

# Mind the gap: child poverty and educational attainment

The observation that children from poorer backgrounds do worse in terms of educational outcomes was first highlighted in Rowntree's investigation into poverty in York at the turn of the twentieth century. A hundred years on, gaps in educational attainment between children from rich and poor families continue to be marked, and an increasing focus of government policy.

The recent White Paper, *Higher Standards, Better Schools for All*, acknowledges that 'a child's educational achievements are still too strongly linked to their parents' social and economic background – a key barrier to social mobility'.<sup>1</sup> The debate continues, however, about whether the current direction of government policy towards increased choice and competition is the most appropriate one for reducing the attainment gap and promoting the achievement of the poorest. Here, Jo Blanden and Sandra McNally provide an overview of the evidence before addressing the really important question: what should be done?



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**A**TTAINMENT GAPS are so important because educational achievements are crucial in determining individuals' prospects. Even having low-level qualifications can substantially reduce the probability of unemployment or worklessness (the major cause of poverty) and higher level qualifications increase individuals' earning power. Helping those from disadvantaged backgrounds achieve at school is, therefore, seen as a clear route to enable children to escape a poor start in life and avoid an inter-generational cycle of disadvantage. In addition, it is important for national productivity; only by helping all children obtain the skills they need in the workplace can we ensure that the whole economy performs to its potential.

How wide is the attainment gap?

Despite many recent articles on this topic, there is still a shortage of evidence on the current size of the attainment gap among children in the UK. Historically, very few studies have collected really good data on children's family background (and, in particular, family income) alongside information on their education attainments. Many of the articles referred to here rely on evidence from the British Cohort Studies, which collected rich information on children born in 1958 and 1970. The disadvantage of these surveys is, of course, that they are rather out of date. A recent development is the availability of pupil-level administrative data on key stage score results (the National Pupil Database). This provides very detailed and accurate information on children's attainment in school. What it unfortunately does not contain is good information on family background. Ethnicity is available, but the only information closely connected to disadvantage is whether children are eligible for free school meals. Comparing these students with all others is an extremely crude way of measuring the attainment gap.

The good news is that improvements to data sets are being made all the time. For example, the Longitudinal Study of Young People in England will provide additional information on family background (as well as much other information) for a sample of students in England and it will be possible to link this to pupil-level administrative data sets. The ALSPAC survey of children in the Bristol area is beginning to yield some results; and the Millennium cohort of babies born in 2000 offers great possibilities for the future.

Despite the limitations of the data currently available, a number of key facts have emerged about the educational attainment of poorer children. The first of these is that educational disadvantage starts from a very young age. Feinstein uses data on the 1970 cohort and finds significant gaps between children from a high and low socio-economic background on an index of development, which is derived from tests of ability (at 22 months) in cube stacking, language use, drawing and personal development.<sup>2</sup>

The second fact is that the test score and attainment gap tends to widen as children age and through the levels of the education system. Feinstein maps the development of children from 22 months to 10 years old, and shows that the gaps between high and low socio-economic status children widen out slightly from 22 months to five years and then more substantially from age five to 10, over the first years of school. Feinstein's findings appear to be supported by school-level information compiled by the Department for Education and Skills (DfES), which shows that the gap between average attainment at schools of low and high disadvantage (as measured by the percentage of pupils eligible for free school meals) rises as pupils move through the key stages.<sup>3</sup>

Combining the initial gap in early cognitive ability with the apparent growth in the attainment gap through the educational system leads to substantial differences in final attainment levels between children from high and low socio-economic backgrounds. Of those in the 1970 cohort (included in the British Cohort Study), some 26 per cent failed to achieve any O levels or equivalent by the age of 30, whilst 23 per cent went on to get a degree. Among children from the poorest 20 per cent of households at age 16, only 11 per cent went on to get a degree and 41 per cent failed to achieve any O levels.<sup>4</sup> More recent data from the 2000 Youth Cohort Study compares the proportions of

young people staying on at school with parental background. Payne finds that 82 per cent of young people from managerial and professional backgrounds stayed on in education after the age of 16 in the late 1990s, compared with 60 per cent of those from semi-skilled and unskilled backgrounds.<sup>5</sup>

