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Trends in Special School Placement to 1986: measuring, assessing and explaining segregation

WILL SWANN

ABSTRACT There has been much speculation about the consequences of the 1981 Education Act for the integration of children with special needs. In this paper I investigate this issue by an examination of national trends in special school placement. I introduce new methods to measure segregation and to identify the sources from which special school pupils come. Using these methods I conclude that there is only slight evidence that there has been a trend towards integration since the 1981 Education Act was implemented. Moreover there are many competing explanations for the observed trend. Using national statistics dating from 1961 I show relationships between changes in segregation and changes in pupil-teacher ratios, school rolls and the number of special school places. I argue that the most likely explanation for the trend since 1983 lies in the assessment and statementing requirements of the Act, not in its clause concerning integration.

INTRODUCTION

Has the 1981 Education Act succeeded in promoting the integration of children with special needs into ordinary schools? This is the principal question I address in this paper. I do so by examining changes in the number of pupils attending special schools, using statistics published annually by the DES. I conclude that there is only slight evidence that there has been less segregation into special schools since the Act came into force. To the extent that there has been less segregation, this may not be the result of the integration clause in the new law. There are alternative explanations. This study follows and elaborates on earlier analyses of trends in special school numbers (Booth, 1981; Hegarty & Pocklington, 1981; Swann, 1985).

In the first part of the paper I discuss three problems in using published statistics to assess trends in integration and segregation. First, what do the statistics tell us about integration? Secondly, how should we deal with the major changes in the way the statistics have been collected since 1983 as a result of the abolition of statutory categories of handicap? Thirdly, do national trends reflect trends in individual LEAs, or are they the result of a combination of divergent local patterns?

In the second part of the paper I discuss alternative ways of measuring segregation using DES statistics. Up till now studies have used the proportion of the total school population that attends special schools as a measure of segregation. This has advantages, but some disadvantages as well. I introduce two new measures of segregation based on the idea of an 'inflow', that is, the number of pupils joining special schools

each year from ordinary schools; and an 'initial intake', that is, the number of pupils who start their primary or secondary school career in special schools.

In the third part of the paper I look at what happened to special school numbers from 1982, the year immediately before the 1981 Act was implemented, to 1986, the latest year for which statistics are available. These results are then set alongside the results I reported in Swann (1985) to consider trends since the publication of the Warnock Report, the forerunner to the 1981 Education Act, in 1978 (DES, 1978).

In the final part of the paper I assess alternative explanations for these results. This involves the use of the new measures of inflow and initial intake, and a longer historical perspective, looking at figures back to 1961. I show that it is not possible to say exactly what is the cause of the trends since 1982. At least three factors other than the integration requirements of the 1981 Education Act—resources, pupil rolls and the new assessment procedures—may have influenced the pattern of segregation.

MEASURING TRENDS IN INTEGRATION WITH NATIONAL STATISTICS

The Significance of National Special School Statistics

Published statistics rarely provide precisely the information one needs to answer questions other than those the figures were designed to answer. They may still be usable for a range of purposes provided one is clear about their limitations. Every year the DES publishes figures which give the number of pupils in special schools. Can these figures be used to measure the extent of integration nationally? The answer is yes, so long as we adopt a particular definition of integration. The Warnock Committee distinguished between locational, social and functional integration, recognising that the experiences of children with special needs in ordinary schools could differ a lot. One child might participate in all spheres of school life like ordinary children, another might spend his or her days in a unit closed off from the rest of the school. Simply to describe both of these children as integrated would be to obscure important information. National statistics do not make such distinctions, indeed they do not even tell us how many children with special needs attend ordinary school.

They do tell us how many children are in special schools. During the 1960s and 1970s it was safe to assume that these pupils were segregated. More recently even this has been called into question, because some children who are on the roll of a special school actually spend much of their time in an ordinary school (see, for example, Swann, 1987). These pupils appear in national statistics as attending special schools. A recent study has shown that this practice is much rarer than one might expect.

Jowett, Hegarty & Moses (1988) surveyed all the special schools in a 25% random sample of LEAs in England and Wales. Of the 268 schools surveyed 144 had pupils going out to ordinary schools on a regular weekly basis. Of these, 81 arranged for less than five pupil days per week to be spent in ordinary schools and only 31 had more than 11 pupil days per week spent in ordinary schools. In 1985, around the time the data were collected, the average size of all special schools was 75 pupils, thus the average number of pupil days per week was 375. Applying this figure to Jowett et al.'s results we can estimate that in only 12% of special schools was more than 3% of the available pupil time spent in ordinary schools. In all other special schools less pupil time was spent in the mainstream. The practice of sending pupils to ordinary schools for part of the week is of recent origin, and so it is safe to assume that in the years before this survey there was even less movement of pupils from special to ordinary

schools. The great bulk of children on the roll of a special school are educated in a special school.

Using the national statistics we can say where children are being educated with acceptable accuracy. What we are not able to say is how far they are participating in ordinary school life once they are on the register of an ordinary school. Location is an important indicator of integration. If the proportion of pupils attending special schools goes up we can say with confidence that one vital component of integration is not happening. If the proportion goes down, we cannot say with the same confidence that successful integration is happening, but we can say that one precondition for successful integration is being fulfilled.

The Abolition of Statutory Categories

Between 1978 and 1982, there was a slight increase in the proportion of children attending special schools. But this overall trend obscured large differences between the trends for different groups of children. There was a trend towards the integration of children with sensory handicaps, but towards the segregation of children with learning difficulties and those labelled as maladjusted. It was possible to discover these differences in trend because up to 1983 children attending special schools were ascertained under one of ten statutory categories of handicap. Figures were published annually for each category.

From 1984 onwards this kind of analysis is no longer possible. Special school pupils are now classified in two ways in statistical returns to the DES: 'aspects of disability' and 'curriculum need'. Classification of pupils under this system is the responsibility of headteachers. Statutory categorisation was the responsibility of LEAs. The definitions used in these two classifications are given in the appendix to this paper. Neither of the two systems is usable to discover differences in trends in segregation between categories.

Under the system of statutory categories of handicap, the classification of pupils and schools usually coincided. For example, a child categorised as physically handicapped (PH) who attended a special school would in most cases attend a special school for PH children. So if we found that the proportion of children categorised as PH and attending special schools had decreased, we could be reasonably sure that this was because of changes in the population of special schools for PH children. This helped greatly in understanding the figures. It did not, on the other hand, allow conclusions to be drawn about the incidence of disabilities across all special schools. For example, many children with visual disabilities have other disabilities as well and are in special schools other than those for the blind and partially sighted (Colborne-Brown & Tobin, 1982). Such children were often not categorised as blind or partially sighted. So the number of children categorised as blind and partially sighted was no indication of the number of blind and partially sighted children in special schools.

Under the new classification by 'aspects of disability' it is no longer possible to say that children described as having a particular disability will in general attend a special school for children with that disability. For example, some children with severe learning difficulties are also partially sighted. Under the old system most of them would have been categorised as ESN(S). Under the new system it is impossible to distinguish between children whose main educational problem is their partial sight and children who are partially sighted and who also have other disabilities. Consequently, it

is impossible to measure the change in the proportion of the school population who attend special schools for the partially sighted.

