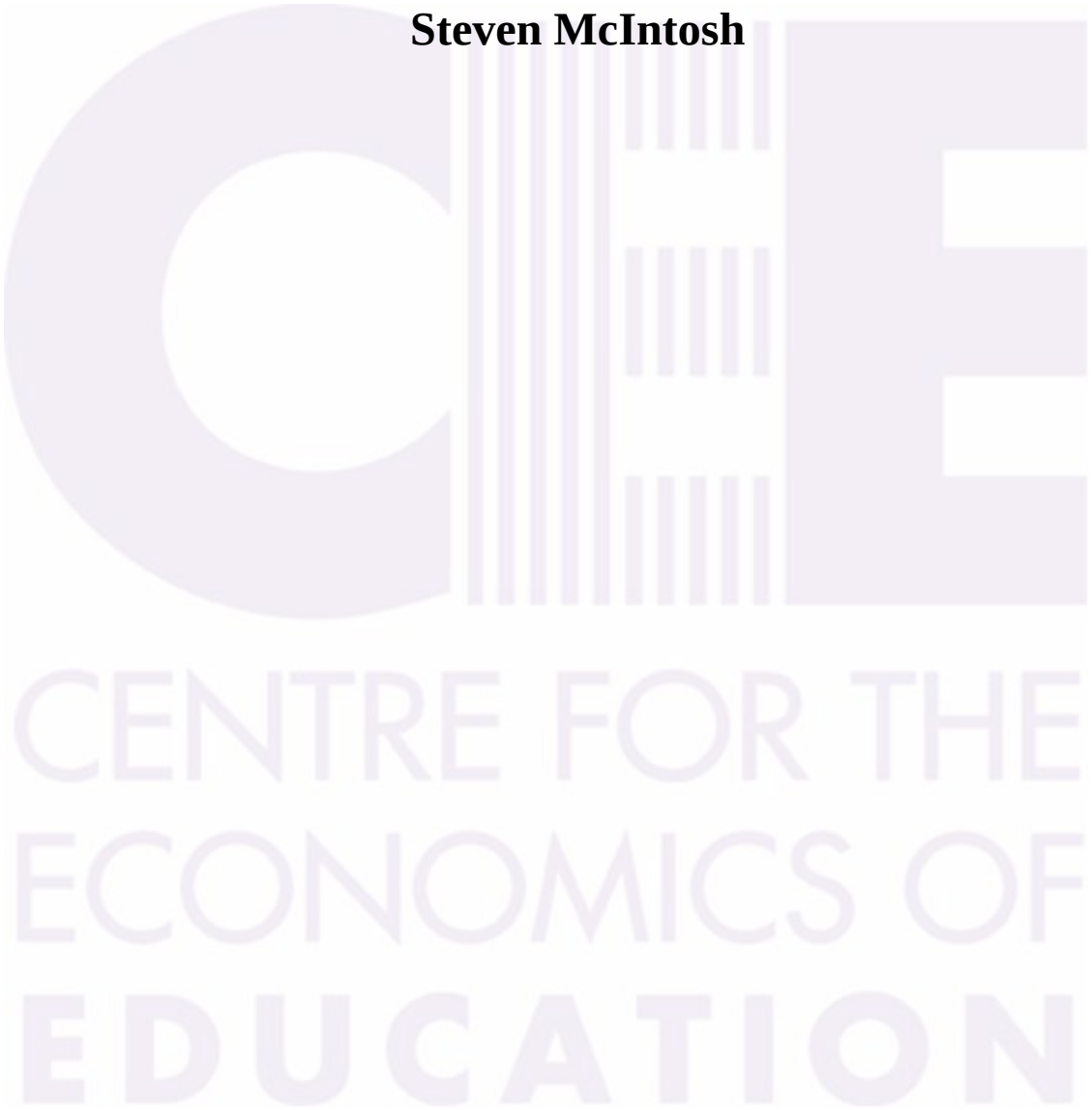
Further Analysis of the Returns to Academic and Vocational Qualifications

Steven McIntosh



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Executive Summary

This report uses data from the Labour Force Survey (LFS) to disaggregate the estimated returns to detailed qualifications along a number of dimensions, in particular focussing on changes in returns over time, by public and private sector, by age cohort and by highest school qualification. The report uses data from all the years of the LFS for which information on wages have been collected, 1993-2002 although prior to 1996, the education section of the survey only asks about the three highest qualifications that respondents possess, rather than all qualifications, which means that in some cases there will be an inconsistency at this point when considering the full time series from 1993 to 2002. We use information on all qualifications held by individuals, rather than just their highest qualifications, so that the returns to each qualification are estimated on the basis of the earnings of all individuals who acquire them, rather than just individuals who acquire that qualification and progress no further. As a result of using the 'all qualifications' specification, the interpretation of the estimated coefficient on any particular qualification is the estimated difference in earnings between someone who holds that qualification and someone who does not, holding all other education achievements constant. The estimated returns should be viewed as cumulative across qualifications, and so can be summed to obtain the total returns to a combination of qualifications.

The key findings of the analysis are as follows[1]:

- The returns to the key academic qualifications are very similar for men and women, being around 26 per cent for a first degree, 16 per cent for two or more A levels, and 27-29 per cent for five or more good (grade C or above) GCSEs.
- With respect to vocational qualifications, men and women earn positive returns to HNC/HND and ONC/OND qualifications, although these are slightly higher for men (14 per cent and 10 per cent respectively) than for women (8 per cent and 6 per cent respectively). Returns to vocational qualifications differ according to the type of qualifications typically undertaken by men and women. Thus men earn positive returns to craft-based qualifications, such as Advanced Craft City and Guilds (5 per cent) and Craft City and Guilds (6 per cent), while women earn positive returns (in some years) to

[1] The numbers given here for the estimated returns are the average values for the returns across the time period considered.

higher level RSA qualifications, of up to 10 per cent. Both sexes benefit from professional, teaching and nursing qualifications, although women benefit to a greater extent.

- There has been virtually no change in the estimated returns to most qualifications over the time period considered. An exception seems to be GCSE qualifications at grades D and below, the returns to which seem to be falling, to zero in the case of women.
- There has been a rise in the proportion of the adult population holding higher level qualifications, particularly academic qualifications. This, together with the previous point of stable returns, suggests that the demand for educated workers is also going up, and at a similar rate to the supply, leaving relative wages quite stable.
- Comparing the returns in the private and public sectors, for men the higher academic qualifications yield a greater return in the private sector than in the public sector. For women there is little difference in the returns to degrees and A levels across the sectors, except in the most recent years when private sector returns to a degree seem to be greater than public sector returns. The reverse, however, is true for GCSEs, the returns to which are similar across sectors for men, but greater in the private sector for women.
- Considering the returns to vocational qualifications across sectors, the returns to teaching and nursing qualifications are, as expected, higher in the public sector, where they are more likely to be used. Other higher level vocational qualifications attract higher returns in the private sector than in the public sector, this time for both men and women. Lower level vocational qualifications only attract statistically significant returns in the private sector.
- The analysis by age group (pseudo cohort analysis) suggests that the returns to most qualifications do not vary to any significant extent over the working lifetimes of individuals. The exceptions are rising returns to first degrees, and to a lesser extent A levels, until individuals are aged in their early thirties, for both men and women. In addition, for women only, the returns to teaching and nursing qualifications appear to rise continuously throughout their working lives.
- Considering the returns to post-school qualifications by the level reached within school suggests that the returns to a degree are very similar for each group with at least some school qualifications. This is not true for other qualifications, however.

The only other qualifications to yield positive returns for the group with 2 or more A levels are professional and teaching qualifications. An HNC/HND qualification yields no benefit for this group, suggesting that it is a substitute for, rather than a complement to, holding 2 or more A levels.

- Individuals who do not obtain any qualifications at school obtain positive returns to a wide range of qualifications, including ONC/ONDs, City and Guilds qualifications (at Craft and Advanced Craft levels for men and at Advanced Craft level only for women), RSA qualifications for women only, apprenticeships for men only and finally NVQ qualifications at levels 3 to 5 for both sexes. NVQ qualifications at levels 1 and 2, however, are still not observed to have a positive effect on earnings, even for the group with no school qualifications.

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1 Introduction

This work follows on from that of Dearden *et al* (2000)[2], which examined the wage returns to a detailed list of academic and vocational qualifications in Britain in the 1990s, using data from three sources, the National Child Development Study (NCDS), the International Adult Literacy Survey (IALS) and the 1998 Labour Force Survey (LFS). That report went further than the traditional returns to education literature by estimating the wage return to each of a long list of separate qualifications, rather than simply estimating an average return to a year of education. Hence, the returns are allowed to differ according to the qualification being undertaken. However, the resulting estimates of the returns to each qualification were still estimates of the average return across all individuals obtaining that qualification, and there might be substantial variance in the actual return when we disaggregate by certain characteristics. In addition, the estimates in the earlier report were for single points in time. This report therefore extends the earlier work in a number of directions.

First, we consider how the returns have changed over time, rather than simply considering a single point in time. Since the LFS is the only one of the three surveys utilised in the previous report to be a regular annual survey, only data from that source will be used in this report. Wage data has been collected in the LFS since 1993, and so this report will consider all years from 1993 to 2002.

A second extension is to disaggregate by sector, estimating the returns to the various qualifications separately for the private and public sectors. Given the continued use, by and large, of rigid pay scales and the continued dominance of trade unions in the public sector, compared to the decline of unionism in the private sector and the increasing use of individual pay determination, this distinction could be of importance.

A major drawback of earlier analyses is that they have presented estimated returns that are an average across all ages. The implicit assumption is that the returns to the qualifications are independent of the individuals' age. Is this true, though? The question is of importance, if we want to map out an age-earnings profile for each

[2] Estimates of the returns to education in the UK are quite widespread in the literature. See for example Harkness and Machin (1999) and Harmon and Walker (1995, 1999, 2000)

qualification. Such a profile is of particular importance for individuals deciding whether to invest in their human capital by studying for a qualification. Strictly speaking, this decision should be based upon a calculation of the additional earnings that the individuals will accrue *over the course of their working lives* relative to the current costs of studying for the qualification. If we only have a single estimate of the returns to each qualification (averaged across all ages) then all we can do is assume that the return is the same at all ages, that is, that the age-earnings profile for those with a degree, for example, is a constant mark-up on the profile for people without a degree. With a single cross-section of data, it is difficult to do otherwise.

One possibility would be to interact the variables indicating possession of a qualification with age (or alternatively, estimate separate wage equations for individuals of different ages, or for individuals in different age bands, if the sample size is not large enough to consider each possible age separately). Thus, with a single cross-section of data, we could estimate the returns to a degree, for example, for individuals in their twenties, individuals in their thirties and so on, and so build up a picture of how the returns vary with age.

The problem with this approach is that it does not differentiate between age and cohort effects[3]. Thus, the return to a degree may be higher for those in their thirties than for those in their twenties, because the return does indeed increase with age. In this scenario, individuals currently in their twenties can expect an increase in the return to their degrees when they are aged in their thirties. Alternatively, however, the difference in the estimated returns between the two groups may be due to a cohort effect, such that the characteristics of the two groups differ and in fact the group now observed in their thirties have always earned a high return, even when they were in their twenties themselves, compared to the group now currently in their twenties. Perhaps there was a smaller number of the older group who obtained degrees, meaning that they will always be highly valued in the labour market. In this scenario, the high return is attached to the cohort, not to the age band, and so those currently in their twenties will of course

[3] See Gosling *et al* (2000) for a discussion of identifying cohort effects from age effects when examining changes in UK wage distributions over time. In a similar vein, Card and Lemieux (2001) observe different rates of return to education for individuals of different ages in the US, the UK and Canada, and argue that these are due to differences in the cohorts themselves (specifically the growth of educational attainment) rather than age effects.

always belong to the same cohort, and so will always have the same return to a degree throughout their working lives, which will be less than that received by the cohort now in their thirties. Of course, a likely possibility is that the difference in the returns to a degree between those aged in their twenties and those aged in their thirties, estimated at a single point in time, is due to a mixture of both cohort and age effects. The problem is that with a single cross-section of data, we have no way of knowing how much of the difference is due to cohort effects and how much is due to age effects. Thus it is impossible to predict exactly how a new graduate's earnings will progress over his or her working life, that is to accurately know the age effects.

A solution to this problem could be found if we had data on a cohort of individuals, and followed them throughout their working lives. Thus we could estimate wage equations for each year of their lives, with the cohort getting one year older in each case, and so trace out how the returns to each qualification vary with age. Such estimates would be purged of any cohort effects, since by definition we are dealing with a single cohort of individuals. The problem is, in this case, that time is no longer fixed. Thus we could estimate, if we had the data, the returns to various qualifications for a cohort of individuals who reached the working age of 16 in, for example, 1950, and reached the retirement age of 65 in 1999. These estimates would be free of cohort effects. However, they would be specific to the time period considered. It is extremely doubtful whether governments would want to base public policy, or whether private individuals would want to base human capital decisions, on the estimated returns to qualifications that were gained, on the whole, fifty years ago. It is certain that conditions, both in the education sector and the labour market, will have changed hugely, making such estimates a very poor indicator of the likely returns over the 50 years to come for an individual just making their human capital decisions.

What can be done, therefore? In this report, we consider cohorts of individuals over short, overlapping periods of time. In actual fact, we do not have true cohorts, since the LFS is not panel data set, surveying the same individuals year after year[4]. Thus we

[4] The LFS does have a panel element in terms of the quarterly surveys, with each respondent being surveyed for five successive quarters. Since we use the data from sweeps 1 and 5 from 1997 onwards (being the only sweeps with wage data – see the Data and Methodology section), this means that some people will be surveyed in successive years from 1997 onwards. Specifically four-tenths (two-fifths) of each cohort in any one year will also be in the data set for the following year. For example, in the 21-25

create 'pseudo cohorts' of LFS respondents. For example, we form one pseudo cohort of all those respondents aged 21-25 at the beginning of 1993, and analyse their returns to the various qualifications in the 1993 survey. We then take the 1994 survey, but look at all those aged 22-26 at the beginning of the year, and estimate their returns. Although the estimates will be based on different individuals, as the LFS will have sampled a new group of respondents, in both cases they will be representative of a single cohort of individuals (those born between 1st January 1967 and 31st December 1971), and so the coefficients will be unbiased estimates of the wage returns for the individuals in this cohort in each year. In this way, using data until 2002, we can show how the returns to each qualification vary with age as this cohort ages from 21-25 to 30-34. We cannot follow this cohort any further, because we only have ten years of LFS data that contain wage information, but of course we do not want to follow a single cohort for their full working lives, as the estimates derived will be relying on data up to 50 years old, as discussed above.

To obtain estimates of the returns to qualifications later in life, we can start off a new pseudo cohort, aged 26-30 in 1993, and estimate their wage returns until they are aged 35-39 in 2002. Of course, we have now introduced a second cohort, and so any change in the estimated returns could be due to a cohort effect, and not due to the pure age effect, of this group being older, that we wish to estimate. Note, however, that the estimated age-returns profiles for the two cohorts overlap. Thus, for example, we obtain an estimate of the returns to the various qualifications for 26-30 year olds from the first cohort in 1998 and from the second cohort in 1993. Since the ages are identical, any differences in the estimated returns will be due to a pure cohort effect[5]. We then estimate wage equations over the period 1993-2002 for further successive cohorts, specifically initially aged 31-35, 36-40, 41-45, 46-50 and (for males only) 51-55 in 1993. The ten-year-long estimated age-returns profiles for each cohort will

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year old cohort, half of the 21, 22, 23 and 24 year olds (those in wave 1), will still be in the cohort sample the following year. Clearly though, they will have disappeared by the following year, and so there is no sense of following a continuous cohort of the *same* individuals year after year in our analysis. This limited continuity has no other effects on estimated coefficients, and so no more is made of this fact throughout the report.

[5] In actual fact, the difference in the estimated returns could be due to a cohort effect *or* to a time effect, since they are estimated using data five years apart. It is hoped that this five year gap is short enough for there not to be significant time effects, i.e. there is not a large shift in conditions between these dates to affect estimated returns. The results presented in Section 3 do show that returns to qualifications have not changed much over the 1990s.

overlap the profile for the cohort before and the profile for the cohort after in each case, allowing us to derive a continuous age-returns profile for the entire working age range, with the overlaps allowing us to calculate the changes due to cohort effects resulting from using different cohorts of individuals, all the while using recent data from the last ten years, rather then more outdated data[6].

A final extension in this report is to disaggregate the population according to the level of qualifications obtained at school. As mentioned above, the typical estimate of a return to a qualification is an average return, averaged across all individuals who obtain that qualification. For this estimate to be of use, it is being implicitly assumed that the return is the same for all individuals who obtain the qualification. This of course may not be true, and so here we differentiate between individuals according to the highest level of qualification that they obtained at school, estimating the returns to the various qualifications for each group in turn. This particular disaggregation was chosen to allow us to get a feel for the returns to qualifications for the marginal student (that is, the last student to decide to undertake a qualification) rather than the average student. This is important for government policy, if access to certain qualifications is being considered for expansion or additional encouragement. In order to evaluate such an expansion policy, we wish to know the returns to the additional students who are tempted onto the expanded course, and not the returns to the students who would already have followed such a course. For example, if a government aim is to get more individuals with no school qualifications onto vocational courses, then the estimates provided in this analysis will indicate the returns that such marginal individuals can expect to gain.

2 Data and Methodology

As described in the Introduction above, this report uses data from the Labour Force Surveys of 1993-2002. The LFS is a quarterly survey of a representative sample of households in the UK. We append the data from the four quarters in each year into

[6] This is actually the ideal, which was hoped to be the outcome of this study. As Section 3 will show, the results fall somewhat short of this ideal, and the erratic nature of the estimated coefficients from year to year within single pseudo cohorts, due no doubt to the small numbers of individuals holding some qualifications within each pseudo cohort, precludes the possibility of deriving a smooth age-returns profile. However, some useful comments on the variation in returns by age are still made in the results section.

annual data sets. Respondents to the LFS are actually surveyed for five successive cohorts, one-fifth being refreshed in each quarter. From 1993 to 1996 inclusive, respondents were only asked to report their wage levels the final time that they were surveyed (that is, in wave 5). From 1997 onwards, respondents have reported their wages in both waves 1 and 5. In all years, we only kept observations with reported wage data. Thus, in any one annual data set, constructed from the four quarterly surveys in that year, no individual can be in the constructed data set twice, even post 1997, since a respondent's wave 1 and wave 5 appearances in the survey cannot be in the same calendar year. All analyses were performed for full-time employees only, resulting in usable sample sizes of approximately 15000 in the years 1993-1996 for men (approximately 9000 for women, since fewer women work full-time), and of approximately 30000 in the years 1997-2002 for men (18000 for women).

In an analysis of this type, we would like information on all qualifications held by an individual. Many other analyses simply concentrate on the highest qualification level achieved. This is perfectly adequate if all we wish to know is the average return to reaching a certain level, say NVQ level 3, regardless of how that level was reached and which actual qualifications were obtained. In this analysis, however, it was desired to know the returns to a detailed list of actual qualifications. In this case, assigning to each individual in our data set only their highest qualification would give us a distorted picture of the returns to each qualification. Suppose that we wish to know the returns, specifically, to an ONC/OND. If we estimate this return based on the individuals in our data set for whom an ONC/OND is their highest qualification, then this would not give a true reflection of the returns to this qualification. Other individuals will also have obtained an ONC/OND qualification, but may have gone on to obtain another, higher level qualification, and so will not be included in the calculation of the return to this qualification. If the returns to an ONC/OND are independent of all future qualifications obtained then this does not matter. However, if the characteristics of those individuals who obtain an ONC/OND but nothing higher differ from the characteristics of all individuals who obtain an ONC/OND, which sounds at the very least plausible and actually quite possible, then we will not calculate the true return to an ONC/OND, averaged across all individuals who obtain such a qualification. In addition, there is the problem when just considering an individual's highest qualification, of which exactly is that individual's highest qualification. If individuals hold more than one qualification at

the same level, it can become quite a subjective decision which qualification is actually assigned as their highest. This problem of course does not exist when we consider all qualifications held by individuals.

Unfortunately, the LFS has only asked respondents to report all qualifications held since 1996. In the first three years considered here (1993-1995), respondents are only asked to list their three highest qualifications. The analysis has still been conducted as if we know all qualifications held by all individuals in these years, but of course this may not be the case, and this should be borne in mind when the results are considered. If any individuals hold more than three qualifications, then we will not know all of the qualifications that they hold. What effect will this have on the estimated returns? In the case of higher level qualifications, the estimated returns are likely to be biased upwards. This is because individuals who hold high level qualifications are more likely to have obtained more than three qualifications, as they have progressed through the education system, the lower ones of which will therefore not be observed. In this case, the estimated returns to the observed, higher qualifications will be conflated with the returns to the unobserved, lower qualifications, thus giving us an over-estimate of the true return to the higher level qualification. There may also be another, more subtle, bias on the estimated returns to the lower level qualifications in the early years of the period considered. The individuals whom we observe with low level qualifications are more likely to be those individuals who have not gone on to obtain higher level qualifications, otherwise we would not have observed these qualifications amongst such individuals' highest three qualifications. If the individuals who do not go on to acquire higher qualifications differ in some unobserved way, for example lower ability, from those who do progress higher, then the estimated coefficients on these low level qualifications would be downwardly biased estimates of the true returns to these qualifications[7]. If either of these biases are thought to be apparent in the estimated returns to particular qualifications, then only the returns for the years 1996-2002, for which all qualifications are available, will be discussed.

Table 1 shows the proportion of the population in each year to hold each of the qualifications. We can see that for certain lower level qualifications there is indeed

[7] This is analogous to the bias inherent in the estimated returns to the various qualifications when we only consider individuals' highest qualifications.

quite a sizeable change between 1995 and 1996, when the change to the LFS questionnaire is made. Thus for example, 45 per cent of respondents report holding some GCSEs at grade C or above in 1995, compared to 52 per cent in 1996. Similarly, on a smaller scale, 5 per cent of respondents report holding a low level City and Guilds 'other' qualification in 1995, compared to 9 per cent in 1996. These figures suggest that the number of individuals with certain lower level qualifications is being under-represented in the years 1993-1995, because a certain number possess at least three other qualifications at a higher level.

In actual fact, it is not the case that *all* qualifications are known even in the years 1996-2002. The LFS asks respondents to report all qualifications that they hold within certain categories, for example whether they hold a degree, a City and Guilds qualification, an RSA qualification, or an NVQ/GNVQ, and then, if respondents report holding qualifications in these categories, asking them supplementary questions in which they reveal only their *highest* qualification within this category. Thus for example, if respondents report holding a degree, they are then asked which is their *highest* degree: a higher degree, a first degree or a professional qualification at degree level. Similarly, if respondents report holding a City and Guilds qualification, they are then asked what is the highest level of City and Guilds qualification that they hold: Advanced Craft, Craft or other. In order to assign *all* qualifications to individuals in such circumstances, we need to make certain assumptions.

Thus, we assume that all respondents who report holding a higher degree also hold a first degree. It is not clear, however, what to do in the case of first degrees and professional qualifications. Those who answer 'professional qualification' will not have the chance to also record any degrees that they may hold. Given that substantial numbers of professional qualification holders are likely to also hold degrees, this will bias the estimated returns to professional qualifications upwards. It was decided not to assign degrees to all professional qualifications holders at the data-coding stage however, since it would have been possible to obtain such professional qualifications without the prior acquisition of a degree, particularly amongst older workers. Of course, the individual respondent might view the degree as a higher qualification than the professional qualification, and so will report the former and have no chance to report the latter. Obviously, we cannot arbitrarily assign professional qualifications to

all first degree-holders, though. Thus the estimated returns to a first degree may also be slightly biased upwards, since we will also be observing the returns to a professional qualification amongst *some* graduates.

In addition we assume that all individuals who hold a higher level RSA qualification, or an Advanced Craft or Craft level City and Guilds qualification, but do not hold any GCSEs at grade C or above or equivalent, also hold the respective lower RSA or City and Guilds qualifications, as these would have been necessary entrance qualifications to the higher levels if no good GCSEs were held.

The remaining category of qualifications where we only know the highest qualification within the category (NVQ/GNVQ) is difficult. The NVQ qualification in particular is often viewed more as a verification of skills, rather than a course of skills to be learned and tested. Thus, if an individual holds an NVQ qualification at a certain level, say level 3, there is a case for allocating to that individual all NVQ levels below this level. If they have the skills to obtain a level 3 NVQ qualification, then they would be able to obtain level 2 and level 1 NVQ qualifications as well, whether or not they actually hold the certificates (which of course we do not know, as we only observe the *highest* NVQ qualification in the LFS). However, doing so would open up a whole new set of questions. Other individuals with no NVQ qualifications, for example those who have followed a purely academic route, would also presumably be capable of acquiring low-level NVQ certificates, perhaps after some short training period, so following the same argument, should they not be allocated these qualifications as well? Then we would have to estimate for each such person up to what level they could obtain NVQ qualifications. Then, we could say that they should be capable of obtaining other, non-NVQ, qualifications as well, and start allocating other qualifications. For these reasons, we decided not to make any assumptions about other NVQ qualifications held, and so the only NVQ/GNVQ qualification allocated to individuals is their highest[8].

[8] This is likely to explain the findings in the following section, where negative returns to NVQ1 and NVQ2 qualifications are observed. Since we are only observing these qualifications as *highest* qualifications, then the returns to these qualifications are estimated on the basis of the wages of those individuals who, by definition, have not acquired any higher NVQ qualifications. If we make the reasonable assumption that an individual who bothers to certify their skills at the NVQ1 and NVQ2 level, but does not obtain any higher NVQ qualifications, is of below average ability, then the coefficients on these variables will be biased downwards. Intuitively, we are observing the low earnings potential of individuals who acquire NVQ1 and NVQ2 qualifications. Thus, the negative coefficients *do not* imply

Summarising the above discussion, in order to consider all qualifications held by individuals, we allocate first degrees to those individuals with higher degrees, and low level City and Guilds or RSA qualifications to individuals with higher qualifications in these categories *but no GCSEs at grade C or above.* In the case of individuals holding both a degree and a professional qualification, we only observe (what the respondent considers to be) the highest of the two qualifications, while for NVQ/GNVQ qualifications we again only observe the highest level obtained. For all other qualifications, we should be able to identify whether or not they are held, regardless of other qualifications held, in the post-1996 period at least, and so we are confident that we are indeed picking up all individuals holding such qualifications.

