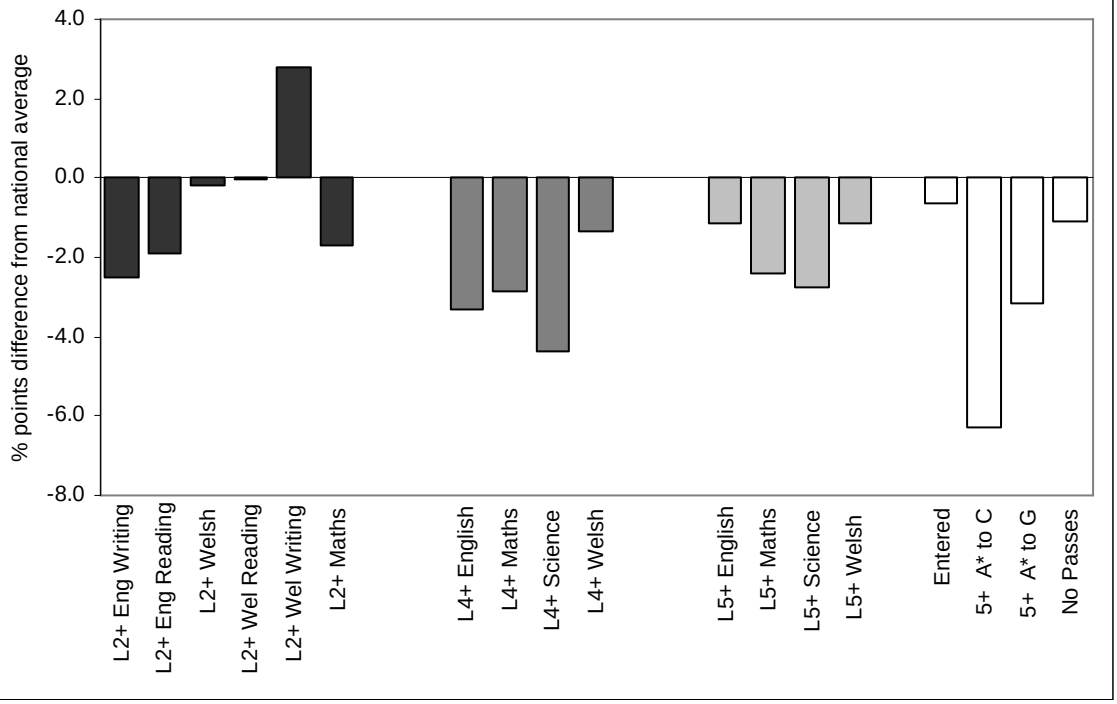


Figure 4.14: Pre-16 Attainment Gaps for Welsh Coalfield Areas, Girls 1998

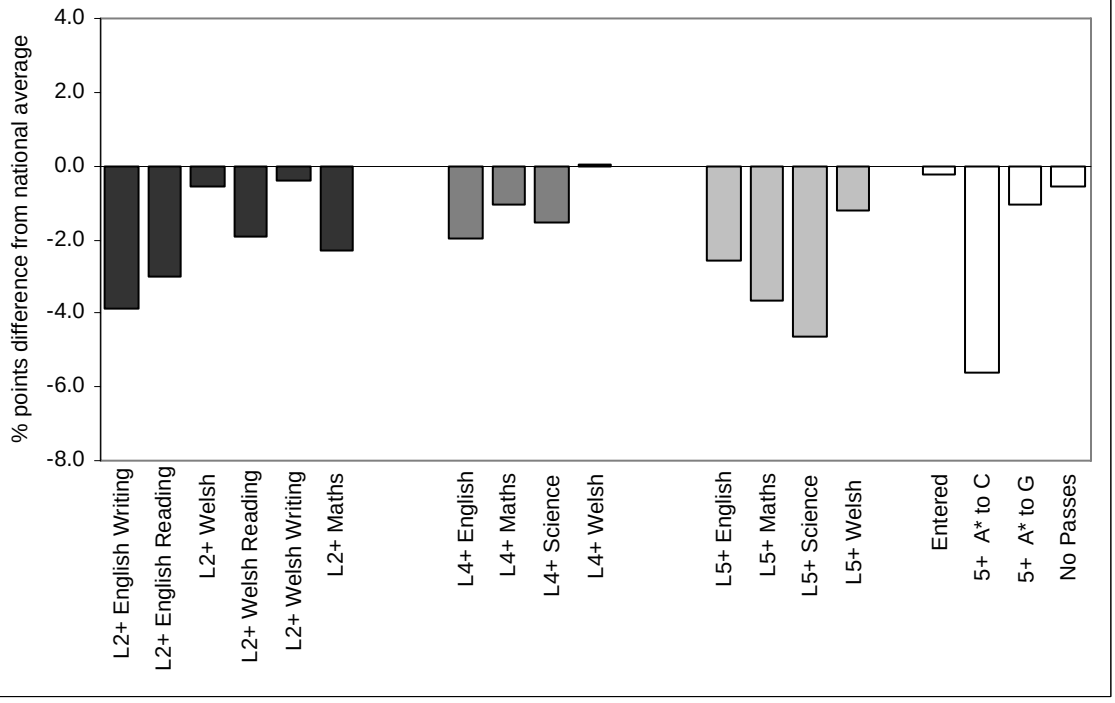


Figure 4.15: Pre-16 Attainment Gaps for Welsh Coalfield Areas, Boys 1999

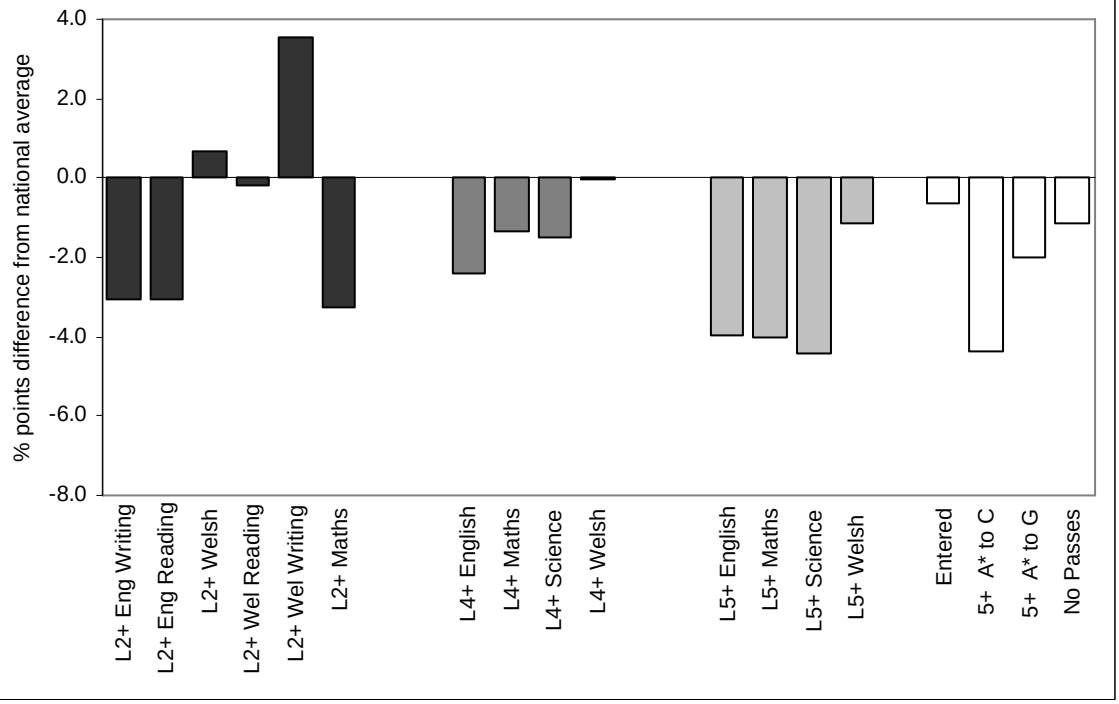


Figure 4.16: Pre-16 Attainment Gaps for Welsh Coalfield Areas, Girls 1999

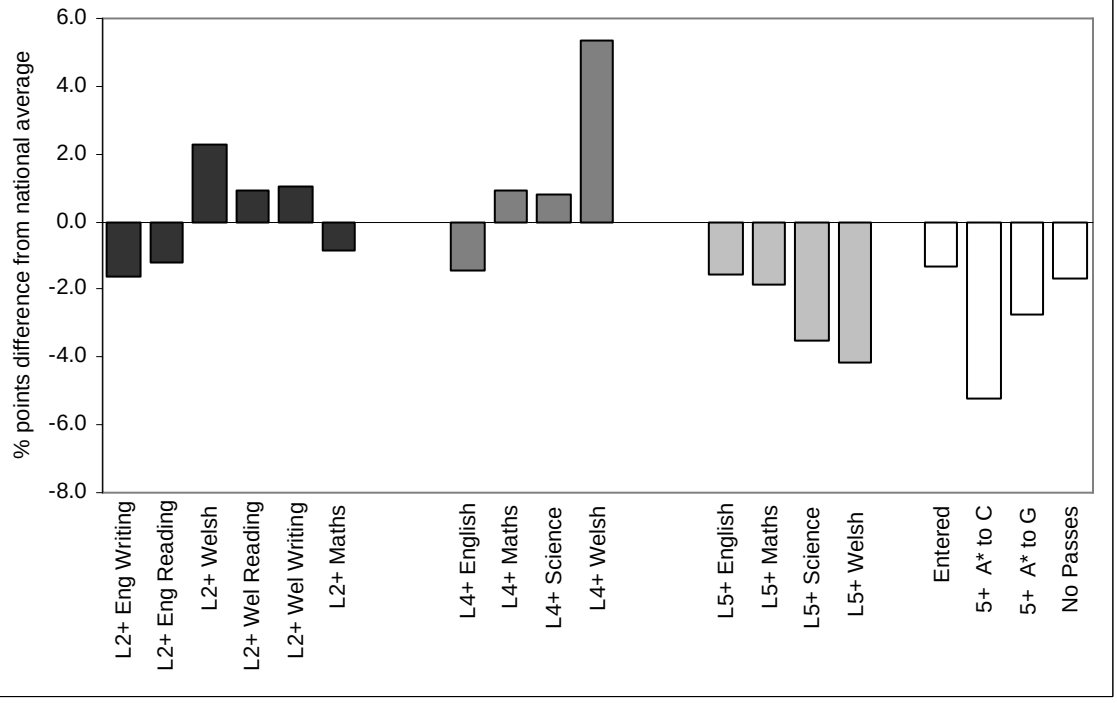


Figure 4.17: Pre-16 Attainment Gaps for Welsh Coalfield Areas, Boys 2000

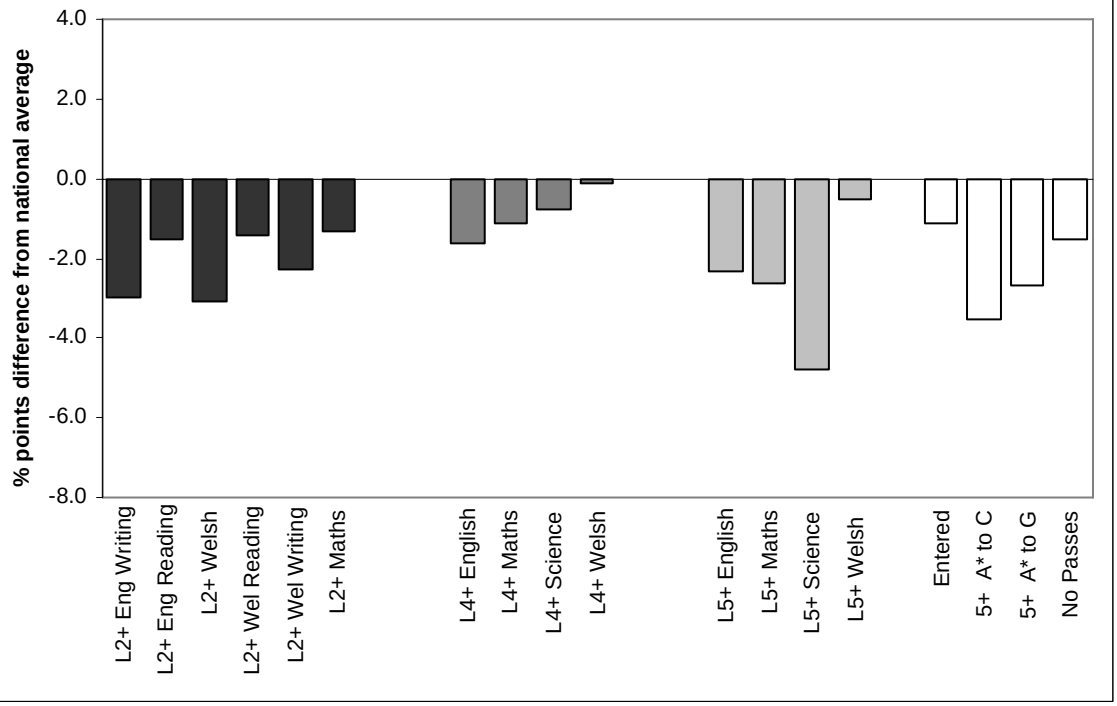


Figure 4.18: Pre-16 Attainment Gaps for Welsh Coalfield Areas, Girls 2000

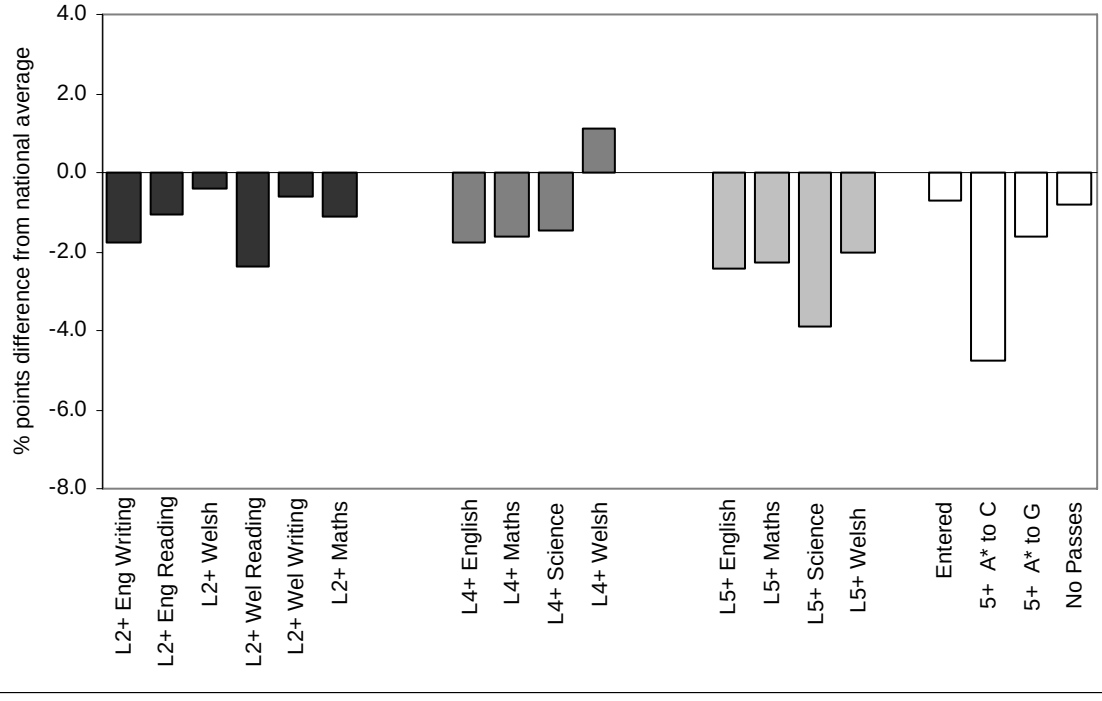


Figure 4.19: Pre-16 Attainment Gaps for Welsh Comparator Areas, Boys 1998

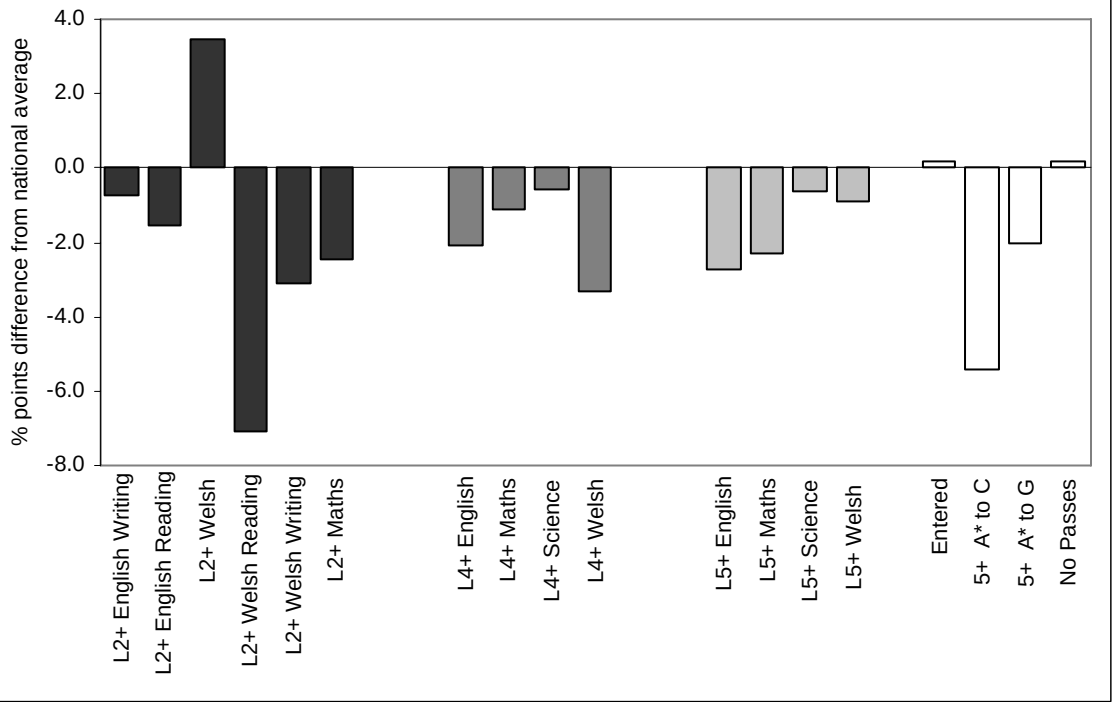


Figure 4.20: Pre-16 Attainment Gaps for Welsh Comparator Areas, Girls 1998

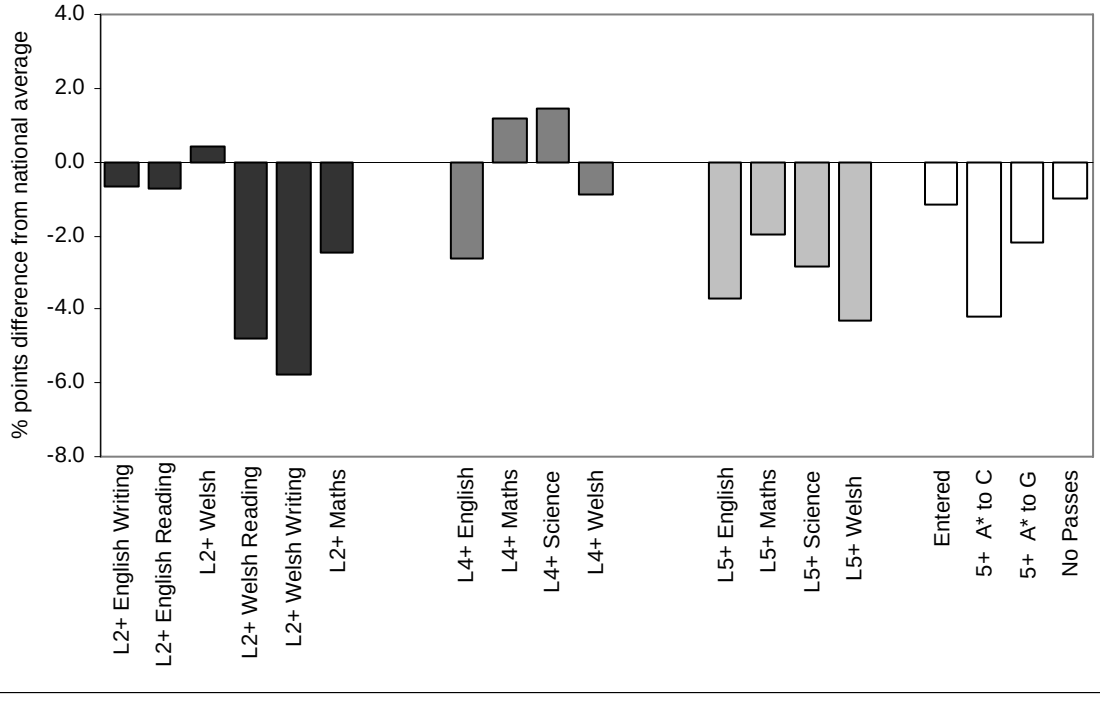


Figure 4.21: Pre-16 Attainment Gaps for Welsh Comparator Areas, Boys 1999

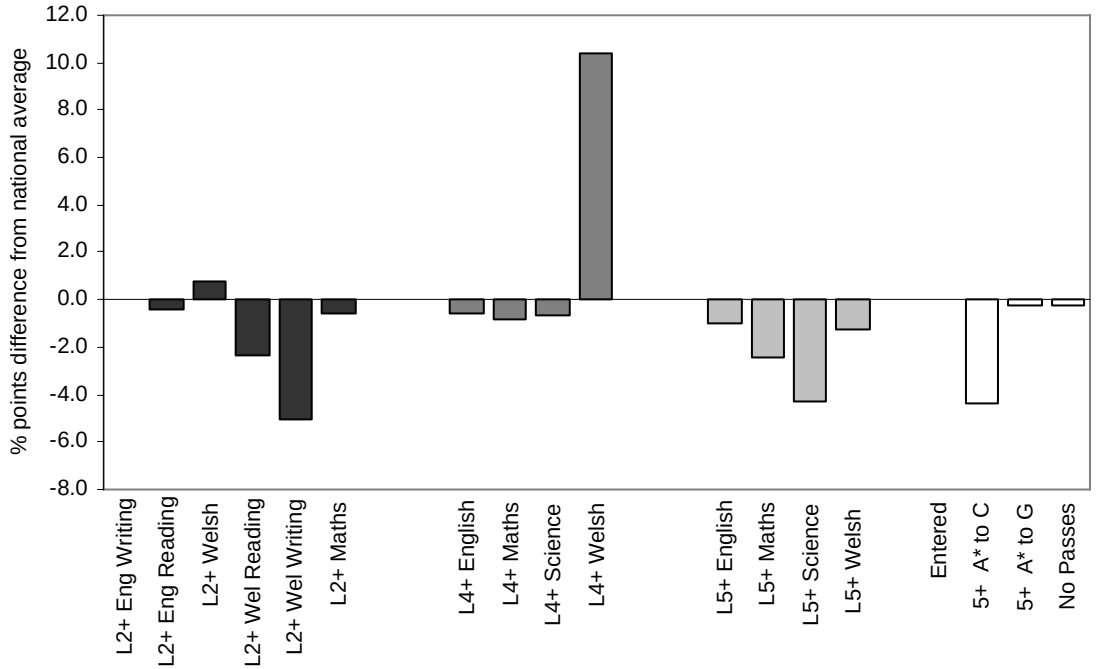


Figure 4.22: Pre-16 Attainment Gaps for Welsh Comparator Areas, Girls 1999

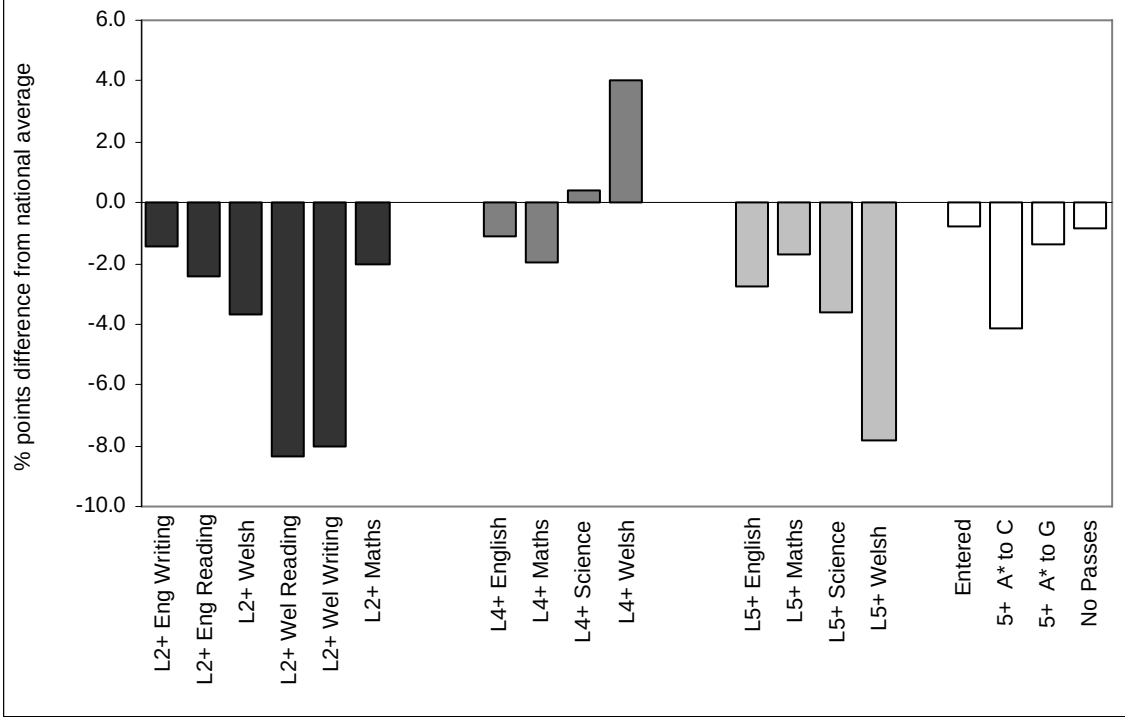


Figure 4.23: Pre-16 Attainment Gaps for Welsh Comparator Areas, Boys 2000

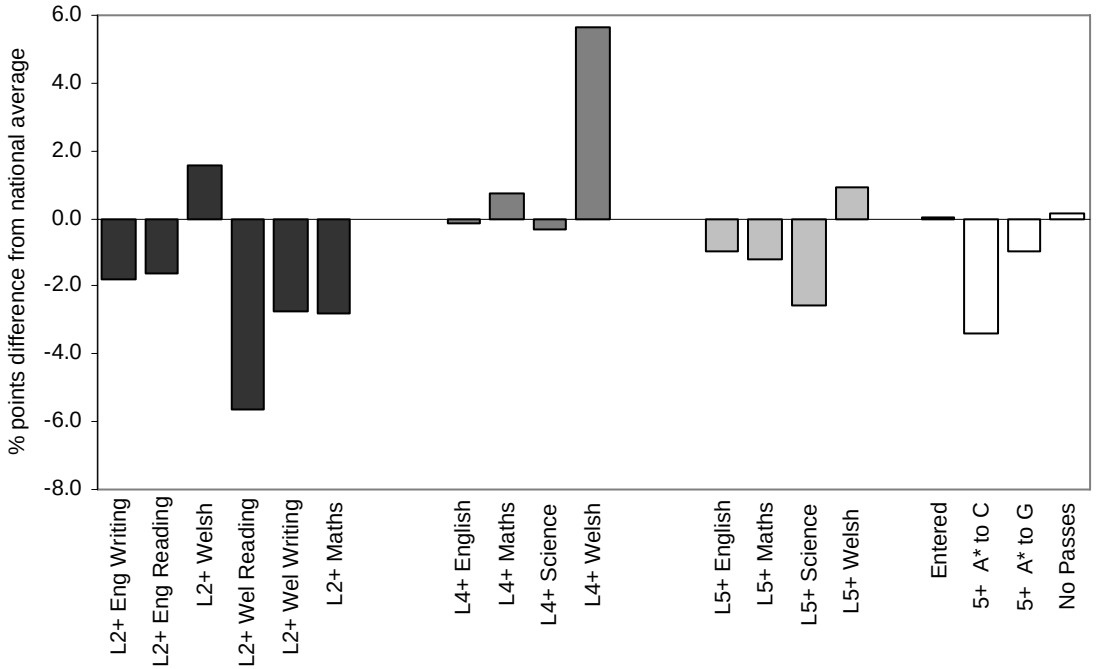
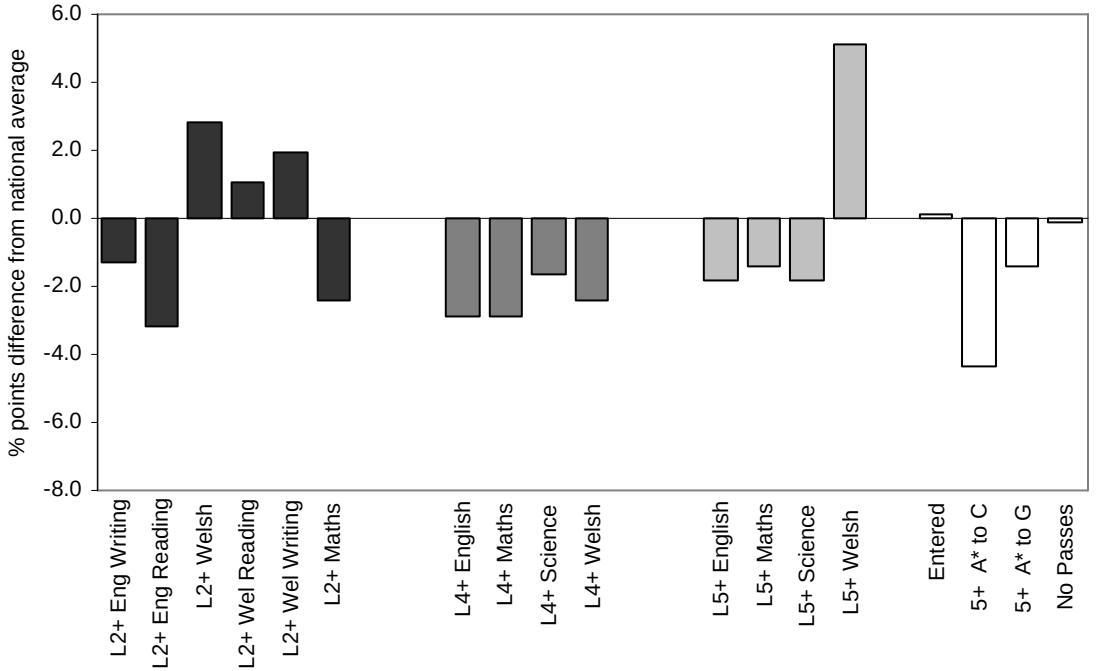


Figure 4.24: Pre-16 Attainment Gaps for Welsh Comparator Areas, Girls 2000



and at other stages. Because of the small number of coalfield and comparator areas in Wales (two of each) and the small size of some of them, there are no area figures for Wales included in Appendix 4.

4.10 One of the factors that may lie behind the anomalies in Welsh tests is the smaller numbers of pupils who sit them, particularly in the comparator areas (200 to 300 pupils, or around 6 per cent of the total). Another possible influence may be the variation in the way that Welsh is taught and examined in different parts of the country. Thus, while all schoolchildren in the Welsh coalfields and comparators receive Welsh teaching, not all are entered for the Welsh tests at Key Stages 1, 2 and 3. Most of those who are entered attend Welsh medium schools. In those parts of the coalfield and comparator areas where Welsh is not widely spoken, such attendance may be a matter of parental choice, and strong parental support may be another factor. The relatively restricted number of Welsh medium schools in parts of the coalfields may also mean that they draw children from a wider catchment area, parts of which may be quite different to their immediate surroundings. There may also be a "schools effect" at play here. In contrast, in those parts of Wales where Welsh is the lingua franca and the medium of education in all schools, such as Gwynedd in the north-west, attainment levels in Welsh tend to be below the national average.

Table 4.6 Average Points Scored by Boys and Girls at GCSE, Wales, 1998-2000

	Wales		Coalfields		Comparators	
	Boys	**Girls**	**Boys**	**Girls**	**Boys**	**Girls**
1998	33	39	27	34	29	34
1999	34	40	30	36	29	36
2000	35	41	32	38	29	35

4.11 The average points scored at GCSE level also illustrates the differences between the coalfield and comparator areas on the one hand, and the national average on the other, with differences of up to 6 points between them. This gap narrowed to 3 points for both boys and girls in the coalfield areas in 2000. In contrast the comparator area gap for both boys and girls widened to six points in 2000.