Nor can the new system be used to measure the incidence of disability across all special schools. Five of the seven defined categories could be applied to any pupil but 'partially hearing' and 'speech' could not. The definition of 'partially hearing' requires that speech and language 'although defective, is following a normal development'. The definition of a speech disability requires that 'the impairment cannot be attributed to developmental delay or generally low intellectual level'. These definitions make it almost impossible for pupils with severe learning difficulties to be described as either partially hearing or having a speech disability. Yet many of these children are partially hearing and others have speech problems. So if we want an estimate of the number of children with partial hearing in all types of special schools, the 'aspects of disability' classification will not provide it. It is not clear to what purpose the classification can be put.

Classification by curriculum need is essentially a classification of ability, but it does not correspond to any classification of schools. For example, in any one special school for PH pupils one might find children in all three categories of curriculum need. So despite the definition of the 'modified curriculum' as being appropriate for children with moderate learning difficulties, the number of children classified as needing a modified curriculum will not just include children who used to be called ESN(M). It will also include many children with various physical disabilities. This makes it very difficult to interpret any changes in the size of these categories. If the number of children needing a modified curriculum who attend special schools were to decline, it would be impossible to tell whether this were due to movements of disabled children of low ability or of children who would earlier have been categorised as ESN(M).

Both new classification systems are unsatisfactory for present purposes, and so it is not possible to study trends within the special school sector beyond 1983. It is important to remember that any general trend since then may mask divergent trends in more specific groups, such as those found for the period 1978 to 1982.

Do National Trends Reflect Local Trends?

LEAs vary a great deal in the size of their special school sectors and have pursued very different policies over the past few years (Goacher et al., 1988; Gipps, Gross & Goldstein, 1987). At the moment it is not known just how much LEAs vary in the proportion of their school population who attend special schools. The recent House of Commons Select Committee Report on the implementation of the 1981 Education Act drew attention to what it saw as major variation between LEAs in the level and nature of special provision, but the information on which it relied does not accurately measure variation in segregation (House of Commons, 1987). Equally important, we do not know how far LEAs have differed in the way the size of their special school population has changed recently. There are indications that trends have diverged. Goacher et al. (1988) surveyed 79% of English LEAs, and asked them if they had increased or decreased their use of various forms of special provision. Although in general LEAs reported a decrease in the use of special schools, some LEAs reported increases. In its evidence to the Select Committee, the Society of Education Officers included the results of a questionnaire to CEOs on the financial implications of the 1981 Act (SEO, 1986). Approximately half the LEAs replying to questions about special school numbers reported an increase in numbers since the implementation of the Act, in contrast to the other half reporting a decrease. If there are substantial variations in trend between LEAs then these would be masked by the national trend, and the national trend would not be a good guide to local movements. For the present it is not safe to assume that there is any correlation between the two.

MEASURES OF SEGREGATION

Prevalence

In studies using DES statistics to date two measures of segregation have been used: the number of pupils in special schools and the proportion of the total school population who attend special schools. The second of these is obtained by dividing the number of pupils in special schools by the number of pupils in all schools. It has generally been expressed as a percentage or as a rate per 10,000 pupils. I shall call this measure prevalence and I shall express prevalence in this paper as a rate per 10,000 pupils in all schools. Prevalence can be calculated for any age range or any particular age group. For most purposes the number of pupils in special schools is not a useful measure because it depends on the size of the total school population, and this varies considerably from year to year. Prevalence is designed to eliminate this source of variation. This is not entirely straightforward because one must still decide what the relevant population base for the rate should be. In Swann (1985) I discussed this problem in detail and readers are referred to that paper for further information. In this paper all measures of prevalence are based on the total school population in all schools, including maintained and non-maintained schools.

Prevalence from year to year tells us how the relative size of the special school sector is changing, but it has two big disadvantages. First, it is not a particularly sensitive measure of changes in the proportion of children who are placed in special schools. In any one year the special school population is made up of children who joined special schools from ordinary schools several years earlier and others who have just joined. The size of the special school sector in any one year is the result of many decisions to segregate children over several previous years. If the proportion of children who are moved into special schools drops rapidly, to begin with this will only have a relatively small effect on prevalence. This is both a strength and a weakness of prevalence as a measure of segregation. Prevalence measures do not respond excessively to potentially misleading short-term fluctuations in the movement of children into special schools. On the other hand, if there is a consistent change in the proportion of children who move into special schools, this movement will seem smaller than it actually is.

The second problem with prevalence is that it does not allow us to say where pupils came from. Suppose, for example, that we observe an increase in the prevalence of secondary-aged pupils over a given period. What is the source of this increase? It may be because the proportion of children who go straight into special schools at age five increased several years earlier. If so then it might be misleading to attribute the increased segregation to causes within ordinary schools. It may be because the proportion of children who move from primary schools into special schools went up in the past few years, or because of an increase in the proportion of children who are segregated from secondary schools. It is logically possible that an increase in the prevalence of secondary-aged pupils in special schools could be the result of an increase in segregation from primary schools and a decrease in segregation from secondary schools.

Inflow Rate and Initial Intake Rate

To overcome these problems we need to be able to measure segregation from ordinary schools and to separate this from the segregation of pupils who never attend ordinary schools straight into special schools at age five. I shall call these two quantities *inflow* to special schools and *initial intake* to special schools, respectively.

Inflow can be measured if we make one reasonable assumption: we ignore movement out of special schools. Unlike ordinary schools, where successive age groups vary in size with the birth rate, the age structure of special schools is cumulative. Age cohorts in special schools grow in size each year up to the age of 15. The growth in the size of a cohort from year to year gives us a measure of inflow. The actual inflow of pupils is greater than this because a few pupils leave special schools to return to ordinary schools. In general this number is very small. So in measuring inflow we are in fact measuring a *net* movement into special schools. Since 1971, each year there has been a net inflow of pupils to special schools at primary and secondary levels.

If we subtract the number of pupils aged x in special schools in a given year from the number of pupils aged x+1 in special schools in the following year we have the net inflow of pupils aged x to special schools in that year. This net inflow is influenced by the size of the total age cohort from which it is drawn, and so should be expressed as an inflow rate. For example, the inflow rate per 10,000 seven year olds into special schools in 1985 is given by:

8 year olds in special schools, 1986 - 7 year olds in special schools, $1985 \times 10,000$

7 year olds in all schools, 1985

Inflow rates can be calculated for single age groups or for age ranges. The general formula for inflow rate of pupils aged a to b in year y is:

$$\frac{\sum_{b}^{i=a} (n_{i+1,y+1} - n_{iy}) \times 10,000}{\sum_{b}^{i=a} t_{iy}}$$

where n_{iy} is the number of pupils in special schools aged i in years y, and t_{iy} is the number of pupils in all schools aged i in year y.