One 'qualification' that is treated slightly differently in the LFS is an apprenticeship. There is a question in the survey, completely separate from the qualifications question, asking whether the respondent has completed a trade apprenticeship. Often amongst those that have, however, they will have received a formal qualification, such as a City and Guilds qualification, and so their achievement would essentially be measured twice if we allocated all who answered 'yes' on the apprenticeship question to the apprenticeship variable. We therefore consider in this analysis those respondents who have completed an apprenticeship, but on the qualifications question indicate that they have no formal qualifications. If an individual obtained a qualification through their apprenticeship, this is therefore indicated in the appropriate qualification variable, and not in the apprenticeship variable.

Of the remaining variables used in the analysis, the wage data used are real hourly wages (in logarithmic form, as is usual in the literature for estimating wage equations). All equations include, as controls, variables indicating age and age-squared, ethnicity, region, workplace size and (except in 1993, due to absence in the survey that year) public or private sector. The equations are estimated by Ordinary Least Squares. Of course, such an estimation technique is likely to lead to biased coefficients, because education is not an exogenous variable, but is chosen by individuals. There may be some characteristics of individuals that affect their choice of the level of education to

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that individuals acquiring these qualifications will actually suffer a reduction in their earnings following the acquirement.

acquire, and also in part determine their earnings. Unless such characteristics are controlled for, hence allowing education choice conditional on these characteristics to be viewed as exogenous, then the estimated coefficients will be biased[9]. It is unlikely that equations based on the LFS, with its limited availability of control variables, will successfully control for all variables that affect both education choice and earnings. Two obvious omissions are natural ability and family background. It is likely that omission of these variables will bias upwards the estimated coefficients on the qualification variables. However, there are other causes of bias inherent in using OLS, such as measurement error and a failure to include a likelihood of being in employment, that are likely to bias downwards the qualification coefficients. It was shown in the earlier report (Dearden *et al*, 2000) that controlling for all of those potential biases, which was possible using the much richer NCDS data set, actually gives coefficient estimates very similar to those obtained when none of these allowances are made. Intuitively, the various biases cancel out, leaving the OLS estimates as reasonable indicators of the true returns to the various qualifications. We will therefore appeal to this result again here, and take the OLS estimates presented below to be good estimates. It is to these estimates that we now turn.

3 Results

3.1 The returns to qualifications over time

Table 2 begins the results section by listing the estimated returns to all detailed qualifications for each of the years for which pay data is available in the LFS. All of the estimated returns control for a quadratic in age, ethnicity, region, workplace size and (except for 1993) public or private sector status. These variables generally attracted statistically significant coefficients of the expected sign.

[9] An alternative method to controlling directly for these characteristics is to use an instrumental variable approach, whereby some exogenous instrument is used for the education variable. Harmon and Walker (1999) discuss a number of potential variables with which to instrument education choices in the UK, such as changes in the school leaving age laws, the ratio of youth earnings to adult earnings, the level of grants available for further study, and the ratio of entrants to university to the 18-20 age cohort, to pick up possible rationing of places. The results reveal the IV results to be actually larger than the OLS returns, presumably because they refer only to the marginal group affected by the instrument, rather than the whole population, as OLS does.

Recall that there is a break in the data collecting methodology in the LFS between 1995 and 1996. Prior to 1996, respondents are only asked to record their three highest qualifications, whereas following the change in 1996, respondents list all qualifications that they hold. In the first three years of our analysis, therefore, there is a possibility that we are not observing all qualifications held by some respondents (i.e. those with more than three qualifications), and so the estimated returns to the qualifications that we do observe will be conflated with the returns to the qualifications that we do not observe. Obviously, this will be more a problem for individuals who have reached the higher qualifications levels and who are therefore more likely to have acquired more than three qualifications. Looking at the results in Table 2, we can see that this is the case, with the estimated returns to higher degrees being a particular problem. The most likely route towards acquiring a higher degree will be the academic route of GCSEs, A levels, first degree and higher degree, in which case the GCSE qualifications would not be recorded amongst virtually all such respondents prior to 1996, and so the estimated returns to a higher degree would be biased upwards by including the returns to GCSEs as well. This is exactly what we observe in Table 2, with the estimated returns from a higher degree falling by about 15 percentage points between 1995 and 1996. For many of the lower level qualifications, however, such a bias will not be involved, because most respondents with those qualifications will not have three or more other qualifications at a lower level. In addition, there is little evidence of a reverse bias on the returns to these qualifications. The previous section described how, prior to 1996, we only observe low level qualifications being held by individuals with no higher qualifications (otherwise the low qualifications would not feature amongst their three highest qualifications), while from 1996 onwards we observe all individuals holding low level qualifications. Thus, prior to 1996, the estimated coefficients on these low level qualifications may have been downwardly biased. As stated, however, there is no evidence for the estimated returns to low level qualifications being consistently lower pre-1996 compared to post-1996, and so there is no evidence of this bias. It would therefore appear that the returns to these low level qualifications do not depend on further qualifications obtained. For the lower level qualifications, we can therefore consider the whole period from 1993 to 2001 as a continuous time series, with any negative ability bias that does exist being no stronger prior to 1996 (when the low

qualification holders observed are more likely to be those without higher level qualifications) than post 1996 (when we observe all low level qualification holders).

Male returns to academic qualifications

In any one year, the relative magnitudes of the returns to the various qualifications are as documented in Dearden *et al* (2000). Thus, for males in Table 2, the returns to a degree are about 24-29 per cent[10], the returns to acquiring two or more A levels are 15-17 per cent, and the returns to acquiring five or more good (grade C or above) GCSEs are about 26-31 per cent. Since we measure and include all qualifications held by individuals, the dummy variables indicating the acquirement of each qualification are not mutually exclusive. Hence, in each case, the interpretation of the coefficient is the earnings of someone holding the qualification in question, compared to an individual who does not. As always with regression equations, the comparison is made *ceteris paribus*, that is holding all other variables included in the analysis constant, which of course includes the other qualifications held. Thus, for example, the coefficient on the degree variable indicates that graduates earn 24-29 per cent more than non-graduates, holding constant other qualifications obtained across this comparison[11]. In a similar way, the estimated returns to a low qualification, for example a City and Guilds 'other' qualification will be measured relative to all individuals who do not hold such a qualification. The comparison group therefore will include amongst their number graduates who have no vocational qualifications. Of course, this fact is controlled for via the inclusion of the degree variable, and so it is a fair comparison. We would be comparing an individual with a City and Guilds 'other' qualification to an individual without such a qualification *holding constant all other qualifications obtained across the comparison*[12]. Note that in the 'all qualifications' specifications used throughout this report, the returns are cumulative, so an individual acquiring all three of the

[10] Calculated as $e^{\beta} - 1$, where β is the estimated coefficient in the log wage equation, as listed in the tables.

[11] Essentially we are saying that, regardless of other qualifications obtained, a degree will increase earnings by 24-29%. This ignores the possibility that there are interactions amongst the qualifications, so that, for example, a degree might be more valuable to someone without A levels than someone with A levels (or indeed vice versa). It is not possible to investigate all possible interactions between qualifications, as cell sizes would quickly diminish when considering less popular combinations of qualifications. Section 3 (iv) below will consider how the returns to post-school qualifications vary according to school qualifications obtained, however.

[12] There remains the possibility that the 'treatment' group with the qualification differ from the 'control' group in some unobserved way, for example in terms of natural ability. Of course this is the same problem that occurs in all estimated returns to education studies where the endogenous nature of education choice is not fully controlled for, and omitted ability bias arises.

academic qualifications described above could expect to increase his or her earnings by the cumulative sum of the estimated returns (i.e. somewhere in the order of 70 per cent).

It is interesting that the distinctions, not made in the earlier report (Dearden *et al*, 2000) due to the limitations of the other data sets used, between obtaining 2 or more A levels or only 1, and between obtaining 5 or more good GCSEs or less than 5, are important to the estimated returns. The estimated returns to a single A level are only 4-9 per cent (compared to 15-17 per cent for two or more), while the estimated returns to obtaining less than five good GCSEs is only 15-17 per cent (compared to 26-31 per cent for five or more). These distinctions have been used in classifications of qualifications to NVQ levels, for example, individuals with only 1 A level are often classified to NVQ level 2 rather than level 3, while individuals with less than five good GCSEs are often classified to NVQ level 1 rather than level 2. The results presented here suggest that such distinctions are appropriate.

Of the remaining academic qualifications, the two higher education, sub-degree categories, other HE and HE diploma[13], attract returns of around 5-10 per cent and 2-8 per cent respectively, and therefore do not appear as valuable in the labour market as the more typical academic qualifications. At the other end of the scale, low grade GCSEs (grades D-F) also yield only 6-11 per cent returns[14].

Male returns to vocational qualifications

Turning now to the vocational qualifications, the largest returns are received, as expected, by graduate level professional qualifications (such as in law or accountancy), which raise wages by 36-50 per cent for men[15]. Below this, however, the returns to vocational qualifications are not as high, and in particular are not as high as the academic qualifications at the notionally same NVQ level[16]. At NVQ level 4, teaching

[13] Note that the returns to these two qualifications also appear to be heavily biased upwards prior to 1996, as there is a substantial fall in their estimated returns from 1996 onwards. It would appear that both of these qualifications are typically preceded by at least 3 other qualifications.

[14] Falling outside this range was a statistically insignificant estimate of just 3% in 2001.

[15] However, recall the discussion in the previous section which predicted that the coefficient on the professional qualifications variable would be biased upwards, since individuals with such qualifications are not given the opportunity to also record any degrees that they hold. The observed returns to professional qualifications are therefore likely to be conflated with the returns to degrees.

[16] Though consideration should be given to the amount of time required to obtain these qualifications, as was done in Dearden *et al* (2000), to derive a truer *rate of* return to the various qualifications. When this

qualifications receive a return of about 5-11 per cent, nursing qualifications 6-14 per cent and HNC/HNDs 13-15 per cent for men[17], while at level 3, Advanced Craft City and Guilds qualifications receive a return of around 4-10 per cent and ONC/ONDs 8-13 per cent. Craft level City and Guilds qualifications also seem to earn a significantly positive return for men of around 4-8 per cent, but all other low level vocational qualifications do not appear to attract any statistically significant positive return[18]. Indeed, many of the estimated returns are negative. It should not be concluded that an individual acquiring such qualifications would actually suffer a wage penalty, however. It is instead likely that our wage equations are not controlling for important characteristics of individuals that influence wage outcomes. Thus, the type of individual who applies for and acquires a low level vocational qualification is likely to be the type of individual with low earning power in the labour market, causing the observed negative correlation. This does not mean, however, that such individuals are penalised for acquiring such qualifications.

Female returns

The results for women are contained in Table 3. The range of estimated returns to the key academic qualifications are virtually identical to those estimated for males (25-27 per cent for first degrees, 14-16 per cent for two or more A levels and 24-30 per cent for five or more GCSEs). Thus, there appears to be little evidence for better returns to academic qualifications for women. With respect to vocational qualifications, the more beneficial qualifications for women to obtain differ from those for men. In addition to professional qualifications again, the vocational qualifications with the highest return for women are teaching (27-32 per cent) and nursing (15-18 per cent) qualifications. HND/HNCs earn a 7-9 per cent return for women (lower than the equivalent return for men) while ONC/ONDs earn a 5-11 per cent return. There is some evidence for a positive return to higher level RSA qualifications in some years, but no evidence for a positive return to more craft-based qualifications such as City and Guilds qualifications

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is done, the gap between the rates of return to academic and vocational qualifications closes. Such an analysis will not be repeated here, however.

[17] Note that the estimated returns to some of these qualifications appear to be biased upwards prior to 1996, particularly for teaching qualifications and HNC/HNDs.

[18] Note however that other work has found positive effects of these lower level vocational qualifications on employment probabilities. For example, our earlier work in Dearden *et al* (2000) found that NVQ qualifications at both level 1 and level 2 have statistically significant positive effects on the probability of employment for women.

for women. The differences therefore reflect gender differences in the type of vocational qualifications studied, with men benefiting more from craft-based qualifications, while women see higher returns to teaching, nursing and, to a lesser extent, higher RSA qualifications[19]. As for men, however, other low level vocational qualifications fail to attract statistically significant positive returns for women.

Variation in returns over time

Turning now to one of the key questions of interest in this study, how have the returns to the various qualifications varied over time? The answer is, remarkably little. If we compare the estimated returns to each of the qualifications in 2002, they are very similar to those obtained in 1996 (or in 1993, if a comparison with the earlier years appears valid, for example for the lower level qualifications). Many 2002 coefficients are within 1 or 2 percentage points of their 1996 or 1993 equivalents. For example, consider the key academic qualifications. The estimated coefficient on the degree variable for men is 0.253 in 2002 and 0.221 in 1996 (0.235 and 0.234 respectively for women). Similarly, with respect to 2+ A levels, the estimated coefficient for men is 0.138 in 2002, 0.157 in 1996 and 0.169 in 1993 (0.144, 0.135 and 0.149 respectively for women). For obtaining 5 or more GCSEs at grade C or above, the estimated coefficient for men is 0.246 in 2002, 0.269 in 1996 and 0.233 in 1993 (0.219, 0.232 and 0.252 respectively for women). The pattern is similar for the key vocational qualifications (which, recall, differ according to gender). The estimated coefficient on the HNC/HND variable in the male equations is 0.131 in both 2002 and 1996. For ONC/OND s, the estimated coefficient changes from 0.107 to 0.072 between 1996 and 2002. For women, the estimated coefficients on the teaching and nursing qualifications are 0.264 and 0.150 respectively in 2002, compared to 0.267 and 0.154 respectively in 1996.

Thus, there appears to be very little evidence for any change at all in the estimated returns to various academic and vocational qualifications over the 1990s. The increase in the proportion of the working age population holding some of the higher level, particularly academic, qualifications, as observed in Table 1 above, therefore does not seem to have had a dampening effect on the returns to these qualifications. Performing

[19] As a consequence of this gender division, we also observe higher standard errors for non-gender-typical qualifications (such as craft-based vocational qualifications in the female equation) making it more difficult to obtain statistically significant coefficients in these cases.

formal statistical tests of the change in the estimated coefficients between 1996 (or 1993 if deemed appropriate) and 2002 reveals very few statistically significant changes in the estimated coefficients. An exception is the estimated return to low grade GCSEs for women, which has declined from just under 10 per cent to zero for over the 1990s. Where once such low level school-leaving qualifications were valued in the labour market, it now appears that they confer very little benefit to their holders, for women at least. The only other statistically significant change over the period considered is a fall in the return to the lowest City and Guilds qualifications for men, which have fallen away to insignificance by the end of the 1990s, after attracting a small positive return in the earlier part of the decade.

3.2 The returns to qualifications in the public and private sectors

A second area of interest for this research project is how the estimated returns to the various qualifications differ between the public and private sectors. The results are detailed in Tables 4 and 6 for men and in Tables 5 and 7 for women.

Academic qualifications in the two sectors

We consider the situation for males first. The fact observed above in the overall results, that the estimated returns have not varied much over time during the 1990s, is on the whole also apparent when the results are disaggregated into public and private sectors, and so the comparison that follows will focus mainly on the difference across sectors in the level of estimated returns in 2001. The first point to be made when comparing Tables 4 and 6 is that the returns to the higher level academic qualifications are greater in the private sector than in the public sector[20]. Individuals with such qualifications will therefore receive a better return on their investment in human capital in the private sector. Thus, for example, holding a first degree raises wages by 29 per cent in the private sector in 2001, compared to just 17 per cent in the public sector. Similarly other HE qualifications below degree level increase wages by 3 per cent and 13 per cent in the public and private sectors respectively, while the equivalent effects for holding two

[20] Interpreting these sectoral differences is not easy. For example the returns to degrees are estimated to be higher in the private sector than in the public sector. It is not clear, however, whether this is due to graduates earning more in the private sector than in the public sector, or due to non-graduates earning less in the private sector than in the public sector.

or more A levels are 12 per cent and 18 per cent respectively. The differences in the first degree and A level returns are statistically significant. The same findings are not observed for women, however, for whom the returns to higher level academic qualifications are more similar in the two sectors (25 per cent and 30 per cent returns to a first degree in the public and private sectors respectively, and 15 per cent and 16 per cent returns to two or more A levels in the public and private sectors, respectively, neither difference being statistically significant).

For lower academic qualifications, the situation is reversed. Thus, although women with five good GCSEs earn a 27 per cent return to these qualifications in the private sector, in the public sector their return is only 17 per cent in 2001. For males, on the other hand, the return to five good GCSEs is very similar in the two sectors; 28 per cent in the public sector and 26 per cent in the private sector (in 2001, the private sector return having been about 30 per cent in most of the earlier years). Finally on the academic side, it was noted above that the returns to low (grades D-F) GCSEs have declined to zero for both males and females by 2001. The results in Tables 4-7 show that this is the case in both the public and the private sectors; in neither do the low level GCSEs appear to have any market value by 2001.

Vocational qualifications in the two sectors

Turning now to vocational qualifications, one anticipated result was that teaching and nursing qualifications would yield higher returns in the public sector than in the private sector, because of the occupations to which they lead. Most individuals working in the public sector with a teaching or nursing qualification are actually working in these professions. While some individuals working in the private sector with these qualifications are still working in private education or private health institutions, the majority are working in unrelated occupations, however, presumably having turned their backs on teaching and nursing, and are therefore not specifically using the training that they received. We would not therefore expect the holding of nursing and teaching qualifications to have much effect on the wages unearned in these unrelated private sector occupations. This is indeed the case, the holding of teaching and nursing qualifications having no impact on the earnings of those men working in the private sector, while increasing the wages of men working in the public sector by 12 per cent and 10 per cent respectively. Similarly, the hourly wages of women working in the

public sector are increased by 32 per cent and 19 per cent on average through the holding of teaching and nursing qualifications respectively. Nursing qualifications also seem to boost the earnings of women working in the private sector, by 13 per cent, although the impact of teaching qualifications for women in the private sector is statistically insignificant.

Other high level vocational qualifications follow their academic counterparts in yielding a higher return in the private sector than in the public sector, in this case for both men and women. Thus, the returns to HNC/HNDs for men are 4 per cent in the public sector but 16 per cent in the private sector (zero and 14 per cent respectively for women), while the returns to ONC/ONDs are 7 per cent in the public and 11 per cent in the private sectors for men (6 per cent in both sectors for women). The findings are similar for the craft-based City and Guilds qualifications, none of which earn significantly positive returns for either men or women in the public sector. In the private sector, Advanced Craft and Craft level City and Guilds qualifications yield significantly positive returns for men, and Craft level City and Guilds only for women. Of the remaining vocational qualifications, it was observed above in the aggregate data that none attracted positive and statistically significant coefficients. In the sectoral analysis, this conclusion is modified slightly, in that NVQ levels 3-5 qualifications appear to yield small but significant returns in some years for both men and women working in the private sector, though no benefit is accrued working in the public sector.

3.3 Pseudo cohort analysis

Tables 8 through to 20 contain the results for the estimated returns to all of the qualifications, for the various pseudo cohorts in the LFS (those initially aged 21-25, 26-30, 31-35, 36-40, 41-45, 46-50 and 51-55 in January 1993). The initial plan behind the pseudo cohort analysis was to use the estimated returns to build a picture of the lifetime age-earnings profiles of individuals with the various qualifications, by following one cohort over the years 1993 to 2001, and then overlapping the estimated returns for the subsequent cohort, and so on, as described above in the Introduction. However, in the case of most qualifications, the estimated coefficients do not display a smooth pattern, and so their usefulness for the proposed task is doubtful.

The reason for the somewhat erratic nature of the estimates, often rising and falling in successive years, is probably due to the small sample sizes in each of these pseudo cohort equations (around 2,500 in the 1993-1996 equations, around 5,000 in the 1997-2000 equations and around 3,500 in the 2001 equation for males, and about half these figures for females). The numbers holding each qualification within each pseudo cohort are obviously thus also reduced relative to the full samples, leading to less precision in the estimated coefficients (evidenced by the higher standard errors). Most estimated standard errors in the cohort equations are at least 0.025, with the standard errors on the vocational qualifications (which are held by fewer individuals than the key academic qualifications) being somewhat higher, at best about 0.03 and in some cases considerably higher. When one considers that a 95 per cent confidence interval for an estimated coefficient is approximately four standard errors wide, this means that the confidence intervals for the coefficients on the academic qualifications are at least 10 percentage points wide, while those for the coefficients on the vocational qualifications are at least 12 percentage points wide, and often larger. It is therefore perhaps to be expected that as we take repeated point estimates within these confidence intervals (as we are doing for each of the individual years) then there might not be a stable pattern of results[21].

Nevertheless, the results of the pseudo cohort analysis are not entirely without use. A few observations can be made. First, comparing the returns to the various qualifications across the various cohorts, there does not seem to be a very large difference in the average estimated returns (abstracting from the annual fluctuations in the estimated returns across years for a single cohort). The estimated returns to each of the qualifications, described above for the full sample, therefore seem to hold, at least to a

[21] We attempted to reduce this problem by grouping the various qualifications together, thus increasing cell sizes and reducing standard errors and hence the range of the confidence intervals within which the point estimates are obtained. The groups of qualifications used were some kind of degree (higher and first degrees), some other HE qualification (other HE and HE diploma), A levels or equivalent (2+ A levels, 1 A level or A/S levels), GCSEs at some grade (5+ GCSEs A*-C, 1-4 GCSEs A*-C, GCSEs D-F), professional qualifications, vocational level 4 qualifications (teaching qualifications, nursing qualifications, HNC/HND), vocational level 3 qualifications (RSA Higher. C&G Advanced Craft, ONC/OND NVQ3-5), vocational level 2 qualifications (C&G Craft, NVQ2), vocational level 1 qualifications (RSA lower, C&G 'other', BTEC diploma, NVQ1) and other qualifications. Despite the use of these larger qualifications groups, the results are still not consistent enough to trace out a stable age-earnings profile. The general pattern of the results in these tables is broadly consistent with that of the main set of results for the list of detailed qualifications, and so the former will not be discussed further here.

first degree of approximation, in each of the cohorts that we observe. Thus it does not seem to be the case that returns rise or fall as individuals get older.

There are some exceptions to this general rule, however. For example, consider first degrees. For males, the results in Table 8 show that for the youngest cohort (those aged 21-25 on January 1st 1993, the returns to a degree increase each year from around 12 per cent in 1993 to around 31 per cent in 2001[22]. We know that these changes cannot be cohort effects, because we are considering a single (pseudo) cohort, so the reason for the increase in the returns to a first degree over the decade could be either a time effect or an age effect. Given that the aggregate results for the full population in Table 2 suggested that the returns to a first degree have been roughly constant over the period considered, it seems reasonable to suggest that the results observed for the (initially) 21-25 year old cohort in Table 8 are age effects, and that the returns to holding a first degree amongst these men do increase as they age from 21-25 years old in 1993 to 29-33 years old in 2001. This increase in the returns to a first degree seems to end when men move into their early thirties however. If we consult the results for the older cohorts in the subsequent tables, we see that the returns to a first degree stay reasonably constant in the 20-30 per cent range. Of course, there is now the potential that we are confusing age and cohort effects, as we are considering different (pseudo) cohorts of men, and it may be that our youngest cohort differ in some way from the oldest cohort, such that the degree returns will continue rising when they are aged in their thirties, and throughout their working lives, whereas the degree returns for the older cohorts remain constant with age. While such a possibility cannot be ruled out on the basis of the evidence presented here, it is very difficult to think of a reason why the youngest cohort should have these different characteristics, and it would appear that more faith could be put in the age effects explanation. It is therefore concluded that the returns to a degree for men rise with age throughout their twenties, before reaching a plateau and staying roughly constant throughout the remainder of their working lives[23]. For women the

[22] For the aggregate results discussed above, the 1993-1995 first degree results were not used, because of the bias inherent in these coefficients due to the LFS only asking about the highest three qualifications in these years. However, recall that these coefficients should be biased upwards, so if anything, the increase in the returns to a degree over the decade for this cohort is even greater than suggested by the results in Table 8.

[23] The exception is the oldest cohort of men, initially aged 51-55 in 1993, for whom the results in Table 20 clearly show that the returns to a degree are well over 30% in each of the years studied except 2001. While it is possible that the returns to a degree do undertake a sudden rise at the end of mens' working lives, after years of staying relatively constant, the possibility of cohort effects seems more likely in this

results are very similar. Considering only the years 1996-2001[24], there was an increase in the returns to a degree in each year for those initially aged 21-25, as shown in Table 9, increasing from 17 per cent in 1996 to 28 per cent in 2001[25]. For the older female cohorts in the subsequent tables, however, the returns to a first degree are fairly constant, showing the usual yearly fluctuation evident in all of these pseudo cohort analyses around an average of about 25-28 per cent.

There is also some evidence of a similar, if less dramatic, effect for another key academic qualification; namely 2+ A levels. For example, the male cohort who are initially aged 21-25 at the beginning of 1993 earn a 9 per cent return to possessing two or more A levels, which increases up to 15 per cent by 2000 (although the variation in returns across years sees the point estimate fall to 12 per cent in 2001). For all subsequent male cohorts, however, these returns fluctuate across the years studied around a mean level somewhere in the range 17-20 per cent. Similarly, the returns to two or more A levels begin at 10 per cent for the initially 21-25 year old female cohort in 1993, rising to 17 per cent by 2001 (again falling to 15 per cent in 2001). In all subsequent female cohorts, however, we do not observe further increases in the returns to two or more A levels with age, which average just under 20 per cent across the various years of the study in each cohort.

There is little evidence of such an increase with age in the returns to obtaining five or more good GCSEs, at least for males. These returns generally average in the mid to high twenties range for each of the cohorts for men. There is some evidence that they average above 30 per cent in the cohorts who are initially 41-45 and 46-50 years old. It is difficult to explain why the returns to GCSEs should suddenly take a turn for the better at this age, however, and it seems more likely that we are witnessing cohort effects rather than age effects here. For women, there is some evidence for rising returns to five or more good GCSEs in the early years of their careers. These returns

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case, such that individuals who were born between 1937 and 1941 and obtained degrees are quite different from subsequent generations of graduates. Certainly it would be unwise for current graduates to expect a boost to their income late in their working lives, on the basis that individuals born 40 years before them received such an increase.

[24] The 1993-1995 results are not discussed here for women, because there is a steep fall in the estimated returns to a degree for initially 21-25 year old women between 1995 and 1996, suggesting the importance of the usual upwards bias in the coefficients for the early years of the period.