Scotland

4.12 The analysis of comparative attainment levels in Scotland has been treated separately because of the different educational system that exists north of the border, and the different assessment and examination structures associated with it. This required a

separate set of attainment indicators to be selected, and these in turn could only be benchmarked against figures for Scotland and Scottish comparators. This meant that the exercise was altogether more restricted in scope, and the indicator values that have been produced should be interpreted with that in mind.

4.13 In this section the indicators for Scotland are presented solely for all the coalfield areas in that country on the one hand, and for all Scottish comparator areas on the other. There are no area figures for Scotland in Appendix 4. This is because many of the areas concerned are relatively small in either or both extent or population, and thus are likely to be characterised by relatively high levels of cross-boundary movement, particularly in an outwards direction. There are three sizeable areas - East Lothian and Fife/Central amongst the coalfields, and North Clydeside amongst the comparators - where the way in which the areas have been defined includes most of the schools that serve the area and some of the hinterland beyond. If anything, these are more likely to be net “importers” of schoolchildren from surrounding areas. It was felt that these two opposite trends probably balanced out for the two types of area when combined together, and for this reason it was decided not to list any separate attainment figures for individual areas. A further justification for this was that it would also prevent others from calculating potentially misleading residual figures for the smaller areas.

4.14 Reliable figures for pre-16 test assessments other than Standard Grade examinations were only available for the years 1998/99 and 1999/2000. Moreover, there was no gender breakdown provided in the P3 and P6 statistics. The relative attainment levels for the Scottish coalfield and comparator areas for P3, P6 and S2 are shown in Table 4.6, along with the national benchmarks. The differences are presented in diagrammatic form in Figures 4.25 to 4.28. The general picture that emerges is similar to that for England and Wales, with the coalfields showing a consistent shortfall in terms of the proportion of pupils reaching the standard targets at each level. However, there is a degree of fluctuation in these differences at P6 and S2, with an improvement in performance in 2000 for the former, and a deterioration for the latter. Thus, while the gaps remain at all stages, it is more difficult to detect the clear deterioration across the stages as it is in England. It is not clear why this should be the case. One element is the much bigger disparity that has already opened up at P3, compared to KS1, though note that these stages are not directly comparable. The other important point to note is the fact that the Scottish comparator areas by and large perform much better than the coalfields.

