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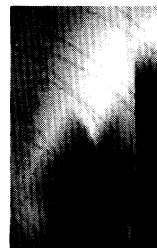
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## Overqualification in employment

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### **ABSTRACT**

There is widespread evidence that many workers have higher qualifications than are needed for their job. This finding of a substantial degree of overqualification should not be the case if, as has often been argued, there has been a consistent upgrading of the skills of the labour force as a result of technological change. It might also be argued that even if overqualification exists, this is a result of a new emphasis on flexible employment and therefore increased labour-market uncertainty: people start careers at a level below the traditional start, and so are initially overqualified. In this case overqualification is only a temporary, life-course phenomenon. Evidence is presented here using BHPS and LFS data to suggest, first, that an upgrading of labour does not adequately describe recent change in employment and, second, that overqualification is not a temporary factor resulting from changed employment practices. We should therefore view overqualification as having some sort of structural causation. One tentatively given explanation is that the social demand for education is causing a bunching of qualifications at the higher levels, which means that employers cannot easily discriminate between different apparent skill levels. As a result they reduce the rewards for such skills.

### **KEY WORDS**

credentialism / labour market / occupational status / overqualification / wages

## Introduction

**T**here are many reasons why society might produce more education than the job market requires. Personal demand for social status or efforts at social closure might override rational calculation of the value of education (Bourdieu and Passeron, 1977/1990; Collins, 1979). There might be a calculation

that *any* higher level of education helps job chances even if there are diminishing returns (Nicaise, 2000). The state might increase input into education for the sake of social equality over and above any supposed impact on the economy, and this might be supplemented by vested interests in institutional provision (Archer, 1982). A number of commentators have therefore argued for a social tendency to produce too much education, whether in terms of burdens on state funding (Coombs, 1985) or of the requirements of the labour market (Freeman, 1976/1989). A growing literature specifically argues that a large proportion of employees are overqualified for the jobs they do (Borghans and de Grip, 2000; Hartog, 2000).<sup>1</sup>

There is always likely to be at least marginal overqualification because a certain proportion of people choose not to use the full extent of their qualifications. Women who make career sacrifices for family reasons are likely to contribute to this form of overqualification. But the evidence suggests that overqualification is both widespread and persistent, which suggests some sort of structural causation. In a comparison between Germany and the US in the 1970s and 1980s, Daly, Büchel and Duncan (2000) show that both countries tend to experience some overqualification, though mismatches are less common in Germany. Two views of American data (Daly, Büchel, and Duncan, 2000; Hartog, 2000) reveal a flat trend in overqualification during the period 1976–85, though with much fluctuation around this trend. There was a clear increase in overqualification in Portugal from 1985 to 1992, and similarly in the Netherlands from 1960 to 1995 (Hartog, 2000). In Finland (Asplund and Lilja, 2000) there appears to have been a decline in overqualification between 1975 and 1995 as a result of recession, but it remains nevertheless. Battu and Sloane give figures for Britain which suggest a rise in overqualification from around 29 percent in 1986 to over 40 percent in the early 1990s (2000: 165).<sup>2</sup> Dolton and Vignoles find a significant level of overqualification amongst British graduates. They show that 36 percent of men and 41 percent of women are overqualified in their first jobs (2000: 184).<sup>3</sup> Overall, it appears unlikely that overqualification has decreased much over the last few decades. It has either fluctuated or slightly increased.

Evidence exists for the persistence of overqualification, but does this mean that it is a structural part of the modern industrial economy? Reasons for a structural basis to the phenomenon might include the social, supply-side factors rehearsed above, while on the demand side it might be that overqualification arises out of market inefficiencies, such as poor market transparency.<sup>4</sup> Alternatively, an element of overqualification might enhance efficiency and flexibility through reducing frictional costs (for instance, in either search or screening processes). However, explanations that do not rely on some sort of structural causation would reduce the significance of the phenomenon. There are two main alternatives. First, it is possible that overqualification is persistent but intermittent, for instance over the business cycle. Second, even if not intermittent in this way, it is possible that overqualification is not a permanent trend. This should certainly be the case if the evidence for a general upgrading of