[25] This is very similar to the increase in the returns to a degree for young men over the same period, as observed above in Table 8.

range from 15 per cent to 26 per cent during the period of study for the cohort initially aged 21-25, although not showing a monotonic increase during the period, as generally witnessed for degrees and A levels. For the cohort initially aged 26-30, this range is from 19 per cent to 33 per cent, and from 27 per cent to 35 per cent for those aged 31-35 in 1993. After this, the returns to five or more good GCSEs level out for women, and average just less than 30 per cent for each of the subsequent cohorts.

Turning to vocational qualifications, there is much less evidence for a similar pattern of returns initially rising with age, and then reaching a plateau in the early 30s. On the whole, the estimated returns to each of the vocational qualifications are very similar, on average, for each of our pseudo cohorts. A possible exception is the HNC/HND qualification for men, for whom the average returns across the years increase slightly as we move through the cohorts, but this is only slight, and the range of estimated returns across the years clearly overlap for each of the cohorts, so there is no statistically significant increase in the returns to HNC/HNDs for men with age, at least until we reach the final cohort (initially aged 51-55), for whom there does seem to be some evidence of statistically higher returns. We have seen a similar phenomenon amongst this cohort for the academic qualifications, however, and it is more tempting to assign this to a cohort effect than to any age effect.

No other vocational qualifications appear to show any age effect in terms of rising returns. Searching for cohort effects rather than age effects, a possible hypothesis could have been that we may observe higher returns to the craft-based qualifications, such as the City and Guilds qualifications or apprenticeships, amongst the older cohorts, who have obtained good jobs in earlier years through these qualifications, and are still gaining the higher returns in the 1990s, while such qualifications may not be valued as highly amongst the younger cohorts as they search for appropriate jobs and career paths. There is no evidence of such an effect, however, with the returns to Advanced Craft and Craft City and Guilds qualifications displaying a similar average level (somewhat less than 10 per cent) for all cohorts of men in each case, while there are no

statistically significant positive coefficients for 'City and Guilds other' or 'apprenticeship without qualifications' in any of the years for any of the cohorts[26].

A similar picture emerges for women, with few vocational qualifications revealing any clear patterns of returns with respect to age. The exceptions to this rule for women are the teaching and nursing qualifications. The returns to these qualifications definitely seem to increase with age. Thus amongst the female cohort initially aged 21-25, the returns to a teaching qualification average out at 18 per cent for the six years from 1996 to 2001, with the returns to a nursing qualification similarly average out at 7 per cent. The following cohort receives little if any improvement on these returns. However, by the time we reach the cohort initially aged 31-35 in 1993, there appear to be definite increases in the estimated returns to nursing qualifications (averaging out at 17 per cent across the six years), and smaller increases in the returns to teaching qualifications (averaging at 21 per cent). In the following cohort (initially aged 36-40 on January 1st 1993), the returns to teaching qualifications also show this definite step up in returns (ranging from 24 per cent to 33 per cent between 1996 and 2001). The increase in returns then continues into the final cohorts of women, those aged initially 41-45 receiving returns of over 30 per cent to teaching qualifications and over 15 per cent to nursing qualifications in every year studied. The final cohort of women (initially aged 46-50) receive returns to nursing qualifications above 23 per cent in every year studied. Thus, there appears to be a general increase in the estimated returns to these professional vocational qualifications for women, who dominate these professions. Of course this conclusion is based on our cohort analysis, and so it is possible that we are observing cohort effects rather than age effects, and that teaching and nursing qualifications newly gained will not display this pattern of rising returns with age for future cohorts. However, in this case, the age effect interpretation seems entirely reasonable, given the public sector nature of these professions, with the attendant use of salary pay scales that are navigated mainly according to tenure. In addition, promotions to the more senior, administrative, and better-paid posts in these professions are almost always awarded on the basis of age and seniority. Thus it appears that women with teaching and nursing qualifications working in these professions have to wait to receive

[26] With the exception of a single statistically significant estimated return of 10% to an apprenticeship without qualifications in 1998 for men initially aged 51-55 in 1993.

the highest returns to these qualifications, but eventually they do increasingly earn more than women without these qualifications.

3.4 The returns to academic and vocational qualifications by highest school qualification obtained

The final piece of analysis in this report is an investigation of how the returns to all of the non-school qualifications vary, according to the highest level of qualifications gained at school. So far, we have implicitly assumed that the returns to each qualification are the same for all individuals. However, this may not be the case, and what we might have been observing in the estimated returns above is an average return across all individuals, which nevertheless differs greatly. The analysis in this section attempts to remedy this situation by classifying respondents in the LFS according to the highest level of qualification obtained at school, and then estimating the wage equations separately for each group. Six unique groups are identified; those who did not achieve any school level qualifications at all, those whose highest school qualification was a GCSE at grades D-F (or its equivalent), those whose highest school qualifications were 1-4 GCSEs at grade C or above (or their equivalent), those whose highest school qualifications were 5 or more GCSEs at grade C or above (or their equivalent), those whose highest school qualifications was 1 A level (or its equivalent)[27] and finally those whose highest school qualifications were at least 2 A levels (or their equivalent). The idea behind the analysis is to estimate the returns to qualifications for the marginal student (i.e. the last student to obtain a qualification) rather than for the average student. It seems reasonable to assume that the marginal student will come from the lower school qualification groups (no qualifications and GCSEs at grades D-F), at least for the lower level post-school qualifications, and so more attention will be focused on these groups in the discussion. Of course, extra students onto each qualification will come from each of the school qualifications groups identified. However, the problem for us is that we cannot identify which individuals were just indifferent between taking a qualification or not, and which individuals were always going to study for that qualification. Very few characteristics of individuals are available in the LFS, with which we could make such an identification of education choice. The level of

[27] Included in this group were the few respondents for whom A-S levels were the highest school qualification obtained.

qualifications obtained at school will, however, play a part in future decisions about which qualifications to undertake, and so we use this as our definition of marginal students, the assumption being that individuals with low qualification achievements at school are, on average, less likely to study for further qualifications post-school.

We saw in the previous section that results can become quite erratic over time when we reduce cell sizes, and so there is a risk that the same will happen with the marginal student analysis, as we divide the population into level of highest qualification at school. Therefore, since the results at the beginning of Section 3 suggested that the returns to qualifications have been very stable over the period considered in this report, we decided to pool the observations from the years for which we have consistently measured qualifications information, namely 1996-2001, and estimate a single equation for each level of school achievement across these years.[28] The results are contained in Tables 21 and 22 for males and females respectively.

Male Returns by Highest School Qualification

Considering first men, we examine first the estimated returns to a degree. These returns are huge (54 per cent) for the group with no school qualifications. This should not come as a surprise. Any individual who did not even achieve a single GCSE qualification at grades D-F, but nevertheless goes on to achieve a degree, is going to very much stand out amongst their group of peers with a similar lack of school level qualifications, and so we would expect them to earn very much more. For those with no school qualifications, the rewards to obtaining Higher Education qualifications will be very high compared to what their situation would otherwise be. However, not too much should be made of this result, as the number of individuals who obtain no qualifications at school, and yet go on to obtain a degree, is very small.[29] It might have been expected that a similar situation would occur for the group with the lowest level of school qualifications (GCSEs at grades D-F), but this does not seem to be the case, with the estimated returns to a degree for this group being the lowest of all the groups considered, at 13 per cent. Considering the returns to a degree amongst the remaining

[28] This approach was not adopted in the cohort analysis above, because the original motive for that analysis was to map out age-earnings profiles for the various qualifications, thus making variations over time crucial.

[29] In addition, given the exceptional nature of this circumstance, we might worry about measurement error, with some graduates simply not bothering to record their school qualifications in the survey (although the survey does specifically ask them to record all qualifications that they hold).

four groups, who hold at least one GCSE at grades A*-C, these are remarkably similar, ranging only between 14 per cent (one A level) and 20 per cent (2+ A levels). The return to a degree therefore seems to be largely independent of the level of school qualification held, as long as some school qualifications are held.

The same conclusion is not reached with respect to most of the other higher level qualifications, however. For example, the returns to a higher degree appear to be less for the 2+ A level groups than for the lower achievers at school. Similarly, other Higher Education qualifications below degree level (other HE and HE diploma) both fail to attract statistically significant returns for either of the A level groups, while they are of benefit to individuals who obtain at best GCSEs or below at school. Indeed, the only other qualifications to yield statistically significant returns to the 2+ A levels group are professional qualifications (32 per cent), teaching qualifications (2 per cent) and 'other' qualifications (4 per cent). The group who obtained at best only 1 A level at school in addition receive some benefit from HNC/HNDs and BTEC diplomas. It does not seem to be worthwhile for individuals who have reached A level standard at school taking any further qualifications other than degrees or professional qualifications[30].

It might seem surprising that an HNC/HND qualification yields no positive return to individuals with two or more A levels. After all, an HNC/HND is notionally a level 4 qualification, while holding two or more A levels puts an individual at level 3. However, as we have seen, an HNC/HND adds nothing to the market value of individuals who have achieved two or more A levels. The main benefit of such qualifications would therefore appear to be for those with at best lower level school qualifications. As we move down the spectrum of school level qualifications, the value of an HNC/HND qualification grows, as expected being very high for the group with no school level qualifications, for the same reasons as discussed above.

[30] In actual fact we observe negative coefficients on all lower level vocational qualifications for the group with two of more A levels. This is likely to be again due to omitted variable bias, with those individuals with two or more A levels but nevertheless choosing to study for a lower level vocational qualification being less able in some unobserved way from the average 2+ A level student, and so earning less in the labour market for this reason. It should not be concluded that individuals with 2 or more A levels will actually suffer a wage penalty for undertaking a low level vocational qualification, rather that there is just no evidence that it will have any beneficial effect.

Considering the lower level qualifications, and their benefit to individuals with lower level school qualifications, those males with at best five or more good GCSEs obtained at school earn an 8 per cent return to an ONC/OND. A BTEC diploma and an NVQ qualification at levels 3-5 also yield positive and statistically significant returns of about 4 per cent each to this group. Going down further to the group of males with at best one to four good GCSEs from school, they receive slightly higher returns to each of these qualifications, specifically 14 per cent to an ONC/OND, 5 per cent to a BTEC diploma and 5 per cent to an NVQ3-5 qualification.

Of key interest are the returns to vocational qualifications at levels 2 and 3 for the group with no, or very low, school qualifications, since these are likely to be the marginal students it is hoped to attract onto such courses. Therefore we do not consider the high returns to a degree that were observed above for this group, because of the unusualness of this situation, and instead focus on the benefits of obtaining lower level vocational qualifications for this group who have struggled in school. The results reveal that for males with no school qualifications at all, an ONC/OND qualification raises wages by 16 per cent, a City and Guilds Advanced Craft or Craft qualification both by 6 per cent and a low level City and Guilds qualification by 2 per cent, while an NVQ qualification at levels 3-5 raises their wages by 8 per cent. In addition, an apprenticeship without qualifications attracts a statistically significant positive return amongst the no school qualifications group, of 6 per cent. It is still the case, however, that NVQ level 1 or 2 qualifications do not earn a statistically significant positive return, even amongst this group with no school level qualifications.

Female Returns by Highest School Qualification

Finally considering the returns to groups of women by highest school qualification, these are on the whole similar to the results discussed above for men. Thus, with respect to degrees, we observe little difference in the estimated returns across the various groups, with the exception of the expected large estimated returns to a degree for individuals who did not obtain any qualifications at school, which we again do not pay much attention to. Turning to vocational qualifications we again observe an HNC/HND only having positive returns to those school leavers with less than two A levels, so that, for both sexes, an HNC/HND appears to be a substitute for, rather than a complement to, good A levels. We know from the aggregate analyses above that

teaching and nursing qualifications are particularly valuable to women, and this shows up again in the disaggregated analyses. A teaching qualification appears to have the greatest return (37 per cent) for those women with five or more good GCSEs as their best school qualification. Such a qualification is still of considerable benefit to the 2+ A levels group, however, with a return of 21 per cent. A nursing qualification, on the other hand, does not lead to a significant return to women with two or more A levels, although yields large returns for all women with lower school achievements. As with HE qualifications, the returns to teaching and nursing qualifications are particularly high if women with no school qualifications manage to acquire them.

Concentrating on the group of women with no school qualifications, the vocational qualifications that we observe being of greatest value differ from those for men. This reflects the type of vocational qualifications taken by the two genders. In particular, amongst the craft-based qualifications (City and Guilds qualifications or an apprenticeship), only an Advanced Craft City and Guilds qualification yields a positive and statistically significant return for women, of 9 per cent. RSA qualifications, on the other hand, which were of no benefit to men, do increase the wages of women with no school qualifications at all RSA levels, by 13 per cent for a higher level RSA and by 11 per cent for a lower level RSA. As for men with no school qualifications, an ONC/OND qualification raises the earnings of women with no school qualifications, in this case by 10 per cent. Finally, we observe a positive return to NVQ qualifications at levels 3-5 for women with no school qualifications, of 7 per cent, while NVQ qualifications at levels 1 or 2 again fail to yield a positive return for women in this group, as was found for their male counterparts.

4 Conclusions

A number of important policy implications are derived from the preceding analysis. Perhaps one of the key findings is that the returns to almost all qualifications have remained constant throughout the period considered from 1993/1996 to 2001. This is important, given the growth in the numbers of students obtaining qualifications, particularly higher level academic qualifications. For example the proportion of working age adults holding a first degree has increased from 8.8 per cent to 12.1 per cent between 1993 and 2001, while the proportion holding at least two A levels has

increased from 13.9 per cent to 19.7 per cent over the same period. If the demand for such skilled individuals had stayed constant over this period, then we would have expected to see the wage received by individuals holding such qualifications to fall relative to that received by individuals without these higher level qualifications. This is not what we observe, however, with the steady returns to these qualifications suggesting that the demand for such skilled labour is rising as fast as its supply. Thus, we have not reached the point yet where there are too many young people going into Higher Education, which is obviously important given the proposed further expansions.

The analysis by public or private sector revealed that, although for men the returns to the higher level academic qualifications (degrees and 2+ A levels) are higher in the private sector than in the public sector, for women the returns to such qualifications are similar in the two sectors. In the light of current recruitment problems and staff shortages in the public sector, these results suggest that public services may be more successful in recruiting women with good academic qualifications than men. The reverse is true for individuals holding GCSE qualifications, however, suggesting that the public sector will be less successful in attracting women with lower level school qualifications. Considering vocational qualifications, with the exception of teaching and nursing qualifications, these seem to attract lower returns in the public sector than in the private sector. In fact, for all but the teaching and nursing qualifications just mentioned, HNC/HNDs and ONC/ONDs, the returns to all vocational qualifications are zero in the public sector. It is not obvious whether this is due to lower wages for individuals holding these qualifications in the public sector than in the private sector, or whether the alternative wages for non-holders are simply higher in the public sector. In either case, however, there seems to be little incentive at present for public sector workers to acquire non-professional vocational qualifications.

The pseudo cohort analysis was slightly disappointing in its outcomes, and so few policy-relevant points emerge in this section of the report. One result that should be highlighted, however, is that the returns to degrees rise with age until the early thirties, for both men and women. Thus, individuals considering an investment in Higher Education should take account not only of the starting wages of graduates, but how these grow faster than for other qualifications over the early years in work. In addition, the fact that the age-earnings profiles attached to degrees are very similar for both men

and women suggests that women should not be put off investing in Higher Education because they expect to have to take a career break at some point to raise children, since there does not seem to be a wage penalty for women in the estimated profile of graduate wages.

Finally, the analysis of returns by highest school level qualification suggests that those individuals least likely to participate in post-school education (that is the marginal students on post-school qualification courses), namely those individuals who did not acquire any qualifications while at school, can receive positive returns to a wide range of qualifications, in particular the vocational qualification at levels 2 and 3, which yield no benefit to individuals who achieved five or more good GCSEs or A levels at school. It is disappointing that the returns to NVQ qualifications at levels 1 and 2 still do not yield positive returns even amongst the group with no school level qualifications, however. This result will be partly due to omitted ability bias, whereby the individuals who acquire such low qualifications are possibly low-earners for some unobserved reason, but it is perhaps a worry that, even amongst the group of individuals with no qualifications obtained at school at all, there is still no evidence that those with NVQ level 1 or 2 qualifications earn more than those without these qualifications. Finally, at the other end of the scale, the only post-school qualifications that seem to yield a positive return to both males and females who achieve two or more A levels at school are degrees and professional qualifications, with female 2+ A level holders also benefiting from the acquisition of HE diplomas, other HE qualifications and teaching qualifications. If individuals achieve such levels at school, it does not seem to be worthwhile acquiring any other type of post-school qualification

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Table 1 The Proportions Holding Each of the Qualifications – all of Working Age

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
higher degree	0.020	0.021	0.022	0.018	0.019	0.022	0.024	0.025	0.026	0.027
first degree	0.088	0.090	0.095	0.092	0.099	0.106	0.112	0.117	0.122	0.125
other HE	0.007	0.008	0.008	0.009	0.009	0.010	0.010	0.012	0.011	0.010
HE diploma	0.010	0.012	0.013	0.021	0.014	0.015	0.016	0.017	0.016	0.017
A levels	0.173	0.185	0.191	0.207	0.213	0.219	0.226	0.232	0.237	0.241
2+ A levels	0.139	0.154	0.161	0.175	0.174	0.181	0.188	0.193	0.198	0.201
1 A level	0.034	0.031	0.031	0.032	0.037	0.037	0.030	0.037	0.037	0.037
A/S levels	0.003	0.003	0.002	0.003	0.004	0.004	0.004	0.004	0.008	0.013
GCSEs A*-C	0.415	0.435	0.445	0.522	0.530	0.538	0.548	0.557	0.564	0.572
5+ GCSEs A*-C	0.292	0.262	0.276	0.335	0.348	0.360	0.371	0.379	0.386	0.400
1-4 GCSEs A*-C	0.123	0.169	0.168	0.183	0.178	0.175	0.174	0.174	0.174	0.171
GCSEs D-F	0.070	0.078	0.075	0.047	0.048	0.049	0.048	0.045	0.043	0.044
professional qual.	0.042	0.037	0.039	0.020	0.015	0.017	0.018	0.018	0.018	0.018
teaching qual.	0.026	0.030	0.029	0.029	0.029	0.028	0.029	0.028	0.028	0.028
nursing qual.	0.024	0.026	0.027	0.026	0.026	0.026	0.026	0.025	0.025	0.025
RSA higher	0.006	0.007	0.004	0.004	0.004	0.004	0.003	0.003	0.003	0.003
RSA lower	0.063	0.069	0.072	0.072	0.075	0.075	0.074	0.072	0.070	0.067
C&G advan. craft	0.024	0.029	0.025	0.029	0.032	0.037	0.039	0.040	0.041	0.043
C&G craft	0.051	0.058	0.056	0.051	0.056	0.054	0.052	0.050	0.049	0.049
C&G other	0.046	0.046	0.047	0.092	0.083	0.075	0.072	0.071	0.071	0.070
HND/HNC	0.040	0.043	0.045	0.045	0.045	0.047	0.047	0.048	0.048	0.049
ONC/OND	0.040	0.046	0.043	0.040	0.040	0.040	0.042	0.041	0.041	0.042
BTEC diploma	0.010	0.010	0.009	0.011	0.012	0.011	0.009	0.008	0.008	0.008
NVQ 3-5	0.003	0.005	0.008	0.014	0.017	0.022	0.027	0.032	0.038	0.041
NVQ 2	0.005	0.009	0.014	0.022	0.026	0.029	0.034	0.037	0.042	0.045
NVQ1	0.002	0.004	0.005	0.007	0.010	0.011	0.012	0.013	0.014	0.015
other	0.223	0.282	0.301	0.319	0.387	0.389	0.385	0.382	0.369	0.376
apprenticeship	0.020	0.011	0.009	0.012	0.010	0.009	0.010	0.011	0.011	0.010
Observations	69492	68622	69471	67747	136730	134425	131358	126863	128168	125975

Data: Labour Force Survey.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Table 2 The Returns to Detailed Qualifications – All Full-Time Employees, Males

Qualification	1993[†]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
higher degree	0.270	0.303	0.264	0.112	0.091	0.074	0.101	0.130	0.130	0.126
	(0.021)**	(0.020)**	(0.019)**	(0.025)**	(0.015)**	(0.015)**	(0.015)**	(0.016)**	(0.015)**	(0.015)**
first degree	0.260	0.248	0.246	0.221	0.220	0.244	0.229	0.243	0.235	0.253
	(0.014)**	(0.014)**	(0.014)**	(0.014)**	(0.010)**	(0.010)**	(0.010)**	(0.010)**	(0.010)**	(0.010)**
other HE	0.169	0.174	0.210	0.089	0.052	0.067	0.076	0.091	0.075	0.053
	(0.038)**	(0.038)**	(0.032)**	(0.041)*	(0.025)*	(0.024)**	(0.024)**	(0.024)**	(0.026)**	(0.028)
HE diploma	0.170	0.127	0.230	0.077	0.055	0.081	0.041	0.072	0.019	0.077
	(0.029)**	(0.031)**	(0.028)**	(0.025)**	(0.021)**	(0.019)**	(0.020)*	(0.020)**	(0.021)	(0.020)**
2+ A levels	0.169	0.166	0.163	0.157	0.145	0.156	0.147	0.142	0.153	0.138
	(0.012)**	(0.012)**	(0.012)**	(0.013)**	(0.010)**	(0.010)**	(0.009)**	(0.010)**	(0.010)**	(0.010)**
1 A level	0.115	0.132	0.095	0.086	0.060	0.043	0.036	0.066	0.058	0.043
	(0.020)**	(0.019)**	(0.021)**	(0.023)**	(0.013)**	(0.014)**	(0.014)*	(0.014)**	(0.014)**	(0.015)**
A/S levels	**0.225**	**0.069**	**0.086**	**0.016**	0.025	-0.062	-0.008	0.025	0.006	-0.043
	(0.073)**	**(0.084)**	**(0.098)**	**(0.085)**	(0.041)	(0.043)	(0.044)	(0.035)	(0.032)	(0.033)
5+ GCSEs A*-C	0.233	0.273	0.246	0.269	0.264	0.261	0.259	0.270	0.248	0.246
	(0.009)**	(0.010)**	(0.009)**	(0.011)**	(0.008)**	(0.008)**	(0.008)**	(0.008)**	(0.008)**	(0.008)**
1-4 GCSEs A*-C	0.153	0.197	0.182	0.162	0.162	0.161	0.158	0.161	0.143	0.141
	(0.011)**	(0.010)**	(0.010)**	(0.010)**	(0.007)**	(0.007)**	(0.007)**	(0.008)**	(0.008)**	(0.008)**
GCSEs D-F	0.103	0.110	0.082	0.087	0.094	0.084	0.072	0.061	0.026	0.062
	(0.013)**	(0.012)**	(0.012)**	(0.014)**	(0.010)**	(0.009)**	(0.010)**	(0.010)**	(0.011)*	(0.011)**
professional qual.	0.352	0.378	0.325	0.318	0.334	0.329	0.368	0.361	0.356	0.409
	(0.014)**	(0.015)**	(0.015)**	(0.022)**	(0.017)**	(0.017)**	(0.017)**	(0.017)**	(0.019)**	(0.019)**
teaching qual.	0.194	0.174	0.174	0.046	0.060	0.059	0.044	0.080	0.076	0.103
	(0.024)**	(0.023)**	(0.019)**	(0.024)	(0.015)**	(0.016)**	(0.016)**	(0.017)**	(0.017)**	(0.016)**
nursing qual.	**0.071**	0.155	0.069	0.056	0.072	0.091	0.081	0.130	0.088	0.089
	(0.047)	(0.032)**	(0.034)*	(0.037)	(0.021)**	(0.024)**	(0.025)**	(0.026)**	(0.030)**	(0.026)**

Table 2 (continued)

Qualification	1993[†]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
RSA higher	**0.187**	**0.131**	**-0.062**	**0.044**	**0.122**	**0.033**	**-0.094**	**-0.036**	**-0.063**	**0.003**
	(0.135)	**(0.080)**	**(0.125)**	**(0.161)**	**(0.061)***	**(0.072)**	**(0.072)**	**(0.068)**	**(0.074)**	**(0.043)**
RSA lower	0.016	0.011	-0.017	-0.074	-0.087	-0.094	-0.075	-0.066	-0.067	-0.077
	(0.034)	(0.027)	(0.034)	(0.030)*	(0.020)**	(0.019)**	(0.019)**	(0.022)**	(0.018)**	(0.020)**
C&G advan. Craft	0.095	0.081	0.073	0.043	0.068	0.065	0.049	0.039	0.046	0.038
	(0.016)**	(0.013)**	(0.014)**	(0.014)**	(0.009)**	(0.009)**	(0.009)**	(0.009)**	(0.009)**	(0.009)**
C&G craft	0.076	0.059	0.054	0.002	0.035	0.081	0.073	0.078	0.066	0.075
	(0.011)**	(0.010)**	(0.010)**	(0.016)	(0.013)**	(0.014)**	(0.015)**	(0.016)**	(0.016)**	(0.016)**
C&G other	0.034	0.022	0.039	0.040	-0.000	-0.041	-0.038	-0.035	-0.035	-0.044
	(0.013)**	(0.013)	(0.013)**	(0.013)**	(0.012)	(0.012)**	(0.013)**	(0.015)*	(0.014)**	(0.014)**
HND/HNC	0.190	0.177	0.196	0.131	0.121	0.144	0.142	0.123	0.125	0.131
	(0.012)**	(0.012)**	(0.012)**	(0.014)**	(0.009)**	(0.009)**	(0.009)**	(0.009)**	(0.009)**	(0.010)**
ONC/OND	0.123	0.121	0.115	0.107	0.107	0.084	0.082	0.105	0.093	0.072
	(0.013)**	(0.012)**	(0.013)**	(0.013)**	(0.009)**	(0.009)**	(0.009)**	(0.010)**	(0.010)**	(0.010)**
BTEC diploma	0.066	0.002	-0.047	0.081	0.048	0.023	0.025	0.056	0.033	0.045
	(0.034)*	(0.033)	(0.033)	(0.027)**	(0.023)*	(0.021)	(0.022)	(0.023)*	(0.024)	(0.023)*
NVQ 3-5	**-0.021**	0.105	0.050	0.027	0.010	0.055	0.028	0.021	0.028	0.022
	(0.043)	(0.029)**	(0.033)	(0.027)	(0.015)	(0.014)**	(0.013)*	(0.011)	(0.011)**	(0.011)*
NVQ 2	**-0.134**	-0.161	-0.176	-0.065	-0.084	-0.062	-0.057	-0.084	-0.090	-0.093
	(0.053)*	(0.039)**	(0.028)**	(0.022)**	(0.014)**	(0.014)**	(0.012)**	(0.013)**	(0.012)**	(0.012)**
NVQ1	**-0.090**	**-0.201**	**-0.183**	**-0.130**	-0.104	-0.104	-0.136	-0.077	-0.069	-0.070
	(0.074)	**(0.067)****	**(0.043)****	**(0.040)****	(0.024)**	(0.024)**	(0.022)**	(0.019)**	(0.019)**	(0.020)**
other	0.057	0.067	0.073	0.043	0.051	0.052	0.046	0.054	0.059	0.048
	(0.008)**	(0.008)**	(0.008)**	(0.007)**	(0.005)**	(0.005)**	(0.005)**	(0.005)**	(0.005)**	(0.005)**

Table 2 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
apprenticeship	0.047	0.094	-0.082	-0.010	0.016	0.026	0.023	-0.004	0.021	-0.023
	(0.026)	(0.031)**	(0.037)*	(0.027)	(0.021)	(0.022)	(0.022)	(0.024)	(0.024)	(0.025)
Constant	-0.348	-0.367	-0.445	-0.492	-0.378	-0.353	-0.253	-0.164	-0.164	-0.175
	(0.051)**	(0.045)**	(0.043)**	(0.045)**	(0.031)**	(0.032)**	(0.032)**	(0.033)**	(0.033)**	(0.034)**
Observations	15320	15720	16430	16483	32540	32362	30552	28786	28786	28375
R-squared	0.42	0.43	0.42	0.41	0.42	0.43	0.42	0.41	0.41	0.41

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

Numbers in bold indicate estimates based on cell sizes of fewer than 100 observations.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region, workplace size and (except in 1993) public sector.

