Education and Low Quality Jobs in Britain

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This is an attempt to look over time (particularly the last twenty years) at the relation between education and jobs (particularly low quality jobs) in Britain. The question we would like to answer is whether an expansion of education would reduce the proportion of jobs of low quality in terms of pay and working conditions. A 'human capital' perspective suggests a positive impact from educational expansion – and that is the view of a succession of policy reports (eg Leitch Review of Skills, 2005). But many analysts are sceptical, arguing that employer demand does not follow the supply of skills in a simple manner. Educational expansion has to some extent been followed by jobs (eg the expansion of graduate jobs) but other expansion attempts, notably vocational education, have been followed neither by jobs nor by students. And the decline in the numbers of workers with little or no qualifications has not been matched by a decline in low quality jobs. A lot of poor jobs are expanding rather than contracting and still have a supply of workers to fill them, eg students, immigrants, people with caring responsibilities, and those excluded from better jobs. A difficult question (not answered here) is how far the structure of production is responsible, as in the suggestion that Britain is in a 'low skills equilibrium' (Finegold and Soskice, 1988).

Characterising British education

The structure for schooling which developed post-war in England involved Primary Schools for 5 to 11 year olds, then a divide based on an exam (the 11+) into 25% or so going to Grammar Schools and 75% to Secondary Modern Schools. Grammar Schools were for ages 11-18, with top 7% going on to Universities. Secondary Modern Schools were 11 – 15 (later 16), with brightest going into apprenticeships, which catered for 33% of boys (but many fewer girls) even in the 1960s.

The system was decentralised, being organised by local government. In 1960s a movement began to replace the Grammar/Secondary Modern split with Comprehensive Secondary Schools – this won over in most of England by the 1970s (High Schools in Scotland were already largely comprehensive). Recession in the 1980s undermined the unregulated apprenticeship schemes and the agency then charged with tackling the problem, the Manpower Services Commission, developed instead a Youth Training Scheme. Efforts to promote vocational education have notably failed (Wolf, 2002, ch.3). In government there was growing concern about the decentralisation to schools and in 1988 a massive move was made towards centralisation in the introduction of a National Curriculum and a system of testing performance in all schools. This was accompanied by a targeting approach to raising performance (eg more qualifications). But public spending on education (as a % of GDP) was in decline – as it has been almost continuously until it began to increase after 2000 (Glennerster, 2002).

A persistent complaint about British education concerned the numbers of children leaving school at the minimum school-leaving age (16) with little or no qualifications. Passing fewer than 5 subjects at a-c grade in the age 16 exam, now known as GCSE (General

Certificate of Secondary Education) in England and O-grade in Scotland is considered as not reaching ISCED level 2. Only 43% reached that level at age 16 in England in 1995, though that number had risen to 53% in 2003. (76% have reached that level by age 19 in England – there is a lot of 'staying on' to retake these exams). The 'staying-on' rate – 17 year olds attending school/college full-time in England - has been rising, being 24% in 1979, 40% in 1989, and 60% in 1992 (Glennerster,1998). In later figures 17 year olds breakdown into 73% in school or college, 20% in employment (including apprenticeships, but also some with no further training) and 8% not in education, employment or training (Johnson, 2004). The UK figure for 17 year olds in full time education is one of the lowest in the OECD at just over 70% according to OECD (2001).

In international comparative terms Britain has been characterised as having a long-tail in the distribution of skills (Nickell, 2004). The evidence is mainly from literacy or numeracy surveys. Furthermore as low levels of literacy are found as much in the 16 to 25 age group as the 36 to 45 age group the long tail is not getting shorter (Nickell, 2004 quoting OECD 1997).

A major change in the 1990s was a big expansion in Higher Education. The sector doubled its number of students in 10 years. This was largely unplanned and led by student demand and an upgrading of many colleges to universities. It depended on numbers rising in education between 16 and 18 and passing the exams at 18 (A-level or Highers), the ISCED level 3 qualification. The majority of candidates for the level 3 exams were taking them to enter Higher Education and be able to get a level 4, degree qualification. Britain is well behind countries like Germany in level 3 qualifications but now much higher than Germany at level 4 (Keep, 2008).