A question that has been increasingly explored in the literature is whether the attainment gap has grown over time. This is obviously a question of high policy concern, as it is often interpreted as 'Are we getting it right?' In some sense this interpretation is misplaced as much of the evidence is once again somewhat out of date, relying as it does on cohorts going through the education system from the 1970s to the 1990s. Blanden, Gregg and Machin explore this question by comparing the proportion staying on post-16 and the degree graduation rates of the richest and poorest groups over time.<sup>6</sup> They find that while the poorest groups have begun to catch up in terms of their chances of staying on beyond 16, there remains a stubborn gap in participation at university level between children from the richest and poorest income groups. Among those reaching age 18 in the late 1990s, children of parents who are in the poorest fifth of the population compare extremely unfavorably in terms of educational outcomes to children of parents in the richest fifth of the population. In the former group, only 9 per cent of children graduate university by age 23. This compares with 46 per cent of children in the latter group.

The DfES has very recently presented evidence on current trends in the attainment gap (based on defining disadvantaged children by their eligibility for free school meals).<sup>7</sup> The initial figures are promising, showing the greatest improvement between 1998 and 2004 in the average key stage 2 results of primary schools with the largest numbers of disadvantaged pupils. Subsequent analysis, however, reveals that this conclusion is not robust to using alternative measures of attainment; nor does the data show faster improvement among all pupils eligible for free school meals compared with those who are not. The most appropriate interpretation to put on the figures is that little has changed since New Labour came to power.

What can be done?

It is clear that considerable gaps in attainment are found at all stages in the education system, with little evidence to indicate that they are declining. In order to understand what can be done about these gaps, it is essential to pin-

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point what generates them. If the gaps are the direct consequence of income inadequacy then redistribution to reduce child poverty will be a successful route to reduce educational inequality and break inter-generational cycles of disadvantage. Alternatively, the relationship between parental income and educational attainment may operate through many other factors, including parental education and motivation, and child ability. In this case redistribution may be less successful.

It is extraordinarily difficult to separate out the precise causes of the attainment gap and to quantify the extent to which it is driven by income in itself. Blanden and Gregg attempt to estimate the size of the causal impact of parental income on education, and find that while income has a statistically significant impact, it is small compared with the overall association between these variables.<sup>8</sup> This implies that redistribution will have a limited impact on closing the gap in attainment between children from different family income backgrounds. Gregg, Waldfogel and Washbrook offer a more positive interpretation of the role of redistribution, finding that income gains for poor parents from benefit rises are spent disproportionately on children's goods such as children's clothing, books and toys.<sup>9</sup> Of course, this does not prove that such expenditures will help overcome poor children's underachievement. Overall, the evidence on the benefits of redistribution is not that strong, although more research is needed to understand fully which characteristics of poor families lead to their children's weaker performance.

Apart from redistribution, what other policies can be used to reduce the attainment gap? Obvious candidates are interventions that act directly on children's experience of the education system. There are various possibilities here. These include: increasing the opportunity for disadvantaged children to go to the best schools; directing resources to schools attended by disadvantaged children; and ensuring that teaching practices are of the highest quality and enabling the recruitment and retention of high quality teaching staff.