Table 3 The Returns to Detailed Qualifications – All Full-Time Employees, Females

Qualification	1993[T]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
higher degree	0.278	0.297	0.296	0.123	0.099	0.116	0.092	0.143	0.142	0.162
	(0.030)**	(0.028)**	(0.028)**	(0.029)**	(0.020)**	(0.019)**	(0.019)**	(0.019)**	(0.019)**	(0.018)**
first degree	0.314	0.279	0.252	0.234	0.228	0.236	0.221	0.220	0.245	0.235
	(0.016)**	(0.015)**	(0.015)**	(0.016)**	(0.010)**	(0.010)**	(0.010)**	(0.010)**	(0.010)**	(0.010)**
other HE	**0.215**	0.244	0.161	0.109	0.125	0.122	0.111	0.068	0.109	0.077
	(0.040)**	(0.029)**	(0.038)**	(0.032)**	(0.022)**	(0.021)**	(0.021)**	(0.020)**	(0.022)**	(0.023)**
HE diploma	0.224	0.207	0.226	0.147	0.095	0.111	0.121	0.143	0.112	0.098
	(0.029)**	(0.026)**	(0.023)**	(0.020)**	(0.016)**	(0.016)**	(0.017)**	(0.017)**	(0.016)**	(0.016)**
2+ A levels	0.149	0.160	0.151	0.135	0.132	0.131	0.137	0.144	0.137	0.144
	(0.013)**	(0.012)**	(0.013)**	(0.014)**	(0.009)**	(0.009)**	(0.009)**	(0.009)**	(0.010)**	(0.010)**
1 A level	0.111	0.122	0.060	0.057	0.057	0.063	0.072	0.099	0.066	0.090
	(0.018)**	(0.019)**	(0.020)**	(0.018)**	(0.012)**	(0.012)**	(0.012)**	(0.013)**	(0.013)**	(0.012)**
A/S levels	**0.180**	**0.146**	**-0.028**	**-0.178**	-0.046	-0.015	**-0.049**	**-0.049**	**-0.047**	**-0.062**
	(0.058)**	**(0.070)***	**(0.072)**	**(0.048)****	(0.039)	(0.037)	**(0.034)**	**(0.039)**	**(0.036)**	**(0.031)***
5+ GCSEs A*-C	0.252	0.245	0.232	0.232	0.259	0.254	0.243	0.230	0.213	0.219
	(0.011)**	(0.011)**	(0.011)**	(0.013)**	(0.009)**	(0.009)**	(0.009)**	(0.009)**	(0.009)**	(0.009)**
1-4 GCSEs A*-C	0.146	0.149	0.153	0.149	0.160	0.142	0.138	0.133	0.111	0.124
	(0.013)**	(0.011)**	(0.012)**	(0.012)**	(0.008)**	(0.008)**	(0.009)**	(0.009)**	(0.009)**	(0.009)**
GCSEs D-F	0.063	0.099	0.060	0.066	0.076	0.062	0.031	0.015	-0.011	0.028
	(0.018)**	(0.017)**	(0.016)**	(0.020)**	(0.014)**	(0.014)**	(0.014)*	(0.015)	(0.015)	(0.014)
professional qual.	0.379	0.364	0.352	0.359	0.361	0.354	0.380	0.402	0.396	0.386
	(0.021)**	(0.024)**	(0.022)**	(0.031)**	(0.022)**	(0.021)**	(0.021)**	(0.023)**	(0.022)**	(0.023)**
teaching qual.	0.449	0.381	0.414	0.267	0.280	0.280	0.243	0.237	0.258	0.264
	(0.018)**	(0.017)**	(0.018)**	(0.018)**	(0.012)**	(0.012)**	(0.012)**	(0.012)**	(0.013)**	(0.013)**
nursing qual.	0.245	0.242	0.199	0.154	0.156	0.139	0.140	0.148	0.162	0.150
	(0.015)**	(0.015)**	(0.014)**	(0.015)**	(0.011)**	(0.010)**	(0.010)**	(0.011)**	(0.011)**	(0.011)**

Table 3 (continued)

Qualification	1993[T]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
RSA higher	0.113	0.139	0.021	0.011	0.052	0.096	0.082	0.096	0.005	0.048
	(0.029)**	(0.029)**	(0.031)	(0.034)	(0.025)*	(0.028)**	(0.028)**	(0.032)**	(0.029)	(0.038)
RSA lower	0.057	0.068	0.041	0.029	0.010	0.010	0.012	-0.003	-0.003	0.012
	(0.011)**	(0.010)**	(0.010)**	(0.010)**	(0.007)	(0.007)	(0.007)	(0.007)	(0.008)	(0.008)
C&G advan. craft	**-0.046**	**0.018**	**0.002**	**-0.065**	-0.012	-0.020	-0.023	-0.057	-0.035	-0.024
	(0.044)	**(0.053)**	**(0.045)**	**(0.038)**	(0.025)	(0.027)	(0.027)	(0.030)	(0.025)	(0.023)
C&G craft	-0.000	-0.032	-0.011	0.045	-0.012	-0.022	0.045	0.034	0.044	0.043
	(0.033)	(0.025)	(0.026)	(0.036)	(0.024)	(0.026)	(0.027)	(0.030)	(0.028)	(0.026)
C&G other	0.005	-0.007	-0.023	-0.066	-0.041	-0.054	-0.050	-0.078	-0.080	-0.081
	(0.022)	(0.022)	(0.022)	(0.018)**	(0.016)*	(0.018)**	(0.018)**	(0.020)**	(0.020)**	(0.020)**
HND/HNC	0.131	0.137	0.159	0.063	0.076	0.081	0.080	0.082	0.087	0.063
	(0.020)**	(0.022)**	(0.019)**	(0.019)**	(0.014)**	(0.013)**	(0.014)**	(0.014)**	(0.014)**	(0.014)**
ONC/OND	0.106	0.120	0.094	0.110	0.063	0.052	0.045	0.063	0.053	0.053
	(0.018)**	(0.018)**	(0.017)**	(0.021)**	(0.014)**	(0.014)**	(0.013)**	(0.014)**	(0.014)**	(0.013)**
BTEC diploma	0.050	0.100	0.067	0.060	0.036	0.021	0.056	0.019	0.015	0.071
	(0.026)	(0.027)**	(0.029)*	(0.030)*	(0.018)*	(0.020)	(0.021)**	(0.028)	(0.024)	(0.028)*
NVQ 3-5	**0.023**	**0.005**	-0.044	0.009	0.033	0.032	0.032	0.026	0.041	0.024
	(0.048)	**(0.031)**	(0.027)	(0.027)	(0.014)*	(0.013)*	(0.012)**	(0.012)*	(0.011)**	(0.010)*
NVQ 2	**-0.140**	-0.085	-0.090	-0.086	-0.066	-0.080	-0.073	-0.077	-0.064	-0.066
	(0.031)**	(0.028)**	(0.024)**	(0.020)**	(0.014)**	(0.012)**	(0.012)**	(0.012)**	(0.010)**	(0.011)**
NVQ1	**-0.017**	**-0.130**	**-0.158**	**-0.062**	-0.094	-0.092	-0.115	-0.095	-0.086	-0.061
	(0.072)	**(0.041)****	**(0.043)****	**(0.044)**	(0.024)**	(0.023)**	(0.020)**	(0.021)**	(0.022)**	(0.021)**
other	0.098	0.074	0.067	0.035	0.062	0.063	0.061	0.066	0.063	0.063
	(0.010)**	(0.009)**	(0.009)**	(0.009)**	(0.006)**	(0.006)**	(0.006)**	(0.006)**	(0.006)**	(0.006)**

Table 3 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
apprenticeship	**-0.053**	**0.038**	**-0.167**	**-0.072**	**-0.092**	**-0.079**	**-0.106**	**-0.162**	**-0.072**	**-0.155**
	(0.062)	**(0.069)**	**(0.080)***	**(0.069)**	**(0.045)***	**(0.040)***	**(0.043)***	**(0.042)****	**(0.046)**	**(0.050)****
Constant	0.016	-0.047	0.062	-0.075	-0.144	-0.076	0.004	0.071	0.201	0.202
	(0.069)	(0.054)	(0.056)	(0.056)	(0.040)**	(0.041)	(0.038)	(0.041)	(0.041)**	(0.041)**
Observations	9001	9453	9857	9828	19808	19809	18903	17754	17978	17799
R-squared	0.46	0.47	0.45	0.43	0.45	0.44	0.43	0.43	0.42	0.42

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

Numbers in bold indicate estimates based on cell sizes of fewer than 100 observations.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region, workplace size and (except in 1993) public sector.

Table 4 The Returns to Detailed Qualifications – All Full-Time Public Sector Employees, Males

Qualification	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
higher degree	0.296	0.235	0.096	0.116	0.082	0.115	0.146	0.155	0.120
	(0.027)**	(0.023)**	(0.031)**	(0.019)**	(0.020)**	(0.019)**	(0.021)**	(0.020)**	(0.020)**
first degree	0.208	0.243	0.176	0.157	0.175	0.179	0.169	0.157	0.212
	(0.021)**	(0.019)**	(0.020)**	(0.015)**	(0.015)**	(0.015)**	(0.015)**	(0.015)**	(0.015)**
other HE	0.144	0.253	0.025	0.075	0.059	0.039	0.073	0.050	-0.010
	(0.047)**	(0.046)**	(0.065)	(0.034)*	(0.038)	(0.034)	(0.030)*	(0.035)	(0.042)
HE diploma	0.206	0.235	0.025	0.106	0.090	0.051	0.077	0.002	0.059
	(0.042)**	(0.029)**	(0.030)	(0.025)**	(0.022)**	(0.023)*	(0.025)**	(0.026)	(0.026)*
2+ A levels	0.137	0.130	0.158	0.106	0.119	0.109	0.097	0.111	0.105
	(0.019)**	(0.017)**	(0.021)**	(0.015)**	(0.016)**	(0.015)**	(0.015)**	(0.016)**	(0.015)**
1 A level	0.150	0.141	0.083	0.055	0.029	0.052	0.035	0.047	0.033
	(0.028)**	(0.029)**	(0.037)*	(0.021)**	(0.024)	(0.022)*	(0.021)	(0.023)*	(0.023)
A/S levels	**-0.075**	**0.187**	**0.227**	**0.036**	**-0.129**	**-0.071**	**0.015**	**0.044**	**-0.087**
	(0.127)	**(0.142)**	**(0.112)***	**(0.063)**	**(0.087)**	**(0.139)**	**(0.080)**	**(0.053)**	**(0.056)**
5+ GCSEs A*-C	0.264	0.252	0.231	0.243	0.247	0.241	0.248	0.237	0.201
	(0.018)**	(0.016)**	(0.024)**	(0.016)**	(0.015)**	(0.016)**	(0.017)**	(0.017)**	(0.016)**
1-4 GCSEs A*-C	0.183	0.229	0.165	0.167	0.162	0.157	0.143	0.125	0.128
	(0.020)**	(0.019)**	(0.022)**	(0.016)**	(0.016)**	(0.016)**	(0.016)**	(0.016)**	(0.017)**
GCSEs D-F	0.098	0.095	0.083	0.093	0.103	0.117	0.063	0.007	0.050
	(0.027)**	(0.026)**	(0.034)*	(0.024)**	(0.023)**	(0.024)**	(0.025)*	(0.027)	(0.025)*
professional qual.	0.382	0.290	0.292	0.270	0.268	0.346	0.303	0.275	0.415
	(0.023)**	(0.022)**	(0.032)**	(0.026)**	(0.027)**	(0.027)**	(0.025)**	(0.032)**	(0.030)**
teaching qual.	0.251	0.241	0.110	0.140	0.123	0.130	0.152	0.125	0.174
	(0.024)**	(0.021)**	(0.026)**	(0.017)**	(0.016)**	(0.016)**	(0.016)**	(0.018)**	(0.017)**
nursing qual.	0.139	0.078	0.062	0.087	0.093	0.079	0.117	0.090	0.086
	(0.035)**	(0.039)*	(0.032)	(0.022)**	(0.024)**	(0.025)**	(0.027)**	(0.030)**	(0.026)**
RSA higher	**0.290**	**-0.151**	**0.012**	**-0.120**	**-0.066**	**0.102**	**0.167**	**0.047**	**-0.086**
	(0.095)**	**(0.118)**	**(0.054)**	**(0.064)**	**(0.092)**	**(0.072)**	**(0.066)***	**(0.103)**	**(0.063)**
RSA lower	**0.022**	**0.075**	**0.001**	**-0.071**	-0.106	-0.117	-0.115	-0.130	-0.121
	(0.046)	**(0.065)**	**(0.070)**	**(0.038)**	(0.036)**	(0.037)**	(0.037)**	(0.033)**	(0.036)**
C&G advan. craft	0.103	0.066	0.045	0.022	0.049	-0.005	-0.003	0.021	-0.014
	(0.026)**	(0.030)*	(0.026)	(0.020)	(0.019)**	(0.019)	(0.018)	(0.019)	(0.019)
C&G craft	0.059	0.008	-0.034	0.046	0.069	0.091	0.054	0.028	0.038
	(0.022)**	(0.023)	(0.034)	(0.031)	(0.033)*	(0.032)**	(0.030)	(0.032)	(0.034)
C&G other	0.055	0.039	0.020	-0.041	-0.056	-0.057	-0.037	-0.025	-0.069
	(0.028)*	(0.027)	(0.027)	(0.028)	(0.029)	(0.028)*	(0.025)	(0.027)	(0.028)*
HND/HNC	0.151	0.169	0.048	0.088	0.078	0.065	0.056	0.038	0.047
	(0.022)**	(0.021)**	(0.024)*	(0.016)**	(0.017)**	(0.016)**	(0.016)**	(0.016)*	(0.017)**
ONC/OND	0.110	0.107	0.062	0.060	0.045	0.060	0.084	0.059	0.051
	(0.024)**	(0.024)**	(0.022)**	(0.017)**	(0.020)*	(0.017)**	(0.018)**	(0.018)**	(0.018)**

Table 4 (continued)

Qualification	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
BTEC diploma	**-0.029**	**0.013**	**0.056**	**0.049**	**0.014**	**0.017**	**0.102**	0.039	-0.018
	(0.083)	**(0.096)**	**(0.054)**	**(0.059)**	**(0.037)**	**(0.050)**	**(0.034)****	(0.039)	(0.046)
NVQ 3-5	**0.183**	-0.041	**0.085**	-0.003	0.008	-0.012	-0.024	0.007	0.032
	(0.066)**	(0.047)	**(0.055)**	(0.028)	(0.026)	(0.025)	(0.023)	(0.021)	(0.020)
NVQ 2	**-0.294**	**-0.209**	**-0.124**	**-0.057**	-0.146	-0.116	-0.106	-0.101	-0.179
	(0.158)	**(0.086)***	**(0.059)***	**(0.032)**	(0.035)**	(0.033)**	(0.027)**	(0.024)**	(0.024)**
NVQ1	**-0.240**	**-0.203**	**-0.211**	**-0.143**	**-0.123**	**-0.127**	**-0.075**	-0.062	-0.111
	(0.175)	**(0.127)**	**(0.098)***	**(0.074)**	**(0.072)**	**(0.070)**	**(0.045)**	(0.037)	(0.040)**
other	0.103	0.125	0.084	0.086	0.077	0.089	0.094	0.088	0.072
	(0.015)**	(0.015)**	(0.013)**	(0.009)**	(0.009)**	(0.010)**	(0.010)**	(0.010)**	(0.010)**
apprenticeship	**0.057**	**-0.097**	**-0.204**	**-0.115**	**-0.084**	**-0.103**	**-0.052**	-0.070	-0.233
	(0.057)	**(0.083)**	**(0.071)****	**(0.051)***	**(0.053)**	**(0.052)**	**(0.067)**	(0.057)	(0.049)**
Constant	-0.101	-0.024	-0.248	-0.144	-0.227	-0.034	-0.023	-0.052	0.132
	(0.099)	(0.095)	(0.103)*	(0.077)	(0.075)**	(0.074)	(0.076)	(0.086)	(0.078)
Observations	3712	3810	3689	6704	6593	6251	5968	5733	5633
R-squared	0.40	0.39	0.38	0.39	0.39	0.40	0.40	0.39	0.41

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

Numbers in bold indicate estimates based on cell sizes of fewer than 100 observations.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region and workplace size.

Table 5 The Returns to Detailed Qualifications – All Full-Time Public Sector Employees, Females

Qualification	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
higher degree	0.280	0.299	0.121	0.055	0.093	0.078	0.158	0.124	0.142
	(0.031)**	(0.030)**	(0.031)**	(0.022)*	(0.022)**	(0.022)**	(0.021)**	(0.022)**	(0.020)**
first degree	0.255	0.230	0.244	0.225	0.231	0.216	0.211	0.220	0.212
	(0.019)**	(0.018)**	(0.018)**	(0.012)**	(0.012)**	(0.012)**	(0.013)**	(0.012)**	(0.012)**
other HE	**0.243**	**0.174**	0.068	0.093	0.120	0.107	0.042	0.092	0.066
	(0.036)**	**(0.048)****	(0.040)	(0.023)**	(0.022)**	(0.027)**	(0.024)	(0.026)**	(0.028)*
HE diploma	0.218	0.237	0.121	0.080	0.112	0.104	0.144	0.121	0.119
	(0.026)**	(0.024)**	(0.020)**	(0.018)**	(0.017)**	(0.018)**	(0.018)**	(0.016)**	(0.017)**
2+ A levels	0.149	0.149	0.102	0.125	0.117	0.131	0.120	0.142	0.158
	(0.015)**	(0.016)**	(0.017)**	(0.012)**	(0.012)**	(0.012)**	(0.013)**	(0.013)**	(0.012)**
1 A level	0.120	0.087	0.076	0.064	0.038	0.055	0.066	0.080	0.096
	(0.022)**	(0.025)**	(0.022)**	(0.015)**	(0.015)*	(0.016)**	(0.016)**	(0.016)**	(0.017)**
A/S levels	**0.132**	**0.039**	**-0.196**	**-0.099**	**-0.056**	**-0.035**	**0.006**	**0.001**	**-0.144**
	(0.075)	**(0.117)**	**(0.074)****	**(0.064)**	**(0.057)**	**(0.049)**	**(0.068)**	**(0.059)**	**(0.046)****
5+ GCSEs A*-C	0.205	0.203	0.179	0.203	0.186	0.185	0.185	0.145	0.154
	(0.015)**	(0.015)**	(0.018)**	(0.013)**	(0.013)**	(0.014)**	(0.014)**	(0.015)**	(0.014)**
1-4 GCSEs A*-C	0.117	0.138	0.103	0.128	0.084	0.093	0.079	0.081	0.081
	(0.019)**	(0.019)**	(0.020)**	(0.014)**	(0.014)**	(0.014)**	(0.015)**	(0.015)**	(0.015)**
GCSEs D-F	0.160	0.065	-0.032	0.059	0.048	0.008	0.007	0.014	0.030
	(0.033)**	(0.030)*	(0.038)	(0.026)*	(0.026)	(0.024)	(0.025)	(0.028)	(0.024)
professional qual.	0.310	0.311	0.325	0.297	0.305	0.321	0.383	0.377	0.327
	(0.030)**	(0.029)**	(0.031)**	(0.034)**	(0.027)**	(0.027)**	(0.028)**	(0.026)**	(0.029)**
teaching qual.	0.388	0.416	0.311	0.297	0.301	0.280	0.267	0.284	0.285
	(0.018)**	(0.019)**	(0.019)**	(0.013)**	(0.013)**	(0.013)**	(0.013)**	(0.013)**	(0.013)**
nursing qual.	0.261	0.191	0.165	0.171	0.163	0.169	0.159	0.176	0.171
	(0.016)**	(0.015)**	(0.015)**	(0.011)**	(0.011)**	(0.011)**	(0.012)**	(0.012)**	(0.011)**
RSA higher	**0.023**	**-0.054**	**-0.039**	**-0.036**	**0.026**	**0.005**	**0.033**	**-0.114**	**-0.005**
	(0.044)	**(0.063)**	**(0.040)**	**(0.041)**	**(0.039)**	**(0.034)**	**(0.039)**	**(0.038)****	**(0.056)**
RSA lower	0.000	-0.043	-0.021	-0.059	-0.035	-0.042	-0.060	-0.065	-0.035
	(0.016)	(0.016)**	(0.016)	(0.011)**	(0.011)**	(0.011)**	(0.011)**	(0.011)**	(0.011)**
C&G advan. craft	**0.060**	**-0.056**	**-0.038**	**-0.048**	**-0.005**	**-0.063**	**-0.100**	**-0.077**	**-0.012**
	(0.090)	**(0.087)**	**(0.061)**	**(0.038)**	**(0.045)**	**(0.043)**	**(0.045)***	**(0.035)***	**(0.031)**
C&G craft	**-0.110**	**-0.068**	**0.067**	-0.031	-0.061	-0.021	0.004	-0.044	0.025
	(0.042)**	**(0.051)**	**(0.060)**	(0.037)	(0.045)	(0.042)	(0.047)	(0.046)	(0.038)
C&G other	**0.002**	**-0.052**	-0.098	-0.019	-0.087	-0.056	-0.082	-0.069	-0.086
	(0.043)	**(0.030)**	(0.027)**	(0.026)	(0.028)**	(0.029)	(0.033)*	(0.031)*	(0.028)**
HND/HNC	0.103	0.157	0.050	0.077	0.073	0.043	0.054	0.017	0.025
	(0.029)**	(0.027)**	(0.024)*	(0.018)**	(0.018)**	(0.019)*	(0.020)**	(0.020)	(0.019)
ONC/OND	0.117	0.039	0.079	0.048	0.050	0.025	0.050	0.048	0.050
	(0.022)**	(0.025)	(0.029)**	(0.019)*	(0.021)*	(0.019)	(0.018)**	(0.018)**	(0.018)**

Table 5 (continued)

Qualification	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
BTEC diploma	**0.080**	**0.064**	**0.019**	0.040	-0.011	**0.063**	**0.027**	0.015	0.108
	(0.037)*	**(0.057)**	**(0.061)**	(0.028)	(0.031)	**(0.033)**	**(0.046)**	(0.035)	(0.042)*
NVQ 3-5	**0.049**	**-0.002**	**0.007**	0.046	0.015	-0.004	0.012	0.009	0.004
	(0.042)	**(0.052)**	**(0.046)**	(0.021)*	(0.022)	(0.017)	(0.019)	(0.015)	(0.015)
NVQ 2	**-0.089**	**-0.110**	**-0.079**	-0.131	-0.082	-0.088	-0.071	-0.051	-0.100
	(0.041)*	**(0.040)****	**(0.034)***	(0.024)**	(0.022)**	(0.018)**	(0.019)**	(0.017)**	(0.017)**
NVQ1	**-0.047**	**-0.046**	**-0.030**	**-0.156**	**-0.087**	**-0.174**	**-0.120**	**-0.156**	**-0.055**
	(0.089)	**(0.084)**	**(0.076)**	**(0.054)****	**(0.043)***	**(0.043)****	**(0.035)****	**(0.046)****	**(0.038)**
other	0.088	0.074	0.025	0.049	0.042	0.049	0.048	0.047	0.048
	(0.015)**	(0.014)**	(0.012)*	(0.008)**	(0.008)**	(0.008)**	(0.009)**	(0.009)**	(0.008)**
apprenticeship	**0.272**	**-0.103**	**-0.089**	**-0.071**	**-0.249**	**-0.171**	**-0.192**	**-0.068**	**-0.222**
	(0.083)**	**(0.133)**	**(0.212)**	**(0.076)**	**(0.071)****	**(0.079)***	**(0.140)**	**(0.149)**	**(0.084)****
Constant	0.427	0.671	0.464	0.383	0.518	0.414	0.484	0.624	0.639
	(0.087)**	(0.087)**	(0.090)**	(0.072)**	(0.068)**	(0.066)**	(0.071)**	(0.067)**	(0.071)**
Observations	3452	3570	3569	7064	6989	6807	6557	6575	6658
R-squared	0.46	0.45	0.42	0.42	0.42	0.44	0.41	0.42	0.42

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

Numbers in bold indicate estimates based on cell sizes of fewer than 100 observations.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region and workplace size.