labour and of work skills resulting from rapid technological and economic development is correct (Gallie, 1994; Green et al., 2000; Haskel and Martin, 1996). The need for improved and expanded educational outputs that this implies should mean that overqualification is, at most, of limited consequence. Much the same argument derives from the post-industrial view of the economy (Bell, 1973/1976; Kumar, 1995). This is related to upgrading but is also associated with a new flexibility in working patterns, with the end of 'jobs for life', and thus, from the individual perspective, with greater uncertainty. It is possible, therefore, that overqualification simply results from new forms of personal career management. People start their career at a point lower down the ladder than their qualifications might previously have entitled them to, but they make up for it afterwards. In this case, overqualification again has limited underlying importance.

The discussion below produces arguments against the upgrading and job-flexibility hypotheses as counter-factuals to the significance of overqualification, and suggests that overqualification might indeed reflect some sort of structural causation. Although this is as yet difficult to identify, the discussion seeks to propose a possible explanation for the phenomenon relating to excessive concentration of skills in certain sectors of the economy. The subsequent analysis, using British data, does not provide evidence either for job upgrading or for increasing job flexibility. Neither factor weakens the case for arguing that overqualification is a significant phenomenon in Britain and that, concomitantly, rewards for education are declining.

## Occupational change and the demand for skills

### The evidence for upgrading

The evidence for a general upgrading of the skills of the workforce is strong, but there are several problems with this. First, the strength of social demand for education might mean that the supply of skills does not match demand particularly well. There might, for instance, be pools of both over- and underqualification simultaneously. Unfortunately, much analysis inevitably focuses on demand and supply separately, but, looking at both, Teulings and van Rens (2002: 1) argue that:

Raising the average years of education in the economy makes low-skilled workers more scarce, raising their wages, while at the same time increasing the supply of highly educated workers, thereby reducing their wages. This mechanism reduces the return to human capital.

These classical market processes are precisely balanced in their analysis by technological growth so that demand for higher skills rises to offset the losses the more qualified would otherwise suffer. However, it is unlikely that this balance will necessarily be equal in all countries.

Second, skill upgrading is not a linear process. Nor can it be simply described. In respect of the distribution of occupations, while in several countries there has been a general increase from the 1960s in skilled 'post-industrial' occupations, there has also been an increase in 'Fordist' management jobs (Esping-Andersen et al., 1993: 52). OECD data show a widespread loss of skilled manual jobs during the 1980s accompanied by an offsetting increase in white-collar jobs, but in some countries the latter was more in low- than in high-skill jobs (OECD, 1996). Consistent trends are not always apparent. In the UK up until the 1980s the ratio of non-manual to manual wages consistently fell, rising thereafter (Machin, 1996) – a change associated with increased research and development expenditure, and use of computers. Furthermore, as surveys of skills (Gallie, 1994; Green, 1998) are aggregate accounts it is difficult to be sure whether the outcome is the result of a general upgrading of tasks themselves or of a loss of jobs at the lower end for demand or related reasons. Analysis of specific jobs seems inconclusive (Causer and Jones, 1996; McGovern, 1998). Taking a wider view, Machin suggests that the outcome in some cases may be less one of the 'upgrading' of work tasks themselves, and more one of 'non-manual shares increasing due to reductions in the number of manual workers' (1996: 143). Non-manual work has increased not only because of an increase in demand for technical or high-level skills but because of an increase in demand for non-manual work, some of which is technical and highly skilled, some not (Esping-Andersen et al., 1993).

### The polarization of skills

If the evidence for skill upgrading suggests no clear, linear trend, then it is possible that we should rather see change in the demand for skills as part of a more complex re-ordering of the labour market. One way of looking at this, for instance, is in terms of a polarization of job skills (Gallie, 1994). It is of note in this respect that the overqualification thesis would suggest that a proportion of those who cluster at one pole (those with high-level skills) are overqualified for their jobs. Such a clustering could be important because it might create difficulties for employers who seek greater discrimination in skill or qualification levels.