Table 4.6 : Percentage Attainment Indicators for All Pupils in Pre-Standard Grade Education, Scotland, 1998-2000

(Percentages)	Scotland			Coalfield Areas			Comparator Areas		
Standard Indicators	**1998**	**1999**	**2000**	**1998**	**1999**	**2000**	**1998**	**1999**	**2000**
Primary 3									
Level A+ Reading	NA	81	85	NA	75	79	NA	80	86
Level A+ Writing	NA	70	79	NA	65	75	NA	68	78
Level A+ Maths	NA	93	94	NA	93	93	NA	90	94
Primary 6									
Level C+ Reading	NA	76	80	NA	71	74	NA	75	80
Level C+ Writing	NA	62	68	NA	56	62	NA	61	67
Level C+ Maths	NA	75	75	NA	70	69	NA	74	75
Secondary 2									
Level E+ Reading	NA	44	53	NA	41	45	NA	43	55
Level E+ Writing	NA	38	44	NA	33	35	NA	31	40
Level E+ Maths	NA	42	47	NA	39	41	NA	33	42

Table 4.7 : Percentage Attainment Indicators at Standard Grade, Scotland, 1997-1999

(Percentages)	Scotland			Coalfield Areas			Comparator Areas		
Standard Indicators	**1997**	**1998**	**1999**	**1997**	**1998**	**1999**	**1997**	**1998**	**1999**
Boys									
Pupils Entered	94	94	95	94	94	95	93	93	93
5+ Passes at Grades 1 to 3	48	49	51	44	43	45	45	47	48
5+ Passes at Grades 1 to 6	89	89	90	88	88	89	87	87	87
No Passes	6	6	5	6	6	5	7	7	7
Average Points Scored per Pupil	152	153	158	142	139	146	149	154	157
Girls									
Pupils Entered	95	95	96	96	96	97	96	94	96
5+ Passes at Grades 1 to 3	60	60	63	55	57	57	59	57	62
5+ Passes at Grades 1 to 6	90	91	93	90	91	93	91	89	92
No Passes	4	5	4	5	4	3	4	6	4
Average Points Scored per Pupil	175	176	183	163	164	170	178	177	184

This may in part be related to the difficulties in identifying directly comparable areas in Scotland (see Appendix 3), and partly to the ameliorative influence of the two small but largely rural areas that were included. The one major urban industrial belt included (North Clydeside) in fact has indicator values that are more in line with those for the coalfields as a whole.

4.15 Not surprisingly, a similar pattern of coalfields underperformance continues at Standard Grade. The figures for these are presented separately in Table 4.7 because they are available for different years than the other pre-16 data, and contain a gender split as well. Diagrammatic comparison with national benchmarks are shown in Figures 4.29 to 4.32. Again, the big differences are to be found at higher levels of achievement, persisting at around 5 to 6 percentage points for 5 or more passes at grades 1 to 3. This holds for both boys and girls, and is emphasised by the huge differences in the average points scored per pupil (consistently in double figures). In contrast, the gap for 5 or more passes at grades 1 to 6 is much smaller, of the order of 1 percentage point. The comparator areas fare generally better than the coalfields on all counts, although they do tend to fall consistently below the national average as well.

Figure 4.25: Pre-16 Attainment Gaps for Scottish Coalfield Areas, 1999

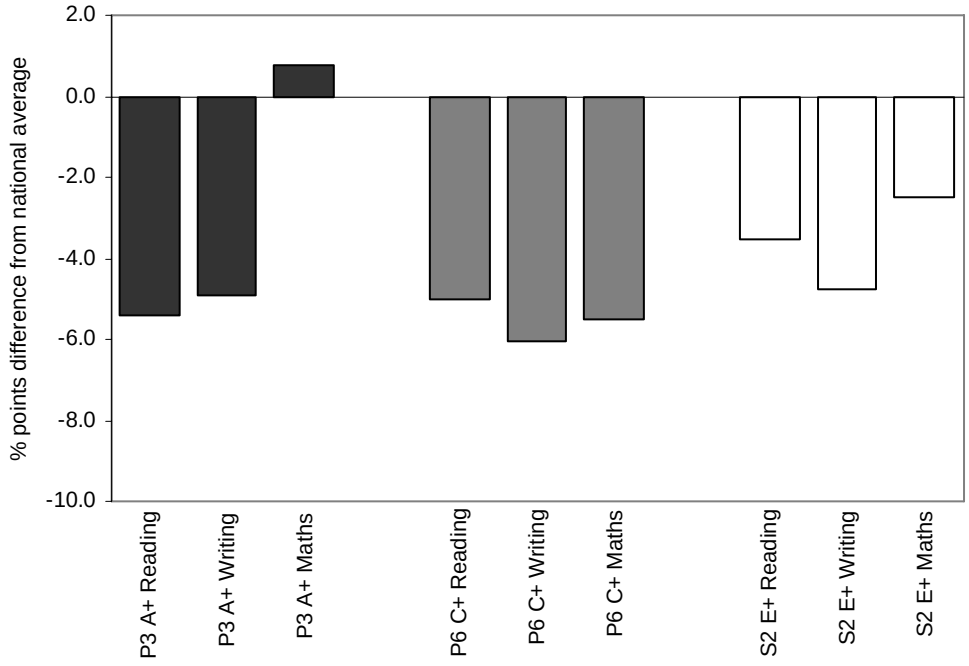


Figure 4.26: Pre-16 Attainment Gaps for Scottish Comparator Areas, 1999

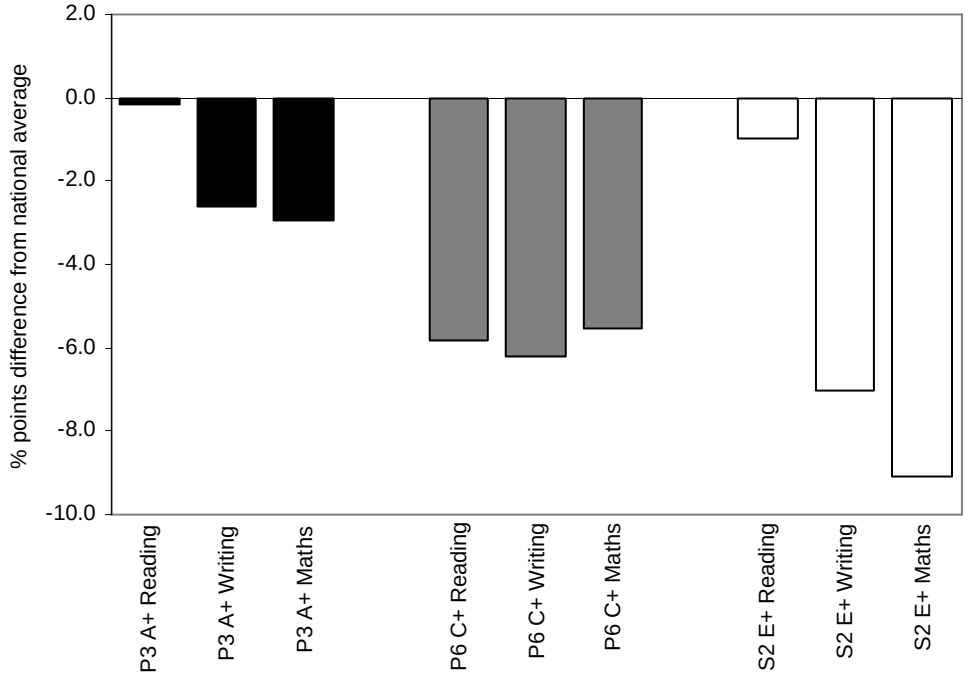


Figure 4.27: Pre-16 Attainment Gaps for Scottish Coalfield Areas, 2000

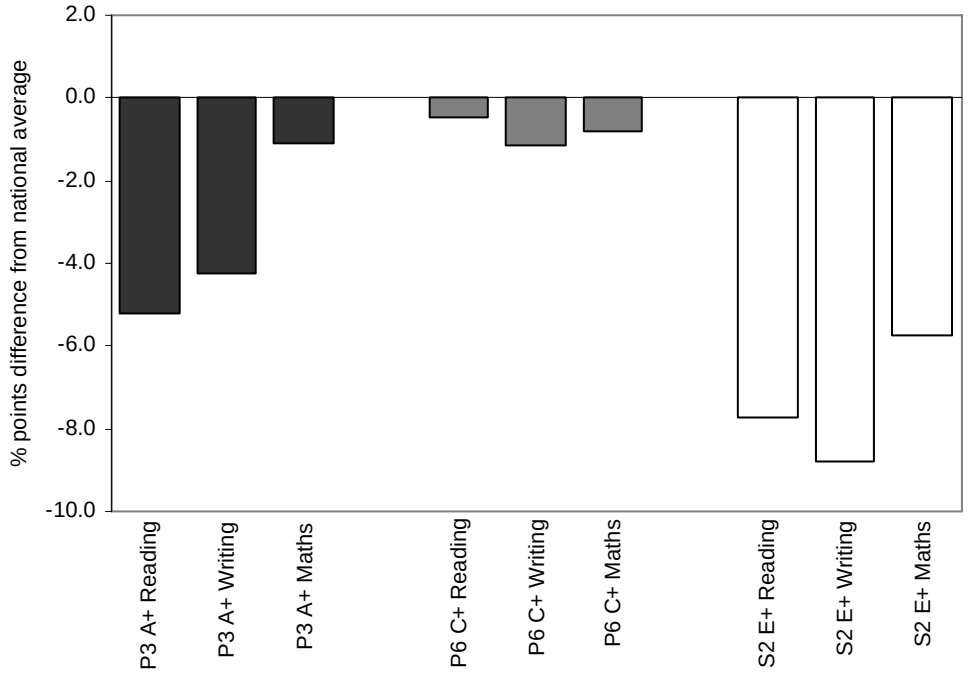


Figure 4.28: Pre-16 Attainment Gaps for Scottish Comparator Areas, 2000

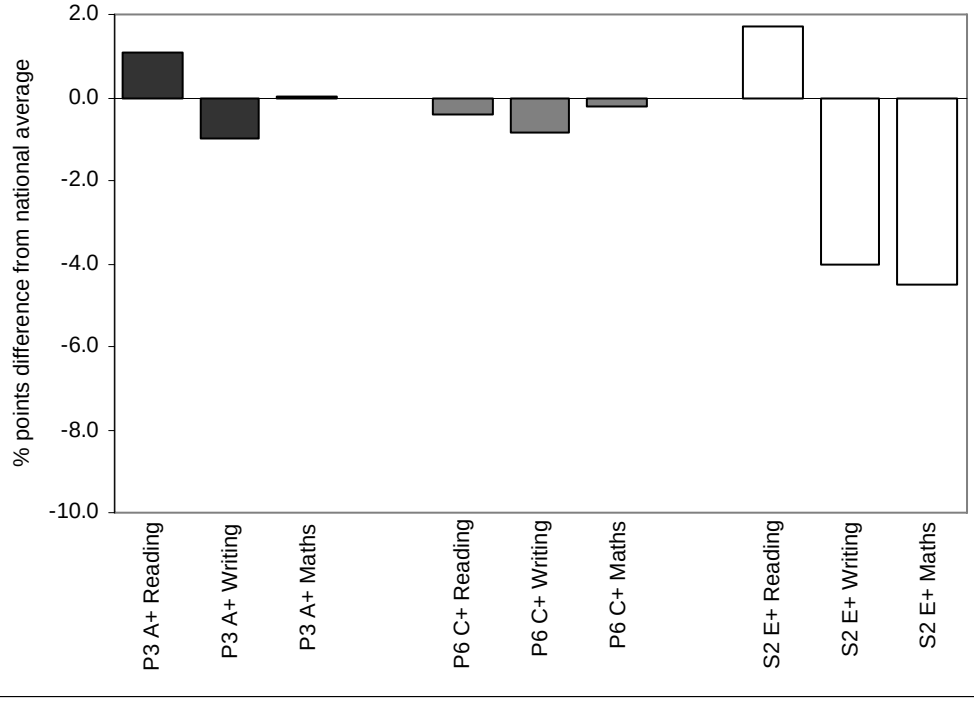


Figure 4.29: Pre-16 Attainment Gaps of Standard Grades for Scottish Coalfield Areas, Boys 1997-1999

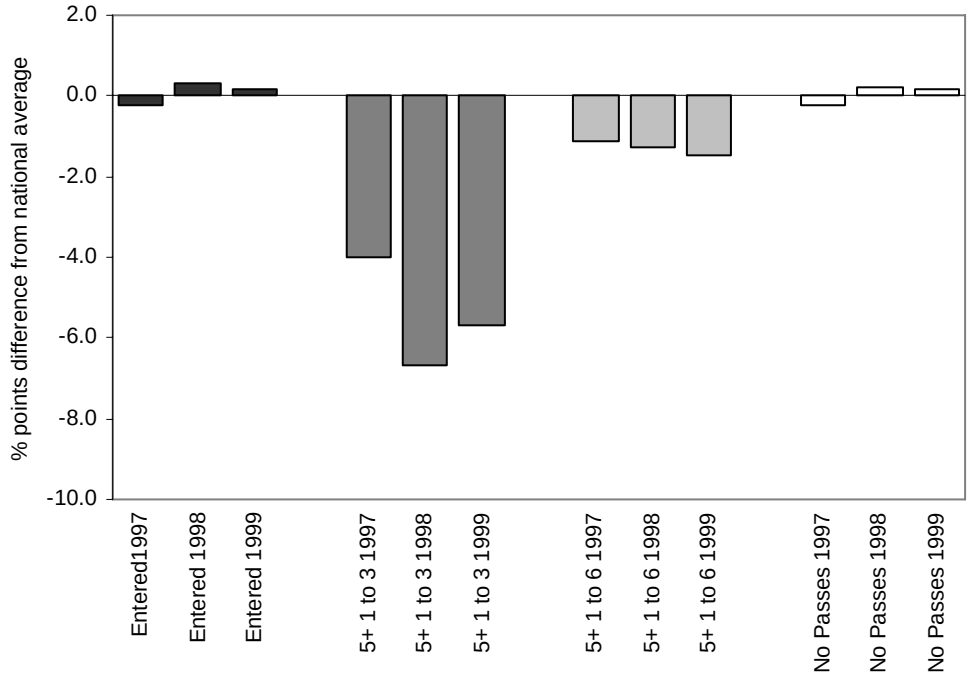


Figure 4.30: Pre-16 Attainment Gaps of Standard Grades for Scottish Comparator Areas, Boys 1997-1999

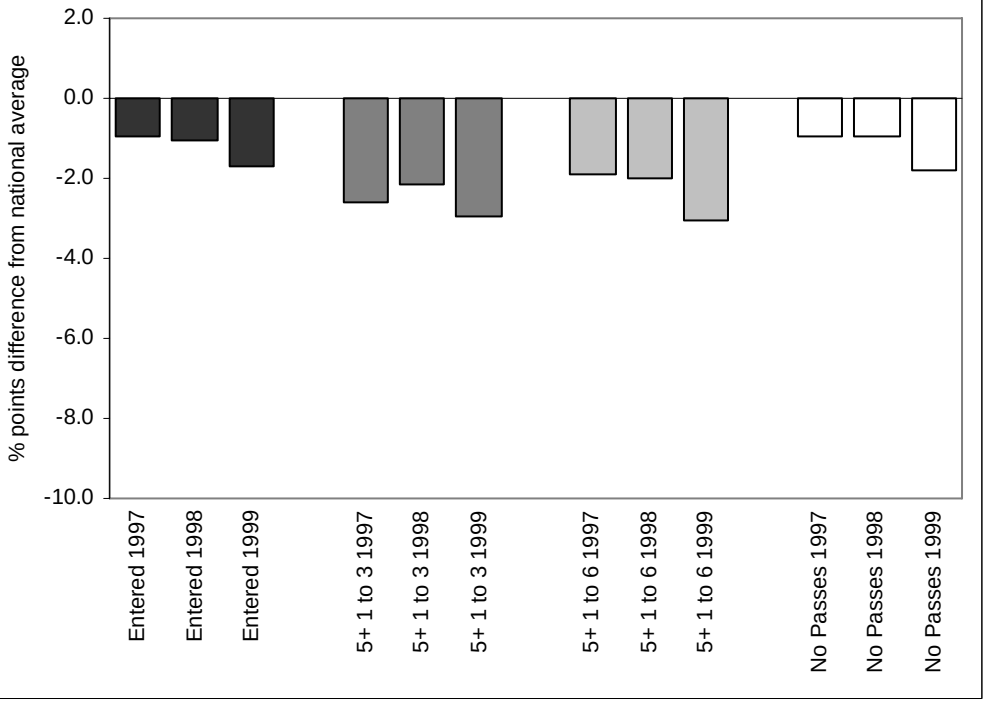


Figure 4.31: Pre-16 Attainment Gaps of Standard Grades for Scottish Coalfield Areas, Girls 1997-1999

