

The results across all subjects

16 The Results in Absolute Terms

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The analysis is based on fifth-year pupils on the registers at the beginning of the school year 1985/86. Easter leavers are therefore included and are shown as not having entered or passed any exams. This of course makes the results look worse than if they were based on pupils remaining at school for the summer term. Nevertheless, this method of presentation is more appropriate, because pupils who left at Easter are not non-pupils; they are, in fact, pupils who did not pass any exams. This could be an important point if the proportion leaving at Easter varies much between schools. To test this point, the analyses of school differences shown in Chapter 17 have been carried out both on the base of all pupils on the registers and on the base of those staying on to the summer term.

Across all 18 schools, there were 2,426 fifth-year pupils on the registers. Of these, 10 per cent had five or more higher grade passes, while 32 per cent had one to four; the remaining 58 per cent had none.

Overall we might expect results in the study schools to be rather worse than for comprehensive schools over the country as a whole. The reason for this is that the study schools are all in urban areas, and they contain a higher proportion of working class children than the national average. On this point it is worth attempting a comparison with the national statistics. The comparison cannot be an exact one, since the DES statistics refer to school leavers, whereas the study results are for a group of children in the fifth year of school: those who stay on will, of course, pass further exams subsequently. Two bases for comparison can be extracted from the published statistics:

- Pupils aged 15 or 16 in the August of the year when they left school. This base includes pupils leaving from all types of secondary school.
- Pupils leaving comprehensive schools for the age group up to 16.

The summary table below compares the study children with these two groups, taking the most recent national figures available, which are for 1985.

| | | 1985 leavers – England | |
|----------------------|----------------|------------------------|-----------------------------|
| | Study children | All aged 15 or 16 | All from <16 comprehensives |
| Per cent with | | | |
| No higher grades | 58 | 56 | 59 |
| 1-4 higher grades | 32 | 32 | 30 |
| 5 + higher grades | 10 | 11 | 11 |

Although the comparison is not an exact one, it seems that the results for the study children as a whole are closely similar to the national results. Rather surprisingly, there is no evidence that the study schools as a whole are achieving results below the national average.

Analysis by school

From the report on the first two years we know that there are very large differences between the schools in social class and ethnic composition; also, there were large differences between schools in the attainment of the study children at the end of the second year. It is not, therefore, surprising to find that there are also large differences between the schools in the exam results they achieve. To a considerable extent, these differences are related to social class composition and the attainment of pupils at an earlier stage. The next chapter shall consider what difference remains after controlling for these factors. The present analysis focuses on the absolute results achieved by pupils at different schools.

Table 16.1 shows the number of higher grade passes obtained, by school. The best and worst results in these terms are produced by schools 25 and 44 respectively. The huge gap between the results achieved by these two schools can be illustrated as follows.

| | School 25 | School 44 |
|------------------------------|-----------|-----------|
| Per cent with | | |
| No higher grades | 30 | 82 |
| 1 or more | 70 | 18 |
| 3 or more | 36 | 4 |
| 5 or more | 16 | 2 |
| Mean number of higher grades | 2.20 | 0.38 |

It is significant that school 44 was the one reorganised during the course of the study following a merger with another school. The remaining schools are spread out fairly evenly over the range between these two extremes.

The overall exam score takes account of O level grades D and E and CSE grades 2 and 3 as well as the higher grades. Only 25 per cent of the study children score zero on this measure, so it is a much more sensitive indicator of the results across the full range of ability than the number of higher grades obtained. The distribution and mean of this score is shown, by school, in Table 16.2. The differences between schools are closely similar whether the overall exam score or the number of higher grade passes is considered. The schools fall out into almost exactly the same rank order whichever of the two measures is used.

Balance between O level and CSE

Across all schools, the proportion of pupils obtaining some higher grade O levels is about the same as the proportion obtaining some higher grade CSEs (32 and 31 per cent respectively). The higher attainers are, of course, more likely to take O levels than CSEs, hence the proportion obtaining three or more higher grade O levels is higher than the proportion obtaining three or more higher grade CSEs (14 compared with 8 per cent). In addition, a very substantial number of pupils obtained grade 2 or 3 CSEs: 66 per cent obtained some, and 43 per cent obtained three or more. The analysis by school (see Table

16.4) suggests that there may be important differences in the balance between O level and CSE. There are three factors underlying these differences.

