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Unto them that hath...

Since the introduction of GCSE, more children from poorer backgrounds are staying in school post-16. But, argues Stephen Machin, it is middle-class children who have won most from the huge expansion of higher education.

Education is widely championed as a means of lessening economic and social inequalities. It should enable children of high ability to improve their lot, irrespective of family background.

So what should we think if the evidence is that the recent expansion of post-16 schooling has disproportionately benefited children from richer backgrounds? If, in particular, the expansion of the higher education system has also benefited children from higher income families, does this not have serious ramifications for future inequality? Graduates earn more in later life and so higher education would be reinforcing links in economic status across generations, thereby reducing intergenerational mobility. Where does that leave the Labour government's target of 50% of under-30s entering higher education by 2010?

Figure 1 shows the rapid expansion of education participa-

tion since 1960. It confirms that higher education participation was low at the start of the 1960s, at around 6% of the 18 to 19 year old age cohort. It rose to about 14% by the mid-1970s, before dropping back a little in the late 1970s. The first part of the 1980s saw small increases in most years, but the expansion from the late 1980s was then very rapid. By 2000 it had reached 33%.

This rapid increase coincided with the reform of the age 16 examinations system in 1988, when the General Certificate of Secondary Education (GCSE) was introduced. The GCSE represented something of a departure from the previous O level/CSE system. It relies on (an often substantial) coursework assessment and a higher proportion of the 16+ age group takes it than was the case with the previous 16+ exams. Moreover, the new exam deliberately moved away from being a means of separating children into high and low education streams. Norm-referenced exams, in

which relative performances is what matters, made way for criterion-referenced assessment in which everyone (at least in theory) can achieving the top grade.

The effect of the new examination system in stimulating a rise in staying on rates from the late 1980s is confirmed by Figure 1: 36% of 17/18 year olds in 1979 to 44% by 1988. Then the 1990s saw a step change. By 2001 the staying on rate was up to 73%.

Income inequality for families with children has also risen rapidly since the late 1970s. Figure 2 shows the evolution over time of the 10th, 50th and 90th percentiles of the log real income distribution, where each percentile is indexed to 1 in 1968. After not much change in the 1970s, we see the now familiar pattern of no real income growth at the 10th percentile for most of the post-1979 period. Only from the mid-1990s does the 10th percentile's income start to grow in real terms. On the other hand, there is significant growth (of over 40%) at the median and substantial growth (of over 75%) at the 90th percentile.

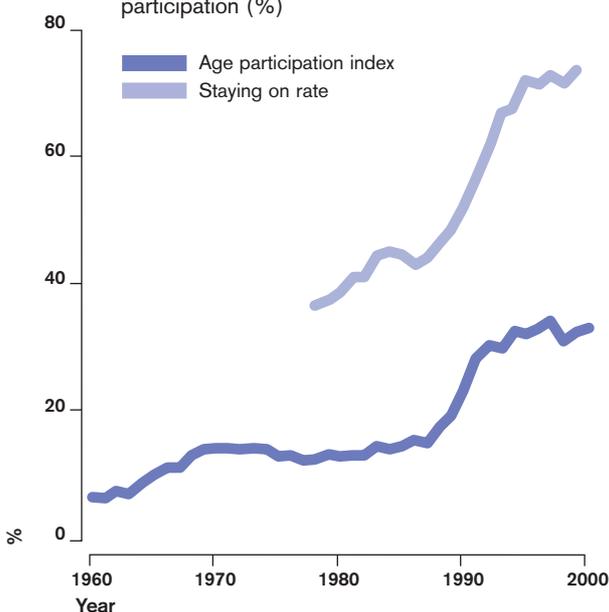
Part of this rise in income inequality has reflected itself in a sharp increase in child poverty. For example, calculations

based on the FES show that around one in twelve children lived in families with income below half of the national average in 1968. By the late 1990s this measure of child poverty had rocketed to around one in three.