Table 6 The Returns to Detailed Qualifications – All Full-Time Private Sector Employees, Males

Qualification	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
higher degree	0.337	0.331	0.147	0.112	0.103	0.117	0.147	0.136	0.146
	(0.031)**	(0.032)**	(0.039)**	(0.024)**	(0.022)**	(0.021)**	(0.022)**	(0.022)**	(0.020)**
first degree	0.269	0.247	0.244	0.240	0.267	0.243	0.267	0.260	0.265
	(0.018)**	(0.018)**	(0.019)**	(0.013)**	(0.013)**	(0.013)**	(0.013)**	(0.013)**	(0.012)**
other HE	0.204	0.187	0.120	0.036	0.071	0.105	0.109	0.087	0.073
	(0.053)**	(0.044)**	(0.052)*	(0.034)	(0.032)*	(0.031)**	(0.033)**	(0.035)*	(0.036)*
HE diploma	0.056	0.227	0.134	0.016	0.078	0.030	0.068	0.036	0.090
	(0.045)	(0.048)**	(0.038)**	(0.032)	(0.030)**	(0.031)	(0.029)*	(0.030)	(0.029)**
2+ A levels	0.179	0.174	0.151	0.159	0.168	0.159	0.156	0.164	0.149
	(0.016)**	(0.016)**	(0.016)**	(0.012)**	(0.012)**	(0.012)**	(0.012)**	(0.012)**	(0.012)**
1 A level	0.125	0.077	0.086	0.057	0.046	0.025	0.074	0.057	0.044
	(0.024)**	(0.027)**	(0.030)**	(0.017)**	(0.017)**	(0.017)	(0.018)**	(0.017)**	(0.018)*
A/S levels	**0.140**	**0.045**	**-0.049**	**0.028**	-0.054	-0.002	0.008	-0.006	-0.034
	(0.109)	**(0.119)**	**(0.106)**	**(0.050)**	(0.049)	(0.044)	(0.039)	(0.037)	(0.038)
5+ GCSEs A*-C	0.269	0.240	0.277	0.266	0.260	0.260	0.270	0.244	0.250
	(0.012)**	(0.012)**	(0.013)**	(0.009)**	(0.009)**	(0.009)**	(0.009)**	(0.009)**	(0.009)**
1-4 GCSEs A*-C	0.200	0.169	0.158	0.160	0.158	0.155	0.160	0.144	0.140
	(0.012)**	(0.011)**	(0.011)**	(0.008)**	(0.008)**	(0.008)**	(0.009)**	(0.009)**	(0.009)**
GCSEs D-F	0.112	0.078	0.086	0.094	0.082	0.067	0.062	0.029	0.062
	(0.014)**	(0.013)**	(0.016)**	(0.011)**	(0.010)**	(0.010)**	(0.011)**	(0.012)*	(0.012)**
professional qual.	0.371	0.350	0.334	0.366	0.350	0.372	0.383	0.381	0.399
	(0.019)**	(0.020)**	(0.028)**	(0.022)**	(0.021)**	(0.022)**	(0.022)**	(0.023)**	(0.023)**
teaching qual.	**-0.030**	**0.015**	**-0.172**	-0.101	-0.111	-0.134	-0.055	-0.045	-0.044
	(0.066)	**(0.050)**	**(0.060)****	(0.034)**	(0.040)**	(0.040)**	(0.048)	(0.040)	(0.038)
nursing qual.	**0.198**	**-0.017**	**0.039**	**0.043**	**0.040**	**0.046**	**0.150**	**0.015**	**-0.037**
	(0.096)*	**(0.068)**	**(0.195)**	**(0.051)**	**(0.061)**	**(0.062)**	**(0.070)***	**(0.077)**	**(0.068)**
RSA higher	**0.009**	**-0.057**	**0.057**	**0.229**	**0.108**	**-0.151**	**-0.119**	**-0.105**	**0.019**
	(0.104)	**(0.164)**	**(0.192)**	**(0.071)****	**(0.099)**	**(0.090)**	**(0.087)**	**(0.095)**	**(0.057)**
RSA lower	0.006	-0.042	-0.091	-0.098	-0.093	-0.066	-0.052	-0.048	-0.063
	(0.033)	(0.039)	(0.032)**	(0.023)**	(0.022)**	(0.023)**	(0.026)*	(0.022)*	(0.023)**
C&G advan. craft	0.072	0.077	0.043	0.079	0.069	0.061	0.049	0.052	0.050
	(0.015)**	(0.016)**	(0.016)**	(0.010)**	(0.010)**	(0.010)**	(0.010)**	(0.010)**	(0.010)**
C&G craft	0.059	0.063	0.009	0.032	0.083	0.072	0.082	0.073	0.076
	(0.012)**	(0.011)**	(0.018)	(0.014)*	(0.015)**	(0.017)**	(0.019)**	(0.018)**	(0.018)**
C&G other	0.014	0.037	0.047	0.008	-0.038	-0.036	-0.035	-0.036	-0.036
	(0.015)	(0.014)**	(0.015)**	(0.013)	(0.013)**	(0.015)*	(0.017)*	(0.015)*	(0.015)*
HND/HNC	0.185	0.205	0.153	0.129	0.161	0.162	0.140	0.149	0.153
	(0.015)**	(0.014)**	(0.016)**	(0.010)**	(0.010)**	(0.011)**	(0.011)**	(0.011)**	(0.011)**
ONC/OND	0.122	0.115	0.120	0.117	0.093	0.087	0.110	0.100	0.079
	(0.014)**	(0.015)**	(0.016)**	(0.011)**	(0.011)**	(0.011)**	(0.011)**	(0.012)**	(0.012)**

Table 6 (continued)

Qualification	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
BTEC diploma	0.012	-0.057	0.085	0.050	0.025	0.026	0.042	0.032	0.060
	(0.036)	(0.035)	(0.030)**	(0.024)*	(0.025)	(0.024)	(0.027)	(0.027)	(0.026)*
NVQ 3-5	**0.090**	0.083	0.014	0.015	0.068	0.038	0.036	0.033	0.020
	(0.032)**	(0.042)*	(0.030)	(0.017)	(0.016)**	(0.015)**	(0.013)**	(0.012)**	(0.012)
NVQ 2	-0.138	-0.161	-0.056	-0.087	-0.049	-0.046	-0.077	-0.086	-0.072
	(0.041)**	(0.030)**	(0.024)*	(0.015)**	(0.015)**	(0.013)**	(0.014)**	(0.013)**	(0.013)**
NVQ1	**-0.200**	**-0.177**	**-0.110**	-0.099	-0.100	-0.136	-0.073	-0.067	-0.062
	(0.072)**	**(0.045)****	**(0.043)***	(0.025)**	(0.026)**	(0.023)**	(0.021)**	(0.021)**	(0.022)**
other	0.055	0.059	0.030	0.041	0.045	0.034	0.044	0.051	0.041
	(0.009)**	(0.009)**	(0.008)**	(0.006)**	(0.006)**	(0.006)**	(0.006)**	(0.006)**	(0.006)**
apprenticeship	0.100	-0.081	0.030	0.040	0.052	0.048	0.003	0.037	0.012
	(0.035)**	(0.041)	(0.030)	(0.023)	(0.024)*	(0.024)*	(0.025)	(0.026)	(0.028)
Constant	-0.398	-0.501	-0.521	-0.404	-0.373	-0.303	-0.201	-0.208	-0.109
	(0.051)**	(0.049)**	(0.051)**	(0.034)**	(0.035)**	(0.037)**	(0.037)**	(0.038)**	(0.038)**
Observations	12008	12620	12794	25836	25769	24301	22818	22642	22011
R-squared	0.42	0.41	0.41	0.42	0.43	0.42	0.41	0.42	0.41

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

Numbers in bold indicate estimates based on cell sizes of fewer than 100 observations.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region and workplace size.

Table 7 The Returns to Detailed Qualifications – All Full-Time Private Sector Employees, Females

Qualification	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
higher degree	**0.353**	**0.311**	**0.152**	0.250	0.203	0.133	0.145	0.190	0.208
	(0.053)**	**(0.057)****	**(0.064)***	(0.035)**	(0.035)**	(0.034)**	(0.038)**	(0.032)**	(0.031)**
first degree	0.305	0.279	0.221	0.220	0.230	0.219	0.226	0.268	0.255
	(0.025)**	(0.024)**	(0.027)**	(0.016)**	(0.016)**	(0.016)**	(0.016)**	(0.015)**	(0.015)**
other HE	**0.168**	**0.140**	**0.173**	0.172	0.127	0.115	0.103	0.118	0.102
	(0.045)**	**(0.059)***	**(0.049)****	(0.040)**	(0.036)**	(0.031)**	(0.031)**	(0.036)**	(0.037)**
HE diploma	0.165	0.194	0.179	0.124	0.112	0.139	0.137	0.069	0.043
	(0.062)**	(0.047)**	(0.037)**	(0.031)**	(0.032)**	(0.032)**	(0.031)**	(0.032)*	(0.032)
2+ A levels	0.165	0.134	0.156	0.134	0.135	0.140	0.156	0.127	0.126
	(0.020)**	(0.018)**	(0.021)**	(0.013)**	(0.014)**	(0.013)**	(0.013)**	(0.014)**	(0.014)**
1 A level	0.113	0.034	0.036	0.048	0.086	0.085	0.126	0.049	0.084
	(0.030)**	(0.030)	(0.029)	(0.017)**	(0.018)**	(0.017)**	(0.018)**	(0.019)**	(0.018)**
A/S levels	**0.162**	**-0.029**	**-0.144**	**-0.009**	**0.009**	**-0.055**	**-0.088**	**-0.077**	**-0.019**
	(0.099)	**(0.089)**	**(0.060)***	**(0.044)**	**(0.048)**	**(0.043)**	**(0.045)**	**(0.045)**	**(0.039)**
5+ GCSEs A*-C	0.248	0.237	0.250	0.276	0.275	0.259	0.237	0.234	0.241
	(0.015)**	(0.015)**	(0.017)**	(0.011)**	(0.011)**	(0.011)**	(0.011)**	(0.012)**	(0.012)**
1-4 GCSEs A*-C	0.149	0.153	0.160	0.166	0.158	0.148	0.147	0.114	0.136
	(0.014)**	(0.014)**	(0.015)**	(0.010)**	(0.010)**	(0.011)**	(0.011)**	(0.011)**	(0.012)**
GCSEs D-F	0.074	0.055	0.088	0.079	0.067	0.036	0.016	-0.025	0.028
	(0.019)**	(0.019)**	(0.023)**	(0.016)**	(0.016)**	(0.016)*	(0.018)	(0.017)	(0.017)
professional qual.	0.427	0.379	0.412	0.397	0.390	0.449	0.421	0.416	0.441
	(0.038)**	(0.031)**	(0.060)**	(0.028)**	(0.030)**	(0.032)**	(0.034)**	(0.034)**	(0.034)**
teaching qual.	**0.181**	**0.209**	0.068	0.144	0.165	0.043	0.105	0.097	0.122
	(0.049)**	**(0.053)****	(0.048)	(0.034)**	(0.036)**	(0.035)	(0.027)**	(0.036)**	(0.032)**
nursing qual.	0.158	0.215	0.139	0.119	0.111	0.071	0.115	0.106	0.110
	(0.040)**	(0.037)**	(0.041)**	(0.025)**	(0.022)**	(0.024)**	(0.025)**	(0.024)**	(0.025)**
RSA higher	0.197	0.054	0.051	0.091	0.137	0.140	0.139	0.068	0.088
	(0.036)**	(0.033)	(0.051)	(0.030)**	(0.036)**	(0.040)**	(0.044)**	(0.038)	(0.052)
RSA lower	0.091	0.072	0.054	0.043	0.032	0.040	0.029	0.029	0.036
	(0.013)**	(0.012)**	(0.013)**	(0.009)**	(0.009)**	(0.009)**	(0.010)**	(0.010)**	(0.010)**
C&G advan. Craft	**0.008**	**0.020**	**-0.066**	0.010	-0.027	0.003	-0.038	-0.017	-0.019
	(0.063)	**(0.050)**	**(0.048)**	(0.032)	(0.034)	(0.035)	(0.040)	(0.034)	(0.032)
C&G craft	0.000	0.012	0.023	-0.007	-0.008	0.073	0.046	0.096	0.050
	(0.030)	(0.030)	(0.045)	(0.030)	(0.032)	(0.033)*	(0.038)	(0.035)**	(0.035)
C&G other	-0.021	-0.021	-0.044	-0.056	-0.043	-0.052	-0.074	-0.083	-0.074
	(0.024)	(0.028)	(0.023)	(0.020)**	(0.023)	(0.023)*	(0.025)**	(0.026)**	(0.026)**
HND/HNC	0.157	0.164	0.077	0.079	0.085	0.099	0.102	0.135	0.091
	(0.032)**	(0.026)**	(0.028)**	(0.020)**	(0.019)**	(0.019)**	(0.019)**	(0.019)**	(0.019)**
ONC/OND	0.113	0.111	0.129	0.074	0.051	0.058	0.073	0.048	0.048
	(0.025)**	(0.021)**	(0.030)**	(0.018)**	(0.019)**	(0.018)**	(0.019)**	(0.019)**	(0.018)**

Table 7 (continued)

Qualification	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
BTEC diploma	**0.105**	**0.067**	0.071	0.035	0.035	0.047	0.009	0.017	0.048
	(0.036)**	**(0.034)***	(0.035)*	(0.022)	(0.025)	(0.027)	(0.036)	(0.031)	(0.037)
NVQ 3-5	**-0.029**	-0.060	0.016	0.033	0.044	0.055	0.036	0.060	0.032
	(0.041)	(0.030)*	(0.034)	(0.019)	(0.016)**	(0.016)**	(0.015)*	(0.014)**	(0.013)*
NVQ 2	-0.071	-0.073	-0.080	-0.037	-0.079	-0.067	-0.077	-0.068	-0.049
	(0.034)*	(0.029)*	(0.024)**	(0.017)*	(0.014)**	(0.014)**	(0.014)**	(0.013)**	(0.013)**
NVQ1	**-0.145**	**-0.169**	**-0.081**	-0.069	-0.086	-0.093	-0.088	-0.064	-0.060
	(0.046)**	**(0.049)****	**(0.052)**	(0.026)**	(0.027)**	(0.022)**	(0.026)**	(0.025)*	(0.025)*
other	0.063	0.058	0.034	0.059	0.067	0.063	0.074	0.067	0.067
	(0.012)**	(0.011)**	(0.011)**	(0.007)**	(0.007)**	(0.008)**	(0.008)**	(0.008)**	(0.008)**
apprenticeship	**-0.020**	**-0.287**	**-0.057**	**-0.067**	**-0.037**	**-0.070**	**-0.126**	**-0.043**	**-0.129**
	(0.071)	**(0.064)****	**(0.072)**	**(0.047)**	**(0.046)**	**(0.053)**	**(0.043)****	**(0.048)**	**(0.055)***
Constant	-0.227	-0.174	-0.260	-0.333	-0.282	-0.173	-0.108	-0.003	-0.008
	(0.068)**	(0.073)*	(0.072)**	(0.050)**	(0.054)**	(0.048)**	(0.052)*	(0.052)	(0.051)
Observations	6001	6287	6259	12744	12820	12096	11197	11403	11141
R-squared	0.41	0.40	0.38	0.41	0.41	0.39	0.41	0.41	0.40

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region and workplace size.

Table 8 The Returns to Detailed Qualifications – All Full-Time Employees Aged 21-25 on January 1st 1993, Males

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
higher degree	0.136	0.240	0.131	-0.071	0.071	-0.037	0.010	0.090	0.078	0.103
	(0.076)	(0.061)**	(0.043)**	(0.070)	(0.039)	(0.036)	(0.032)	(0.037)*	(0.038)*	(0.036)**
first degree	0.119	0.118	0.100	0.157	0.168	0.214	0.204	0.215	0.239	0.261
	(0.038)**	(0.029)**	(0.032)**	(0.031)**	(0.024)**	(0.023)**	(0.023)**	(0.023)**	(0.025)**	(0.022)**
other HE	-0.238	0.334	0.093	0.038	0.008	-0.026	0.110	0.033	-0.011	0.015
	(0.210)	(0.089)**	(0.083)	(0.071)	(0.053)	(0.059)	(0.056)*	(0.063)	(0.083)	(0.075)
HE diploma	0.216	0.149	0.219	0.135	-0.048	0.062	0.091	-0.001	-0.032	0.067
	(0.135)	(0.088)	(0.088)*	(0.079)	(0.054)	(0.052)	(0.055)	(0.042)	(0.050)	(0.055)
2+ A levels	0.086	0.074	0.131	0.079	0.084	0.114	0.136	0.139	0.131	0.144
	(0.030)**	(0.031)*	(0.029)**	(0.033)*	(0.024)**	(0.022)**	(0.023)**	(0.024)**	(0.025)**	(0.023)**
1 A level	-0.002	0.048	0.042	0.106	0.049	0.040	0.014	0.072	-0.003	0.051
	(0.047)	(0.046)	(0.042)	(0.048)*	(0.029)	(0.028)	(0.034)	(0.034)*	(0.037)	(0.035)
A/S levels	0.382	0.090	0.168	-0.018	0.022	-0.088	0.075	0.120	0.030	0.110
	(0.186)*	(0.109)	(0.105)	(0.117)	(0.082)	(0.121)	(0.123)	(0.090)	(0.075)	(0.093)
5+ GCSEs A*-C	0.156	0.180	0.127	0.230	0.228	0.218	0.210	0.234	0.212	0.235
	(0.030)**	(0.026)**	(0.024)**	(0.029)**	(0.020)**	(0.020)**	(0.020)**	(0.021)**	(0.022)**	(0.022)**
1-4 GCSEs A*-C	0.072	0.090	0.098	0.119	0.109	0.130	0.117	0.125	0.085	0.111
	(0.035)*	(0.027)**	(0.025)**	(0.025)**	(0.018)**	(0.018)**	(0.018)**	(0.020)**	(0.020)**	(0.020)**
GCSEs D-F	0.024	-0.002	-0.004	0.102	0.026	0.022	0.020	0.010	-0.042	0.016
	(0.035)	(0.032)	(0.029)	(0.034)**	(0.023)	(0.023)	(0.021)	(0.024)	(0.026)	(0.027)
professional qual.	0.246	0.295	0.282	0.275	0.213	0.215	0.301	0.306	0.379	0.336
	(0.050)**	(0.046)**	(0.046)**	(0.048)**	(0.043)**	(0.042)**	(0.038)**	(0.046)**	(0.053)**	(0.048)**
teaching qual.	0.165	0.220	0.003	0.085	0.128	0.001	0.028	0.079	0.058	0.161
	(0.107)	(0.060)**	(0.061)	(0.065)	(0.047)**	(0.044)	(0.062)	(0.056)	(0.045)	(0.059)**

Table 8 (continued)

Qualification	1993[†]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
nursing qual.	0.082	0.066	-0.032	0.073	0.039	0.034	0.068	0.045	0.016	0.113
	(0.090)	(0.065)	(0.062)	(0.088)	(0.046)	(0.063)	(0.053)	(0.051)	(0.058)	(0.070)
RSA higher	-0.006	0.186	-0.820		0.535	0.133	-0.032	0.052	-0.024	-0.219
	(0.412)	(0.057)**	(0.435)		(0.140)**	(0.140)	(0.116)	(0.186)	(0.263)	(0.102)*
RSA lower	-0.038	-0.143	-0.216	-0.088	-0.091	-0.148	-0.100	-0.057	-0.064	-0.092
	(0.082)	(0.056)*	(0.104)*	(0.091)	(0.050)	(0.049)**	(0.046)*	(0.050)	(0.043)	(0.050)
C&G advan. Craft	0.106	0.016	0.061	0.053	0.059	0.039	0.085	0.016	0.055	0.042
	(0.045)*	(0.042)	(0.045)	(0.028)	(0.022)**	(0.021)	(0.021)**	(0.022)	(0.023)*	(0.023)
C&G craft	0.092	0.042	0.019	-0.026	0.013	0.078	0.074	0.099	0.083	0.071
	(0.030)**	(0.031)	(0.029)	(0.038)	(0.030)	(0.034)*	(0.032)*	(0.038)*	(0.037)*	(0.036)*
C&G other	-0.007	-0.029	0.009	0.014	-0.037	-0.052	-0.058	-0.063	-0.077	-0.077
	(0.034)	(0.033)	(0.031)	(0.031)	(0.026)	(0.028)	(0.027)*	(0.033)	(0.032)*	(0.029)**
HND/HNC	0.097	0.129	0.098	0.083	0.085	0.102	0.152	0.115	0.127	0.098
	(0.031)**	(0.033)**	(0.028)**	(0.030)**	(0.021)**	(0.020)**	(0.021)**	(0.021)**	(0.022)**	(0.022)**
ONC/OND	0.084	0.068	0.102	0.114	0.117	0.078	0.059	0.118	0.083	0.053
	(0.029)**	(0.027)*	(0.028)**	(0.034)**	(0.020)**	(0.019)**	(0.018)**	(0.022)**	(0.023)**	(0.023)*
BTEC diploma	0.066	-0.009	-0.113	0.104	0.063	0.015	0.015	0.005	0.001	0.042
	(0.085)	(0.061)	(0.054)*	(0.046)*	(0.039)	(0.042)	(0.042)	(0.043)	(0.044)	(0.052)
NVQ 3-5	0.045	0.034	0.115	-0.057	0.020	0.030	0.092	-0.017	-0.025	-0.008
	(0.100)	(0.062)	(0.069)	(0.062)	(0.033)	(0.033)	(0.029)**	(0.029)	(0.027)	(0.027)
NVQ 2	-0.141	-0.078	-0.174	-0.121	-0.109	-0.117	-0.116	-0.096	-0.138	-0.104
	(0.062)*	(0.097)	(0.093)	(0.042)**	(0.034)**	(0.035)**	(0.036)**	(0.038)*	(0.031)**	(0.031)**
NVQ1	-0.262	-0.104	-0.262	-0.229	-0.070	0.037	-0.151	-0.022	-0.167	-0.020
	(0.417)	(0.069)	(0.073)**	(0.091)*	(0.051)	(0.077)	(0.052)**	(0.053)	(0.046)**	(0.065)

Table 8 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
other	0.059	0.017	0.076	0.034	0.028	0.046	0.045	0.061	0.055	0.047
	(0.026)*	(0.022)	(0.020)**	(0.018)	(0.012)*	(0.012)**	(0.012)**	(0.013)**	(0.013)**	(0.013)**
apprenticeship	0.075	-0.097	-0.493	-0.107	0.010	0.103	0.141	-0.104	-0.099	-0.042
	(0.076)	(0.079)	(0.236)*	(0.084)	(0.094)	(0.101)	(0.099)	(0.116)	(0.074)	(0.124)
Constant	1.203	-5.191	-2.663	1.946	-5.016	1.334	1.630	0.910	2.439	4.409
	(2.555)	(2.450)*	(2.550)	(2.603)	(2.119)*	(2.261)	(2.456)	(2.726)	(3.111)	(3.327)
Observations	1720	1956	2068	2124	4441	4490	4372	4131	4038	4005
R-squared	0.23	0.26	0.28	0.29	0.29	0.29	0.32	0.33	0.34	0.34

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region, workplace size and (except in 1993) public sector.