- Higher-attaining pupils are more likely to be entered for O level.
- Pupils may be entered for both O level and CSE in the same subject, especially for English and maths. Some schools have a policy of making double entries, while others do not.
- Independently of the first two points, schools place varying degrees of emphasis on CSE as compared with O level. This may be connected with the degree of emphasis placed on lower-attaining compared with higher-attaining pupils.

The influence of these three factors can be traced in the findings as presented in Tables 16.5 and 16.6. The first of these tables shows that across all schools pupils were, on average, entered for 1.99 subjects at O level and for 4.62 in CSE. On average they obtained 0.95 higher grades at O level and 0.60 in CSE. (In addition, they obtained an average 2.72 grades 2-3 at CSE.)

From the simple addition of the number of higher grades at O level and CSE we find that on average pupils obtained $0.95 + 0.60$ or 1.55 higher grades in total. However, this is to treat a pupil with both CSE grade 1 English and O level grade C English as having two higher grades. Across all schools we find that on average pupils have 0.24 double-counted results of this kind, but, as Table 16.5 shows, the number of double higher grades varies very sharply between schools. School 31 has the most active double-entry policy, and achieves 0.89 double higher grades on average; schools 32 and 34 also have a substantial number of double entries, but this does not seem to be a policy of the local education authority, since the other two area 3 schools have virtually no double entries at all. There are also considerable variations on this matter among schools in the other areas.

We need to assess the variation between schools in the degree of emphasis on CSE as compared with O level, after discounting the effect of double entries. Table 16.6 shows that, while the average number of higher grades obtained in total is 1.55, this figure is reduced to 1.31 if double higher grades are counted only once. The total number of CSE grade 1s obtained is 0.60 on average, but if a double higher grade is counted as an O level, then this figure is reduced to 0.36. Across all schools, we therefore come to the conclusion that pupils obtained 0.95 higher grade O levels and 0.36 higher grade CSEs, if double higher grades are counted as O levels. A simpler way to put this is to say that out of the 1.31 higher grades, 0.36 were CSEs, or in other words 27 per cent. The right-hand column of the table shows how the CSE share of the higher grades varies between schools.

To a considerable extent, these variations correspond to the overall level of attainment within the school. There are three schools where CSEs account for over half of the higher grades (schools 35, 42 and 44); these three schools also obtain the smallest number of higher grades. At the other end of the scale, the schools where CSE has a small share of higher grades are ones obtaining generally good results. At the same time, there is evidence of some difference of policy on this matter that is unrelated either to double entries or to the attainment level. For example, schools 21 and 32 both achieve about 1.5 higher grades per pupil (counting double entries only once); but in school 21, CSEs are 11 per cent of higher grades, compared with 38 per cent in school 32.

We can draw the following conclusions from this analysis. First, there are wide differences of policy between schools on whether pupils are entered for both CSE and O level in the same subjects. Second, the degree of emphasis on CSE as compared with O level varies according to the general level of attainment at the school. Third, the degree

of emphasis on CSE varies between schools independently of the policy on double entries and of the general level of attainment. It remains to be seen whether the introduction of the General Certificate of Secondary Education (GCSE) in place of O level and CSE will help to ensure that pupils in different schools are treated more equally.

Analysis by country of origin

The exam results are slightly poorer among pupils originating from the Indian sub-continent and from the West Indies than among those of UK origin (Table 16.3). However, these differences are small: for example, the proportion having three or more higher grade passes is 21 per cent among those originating from the UK, 18 per cent among the south Asians, and 19 per cent among those originating from the West Indies. The results for the 'mixed and other' group are similar to those for the two main ethnic minority groups. When the overall exam score is used as the measure, the differences appear slightly larger. The mean score for pupils originating from the UK is 5.3, compared with 4.5 among those originating from the Indian sub-continent and exactly the same figure among those originating from the West Indies.

Analysis by sex

Within our sample, the girls obtained slightly better exam results overall than the boys (Table 16.3).