This polarization is itself linked to wage dispersion which, it has to be said, is contrary to a key tenet of the overqualification thesis – that overqualification results in reduced returns to education. Increasing dispersion implies increasing returns. There are certainly large differences between occupational groups in terms of earnings (Nickell and Bell, 1995), and such dispersion increased in the UK during the 1980s (Makepeace and Johnson, 1997). However, this increased dispersion has not occurred in all countries with roughly similar types of economy (Nickell and Bell, 1995), and which have witnessed at least equivalent levels of skill upgrading. Moreover, the social status accruing to higher levels of education has tended to be lower in Britain and the US than in Germany (because state or corporatist systems in Germany regulate the market to reduce

waste [Shavit and Müller, 1998]). Germany has seen an increase in skills but not an equivalent increase in either overqualification or wage dispersion.

There might therefore be structural explanations both for skill clustering and for overqualification, neither of which require support from skill upgrading. In Britain at least they may arise rather out of the workings of a relatively unregulated economy. The same might apply to increasing wage dispersion. As an example, even if some wage dispersion has occurred, it is not clear whether this means there has been a general upgrading of the occupational structure. Makepeace and Johnson (1997) point out that while there has been some increase in wage dispersion, this has occurred *within* as well as across occupational groups in Britain. This is highly problematic for a simple upgrading explanation as it is unclear why similar jobs should be treated differently over time. This wage dispersion might, though, arise out of some of these similar occupations being down- rather than upgraded as a result of overcrowding.

In sum, while there has been some upgrading of labour, especially in the last two decades, this is less general than is often claimed and might be linked to excessive clustering of skills or qualifications. This could have negative wage effects. It is also possible that whatever upgrading has occurred as a result of technological development could co-exist with overqualification in the face of market inefficiencies.

## Career effects and uncertainty

These demand-side factors make overqualification possible but could reduce its significance if they also have an effect on the supply of skills. The most obvious possibility is that changes in the occupational structure have resulted in greater job flexibility and uncertainty. In this case, whether in terms of wages or of social status, labour-market entry starts lower down than previously as people seek to obtain a place on a snaky career ladder; but they compensate for this initial sacrifice later in their careers. Hartog (2000) points to evidence for an increasing tendency for potential employees to take first jobs, or employers to offer first jobs, below their educational value, and this is implicit in various views of the workings of internal labour markets which are based on perceptions of trainability (Thurow, 1979). Heath and Cheung (1998) explain the fact that returns to higher education in Britain are low relative to many other countries in similar terms. Increasing entry into relatively low paid jobs for a career start is adjusted over time through job experience. This would mean that overqualification is just a life-course phenomenon which says little, therefore, either about the changing value of education or underlying labour-market processes.

However, the true extent of 'flexibilization' is probably less than is commonly supposed. Some evidence does point to a growth in flexibilization. The 'post-industrial' labour market (Esping-Anderson et al., 1993), in which it is assumed there might be much greater mobility of skills, is often associated with

delayering, downsizing or outsourcing – changes which make the career less certain (see Grimshaw et al., 2001; MacKenzie, 2000; Wedderburn, 1996, for recent assessments). From 1975 to 1993 the proportion of the British population of working age in full-time, permanent work fell from around 56 percent to 36 percent, and job-entry wages fell relative to the wages of those in continuous employment (Gregg and Wadsworth, 1995).<sup>5</sup>

However, the evidence is contested. Functional flexibility (defined by reduced demarcations) has perhaps increased (Beatson, 1995), but this is not the same thing as flexible recruitment (Pollert, 1993). Pollert also points out that during the 1980s in Britain there appeared to have been only a marginal increase in one aspect of this – the use of temporary labour, which might in turn be explained by recovery from recession. Burgess and Rees (1996) examine changes over the period 1975–92 and find no change in the average length of job tenure for women but some decline for men during the 1980s. This they partly put down to cyclical effects, rejecting the claim that there has been a major structural change in the labour market. Gregg and Wadsworth (1999), while confirming a reduction in full-time work, do not find such an unequivocal change in the case of job tenure, which has declined only slightly in Britain (and least for women). This is in the aggregate. In terms of career, and therefore looking at this very differently, Gershuny (1993) reveals a tendency for people in higher service jobs to spend more rather than less of their careers in their final occupation. Finally, and more explicitly, Gautier (2000) shows that highly qualified people are not likely to take less demanding jobs in economic downturns.