Initial intake rate can be measured by the proportion of all five year olds who attend special schools. This will include some children who spent some time in ordinary schools after they reached five and who are still five when they reach a special school, and some who may have spent some time in an ordinary nursery school. Only the first of these two groups is a problem for this measure because these children have been segregated from ordinary schools. How many such children there are is not known. The number is likely to be very small. Ordinary schools do not generally refer children for special education until they have attended for a number of terms, and the referral process usually takes several months. So the proportion of all five year olds who attend special schools will be a slight overestimate of initial intake rate, but the inaccuracy is not enough to cause major problems when the chief interest lies in the way this rate changes over time.

Composite Inflow Rate and Composite Initial Intake Rate

Inflow rate is a useful means to measure the way in which segregation from ordinary schools is changing from year to year. Sometimes, however, we need to ask a slightly different question. We notice that the prevalence of special school pupils in a particular age range has changed over a number of years and we ask: what is this due to? Is it because initial intake rates went up, or because inflow rates went up, and if the latter, then which ones? Here the problem is more complex because the number of children in a given age range attending special schools during a given year is made up of a number of inflows over a number of previous years, and of a number of initial intakes. For example, consider the number of five to ten year olds in special schools in 1978. This was composed of six initial intakes of five year olds, one in each year from 1973 to 1978, and 15 inflows; five inflows of five year olds from 1973 to 1977, four inflows of six year olds from 1974 to 1977, three of seven year olds from 1975 to 1977, two of eight year olds from 1976 to 1977 and one of nine year olds from 1977. I shall call the sum of the initial intakes that contribute to a prevalence figure the composite initial intake for that figure. The sum of the contributing inflows I shall call the composite inflow. The two together fully account for prevalence. Both composite initial intake and composite inflow should be expressed as rates based on their corresponding population sizes.

So far I have referred to initial intake only as intake at age five. However, there is no reason to limit it in this way. Suppose, for example, that we are interested in explaining changes in the prevalence of secondary-aged special school pupils. Our main concern may be to separate out the effect of inflow of secondary-aged pupils from any earlier contributions to prevalence. In this case we could think of a composite initial intake of eleven year olds. The general formula for the composite initial intake rate to pupils aged a to b in year y is:

$$\frac{\sum\limits_{y}^{j=y-b+a} n_{aj} \times 10,000}{\sum\limits_{j=y-b+a}^{j=y-b+a} \sum\limits_{y}^{t} t_{aj}}$$

where n_{aj} is the number of pupils in special schools aged a in year j, and t_{aj} is the number of pupils in all schools aged a in year j.

Composite inflow is most readily calculated by subtracting the composite initial intake to a given age range from the total number of pupils in special schools in that age range. Converting composite inflow to a rate is more complex. As a simple example suppose we were measuring the composite inflow contributing to the prevalence of five to seven year olds in special schools in 1985. We would first calculate the three contributing inflows. Two of these, the inflows of five year olds in 1983 and six year olds in 1984, are drawn from the same age cohort. This cohort changes in size slightly from year to year as a result of mortality, immigration and emigration. Between 1979 and 1980 the change in cohort size was rather larger as a result of a change in the method of measuring pupils' ages [1]. To take account of these variations, we should use the average size of an age cohort over the period of interest as the base for calculating the rate. So in the example above the base for the rate would be the average size of the age cohort that was five in 1983 and six in 1984, plus the size

of the cohort that was five in 1984. The general formula for composite inflow rate to pupils aged a to b in year y is:

$$\frac{\left(\sum_{b}^{i=a} n_{iy}^{j=y-b+a} \sum_{y}^{b-a} n_{aj}\right) \times 10,000}{\sum_{b-a}^{x-1} \left(\sum_{b-x}^{i=a} t_{i,y-b+i+x-1} \right)}$$

where $\sum n_{iy}$ is the total number of pupils aged *i* in special schools in year y; $\sum n_{aj}$ is the composite initial intake to $\sum n_{iy}$; the denominator of the formula is the sum of b-a age cohorts, averaged in size over the years from which the inflows included in the numerator were drawn.

Composite inflow rate and composite initial intake rate are important because they allow us to assess competing accounts of changes in prevalence. For example, in Swann (1985) I suggested that the large increase in the prevalence of primary aged children in ESN(M) special schools from 1978 to 1982 might be due to an increase in nursery places in these schools and in other pre-school intervention programmes which had drawn more children straight into special schools without spending any time in ordinary schools. If this were true and it accounted entirely for the change in prevalence we would find a significant change in the composite initial intake rate between 1978 and 1982, but no change in the composite inflow rate.

Measuring Inflow to Statutory Categories

So far I have only discussed inflow rates in the context of measuring changes in the total special school population. Can we measure inflow to particular statutory categories, as the example above would require? [2] Inflow rates to the smaller categories such as blind and deaf pupils would be so small as to be very difficult to interpret and subject to a lot of random variation. But inflow rates to the four large categories: ESN(M), ESN(S), Maladjusted and PH, which together accounted for some 85–90% of all special school pupils when they were in force, would be more stable.

The meaning of inflow rates to these categories varies. In the ESN(M) and Maladjusted categories, nearly all children joining special schools after starting school join from ordinary schools, and so inflow rates will measure segregation from ordinary schools. However, in the ESN(S) and PH categories, some pupils join from other kinds of special school as well as from ordinary schools. In these two categories inflow rates do not clearly indicate segregation from ordinary schools. In the results below I have only calculated inflow rates for the ESN(M) and Maladjusted categories. Inflow rates to all categories combined, on the other hand, are purely measures of movement from ordinary schools, since movements between special schools of different types are cancelled out.

TRENDS IN SEGREGATION AND THE SIZE OF THE SPECIAL SCHOOL SECTOR

In this part of the paper I shall use the measures described above to draw conclusions about recent trends in segregation and in the size of the special school sector. In my earlier analysis (Swann, 1985) I described changes in prevalence from 1978 to 1982. Here I shall begin by describing changes in prevalence from 1982 to 1986, and then set them alongside the earlier results so that we can see what happened over the nine years following the Warnock Report. Secondly, I shall use the measures of composite inflow rate and composite initial intake rate to enquire into the sources of the changes in prevalence since 1978. Thirdly, I shall use the measures of inflow rate and initial intake rate to assess how segregation from ordinary schools has changed [3].

The data used are taken from DES Statistics of Education (Schools) for 1973 to 1986 (DES, 1974-1987). I shall consider only pupils aged five to 15; the interpretation of trends in the pre-school and post-school age groups is considerably more complex and is beyond the scope of this paper.

Changes in the Prevalence of Special School Pupils

(a) 1982 to 1986. The results in this section are for England only. Table I shows the prevalence of special school pupils aged five to 15, five to 10 and 11 to 15 for 1982 to 1986. Table II presents the prevalence and percentage change in prevalence for these age ranges and for separate age groups. Over the five-year period in question the total school population fell from 7.44 million to 6.70 million, a drop of 10.0%. In the same period, the total special school population fell from 114,019 to 97,240, a drop of 14.7%. Combining the two changes we find that the prevalence of pupils aged five to 15 declined from 153 to 145, a drop of 5.2%. As Table I shows, prevalence for the whole compulsory age range reached a peak in 1983 and fell thereafter. Thus, it seems at first sight that there was a trend towards integration since the 1981 Act was implemented.