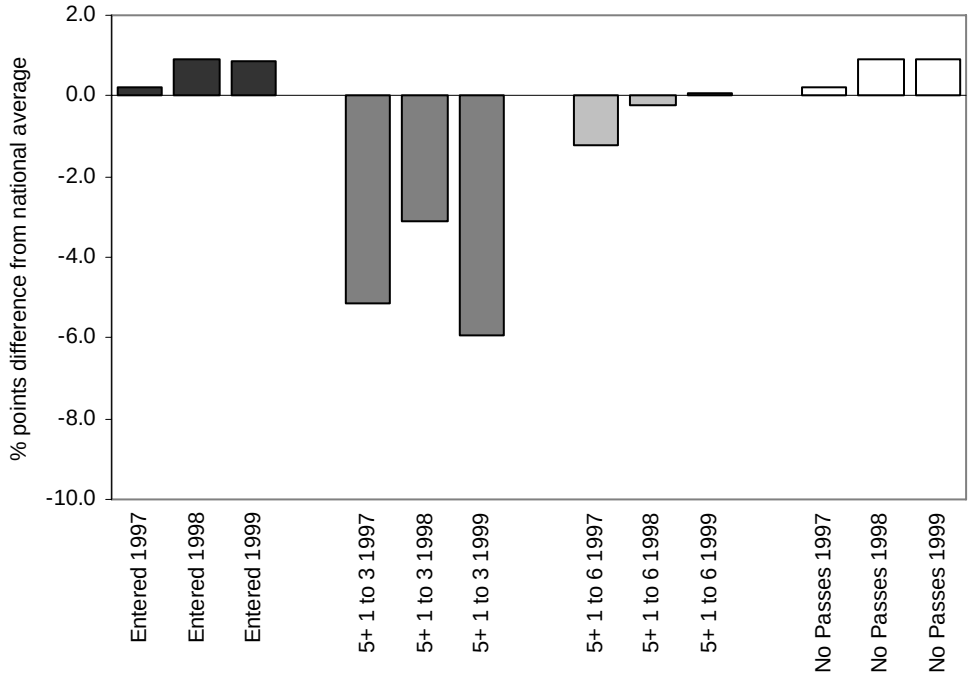
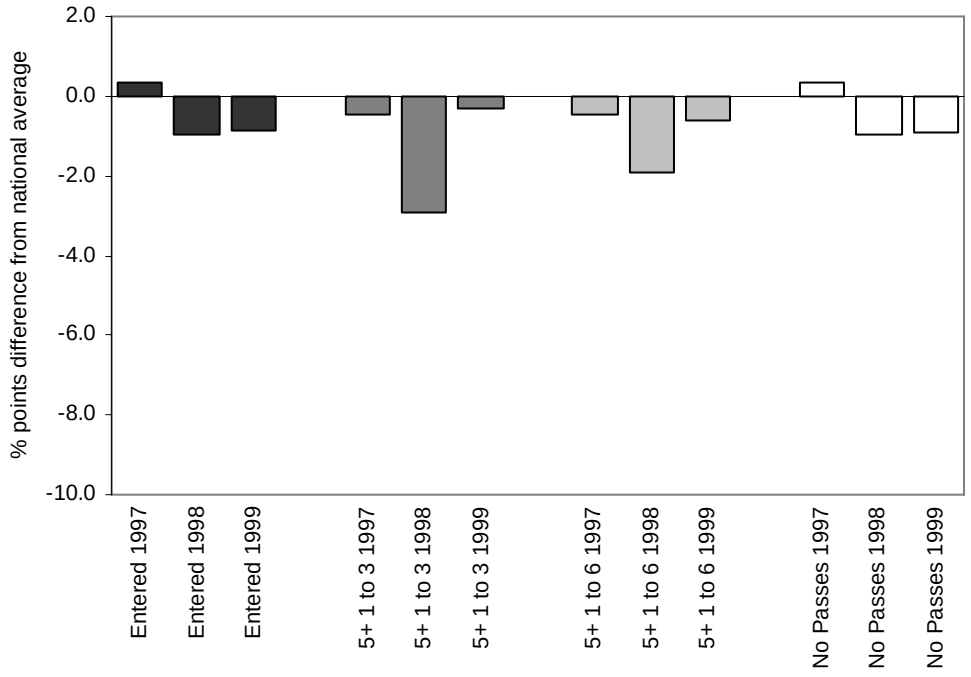


Figure 4.32: Pre-16 Attainment Gaps of Standard Grades for Scottish Comparator Areas, Girls 1997-1999



5. KEY INDICATORS OF POST-16 EDUCATIONAL ATTAINMENT

England

5.1 The analysis presented in the previous section illustrates the consistent patterns of educational underperformance at all pre-16 stages in coalfield and comparator areas alike. The findings confirm the perceptions of commentators and policy-makers at national, regional and local levels. As such, the adoption of an establishment-based approach for this part of the analysis can be seen to be justified, in spite of the unknown effects that cross-boundary journeys to school might have. It is more difficult to defend use of the same method to assess post-16 educational attainment. This is partly because of the tendency for more residents of some areas than others to travel of necessity to "external" institutions, and hence not to be picked up in any establishment-based calculations. It is also partly related to the elective nature of post-16 education, which could lead to only a self-selecting elite of more able and motivated people staying on in education to study for A/AS Levels. Both factors could produce distortions in comparative attainment levels, since potentially a large proportion of the relevant population age group might be excluded from the analysis.

5.2 The original intention of the study was to provide this context by producing participation estimates for each area, and to compare these with national averages. However, for the reasons expressed in Appendix 1, it was not possible to generate any robust and reliable figures for participation across all of the data that were made available during the study. It was also concluded that essential checks on any numbers would have been difficult, given that no information was available on the destinations of other school leavers, such as employment, unemployment or economic inactivity. This in turn suggested that post-16 participation was not just about education and training, but about a range of other statuses as well, and the subject would be best approached by use of a more comprehensive accounting framework.

5.3 In spite of these difficulties, it was decided that the study should still include establishment-based attainment indicators for A/AS Level examinations for coalfield and comparator areas. This was because, when taken as a whole, such areas are likely to include most residents who stay on in school or go to college after the age of 16. The areas with the greatest "leakage" to establishments outside are either small in size or have very tightly drawn boundaries. In both cases the numbers involved are relatively small, they do not pass the threshold of 10 secondary schools, and generally lack an FE

college, so their figures are not included separately in the detailed tables in Appendix 4. All of the larger areas, with commensurately larger numbers, lie comfortably above the threshold and contain several FE colleges. While combining area-based school and college-based statistics in this way does not completely overcome the difficulties outlined above, they do allow an indicative illustration of post-16 attainment in the English coalfields to be depicted.

5.4 *Coalfields and national averages:* Figures on attainment levels for boys and girls entering for one or more A/AS Level in 1998, 1999 and 2000 in the coalfields, comparator areas and England as a whole are shown in Table 5.1. Percentage point differences from the national average for the coalfields for boys are plotted on Figure 5.1; those for girls in Figure 5.2. The immediate impression is one of remarkable consistency, both in overall performance levels for all areas and in the gap between the coalfields and the national average. The only change appears to be a slight deterioration in the relative position of girls in the coalfields over the three years. In many ways the graphs also mirror those presented in section 4 on pre-16 education. Thus, the most marked disparities are again at the higher end, namely in the proportions obtaining two or more A/AS Level passes. This is underlined by the lower average points scores in coalfield areas; the smaller scale of the disparity here is accounted for by the lower values involved.

5.5 *Comparator areas and national averages:* The equivalent charts for comparator areas are shown in Figures 5.3 and 5.4. Again, the norm is for these areas to underperform in comparison with England as a whole, with the greatest disparities at higher levels of achievement. Again there were some wide variations in terms of individual comparator areas, with the consistently worst performers across the three years being Tyneside, North Lincolnshire and Telford amongst comparator areas. Certain coalfield areas also stood out as performing badly, particularly those in the North East and Other Coalfields categories. It is not clear what influence the inclusion of smaller coalfields in the latter category had on the resultant attainment figures.

Table 5.1 : Percentage Attainment Indicators for Boys and Girls in Post-16 Education, England, 1998-2000

(Percentages)	England			Coalfield Areas			Comparator Areas		
Standard Indicators	**1998**	**1999**	**2000**	**1998**	**1999**	**2000**	**1998**	**1999**	**2000**
Boys									
Obtaining 1 or more passes at grades A to E at A/AS Level	91	91	91	89	90	89	89	90	90
Obtaining 2 or more passes at grades A to E at A/AS Level	71	70	69	66	67	65	67	67	66
Average points scored by those with 2 or more A/AS Level passes	17.8	17.8	17.9	16.3	16.7	16.9	17.5	17.6	17.4
Average points scored at A/AS Level/AGNVQ	16.7	16.6	16.8	14.4	15.0	15.5	15.5	15.6	15.5
Girls									
Obtaining 1 or more passes at grades A to E at A/AS Level	93	92	92	90	90	89	90	92	90
Obtaining 2 or more passes at grades A to E at A/AS Level	72	72	71	69	68	66	67	69	67
Average points scored by those with 2 or more A/AS Level passes	18.1	18.2	18.6	16.4	16.8	17.1	17.0	17.5	18.0
Average points scored at A/AS Level/AGNVQ	17.1	17.2	17.5	14.9	15.5	15.5	15.5	16.1	16.3

Table 5.2 : Percentage Attainment Indicators for Boys and Girls in Post-16 Education, Wales, 1998-2000

(Percentages)	Wales			Coalfield Areas			Comparator Areas		
Standard Indicators	**1998**	**1999**	**2000**	**1998**	**1999**	**2000**	**1998**	**1999**	**2000**
Boys									
Obtaining 1 or more passes at grades A to E at A/AS Level	82	83	82	78	77	78	80	81	80
Obtaining 2 or more passes at grades A to C at A/AS Level	46	47	48	40	41	42	41	42	43
Obtaining no passes at A/AS Level	18	17	18	22	23	22	20	19	20
Girls									
Obtaining 1 or more passes at grades A to E at A/AS Level	83	85	84	81	82	81	82	83	82
Obtaining 2 or more passes at grades A to C at A/AS Level	51	54	54	47	49	49	47	49	49
Obtaining no passes at A/AS Level	17	15	16	19	18	19	18	17	18

Figure 5.1: Post-16 Attainment Gaps for English Coalfield Areas, Boys 1998-2000

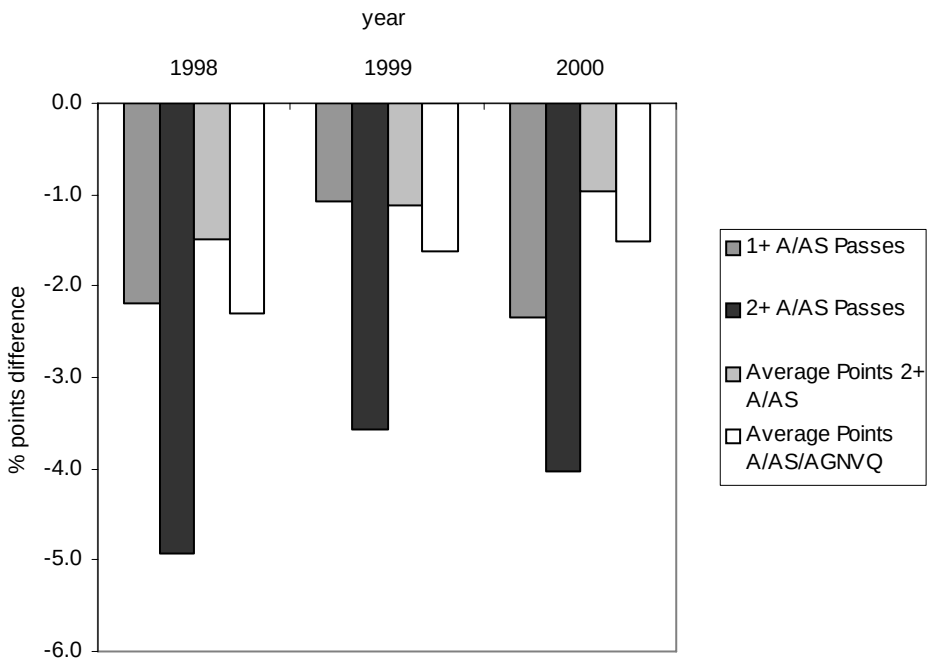


Figure 5.2: Post-16 Attainment Gaps for English Coalfield Areas, Girls 1998-2000

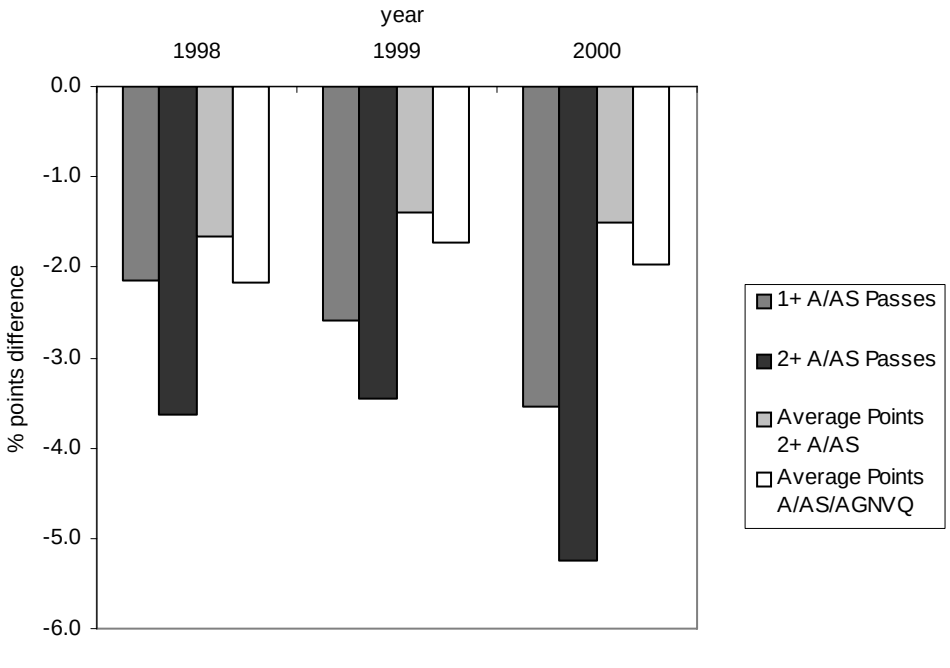


Figure 5.3: Post-16 Attainment Gaps for English Comparator Areas, Boys 1998-2000

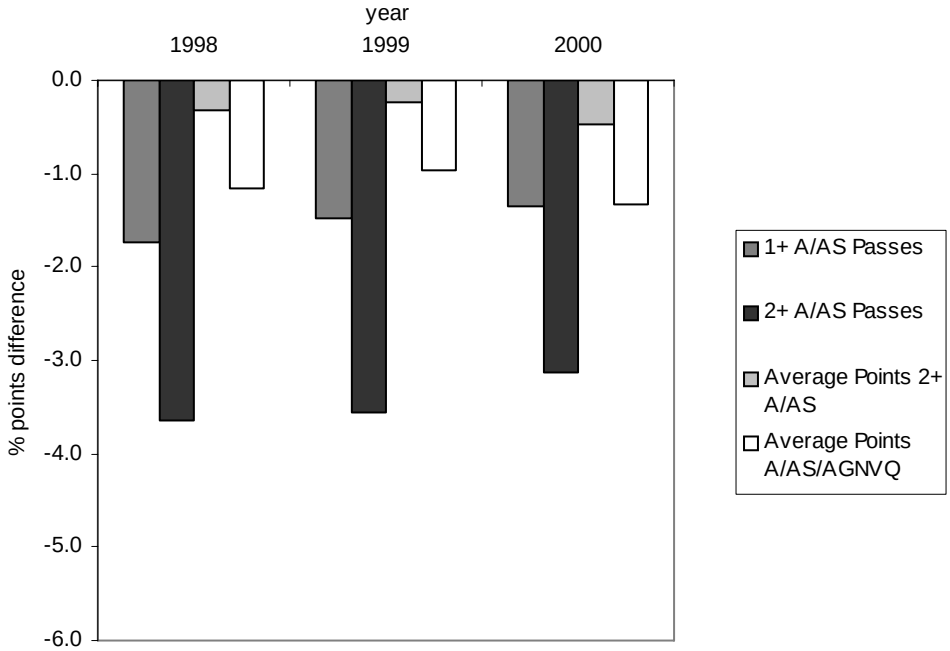
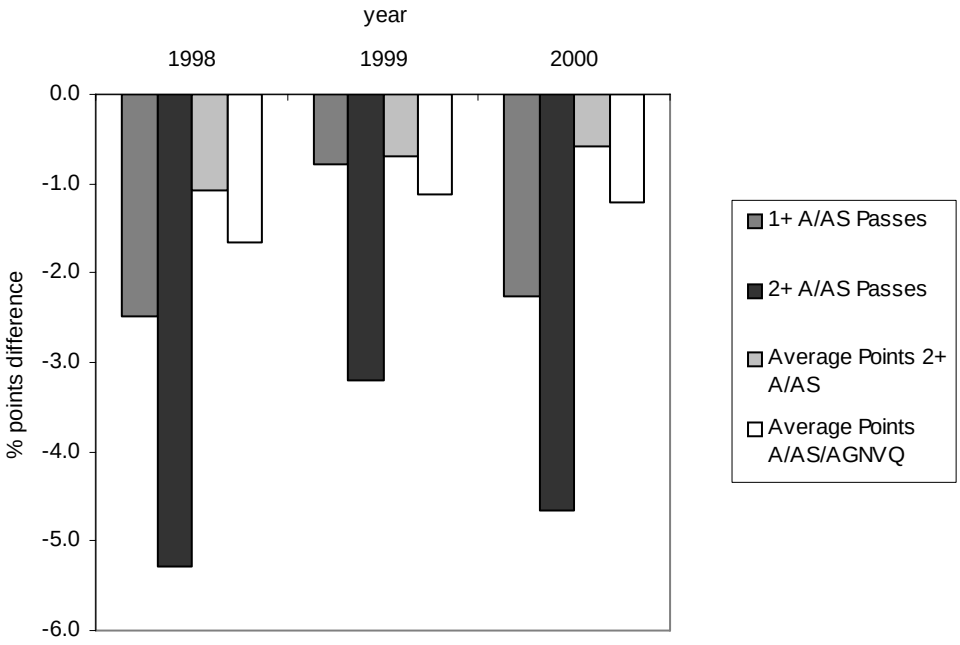


Figure 5.4: Post-16 Attainment Gaps for English Comparator Areas, Girls 1998-2000



Wales

5.6 The attainment indicators for A/AS Level examinations in Wales are shown in Table 5.2. The percentage points differences are shown in Figures 5.5 and 5.6. Once again, the figures for both the Welsh coalfield and comparator areas diverge in a consistent manner from the national average. The general size of the differences is similar to those for England at the same stage for both types of area, although the Welsh comparators do record somewhat smaller differences than the coalfields for one or more passes at grades A to E. The underperformance is shared by boys and girls, although the former show generally greater disparities from national averages. As in England, the gaps are widest at the higher end of the attainment range, with the differences for those obtaining 2 or more passes at grades A to C being in the 4 to 6 percentage point range for boys and between 4 and 5 percentage points for girls.