Table 9 The Returns to Detailed Qualifications – All Full-Time Employees Aged 21-25 on January 1st 1993, Females

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
higher degree	0.028	0.129	0.168	0.054	-0.015	0.030	0.020	0.032	0.083	0.122
	(0.090)	(0.072)	(0.066)*	(0.051)	(0.036)	(0.033)	(0.035)	(0.039)	(0.039)*	(0.043)**
first degree	0.154	0.159	0.222	0.157	0.181	0.181	0.209	0.212	0.244	0.277
	(0.034)**	(0.031)**	(0.030)**	(0.034)**	(0.021)**	(0.025)**	(0.024)**	(0.027)**	(0.025)**	(0.026)**
other HE	0.147	0.042	0.101	0.152	-0.024	-0.015	0.000	-0.037	0.084	0.027
	(0.146)	(0.062)	(0.110)	(0.109)	(0.055)	(0.042)	(0.068)	(0.069)	(0.053)	(0.050)
HE diploma	-0.154	0.092	0.057	0.083	0.024	0.044	0.097	0.119	0.067	0.022
	(0.171)	(0.052)	(0.083)	(0.049)	(0.036)	(0.034)	(0.037)**	(0.048)*	(0.040)	(0.049)
2+ A levels	0.099	0.124	0.091	0.112	0.131	0.184	0.166	0.161	0.131	0.157
	(0.025)**	(0.024)**	(0.024)**	(0.030)**	(0.019)**	(0.023)**	(0.023)**	(0.024)**	(0.025)**	(0.026)**
1 A level	0.077	0.080	-0.022	0.073	0.036	0.062	0.077	0.106	0.046	0.063
	(0.033)*	(0.036)*	(0.035)	(0.033)*	(0.027)	(0.027)*	(0.028)**	(0.032)**	(0.029)	(0.034)
A/S levels	0.168	0.143	0.083	-0.121	0.049	0.050	0.076	-0.039	-0.144	0.153
	(0.115)	(0.098)	(0.113)	(0.054)*	(0.055)	(0.078)	(0.104)	(0.069)	(0.107)	(0.068)*
5+ GCSEs A*-C	0.166	0.149	0.153	0.157	0.233	0.192	0.142	0.146	0.188	0.206
	(0.026)**	(0.028)**	(0.027)**	(0.033)**	(0.024)**	(0.024)**	(0.025)**	(0.026)**	(0.028)**	(0.028)**
1-4 GCSEs A*-C	0.027	0.048	0.061	0.038	0.103	0.081	0.025	0.016	0.038	0.109
	(0.029)	(0.031)	(0.030)*	(0.032)	(0.024)**	(0.025)**	(0.027)	(0.026)	(0.028)	(0.029)**
GCSEs D-F	-0.009	-0.034	-0.055	-0.023	0.034	-0.042	-0.088	-0.073	-0.113	-0.007
	(0.041)	(0.039)	(0.036)	(0.043)	(0.032)	(0.034)	(0.036)*	(0.040)	(0.039)**	(0.040)
professional qual.	0.275	0.268	0.293	0.350	0.267	0.220	0.334	0.413	0.403	0.404
	(0.039)**	(0.062)**	(0.038)**	(0.065)**	(0.038)**	(0.048)**	(0.048)**	(0.056)**	(0.046)**	(0.045)**
teaching qual.	0.296	0.315	0.138	0.100	0.100	0.187	0.187	0.184	0.206	0.210
	(0.052)**	(0.052)**	(0.066)*	(0.055)	(0.034)**	(0.037)**	(0.033)**	(0.039)**	(0.040)**	(0.034)**

Table 9 (continued)

Qualification	1993[T]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
nursing qual.	0.160	0.145	0.158	0.054	0.071	0.080	0.092	0.057	0.070	0.102
	(0.028)**	(0.027)**	(0.030)**	(0.029)	(0.021)**	(0.026)**	(0.024)**	(0.032)	(0.028)*	(0.033)**
RSA higher	0.058	-0.004	0.101	-0.007	-0.017	0.048	-0.044	-0.025	-0.157	0.027
	(0.069)	(0.070)	(0.044)*	(0.092)	(0.056)	(0.055)	(0.054)	(0.061)	(0.081)	(0.087)
RSA lower	0.055	0.074	0.051	0.055	0.010	-0.006	0.020	0.014	-0.028	-0.001
	(0.024)*	(0.021)**	(0.021)*	(0.021)**	(0.016)	(0.019)	(0.020)	(0.020)	(0.021)	(0.021)
C&G advan. craft	0.071	-0.120	0.086	-0.105	-0.035	0.038	-0.011	-0.012	-0.049	0.039
	(0.068)	(0.095)	(0.105)	(0.051)*	(0.066)	(0.043)	(0.054)	(0.066)	(0.061)	(0.055)
C&G craft	-0.076	-0.109	-0.117	0.031	0.038	-0.058	-0.000	-0.047	0.078	0.069
	(0.054)	(0.045)*	(0.056)*	(0.051)	(0.048)	(0.058)	(0.060)	(0.070)	(0.059)	(0.062)
C&G other	-0.072	-0.011	-0.082	-0.089	-0.111	-0.019	-0.038	-0.116	-0.104	-0.096
	(0.032)*	(0.039)	(0.048)	(0.032)**	(0.033)**	(0.033)	(0.037)	(0.040)**	(0.039)**	(0.041)*
HND/HNC	0.124	0.005	0.112	0.040	0.050	0.069	0.046	0.101	0.102	0.073
	(0.036)**	(0.036)	(0.030)**	(0.032)	(0.027)	(0.028)*	(0.027)	(0.027)**	(0.031)**	(0.029)*
ONC/OND	0.062	0.117	0.033	0.083	0.032	0.035	0.076	0.084	0.037	0.094
	(0.026)*	(0.028)**	(0.029)	(0.033)*	(0.025)	(0.032)	(0.029)**	(0.028)**	(0.030)	(0.029)**
BTEC diploma	-0.006	0.119	0.106	0.003	0.028	0.015	0.121	0.063	0.054	0.130
	(0.041)	(0.043)**	(0.049)*	(0.060)	(0.025)	(0.037)	(0.038)**	(0.065)	(0.049)	(0.050)**
NVQ 3-5	0.186	0.046	0.004	0.001	0.062	0.020	0.065	0.046	-0.001	0.005
	(0.090)*	(0.090)	(0.066)	(0.082)	(0.041)	(0.034)	(0.035)	(0.039)	(0.027)	(0.028)
NVQ 2	-0.202	-0.102	-0.080	-0.063	-0.119	-0.191	-0.148	-0.199	-0.181	-0.153
	(0.082)*	(0.069)	(0.061)	(0.063)	(0.031)**	(0.040)**	(0.033)**	(0.041)**	(0.035)**	(0.033)**
NVQ1	0.012	-0.149	-0.187	-0.004	0.000	-0.110	-0.062	-0.155	-0.178	-0.149
	(0.100)	(0.120)	(0.120)	(0.077)	(0.048)	(0.065)	(0.049)	(0.047)**	(0.064)**	(0.057)**

Table 9 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
other	0.037	0.035	0.052	0.001	0.042	0.047	0.043	0.097	0.087	0.062
	(0.020)	(0.021)	(0.020)**	(0.018)	(0.012)**	(0.014)**	(0.014)**	(0.016)**	(0.016)**	(0.016)**
apprenticeship				-0.256	-0.131			-0.049	-0.074	
				(0.080)**	(0.054)*			(0.039)	(0.053)	
Constant	-4.666	0.622	2.608	0.024	1.088	-3.550	-1.902	-6.899	-1.804	0.348
	(2.298)*	(2.410)	(2.315)	(2.736)	(2.159)	(2.498)	(2.815)	(3.379)*	(3.492)	(3.720)
Observations	1592	1706	1706	1715	3323	3177	2983	2617	2561	2477
R-squared	0.35	0.36	0.39	0.34	0.35	0.34	0.34	0.36	0.39	0.38

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region, workplace size and (except in 1993) public sector.

Table 10 The Returns to Detailed Qualifications – All Full-Time Employees Aged 26-30 on January 1st 1993, Males

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
higher degree	0.183	0.271	0.226	0.054	0.048	0.025	0.077	0.167	0.149	0.090
	(0.047)**	(0.050)**	(0.041)**	(0.059)	(0.033)	(0.033)	(0.035)*	(0.038)**	(0.038)**	(0.036)*
first degree	0.250	0.213	0.212	0.248	0.189	0.246	0.243	0.240	0.242	0.288
	(0.029)**	(0.032)**	(0.032)**	(0.034)**	(0.024)**	(0.025)**	(0.025)**	(0.026)**	(0.025)**	(0.025)**
other HE	0.168	0.106	0.231	0.334	0.037	0.027	0.017	0.048	0.084	0.021
	(0.076)*	(0.076)	(0.087)**	(0.155)*	(0.055)	(0.086)	(0.065)	(0.061)	(0.062)	(0.070)
HE diploma	0.105	0.006	0.272	-0.025	0.026	0.067	0.042	0.012	0.009	0.088
	(0.071)	(0.082)	(0.084)**	(0.059)	(0.047)	(0.046)	(0.041)	(0.048)	(0.051)	(0.050)
2+ A levels	0.164	0.107	0.179	0.172	0.239	0.209	0.166	0.174	0.191	0.168
	(0.026)**	(0.028)**	(0.029)**	(0.032)**	(0.023)**	(0.023)**	(0.022)**	(0.025)**	(0.023)**	(0.024)**
1 A level	0.155	0.087	0.102	0.128	0.072	0.068	0.073	0.045	0.092	0.076
	(0.043)**	(0.039)*	(0.045)*	(0.047)**	(0.029)*	(0.029)*	(0.031)*	(0.030)	(0.036)*	(0.038)*
A/S levels	0.068	0.358	0.218	0.207	0.092	0.119	-0.025	0.016	0.080	-0.036
	(0.123)	(0.215)	(0.161)	(0.089)*	(0.100)	(0.105)	(0.084)	(0.077)	(0.094)	(0.140)
5+ GCSEs A*-C	0.167	0.269	0.207	0.254	0.215	0.248	0.254	0.306	0.243	0.251
	(0.022)**	(0.023)**	(0.024)**	(0.026)**	(0.020)**	(0.019)**	(0.019)**	(0.020)**	(0.021)**	(0.020)**
1-4 GCSEs A*-C	0.107	0.137	0.139	0.117	0.121	0.117	0.127	0.157	0.100	0.115
	(0.027)**	(0.025)**	(0.023)**	(0.025)**	(0.018)**	(0.017)**	(0.018)**	(0.019)**	(0.020)**	(0.019)**
GCSEs D-F	0.035	0.048	0.034	-0.004	0.027	0.066	0.017	0.034	-0.026	0.037
	(0.028)	(0.028)	(0.026)	(0.029)	(0.022)	(0.022)**	(0.022)	(0.024)	(0.025)	(0.027)
professional qual.	0.274	0.374	0.297	0.294	0.255	0.243	0.346	0.364	0.376	0.416
	(0.033)**	(0.037)**	(0.035)**	(0.056)**	(0.041)**	(0.052)**	(0.042)**	(0.044)**	(0.044)**	(0.054)**

Table 10 (continued)

Qualification	1993[†]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
teaching qual.	0.165	0.168	0.183	0.058	0.043	0.078	0.016	0.019	0.049	0.070
	(0.082)*	(0.083)*	(0.068)**	(0.091)	(0.063)	(0.050)	(0.045)	(0.052)	(0.052)	(0.036)
nursing qual.	0.135	-0.007	0.130	0.011	0.053	0.083	0.012	0.103	0.140	0.047
	(0.085)	(0.070)	(0.052)*	(0.057)	(0.042)	(0.061)	(0.044)	(0.051)*	(0.071)*	(0.063)
RSA higher	-0.221		-0.473	-0.599	-0.000	-0.052	-0.051	0.030	-0.087	0.117
	(0.067)**		(0.032)**	(0.252)*	(0.076)	(0.167)	(0.164)	(0.263)	(0.117)	(0.059)*
RSA lower	0.016	0.240	-0.179	0.003	-0.227	-0.059	-0.142	-0.129	-0.018	-0.143
	(0.090)	(0.096)*	(0.137)	(0.063)	(0.056)**	(0.049)	(0.052)**	(0.055)*	(0.062)	(0.049)**
C&G advan. craft	-0.007	0.071	0.086	0.013	0.036	0.041	0.031	0.059	0.038	0.037
	(0.055)	(0.035)*	(0.034)*	(0.031)	(0.021)	(0.022)	(0.023)	(0.022)**	(0.020)	(0.023)
C&G craft	0.085	0.019	0.051	0.013	0.056	0.065	0.041	0.080	0.071	0.034
	(0.024)**	(0.026)	(0.023)*	(0.038)	(0.030)	(0.034)	(0.032)	(0.039)*	(0.040)	(0.038)
C&G other	-0.022	0.042	0.011	0.024	-0.029	-0.068	-0.037	-0.069	-0.043	-0.039
	(0.032)	(0.031)	(0.030)	(0.033)	(0.027)	(0.030)*	(0.027)	(0.034)*	(0.035)	(0.033)
HND/HNC	0.177	0.135	0.171	0.125	0.107	0.139	0.122	0.117	0.129	0.161
	(0.025)**	(0.026)**	(0.027)**	(0.034)**	(0.020)**	(0.022)**	(0.020)**	(0.022)**	(0.022)**	(0.022)**
ONC/OND	0.115	0.084	0.131	0.054	0.098	0.064	0.099	0.090	0.113	0.109
	(0.027)**	(0.028)**	(0.027)**	(0.035)	(0.023)**	(0.023)**	(0.023)**	(0.024)**	(0.024)**	(0.027)**
BTEC diploma	0.135	0.146	0.041	0.055	0.098	-0.021	0.062	0.128	0.151	0.065
	(0.054)*	(0.081)	(0.094)	(0.075)	(0.050)*	(0.057)	(0.054)	(0.051)*	(0.070)*	(0.053)
NVQ 3-5	0.097	0.164	-0.028	0.105	0.024	0.034	0.009	-0.040	0.039	0.003
	(0.193)	(0.092)	(0.097)	(0.083)	(0.036)	(0.039)	(0.037)	(0.038)	(0.028)	(0.027)

Table 10 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
NVQ 2	-0.767	-0.306	-0.179	0.098	-0.099	-0.130	-0.090	-0.121	-0.224	-0.176
	(0.222)**	(0.144)*	(0.085)*	(0.065)	(0.042)*	(0.039)**	(0.034)**	(0.032)**	(0.033)**	(0.039)**
NVQ1	-0.396	-0.269	-0.070	-0.095	-0.130	-0.200	-0.092	-0.076	-0.099	-0.021
	(0.076)**	(0.116)*	(0.099)	(0.077)	(0.053)*	(0.057)**	(0.050)	(0.053)	(0.056)	(0.057)
other	0.045	0.039	0.042	0.030	0.076	0.035	0.046	0.055	0.055	0.066
	(0.021)*	(0.019)*	(0.018)*	(0.017)	(0.012)**	(0.012)**	(0.012)**	(0.013)**	(0.013)**	(0.013)**
apprenticeship	0.229	0.229	0.465	0.013	0.039	-0.059	0.037	0.012	-0.083	0.001
	(0.163)	(0.217)	(0.173)**	(0.083)	(0.071)	(0.081)	(0.102)	(0.132)	(0.105)	(0.097)
Constant	-1.271	-0.254	3.791	2.393	-4.109	1.507	-0.333	3.772	3.288	-3.420
	(2.880)	(3.071)	(3.596)	(3.577)	(2.795)	(3.090)	(3.148)	(3.698)	(4.136)	(4.323)
Observations	2371	2436	2583	2527	5109	4992	4737	4525	4496	4280
R-squared	0.32	0.32	0.32	0.35	0.33	0.36	0.35	0.36	0.35	0.36

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region, workplace size and (except in 1993) public sector.

Table 11 The Returns to Detailed Qualifications – All Full-Time Employees Aged 26-30 on January 1st 1993, Females

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
higher degree	0.088	0.187	0.174	0.004	0.104	0.026	0.022	0.154	0.046	0.067
	(0.056)	(0.041)**	(0.061)**	(0.051)	(0.046)*	(0.046)	(0.052)	(0.050)**	(0.054)	(0.053)
first degree	0.288	0.279	0.297	0.282	0.265	0.260	0.225	0.239	0.304	0.294
	(0.038)**	(0.032)**	(0.036)**	(0.038)**	(0.028)**	(0.028)**	(0.028)**	(0.028)**	(0.028)**	(0.029)**
other HE	0.183	0.131	0.137	0.164	0.151	0.068	0.078	0.088	0.062	0.055
	(0.067)**	(0.056)*	(0.085)	(0.053)**	(0.057)**	(0.048)	(0.051)	(0.047)	(0.050)	(0.065)
HE diploma	0.106	0.165	0.260	0.082	0.065	0.125	0.080	0.120	0.126	0.056
	(0.061)	(0.055)**	(0.042)**	(0.039)*	(0.042)	(0.039)**	(0.045)	(0.037)**	(0.043)**	(0.037)
2+ A levels	0.141	0.168	0.143	0.108	0.170	0.178	0.189	0.227	0.182	0.159
	(0.031)**	(0.028)**	(0.032)**	(0.039)**	(0.024)**	(0.024)**	(0.024)**	(0.024)**	(0.026)**	(0.029)**
1 A level	0.088	0.086	0.036	0.061	0.069	0.031	0.130	0.143	0.107	0.077
	(0.044)*	(0.047)	(0.042)	(0.039)	(0.028)*	(0.034)	(0.032)**	(0.036)**	(0.041)**	(0.034)*
A/S levels	0.199	0.080	-0.004	-0.043	0.032	0.052	-0.140	0.139	-0.067	-0.140
	(0.085)*	(0.115)	(0.196)	(0.115)	(0.154)	(0.074)	(0.116)	(0.107)	(0.100)	(0.066)*
5+ GCSEs A*-C	0.171	0.176	0.204	0.187	0.285	0.278	0.222	0.178	0.214	0.257
	(0.030)**	(0.029)**	(0.030)**	(0.039)**	(0.025)**	(0.027)**	(0.029)**	(0.027)**	(0.027)**	(0.028)**
1-4 GCSEs A*-C	0.068	0.054	0.058	0.064	0.179	0.125	0.070	0.065	0.090	0.117
	(0.034)*	(0.032)	(0.033)	(0.037)	(0.026)**	(0.026)**	(0.028)*	(0.028)*	(0.028)**	(0.026)**
GCSEs D-F	-0.086	-0.010	-0.007	-0.095	0.040	0.029	-0.057	-0.078	-0.091	0.030
	(0.045)	(0.041)	(0.042)	(0.046)*	(0.040)	(0.035)	(0.036)	(0.039)*	(0.037)*	(0.038)
professional qual.	0.316	0.333	0.263	0.329	0.297	0.392	0.382	0.369	0.391	0.334
	(0.042)**	(0.035)**	(0.045)**	(0.067)**	(0.065)**	(0.047)**	(0.039)**	(0.042)**	(0.053)**	(0.064)**
teaching qual.	0.341	0.274	0.294	0.194	0.167	0.161	0.063	0.085	0.182	0.153
	(0.060)**	(0.048)**	(0.051)**	(0.053)**	(0.037)**	(0.039)**	(0.038)	(0.040)*	(0.042)**	(0.038)**

Table 11 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
nursing qual.	0.176	0.262	0.120	0.115	0.146	0.090	0.086	0.123	0.122	0.164
	(0.038)**	(0.030)**	(0.032)**	(0.032)**	(0.024)**	(0.025)**	(0.025)**	(0.029)**	(0.029)**	(0.027)**
RSA higher	0.150	0.076	-0.008	-0.053	-0.018	-0.037	-0.070	0.132	-0.066	0.012
	(0.055)**	(0.089)	(0.077)	(0.094)	(0.075)	(0.090)	(0.060)	(0.095)	(0.106)	(0.109)
RSA lower	0.044	0.060	0.049	-0.031	-0.024	-0.028	-0.034	-0.029	-0.031	-0.028
	(0.026)	(0.026)*	(0.027)	(0.028)	(0.020)	(0.020)	(0.020)	(0.020)	(0.021)	(0.021)
C&G advan. craft	-0.148	-0.002	0.040	-0.293	-0.039	-0.120	-0.106	-0.063	-0.084	-0.089
	(0.101)	(0.100)	(0.138)	(0.082)**	(0.057)	(0.099)	(0.070)	(0.074)	(0.061)	(0.054)
C&G craft	-0.080	-0.048	0.086	-0.012	-0.039	0.047	0.031	0.051	0.026	0.007
	(0.053)	(0.066)	(0.058)	(0.092)	(0.061)	(0.079)	(0.076)	(0.081)	(0.071)	(0.065)
C&G other	-0.042	-0.072	-0.026	-0.065	-0.070	-0.174	-0.122	-0.096	-0.135	-0.142
	(0.044)	(0.053)	(0.048)	(0.048)	(0.036)	(0.052)**	(0.060)*	(0.063)	(0.049)**	(0.045)**
HND/HNC	0.110	0.143	0.119	0.103	0.056	0.074	0.032	0.105	0.091	0.080
	(0.037)**	(0.052)**	(0.036)**	(0.043)*	(0.031)	(0.032)*	(0.037)	(0.036)**	(0.036)*	(0.040)*
ONC/OND	0.063	0.152	0.193	0.090	0.107	0.111	0.026	0.011	0.076	0.063
	(0.050)	(0.040)**	(0.038)**	(0.055)	(0.033)**	(0.039)**	(0.034)	(0.040)	(0.032)*	(0.034)
BTEC diploma	0.086	0.240	0.044	0.052	-0.025	0.043	0.065	0.051	0.065	0.038
	(0.054)	(0.065)**	(0.090)	(0.056)	(0.049)	(0.055)	(0.054)	(0.060)	(0.054)	(0.103)
NVQ 3-5	0.195	0.051	0.041	-0.084	-0.033	0.066	0.029	0.045	0.080	-0.033
	(0.115)	(0.068)	(0.075)	(0.070)	(0.047)	(0.040)	(0.035)	(0.034)	(0.038)*	(0.034)
NVQ 2	-0.392	0.056	-0.154	-0.185	-0.009	-0.139	-0.080	-0.184	-0.116	-0.164
	(0.101)**	(0.123)	(0.058)**	(0.075)*	(0.063)	(0.039)**	(0.042)	(0.044)**	(0.030)**	(0.035)**
NVQ1	-0.227	-0.179	-0.112	0.071	-0.241	-0.132	-0.261	-0.187	-0.198	-0.052
	(0.176)	(0.102)	(0.087)	(0.133)	(0.061)**	(0.064)*	(0.061)**	(0.056)**	(0.070)**	(0.086)

Table 11 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
other	0.124	0.084	0.100	0.083	0.068	0.059	0.056	0.049	0.057	0.066
	(0.026)**	(0.025)**	(0.025)**	(0.024)**	(0.015)**	(0.015)**	(0.016)**	(0.017)**	(0.017)**	(0.017)**
apprenticeship	-0.220			-0.391	-0.500		0.053	-0.246	-0.195	-0.257
	(0.229)			(0.165)*	(0.035)**		(0.043)	(0.091)**	(0.112)	(0.105)*
Constant	-1.009	-1.811	-3.228	-6.851	0.425	1.153	-2.132	4.414	-4.435	11.332
	(3.370)	(3.945)	(4.204)	(4.521)	(3.595)	(3.962)	(4.450)	(4.479)	(4.730)	(5.395)*
Observations	1550	1529	1506	1335	2781	2624	2528	2464	2398	2365
R-squared	0.41	0.39	0.39	0.38	0.39	0.41	0.37	0.40	0.41	0.37

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region, workplace size and (except in 1993) public sector.

Table 12 The Returns to Detailed Qualifications – All Full-Time Employees Aged 31-35 on January 1st 1993, Males

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
higher degree	0.272	0.259	0.258	0.062	0.129	0.125	0.080	0.094	0.095	0.138
	(0.052)**	(0.047)**	(0.047)**	(0.070)	(0.036)**	(0.034)**	(0.040)*	(0.040)*	(0.039)*	(0.038)**
first degree	0.249	0.232	0.270	0.180	0.254	0.236	0.256	0.228	0.260	0.252
	(0.035)**	(0.035)**	(0.034)**	(0.034)**	(0.024)**	(0.027)**	(0.029)**	(0.029)**	(0.027)**	(0.028)**
other HE	0.180	0.123	0.249	-0.006	0.126	0.068	0.063	0.225	0.143	0.088
	(0.106)	(0.107)	(0.062)**	(0.109)	(0.052)*	(0.060)	(0.058)	(0.060)**	(0.051)**	(0.067)
HE diploma	0.063	-0.006	0.225	0.021	0.015	0.081	-0.028	0.058	0.050	0.069
	(0.084)	(0.102)	(0.072)**	(0.058)	(0.065)	(0.050)	(0.044)	(0.046)	(0.056)	(0.045)
2+ A levels	0.157	0.213	0.200	0.273	0.142	0.167	0.178	0.202	0.223	0.205
	(0.030)**	(0.028)**	(0.029)**	(0.034)**	(0.024)**	(0.026)**	(0.027)**	(0.026)**	(0.026)**	(0.028)**
1 A level	0.088	0.151	0.101	0.041	0.039	0.043	0.010	0.071	0.109	0.073
	(0.046)	(0.043)**	(0.046)*	(0.048)	(0.033)	(0.035)	(0.041)	(0.036)	(0.034)**	(0.038)
A/S levels	0.198	0.690	-0.036	0.445	0.071	-0.361	-0.133	0.298	0.114	-0.096
	(0.161)	(0.059)**	(0.048)	(0.048)**	(0.133)	(0.276)	(0.145)	(0.172)	(0.181)	(0.090)
5+ GCSEs A*-C	0.227	0.250	0.232	0.244	0.318	0.311	0.274	0.309	0.272	0.263
	(0.023)**	(0.025)**	(0.023)**	(0.030)**	(0.020)**	(0.021)**	(0.021)**	(0.022)**	(0.021)**	(0.021)**
1-4 GCSEs A*-C	0.122	0.139	0.134	0.133	0.167	0.159	0.145	0.178	0.135	0.159
	(0.027)**	(0.025)**	(0.026)**	(0.025)**	(0.018)**	(0.019)**	(0.020)**	(0.019)**	(0.020)**	(0.020)**
GCSEs D-F	0.023	0.059	-0.001	0.021	0.063	0.045	0.039	0.086	-0.028	0.069
	(0.032)	(0.028)*	(0.027)	(0.032)	(0.024)*	(0.023)*	(0.024)	(0.024)**	(0.024)	(0.025)**
professional qual.	0.311	0.311	0.308	0.193	0.243	0.341	0.368	0.338	0.406	0.457
	(0.035)**	(0.037)**	(0.030)**	(0.057)**	(0.043)**	(0.040)**	(0.050)**	(0.048)**	(0.050)**	(0.046)**
teaching qual.	0.258	0.169	0.127	-0.008	0.009	0.100	0.068	0.059	0.060	0.034
	(0.053)**	(0.063)**	(0.045)**	(0.057)	(0.034)	(0.036)**	(0.046)	(0.046)	(0.043)	(0.047)

Table 12 (continued)

Qualification	1993[T]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
nursing qual.	0.142	0.176	0.170	-0.001	0.025	0.037	0.165	0.209	0.143	0.113
	(0.087)	(0.057)**	(0.055)**	(0.110)	(0.053)	(0.058)	(0.059)**	(0.066)**	(0.074)	(0.065)
RSA higher	0.158	-0.082	-0.331	-0.186	-0.055	0.243	-0.323	0.027	0.110	0.034
	(0.138)	(0.178)	(0.147)*	(0.096)	(0.091)	(0.091)**	(0.456)	(0.045)	(0.050)*	(0.097)
RSA lower	0.100	-0.089	0.058	-0.094	-0.034	-0.145	-0.119	-0.177	-0.147	-0.104
	(0.102)	(0.091)	(0.099)	(0.095)	(0.078)	(0.060)*	(0.061)	(0.068)**	(0.051)**	(0.059)
C&G advan. craft	0.106	0.029	0.072	0.041	0.083	0.090	0.057	0.028	0.041	0.007
	(0.035)**	(0.029)	(0.031)*	(0.029)	(0.020)**	(0.019)**	(0.020)**	(0.022)	(0.020)*	(0.021)
C&G craft	0.097	0.024	0.033	-0.022	0.073	0.104	0.085	0.038	0.104	0.110
	(0.029)**	(0.022)	(0.024)	(0.042)	(0.035)*	(0.041)*	(0.045)	(0.041)	(0.040)*	(0.045)*
C&G other	0.063	0.005	0.029	0.022	-0.037	-0.095	-0.090	-0.044	-0.032	-0.054
	(0.030)*	(0.034)	(0.032)	(0.038)	(0.032)	(0.037)**	(0.041)*	(0.037)	(0.035)	(0.041)
HND/HNC	0.163	0.175	0.205	0.104	0.067	0.087	0.141	0.113	0.106	0.107
	(0.032)**	(0.029)**	(0.029)**	(0.036)**	(0.021)**	(0.024)**	(0.026)**	(0.024)**	(0.022)**	(0.025)**
ONC/OND	0.139	0.127	0.089	0.184	0.117	0.117	0.091	0.087	0.104	0.073
	(0.034)**	(0.028)**	(0.032)**	(0.040)**	(0.024)**	(0.027)**	(0.030)**	(0.027)**	(0.028)**	(0.027)**
BTEC diploma	0.113	-0.008	0.065	0.061	-0.019	0.157	0.034	-0.007	-0.033	0.015
	(0.105)	(0.097)	(0.204)	(0.073)	(0.089)	(0.064)*	(0.080)	(0.059)	(0.072)	(0.068)
NVQ 3-5	-0.149	0.149	0.196	0.102	-0.087	-0.002	-0.109	-0.046	-0.013	-0.067
	(0.144)	(0.054)**	(0.129)	(0.083)	(0.046)	(0.042)	(0.045)*	(0.033)	(0.036)	(0.040)
NVQ 2	-0.073	-0.448	-0.070	-0.256	-0.069	-0.043	-0.050	-0.143	-0.194	-0.278
	(0.172)	(0.213)*	(0.101)	(0.079)**	(0.049)	(0.047)	(0.042)	(0.044)**	(0.043)**	(0.049)**
NVQ1	0.003	0.084	-0.146	-0.208	-0.215	-0.227	-0.219	-0.182	-0.111	-0.264
	(0.149)	(0.206)	(0.140)	(0.146)	(0.051)**	(0.081)**	(0.060)**	(0.054)**	(0.049)*	(0.056)**

Table 12 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
other	0.042	0.050	0.101	0.037	0.053	0.061	0.042	0.070	0.077	0.041
	(0.022)	(0.020)*	(0.020)**	(0.018)*	(0.013)**	(0.013)**	(0.014)**	(0.014)**	(0.014)**	(0.014)**
apprenticeship	0.085	0.006	-0.180	-0.053	0.109	0.017	0.062	0.066	0.003	-0.109
	(0.151)	(0.064)	(0.082)*	(0.087)	(0.056)	(0.049)	(0.079)	(0.077)	(0.090)	(0.084)
Constant	-0.069	-0.909	-4.479	8.559	2.418	8.287	4.407	0.850	5.415	12.712
	(4.690)	(4.448)	(4.785)	(5.312)	(4.095)	(4.390)	(4.678)	(5.098)	(5.298)	(5.720)*
Observations	2299	2322	2421	2458	4562	4558	4234	4041	3968	3848
R-squared	0.32	0.34	0.34	0.33	0.36	0.36	0.34	0.36	0.39	0.36

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region, workplace size and (except in 1993) public sector.