Year	Pupils aged 5-15	Pupils aged 5-10	Pupils aged 11-15

Year	Pupils aged 5-15	Pupils aged 5-10	Pupils aged 11-15
1982	153	116	191
1983	154	116	191
1984	151	110	190
1985	148	105	189
1986	145	103	188

⁵⁻¹⁵ age range—one year comparisons: 1983 vs 1984, 1984 vs 1985 and 1985 vs 1986: p < 0.02; all two, three and four year comparisons: p < 0.02.

The analysis for 1978 to 1982 revealed considerable differences in trends in the prevalence of special school pupils in the primary and secondary age ranges. In that period, prevalence increased by 8.4% in the primary range, but by only 1.1% in the secondary range. From 1982 to 1986 there is a trend towards integration in the primary

⁵⁻¹⁰ age range—one year comparisons: 1983 vs 1984, 1984 vs 1985 and 1985 vs 1986: p < 0.02; all two, three and four year comparisons: p < 0.02.

¹¹⁻¹⁵ age range—1982 vs 1985 and 1983 vs 1985: p < 0.02; all other comparisons non-significant.

age range: there was an 11.2% drop in prevalence in this range. However, in the 11-15 age group there was only a small drop of 1.6% from 1982 to 1986. Results for each year group in Table II show that prevalence rates declined for all groups aged 5 to 12, and did not change for 13 to 15 year olds.

Age group	1982	1986	Per cent change
5	67	62	−8.1 *
6	80	70	−11.7 *
7	102	93	−8.9 *
8	127	112	-11.2*
9	145	133	−7.8 *
10	155	149	−3.6 *
11	173	166	−4.3 *
12	187	178	-4.8 ★
13	194	192	-1.3
14	198	197	-0.9
15	200	203	1.4
5-10	116	103	−11.2 *
11-15	191	188	-1.6*
5-15	153	145	-5.2*

TABLE II. Prevalence of special school pupils per 10,000 total school population and percent change in prevalence by age, 1982 and 1986

(b) 1978 to 1986. It is useful to compare these results with the results for 1978 to 1982. The general trend was reversed. The overall prevalence of 147 in 1986 was almost exactly the 1978 prevalence of 146. In other words, the size of the special school sector stood in 1986 as it did when the Warnock Report was published. The overall increase then decrease in the trend was the result of a corresponding pattern of increase then decrease in the primary age range, which saw the most rapid increase from 1978 to 1982, and the most rapid decline from 1983 to 1986. The five to 10 prevalence rate for 1986 of 104 was below the 1978 rate of 107, although not significantly so. By contrast there was very little movement in any direction in the secondary age range, across the whole nine year period.

Accounting for Changes in Prevalence

The movements of pupils that made up these changes in prevalence could have come from primary or secondary schools, or from movements of pupils straight into special schools at five. Why did the prevalence of primary-aged special school pupils increase from 1978 to 1982 and then decrease? Does the steady prevalence of secondary-aged pupils disguise divergent movements of pupils from different age ranges? To answer these questions we need to look at the composite initial intake rates and composite inflow rates.

The calculation of the rates is complicated by the fact that they require the use of statistics published before and after 1978, when education statistics for England and Wales were separated. Up to 1977 combined statistics for England and Wales were published. From 1978 onwards separate statistics for the two countries have been

^{* 1982} vs 1986: p<0.02.

produced by the DES and the Welsh Office. This means that composite initial intake rates and composite inflow rates can only be calculated for England and Wales jointly in 1978, and for England only in 1982 and 1986. The rates for 1978 require the use of some estimates for pupils in Welsh schools in 1977 and 1978 [4].

So when we compare 1978 with later years we are not comparing like with like. We are concerned with rates per 10,000 pupils, so the difference in the total number of pupils between England, and England and Wales, is irrelevant. More significant is the difference in the prevalence of special school pupils between the two countries. In 1978 the prevalence rate for all ages in special schools was 146 in England but only 108 in Wales. However, Wales contributes only a small part of the total number of pupils in special schools in England and Wales: 4.4% in 1978. The combined prevalence rate for all ages for England and Wales in 1978 is 143, only slightly under the English rate. So the composite initial intake rates and composite inflow rates for 1978 are underestimates of the rates for England alone. This underestimation should be taken into account in comparing the rates for 1978 and later years. As a rule of thumb, I shall treat any increase from 1978 to another year of less than 10% as unreliable.

Tables III and IV show the composite initial intake rates and composite inflow rates to pupils aged five to 10 and 11 to 15 in all special schools in 1978, 1982 and 1986, and to the ESN(M) and maladjusted categories in 1978 and 1982.

TABLE III. Composite initial intake rate at age five and composite inflow rate, pupils age five to 10, 1978, 198	82
and 1986	

	Composite initial intake rate at age 5			Composite inflow ra pupils aged 5 to 10		•
	All special schools	ESN(M)	Maladjusted	All special schools	ESN(M)	Maladjusted
1978	57.9	7.7	1.6	56.5	36.7	6.8
1982	64.5*	13.0*	1.9*	59.8*	44.2*	7.8*
1986	64.0†	_	_	47.7*†	_	_

^{* 1978} vs 1982; 1982 vs 1986: p<0.02.

TABLE IV. Composite initial intake rate at age 11 and composite inflow rate, pupils age 11 to 15, 1978, 1982 and 1986

	Composite initial intake rate at age 11			Composite inflow rate, pupils aged 11 to 15		
	All special schools	ESN(M)	Maladjusted	All special schools	ESN(M)	Maladjusted
1978	167.7	77.9	17.5	24.1	16.6	8.1
1982	168.7	82.5*	18.1*	27.3*	16.0*	10.0*
1986	170.0†	_	_	22.7*†	_	_

^{* 1978} vs 1982; 1982 vs 1986: p<0.02.

^{†1978} vs 1986: p<0.02.

^{†1978} vs 1986: p<0.02.

- (a) Primary-aged pupils, 1978 to 1982. Table III shows that there were significant increases in all rates shown from 1978 to 1982 for pupils aged five to 10. These increases are all greater than 10% except for the composite inflow rate for all special schools. Given the underestimation of the 1978 rates, this result should be treated with caution. These results show that the increase in the size of the primary aged special school sector from 1978 to 1982 was in part the result of a growth in the proportion of five year olds going straight into special schools, and may also be the result of a growth in the proportion of pupils who were segregated from primary schools. This pattern was repeated and much exaggerated in the ESN(M) category, where the 28% increase in prevalence in the primary age range reported in Swann (1985) was due to a 70% growth in composite initial intake rate and a 20% growth in composite inflow rate. The hypothesis that the increased segregation in this category was largely due to children being identified in the pre-school years and admitted direct to special schools at five is confirmed. In the maladjusted category the smaller 12% increase in prevalence was the result of a 16% growth in composite initial intake rate at age five and a 14% growth in composite inflow rate. Here too, early identification appears to have contributed to the growth in segregation, although not to nearly the same extent as in the ESN(M) group.
- (b) Primary-aged pupils, 1982 to 1986. Between 1982 and 1986, the proportion of children segregated from primary schools fell by over 20% to below its 1978 level. Here is a change that may be due to the impact of the 1981 Education Act. But the proportion of five year olds admitted direct to special schools measured by composite initial intake did not change.
- (c) Secondary-aged pupils, 1978 to 1982. Let us now turn to the results for the 11 to 15 age range in Table IV. Recall that prevalence scarcely changed at all between 1978 and 1986 in this age range. The initial intake rates in Table IV show intakes at 11. They are themselves composed of initial intakes at five and inflow from primary schools, but because of the change in the method of collecting the statistics in 1978 these components are impossible to disentangle.