Analysis by family's socio-economic group

The relationship between exam results and social class is, of course, very strong (Table 16.3). On average, children from professional and managerial families obtained nearly eight times as many higher grade passes as those from families belonging to the 'under-class' group (where neither parent had had a job in the five years before the survey was carried out). The contrast is only slightly reduced if we take the overall exam score as the measure. The mean exam scores for the six socio-economic groups are shown below.

| | |
|-----------------------------|------|
| No parent has worked | 2.4 |
| Unskilled manual | 4.1 |
| Semi-skilled manual | 5.5 |
| Skilled manual | 5.5 |
| White collar | 7.0 |
| Professional and managerial | 10.0 |

Of course, attainment is strongly related to social class at every stage of the child's educational career. The analysis in the next chapter will show how far social class is related to exam results after taking account of attainment at an earlier time. This will show whether or not the social classes are growing further apart as they move through the educational system.

The results within subject groups

The overall exam score and the count of higher grade passes conceal some large differences between schools in the subjects in which results are obtained. Table 16.7 shows the proportion of pupils at each school who obtained a higher grade pass within each subject group. The findings for the whole sample of pupils are shown in the summary table below.

Percentages of all pupils
who obtained a higher grade

| | |
|--------------------------------|----|
| English | 22 |
| Humanities and social sciences | 20 |
| Maths | 17 |
| Science 1 | 14 |
| Creative subjects | 11 |
| Practical 1 | 6 |
| Practical 2 | 5 |
| European languages | 5 |
| Asians languages | 2 |
| Commerce | 2 |
| Science | * |

However, the balance of subjects varies substantially between schools. The first point is that schools vary considerably in terms of their relative success with maths and English. One way of showing this is to note the rank order of the schools in terms of their higher grade results in the two subjects. This is shown in the summary table below.

| School | English | | Maths | |
|--------|----------------------------|------------|----------------------------|------------|
| | Per cent with higher grade | Rank order | Per cent with higher grade | Rank order |
| 12 | 18 | 13 | 14 | 11= |
| 14 | 19 | 11= | 21 | 6 |
| 15 | 27 | 4= | 12 | 13 |
| 21 | 21 | 8= | 22 | 4= |
| 22 | 20 | 10 | 17 | 8= |
| 23 | 21 | 8= | 19 | 7 |
| 24 | 26 | 6 | 22 | 4= |
| 25 | 50 | 1 | 27 | 2 |
| 31 | 29 | 3 | 36 | 1 |
| 32 | 19 | 11= | 15 | 10 |
| 33 | 31 | 2 | 26 | 3 |
| 34 | 23 | 7 | 14 | 11= |
| 35 | 27 | 4= | 10 | 14 |
| 41 | 15 | 15 | 17 | 8= |
| 42 | 9 | 17 | 1 | 17= |
| 43 | 16 | 14 | 1 | 17= |
| 44 | 10 | 16 | 2 | 16 |
| 45 | 8 | 18 | 6 | 15 |

The first three schools in English are among the first three in maths. Even so, school 25 achieves an outstanding result in English (with half of pupils obtaining a higher grade

– far more than in any other school) but a much more ordinary result in maths (with 27 per cent obtaining a higher grade). Further down the list, there are some marked differences between the results achieved by the same schools in the two subjects. Schools 15 and 35 are equal fourth in English, with 27 per cent achieving a higher grade, but they come 13th and 14th for maths, with 12 and 10 per cent achieving a higher grade respectively. Schools that are stronger in maths than in English are school 14 (equal 11th in English but sixth in maths) and school 41 (15th in English, but equal eighth in maths). There is, of course, a fair amount of agreement between the results in the two subjects, since all pupils study both of them, and the outcomes are, to a large extent, a function of the general level of ability among pupils at the school. However, there are certainly some important differences between the results achieved in English and maths in the same schools. Chapter 16 will therefore include some analyses that treat the English and maths results as separate outcomes.

There are very large differences between schools in the results achieved in the other nine subject groups. For example, the proportion of children obtaining a higher grade in the humanities and social sciences ranges from 5 to 37 per cent; in the case of the main science subjects ('Science 1') the range is from 5 to 28 per cent; for the creative subjects, it is from 2 to 22 per cent. To some extent these differences are a reflection of differences between schools in the general level of attainment. However, there are also large variations in the degree of emphasis given to particular subjects from one school to another. In order to assess the degree of emphasis on particular subjects, we need to discount the overall level of attainment. The best way of doing this is to consider the proportion of higher grades that fall within each subject group, as shown in Table 16.8.