It is likely that demand and supply interact in more complex ways than the concept of increased job flexibility would suggest. The demand for flexibility could be a response to excessive skill concentrations. It has been suggested by Hartog (2000) that in some countries the demand for skills has become more dispersed than supply, and it is this stretching of the range of demand, rather than any change in the mean level of demand, which might push up returns to education. This perhaps implies a bunching of educational qualifications in the face of a proliferation in demand. Employers want a wide range of qualifications rather than rising average levels, so they reward the highest levels while those just below lose out because they are not easily distinguished. In this way, skill clustering might be associated with some reduced returns to education rather than only with increasing wage dispersion.

### **The effects of overqualification**

What are the effects of overqualification? This is generally tested by decomposing a wage equation into that part required by the job (usually approximated by data on the respondent's assessment of the years of education the job needs) and whether the respondent has more or less than this requirement. Having excess education for a job mostly has a positive effect on wages but produces

lower returns to education compared with those of people with the same education who are 'correctly' placed. However, overqualified people achieve higher rewards than those doing the same job as themselves but with lower qualifications. Being overqualified therefore generates a premium relative to the job but a penalty relative to the qualification.

There are perhaps other effects of overqualification. De Witte and Steijin show that in some Dutch firms, increased complexity and autonomy (which derive from automation) are both negatively associated with overqualification. Putting this the other way round, overqualification might tend to go with reduced job complexity and autonomy. The authors conclude that policymakers should pay less attention to possible 'skill deficiencies' of the current workforce, because 'the lack of decent jobs is the obvious basic problem' (2000: 261).

Finally, if the skill polarization or bunching thesis is correct, then a further result would not be simply a general 'bumping down' process, whereby overqualified people oust the less qualified from jobs which they would normally hold (and which could paradoxically be viewed as a form of deskilling), but rather a process of intensified competition in segments of the labour market. It matters a great deal where bunching occurs, and this is most likely at the graduate level. Battu and Sloane (2000) find that overqualification is higher in Britain the greater the social status of the job someone does and that it rises with wages. Dolton and Vignoles (2000) find considerable overqualification amongst British graduates. However, in other countries the intensification of competition which this implies might apply to other skills levels – for instance, craft skills in Germany.

## **The long-term relationship between qualifications and social status**

The first empirical issue which will be addressed is the trend in the social status of first jobs. The upgrading thesis requires a general increasing trend in the status of first jobs. This is tested here using the lifetime job history of the British Household Panel Study (BHPS), a survey of around 10,000 individuals in 5000 households. It takes the status of the first job obtained (whenever this occurred in a person's life) to see to how far this has changed over time, and examines the relationship between this and the growth in education. The status measure adopted is the Hope-Goldthorpe scale, which measures occupational status. The education measure, rather than university degrees, which describe only a small proportion of the population, is the GCSE school qualification (or Scottish equivalent) taken at age 15 or 16 (previously O-levels). The range is from zero to 19. Only those aged 15 after 1952 are included in the analysis as O-levels were introduced in 1951. Figure 1 shows GCSEs/O-level scores and Hope-Goldthorpe scores for first and second jobs regressed on date of birth. The effect of the regression is to smooth out bumps in the curve that result from



graphing a series of mean scores for each age cohort. It does this by using values predicted from the distribution as a whole.

The results do not conform with what we would expect from the upgrading thesis. It can be seen that GCSEs rise while status first rises and then falls in both first and second jobs. (The fall in status of second jobs seems severe at the end of the period but this is because younger people have not yet had a chance to establish themselves in their careers.) We would expect occupational status to rise over time if the upgrading thesis were true. The decline in the curves suggests the reverse,<sup>6</sup> a trend confirmed in the analysis by Battu and Sloane (2000: 168).<sup>7</sup>

Does job status fall, though, because of the trend towards flexible labour? It was argued above that if we are to view overqualification as a potentially persistent phenomenon, perhaps even a structural aspect of the labour market, then it is important to test the extent to which it might be a response to market uncertainty in conditions of increasingly flexible employment. If it is, then the best account of overqualification would be as a temporary response to such circumstances. Later on in a career overqualification is likely to decline. However, some evidence already suggests that this is not the case. Dolton and Vignoles (2000) find that a large proportion of graduates are overqualified when they get their first job and remain so six years after graduation. This has a negative effect on their wages compared to other graduates at both time points.