All the changes in Table IV from 1978 to 1982 are significant except the composite initial intake rate for all special schools. The other two composite initial intake rates are so small that, given the underestimation, it would be safe to conclude that there were no changes in composite initial intake rate at 11 in this period. Two of the changes in composite inflow rates between 1978 and 1982 are greater than 10% and one is a decrease. The results show that the slight increase in prevalence of pupils in all special schools aged 11 to 15 from 1978 to 1982 was the result of an increase in the proportion of pupils being segregated from secondary schools.

The prevalence of ESN(M) special school pupils in the secondary range increased by 4% between 1978 and 1982. The results in Table IV show that composite inflow rate *decreased*. So the increased prevalence was the result of either an increase in earlier segregation at primary level or an increase in initial intake rate at five, or both. This is a good example of the way in which prevalence rates can be deceptive. In the maladjusted category there was an increase in prevalence of 9%. The results show that this was due to an increase in inflow from the secondary age range.

(d) Secondary-aged pupils, 1982 to 1986. Between 1982 and 1986 composite inflow rate fell slightly, and so the static prevalence figures over this period are also rather misleading. The proportion of pupils being segregated from secondary schools fell. This is another result which may be due to the 1981 Education Act.

Changes in Initial Intake Rate and Inflow Rate

Composite inflow rates are averaged over a number of years. For example, the primary composite inflow rate for 1982 includes information from 1977 to 1982. So these rates are relatively insensitive to year-to-year changes in segregation from ordinary schools. Before we accept that segregation from ordinary schools really did fall after the 1981 Act was implemented, we should test this out using *simple* inflow rates for each year. This is the most sensitive measure of the national trend we have available.

As a measure of the annual rate of segregation from primary schools I shall use the inflow rate for five to nine year olds only. I exclude 10 year olds because they are often referred for special schooling because they are expected to have difficulties in secondary school, not because the primary school is unable to cope with them effectively. To measure the annual rate of segregation from secondary schools I shall use the inflow rate for 11 to 14 year olds. Fifteen year olds are not included for two reasons. First, very few children go to special schools at this late stage. Secondly, the 15 year old inflow would be calculated by subtracting the number of 15 year olds in one year from the number of 16 year olds in the following year. This number will generally be negative.

Table V shows the initial intake rates and primary and secondary inflow rates for 1978 to 1986. The 1986 inflow rates cannot be calculated at present since they require the 1987 statistics. I have shown the rates for 1978 to 1986 so that the significance of the trends from 1982 onwards will be easier to discern. The inflow rates for 1979 have been omitted because the change in the method of measuring pupils' ages introduced in 1980 distorts the results for this year.

Table V. Initial intake rate at age five and primary and secondary inflow rates to all special schools, 1978 to 1986

Year	Initial intake rate at age 5	5 to 9 inflow rate	11 to 14 inflow rate
1978	65.3	18.2	8.1
1979	64.0	_	_
1980	65.9	18.4	7.7
1981	66.1	18.2	7.4
1982	67.5	18.0	7.0
1983	64.9	13.7	5.8
1984	63.7	15.0	7.1
1985	60.1	16.3	8.0
1986	62.1	_	_

1978 vs 1982: initial intake rate and 5 to 9 inflow rate, non-significant; 11 to 14 inflow rate: p < 0.02.

1982 vs 1985: 5 to 9 inflow rate and 11 to 14 inflow rate: p < 0.02.

1982 vs 1986: initial intake rate: p < 0.02.

The more specific information about rates of segregation in Table V modifies some of the findings given earlier. First, consider initial intake at five. This reached a peak in 1982, fell to 1985 and then rose for one year. So the stable composite initial intake rates for 1982 and 1986 may mask a potentially important trend. The proportion of five year olds going straight into special schools has fallen since 1982 by 8%.

Next consider the primary and secondary inflow rates. These show rather similar patterns. Primary rates showed little change from 1978 to 1982, fell substantially to 1983, then recovered to 1985. Secondary rates fell somewhat to 1982, fell substantially to 1983, and then recovered to 1985. By 1985 the primary inflow rate had not recovered to its 1982 level, but the secondary inflow rate had exceeded its 1982 level. Again these results require us to modify our earlier conclusions, for although segregation from ordinary schools did fall following the implementation of the 1981 Act, the way it fell is not a good fit to the theory that the Act has promoted integration. A more likely explanation for this pattern is in terms of the effect of the Act's assessment and statementing procedures. Many LEAs have had great difficulty in reorganising their administration to fulfil the demands of the new law, and the process of transferring children from ordinary to special schools has become much more complicated. So it is not surprising that the proportion of pupils transferred in 1983 should fall suddenly, nor that the LEAs should have been catching up since. It remains to be seen whether they will continue to catch up until the national primary inflow rate is back to around 18.

EXPLAINING TRENDS IN SEGREGATION

We can summarise the results from 1978 to 1986 in the following way.

- (a) The primary-aged special sector grew from 1978 to 1982, then fell back again, so that by 1986 it was almost the same size as it was in 1978. Since 1978, the size of the secondary-aged special school sector has hardly changed at all.
- (b) The primary-aged special school sector grew between 1978 and 1982 mainly because of a growth of five year olds going straight into special schools at the beginning of their school career. It fell back to 1986 mainly because the proportion of children being segregated from primary schools fell.
- (c) The proportion of five year olds going straight to special schools grew from 1978 to 1982, then fell to 1985. It rose again in 1986. By 1986, this figure stood at 95% of its 1978 level.
- (d) The proportion of children segregated from primary schools changed very little from 1978 to 1982, dropped considerably to 1983 then grew again. In 1985 it stood at 90% of its 1978 level.
- (e) The proportion of children segregated from secondary schools fell from 1978 to 1982, dropped considerably to 1983 then grew again. In 1985 it stood at 99% of its 1978 level.

It should be clear now that the pattern of results is not open to a simple interpretation in terms of the 1981 Act promoting integration. At secondary level there has been no progress towards integration since 1982. At primary level there may have been but it is too early to say. The only potentially integrative trend has been a drop in the proportion of children going straight to special schools at age five.

In the remainder of this paper I want to set these results in context by considering some possible explanations for trends in integration and segregation over a longer time span. I shall not conclude that any of these accounts is true, only that some of them are plausible, and that they should make us wary of simplistic attributions of integrative trends to integrationist intentions, or of segregative trends to segregationist intentions. To do this I shall take a much longer historical perspective than I have so far. DES Statistics of Eduction have been published as a separate volume since 1961 and it is

possible to calculate all the measures I have described from that date [5]. So in what follows I shall ask: what could account for trends in segregation between 1961 and 1985?