With regard to the first issue, there has been much attention focused on the role of 'choice' in improving educational opportunities. One might think that people living in disadvantaged areas are in a position to benefit from this. However, there is evidence to suggest that high socio-economic groups have better information on, and understanding of, school performance,

for example via league tables.<sup>10</sup> They also have the means to live near high performing schools and this is reflected in house prices.<sup>11</sup> Since schools can select pupils based on location (if they are over-subscribed), greater choice can, in principle, lead to greater segregation. This might have a knock-on effect on pupil performance to the extent that peer groups matter or that other aspects of the school environment are affected. Hence, children from different socio-economic groups are not equally affected by measures to improve choice: higher income buys greater choice. One could attempt to make the system fairer by breaking this link (for example, by forcing schools to abide by a particular admissions policy not linked either directly or indirectly to income). While proposals in the White Paper allow greater flexibility to schools in their choice of admissions policy, it is unlikely that a fairer system can be introduced wholesale on a voluntary basis. Schools have an incentive to obtain the highest performing intake since parents and policy makers watch the performance tables, and schools are judged accordingly. However, one simple thing that could be done to improve the educational opportunities for the least well off would be forcing schools to adopt an admissions policy that did not discriminate on the basis of income-related criteria (ie, location and academic ability).

Schools that admit pupils from disadvantaged backgrounds may be expected to encounter problems that other schools do not have to face if, for example, problems of social disadvantage manifest themselves in particular educational or behavioural difficulties. Currently, local education authorities with a high proportion of disadvantaged students (as indicated by the percentage of students eligible for free school meals) receive greater funding from central government. How much of this funding gets passed directly to schools with more disadvantaged pupils? How will the reforms encouraging greater decentralisation impact on this? We do not know the answers to these questions. However, there is evidence to suggest that when schools with more disadvantaged pupils do get extra funding, this can make a difference to how well students perform. For example, Machin *et al* recently produced an economic evaluation of the 'Excellence in Cities' policy.<sup>12</sup> This involved giving schools in disadvantaged areas extra resources to implement particular programmes. Among the principal components were: the provision of learning mentors to help students overcome educational or behavioural problems; learning support units to provide

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short-term teaching and support programmes for difficult students; and a programme to provide extra support for 5-10 per cent of pupils in each school who were considered gifted or talented. The evaluation shows that the policy was effective for schools with a high proportion of students eligible for free school meals.

Specifically, for a 4.4 per cent increase in expenditure per pupil it has delivered a 2.9-4.8 per cent increase in the number of pupils achieving the government target or better in maths at key stage 3 for the most able pupils in schools with the highest rate of deprivation. This policy is an example of a successful attempt to raise standards in deprived areas and shows that resources, when properly directed, are a good use of public money.

Of course, there are other policies, such as education action zones, that have been far less successful, nor were similar policies in France and the US.<sup>13</sup> However, the evaluation studies point to various problems in the programme design or implementation that explain these failures. Hence, one needs to think very carefully about how to implement resource-based programmes (and evaluate them). For example, one interesting contrast between a successful policy in Israel<sup>14</sup> and an unsuccessful one in the US<sup>15</sup> is that in the former, targeted students were given lessons after the normal school day taught by their own teachers, whereas in the latter students were taken out of their regular classes to receive additional instruction and these classes were often taken by inexperienced teacher aides.

Most education programmes require extra resources and, if well implemented, can have a positive impact on children from disadvantaged backgrounds. However, not all programmes need be very resource intensive. The National Literacy and Numeracy Strategies were introduced in the late 1990s in response to a perception of low standards in the teaching of literacy and numeracy in schools. Key components of these strategies were a dedicated daily literacy and numeracy hour and the provision of a 'framework for teaching' these subjects. The quantitative evaluation of the literacy hour shows that this policy was important in raising educational standards at key stage 2 at a very low cost (mainly involving a few days of teacher training).<sup>16</sup> Hence, education policy can also improve standards by facilitating the adoption of high quality teaching practices.

## Conclusions

In conclusion, there is a strong link between child poverty and educational outcomes. The problem has not gone away as Britain has become richer: if anything, the link appears to be stronger now than in the past. While there is no magic solution to these deeply ingrained problems facing poor families, there is evidence that some policies can be beneficial. In particular, the impact of the policies embodied in the Schools White Paper will depend very much upon whether the Government can distribute the potential benefits evenly and prevent better-off parents from obtaining the lion's share. ■

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