The data examined here do not support the thesis of increased flexibility. It is true that the average length of first job gradually declines over the age distribution of the sample used in the analysis from 5.7 years for those born in 1937

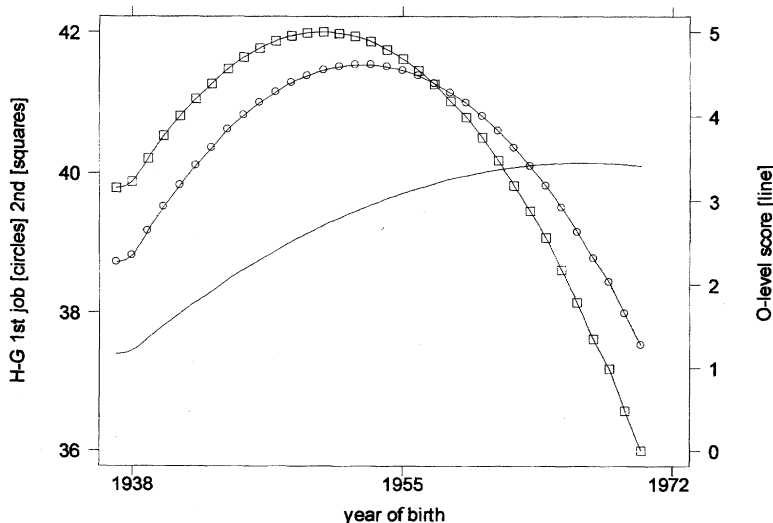


Figure 1 H-G score 1st and 2nd jobs, and O-level score, regressed on age

to 1.4 years for those born in 1972. However, the latter have not yet had the same chance to be occupationally mobile. This is reinforced by examination of responses to a question on reasons for leaving the job. These do not seem to relate, at least in broad terms, to education or social status. For instance, equal proportions of those with degrees and those not having a degree said they had left their first job in order to get a better job.

More important, though, is the longitudinal picture shown in Figure 1. The length of the curve shows the social status of first job across a series of age cohorts, but the higher curve (the social status of second jobs), shows when compared to the lower curve (status of first jobs) that later age cohorts are in the aggregate subject to declining social status in their second job as well as their first. This applies whether or not they as individuals manage to improve their social status when moving to a second job. The graph gives little credence to a view of overqualification as a process of individual adaptation to changing labour-market conditions followed by subsequent career re-adjustment.

### **The impact of 'surplus' qualifications on social status**

Figure 1 shows only aggregate trends. This can also be represented at the individual level in OLS estimates of the factors associated with Hope-Goldthorpe scores in first job, at the same time building in a measure of individual overqualification for the job that is held. The most common type of model calculates overqualification by comparing the actual education someone has to the level which either that person or an employer considers appropriate to the job. The calculation is usually based on years of education. Thus if a job can be done by people with 12 years education but the actual average is 15, this is taken as indicative of overqualification. However, this is highly problematic because in practice educational achievement is tracked through certificates and not by mere attendance. The use of years of education by economists has long been criticized (for instance by Griliches, 1977). On the other hand, while it is possible to use instead the highest actual qualification, this would entail comparison of this level with the level required for the job, which would require the use of dummy variables indicating whether someone is overqualified, underqualified, or neither (a procedure used by Battu and Sloane, 2000). It seems preferable, because more precise, to use an interval-level measure. The BHPS is unusual in carrying detailed information on qualifications, which conveys a great deal more than the limited concept, years of education. Use is made here of number of O-level/GCSE results. These are interval level. Also, they correlate with final certificate achieved: someone with a degree usually has more GCSEs than someone with only A-levels. There is also a correlation between years of education and number of GCSEs (0.48) and an almost perfectly linear relationship between the means (for instance, the average years of education for someone with seven GCSEs is 15, but is 15.6 where eight GCSEs are held). However,

in the analysis below an additional test is conducted with years of education for purposes of comparison.