In shall begin by examining some factors in the mainstream system, then I shall look at the special system. First of all, consider the possibility that the resources devoted to ordinary schools may have an influence. We might expect that the better schools are resourced, the easier it is for them to retain pupils with special needs. It has been claimed that in general resources make little difference to the overall level of attainment and behaviour of pupils (Reynolds, 1982; Rutter, 1983). Most of the work on which this conclusion is based is limited to secondary schools and to a restricted range of resource levels. Even if the general proposition is true, it is still possible that increases in resources would reduce rates of segregation. There is little reason to expect capital expenditure to be relevant, but recurrent expenditure may be. Of the possible measures, the national pupil-teacher ratio (PTR) is most readily available on a comparable basis across this long period [6]. It is a reasonably good indicator of the level of staff resources that pupils with special needs experience in primary schools, since most of them are taught in ordinary classes for most of the time. A better PTR in primary schools might mean that teachers find it easier to accommodate pupils they find difficult to teach. PTR in secondary schools is not such a good indicator of the staff resources devoted to pupils with special needs. At this stage these pupils are often taught in groups separate from other pupils and class sizes vary from subject to subject and from first to sixth year.

The correlation between primary PTR and five to nine inflow rate between 1961 and 1985 is r=0.68 [7]. The correlation between secondary PTR and 11 to 14 inflow rate is r=-0.91. The first of these is as predicted. The primary PTR has steadily improved from 29.2 in 1961 to 22.2 in 1985. However, the change in the five to nine inflow rate has been much less stable. Figure 1 shows both variables over time [8]. The correlation between 11 to 14 inflow rate and secondary PTR is not as expected. As Fig. 2 shows, in the long term the 11 to 14 inflow rate has grown, whereas the secondary PTR has steadily improved.

Neither of these relationships is necessarily causal. The finding at primary level may be causal. If so, we would expect to find that a similar relationship existed between LEAs with different resource levels, after differences in pupil intake had been controlled, and we might also find a relationship when comparing schools within LEAs. The finding at secondary level is less easy to explain, and may be purely coincidental. On the other hand it may indicate a generally increased focus in secondary schools on the needs of pupils who will be taking public examinations, at a cost to less able pupils. There is evidence that in managing the expenditure cutbacks in the 1970s and early 1980s, provision for pupils with special needs was disproportionately damaged (DES, 1982).

A second factor that may have influenced the long-term trend in segregation is pupil rolls. The contraction in the child population during the 1970s and 1980s has had many implications for the management of education (Briault & Smith, 1980; Walsh et al., 1984). Why should changes in the size of the total school population affect segregation? Broadly speaking, children with special needs are marginal members of school communities. When rolls are rising rapidly, schools may be more reluctant to retain them if the growth in numbers means a general pressure on resources. But when rolls are falling, there will tend to be more spare capacity in schools, and so schools may be more willing to retain pupils with special needs. Moreover, when primary

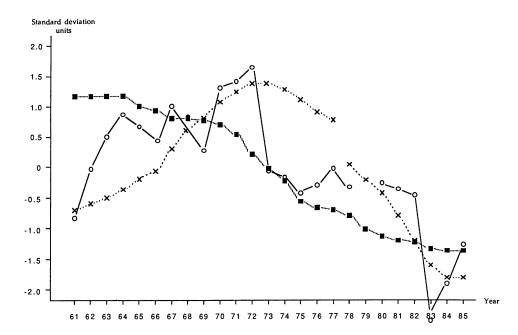


FIG. 1. Five to nine inflow rate, total pupils aged five to nine and primary pupil teacher ratio, 1961 to 1985.

○: five to nine inflow rate; ×: total pupils aged five to nine; ■: primary pupil teacher ratio.

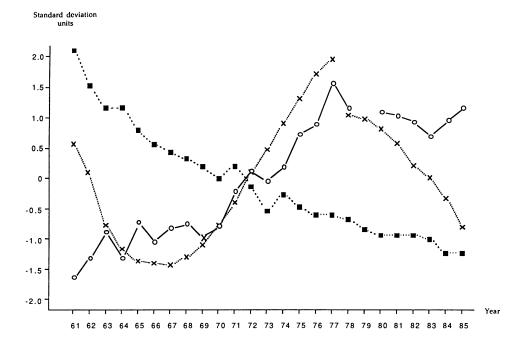


Fig. 2. Eleven to 14 inflow rate, total pupils aged 11 to 14 and secondary pupil teacher ratio, 1961 to 1985. ○: eleven to 14 inflow rate: ×: total pupils aged 11 to 14; ■: secondary pupil teacher ratio.

schools and smaller secondary schools have a lot of spare capacity, it is in their interests to retain as many pupils as possible if they can thereby stave off any threat of closure.

The correlation between the number of pupils aged five to nine in all schools and five to nine inflow rate between 1961 and 1985 is r=0.68 [9]. The correlation between the number of pupils aged 11 to 14 in all schools and 11 to 14 inflow rate in this period is r=0.63. Figures 1 and 2 show the pattern of change in these two variables. In the primary age range, both pupil rolls and inflow rate peaked in 1972 [10]. In the secondary age range, both variables peaked in 1977. Again, neither of these relationships is necessarily causal. If the relationship is causal, we would expect to find it repeated between and within LEAs.

These two factors are not the only possible candidates within the mainstream system. Booth (1981) suggested two others: the growth of comprehensive schools and the development of mixed-ability teaching. He argued that both of these resulted in pressures on some teachers who found themselves teaching pupils whose needs they were ill-equipped to meet, in settings for which they were untrained and underresourced. These arguments are certainly consistent with the fact that the secondary inflow rate grew steadily during the main period of comprehensivisation after 1965. Further evidence for these two factors could be sought by comparing schools and LEAs where comprehensivisation and mixed-ability teaching were introduced in different ways and at different times.

The special school system is a much more likely place to search for an explanation of the increase in initial intake rate at five. This was relatively stable during the 1960s, fluctuating between 24 and 27 per 10,000. In 1972 it jumped suddenly to 52 with the addition of severely mentally handicapped children following the Education (Handicapped Children) Act 1970. It then grew steadily to its peak of 67 in 1982. The most likely explanation for this trend lies in the growth of interest in pre-school services for children with special needs, and a comparable growth in special pre-school provision (Cameron, 1982; Mittler & McConachie, 1983; Pugh, 1981). There has been an expansion in both advisory services aimed at parents, in particular the Portage scheme, and in school-based provision. There are indications that segregated pre-school provision has continued to increase since 1983. Goacher et al. (1988) found that many LEAs reported major increases in the use of parental advisory services, opportunity play groups, paediatric assessment centres and special nurseries. Many LEAs also reported an increased use of mainstream nursery places. The growth of segregated preschool provision is the result of a wish to provide services for this age group and the absence of universal pre-school provision. Dessent (1987) recently argued that "the absence of universal pre-school nursery education represents a significant obstacle to the development of non-segregation policies" (p. 98). The results reported in this paper support this view. Nevertheless, this is the only area in which there has been a trend, sustained for more than one year, away from segregation since the 1981 Education Act was implemented, and thus the only trend since 1982 where a case can be advanced that the Act has promoted integration. There are other possible explanations, however. Perhaps pre-school services have been victims of expenditure cuts. Perhaps early identification slowed down because educational psychologists had to devote most of their time to statementing children referred from ordinary schools.