These patterns make any education/income links all the more important. First, as income gaps have widened, any positive link between education and income will disproportionately benefit children from richer families and disadvantage children from poorer families. Second, any strengthening of the connections between education and family income will exacerbate any such rich/poor differences.

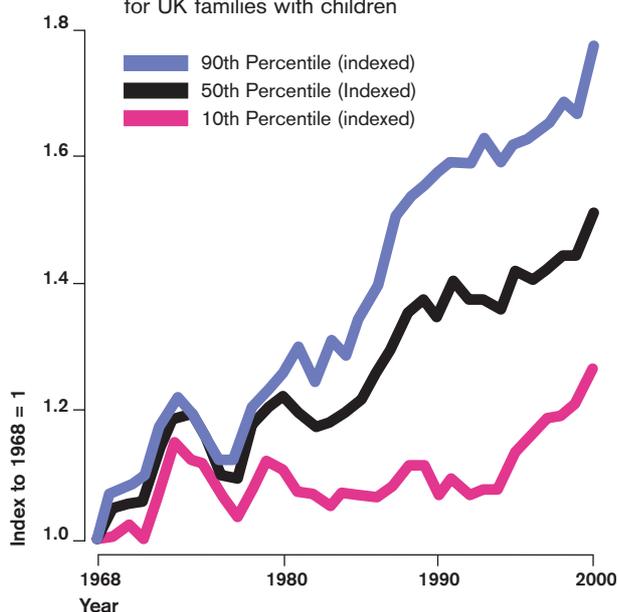
Jo Blanden, Paul Gregg and I have investigated how the links between education and family income have altered through time in the UK (Blanden, Gregg and Machin, 2002). Because of real difficulties with almost all UK data sources in matching children who have left home with the income of their parents, our research follows two main routes. The first is to focus on children's decision as to staying in education after the compulsory school leaving age, because most children at this point are still living in the family home and can, therefore, be linked to their parents' income. The second is to use the rich cohort and longitu-

Figure 1. Trends in post-compulsory educational participation (%)



Staying on rates from Family Expenditure Survey cohort of 17/18 year olds still in full-time education. Source: own calculations, in Blanden, Gregg and Machin (2002). Age participation index is the number of young (under 21) home initial entrants expressed as a proportion of the averaged 18 to 19 year old population. Source: DfES.

Figure 2. Changes in the distribution of (log) real income for UK families with children



Notes: Own calculations from Family Expenditure Surveys of 1968 through 2000, in Blanden, Gregg and Machin (2002). Sample is all non-pensioner families with children.

Table 1. Staying on rates by income quintiles (%)

	Parental income quintiles				
	lowest	2nd lowest	middle	2nd highest	highest
1979-1981	29	31	35	42	54
1982-1984	34	37	36	48	57
1985-1987	33	38	40	48	62
1988-1990	31	40	45	49	69
1991-1993	44	56	52	57	73
1994-1996	61	65	61	72	84
1997-1999	61	70	70	76	85
Change 1979-1981 to 1988-1990	2	9	10	7	15
Change 1988-1990 to 1997-1999	30	30	25	27	16

Source: own calculations from Family Expenditure Survey data Family Expenditure Survey cohort of 17/18 year olds studied in Blanden, Gregg and Machin (2002).

dinal data that follows individuals over time, thereby allowing one to match individuals with their parents' income.

Table 1 shows the percentage of 17 to 18 year olds who stayed on after the minimum school leaving age between 1979 and 2000. It breaks down staying on rates across the parental income distribution, showing the percentage for each quintile in each time period.

The Table makes it clear that the staying on rate is considerably higher for children from the upper part of the income distribution. For example, between 1979 and 1981 54% of children with parents in the upper fifth of the income distribution stayed on at school, compared with 29% from the bottom fifth. Even by the last period, 1997 to 1999, a strong income related gap remained, with 85% of the highest quintile children staying on, compared with 61% of the lowest quintile children.