A second difference from the normal procedure is that the dependent variable in the regression equations is the Hope-Goldthorpe status score rather than wages (also used by Battu and Sloane, 2000). While less precise, this is the same as in the previous analysis where the aim was to show the trend in occupational status of first job over time. The analysis can therefore be interpreted in the light of this earlier finding. In addition, in a wage equation it is impossible to say whether an adjustment of wages in response to overqualification indicates a change in pay while the job remains the same, or whether there has been a downgrading of the job. The use of a status score relates to the job and is therefore easier to interpret. A further aspect of the analysis is that it examines overqualification of people in their first job rather than all people at any stage in their career.

A third difference from the normal form of analysis is that actual qualifications are compared not to those which the respondent (or, less often, an employer) considers to be required for the job, a procedure which has been criticized for being subjective (Borghans and de Grip, 2000), but to the average number of qualifications held by a comparable group of people. These groups are defined either by age cohorts or social classes (using the Goldthorpe scheme). While, no doubt, this procedure has its own problems, it is not unique (Hartog, 2000) and does have the advantage of being objective.

While these differences from the usual types of overqualification model (in part resulting from the nature of the data) offer potential methodological advantages, they also convey – in particular the use of GCSEs – an important substantive message which is sometimes ignored in work on this concept. That is, if overqualification is persistent and in part derives from social demand for more education, where in the system of education is this occurring? The expansion of education is usually viewed in terms of higher education, but the greatest expansion in absolute terms is in school-level education, seen especially in a very large increase in the numbers of people obtaining GCSEs. The use of GCSEs as the basis for the measurement of overqualification implicitly refers back to this undercurrent of educational expansion.

The explanatory variables in the following analyses are gender, age, age squared, and various industry dummies. (No class indicator is included in the analysis because this would be endogenous.) The first analysis, shown in Table 1, uses raw GCSEs in columns 1 and 2, and then a combination of the means within 18 small age cohorts (pairs of years) with differences from the mean in columns three and four. As the individual GCSE performance equals these means plus differences from the mean, the second analysis shows what portion of individual GCSE performance derives from achieving a result associated with the mean for precise contemporaries (the effect of the trend), and what portion from individual performance above or below this mean. The analysis effectively examines the two age groups that were defined in the previous graph by the increase and decrease in social status over time. Age is omitted in the models

**Table 1** The impact of 'surplus within-cohort' GCSEs on Hope-Goldthorpe score of first job

	Born before 1956	Born after 1955	Born before 1956	Born after 1955
Age	-1.44	-0.55		
Age <sup>2</sup>	0.015	0.014		
Number of GCSEs	1.43***	1.02***		
Mean GCSEs in age bands			1.86***	-0.71
Difference from mean			1.43***	1.03***
N	2297	2062		
Adjusted R <sup>2</sup>	.29	.20	.29	.20

Note: \*\*\*  $p < .001$

using mean GCSEs in age cohorts because of endogeneity. The table does not show the gender or industry controls.

Taking the first two columns first, the later cohort shows a smaller effect for number of GCSEs, confirming the results of the graph shown above. The last two columns, though, add further information. Here, as implied by the graphs, the later cohort has a negative (but non-significant) relationship between mean GCSEs and the status score. However, individual surpluses over the mean are also less effective for the later cohort. Overall, this appears to confirm the general hypothesis of a growing disjunction between the demands of the labour market and the demands of the educational market.

Another way of looking at this is through distance from mean educational performance within socio-economic groups. The next analysis shows similar results to the above but for GCSE means and differences from these in Goldthorpe occupational class (rather than age) categories. Moreover, this incorporates a measure of *distance* from mean number of GCSEs in each group rather than mere difference from the mean. It should be noted that the means are endogenous, being closely related to the Hope-Goldthorpe score itself. However, there is no overwhelming reason to think that this matters much for measures of distance from the mean. These are represented by a GCSE total (1) equal to or less than the mean in each Goldthorpe class, (2) up to twice the mean, and (3) over this level. Again, gender and the industry coefficients are not shown. The analysis is of the whole sample first, then the two age cohorts. Sample sizes are as for the previous table. The last of these analyses is repeated using years of education in the same manner as GCSE outcomes as a check on the GCSE results.