Could the special school system be responsible for long-term trends in inflow rates? One might argue that changes in segregation are due to changes in the supply of special school places. When places increase, referral rates might also increase as ordinary

schools and LEA professionals become aware of the increased capacity. When places decrease, the number of pupils would necessarily fall. The number of places in special schools is not recorded in statistical returns, but can be measured indirectly with two variables: the number of special schools and the number of special school teachers. There are possible objections to these measures. The number of schools may remain the same while the number of places falls if schools' resources are reduced. The number of teachers would only be closely related to places if nearly all teachers actually worked in special schools. Some special schools offer services to ordinary schools, and some of their teachers spend most of their time in ordinary schools (Booth, 1982; Hegarty & Pocklington, 1981). Jowett et al. (1988), in their survey of 268 special schools, examined the extent of this practice. In only 86 (32%) of the special schools surveyed did teachers spend time in ordinary schools on a regular weekly basis. In these schools, 200 teachers were involved in this work. One hundred and fifty-two (76%) spent five hours a week or less in ordinary schools. Clearly, the use of special school teachers outside special schools involves only a small minority of teachers for a small part of their time. As with the movement of pupils from special schools to ordinary schools for part of their school week, the movement of teachers between sectors is a relatively new practice and will have been rarer before Jowett et al.'s study.

The number of special school places is partly a response to the size of the total school population, and so I have expressed the number of special schools and special school teachers as rates per 10,000 pupils of all ages in all schools. The relevant correlations are as follows: five to nine inflow rate with special schools, r=0.67, and with special school teachers, r=0.68; 11 to 14 inflow rate with special schools, r=0.91, and with special school teachers, r=0.92. Figures 3 and 4 plot the changes in inflow rates, schools and teachers over time [11]. The relationship between the two measures of places and primary inflow rate is unexpected negative. Yet it is at the primary stage when most segregation occurs, so this is when we would expect a supply and demand theory to give the best fit. The fit with secondary inflow is very strong, but as with previous candidate theories, neither causality nor in this case direction of causality can be shown.

CONCLUSION

The two most important conclusions of this paper are these: first, the evidence for a national trend towards integration after 1982 is very slight indeed, and second, even if a trend towards integration emerges in the next few years after 1986, it will require more than the trend itself to allow us to conclude that the integration clause of the 1981 Education Act has had an impact. To the extent that segregation from ordinary schools has decreased since 1982, this is probably a short-term side effect of the Act's new assessment and statementing procedures.

The trends since 1982 reported in this paper are consistent with what one would expect the results of recent Government policy to be. It has been hard to discern anything that might be fairly described as a national integration policy since 1981. No clearly articulated steps have been taken by the DES to reduce the proportion of pupils going to special schools. The DES has not even issued guidance to LEAs on how they should interpret the integration clauses of the 1981 Act. This point was taken up by the House of Commons Select Committee report on the implementation of the Act. The DES also came under criticism from the same source for failing to monitor the

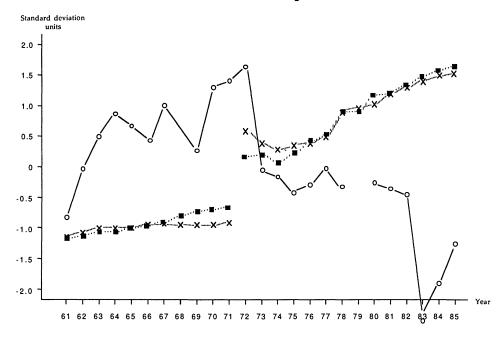


FIG. 3. Five to nine inflow rate, special schools per 10,000 total pupils and special school teachers per 10,000 total pupils 1961 to 1985. ○: five to 9 inflow rate; ×: special schools per 10,000 pupils; ■: special school teachers per 10,000 pupils.

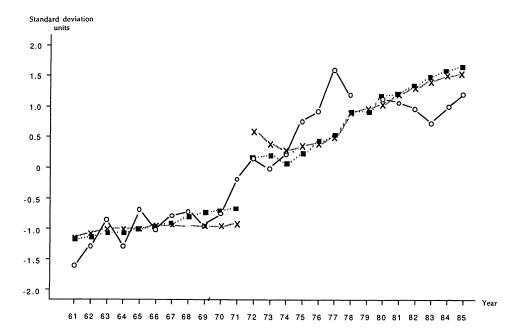


Fig. 4. Eleven to 14 inflow rate, special schools per 10,000 total pupils and special school teachers per 10,000 total pupils 1961 to 1985. ○: eleven to 14 inflow rate; ×: special schools per 10,000 pupils; ■: special school teachers per 10,000 pupils.

consequences of the Act. The Select Committee called both for more effective monitoring and more guidance. The absence of central policy in this area stands in marked contrast to almost all other aspects of recent government policy on education, in which centralisation has been a dominant theme. In the absence of central policy, one should not be surprised if changes occur as a result of a number of unforeseen and uncontrolled factors.

Apart from the factors discussed above, new influences will emerge in the near future, arising from the Conservative government's education reforms. The introduction of a national curriculum, testing at or about seven, 11 and 14, open enrolment and the emergence of grant-maintained schools are all likely to have a significant impact on the size and composition of the special school sector. It is these and other *mainstream* developments that are likely to shape the future for special education, and it will be vital to monitor their impact. The links between special and mainstream education policy have been repeatedly emphasised in recent years (Booth & Potts, 1983; Dessent, 1987; Sayer, 1985); yet so far there is little sign that this work has had much influence on policy makers. The lack of analysis of the impact of mainstream education policy on special education was particularly noticeable in the Select Committee Report. There is an urgent need now for close monitoring of the impact of changes in mainstream education policy on special education, both at the global quantitative level of the results in this paper, and at the more detailed qualitative level of studies of pupils, teachers and schools.

NOTES

- [1] Up to 1979, pupils' ages were measured as on 31 December of the previous year. From 1980 onwards, ages have been measured as on the preceding 31 August.
- [2] Inflow to specific statutory categories can only be measured up to 1983, since this was the last year that this information was collected.
- [3] We are concerned with the changes in the proportion of the school population who are in or are moving into special schools. Some of these movements may be random, and so we need a means to decide when a change is or is not random. I do this using the normal approximation to the binomial distribution. The use of this test can be illustrated using prevalence. The prevalence of special school pupils aged five to 15 in 1982 was 153. In 1983 it was 154. Assuming the figure in 1983 was actually 153 what are the chances that we would obtain the observed prevalence of 154 as a result of random variation? If the chances are very small we may assume that the change is not random. All tests are two-tailed since the direction of change is not predictable, and a fairly stringent level of significance of p < 0.02 has been used, since the total number of tests is quite large.
- [4] Eight figures were estimated. The estimation procedure involves the multiplication of figures for all pupils in special schools in Wales by ratios of particular age groups and categories to all pupils in special schools in England in the following or the same year. Details are available from the author.
- [5] Before 1961, statistics were published in the Ministry of Education's annual report, but these do not show figures for pupils in hospital special schools, and so comparisons of the total special school population either side of 1961 are not possible.
- [6] Up to 1970, the national PTR included all teachers. From 1971 it included only qualified teachers. The change did not increase the ratio. The primary PTR went