Scotland

5.7 As stated in section 2, it was not possible to conduct an analysis and interpretation of post-16 student performance in the coalfield and comparator areas of Scotland.

Figure 5.5 : A/AS Level Attainment in Wales - Percentage Points Difference from National Average for Boys, 1998-2000

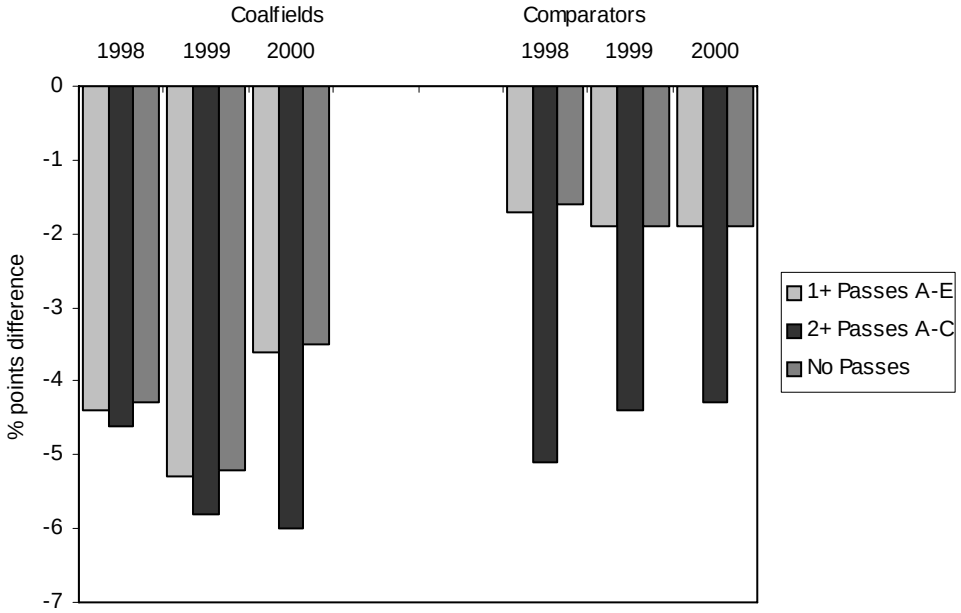
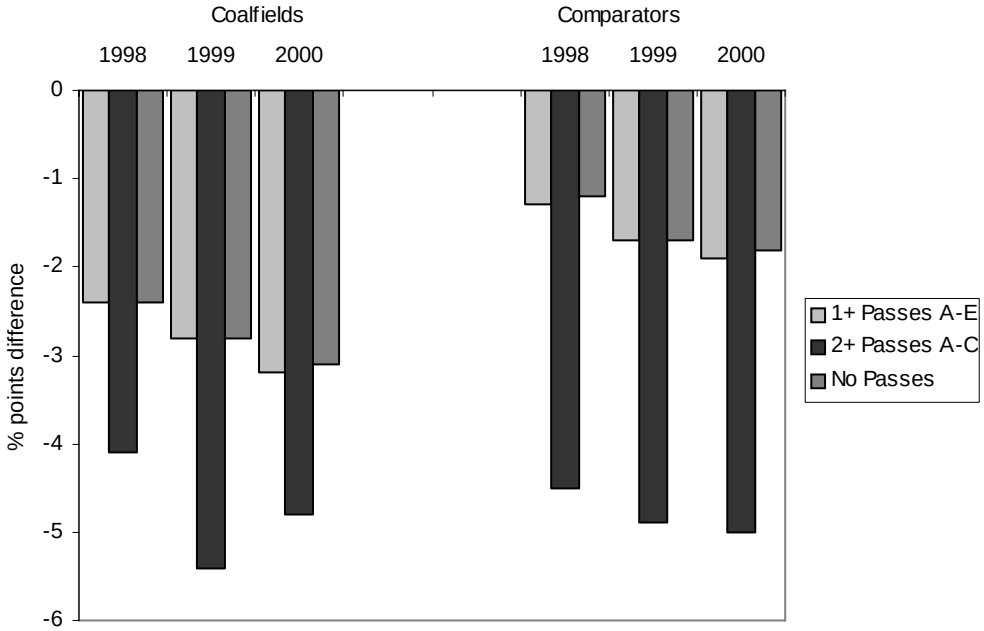


Figure 5.6 : A/AS Level Attainment in Wales : Percentage Points Difference from National Average for Girls, 1998-2000



6. CONCLUSIONS

6.1 The evidence presented in this report confirms the widely held perception that levels of educational attainment in the British coalfields consistently fall below national averages. It also reveals that this is not a unique position, but a characteristic shared with comparable areas of similar socio-economic composition. In both types of area the most notable feature was the marked deterioration in relative performance between the early stages of schooling and the teenage years, with large disparities associated with higher levels of achievement at GCSE. This pattern was particularly noticeable in English coalfield and comparator areas. Moreover, the largest differences in post-16 education were also at the higher end of the achievement scale at A/AS Level in England and Wales, in spite of the elective nature of participation in education at this level. However, the study was unable to explore the extent of post-16 participation in education in the different areas due to data deficiencies. Further work is recommended to rectify this omission; ideally this should adopt a comprehensive approach that also incorporates those undertaking training, as well as those moving into employment, unemployment and economic inactivity, and should employ methods consistent with those used in the most recently released national estimates (see Labour Market Trends, June 2001, p335; also NS First Release 28/2000)

6.2 The patterns of underperformance outlined above were both remarkably consistent and persistent across coalfield and comparator areas for the three years covered by the study. There was some evidence of steady relative improvement at the earlier levels, especially KS1 and to a lesser extent KS2 in the English coalfields and comparators. This indicates that the special measures introduced to boost performance at these levels is having some impact. However, any signs of narrowing gaps at other stages was too limited and patchy to be conclusive. Apparent anomalies in the findings may be explained either in statistical terms (mainly related to small numbers) or by other special circumstances (e.g., the fluctuating attainment figures in Welsh tests).

6.3 In terms of individual coalfield and comparator areas, some fared worse than others. This variation tended to be greater for the different comparator areas, with some actually recording above average performance figures, and others being much further adrift. In contrast, the individual coalfield areas showed much less variation, with all of them falling below national averages on virtually every count. Unfortunately it was beyond the remit of the study to examine other socio-economic variables for these areas, and to assess any potential associations with these variations in performance. Consequently, it was not possible to provide a definitive analysis of the factors underlying the below average

attainment levels in coalfield and comparator areas. Recent research of a more general nature has suggested that poor educational performance may be linked to a combination of factors, including relatively low capital investment in schools (PricewaterhouseCoopers, 2001), high levels of eligibility for free schools meals (DFEE, 2000), and above average proportions of children dependent on Income Support recipients (West et al., 2001). By extension, the last two of these imply that there is some association between below average household incomes and below average educational attainment, although the exact nature of this relationship remains unknown.

6.4 It should also be noted that the study was not intended to be comprehensive in its geographical coverage; in other words, there are likely to be other areas where educational attainment is as far, if not further below national averages as coalfield and comparator areas. Certainly, brief examination of performance figures for selected metropolitan LEAs like Bradford and Hackney suggests that the gaps are wider in such inner city areas. They also show the same pattern of deterioration through the various stages as has been found in the coalfield and comparator areas. At the same time, such metropolitan areas are likely to feature a higher degree of residential segregation and even greater cross-boundary movement than either the coalfields or the comparators, and these may play a role in the patterns that emerge. What this evidence does suggest is that below average educational attainment in the British coalfields is not a unique phenomenon: there is no special "coalfields effect" at work here. Rather, it seems that any area that has well-known concentrations of deprivation and social exclusion is likely to display educational attainment levels that are noticeably below average.

6.5 Whether this situation will always remain is open to debate. For example, there is evidence that a range of specific educational measures can have a strong impact on improving attainment levels in such circumstances (National Commission on Education, 1996; Policy Action Team 11, 2000). The links to wider socio-economic conditions have also been recognised with the inclusion of an education component in both the National Strategy for Neighbourhood Renewal and the New Deal for Communities programme. It is also evident in the attempt within these to use actions in other spheres (e.g., crime reduction) to have spin-off effects on educational attainment (Cabinet Office, 2001). However, as already stated the precise nature of these links is not fully understood, and further research will be necessary if these complementary actions are to achieve full effect. On the evidence of performance indicators for coalfield and comparator areas, this would appear to be particularly vital for improving attainment in the teenage years. In addition, the findings of this report imply that, for such improvements to benefit as many people as possible, the

geographical scope of such action needs to be wider than a small number of schools or a limited selection of relatively small neighbourhoods.

REFERENCES

Bennett K, Beynon H and Hudson R (2000), *Coalfields Regeneration: Dealing with the consequences of industrial decline*, Policy Press, University of Bristol

Beynon H, Hudson R and Sadler D (1994), *A Tale of Two Industries: The Decline of Coal and Steel in North East England*, Open University Press, Milton Keynes

Cabinet Office (2001), *A New Commitment to Neighbourhood Renewal: National Strategy Action Plan*, report by the Social Exclusion Unit, London

Coalfields Task Force (1998), *Making the Difference: A New Start for England's Coalfield Communities*, Department for the Environment, Transport and the Regions, London

Coates K and Barratt-Brown M (1998), *Coalfield Communities under Threat*, Spokesman Books, London

Critcher C, Parry D and Waddington D (1995), *Redundancy and After: A study of ex-miners from Thurcroft in the aftermath of pit closure*, PAVIC Publications, Sheffield Hallam University

Department for the Environment, Transport and the Regions (2000), *Regeneration of former coalfield areas: interim evaluation*, report by Segal Quince Wicksteed to the Regeneration Division, DETR, London

Department for Education and Employment (2000), *Autumn Package 2000*, http://www.standards.dfes.gov.uk/performance

Edwards C (1992), *Restructuring the European Community Coal Industry: A Study of the Social Consequences for the UK Mining Areas*, Kingston Business School Occasional Paper, Kingston University, London

Gorard S, Rees G and Salisbury J (2001), "Investigating the Patterns of Differential Attainment of Boys and Girls at School", *British Educational Research Journal*, Vol. 27, No. 2, pp.125-139

National Commission on Education (1996), *Success against the Odds: Effective schools in*

disadvantaged areas, Routledge, London

Policy Action Team 11 (2000), *Schools Plus: Building learning communities - improving the educational chances of children and young people from disadvantaged areas*, DfEE Publications, Nottingham

PricewaterhouseCoopers (2001), *Building Performance: An Empirical Assessment of the Relationship between Schools Capital Investment and Pupil Performance*, Report No. RR242, Department for Education and Employment, London

Turner R (1993), *Regenerating the coalfields : policy and politics in the 1980s and early 1990s*, Avebury, Aldershot, Hampshire

West A, Pennell H, Travers T and West R (2001), "Financing school-based education in England: poverty, examination results and expenditure", *Environment and Planning C: Government and Policy*, Vol. 19, No. 3, June, pp. 461-471

Appendix 1: Data Issues and Study Methods

Data Sources and Problems

The data sets provided by the various suppliers contained a number of inconsistencies, and their content also posed certain difficulties of classification and interpretation. These issues are reviewed in detail below:

- for Scotland, no gender breakdown was available for P3 and P6. For P3, P6 and S2, pupil data were only available for 1998/99 and 1999/2000. For SG and Higher/CSYS, problems with the returns for 1999/2000 meant that the previous three years' results (1996/97; 1997/98; and 1998/99) had to be used. In addition, the Higher/CSYS data set was made up of records for individual students linked to their school of enrolment, but without a field for home postcode. This meant that the data had to be consolidated into appropriate counts for males and females in each school before further analysis could be undertaken. In the end this procedure proved to be unnecessary, as it was not possible to obtain benchmark data calculated on the same basis.

- individual postcoded records were also provided for Foundation and Advanced Modern Apprenticeships (FMA and AMA) and other types of training in England and Wales, and for Scottish Vocational Qualifications (SVQ) in Scotland. However, since there was no qualification outcome information given for well over 50 per cent of the trainees listed in the database for England and Wales, it was decided not to include training qualifications in the study.

- a key issue was the appearance of certain schools in the records for some years but not for others. In most cases this was either due to school closures and mergers, or to there being no pupils in the relevant age group in that particular year (especially common for primary schools with small intakes). Where schools had been renamed, these were traced by means of their school reference number. All of the schools in these categories were included in the calculation of the indicators. In the case of school closures this was justified on the grounds that most of the pupils who would have attended them would have transferred to other establishments in the area.

- The main difficulty with inconsistent entries concerned independent and special schools

in England, where statistical returns on attainment are made on a voluntary basis. This meant that it was not clear whether their absence from a particular year was because of no pupils sitting the tests or examinations, or the lack of a statistical return. To eliminate any distortion that this might have introduced between years, it was decided only to include those schools in this category that appeared in all three years of a given data set. As Table A1.1 shows, this involved a small proportion of both schools and pupils in English coalfield and comparator areas at each level. Most of these schools involved relatively small numbers of pupils, and for some special schools the data cells were empty. Consequently, this omission is unlikely to have had much impact on the indicator values that subsequently emerged from the analysis.

Table A1.1: Number and Proportion of Independent and Special Schools Omitted from the Analysis

	Coalfield Areas		**Comparator Areas**	
Level	No. of Schools	% of Total	No. of Schools	% of Total
Primary	12	0.7	12	0.7
Secondary	11	3.3	12	3.0
Sixth Form	4	2.5	2	0.5

- at the outset it was also hoped that the data for would allow the calculation of rates of post-16 participation in schools and colleges as well as in and vocational education and training in each of the different areas. Unfortunately, inconsistencies and deficiencies in the different data sets - for example, in relation to the age groups included - made this extremely problematic. This was compounded by the issue of cross-boundary movements, particularly with respect to further education colleges. This question is explored in greater detail below. In the absence of comprehensive resident-based records pertaining to those attending sixth form or FE college, there was no way in which robust and reliable estimates of participation could be produced.

Study Methods

The aim was to produce a set of standard indicators for the two types of area. This involved aggregation and manipulation of the schools-based data provided. This followed four stages:

- first, it was necessary to attach a geographical reference to each school or college in the various data sets. This was done by using the "geocode" function of the mapping software package MapInfo to match a set of point locations for unit postcodes to the postcodes of individual schools. This then allowed these schools to be plotted on a digital map of Great Britain that also included the boundaries of both coalfield and comparator areas. This composite map was then interrogated using the "point-in-polygon" query function to determine which schools were located in which areas. This then allowed the appropriate area code to be added to each school or college record.

- the second stage was to aggregate the counts for each school by area to give overall totals for each variable. These counts were also added together to give similar totals for both coalfield and comparator areas as a whole.

- The third stage was then to convert these raw totals into percentages, using the same method of calculation (i.e., the same denominator) as that for the national benchmark.

- The fourth and final step in the analysis was to compute the differences in percentage points between the area indicators and the national benchmarks. This was done by subtracting the appropriate national average from the indicators for coalfield and comparators areas respectively, so that any underperformance appeared as a negative figure. The only exception to this approach was applied to the percentage obtaining no passes at GCSE in England and Wales and Standard Grade in Scotland, where the reverse calculation (national average minus area figure) produces a negative result in cases where the performance is worse.

Catchment Areas and Cross-Boundary Movements

Using data for establishments located within coalfield and comparator areas but close to their boundaries would inevitably mean that pupils or students resident outside the area would appear in the figures. On the other hand, exclusion of institutions located outside the target areas but sufficiently close to enrol young people resident there would mean that a certain proportion of this group would be omitted from the analysis.

An exploratory exercise was undertaken to ascertain the proportions of secondary schools that provide pre-16 education and are located close to the boundaries of each area (within 3 miles). Primary schools were excluded from this because their catchment areas tend to involve much shorter distances. The results of this analysis are presented in Table A1.2. As

the balance lies in favour of schools located within coalfield and comparator area boundaries, this suggests that, if anything, they act more as "importers" of secondary school pupils than as "exporters". This would mean that at least the pre-16 attainment figures quoted in this report include a substantial number of residents from outside, though close to, the areas in question. Of course, given the increasingly selective nature of enrolment in a particular secondary school, these flows may not be equal in terms of the ability levels of pupils moving in the different directions. However, there is no information available that can help to unravel this question. Perhaps the best approach is to consider the attainment indicators that emerge from the analysis to be characteristic of coalfield and comparator areas within their wider context.