The age and age squared terms in fact represent cohort effects. In the first two columns these show the expected pattern from the earlier graph: people achieve lower status in their first job over time. The first column also shows that those with GCSEs over twice the mean within each Goldthorpe group are actually worse off than those with a smaller 'surplus' of GCSEs but not as badly off

**Table 2** The impact of 'surplus within-Goldthorpe classes' GCSEs on Hope-Goldthorpe score of first job

	All	All	Born before 1956	Born after 1955
Age	0.50**	0.50**	-1.52*	-0.12
Age <sup>2</sup>	-0.006**	-0.006**	0.016*	0.005
Mean GCSEs in classes	4.92***	4.92***	4.71***	5.18***
Below or equal to mean	-2.44***			
Up to twice mean		2.44***	2.51***	2.18***
Over twice mean	-0.61	2.38*	4.22***	1.37
(Mean years in classes)			(7.38***)	(8.43***)
(Up to twice mean <sup>a</sup> )			(5.49***)	(2.34***)
(Over twice mean)			(1.34)	(0.51)
N	4359		2297	2062
Adjusted R <sup>2</sup> (GCSE model)	.46	.45	.47	.43

Notes: <sup>a</sup> Below mean is reference category  
\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

as those with below average results, though the second column suggests this is more a matter of diminishing returns. The third and fourth columns show the previous trend effect in that younger people within the pre-1956 cohort have higher status than those older people in the group, while for those born after 1955 age is not significant. It is also possible to see a distinctly different effect of being above the mean and over twice the mean, with the higher level of performance being a benefit for the older and a disbenefit for the younger cohort. This suggests that high levels of 'surplus' GCSEs were once of value but this value has since been eroded. Overqualification always carries a premium, but of diminishing returns the higher its extent and the more recent in time. This finding applies also to the analysis using years of education.

While it was shown above that the status of second jobs declines in a similar fashion to that of first jobs, and the regressions indicate an increasingly negative relationship between overqualification and social status, it is still necessary to test whether this is a temporary phenomenon. This is undertaken by taking the Hope-Goldthorpe score of second job and regressing this, first, on the same measures of mean and 'excess' GCSEs as in Table 2 and, second, on mean and excess GCSEs calculated for the Goldthorpe class achieved in the second job, therefore representing both past and current overqualification. (The results are not directly comparable to Table 2 because the sample is smaller, but re-running the previous analysis for all those with both a first *and* second job gives a similar result to that of Table 2.) Only the coefficients for the impact of GCSE scores are shown.

**Table 3** The impact of 'surplus within-Goldthorpe classes' GCSEs on Hope-Goldthorpe score of second job

	Past overqualification		Current overqualification	
	Born before 1956	Born after 1955	Born before 1956	Born after 1955
Mean GCSE in classes	3.30***	3.62**	5.26***	5.69***
Below/equal to mean				
Up to twice mean	5.76***	4.71***	2.64***	3.92***
Over twice mean	9.92***	8.02***	4.44***	3.22***
N	2029	1483		
Adjusted R <sup>2</sup>	.27	.24	.47	.47

Note: \*\*  $p < .01$ , \*\*\*  $p < .001$

The increase in the effect of mean GCSEs shown in the first row, whether for past or current overqualification, reflects the increase in social status through occupational mobility over time. However, it is immediately of note that  $R^2$  is much higher in the case of current overqualification, even though the actual exam results do not change. Furthermore, in the case of past overqualification (using excess GCSEs in first job to predict status of second job) a substantial premium attaches to having excess GCSEs, which is the reverse of the result shown in Table 2. It could therefore be that people who were overqualified in their first job have now moved on to considerably higher-status jobs, which might certainly suggest that overqualification is temporary. However, the benefit is somewhat less for the more recent cohort, a finding roughly consonant with the previous analyses. In the case of current overqualification (using excess GCSEs in second job to predict status of second job), there is relatively little value in overqualification and then only for the older cohort. The younger cohort again seems to benefit less, and in this case rather little, from excess qualification – to a limited degree with GCSEs up to twice the mean and not at all thereafter. In sum, it seems possible that mobility after a first job might reduce overqualification to a life-course phenomenon for some people, but that is decreasingly rather than increasingly the case.