Table 13 The Returns to Detailed Qualifications – All Full-Time Employees Aged 31-35 on January 1st 1993, Females

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
higher degree	0.389	0.232	0.307	0.020	0.043	0.198	0.110	0.173	0.156	0.220
	(0.064)**	(0.072)**	(0.087)**	(0.091)	(0.060)	(0.063)**	(0.056)*	(0.060)**	(0.059)**	(0.052)**
first degree	0.336	0.283	0.282	0.313	0.269	0.267	0.238	0.221	0.295	0.280
	(0.044)**	(0.043)**	(0.046)**	(0.048)**	(0.034)**	(0.032)**	(0.030)**	(0.038)**	(0.032)**	(0.030)**
other HE	0.156	0.150	0.112	0.097	0.171	0.232	0.134	0.063	0.141	0.016
	(0.093)	(0.085)	(0.077)	(0.090)	(0.068)*	(0.064)**	(0.055)*	(0.051)	(0.058)*	(0.061)
HE diploma	0.304	0.194	0.306	0.149	0.060	0.111	0.083	0.101	0.095	0.089
	(0.072)**	(0.082)*	(0.070)**	(0.051)**	(0.047)	(0.043)**	(0.049)	(0.041)*	(0.042)*	(0.047)
2+ A levels	0.179	0.235	0.216	0.192	0.184	0.139	0.203	0.194	0.199	0.183
	(0.039)**	(0.036)**	(0.043)**	(0.042)**	(0.031)**	(0.029)**	(0.029)**	(0.032)**	(0.029)**	(0.027)**
1 A level	0.115	0.228	0.135	-0.038	0.069	0.143	0.057	0.106	0.069	0.022
	(0.063)	(0.053)**	(0.069)	(0.060)	(0.036)	(0.033)**	(0.042)	(0.037)**	(0.035)	(0.038)
A/S levels	0.180	0.387	-0.017	-0.373	-0.233	-0.177	-0.091	0.178	0.088	0.196
	(0.123)	(0.212)	(0.211)	(0.213)	(0.142)	(0.213)	(0.092)	(0.159)	(0.104)	(0.304)
5+ GCSEs A*-C	0.257	0.238	0.273	0.247	0.280	0.300	0.297	0.273	0.278	0.280
	(0.036)**	(0.033)**	(0.032)**	(0.043)**	(0.026)**	(0.026)**	(0.026)**	(0.026)**	(0.025)**	(0.024)**
1-4 GCSEs A*-C	0.130	0.106	0.166	0.167	0.127	0.156	0.156	0.168	0.136	0.136
	(0.041)**	(0.032)**	(0.037)**	(0.042)**	(0.024)**	(0.024)**	(0.025)**	(0.025)**	(0.023)**	(0.023)**
GCSEs D-F	-0.003	0.016	0.103	0.068	0.053	0.050	0.015	0.033	0.006	0.052
	(0.050)	(0.040)	(0.045)*	(0.070)	(0.039)	(0.034)	(0.039)	(0.037)	(0.038)	(0.033)
professional qual.	0.373	0.240	0.426	0.249	0.427	0.358	0.417	0.438	0.442	0.448
	(0.053)**	(0.061)**	(0.048)**	(0.092)**	(0.046)**	(0.048)**	(0.058)**	(0.068)**	(0.056)**	(0.060)**
teaching qual.	0.342	0.324	0.283	0.208	0.209	0.154	0.159	0.190	0.200	0.182
	(0.076)**	(0.060)**	(0.057)**	(0.049)**	(0.046)**	(0.040)**	(0.033)**	(0.034)**	(0.039)**	(0.037)**

Table 13 (continued)

Qualification	1993[T]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
nursing qual.	0.200	0.233	0.234	0.171	0.154	0.128	0.147	0.130	0.200	0.152
	(0.044)**	(0.043)**	(0.045)**	(0.042)**	(0.030)**	(0.026)**	(0.026)**	(0.028)**	(0.026)**	(0.024)**
RSA higher	0.152	0.080	-0.019	-0.099	0.152	0.172	0.075	0.051	-0.016	0.084
	(0.090)	(0.117)	(0.106)	(0.113)	(0.049)**	(0.097)	(0.077)	(0.074)	(0.083)	(0.122)
RSA lower	0.015	0.092	0.005	-0.007	-0.005	-0.032	0.018	-0.006	0.004	-0.033
	(0.040)	(0.031)**	(0.037)	(0.036)	(0.022)	(0.020)	(0.022)	(0.021)	(0.020)	(0.022)
C&G advan. craft	0.023	0.014	-0.051	-0.061	-0.039	-0.078	-0.105	-0.105	0.021	-0.042
	(0.131)	(0.103)	(0.113)	(0.141)	(0.074)	(0.079)	(0.081)	(0.096)	(0.065)	(0.082)
C&G craft	0.137	-0.031	-0.111	-0.034	-0.020	-0.159	-0.090	-0.008	0.078	0.109
	(0.130)	(0.079)	(0.100)	(0.126)	(0.075)	(0.068)*	(0.071)	(0.078)	(0.081)	(0.069)
C&G other	-0.026	0.112	0.028	-0.088	-0.064	0.011	-0.000	-0.081	-0.140	-0.136
	(0.061)	(0.070)	(0.068)	(0.065)	(0.061)	(0.055)	(0.040)	(0.055)	(0.053)**	(0.053)**
HND/HNC	0.116	0.255	0.213	0.034	0.060	0.110	0.150	0.079	0.136	0.108
	(0.061)	(0.057)**	(0.059)**	(0.078)	(0.047)	(0.043)*	(0.044)**	(0.047)	(0.045)**	(0.044)*
ONC/OND	0.175	0.018	0.196	0.210	0.154	0.073	0.011	0.097	0.100	0.064
	(0.074)*	(0.054)	(0.054)**	(0.068)**	(0.040)**	(0.038)	(0.041)	(0.047)*	(0.062)	(0.051)
BTEC diploma	0.177	0.376	0.090	-0.035	0.118	0.071	-0.027	-0.008	-0.055	0.116
	(0.064)**	(0.082)**	(0.075)	(0.195)	(0.071)	(0.066)	(0.078)	(0.138)	(0.117)	(0.102)
NVQ 3-5	0.008	-0.038	-0.081	0.078	0.051	0.055	0.017	0.037	-0.050	0.021
	(0.162)	(0.092)	(0.104)	(0.073)	(0.044)	(0.040)	(0.046)	(0.037)	(0.036)	(0.032)
NVQ 2	-0.172	-0.149	-0.024	-0.172	-0.181	-0.148	-0.171	-0.135	-0.104	-0.183
	(0.067)*	(0.125)	(0.098)	(0.061)**	(0.045)**	(0.037)**	(0.045)**	(0.038)**	(0.034)**	(0.033)**
NVQ1	-0.064	0.145	-0.129	-0.485	-0.217	-0.159	-0.137	-0.090	-0.099	-0.094
	(0.046)	(0.136)	(0.233)	(0.126)**	(0.062)**	(0.050)**	(0.098)	(0.097)	(0.066)	(0.063)

Table 13 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
other	0.122	0.079	0.095	0.051	0.081	0.056	0.087	0.071	0.014	0.026
	(0.032)**	(0.028)**	(0.029)**	(0.028)	(0.017)**	(0.017)**	(0.017)**	(0.018)**	(0.017)	(0.016)
apprenticeship	0.751	0.226	-0.250	-0.247	0.048	-0.059	-0.040	-0.217	-0.150	-0.066
	(0.116)**	(0.061)**	(0.065)**	(0.098)*	(0.135)	(0.071)	(0.103)	(0.084)*	(0.069)*	(0.086)
Constant	8.400	-2.339	5.766	-6.557	10.191	-1.583	3.067	3.008	10.060	15.209
	(6.949)	(6.111)	(7.311)	(7.937)	(4.857)*	(5.285)	(5.748)	(6.355)	(6.388)	(6.527)*
Observations	1038	1108	1180	1178	2448	2436	2356	2329	2378	2369
R-squared	0.41	0.48	0.42	0.38	0.41	0.40	0.42	0.39	0.42	0.42

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region, workplace size and (except in 1993) public sector.

Table 14 The Returns to Detailed Qualifications – All Full-Time Employees Aged 36-40 on January 1st 1993, Males

Qualification	1993[†]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
higher degree	0.306	0.292	0.301	0.144	0.062	0.080	0.099	0.101	0.142	0.126
	(0.045)**	(0.064)**	(0.045)**	(0.054)**	(0.040)	(0.043)	(0.040)*	(0.043)*	(0.040)**	(0.046)**
first degree	0.231	0.302	0.271	0.247	0.265	0.280	0.262	0.268	0.191	0.233
	(0.037)**	(0.036)**	(0.036)**	(0.036)**	(0.028)**	(0.029)**	(0.028)**	(0.031)**	(0.029)**	(0.031)**
other HE	0.071	0.183	0.248	-0.055	0.057	0.113	0.065	0.071	0.088	0.051
	(0.072)	(0.116)	(0.067)**	(0.108)	(0.063)	(0.057)*	(0.055)	(0.055)	(0.061)	(0.062)
HE diploma	0.226	0.208	0.202	0.088	0.091	0.078	0.077	0.096	0.067	0.068
	(0.068)**	(0.062)**	(0.063)**	(0.047)	(0.050)	(0.046)	(0.043)	(0.056)	(0.057)	(0.066)
2+ A levels	0.180	0.173	0.237	0.138	0.170	0.140	0.118	0.138	0.201	0.171
	(0.032)**	(0.034)**	(0.033)**	(0.035)**	(0.027)**	(0.028)**	(0.028)**	(0.028)**	(0.028)**	(0.029)**
1 A level	0.182	0.116	0.027	0.171	0.093	0.043	0.047	0.125	0.073	0.038
	(0.047)**	(0.057)*	(0.056)	(0.089)	(0.041)*	(0.039)	(0.039)	(0.049)*	(0.043)	(0.038)
A/S levels	0.205	0.211	0.716	-0.098	0.260	-0.075	-0.162	-0.051	-0.063	-0.334
	(0.189)	(0.184)	(0.096)**	(0.078)	(0.115)*	(0.158)	(0.289)	(0.081)	(0.109)	(0.316)
5+ GCSEs A*-C	0.252	0.311	0.312	0.299	0.314	0.313	0.337	0.323	0.291	0.279
	(0.025)**	(0.027)**	(0.025)**	(0.032)**	(0.022)**	(0.023)**	(0.023)**	(0.024)**	(0.024)**	(0.026)**
1-4 GCSEs A*-C	0.108	0.246	0.222	0.206	0.197	0.168	0.185	0.168	0.197	0.156
	(0.032)**	(0.028)**	(0.029)**	(0.027)**	(0.019)**	(0.019)**	(0.020)**	(0.023)**	(0.022)**	(0.023)**
GCSEs D-F	0.093	0.153	0.113	0.001	0.162	0.083	0.088	0.080	0.058	0.093
	(0.038)*	(0.041)**	(0.033)**	(0.043)	(0.032)**	(0.027)**	(0.035)*	(0.030)**	(0.036)	(0.035)**
professional qual.	0.311	0.364	0.337	0.372	0.332	0.347	0.369	0.303	0.225	0.348
	(0.038)**	(0.038)**	(0.042)**	(0.049)**	(0.043)**	(0.041)**	(0.037)**	(0.040)**	(0.042)**	(0.047)**
teaching qual.	0.202	0.183	0.249	0.039	-0.016	0.022	0.072	0.049	0.004	0.071
	(0.056)**	(0.065)**	(0.038)**	(0.047)	(0.035)	(0.032)	(0.033)*	(0.034)	(0.036)	(0.035)*

Table 14 (continued)

Qualification	1993[†]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
nursing qual.	0.196	0.145	0.138	0.019	0.138	0.111	0.027	0.087	0.022	-0.015
	(0.080)*	(0.062)*	(0.105)	(0.070)	(0.054)*	(0.051)*	(0.067)	(0.065)	(0.063)	(0.067)
RSA higher	-0.144	0.186	0.135	0.068	0.006	-0.116	0.047	-0.043	-0.045	0.180
	(0.346)	(0.127)	(0.061)*	(0.057)	(0.065)	(0.084)	(0.181)	(0.180)	(0.107)	(0.062)**
RSA lower	-0.035	0.080	-0.121	-0.125	-0.085	-0.195	-0.100	-0.027	-0.117	-0.051
	(0.137)	(0.103)	(0.109)	(0.089)	(0.086)	(0.065)**	(0.061)	(0.065)	(0.057)*	(0.087)
C&G advan. Craft	0.171	0.065	0.051	-0.003	0.055	0.074	0.056	0.039	0.058	0.063
	(0.036)**	(0.033)*	(0.037)	(0.038)	(0.026)*	(0.021)**	(0.023)*	(0.023)	(0.024)*	(0.026)*
C&G craft	0.036	0.069	0.045	0.059	0.099	0.123	0.054	0.015	0.060	0.072
	(0.025)	(0.027)**	(0.028)	(0.046)	(0.037)**	(0.037)**	(0.054)	(0.046)	(0.050)	(0.047)
C&G other	0.050	0.055	0.020	0.025	-0.031	-0.058	-0.007	0.039	-0.019	-0.029
	(0.038)	(0.035)	(0.035)	(0.037)	(0.034)	(0.034)	(0.051)	(0.042)	(0.046)	(0.043)
HND/HNC	0.156	0.213	0.262	0.139	0.105	0.119	0.102	0.119	0.114	0.162
	(0.035)**	(0.035)**	(0.032)**	(0.035)**	(0.028)**	(0.025)**	(0.027)**	(0.028)**	(0.029)**	(0.029)**
ONC/OND	0.119	0.147	0.097	0.114	0.102	0.044	0.030	0.080	0.131	0.048
	(0.039)**	(0.044)**	(0.042)*	(0.034)**	(0.028)**	(0.030)	(0.030)	(0.032)*	(0.035)**	(0.032)
BTEC diploma	0.186	-0.088	-0.387	-0.050	-0.110	-0.145	-0.230	-0.082	0.035	-0.075
	(0.121)	(0.171)	(0.124)**	(0.096)	(0.108)	(0.071)*	(0.090)*	(0.098)	(0.086)	(0.102)
NVQ 3-5	0.039	0.111	-0.008	0.035	0.027	-0.014	-0.025	0.035	-0.018	-0.049
	(0.069)	(0.060)	(0.102)	(0.071)	(0.056)	(0.041)	(0.042)	(0.045)	(0.041)	(0.047)
NVQ 2	-0.053	-0.304	-0.227	-0.072	-0.236	-0.165	-0.177	-0.246	-0.180	-0.214
	(0.139)	(0.125)*	(0.116)	(0.091)	(0.055)**	(0.045)**	(0.052)**	(0.063)**	(0.050)**	(0.043)**
NVQ1	-0.195	-0.562	-0.385	-0.189	-0.164	-0.187	-0.246	-0.151	-0.084	-0.179
	(0.104)	(0.109)**	(0.124)**	(0.192)	(0.137)	(0.079)*	(0.073)**	(0.059)**	(0.083)	(0.079)*

Table 14 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
other	0.010	0.063	0.098	0.054	0.062	0.053	0.038	0.043	0.064	0.021
	(0.023)	(0.022)**	(0.022)**	(0.020)**	(0.014)**	(0.014)**	(0.014)**	(0.015)**	(0.015)**	(0.016)
apprenticeship	-0.084	0.103	0.034	0.029	0.019	0.045	-0.029	-0.002	-0.011	-0.088
	(0.120)	(0.084)	(0.079)	(0.063)	(0.059)	(0.083)	(0.052)	(0.079)	(0.054)	(0.055)
Constant	12.143	-0.369	-0.023	8.085	-4.683	2.385	13.477	6.426	11.298	7.771
	(6.687)	(7.078)	(6.247)	(7.682)	(5.457)	(5.646)	(5.914)*	(6.937)	(7.365)	(7.745)
Observations	1964	2007	2105	2094	4070	4033	3826	3591	3422	3265
R-squared	0.34	0.36	0.39	0.36	0.37	0.37	0.37	0.35	0.34	0.34

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region, workplace size and (except in 1993) public sector.

Table 15 The Returns to Detailed Qualifications – All Full-Time Employees Aged 36-40 on January 1st 1993, Females

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
higher degree	0.379	0.349	0.367	0.134	0.151	0.143	0.069	0.110	0.189	0.148
	(0.079)**	(0.061)**	(0.065)**	(0.075)	(0.047)**	(0.050)**	(0.052)	(0.058)	(0.050)**	(0.049)**
first degree	0.390	0.312	0.215	0.239	0.289	0.301	0.264	0.253	0.261	0.265
	(0.044)**	(0.044)**	(0.052)**	(0.047)**	(0.030)**	(0.028)**	(0.035)**	(0.029)**	(0.032)**	(0.033)**
other HE	0.241	0.274	0.078	0.050	0.199	0.180	0.120	0.079	0.039	0.045
	(0.164)	(0.100)**	(0.115)	(0.080)	(0.042)**	(0.049)**	(0.054)*	(0.044)	(0.054)	(0.070)
HE diploma	0.265	0.204	0.360	0.221	0.097	0.084	0.099	0.170	0.099	0.124
	(0.050)**	(0.067)**	(0.050)**	(0.061)**	(0.044)*	(0.041)*	(0.050)*	(0.039)**	(0.038)**	(0.044)**
2+ A levels	0.162	0.201	0.157	0.181	0.168	0.134	0.173	0.128	0.145	0.163
	(0.040)**	(0.037)**	(0.038)**	(0.043)**	(0.029)**	(0.027)**	(0.027)**	(0.027)**	(0.030)**	(0.029)**
1 A level	0.120	0.166	0.079	0.086	0.071	0.093	0.129	0.090	0.042	0.112
	(0.051)*	(0.059)**	(0.060)	(0.048)	(0.033)*	(0.031)**	(0.036)**	(0.033)**	(0.041)	(0.039)**
A/S levels	0.250	0.345		-0.357	-0.057	0.102	-0.009	-0.102	0.081	-0.141
	(0.101)*	(0.062)**		(0.153)*	(0.178)	(0.114)	(0.124)	(0.114)	(0.141)	(0.069)*
5+ GCSEs A*-C	0.290	0.326	0.260	0.243	0.275	0.284	0.290	0.283	0.265	0.266
	(0.032)**	(0.032)**	(0.032)**	(0.034)**	(0.024)**	(0.024)**	(0.023)**	(0.024)**	(0.026)**	(0.025)**
1-4 GCSEs A*-C	0.186	0.206	0.157	0.136	0.184	0.180	0.183	0.157	0.155	0.191
	(0.045)**	(0.034)**	(0.035)**	(0.031)**	(0.025)**	(0.023)**	(0.022)**	(0.022)**	(0.025)**	(0.025)**
GCSEs D-F	0.098	0.177	0.061	0.061	0.012	0.043	0.078	0.065	0.047	0.021
	(0.056)	(0.057)**	(0.056)	(0.059)	(0.037)	(0.044)	(0.040)	(0.039)	(0.050)	(0.040)
professional qual.	0.505	0.426	0.301	0.375	0.472	0.363	0.370	0.374	0.333	0.369
	(0.055)**	(0.060)**	(0.075)**	(0.087)**	(0.080)**	(0.054)**	(0.069)**	(0.058)**	(0.069)**	(0.064)**
teaching qual.	0.424	0.377	0.475	0.238	0.284	0.279	0.233	0.242	0.271	0.267
	(0.040)**	(0.042)**	(0.045)**	(0.043)**	(0.028)**	(0.025)**	(0.027)**	(0.027)**	(0.030)**	(0.029)**

Table 15 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
nursing qual.	0.217	0.222	0.257	0.119	0.164	0.121	0.161	0.134	0.155	0.129
	(0.051)**	(0.043)**	(0.042)**	(0.042)**	(0.029)**	(0.028)**	(0.029)**	(0.031)**	(0.032)**	(0.032)**
RSA higher	0.125	0.188	-0.038	0.048	-0.076	-0.014	0.107	0.044	0.053	0.167
	(0.105)	(0.110)	(0.081)	(0.092)	(0.079)	(0.090)	(0.081)	(0.077)	(0.079)	(0.076)*
RSA lower	0.076	-0.044	-0.065	-0.041	-0.008	-0.021	-0.000	-0.003	-0.023	0.015
	(0.037)*	(0.034)	(0.033)*	(0.028)	(0.023)	(0.019)	(0.021)	(0.021)	(0.020)	(0.022)
C&G advan. craft	0.028	0.142	-0.191	0.046	0.055	0.050	-0.038	0.008	-0.103	-0.057
	(0.136)	(0.158)	(0.082)*	(0.161)	(0.061)	(0.072)	(0.072)	(0.088)	(0.084)	(0.056)
C&G craft	-0.192	-0.049	-0.074	0.120	-0.100	-0.007	0.122	0.115	-0.016	0.005
	(0.164)	(0.065)	(0.071)	(0.147)	(0.073)	(0.079)	(0.079)	(0.088)	(0.094)	(0.072)
C&G other	-0.099	0.062	-0.077	-0.146	0.055	-0.053	-0.075	-0.101	-0.025	-0.104
	(0.097)	(0.071)	(0.052)	(0.055)**	(0.051)	(0.053)	(0.055)	(0.062)	(0.082)	(0.058)
HND/HNC	0.180	0.129	0.117	0.034	0.069	0.050	-0.003	0.014	0.108	0.062
	(0.076)*	(0.089)	(0.062)	(0.074)	(0.044)	(0.044)	(0.051)	(0.044)	(0.047)*	(0.058)
ONC/OND	0.166	0.122	0.093	-0.009	0.018	0.007	0.058	0.084	0.055	0.061
	(0.060)**	(0.058)*	(0.069)	(0.096)	(0.049)	(0.046)	(0.053)	(0.050)	(0.059)	(0.053)
BTEC diploma	0.128	-0.034	0.254	-0.066	-0.007	-0.117	0.116	-0.036	0.047	0.049
	(0.201)	(0.088)	(0.202)	(0.232)	(0.085)	(0.113)	(0.104)	(0.122)	(0.087)	(0.123)
NVQ 3-5	0.028	-0.126	-0.083	-0.126	0.003	0.041	0.023	-0.024	0.063	0.046
	(0.105)	(0.111)	(0.076)	(0.096)	(0.053)	(0.044)	(0.037)	(0.041)	(0.041)	(0.036)
NVQ 2	-0.199	-0.125	-0.047	0.012	-0.192	-0.145	-0.138	-0.110	-0.139	-0.126
	(0.105)	(0.114)	(0.102)	(0.111)	(0.051)**	(0.045)**	(0.037)**	(0.036)**	(0.036)**	(0.038)**
NVQ1		-0.176	-0.230	-0.284	-0.139	-0.199	-0.108	-0.184	-0.216	-0.138
		(0.108)	(0.126)	(0.079)**	(0.083)	(0.071)**	(0.072)	(0.060)**	(0.085)*	(0.059)*

Table 15 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
other	0.150	0.063	0.108	0.048	0.051	0.035	0.055	0.051	0.065	0.069
	(0.033)**	(0.030)*	(0.029)**	(0.025)	(0.017)**	(0.016)*	(0.016)**	(0.016)**	(0.017)**	(0.017)**
apprenticeship	0.037	0.119	-0.412	-0.628	-0.134	0.048	-0.169	-0.153	0.131	-0.238
	(0.149)	(0.146)	(0.084)**	(0.259)*	(0.090)	(0.052)	(0.064)**	(0.049)**	(0.090)	(0.048)**
Constant	-1.360	0.888	-5.284	2.901	-4.682	9.181	4.487	8.334	-6.084	-2.052
	(8.024)	(7.688)	(8.675)	(9.364)	(7.004)	(6.840)	(6.857)	(7.168)	(7.890)	(8.378)
Observations	986	1102	1158	1246	2372	2504	2381	2276	2246	2271
R-squared	0.47	0.48	0.40	0.44	0.46	0.46	0.44	0.44	0.42	0.45

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region, workplace size and (except in 1993) public sector.