Table A1.2 : Number of Secondary Schools Providing Pre-16 Education Close to Coalfield and Comparator Area Boundaries

	Number Inside	% of Schools within Area	Number Outside
Coalfield Areas	192	56.4	150
Comparator Areas	199	53.8	142

The question of cross-boundary movements poses much greater difficulty for the calculation of rates of participation of young people in post-16 education, especially in relation to those attending further education (FE) colleges in England and Wales. This is because the distribution of such establishments is much sparser than that of secondary schools, and as such they tend to serve much wider areas. They are also generally located in major urban centres, and hence many fall outside the boundaries of some target areas, especially the small and medium-sized coalfields. Moreover, these colleges have a long tradition of operating courses by correspondence, and latterly by distance and web-based learning, so that students resident in other parts of the country can enrol if they wish. This complexity means that the assumption that cross-boundary flows equalise themselves cannot be justified in this case, for there is a danger that college-based enrolment and attainment statistics may seriously under- or over-estimate the position in the target areas, depending on the presence or absence of such an institution within their boundaries. Although a subset of English FE college data was examined for two coalfield areas (West Durham and Yorkshire), the picture for the two areas was so different that it proved impossible to derive any meaningful adjustment factor to participation levels for the coalfields as a whole. Other data deficiencies also made the calculation of participation rates a flawed proposition, and for these reasons it was reluctantly decided to omit this part of the analysis from the study.

As far as individual coalfield and comparator areas were concerned, it was decided to treat them as if they were LEAs. Thus, only those containing more than ten secondary schools have been listed separately in the tables displayed in Appendix 3. Those with fewer than that have been combined into a range of "other" categories.

Appendix 2 : The CRESR Ward-based Definition of the Coalfields

This was originally devised by Beatty and Fothergill (1996) and was based on ward level resident employment data taken from the 1981 Census of Population. The intention was to capture those areas still dominated by coal mining prior to the large scale pit closures of the 1980s and early 1990s. The criterion used to qualify a ward as being within a coalfield area was that 10 per cent of employed residents be engaged in mining. A subsidiary category, pit villages, was also defined for those wards where this figure exceeded 25 per cent. For Scotland, where a major revision of ward boundaries accompanied the move to a one-tier system of local government in the mid-1990s, an updated definition was derived by overlaying the original boundaries on a digital map of the new wards, and using a 'best fit' method to match the two.

This definition has been used successfully in previous research studies (Beatty and Fothergill, 1996; Gore, Dabinett and Breeze, 2000), and was displayed in map form in an appendix to the CTF report (Coalfields Task Force, 1998). However, the full definition is subject to copyright restrictions, and so cannot be reproduced here. Table A2.1 shows those District authorities that contain coalfield wards, and the number of wards within them (updated to take account of local government reorganisation boundary changes).

The number of households in each coalfield is shown in Table A2.2, and their location in Figure A2.1. Perhaps the most striking aspect is the wide difference in size between the various coalfield areas, in terms of both area and number of households. Thus, at one end of the spectrum are the extensive coalfield areas like South Wales, Durham, Nottinghamshire and Yorkshire, all of which include urban service centres, and by implication most of the educational establishments that serve these areas. In the middle, several coalfield areas have populations equivalent to a medium-sized local education authority, a scale that might reasonably be expected to contain a critical mass of primary and secondary schools, the data for which can sensibly be aggregated to provide a good indication of attainment standards being reached in those areas. Finally, there are some areas like Kent, North Wales and West Cumbria that are very restricted in scale, and because of this tend to exclude the urban centres that serve them. This in turn may mean that some of the educational institutions that serve these areas actually lie outside their boundaries. This is especially likely in the case of secondary schools and further education colleges. This implies that they will be particularly affected by cross-cutting school catchment areas and cross-boundary movements in the form of journeys to school and college. However, all areas defined in this way will be subject to these effects in some degree. The ways in which this

question was handled in the study are discussed in greater detail later in this section.

Table A1.1 : Districts with Coalfield Wards in Britain

Coalfield	District	Number of coalfield wards
Kent	Canterbury	1
	Dover	10
Yorkshire	Barnsley	21
	Doncaster	20
	Kirklees	1
	Leeds	3
	Rotherham	15
	Selby	18
	Sheffield	2
	Wakefield	19
North Derbyshire	Amber Valley	11
	Bolsover	24
	Chesterfield	19
	Erewash	6
	North East Derbyshire	18
South Derbyshire / North	Hinckley and Bosworth	5
West Leicestershire	North West Leicestershire	19
	South Derbyshire	10
Nottinghamshire	Ashfield	15
	Bassetlaw	19
	Broxtowe	8
	Gedling	18
	Mansfield	18
	Newark and Sherwood	10
	Nottingham	4
	Rushcliffe	2
Durham	Chester-le-Street	11
	Derwentside	10

Table A2.1 (continued)

Coalfield	District	Number of coalfield wards
Durham (continued)	Durham City	13
	Easington	26
	Sedgefield	3
	Wear Valley	4
	South Tyneside	15
	Sunderland	17
Northumberland	Alnwick	7
	Blyth Valley	8
	Castle Morpeth	9
	Wansbeck	16
North Warwickshire	Lichfield	2
	North Warwickshire	14
	Nuneaton and Bedworth	6
	Tamworth	10
South Staffordshire	Cannock Chase	14
	Lichfield	5
	South Staffordshire	1
North Staffordshire	Newcastle-under-Lyme	11
	Stafford	1
	Staffordshire Moorlands	6
	Stoke-on-Trent	16
West Cumbria	Copeland	5
Lancashire	St. Helens	12
	Wigan	20
North Wales	Flintshire	5
	Wrexham	4
South Wales	Carmarthenshire	28

Table A2.1 (continued)

Coalfield	District	Number of coalfield wards
South Wales (continued)	Blaenau Gwent	10
	Caerphilly	30
	Torfaen	5
	Rhondda, Cynon, Taff	54
	Merthyr Tydfil	11
	Bridgend	13
	Powys	8
	Neath Port Talbot	27
	Swansea	17
Ayrshire	Dumfries and Galloway	2
	East Ayrshire	9
	South Ayrshire	4
Fife / Central	Clackmannanshire	12
	Falkirk	4
	Fife	46
	Stirling	3
Clydesdale	North Lanarkshire	9
	South Lanarkshire	4
Strathkelvin	City of Glasgow	1
	East Dunbartonshire	1
Lothian	East Lothian	10
	Midlothian	15
	West Lothian	2

Table A2.2 : Number of Households in Coalfield Areas, Great Britain, 1991

Coalfield Area	Households
Kent	15,000
Yorkshire	492,000
North Derbyshire	120,000
South Derbyshire/ North West Leicestershire	62,000
Nottinghamshire	217,000
Durham	250,000
Northumberland	56,000
North Warwickshire	63,000
South Staffordshire	32,000
North Staffordshire	121,000
Lancashire	148,000
West Cumbria	16,000
Forest of Dean	14,000
North Wales	9,000
South Wales	293,000
Ayrshire	23,000
Fife/ Central	104,000
Clydesdale	15,000
Strathkelvin	8,000
Lothian	49,000
BRITISH COALFIELDS	**2,107,000**

Source : CRESR; Census of Population, 1991 (Crown Copyright)

References

Beatty C and Fothergill S (1996), "Labour Market Adjustment in Areas of Chronic Industrial

Decline : The Case of the UK Coalfields", *Regional Studies*, Vol. 30, No. 7, pp.637-650

Gore T, Dabinett G and Breeze J (2000), *Improving Lottery Funding Access and Delivery in the British Coalfields*, Report to the Department for Culture Media and Sport and the National Lottery distributing bodies

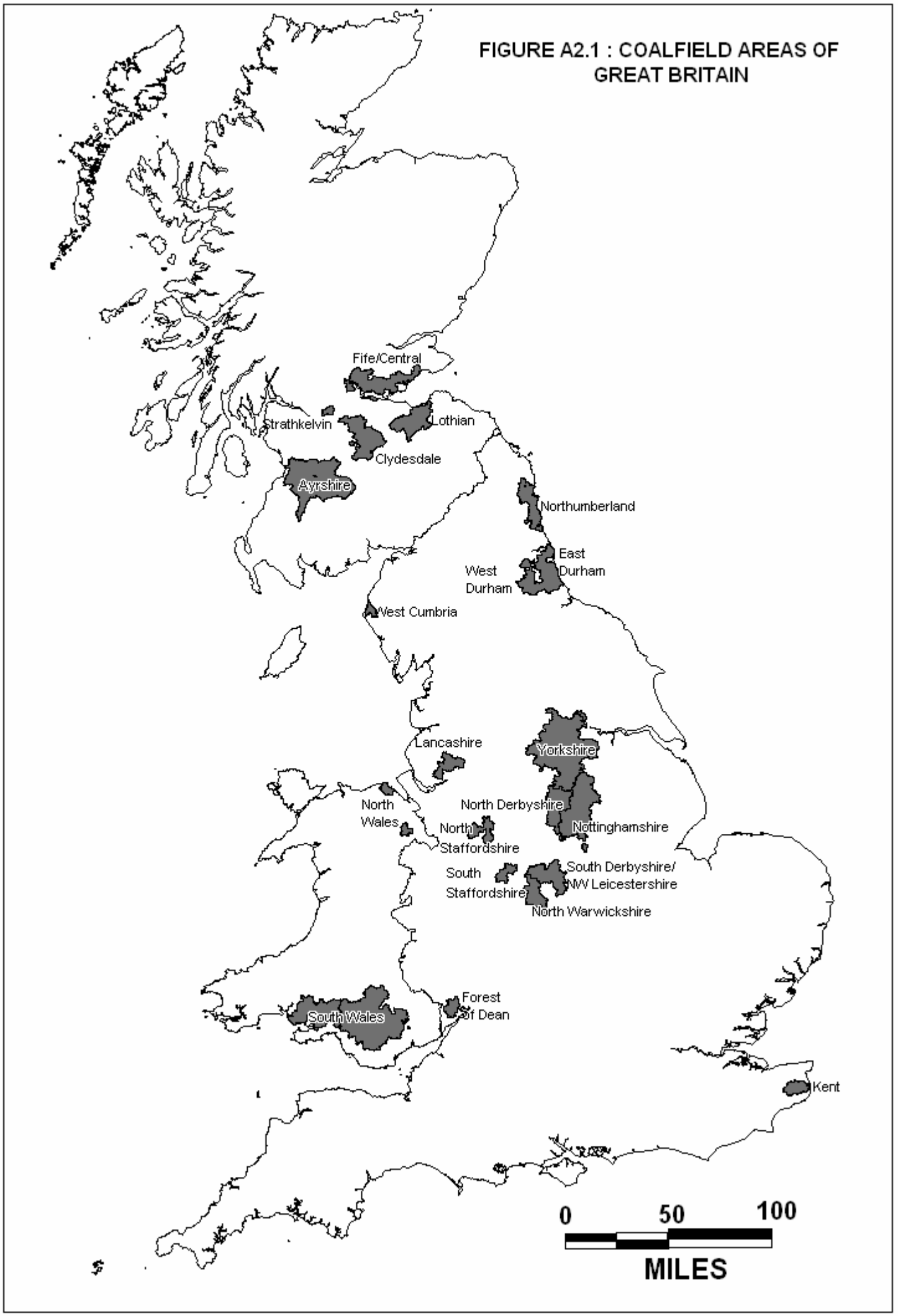


FIGURE A2.1 : COALFIELD AREAS OF GREAT BRITAIN
Fife/Central
Strathkelvin
Lothian
Clydesdale
Ayrshire
Northumberland
East Durham
West Durham
West Cumbria
Lancashire
Yorkshire
North Wales
North Derbyshire
North Staffordshire
Nottinghamshire
South Staffordshire
South Derbyshire/ NW Leicestershire
North Warwickshire
Forest of Dean
South Wales
Kent
0
50
100
MILES

Appendix 3: Coalfield Profiles and Comparator Areas

Introduction

This appendix sets out the sequence of steps taken to identify a range of potential comparator areas against which educational performance statistics for the British coalfields may be gauged. The aim of the exercise was to use a mixture of map-based and statistical analysis to define areas whose demographic and employment profile broadly matched that of the coalfields.

Building Blocks

The analysis involved three key elements :

- the CRESR ward-based definition of the British coalfields (see Appendix 2 above).

- two digital boundary maps purchased from Geoplan Ltd., one showing local authority wards, the other current postcode sectors.

- household counts for all postcode sectors disaggregated according to the ACORN (A Classification of Residential Neighbourhoods) system, purchased from CACI Ltd. This is a geodemographic classification based on cluster analysis of 79 different individual, household, housing, occupation and industry variables from the 1991 Census of Population. The classification is a hierarchical one, comprising 6 categories, 17 groups and 54 types. The data employed in this exercise denote the number of resident households in each ACORN type for every postcode sector in Great Britain.

Step One : Defining Coalfield Postcode Sectors

The map of postcode sectors was overlain on a map of coalfield wards in the MapInfo software package. Visual inspection of each coalfield area enabled the identification of all the postcode sectors that wholly or partially intersected these ward boundaries. These sectors were then divided into two categories : "core" coalfield sectors, where at least 40 per cent of their area falls within one or more coalfield wards; and "marginal" coalfield sectors, where more than 60 per cent of the area lies outside the coalfield boundary. Only the former were used in the profiling exercise (see below), but the "marginals" will be included in the subsequent extraction and analysis of educational data. The result of this exercise was a list containing 997 postcode sectors spread across 41 postcode areas. Of these sectors, 673 were "core" and 324 were "marginal".

Step Two : Profiling the Coalfields

ACORN data were then extracted from the master file and attached to the 673 "core" coalfield sectors. Household counts were summed for each type across the coalfields as a whole, and each sub-total expressed as a percentage of all households. In order to set a benchmark for this overall coalfields profile, the same exercise was repeated for all postcode sectors in Great Britain. Comparison between the two sets of figures revealed that the coalfields contained above average proportions of households in 11 out of the 54 ACORN types. Table A3.1 below sets out the comparative statistics for these 11 types.

Table A3.1 : Proportion of Households in the 11 Selected ACORN Types in Great Britain and the Coalfields

	National Average	Coalfields Average
ACORN Type 14	2.7	3.8
ACORN Type 15	1.7	3.5
ACORN Type 30	3.8	10.3
ACORN Type 32	4.8	12.4
ACORN Type 34	2.8	4.3
ACORN Type 35	2.8	10.7
ACORN Type 39	2.4	3.0
ACORN Type 40	1.6	3.2
ACORN Type 42	2.5	7.1
ACORN Type 46	1.7	4.2
ACORN Type 50	1.6	3.0
All Selected Types	28.4	65.4

Data Source : CACI Ltd. - ACORN Household Counts for Postcode Sectors

Each ACORN type is also given a short descriptor, summarising the key demographic and tenure features characteristic of such areas. The descriptors for the 11 types shown in Table A3.1 are as follows :

Type 14 Home Owning Family Areas, Older Children

Type 15 Families with Mortgages, Younger Children

Type 30 Established Home Owning Areas, Skilled Workers

Type 32 Home Owning Areas with Skilled Workers

Type 34 Mature Home Owning Areas, Skilled Workers

Type 35 Low Rise Estates, Older Workers, New Home Owners

Type 39 Home Owners, Small Council Flats, Single Pensioners

Type 40 Council Areas, Older People, Health Problems

Type 42 Council Areas, Young Families, Some New Home Owners

Type 46 Council Areas, Residents with Health Problems

Type 50 Council Areas, High Unemployment, Lone Parents

This range of predominant area types underlines the varied nature of coalfield areas. Further analysis of individual coalfields brings this into sharper perspective. Table A3.2 shows the proportion of households in the 11 selected ACORN types for each of the twenty distinct coalfield areas. This indicates that the 11 selected ACORN types provide a strong characterisation for 15 of the 20 coalfield areas. However, the proportion of households in these groupings falls below 50 per cent in Kent, Fife/Central, North Lanarkshire, Lothian and Forest of Dean.

Because of this, it was decided to explore alternative ACORN profiles that fitted these areas more closely. More detailed scrutiny of the data for these five areas in comparison with national averages led to the derivation of two alternative type ranges. The first alternative comprised 12 types :

Type 2 Villages with Wealthy Commuters

Type 4 Affluent Suburbs

Type 27 Rural Areas, Mixed Occupations

Type 28 Established Home Owning Areas

Type 29 Home Owning Areas, Council Tenants, Retired People

Table A3.2 : Individual Coalfield Areas Profiled by the 11 Selected ACORN Types

Code	Name of Coalfield Area	Total Households	Households in Selected Types	% of Total
1	Kent	14858	4750	32.0
2	Yorkshire	491596	312849	63.6
3	North Derbyshire	120087	84557	70.4
4	South Derbyshire/NW Leicestershire	61690	34871	56.5
5	Nottinghamshire	217362	136765	62.9
6	Durham	249564	166578	66.7
7	Northumberland	55669	36798	66.1
8	North Warwickshire	63254	40830	64.5
9	South Staffordshire	32341	22197	68.6
10	North Staffordshire	121388	98343	81.0
11	Lancashire	148177	108967	73.5
12	North Wales	9328	6182	66.3
13	South Wales	293036	224271	76.5
14	Ayrshire	22840	12924	56.6
15	Fife/Central	104106	43630	41.9
16	North Lanarkshire	8363	3354	40.1
17	Clydesdale	14693	7884	53.7
18	Lothian	48592	15235	31.4
19	West Cumbria	16319	11282	69.1
20	Forest of Dean	13746	5749	41.8
	ALL COALFIELDS	**2107009**	**1378016**	**65.4**

Data Source : CACI Ltd. - ACORN Household Counts for Postcode Sectors

Type 30 Established Home Owning Areas, Skilled Workers

Type 33 Council Areas, Some New Home Owners

Type 34 Mature Home Owning Areas, Skilled Workers

Type 35 Low Rise Estates, Older Workers, New Home Owners

Type 39 Home Owners, Small Council Flats, Single Pensioners

Type 41 Better Off Council Areas, New Home Owners

Type 42 Council Areas, Young Families, Some New Home Owners

This grouping of ACORN types found a wide representation in Kent (68 per cent of all households) and the Forest of Dean (82 per cent).