What is happening to jobs?

A. Evidence from Skill Surveys

The Work Skills in Britain surveys provide evidence from surveys of workers (aged 20-60) done every five years of what qualifications – academic and vocational (here measured by ISCED level) - would be needed to get the type of job they have now.

Table 1 Qualifications needed for jobs

	1986	1992	1997	2001	2006
Level 4	20.2	25.5	24.3	29.2	29.8
Level 3	15.2	16.6	13.8	16.3	16.3
Level 2	18.5	19.0	21.2	15.9	15.1
Level 1	7.7	5.0	9.2	12.1	11.2
No qualifications	38.4	34	31.5	26.5	27.7

Source: Green, 2006 table 2.3 extended in Felstead et al, 2007, table 4.1

Workers were further asked if the above entry requirements were actually essential or fairly necessary to do the job. The table below presents the % of each entry in table 1 deemed essential or fairly necessary

Table 2 How far qualifications are necessary for job?

	1986	1997	2001	2006
Level 4	80.5	76.9	77.5	75.2
Level 3	77.3	74.1	70.3	73.3
Level 2	64.7	71.7	70.2	68.1
Level 1	79.3	77.2	62.7	70.0

Source: Felstead et al., 2007 table 4.8

It can be noted from table 1 that there has been over these 20 years a pronounced increase of jobs requiring level 4 qualifications (degree level) but not so much change at other levels, with still a high number of jobs not requiring these kind of qualifications. Jobs may of course require other skills, require experience etc. Table 1 also shows these trends stagnating after 2001. And table 2 shows that many workers do not believe the entry qualifications for their job are actually essential to do the job – the entry qualifications may rather serve to signal the general ability level sought. The number of jobs subject to such 'credentialism' appears to be rising.

The Skill Surveys also measure what is judged by workers to be a) the length of training (post age 16) required for the job and b) how much time is required to do the job well. By both these measures job requirement levels are rising.

The authors of the surveys go on to measure the 'skills balance' in the UK (Felstead et al, 2007, table 4.6) by comparing highest qualifications demanded in each year (table 1 figures plus estimated vacancies) with number of people holding highest qualifications at each level (supply) from the Labour Force Survey (based on all economically active). According to these figures (see table 3) the supply of skills (qualifications) has been expanding faster than demand for them, so that by 2006 there was a surplus at all qualification levels. The number of people with no qualifications has fallen particularly dramatically and much faster than the number of jobs needing no qualifications. The stagnation in demand for skills after 2001, already referred to, is shown in the level 3 and 4 rows in table 3. Felstead et al (2007) note this is found in relation to various job requirement measures.

Table 3 Qualifications Demand and Supply, 1986, 2001 and 2006

	Job requirements, 1986 (Demand)	People's highest qualification 1986 (Supply)	Job requirements, 2001 (Demand)	People's highest qualification 2001 (Supply)	Job requirements, 2006 (Demand)	People's highest qualification 2006 (Supply)
Level 4	4,260	3,820	7,292	7,359	7,445	8,495
Level 3	3,215	4,905	4,074	6,379	4,081	6,126
Level 2	3,920	4,080	3,985	5,302	3,788	5,617
Level 1	1,631	2,198	3,031	3,549	2,808	3,248
No qualification	8,201	7,748	6,651	2,881	6,990	2,232

Source: Felstead et al, 2007 table 4.6. Figures are in thousands.

It should be noted that economists seeking to explain growing wage inequality in Britain, particularly in the 1980s, argue that then the demand for skills was increasing faster than the supply of skills, eg. Nickell (2004).

The skills balance evidence is used by those sceptical of policies to seek more and more educational qualifications (eg Wolf, 2004), Keep, 2008). However educational qualifications serve other purposes than filling jobs, and qualifications are only part of work skills. Keep (2008) particularly argues eloquently against international comparisons of skills and their use in British policy-making. Skills may be necessary but they are not sufficient for economic success – we cannot assume supply creates its own demand. We have to ask why the structure of jobs is as it is.