This table shows an extremely complex pattern of large differences between schools in the distribution of their higher grade passes between subject groups. The general conclusion to be drawn from this is an important one. Schools either have widely different policies and practices affecting the emphasis on particular subjects, or they have widely different departmental strengths and weaknesses. In practice, both kinds of differences are probably present. The findings tend to suggest that schools differ more in their achievement in particular subjects or groups of subjects than they do in the aggregate, over all subjects. Two reasons can be suggested for this.

- The style, method, approach and content of teaching are determined at the level of the subject or department, not at the level of the school. There is not much reason for two different departments in the same school to be alike, or for two different subjects to be taught in a similar way.
- The amount of teaching allocated to different subjects may vary between schools, partly in response to school policies, partly in response to the pattern of demand from pupils and parents.

If this analysis is correct, it suggests that differences between schools in academic terms will tend to be blurred by aggregating exam results across all subjects. In particular, it may be easier to find reasons for success or failure in particular subject areas than to explain why a school tends to obtain good or bad results overall. To understand why the teaching in one school is more successful than in another it may be necessary to understand why the teaching of, say, history is more successful, then why the teaching of, say, maths is more successful; and it may turn out that the teaching of another subject – say, English – is no more successful in that school than in the other.

In addition to this general conclusion, there are some particular points to be made about the pattern shown in Table 16.8. The very poor performance in maths of four of the schools in area 4 is highlighted. There are substantial differences between schools with similar overall levels of achievement in the proportion of higher grades falling within the sciences, the humanities and the creative subjects. Practical subjects traditionally done by boys are particularly strong in school 23, while practical subjects traditionally done by girls are strong in schools 43 and 32 (none of these are single-sex schools). One school stands out as having a substantial number of pupils obtaining a higher grade in an Asian language: this is the girls' school in which about three-quarters of the pupils are of Bangladeshi origin. Finally, it is only in school 22 that a substantial proportion of higher grades are in 'commerce' (which includes typing and office practice).

Analysis by country of origin

Table 16.9 shows that the proportion obtaining a higher grade in English is only slightly lower among south Asians than among pupils originating from the UK (18 per cent compared with 23 per cent). The results for English are shown more fully in the table below. They suggest that by the fifth year south Asian pupils had nearly caught up with the rest in English language. Within our sample, pupils of West Indian origin obtained rather better results in English than those originating from the UK.

Column percentages

| English language | Country of origin | | |
|-------------------------|--------------------------|--------------------|--------------------|
| | UK/Eire | South Asian | West Indies |
| Higher grade | 23 | 18 | 26 |
| Lower grade | 33 | 33 | 35 |
| Failed | 22 | 27 | 22 |
| Absent | 4 | 3 | 2 |
| Total entered | 82 | 81 | 85 |
| Not entered | 18 | 19 | 15 |

In maths, Table 16.9 shows that the proportion obtaining a higher grade was distinctly smaller among those of West Indian than among those of UK origin (11 compared with 18 per cent). Thus, pupils originating from the West Indies did rather better in English than those originating from the UK but decidedly worse in maths. Pupils originating from the Indian sub-continent did a bit worse than those originating from the UK in maths, as also in English; 15 per cent of the south Asians, compared with 18 per cent of the pupils originating from the UK, obtained a higher grade in maths.

Differences between ethnic groups in their results in other subjects are not very striking. The West Indians' results in the main science subjects, like their results in maths, are rather poor. Across all schools, only 5 per cent of pupils originating from the Indian sub-continent obtained a higher grade in an Asian language. Altogether 13 per cent were entered for an Asian language exam, and 11 per cent obtained a higher or lower grade. However, we have already seen that most of the pupils entered for an Asian language exam are concentrated

in a single school (school 15), and the great majority of Asian pupils were in schools where there appears to have been no opportunity of this kind.

There is not much difference between the main ethnic groups in their results in the humanities or in the practical subjects. The proportion of south Asians who obtained a higher grade in creative subjects is lower than for other groups; this is because a relatively small proportion of south Asians were entered for these subjects (31 per cent, compared with 40 per cent of pupils originating from the UK). This difference is of some interest, because it suggests that south Asian pupils are not attracted to creative subjects that are rooted in the western tradition.