The second alternative was based on the three Scottish coalfields listed above, and comprised 14 types :

Type 14 Home Owning Family Areas, Older Children

Type 15 Families with Mortgages, Younger Children

Type 33 Council Areas, Some New Home Owners

Type 35 Low Rise Estates, Older Workers, New Home Owners

Type 39 Home Owners, Small Council Flats, Single Pensioners

Type 40 Council Areas, Older People, Health Problems

Type 41 Better Off Council Areas, New Home Owners

Type 42 Council Areas, Young Families, Some New Home Owners

Type 43 Council Areas, Young Families, Many Lone Parents

Type 45 Low Rise Council Housing, Less Well-off Families

Type 48 Council Flats, Elderly People, Health Problems

Type 49 Council Flats, Very High Unemployment, Singles

Type 50 Council Areas, High Unemployment, Lone Parents

This grouping provided an accurate depiction of the majority of households resident within Fife/Central (70 per cent of the total), Lothian (68 per cent) and North Lanarkshire (64 per

cent).

Step Three : Identifying Potential Comparator Areas

The three groupings of ACORN types were designated as alternative area profiles 1, 2 and 3. They were used to interrogate the ACORN data further. First, subsets of the data for each area profile were extracted for all postcode sectors. Following this, the number of households in the profile types was summed for each sector, and this sub-total was then expressed as a percentage of total resident households. This enabled the identification of high-scoring postcode sectors, and sets of these were defined on the basis of different threshold levels - 65 per cent, 50 per cent and 40 per cent. The lists for each alternative were then imported into the MapInfo package, and a digital boundary was added to each sector. This then allowed a series of maps to be created on screen, showing the location of these sectors in relation to each other, overlain on an outline map of the UK. Visual scanning of these maps enabled the identification of a series of geographical clusters where several of these high-scoring sectors were concentrated.

However, the areas covered by these clusters tended to be fragmented, rather than continuous. Therefore, it was necessary to consolidate them into more contiguous blocks of territory. This was achieved by overlaying the map of all postcode sectors on the cluster maps, and using this to fill in any gaps and round out any major irregularities in their outline. This in turn generated a longer list of postcode sectors. This was first checked to ensure that there was no duplication of coalfield postcode sectors in the lists. Where this did occur, these were deleted. ACORN data for the profile types was then added to the additional postcode sectors in the list. Once this was completed, sub-totals of households were calculated for each potential comparator area, and these were then expressed as a percentage of all households in the constituent sectors.

This procedure was performed in three waves, on for each alternative area profile. The potential comparator areas emerging from this analysis are shown in Tables A3.3 and A3.4.

Table A3.3 : Potential Comparator Areas Meeting the Three Alternative ACORN Profiles - Area Profile 1

Code	Area Name	Main Towns and Cities	Industrial Base	Total Households	Households in Profile Types	% of Total
C1	North West Cumbria	Carlisle, Workington	Iron & Steel, Port Industries, Railways	55708	35176	63.1
C2	Furness	Barrow-in-Furness	Shipbuilding, Engineering	42599	29209	68.6
C3	Tyneside	Newcastle, Gateshead, North Shields	Shipbuilding, Engineering, Port Industries	180463	105740	58.6
C4	Teesside	Middlesbrough, Stockton, Hartlepool	Steel, Chemicals, Engineering	189346	115729	61.1
C5	Hull	Kingston-upon-Hull	Fishing, Port Industries	113872	69348	60.9
C6	North Lincolnshire	Grimsby, Scunthorpe	Steel, Fishing, Food Processing	115262	66194	57.4
C7	East Lancashire	Accrington, Burnley, Nelson, Colne, Rossendale	Textiles, Engineering	168068	112348	66.8
C8	Greater Manchester North and East	Bolton, Bury, Rochdale, Oldham, Ashton, Hyde	Textiles, Engineering	465376	289904	62.3
C9	East Wirral	Birkenhead, Ellesmere Port	Oil Industries, Chemicals, Shipbuilding	106515	55281	51.9
C10	Mid-Cheshire	Crewe, Northwich	Chemicals, Salt Extraction, Railways	77831	43460	55.8
C11	West Black Country	Dudley, Wolverhampton, Walsall	Metal Industries, Engineering	430112	268342	62.4
C12	Mid-Northants	Corby, Kettering	Steel	93658	51429	54.9
C13	Swansea Bay	Swansea, Port Talbot	Steel, Oil Refining, Port Industries	51821	35804	69.1
C14	Deeside	Wrexham, Buckley, Flint	Steel, Engineering	102475	57571	56.2
C15	Borders Towns	Galashiels, Hawick	Textiles	22081	11972	54.2
C16	North East Scotland	Fraserburgh, Peterhead	Fishing	23193	12396	53.4

Table A3.4 : Potential Comparator Areas Meeting the Three Alternative ACORN Profiles - Area Profiles 2 and 3

Code	Area Name	Main Towns and Cities	Industrial Base	Total Households	Households in Profile Types	% of Total
	Area Profile 2					
C17	Telford	Wellington, Telford New Town	Iron & Steel, Pottery	62123	34199	55.1
C18	Mid Somerset	Bridgwater, Yeovil	Chemicals, Footwear, Leather, Aviation Industries	111611	72814	65.2
	Area Profile 3					
C19	South West Essex	Dagenham, Tilbury	Motor Manufacture, Port Industries	102662	57285	55.8
C20	Firth of Clyde	Greenock, Irvine	Shipbuilding, Engineering	81094	53711	66.2
C21	North Clydeside	Dumbarton, Clydebank, Partick	Shipbuilding, Engineering	137097	80285	58.6
	ALL COMPARATORS			**2732967**	**1658197**	**60.7**

Step Four : Initial Assessment of Potential Comparators

The list of potential comparator areas shown in Tables A3.3 and A3.4 covers a range of locations which, like the coalfields, have suffered from a decline in their traditional industrial base - steel, shipbuilding, engineering, textiles, port industries and other manufacturing activities. The distribution of these areas across Britain, and in relation to the coalfield areas themselves, is shown in Figure 1. This shows a good spread across Scotland, Wales and the regions of England, and in terms of urban, rural and mixed areas. The list by and large omits any part of major and inner metropolitan areas, which might pose analytical difficulties on account of their high proportions of black and minority ethnic people. However, there are a number of outer metropolitan areas on the list, in Greater Manchester, Merseyside, Tyneside and the West Midlands, and careful consideration will be required before including these in the final selection.

Three additional key questions also need to be answered before the final choice of comparator areas is made. The first of these is the "coalfields" factor. This has two dimensions.

First, and most important, is the close proximity of several of the potential comparator areas to particular coalfield areas. Indeed, many abut directly on to one another. Given the industrial history of Britain, this is hardly surprising. However, the reliance on schools-based data for the analysis of pre-16 attainment could be subject to "contamination" between the two areas. This is not so much a danger of double counting, which will be precluded by the mutually exclusive definition of adjacent coalfield and comparator areas, but because school catchments are unlikely to mirror such precise boundaries. There are two ways of dealing with this :

1. rule out all those potential comparators that abut directly or are in close proximity to coalfield areas. However, this would reduce the number of comparators by at least 7, with no robust method of replacing them with alternatives.

2. assume that the "contamination" works equally in both directions, from the comparators to the coalfields and vice versa, and thereby cancels itself out.

It is recommended that the second approach be adopted for the purposes of this study.

The second dimension is that many of the comparator areas themselves have a history of coal-mining, although this activity had obviously ceased on any appreciable scale by the end of the 1970s. Thus, areas like the Black Country, East Lancashire, Telford and Tyneside have all known coal-mining in the past. It is not clear whether the legacy of this lives on today in terms of the outlook and attitudes of the resident population. Looked at from a different perspective, it

actually strengthens the case to include such areas as comparators, since they have had to face similar problems of readjustment and restructuring.

The second question concerns changes in the population and economic status of the comparator areas over the last 10 years. The ACORN area profiles for these areas are based on data drawn from the 1991 Census. Clearly, selective in- and out-migration from these areas will have taken place since that date, as will new house building, demolition and conversion, as well as a variety of changes in economic activity. Some areas may have seen an influx of refugees and other immigrants over a relatively short space of time, while others might have become "gentrified" as more affluent people move into newly fashionable areas. Over time this could radically alter the make-up and characteristics of an area. However, one of the difficulties here is that there is a lack of timely and reliable small area data that would allow such changes to be tracked and assessed. Given that the same argument might be advanced for some of the coalfield areas, again the most appropriate course might be to assume that any such changes will have a tendency to balance out between the two types of area. The alternative would be to conduct extensive "ad hoc" investigations and consultations to check on possible changes - a task that would considerably delay progress with the study, and which was not part of the original specification for the study.

It is recommended that the first of these two courses of action be taken, but that an attempt to identify any major changes be included in the gathering of "soft" information in the later stages of the study.

The third question relates to the number of comparator areas to be chosen. There may be merit in having roughly the same in terms of both number of areas and size of population (or number of households as a proxy for this). As things stand, the number of comparator areas shown in Tables A3.3 and A3.4 exceeds the individual coalfields by one in number and some 600,000 households. This suggests that the current list of comparators should be reduced. The following considerations are of relevance here :

- the industrial base of Greater Manchester North and East is in large part mirrored by the East Lancashire comparator;
- these two comparator areas are directly adjacent to one another;
- certain parts of the Greater Manchester comparator area (Oldham, Rochdale) are known to have strong concentrations of BME households;
- the Firth of Clyde and North Clydeside areas are also very similar in terms of industrial structure; they are also very close to each other, albeit separated by the Clyde estuary.

- the mid-Somerset comparator area combines prosperous rural areas with small industrial and market towns, and at first sight would not appear to fit the mould of an older industrial area.
- further scrutiny of the ACORN data for this area reveals that it has a much higher proportion of households in ACORN Types 2, 4 and 27 than either Kent or the Forest of Dean. This would seem to make it an inappropriate choice of comparator.

Bearing these factors in mind, it is recommended that :

1. the three potential comparators C8 (Greater Manchester North and East); C18 (Mid-Somerset); and C20 (Firth of Clyde) be removed from the list;
2. that the remaining potential comparator areas be accepted as a basis for the study without further investigation or consultation.

This would provide 18 comparator areas containing almost 2,075,000 households (1991 figures, see Table A3.5) - compared with 20 coalfield areas containing 2,107,000 households. Figure A3.1 shows the location of these areas within Great Britain.

Table 3.5 : Number of Households in Comparator Areas, 1991

Coalfield Area	Households
North West Cumbria	56,000
Furness	43,000
Tyneside	180,000
Teesside	189,000
Hull	114,000
North Lincolnshire	115,000
East Lancashire	168,000
East Wirral	107,000
Mid-Cheshire	78,000
West Black Country	430,000
Mid-Northants	94,000
Swansea Bay	52,000
Deeside	102,000
Borders Towns	22,000
North East Scotland	23,000
Telford	62,000
South West Essex	103,000
North Clydeside	137,000
COMPARATOR AREAS	**2,075,000**

Source : CRESR; Census of Population, 1991 (Crown Copyright)

FIGURE A3.1 : LOCATION OF COMPARATOR AREAS

Appendix 4: Attainment Indicators for Individual Coalfield and Comparator Areas

SECTION 1 : Number of Schools Located in Coalfield and Comparator Areas

Table A4.1: Number of Schools in Coalfield and Comparator Areas by Level and Year, England

	Coalfield Areas			Comparator Areas		
Level	**1998**	**1999**	**2000**	**1998**	**1999**	**2000**
KS1 and KS2	1696	1700	1693	1670	1682	1668
KS3	326	326	326	395	397	393
GCSE	337	338	340	372	371	370
A/AS Level	157	153	151	181	178	176

Table A4.2: Number of Schools in Coalfield and Comparator Areas by Level and Year, Wales

	Coalfield Areas			Comparator Areas		
Level	**1998**	**1999**	**2000**	**1998**	**1999**	**2000**
KS1	320	327	328	122	122	124
KS2	296	308	305	123	124	123
KS3	59	61	60	35	37	34
GCSE	65	64	64	38	38	38
A/AS Level	60	62	62	38	38	38

Table A4.3: Number of Schools in Coalfield and Comparator Areas by Level and Year, Scotland

	Coalfield Areas				Comparator Areas			
Level	**1997**	**1998**	**1999**	**2000**	**1997**	**1998**	**1999**	**2000**
P3 and P6	NA	NA	216	220	NA	NA	163	164
S2	NA	NA	31	33	NA	NA	25	26
SG	35	35	35	NA	29	29	26	NA
Higher/CSYS	35	35	35	NA	29	29	26	NA

SECTION 2 : Key Stage 1 - Area Performance Figures for English Coalfields and Comparators

KEY: R = Reading; W = Writing; S = Spelling; M = Maths

Table A4.4 : Boys, English Coalfields, 1998-2000

% reaching Level 2 or above	**1998**				**1999**				**2000**			
	R	**W**	**S**	**M**	**R**	**W**	**S**	**M**	**R**	**W**	**S**	**M**
Yorkshire	74	75	60	82	75	77	65	85	79	80	67	88
North Derbyshire	74	76	58	82	77	77	65	84	80	82	68	89
S. Derbyshire/NW Leicestershire	76	79	58	82	80	80	68	87	77	79	66	89
Nottinghamshire	68	67	53	79	73	73	61	82	77	77	64	88
East Durham	74	75	62	84	77	80	70	85	80	81	72	90
West Durham	73	78	62	84	75	77	68	85	79	80	71	86
Northumberland	75	79	58	80	77	80	67	82	80	83	73	88
North Staffordshire	71	74	55	79	76	76	61	83	77	78	67	89
Other West Midlands	75	75	58	83	77	77	62	85	80	81	66	88
Lancashire	75	77	64	84	77	79	67	86	79	79	68	88
Other Coalfields	76	76	55	81	76	77	64	85	76	79	63	88
ENGLISH COALFIELDS	73	75	59	82	76	77	65	84	79	80	68	88
ENGLAND	**75**	**76**	**60**	**83**	**77**	**78**	**66**	**85**	**77**	**80**	**67**	**89**

Table A4.5 : Boys, English Comparators, 1998-2000

% reaching Level 2 or above	1998				1999				2000			
	R	**W**	**S**	**M**	**R**	**W**	**S**	**M**	**R**	**W**	**S**	**M**
North West Cumbria	74	76	61	82	75	77	68	84	79	80	68	87
Furness	79	80	65	88	79	80	70	89	80	79	68	89
Tyneside	71	72	57	80	76	77	65	85	80	82	72	90
Teesside	72	72	61	82	75	77	68	83	76	80	67	86
Hull	67	66	52	78	70	70	58	81	74	75	61	86
North Lincolnshire	73	76	61	81	76	76	66	82	81	81	70	88
East Lancashire	71	70	58	78	73	73	62	80	77	77	65	86
East Wirral	77	76	61	81	80	79	66	85	81	82	69	89
Mid Cheshire	75	75	60	83	78	78	66	86	78	80	69	88
West Black Country	71	72	55	78	72	72	58	81	76	76	62	85
Mid Northants	78	81	64	84	81	84	70	88	82	82	68	88
Telford	73	77	62	84	77	81	68	87	78	81	66	88
South West Essex	70	71	52	80	70	70	53	82	73	74	57	88
ENGLISH COMPARATORS	72	73	58	80	74	75	63	83	77	78	65	87

Table A4.6 : Girls, English Coalfields, 1998-2000

% reaching Level 2 or above	1998				1999				2000			
	R	**W**	**S**	**M**	**R**	**W**	**S**	**M**	**R**	**W**	**S**	**M**
Yorkshire	84	86	72	85	86	87	78	88	87	88	76	90
North Derbyshire	84	86	69	85	86	88	78	90	88	90	78	91
S. Derbyshire/NW Leicestershire	85	86	70	85	88	88	77	88	89	89	80	91
Nottinghamshire	79	80	64	82	84	84	73	86	86	87	76	91
East Durham	85	86	73	88	86	88	81	89	88	90	82	92
West Durham	84	85	72	86	86	87	79	86	86	86	78	91
Northumberland	84	87	70	83	88	90	81	87	89	92	81	92
North Staffordshire	82	84	68	83	86	88	73	87	87	87	77	90
Other West Midlands	84	85	70	87	86	88	74	87	87	89	75	91
Lancashire	84	85	73	85	85	87	76	88	89	90	80	92
Other Coalfields	85	83	70	84	88	89	78	90	85	87	74	91
ENGLISH COALFIELDS	83	85	70	85	86	87	77	88	87	89	78	91
ENGLAND	**84**	**86**	**72**	**86**	**86**	**88**	**77**	**88**	**86**	**89**	**77**	**91**

Table A4.7 : Girls, English Comparators, 1998-2000

% reaching Level 2 or above	1998				1999				2000			
	R	**W**	**S**	**M**	**R**	**W**	**S**	**M**	**R**	**W**	**S**	**M**
North West Cumbria	84	86	74	85	87	89	79	89	88	89	79	91
Furness	86	90	75	88	89	90	80	92	89	90	79	94
Tyneside	83	86	71	86	87	88	79	87	89	91	82	93
Teesside	84	84	73	87	84	86	78	87	86	89	79	89
Hull	79	79	64	83	81	82	71	86	83	85	71	88
North Lincolnshire	84	86	73	85	86	87	76	87	88	90	79	92
East Lancashire	81	83	69	83	83	83	73	83	85	86	74	89
East Wirral	84	86	70	84	89	89	79	89	88	89	79	91
Mid Cheshire	86	87	73	87	86	88	78	88	87	89	80	90
West Black Country	81	82	67	82	83	84	72	85	84	85	71	88
Mid Northants	88	89	75	88	87	90	79	89	91	92	80	92
Telford	84	88	74	88	87	90	77	90	85	90	76	90
South West Essex	81	83	64	84	82	84	68	86	83	86	69	91
ENGLISH COMPARATORS	83	84	70	85	85	86	75	86	86	88	76	90