B. Britain's expansion of level 4 qualifications but weakness in vocational education

After decades of trying to revive work-based skills following the collapse of apprenticeships in the 1970s, Britain stumbled into a huge expansion of level 4 skills (degrees) in the 1990s. Targeting and government subsidy is still being used to try to get more work-based training (Leitch, 2005). But young people have shown a preference for A-levels and degrees. Is this a good development?

Soskice (1993) argued that mass higher education was the best route (following the American lead) because social skills and computing skills, both learnt by students in higher education, were the expanding requirement in the job market through the growth of services. Survey evidence by Elias and Purcell (2004) supports this contention. They found various new categories of 'graduate job', mainly new managerial jobs, being filled by new graduates, and not much evidence of graduate underemployment. There was only limited evidence of any decline in the graduate earnings premium.

For a more critical view of the expansion of higher education see Keep and Mayhew (2004). They question if managers of branch shops are better trained at level 4 than 3. They raise doubts about the system emerging where level 3 ceases to be an endpoint in

itself. They suggest employers who used to hire from those with level 3 qualifications are concerned at developments. And they raise doubts about the new graduate jobs eg suggesting many have very limited task discretion for their graduate occupants (see below). Furthermore the evidence is that degree students are still predominantly from middle class backgrounds – that Britain's restricted social mobility is not being challenged. Will pay and opportunities fall further for non-graduates?

C. The future of 'poor jobs'

This section looks at poor jobs using two definitions of poor job – a relative definition in terms of low pay and an absolute definition in terms of bad working conditions (see Kap). A study by Mason et al (2008) on the incidence of low pay (defined as pay below 2/3rds of the median and therefore a relative definition of poor jobs) gives an analysis by gender, age group, ethnic origin, nationality, nature of employment contract, highest qualification obtained and occupational category for 1995 and 2005 (from the Labour Force Survey). Table 4 below gives their results for highest qualification obtained.

Table 4 Percentage with different qualifications experiencing low pay

	% 1995	number	% 2005	number
Degree (or higher)	4.1	5278	5.2	12,032
Other NVQ4 (ISCED 4)	8.2		8.9	
NVQ3 (ISCED 3)	18.0		20.1	
NVQ2 (ISCED 2)	27.5		28.7	
NVQ1 (ISCED 1)	34.1		32.7	
Other qualifications	23.3		28.2	
No qualifications	40.6	5,352	41.5	4,941