Analysis by sex

We have already seen that the girls in our sample obtained rather better exam results than the boys, though the difference is fairly small: on average the girls obtained 1.56 higher grades, while the boys obtained 1.30. However, there are wide differences between girls and boys in terms of the subjects in which they obtained their results. A substantially higher proportion of girls than of boys obtained higher grades in English, humanities and social sciences, creative subjects, and, of course, the practical subjects traditionally done by girls. A higher proportion of boys than of girls obtained higher grades in maths, the main science subjects and the practical subjects traditionally done by boys.

Analysis by social class

We have seen that there is a very strong relationship between overall exam results and the family's socio-economic group. The strength of this relationship is much the same for all subject groups, except that results in commerce and in Asian languages are not related to social class at all. It is interesting that results in the two groups of practical subjects are strongly related to social class, in the same way as results in maths and English.

Combination of maths and English

Table 16.10 shows that across all schools, 67 per cent of pupils attempted both maths and English, 32 per cent obtained a graded result in both (O level grades A-E or CSE grades 1-3) and 11 per cent obtained a higher grade in both. The table also shows that there are very wide variations between schools in the proportion who obtained a graded result and in the proportion who obtained a higher grade in both subjects. These differences are greater than for the results in the two subjects individually or for the overall exam score.

Across all schools, about half of the pupils who attempted both subjects obtained a graded result in both. It is interesting that in school 33, the proportion of pupils entered for both exams, at 29 per cent, is much lower than elsewhere, but the great majority of those entered for both obtained at least a graded result in both. Thus, school 33 has a policy of only entering pupils for these two exams if they have a very good prospect of getting a result in both of them, and this policy is very significantly different from the one followed at other schools in the sample. By contrast, there are three schools in area 4 where a substantial proportion of pupils were entered for both maths and English, but their success rate was extremely low. These schools seem to have a policy of routinely entering pupils for both maths and English even though most of them have no realistic prospect of achieving a result.

Summary

Although it is not possible to make an exact comparison, it seems that the exam results for the study children as a whole are closely similar to the national results. Rather surprisingly, there is no evidence that the study schools are achieving results below the national average.

There are enormous differences between the study schools in the level of exam results they achieve in absolute terms, without controlling for differences in their intakes. The average number of higher grades obtained per pupil is about six times as high for the top school as for the bottom school.

On average pupils across all schools obtained 0.95 higher grades at O level and 0.60 in CSE, but 0.24 of these were double entries in the same subjects. In addition, they obtained an average 2.72 grades 2-3 in CSE. If we count double higher grades as O levels, then CSEs account for 27 per cent of higher grades overall. However, the balance between CSE and O level varies widely between schools. There are three reasons for these variations. First, there are wide differences of policy between schools on whether pupils are entered for both CSE and O level in the same subjects. Second, the degree of emphasis on CSE as compared with O level varies according to the general level of attainment at the school. Third, the degree of emphasis on CSE varies between schools independently of the policy on double entries and of the general level of attainment.

The exam results over all subjects are slightly poorer among pupils originating from the Indian sub-continent and from the West Indies than among those of UK origin. Pupils originating from the West Indies did rather better in English than those originating from the UK but decidedly worse in maths. Within our sample, the girls obtained slightly better exam results overall than the boys. The level of exam results achieved is very strongly related to social class.

Schools vary considerably in terms of their relative success with maths and English, and there are very large differences between schools in the results achieved in the other nine subject groups. These differences are not just a function of the overall level of success within a school. On the contrary, the findings suggest that schools differ more in their achievement in particular subjects or groups of subjects than they do in the aggregate. This is probably because teaching is determined more at the level of the department than at the level of the school, and because there is room for considerable variation in the proportion of teaching resources devoted to each subject group. These findings suggest that differences between schools in academic terms will tend to be blurred by aggregating exam results across all subjects.

By the fifth year south Asian pupils had nearly caught up with the rest in English language. Within our sample, pupils of West Indian origin obtained rather better results in English than those originating from the UK, but markedly worse results in maths. Differences between ethnic groups in their results in other subjects are not very striking.