SECTION 3 : Key Stage 2 - Area Performance Figures for English Coalfields and Comparators

KEY : E = English; M = Maths; S = Science

Table A4.8 : Boys, English Coalfields, 1998-2000

% reaching Level 4 or above	**1998**			**1999**			**2000**		
	E	**M**	**S**	**E**	**M**	**S**	**E**	**M**	**S**
Yorkshire	51	56	67	61	67	78	66	70	83
North Derbyshire	50	56	66	60	63	75	66	68	80
S. Derbyshire/NW Leicestershire	54	58	70	65	65	77	70	71	87
Nottinghamshire	47	51	61	57	62	74	62	66	78
East Durham	55	60	68	62	68	78	69	73	85
West Durham	53	58	69	58	67	77	66	69	83
Northumberland	51	51	67	55	59	74	62	61	76
North Staffordshire	51	51	67	58	64	76	66	71	84
Other West Midlands	51	56	69	63	67	81	66	69	83
Lancashire	58	62	70	67	72	79	68	72	83
Other Coalfields	54	57	68	61	67	76	69	68	83
ENGLISH COALFIELDS	52	56	67	61	66	77	66	69	82
ENGLAND	**57**	**59**	**70**	**65**	**69**	**79**	**70**	**72**	**84**

Table A4.9 : Boys, English Comparators, 1998-2000

% reaching Level 4 or above	1998			1999			2000		
	E	**M**	**S**	**E**	**M**	**S**	**E**	**M**	**S**
North West Cumbria	58	61	71	64	69	81	70	72	85
Furness	56	61	72	67	71	82	75	79	86
Tyneside	48	52	65	58	64	75	65	68	82
Teesside	50	53	66	60	66	77	67	69	82
Hull	47	52	66	54	61	73	63	68	82
North Lincolnshire	52	53	65	60	66	75	69	71	83
East Lancashire	53	56	65	62	66	74	68	70	82
East Wirral	52	54	63	65	68	77	68	69	83
Mid Cheshire	58	64	72	69	74	81	73	75	86
West Black Country	49	49	60	56	60	71	64	65	79
Mid Northants	58	59	68	64	69	81	69	69	85
Telford	52	57	68	62	66	79	67	69	83
South West Essex	47	50	62	56	64	74	61	65	82
ENGLISH COMPARATORS	51	54	65	60	65	75	66	68	82

Table A4.10 : Girls, English Coalfields, 1998-2000

% reaching Level 4 or above	**1998**			**1999**			**2000**		
	E	**M**	**S**	**E**	**M**	**S**	**E**	**M**	**S**
Yorkshire	69	55	66	72	68	77	77	70	84
North Derbyshire	67	54	64	70	64	72	75	67	82
S. Derbyshire/NW Leicestershire	74	57	68	75	68	78	80	70	87
Nottinghamshire	64	49	60	70	63	73	73	65	81
East Durham	73	62	69	74	70	77	80	75	86
West Durham	68	57	67	70	64	74	77	73	86
Northumberland	63	48	64	72	61	77	78	63	83
North Staffordshire	67	51	65	70	64	74	75	68	86
Other West Midlands	69	55	67	72	65	78	75	67	84
Lancashire	74	60	68	77	72	80	78	73	85
Other Coalfields	72	57	68	76	70	78	78	70	84
ENGLISH COALFIELDS	69	55	66	73	67	76	77	69	84
ENGLAND	**73**	**58**	**69**	**76**	**69**	**78**	**79**	**71**	**85**

Table A4.11 : Girls, English Comparators, 1998-2000

% reaching Level 4 or above	1998			1999			2000		
	E	**M**	**S**	**E**	**M**	**S**	**E**	**M**	**S**
North West Cumbria	71	57	67	74	68	78	80	72	87
Furness	75	60	69	79	73	81	83	78	87
Tyneside	65	52	62	68	64	75	75	68	84
Teesside	69	55	67	73	66	76	76	68	83
Hull	64	52	63	67	65	73	72	67	82
North Lincolnshire	72	56	67	73	67	76	77	68	84
East Lancashire	69	55	61	73	66	73	78	70	82
East Wirral	68	52	59	74	65	75	79	70	85
Mid Cheshire	73	66	72	76	74	80	80	76	87
West Black Country	65	48	58	69	61	71	72	64	80
Mid Northants	76	59	69	77	69	79	79	71	85
Telford	68	55	67	73	68	78	79	69	84
South West Essex	68	51	63	70	65	78	74	66	84
ENGLISH COMPARATORS	68	53	63	72	65	75	76	68	83

SECTION 4 : Key Stage 3 - Area Performance Figures for English Coalfields and Comparators

KEY : E = English; M = Maths; S = Science

Table A4.12 : Boys, English Coalfields, 1998-2000

% reaching Level 5 or above	**1998**			**1999**			**2000**		
	E	**M**	**S**	**E**	**M**	**S**	**E**	**M**	**S**
Yorkshire	52	56	54	49	58	50	47	59	57
North Derbyshire	47	55	54	46	61	51	47	62	60
S. Derbyshire/NW Leicestershire	52	62	61	55	65	60	55	70	69
Nottinghamshire	47	53	49	43	56	46	44	58	55
East Durham	47	53	51	47	55	50	47	55	54
West Durham	49	49	51	39	49	43	52	60	57
Northumberland	50	58	58	51	62	56	53	62	61
North Staffordshire	49	50	48	52	54	45	49	57	53
Other West Midlands	48	55	54	52	61	52	48	61	58
Lancashire	55	57	55	52	58	52	56	63	60
Other Coalfields	56	56	54	53	59	52	54	63	60
ENGLISH COALFIELDS	50	55	53	49	58	50	49	60	57
ENGLAND	**56**	**60**	**57**	**55**	**62**	**55**	**55**	**64**	**61**

Table A4.13 : Boys, English Comparators, 1998-2000

% reaching Level 5 or above	1998			1999			2000		
	E	**M**	**S**	**E**	**M**	**S**	**E**	**M**	**S**
Tyneside	53	54	53	54	57	51	49	58	56
Teesside	47	50	49	47	53	47	50	57	53
Hull	34	42	37	32	45	38	40	47	40
North Lincolnshire	49	55	52	53	59	50	49	58	57
East Lancashire	53	57	54	53	60	52	51	61	58
East Wirral	57	51	48	44	56	44	47	53	50
Mid Cheshire	55	57	58	52	61	56	51	62	61
West Black Country	45	51	49	51	55	46	49	57	52
Mid Northants	52	61	61	48	60	57	54	66	63
Telford	51	58	57	57	61	54	56	65	62
South West Essex	48	48	44	38	50	42	42	53	47
Other Comparators	56	57	57	54	62	58	55	67	70
ENGLISH COMPARATORS	49	53	51	50	56	49	50	58	55

Table A4.14 : Girls, English Coalfields, 1998-2000

% reaching Level 5 or above	1998			1999			2000		
	E	**M**	**S**	**E**	**M**	**S**	**E**	**M**	**S**
Yorkshire	69	55	49	68	58	48	67	61	55
North Derbyshire	69	58	52	66	61	48	64	64	55
S. Derbyshire/NW Leicestershire	79	63	59	74	67	57	70	65	60
Nottinghamshire	66	53	44	62	54	43	64	58	50
East Durham	68	54	49	64	56	48	68	56	48
West Durham	64	48	45	64	55	45	72	61	53
Northumberland	68	59	54	69	58	54	70	63	57
North Staffordshire	66	50	41	70	52	44	69	59	50
Other West Midlands	69	57	52	71	60	50	67	62	55
Lancashire	72	59	52	71	61	51	72	62	56
Other Coalfields	75	54	46	67	58	50	72	61	52
ENGLISH COALFIELDS	69	55	49	67	58	48	68	61	54
ENGLAND	**73**	**59**	**55**	**73**	**62**	**55**	**73**	**65**	**58**

Table A4.15 : Girls, English Comparators, 1998-2000

% reaching Level 5 or above	1998			1999			2000		
	E	**M**	**S**	**E**	**M**	**S**	**E**	**M**	**S**
Tyneside	67	51	45	68	54	47	67	58	52
Teesside	65	50	44	64	51	43	66	55	47
Hull	52	42	35	53	46	36	59	49	38
North Lincolnshire	70	54	48	68	56	46	67	60	51
East Lancashire	72	57	52	70	59	51	71	63	56
East Wirral	66	43	39	57	48	36	62	49	42
Mid Cheshire	74	63	59	72	62	57	71	65	59
West Black Country	66	49	45	67	52	44	66	57	48
Mid Northants	72	60	54	69	62	54	73	67	59
Telford	70	59	55	70	59	53	71	65	58
South West Essex	67	46	40	59	50	43	66	57	48
Other Comparators	76	62	56	74	62	56	72	64	61
ENGLISH COMPARATORS	68	53	47	67	55	47	68	59	51

SECTION 5 : GCSE - Area Performance Figures for English Coalfields and Comparators

KEY: E = % of pupils in year entered for 1 or more GCSE; 5+ = % of pupils entered obtaining 5 or more passes at grades A* to C; 1+ = % of pupils entered obtaining 1 or more pass at grades A* to G; None = % of pupils entered obtaining no passes

Table A4.16 : Boys, English Coalfields, 1998-2000

percentages	**1998**				**1999**				**2000**			
	E	**5+**	**1+**	**None**	**E**	**5+**	**1+**	**None**	**E**	**5+**	**1+**	**None**
Yorkshire	92	32	83	10	94	34	85	8	93	36	85	8
North Derbyshire	95	36	86	7	95	37	87	7	94	38	87	6
Nottinghamshire	94	32	83	8	95	35	85	7	94	34	84	8
East Durham	95	30	86	6	96	31	87	6	95	34	87	7
West Durham	95	26	81	9	94	33	84	8	93	29	81	10
Northumberland	93	33	87	8	93	35	86	8	93	39	86	9
North Staffordshire	93	30	84	8	95	36	90	5	93	31	85	8
Other West Midlands	95	34	89	6	94	32	85	7	93	33	88	7
Lancashire	95	33	86	7	94	37	86	7	94	39	89	7
Other Coalfields	95	31	86	6	96	36	88	5	96	35	89	6
ENGLISH COALFIELDS	94	32	84	8	94	34	86	7	94	35	86	8
ENGLAND	**94**	**41**	**92**	**2**	**94**	**43**	**93**	**1**	**95**	**44**	**94**	**1**

Table A4.17 : Boys, English Comparators, 1998-2000

percentages	1998				1999				2000			
	E	**5+**	**1+**	**None**	**E**	**5+**	**1+**	**None**	**E**	**5+**	**1+**	**None**
Tyneside	93	35	85	10	93	34	84	9	92	37	83	10
Teesside	91	28	80	11	93	31	83	8	93	31	84	9
Hull	90	23	76	14	92	24	80	11	91	22	75	12
North Lincolnshire	94	32	83	9	94	34	85	8	95	34	86	6
East Lancashire	94	36	87	7	94	38	87	7	93	37	87	8
East Wirral	95	43	90	5	95	43	90	6	96	46	91	5
Mid Cheshire	95	45	89	6	94	47	90	7	93	42	87	8
West Black Country	94	32	83	8	94	32	85	7	94	33	84	7
Mid Northants	95	39	88	7	93	42	86	8	94	46	86	8
Telford	96	43	88	6	93	43	86	7	94	45	88	6
South West Essex	92	25	77	10	92	25	79	10	94	31	84	8
Other Comparators	95	41	88	7	96	42	91	4	96	43	89	5
ENGLISH COMPARATORS	93	34	84	9	94	35	85	8	94	36	85	8

Table A4.18 : Girls, English Coalfields, 1998-2000

percentages	1998				1999				2000			
	E	**5+**	**1+**	**None**	**E**	**5+**	**1+**	**None**	**E**	**5+**	**1+**	**None**
Yorkshire	95	43	88	7	95	45	90	6	95	46	89	6
North Derbyshire	97	42	89	5	96	48	91	5	96	51	92	4
Nottinghamshire	94	43	88	7	96	43	90	5	96	44	89	6
East Durham	96	37	89	6	96	41	90	5	97	43	90	5
West Durham	95	38	88	7	97	46	90	5	95	37	84	8
Northumberland	95	43	90	6	95	47	89	6	95	50	89	6
North Staffordshire	94	38	86	8	96	46	91	5	95	41	88	6
Other West Midlands	96	43	91	5	98	42	92	4	96	46	92	4
Lancashire	96	44	89	5	96	49	91	5	96	50	91	5
Other Coalfields	96	45	90	4	97	49	92	4	97	49	92	4
ENGLISH COALFIELDS	95	42	89	6	96	45	90	5	96	46	90	5
ENGLAND	**96**	**52**	**95**	**1**	**96**	**53**	**95**	**1**	**96**	**55**	**95**	**1**

Table A4.19 : Girls, English Comparators, 1998-2000

percentages	1998				1999				2000			
	E	**5+**	**1+**	**None**	**E**	**5+**	**1+**	**None**	**E**	**5+**	**1+**	**None**
Tyneside	94	42	87	8	93	42	85	9	92	44	86	9
Teesside	93	38	83	10	94	43	86	7	95	43	88	6
Hull	91	31	80	12	93	30	82	9	93	31	80	10
North Lincolnshire	95	39	88	7	97	42	89	5	96	43	90	5
East Lancashire	95	47	90	6	96	46	92	5	95	49	91	5
East Wirral	95	47	91	6	96	48	92	4	97	51	91	5
Mid Cheshire	97	53	91	4	97	52	93	4	97	57	94	3
West Black Country	95	39	85	7	95	43	87	6	96	44	89	5
Mid Northants	96	52	92	5	96	55	91	5	95	54	91	6
Telford	94	50	89	6	95	51	90	6	96	54	91	5
South West Essex	95	37	87	6	97	38	87	6	96	40	90	5
Other Comparators	97	47	90	5	96	54	92	4	98	57	93	3
ENGLISH COMPARATORS	95	42	87	7	95	44	88	6	95	46	89	6

SECTION 6 : GCE A/AS Level - Area Performance Figures for English Coalfields and Comparators

KEY : 1+ : 1 or more pass at grades A to E; 2+ = 2 or more passes at grades A to E; None = no passes

Table A4.20 : Boys, English Coalfields, 1998-2000

% entering 1 or more A/AS Level	**1998**			**1999**			**2000**		
	1+	**2+**	**None**	**1+**	**2+**	**None**	**1+**	**2+**	**None**
Yorkshire	91	67	9	92	71	8	90	71	10
North Derbyshire	90	67	10	88	63	12	89	65	11
Nottinghamshire	89	71	11	91	68	9	91	69	9
North East Coalfields	86	61	14	87	62	13	86	60	14
West Midlands Coalfields	87	66	13	90	68	10	88	65	12
Other Coalfields	87	60	13	90	62	10	86	54	14
ENGLISH COALFIELDS	89	66	11	90	67	10	89	65	11
ENGLAND	**91**	**71**	**9**	**91**	**70**	**9**	**91**	**69**	**9**

Table A4.21 : Boys, English Comparators, 1998-2000

% entering 1 or more A/AS Level	1998			1999			2000		
	1+	**2+**	**None**	**1+**	**2+**	**None**	**1+**	**2+**	**None**
Tyneside	87	61	13	89	59	11	87	61	13
Teesside	90	71	10	90	69	10	92	69	8
North Lincolnshire	91	63	9	89	64	11	90	67	10
East Lancashire	91	64	9	91	67	9	91	68	9
East Wirral	89	70	11	93	74	7	91	70	9
West Black Country	87	68	13	89	69	11	86	64	14
Mid Northants	88	67	12	92	67	8	89	65	11
Telford	87	62	13	89	65	11	91	63	9
Other Comparators	91	69	9	89	65	11	91	67	9
ENGLISH COMPARATORS	89	67	11	90	67	10	90	66	10

Table A4.22 : Girls, English Coalfields, 1998-2000

% entering 1 or more A/AS Level	**1998**			**1999**			**2000**		
	1+	**2+**	**None**	**1+**	**2+**	**None**	**1+**	**2+**	**None**
Yorkshire	91	70	9	91	73	9	89	70	11
North Derbyshire	92	70	8	90	69	10	90	66	10
Nottinghamshire	92	72	8	91	70	9	93	71	7
North East Coalfields	89	67	11	89	66	11	88	63	12
West Midlands Coalfields	88	66	12	89	65	11	88	64	12
Other Coalfields	88	65	12	87	62	13	85	57	15
ENGLISH COALFIELDS	90	69	10	90	68	10	89	66	11
ENGLAND	**92**	**72**	**8**	**92**	**72**	**8**	**92**	**71**	**8**

Table A4.23 : Girls, English Comparators, 1998-2000

% entering 1 or more A/AS Level	1998			1999			2000		
	1+	**2+**	**None**	**1+**	**2+**	**None**	**1+**	**2+**	**None**
Tyneside	87	60	13	89	61	11	84	57	16
Teesside	90	68	10	92	72	8	92	70	8
North Lincolnshire	88	62	12	88	65	12	89	62	11
East Lancashire	93	74	7	94	70	6	95	73	5
East Wirral	88	61	12	92	70	8	88	68	12
West Black Country	90	68	10	92	69	8	89	66	11
Mid Northants	90	72	10	91	71	9	95	73	5
Telford	88	63	12	91	66	9	88	62	12
Other Comparators	91	68	9	91	69	9	90	65	10
ENGLISH COMPARATORS	90	67	10	91	69	9	90	66	10