Source: Mason et al (2008) Table 2.2 based on the Labour Force Survey

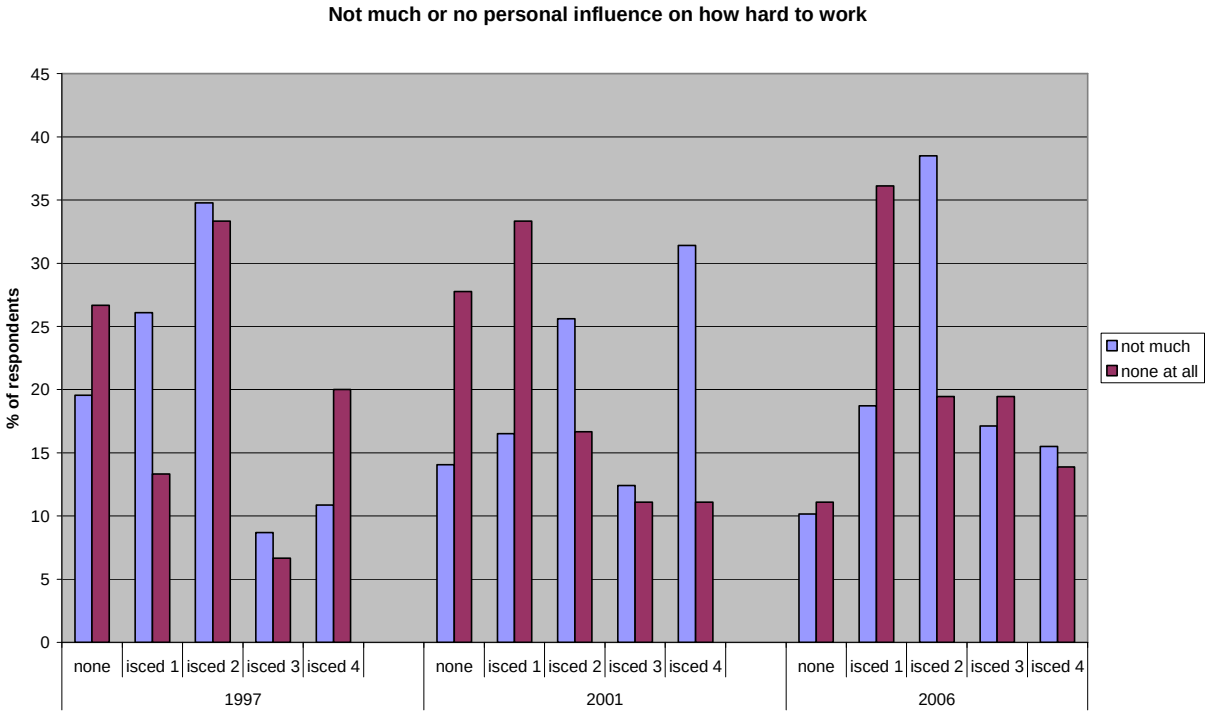
It is noticeable that greater numbers of those with higher qualifications are in poor jobs with low pay in 2005 than in 1995. Does that mean those with higher qualifications are entering low skilled occupations eg personal services, sales occupations and elementary occupations, where pay has tended to fall relative to all occupations? What has also been remarked on in Britain is that low skilled, low paid jobs are not disappearing – if anything there is polarisation with high paid and low paid occupations both expanding and declining occupations being those of middle pay (Goos & Manning, 2007). The argument is that routine jobs in the middle of the pay distribution are being replaced as a result of technical change but that non-routine jobs, which are found at both ends of the earnings distribution, are expanding and are not susceptible to being replaced. Examples of such expanding low paid jobs are jobs in retail sales and jobs in bars, restaurants and hotels. Goos and Manning also look at education levels in low skill occupations, this time using Skill Survey data from 1986 and 2001. They find education levels required to get jobs rising in all occupational groups, but most in sales and personal services, two low paid groups. These occupational groups also had the biggest increases in numbers reporting education was not necessary to do the job. This may indicate the 'credentialism' already referred to ie employers rationing jobs using educational qualifications – or it

may be, for example, due to the growth of student labour, which is now much more common given the emergence of mass higher and further education.

We can also look at poor jobs in terms of measures of job quality, an absolute measure of 'poor jobs'. The Skills Surveys provide evidence on changing job quality in Britain (Green, 2006). In two significant dimensions the change over time is negative, with rising work intensification, 1992 to 2001 and declining worker task discretion (in spite of increasing skills), 1986 to 2001. One dimension where change was positive was job insecurity, with workers on average seeing their jobs in 2001 as relatively more secure than in 1986 – reflecting declining unemployment.

Using the British Skills Surveys we have cross-tabulated task discretion, in terms of workers' assessment of personal influence over how hard one has to work, with highest education level for 1997, 2001 and 2006 (see Fig. 1)

Fig.1 The distribution of workers with little task discretion by education.



Source: British Skills Surveys, 1997, 2001, 2006

Having little or no task discretion is found among workers with all levels of education. Around 15% of workers with little or no task discretion were graduates (ISCED 4) in 2006. In the 2001 survey the proportion who were graduates was even more – but this may be a statistical aberration as 1997 is more like 2006. Lack of task discretion is however more with workers of low education background (ISCED 0,1, or 2) especially relative to numbers in the workforce. We also did this exercise for other measures of lack

of task discretion, eg influence over what tasks to do and influence over how to do the task, without finding we added anything to the picture given here.