## Conclusion

The value of qualifications obviously changes over time as the supply of and demand for them changes. It is tempting to relate alteration in this relationship to underlying economic drivers such as the growth of new technologies. It would be expected that this growth would result in an increased demand for appropriate skills, and that the qualifications which partly embody these would obtain a greater pay-back, whether in terms of social status or wages. In fact,

this does not appear to be happening, or it is at least subject to counterpressures. There is widespread evidence of significant levels of overqualification in employment.

One of the problems with this finding is assessing whether it says something structural about labour-market processes or is instead simply an indicator of an individual, life-course phenomenon. This latter outcome is possible in most standard theoretical views of employment practices. It would occur, for instance, if there is a growing tendency for potential employees to start lower down the scale than previously, thus beginning overqualified but subsequently doing work that fits their level of qualification. On the other hand, if this is not the case, and overqualification is a structural phenomenon, it could be that theoretical views of labour-market recruitment and retention need to be revised to take this fact into account.

Empirical analysis of LFS (Labour Force Survey) and BHPS have been used to show the effects of educational expansion over time. First, it is clear that the increase in graduates has not filtered across the industrial and occupational structure in the way that would be expected if the technology-bias thesis were correct. There has been a trend for the average status of both first and second jobs to decline. Second, when overqualification is measured through above-average school performance at around age 16 relative to other people of a similar age or doing similar work, it seems that being substantially above average generates either a poor or no premium for younger cohorts. This applies mostly to first jobs but also applies partially to second jobs, again for younger cohorts. It therefore seems that while the life-course might have an effect, there remains a structural tendency towards overqualification which has a negative effect on employment.

The above discussion provides no theoretical explanation for overqualification other than excess supply, though it has cast doubt on demand-side theories which could work against the thesis. However, there are issues to do with both the bunching and polarization of qualifications, which could serve as demand-side factors that might have some causal connection with overqualification.

## Notes

1. This term is preferred here to 'overeducation' because it is impossible to be overeducated for life, while it is possible to be overqualified for a job. Also, while skills are occasionally referred to, the discussion here is of qualifications rather than skills. Whether over-qualified means over-skilled is a moot point.
2. However, Battu and Sloane use measures of the education required for a job from the SCEL (Social Change and Economic Life Initiative) survey which gives the result for the earlier year to the later BHPS, possibly resulting in some distortion.
3. Which, despite the earlier comment, also suggests that at the graduate level gender makes some but not a substantial difference to overqualification.

4. How likely is overqualification in the face of different views of labour recruitment processes? Human capital theory (Becker, 1976) highlights the role of productivity, which depends on what the employee brings to the job (their human capital) rather than the job itself. In the case of disequilibrium, pay will be adjusted and any overqualification should disappear. Given the apparent fact of overqualification, this is unhelpful. Job competition theory (Thurow, 1979) argues that jobs are more important than people. Employers do not adjust wages to achieve equilibrium in the face of oversupply but maintain an implicit hierarchy of workers based on trainability, not of skilled work. If skilled people flood the market, those with lesser skills will be 'bumped down' the status ladder. Overqualification might exist but should decline over the career as job skills are acquired. Assignment theory (Sattinger, 1993) suggests that there are a variety of ways in which a range of skills can be matched to a range of job tasks. One view of this matching process, similar to job competition theory, is that it 'zips' together an array of skills and job requirements so the most skilled get the jobs requiring most skills (Hartog, 2000), whether or not the skills are right for the job. There is considerable uncertainty in this case and overqualification is as likely as not.
5. This could also be associated with an upgrading of labour and rising labour costs: for instance, Harrison and Kelley (1993) find that outsourcing is more likely in the US when wages are high.
6. The fall in status could mask a rise amongst the highly educated and a fall amongst the poorly educated, which would support the idea of a technology skills bias associated with increasing wage dispersion. However, similar results arise when selecting out those with no GCSEs. Another explanation could be the effects of the business cycle. Those born in the mid 1950s would have been moving into the labour market in the 1970s, the end of which began to see economic recession, but the downturn in the graphs is somewhat earlier than this.
7. It could be argued that the overqualified might be people who at any level of qualifications have fewer skills than others at the same level, especially numeracy skills, so they end up in worse jobs. However, it is difficult to explain trends or any variation in patterns on this basis.

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