But these broad comparisons conceal an interesting pattern across time, which splits itself into two clear periods. Before the introduction of GCSE the income gaps in staying on rates actually widened, with a 15 percentage point increase in staying on rates between 1979-81 and 1988-90 for the highest income quintile and a meagre 4 percentage point rise for the lower quintile. After the GCSE reform the staying on rate increases much faster at the bottom.

One might think that a reform that turned around the income gaps in staying on rates also had the potential to affect higher education participation rates as well. Here, however, the picture is bleaker. Table 2 shows higher education participation by income quintiles at three points in time: the late 1970s, the late 1980s and the late 1990s.

The table shows that children of higher income parents



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**GCSE
represented
something of a
departure**

Table 2. Higher education participation by income quintiles (%)

	Parental income quintiles				
	lowest	2nd lowest	middle	2nd highest	highest
1977 – NCDS	9	10	12	14	27
1989 - BCS	10	14	16	24	38
1997 - BHPS (Ave)	15	26	24	34	46
Change 1977 to 1989	1	4	4	10	11
Change 1989 to 1997	5	12	8	10	8

Source: own calculations from National Child Development Study (NCDS), British Cohort Study (BCS) and British Household Panel Survey (BHPS) data on people aged 19, studied in Blanden, Gregg and Machin (2002).

improved their HE participation substantially in the 1980s. There was then little change across the income spectrum through the 1990s. In fact, the three middle quintiles seem to improve their position by more than the top quintile during the 1990s and the top quintile itself did better than the bottom. There was certainly no reversal of trends comparable with that seen over time in school staying on rates.

So it is clear that educational inequality – the link between family income and post-16 education – has tended to rise in recent years. These patterns are confirmed in the more detailed statistical analysis in Blanden, Gregg and Machin (2002), which controls for factors that are correlated with both parental income and education participation. A feature of that statistical work is the conclusion that the stage of the education process is important. While the introduction of the GCSE system ameliorated rising income gaps related to school staying on rates, no such process has permeated into higher education. In fact, university participation has become more strongly connected to parental income. Even the sharp expansion of university participation of the 1990s did not benefit poorer children. If anything, it strengthened the position of the middle classes.

The same story is borne out if one considers recent trends in higher education participation by social class. Table 3

Table 3. Higher education participation and social class in the 1990s (%)

	1991-92	1998-99	Change 1991-92 to 1998-99
Professional	55	72	17
Intermediate	36	45	9
Skilled non-manual	22	29	7
Skilled manual	11	18	7
Partly skilled	12	17	5
Unskilled 6	13	7	-6
All social classes	23	31	8

Source: Glennerster (2001), Table 11.

Educational inequality has tended to rise in recent years



reproduces some of Glennerster's (2001) analysis of Social Trends data to show no differential improvement for the lower social classes in the link between higher education participation and social class. There has been an actual worsening in absolute percentage points, despite the rapid increase in enrollment seen in the 1990s.

These patterns have clear ramifications for future inequality, both within and across generations. We know that graduates subsequently get paid more. If more children from relatively rich backgrounds get degrees, this will generate increased links between people's income and that of their parents, thereby reducing intergenerational mobility (see Blanden et al, 2001). This does not seem to be a desirable outcome. Similarly, within generations, there are likely to be productivity implications of university education being linked more closely to parental income. It seems inevitable that this will result in higher ability children from poor backgrounds missing out (and lower ability children from rich backgrounds "getting lucky").

There are also implications for the currently "hot" issue of higher education financing. Unless accompanied by substantial and generous scholarships for lower income children, the proposals to introduce top-up fees seem bound to reinforce educational inequalities. It seems clear, in fact, that measures to reduce the problems that financial poverty generates for access to higher education are needed. As Nicholas Barr convincingly argues: "Scholarships – such as higher education maintenance allowances – are vital. So are financial incentives for universities to widen participation." (Barr (2002)) If one is concerned about educational inequality and its wider impact on society and the future performance of the economy, then it seems that these kinds of reforms of HE financing are important – more important probably than the government policy target of 50% participation by 2010.

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This article draws heavily on research done jointly with Jo Blanden and Paul Gregg.

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