Conclusion: The effect of rising education on poor jobs

We can start here with a discussion in Lawton (2009). She uses three areas of evidence. The first is the Skill Survey evidence already given here. The evidence in table 3 (on Skills balance) shows skills demand being outpaced by the growth in education and training (skills supply) – and particularly so after 2001. This is skill demand as assessed by workers. Further evidence is in the job polarisation literature (eg Goos and Manning 2007) which shows the resilience of many occupations of poor jobs (low pay), which grow in size in spite of technical change. Lawton's second area of evidence is based on calculations of rates of return to skill. These show poor returns to relatively low level vocational qualifications (level 2) but good positive returns to degrees, A-levels (level 3 academic) and GCSEs (level 2 academic). This fits the evidence that graduate job demand has responded to the enhanced supply of graduates but that efforts to raise numbers getting level 2 qualifications has not been followed by job demand. I noted that the wage premium for graduate jobs was holding up according to Elias and Purcell. However Lawton references a later report by Purcell to the effect that the wage premium for graduates may be weakening (Purcell et al, 2005). Finally Lawton's third area of evidence concerns the weak link between educational growth and productivity growth. The increasing stock of qualifications has not translated into much of a rise in GDP per worker.

Additional evidence which we note concerns a) growing numbers of graduates taking low paid jobs, and b) graduates in jobs with poor working conditions, in particular low task discretion. These points support Keep and Mayhew's doubts about the adequacy of new graduate jobs, which we counterpoised to Elias and Purcell's generally positive interpretation of new graduate jobs. The evidence does not support claims that achieving the government's targets for raising qualifications (see Johnson, 2004) – in the long-term so that all young people reach the age of 19 ready for higher education or skilled employment – will reduce the proportion of bad jobs or low paid jobs. Other interventions, on employer demand, will be needed. As discussed by Lawton (2009), firms need profitable strategies which do not rely on low pay and poor working conditions.

References

Dept. for Children Schools and Families (2008) *Education and Training Statistics for the UK*

Elias P. and Purcell K.(2004) Is Mass Higher Education Working? Evidence from the labour market experiences of recent graduates *National Institute Economic Review* 190

Felstead A, Gallie D, Green F, Zhou Y (2007) *Skills at Work, 1986 to 2006*, ESRC Centre on Skills, Knowledge, and Organisational Performance, Cardiff

Finegold, D and Soskice, D (1988) 'The failure of training in Britain: analysis and prescription', *Oxford Review of Economic Policy, 4.3*

Glennerster H. (1998) 'Education: Reaping the Harvest?' in Glennerster H. and Hills J. *The State of Welfare*, 2nd ed. Oxford University Press

Glennerster H. (2002) United Kingdom Education 1997-2001 *Oxford Review of Economic Policy 18,2*

Goos M. and Manning A. (2007) 'Lousy and Lovely Jobs: The rising polarization of work in Britain' *The Review of Economics and Statistics* 89 (1)

Green F. (2006) *Demanding Work* Princeton University Press

Johnson P. (2004) Education Policy in England *Oxford Review of Economic Policy 20, 2*

Keep E. (2008) 'From Competence and Competition to the Leitch Review' *Institute for Employment Studies Working Paper WP17*

Keep E. and Mayhew K. (2004) The Economic and Distributional Implications of Current Policies on Higher Education *Oxford Review of Economic Policy 20, 2*

Lawton K. (2009) *Nice Work if you can get it: Achieving a sustainable solution to low pay and in-work poverty* Institute for Public Policy Research

Leitch Review of Skills (2005) *Skills in the UK: The long-term challenge*, HM Treasury

Mason G, Mayhew K, Osborne M and Stevens P. (2008) 'Low Pay, Labour Market Institutions and Job Quality in the United Kingdom' in Lloyd C, Mason G and Mayhew K *Low-Wage Work in the United Kingdom* Russell Sage Foundation, New York

Nickell S**.** (2004) 'Poverty and Worklessnesss in Britain' *The Economic Journal* 114

OECD (1997) *Literacy Skills for the Knowledge Society* OECD, Paris

OECD (2001) *Education at a Glance* OECD, Paris.

Purcell K., Elias P., Davis R and Wilton N (2005) *The Class of '99: A study of the labour market experiences of recent graduates* Department for Education and Skills, London

Soskice, D. (1993) 'Social Skills from Mass Higher Education: Rethinking the Company-based Initial Training Paradigm' *Oxford Review of Economic Policy* 9(3)

Wolf A. (2002) *Does Education Matter?* Penguin, London

Wolf A. (2004) Education and Economic Performance: Simplistic Theories and their policy consequences *Oxford Review of Economic Policy 20, 2*