- from 27.5 to 27.0 and the secondary PTR went from 17.9 to 17.7. This change will have only a slight effect on the correlation with inflow rates.
- [7] All correlations exclude 1979 because the change in method of measuring pupils' ages in 1980 distorts the inflow rates for 1979. All correlations reported are significant at p < 0.001.
- [8] In Figs 1 to 4 I have expressed all variables in standard deviation units to make it easier to compare the trends in variables measured on different scales. The units for inflow measures are based on means and standard deviations excluding 1979.
- [9] The correlations will have been affected to some extent by the change in 1979 from combined statistics for England and Wales to England only. For this reason I have broken the graphs showing pupil rolls at this point.
- [10] The fall in five to nine inflow rate in 1973 is difficult to account for. It is not due to the inclusion of ESN(S) children in the statistics, since they were included for the first time in 1972. There may be a more subtle connection between the two, if in some way the inclusion of mentally handicapped children in the education system made it more likely that they would be identified for segregation before five.
- [11] In Figs 3 and 4 the graphs for special schools and special school teachers are split between 1970 and 1971 to indicate the inclusion of schools for severely mentally handicapped children.

REFERENCES

- BOOTH, T. (1981) Demystifying integration, in: W. SWANN (Ed.) The Practice of Special Education (Oxford, Blackwell).
- BOOTH, T. (1982) Westhall School for children with learning difficulties, in: T. BOOTH & J. STATHAM (Eds) The Nature of Special Education (Beckenham, Croom Helm).
- BOOTH, T. & POTTS, P. (Eds) (1983) Integrating Special Education (Oxford, Blackwell).
- BRIAULT, E. & SMITH, F. (1980) Falling Rolls in Secondary Schools (Windsor, NFER-Nelson).
- CAMERON, R.J. (Ed.) (1982) Working Together: Portage in the UK (Windsor, NFER-Nelson).
- COLBORNE-BROWN, M.S. & TOBIN, M.J. (1982) Integration of the educationally blind: numbers and placements, *New Beacon*, 66, pp. 113-117.
- DEPARTMENT OF EDUCATION AND SCIENCE (DES) (1962-1987) Statistics of Education (Schools) (London, HMSO (1962-1981), DES (1982-1987).
- DEPARTMENT OF EDUCATION AND SCIENCE (DES) (1978) Special Educational Needs (The Warnock Report) (London, HMSO).
- DEPARTMENT OF EDUCATION AND SCIENCE (DES) (1982) Report by Her Majesty's Inspectors on the Effects of Local Authority Expenditure Policies on the Education Service in England, 1981 (London, HMSO).
- DESSENT, T. (1987) Making the Ordinary School Special (Lewes, Falmer Press).
- GIPPS, C., GROSS, H. & GOLDSTEIN, H. (1987) Warnock's Eighteen Per Cent: children with special needs in primary school (Lewes, Falmer Press).
- GOACHER, B., EVANS, J., WELTON, J. & WEDELL, K. (1988) Policy and Provision for Special Educational Needs: implementing the 1981 Education Act (London, Cassell).

- HEGARTY, S. & POCKLINGTON, K. (1981) Educating Pupils with Special Needs in the Ordinary School (Windsor, NFER-Nelson).
- HOUSE OF COMMONS (1987) Special Education Needs: implementation of the Education Act 1981. Third Report from the House of Commons Education, Science and Arts Committee (London, HMSO).
- JOWETT, S., HEGARTY, S. & MOSES, D. (1988) Joining Forces: a study of links between special and ordinary schools (Windsor, NFER-Nelson).
- MITTLER, P. & McConachie, H. (Eds) (1983) Parents, Professionals and Mentally Handicapped People (Beckenham, Croom Helm).
- Pugh, G. (1981) Parents as Partners (London, National Children's Bureau).
- REYNOLDS, D. (1982) The search for effective schools, *School Organization*, 2, pp. 215-237.
- RUTTER, M. (1983) School effects and pupil progress—research findings and policy implications, *Child Development*, 54, pp. 1-29.
- SAYER, J. (1985) What Future for Secondary Schools (Lewes, Falmer Press).
- Society of Education Officers (SED) (1986) Education Act 1981—Summary of Replies to Questionnaire to Chief Education Officers on the Financial Implications of the Act (1984/85). Unpublished document.
- SWANN, W. (1985) Is the integration of children with special needs happening?: an analysis of recent statistics of pupils in special schools, Oxford Review of Education, 11, pp. 3-18.
- SWANN, W. (1987) Andrew, in: T. BOOTH & W. SWANN (Eds) Including Pupils with Disabilities (Milton Keynes, Open University Press).
- TOMLINSON, S. (1981) Educational Subnormality: a study in decision-making (London, Routledge & Kegan Paul).
- WALSH, K., DUNNE, R., STOTEN, B. & STEWART, J.D. (1984) Falling Rolls and the Management of the Teaching Profession (Windsor, NFER-Nelson).

APPENDIX: definitions of categories of 'aspects of disability' and 'curriculum need' (DES Form 7M 1987)

1. Aspects of Disability

Physical: a pupil whose impairment results from a physical condition other than that of sight, hearing, epilepsy or communication disorders.

Epilepsy: a pupil known to be having seizures or under treatment by anti-convulsants.

Blind: not defined.

Partially sighted: a pupil who, though not blind, requires specialised help but who benefits from sighted methods of education.

Deaf: not defined.

Partially hearing: a pupil who, though not profoundly deaf, requires specialised help but whose speech and language, although defective, is following a normal development.

Speech: a pupil with defective articulation, essentially related to a physical abnormality or motor disorder. May include children who are also recorded as deaf or partially hearing.

Language: a pupil with a severe impairment of receptive and/or expressive language where other aspects of learning and speech are relatively normal and the impairment cannot be attributed to developmental delay of generally low intellectual level.

Behavioural and emotional: a pupil whose disorder finds expression in either withdrawal, neurotic responses, anxiety states, depression or in aggression, violence, delinquency, socially unacceptable conduct, etc.

2. Curriculum Need

Mainstream plus support: a curriculum comparable with that of the ordinary schools in the range of experiences it aims to cover, the skills, concepts and values it aims to develop, and the standards which it enables pupils to achieve, while providing appropriate support to meet a range of individual special needs. The support may be of such a distinctive nature, involving specially skilled teaching, that it may sometimes most appropriately be provided in particular forms of organisation. It may also be in the form of additional resources, e.g. aids and ancillary help.

Modified: a curriculum similar to that provided in ordinary schools which, while not restricted in its expectations, has objectives more appropriate to children whose special educational needs would not be properly met by a mainstream curriculum. Children requiring such a curriculum may be described as having moderate learning difficulties.

Developmental: a curriculum covering selected and sharply focused educational, social and other experiences with precisely defined objectives and designed to encourage a measure of personal autonomy. Children needing such a curriculum may be described as having severe learning difficulties.

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