Table 16 The Returns to Detailed Qualifications – All Full-Time Employees Aged 41-45 on January 1st 1993, Males

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
higher degree	0.321	0.331	0.283	0.137	0.034	-0.017	0.074	0.061	0.097	0.081
	(0.054)**	(0.047)**	(0.053)**	(0.059)*	(0.036)	(0.043)	(0.040)	(0.040)	(0.044)*	(0.045)
first degree	0.239	0.279	0.279	0.212	0.213	0.275	0.221	0.282	0.261	0.244
	(0.038)**	(0.035)**	(0.041)**	(0.041)**	(0.028)**	(0.031)**	(0.034)**	(0.033)**	(0.035)**	(0.034)**
other HE	0.305	0.169	0.114	0.053	-0.037	0.051	0.026	0.085	0.035	0.035
	(0.069)**	(0.065)**	(0.071)	(0.072)	(0.081)	(0.059)	(0.073)	(0.064)	(0.090)	(0.090)
HE diploma	0.056	0.236	0.243	0.189	0.079	0.057	-0.049	0.077	0.014	0.064
	(0.072)	(0.057)**	(0.067)**	(0.072)**	(0.040)*	(0.040)	(0.051)	(0.053)	(0.052)	(0.052)
2+ A levels	0.262	0.193	0.161	0.175	0.152	0.179	0.210	0.154	0.150	0.147
	(0.037)**	(0.036)**	(0.036)**	(0.037)**	(0.029)**	(0.031)**	(0.033)**	(0.031)**	(0.036)**	(0.035)**
1 A level	0.172	0.101	0.098	0.134	0.124	0.032	0.059	0.082	0.079	0.021
	(0.055)**	(0.053)	(0.073)	(0.093)	(0.040)**	(0.049)	(0.045)	(0.049)	(0.042)	(0.050)
A/S levels	0.478	-0.056	0.504	0.612	0.159	0.219	0.330	0.106	-0.258	-0.277
	(0.055)**	(0.099)	(0.064)**	(0.086)**	(0.139)	(0.135)	(0.216)	(0.136)	(0.110)*	(0.144)
5+ GCSEs A*-C	0.258	0.315	0.305	0.318	0.300	0.308	0.313	0.328	0.336	0.332
	(0.026)**	(0.028)**	(0.028)**	(0.032)**	(0.024)**	(0.025)**	(0.027)**	(0.025)**	(0.026)**	(0.026)**
1-4 GCSEs A*-C	0.209	0.248	0.199	0.157	0.168	0.178	0.199	0.190	0.190	0.197
	(0.030)**	(0.031)**	(0.030)**	(0.032)**	(0.022)**	(0.022)**	(0.022)**	(0.025)**	(0.026)**	(0.026)**
GCSEs D-F	0.132	0.082	0.121	0.073	0.110	0.080	0.193	0.083	0.103	-0.018
	(0.058)*	(0.043)	(0.042)**	(0.079)	(0.059)	(0.059)	(0.064)**	(0.062)	(0.093)	(0.084)
professional qual.	0.305	0.343	0.255	0.274	0.367	0.330	0.342	0.391	0.306	0.443
	(0.035)**	(0.035)**	(0.038)**	(0.061)**	(0.043)**	(0.044)**	(0.049)**	(0.043)**	(0.052)**	(0.045)**
teaching qual.	0.152	0.156	0.171	0.030	0.080	0.049	-0.029	0.005	0.039	0.069
	(0.051)**	(0.038)**	(0.046)**	(0.056)	(0.028)**	(0.034)	(0.035)	(0.039)	(0.046)	(0.037)

Table 16 (continued)

Qualification	1993[†]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
nursing qual.	0.088	0.041	0.096	0.021	0.055	0.091	0.087	0.166	0.226	0.182
	(0.102)	(0.090)	(0.084)	(0.098)	(0.059)	(0.066)	(0.075)	(0.075)*	(0.095)*	(0.063)**
RSA higher	0.744	0.194	-0.365	0.476	0.021	0.473	-0.226	-0.075	0.177	0.083
	(0.295)*	(0.175)	(0.068)**	(0.367)	(0.164)	(0.216)*	(0.194)	(0.121)	(0.185)	(0.170)
RSA lower	0.013	0.077	0.151	-0.090	-0.052	-0.063	0.018	0.039	-0.094	-0.063
	(0.088)	(0.076)	(0.065)*	(0.072)	(0.052)	(0.058)	(0.057)	(0.067)	(0.058)	(0.053)
C&G advan. craft	0.069	0.110	0.065	0.099	0.076	0.056	0.023	0.034	0.023	0.024
	(0.039)	(0.031)**	(0.038)	(0.039)*	(0.026)**	(0.026)*	(0.025)	(0.025)	(0.027)	(0.027)
C&G craft	0.009	0.055	0.054	-0.081	0.066	0.050	0.173	0.183	0.113	0.117
	(0.030)	(0.026)*	(0.027)*	(0.044)	(0.039)	(0.042)	(0.047)**	(0.057)**	(0.055)*	(0.063)
C&G other	0.028	0.024	0.092	0.083	-0.023	-0.000	-0.106	-0.067	-0.060	-0.041
	(0.033)	(0.033)	(0.038)*	(0.036)*	(0.034)	(0.037)	(0.042)*	(0.053)	(0.050)	(0.058)
HND/HNC	0.203	0.196	0.186	0.171	0.128	0.151	0.109	0.158	0.152	0.163
	(0.034)**	(0.035)**	(0.032)**	(0.038)**	(0.024)**	(0.027)**	(0.030)**	(0.029)**	(0.032)**	(0.035)**
ONC/OND	0.118	0.137	0.119	0.086	0.118	0.086	0.144	0.060	0.013	0.065
	(0.037)**	(0.035)**	(0.034)**	(0.037)*	(0.030)**	(0.033)**	(0.037)**	(0.037)	(0.037)	(0.039)
BTEC diploma	-0.023	-0.019	0.111	0.004	-0.128	-0.220	-0.288	0.275	-0.025	-0.007
	(0.103)	(0.056)	(0.046)*	(0.112)	(0.124)	(0.140)	(0.102)**	(0.117)*	(0.120)	(0.124)
NVQ 3-5	-0.049	0.110	0.048	-0.116	-0.016	0.046	0.013	0.017	-0.053	-0.106
	(0.118)	(0.104)	(0.148)	(0.090)	(0.058)	(0.051)	(0.068)	(0.044)	(0.049)	(0.041)*
NVQ 2	0.078	-0.144	-0.386	-0.342	-0.199	-0.160	-0.188	-0.210	-0.123	-0.168
	(0.102)	(0.168)	(0.094)**	(0.089)**	(0.073)**	(0.069)*	(0.059)**	(0.056)**	(0.064)	(0.050)**
NVQ1	0.047	0.026	-0.083	-0.246	-0.219	-0.331	-0.330	0.015	-0.043	-0.125
	(0.063)	(0.232)	(0.359)	(0.114)*	(0.107)*	(0.093)**	(0.117)**	(0.105)	(0.069)	(0.115)

Table 16 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
other	0.074	0.089	0.070	0.060	0.022	0.049	0.035	0.039	0.038	0.030
	(0.024)**	(0.022)**	(0.023)**	(0.021)**	(0.014)	(0.014)**	(0.015)*	(0.016)*	(0.016)*	(0.016)
apprenticeship	0.066	0.160	-0.272	-0.082	-0.025	-0.028	-0.030	-0.017	-0.008	0.004
	(0.059)	(0.082)	(0.129)*	(0.059)	(0.053)	(0.046)	(0.055)	(0.043)	(0.059)	(0.051)
Constant	7.539	-5.783	10.759	19.080	7.459	-0.320	8.680	7.110	5.868	-22.974
	(7.520)	(8.177)	(9.128)	(9.022)*	(6.884)	(7.897)	(8.433)	(8.390)	(9.302)	(10.043)*
Observations	2084	2092	2187	2143	4127	3971	3643	3458	3292	3143
R-squared	0.36	0.37	0.30	0.36	0.36	0.36	0.37	0.36	0.37	0.36

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region, workplace size and (except in 1993) public sector.

Table 17 The Returns to Detailed Qualifications – All Full-Time Employees Aged 41-45 on January 1st 1993, Females

Qualification	1993[T]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
higher degree	0.305	0.302	0.370	0.060	0.151	0.126	0.136	0.177	0.179	0.144
	(0.087)**	(0.093)**	(0.080)**	(0.079)	(0.051)**	(0.052)*	(0.061)*	(0.055)**	(0.063)**	(0.055)**
first degree	0.302	0.326	0.200	0.328	0.188	0.235	0.198	0.198	0.187	0.198
	(0.046)**	(0.049)**	(0.038)**	(0.048)**	(0.030)**	(0.029)**	(0.039)**	(0.033)**	(0.036)**	(0.033)**
other HE	0.287	0.391	0.262	0.133	0.223	0.103	0.121	0.066	0.197	0.153
	(0.117)*	(0.076)**	(0.087)**	(0.105)	(0.057)**	(0.046)*	(0.051)*	(0.045)	(0.057)**	(0.059)**
HE diploma	0.254	0.240	0.185	0.192	0.131	0.143	0.176	0.170	0.153	0.128
	(0.067)**	(0.059)**	(0.058)**	(0.052)**	(0.042)**	(0.040)**	(0.036)**	(0.041)**	(0.039)**	(0.041)**
2+ A levels	0.217	0.160	0.177	0.135	0.095	0.098	0.149	0.155	0.166	0.183
	(0.038)**	(0.041)**	(0.035)**	(0.042)**	(0.028)**	(0.027)**	(0.029)**	(0.030)**	(0.031)**	(0.032)**
1 A level	0.047	0.250	0.061	0.064	0.103	0.094	0.065	0.071	0.084	0.213
	(0.043)	(0.056)**	(0.070)	(0.064)	(0.035)**	(0.041)*	(0.034)	(0.037)	(0.040)*	(0.041)**
A/S levels	0.269	0.548		0.034	-0.148	0.515	0.431	-0.443	-0.050	-0.199
	(0.120)*	(0.057)**		(0.069)	(0.104)	(0.255)*	(0.049)**	(0.041)**	(0.042)	(0.182)
5+ GCSEs A*-C	0.221	0.211	0.257	0.287	0.238	0.263	0.264	0.283	0.218	0.218
	(0.029)**	(0.028)**	(0.028)**	(0.031)**	(0.023)**	(0.022)**	(0.025)**	(0.024)**	(0.025)**	(0.025)**
1-4 GCSEs A*-C	0.146	0.130	0.207	0.173	0.150	0.130	0.145	0.175	0.102	0.118
	(0.031)**	(0.031)**	(0.029)**	(0.032)**	(0.021)**	(0.023)**	(0.023)**	(0.023)**	(0.023)**	(0.023)**
GCSEs D-F	0.049	0.161	0.117	-0.002	0.136	0.015	0.035	0.024	0.071	0.056
	(0.058)	(0.087)	(0.048)*	(0.072)	(0.052)**	(0.066)	(0.055)	(0.057)	(0.051)	(0.089)
professional qual.	0.364	0.397	0.376	0.404	0.295	0.361	0.293	0.335	0.356	0.385
	(0.046)**	(0.069)**	(0.061)**	(0.073)**	(0.060)**	(0.068)**	(0.062)**	(0.056)**	(0.070)**	(0.083)**
teaching qual.	0.458	0.335	0.451	0.283	0.367	0.305	0.269	0.268	0.302	0.281
	(0.036)**	(0.044)**	(0.035)**	(0.041)**	(0.027)**	(0.027)**	(0.030)**	(0.028)**	(0.030)**	(0.031)**

Table 17 (continued)

Qualification	1993[†]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
nursing qual.	0.299	0.232	0.171	0.172	0.180	0.162	0.151	0.205	0.238	0.223
	(0.035)**	(0.047)**	(0.038)**	(0.041)**	(0.028)**	(0.029)**	(0.029)**	(0.029)**	(0.031)**	(0.032)**
RSA higher	0.061	0.205	-0.066	0.131	0.099	0.134	0.152	0.064	-0.001	-0.153
	(0.076)	(0.055)**	(0.115)	(0.064)*	(0.062)	(0.060)*	(0.066)*	(0.077)	(0.057)	(0.123)
RSA lower	0.034	0.044	0.021	0.037	-0.003	0.032	0.022	0.007	0.023	0.038
	(0.028)	(0.028)	(0.027)	(0.026)	(0.019)	(0.019)	(0.019)	(0.020)	(0.021)	(0.022)
C&G advan. craft	0.136	-0.279	-0.032	-0.030	0.028	-0.014	-0.063	-0.061	-0.034	-0.067
	(0.104)	(0.251)	(0.115)	(0.084)	(0.077)	(0.061)	(0.070)	(0.068)	(0.057)	(0.069)
C&G craft	-0.072	0.060	-0.032	-0.081	0.014	0.024	0.038	0.113	0.024	0.144
	(0.084)	(0.095)	(0.081)	(0.085)	(0.076)	(0.074)	(0.082)	(0.088)	(0.101)	(0.098)
C&G other	0.057	-0.051	-0.055	0.006	-0.064	-0.059	0.009	-0.069	-0.048	-0.079
	(0.089)	(0.069)	(0.059)	(0.050)	(0.056)	(0.053)	(0.058)	(0.054)	(0.070)	(0.077)
HND/HNC	0.085	0.161	0.197	-0.050	0.128	-0.031	0.082	0.070	0.074	0.094
	(0.085)	(0.084)	(0.077)*	(0.056)	(0.045)**	(0.056)	(0.054)	(0.065)	(0.071)	(0.063)
ONC/OND	0.092	0.018	0.017	0.119	0.023	-0.057	-0.045	0.052	0.001	0.127
	(0.082)	(0.125)	(0.079)	(0.059)*	(0.061)	(0.050)	(0.048)	(0.057)	(0.058)	(0.080)
BTEC diploma	-0.075	-0.069	-0.168	-0.005	-0.047	-0.151	-0.383	-0.343	0.009	-0.158
	(0.155)	(0.063)	(0.049)**	(0.060)	(0.095)	(0.060)*	(0.081)**	(0.241)	(0.099)	(0.126)
NVQ 3-5	-0.458	0.023	-0.145	0.065	0.053	-0.056	0.041	0.054	-0.009	0.002
	(0.193)*	(0.090)	(0.083)	(0.083)	(0.054)	(0.052)	(0.042)	(0.040)	(0.037)	(0.038)
NVQ 2	-0.178	-0.093	-0.208	-0.081	-0.147	-0.120	-0.106	-0.112	-0.095	-0.098
	(0.101)	(0.072)	(0.084)*	(0.051)	(0.052)**	(0.048)*	(0.034)**	(0.043)**	(0.036)**	(0.040)*
NVQ1		-0.151	-0.153	-0.043	-0.081	-0.104	-0.111	-0.166	-0.042	0.055
		(0.054)**	(0.125)	(0.106)	(0.075)	(0.071)	(0.053)*	(0.067)*	(0.057)	(0.054)

Table 17 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
other	0.106	0.109	0.047	0.007	0.060	0.062	0.047	0.030	0.051	0.039
	(0.028)**	(0.025)**	(0.022)*	(0.023)	(0.015)**	(0.016)**	(0.016)**	(0.016)	(0.016)**	(0.017)*
apprenticeship	-0.164	-0.015	-0.066	-0.006	-0.190	-0.209	-0.164	-0.160	-0.120	-0.121
	(0.197)	(0.115)	(0.175)	(0.191)	(0.078)*	(0.108)	(0.060)**	(0.065)*	(0.068)	(0.081)
Constant	4.883	-3.298	6.663	3.521	-2.915	-7.428	-8.258	0.922	15.593	32.059
	(9.134)	(10.066)	(9.020)	(11.601)	(3.511)	(8.057)	(8.445)	(8.906)	(9.776)	(11.463)**
Observations	1239	1312	1355	1342	2652	2645	2366	2242	2161	2110
R-squared	0.43	0.46	0.49	0.47	0.44	0.43	0.45	0.46	0.43	0.43

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region, workplace size and (except in 1993) public sector.

Table 18 The Returns to Detailed Qualifications – All Full-Time Employees Aged 46-50 on January 1st 1993, Males

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
higher degree	0.233	0.324	0.220	0.036	0.014	0.153	0.145	0.108	0.073	0.046
	(0.051)**	(0.054)**	(0.061)**	(0.080)	(0.055)	(0.057)**	(0.056)**	(0.059)	(0.066)	(0.061)
first degree	0.314	0.313	0.290	0.285	0.255	0.198	0.184	0.295	0.325	0.284
	(0.042)**	(0.045)**	(0.041)**	(0.052)**	(0.041)**	(0.046)**	(0.044)**	(0.051)**	(0.046)**	(0.051)**
other HE	0.156	0.119	0.157	0.252	-0.074	0.126	0.213	0.091	-0.020	0.045
	(0.133)	(0.085)	(0.116)	(0.091)**	(0.071)	(0.069)	(0.082)**	(0.079)	(0.090)	(0.103)
HE diploma	0.370	0.163	0.268	0.102	0.119	0.190	0.091	0.080	-0.049	-0.061
	(0.059)**	(0.085)	(0.064)**	(0.064)	(0.075)	(0.055)**	(0.079)	(0.074)	(0.081)	(0.068)
2+ A levels	0.149	0.252	0.186	0.161	0.192	0.183	0.170	0.126	0.143	0.210
	(0.038)**	(0.041)**	(0.041)**	(0.048)**	(0.038)**	(0.039)**	(0.037)**	(0.042)**	(0.045)**	(0.045)**
1 A level	0.120	0.190	0.300	0.041	0.101	0.017	0.043	0.194	0.079	0.052
	(0.073)	(0.068)**	(0.060)**	(0.079)	(0.063)	(0.073)	(0.065)	(0.069)**	(0.070)	(0.090)
A/S levels	-0.339				0.222	-0.107	-0.031	0.778	0.229	-0.345
	(0.054)**				(0.122)	(0.291)	(0.246)	(0.212)**	(0.076)**	(0.068)**
5+ GCSEs A*-C	0.328	0.316	0.335	0.331	0.292	0.317	0.304	0.345	0.306	0.295
	(0.030)**	(0.033)**	(0.033)**	(0.038)**	(0.032)**	(0.029)**	(0.029)**	(0.034)**	(0.037)**	(0.035)**
1-4 GCSEs A*-C	0.111	0.252	0.173	0.182	0.165	0.229	0.196	0.203	0.209	0.201
	(0.038)**	(0.035)**	(0.034)**	(0.037)**	(0.027)**	(0.027)**	(0.029)**	(0.032)**	(0.031)**	(0.036)**
GCSEs D-F	0.156	0.037	-0.044	-0.041	0.059	-0.022	-0.135	-0.150	-0.093	0.082
	(0.066)*	(0.082)	(0.067)	(0.049)	(0.088)	(0.111)	(0.169)	(0.198)	(0.065)	(0.179)
professional qual.	0.430	0.369	0.308	0.284	0.375	0.348	0.392	0.372	0.471	0.285
	(0.039)**	(0.039)**	(0.041)**	(0.056)**	(0.056)**	(0.049)**	(0.050)**	(0.056)**	(0.061)**	(0.069)**
teaching qual.	0.128	0.133	0.154	0.007	-0.011	-0.029	-0.044	0.063	0.018	0.063
	(0.065)*	(0.054)*	(0.045)**	(0.065)	(0.044)	(0.052)	(0.053)	(0.056)	(0.049)	(0.058)

Table 18 (continued)

Qualification	1993[T]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
nursing qual.	0.186	0.378	-0.163	0.049	0.103	0.272	0.134	-0.059	-0.016	0.234
	(0.148)	(0.089)**	(0.229)	(0.150)	(0.070)	(0.064)**	(0.124)	(0.142)	(0.161)	(0.082)**
RSA higher	0.355	0.426	0.299	0.244	-0.164	-0.120	-0.194	-0.063	-0.009	0.091
	(0.063)**	(0.154)**	(0.323)	(0.097)*	(0.115)	(0.181)	(0.107)	(0.081)	(0.215)	(0.089)
RSA lower	0.070	0.012	0.143	-0.158	0.016	-0.054	0.019	-0.074	-0.130	-0.088
	(0.082)	(0.059)	(0.075)	(0.062)*	(0.048)	(0.051)	(0.071)	(0.074)	(0.062)*	(0.074)
C&G advan. craft	0.100	0.125	0.126	0.110	0.095	0.038	-0.027	0.016	0.054	-0.050
	(0.042)*	(0.038)**	(0.045)**	(0.065)	(0.036)**	(0.037)	(0.036)	(0.038)	(0.040)	(0.044)
C&G craft	0.073	0.086	0.110	0.042	0.008	0.148	0.101	0.170	-0.013	0.142
	(0.037)	(0.033)**	(0.036)**	(0.057)	(0.049)	(0.057)**	(0.057)	(0.072)*	(0.063)	(0.066)*
C&G other	0.109	0.034	-0.040	0.072	0.045	-0.039	0.045	-0.026	0.067	0.019
	(0.044)*	(0.040)	(0.048)	(0.047)	(0.043)	(0.049)	(0.051)	(0.065)	(0.053)	(0.056)
HND/HNC	0.191	0.151	0.239	0.142	0.239	0.270	0.206	0.127	0.128	0.137
	(0.040)**	(0.043)**	(0.040)**	(0.047)**	(0.033)**	(0.031)**	(0.034)**	(0.038)**	(0.039)**	(0.041)**
ONC/OND	0.111	0.085	0.126	0.078	0.035	-0.003	0.076	0.063	-0.009	-0.003
	(0.046)*	(0.046)	(0.049)**	(0.043)	(0.042)	(0.037)	(0.037)*	(0.043)	(0.053)	(0.057)
BTEC diploma	0.106	0.021	-0.155	-0.099	-0.024	0.193	0.206	0.206	0.099	0.440
	(0.236)	(0.128)	(0.079)*	(0.138)	(0.293)	(0.131)	(0.070)**	(0.089)*	(0.136)	(0.101)**
NVQ 3-5	0.621	-0.022	0.084	-0.020	-0.026	0.081	-0.035	0.046	0.028	-0.031
	(0.056)**	(0.142)	(0.114)	(0.116)	(0.094)	(0.071)	(0.068)	(0.077)	(0.063)	(0.064)
NVQ 2	-0.351	0.005	-0.290	-0.001	-0.224	-0.174	-0.098	-0.187	-0.227	-0.219
	(0.078)**	(0.121)	(0.132)*	(0.101)	(0.084)**	(0.074)*	(0.076)	(0.063)**	(0.074)**	(0.069)**
NVQ1	0.098	-0.449	-0.229	-0.104	-0.138	0.017	-0.391	-0.181	-0.190	-0.176
	(0.110)	(0.082)**	(0.223)	(0.070)	(0.101)	(0.132)	(0.081)**	(0.090)*	(0.163)	(0.069)*

Table 18 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
other	0.041	0.133	0.055	0.030	0.016	0.030	0.028	0.041	0.039	0.049
	(0.024)	(0.024)**	(0.024)*	(0.022)	(0.017)	(0.016)	(0.017)	(0.018)*	(0.019)*	(0.020)*
apprenticeship	0.091	0.028	-0.042	0.017	0.050	0.011	0.023	0.007	0.047	0.015
	(0.045)*	(0.068)	(0.076)	(0.084)	(0.053)	(0.048)	(0.049)	(0.066)	(0.056)	(0.055)
Constant	1.481	2.861	-10.878	-8.883	-11.274	-16.306	-11.548	-6.795	-27.477	0.148
	(11.083)	(11.378)	(12.762)	(13.229)	(10.185)	(10.078)	(10.540)	(12.203)	(13.732)*	(14.611)
Observations	1764	1783	1797	1739	3184	3124	2847	2439	2290	2090
R-squared	0.39	0.38	0.36	0.33	0.32	0.35	0.33	0.36	0.35	0.35

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region, workplace size and (except in 1993) public sector.

Table 19 The Returns to Detailed Qualifications – All Full-Time Employees Aged 46-50 on January 1st 1993, Females

Qualification	1993[T]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
higher degree	0.358	0.407	0.338	0.151	0.079	0.118	0.079	0.183	0.232	0.201
	(0.060)**	(0.064)**	(0.079)**	(0.106)	(0.076)	(0.077)	(0.069)	(0.072)*	(0.074)**	(0.093)*
first degree	0.332	0.310	0.240	0.124	0.172	0.198	0.319	0.218	0.195	0.249
	(0.045)**	(0.049)**	(0.055)**	(0.064)	(0.039)**	(0.038)**	(0.045)**	(0.051)**	(0.053)**	(0.082)**
other HE	0.092	0.354	0.258	0.083	0.084	0.150	0.200	0.214	0.163	0.219
	(0.072)	(0.063)**	(0.080)**	(0.150)	(0.057)	(0.091)	(0.068)**	(0.065)**	(0.067)*	(0.101)*
HE diploma	0.205	0.290	0.170	0.067	0.176	0.127	0.117	0.215	0.145	0.176
	(0.079)**	(0.085)**	(0.074)*	(0.067)	(0.049)**	(0.059)*	(0.070)	(0.076)**	(0.065)*	(0.076)*
2+ A levels	0.210	0.192	0.241	0.161	0.190	0.177	0.129	0.166	0.170	0.205
	(0.040)**	(0.043)**	(0.048)**	(0.050)**	(0.036)**	(0.033)**	(0.036)**	(0.042)**	(0.042)**	(0.058)**
1 A level	0.153	-0.054	0.099	0.112	0.095	0.116	0.014	0.075	0.033	0.126
	(0.060)*	(0.062)	(0.075)	(0.067)	(0.041)*	(0.040)**	(0.047)	(0.049)	(0.047)	(0.047)**
A/S levels	-0.255	0.191	-0.207	-0.179	0.131	-0.116	-0.578	-0.733	0.234	
	(0.467)	(0.354)	(0.077)**	(0.276)	(0.060)*	(0.201)	(0.166)**	(0.044)**	(0.058)**	
5+ GCSEs A*-C	0.305	0.270	0.178	0.228	0.256	0.218	0.198	0.218	0.200	0.167
	(0.030)**	(0.034)**	(0.036)**	(0.039)**	(0.026)**	(0.025)**	(0.029)**	(0.031)**	(0.029)**	(0.032)**
1-4 GCSEs A*-C	0.148	0.141	0.142	0.140	0.121	0.101	0.147	0.125	0.112	0.101
	(0.040)**	(0.037)**	(0.038)**	(0.038)**	(0.026)**	(0.027)**	(0.025)**	(0.029)**	(0.027)**	(0.036)**
GCSEs D-F	0.204	-0.037	0.017	0.010	0.305	0.144	-0.062	0.030	-0.040	0.282
	(0.139)	(0.107)	(0.091)	(0.158)	(0.035)**	(0.142)	(0.121)	(0.069)	(0.158)	(0.087)**
professional qual.	0.336	0.279	0.348	0.271	0.365	0.313	0.485	0.501	0.591	0.106
	(0.048)**	(0.106)**	(0.089)**	(0.106)*	(0.074)**	(0.056)**	(0.073)**	(0.124)**	(0.125)**	(0.162)
teaching qual.	0.456	0.358	0.455	0.318	0.285	0.343	0.281	0.236	0.131	0.279
	(0.040)**	(0.043)**	(0.055)**	(0.054)**	(0.033)**	(0.034)**	(0.039)**	(0.039)**	(0.044)**	(0.052)**

Table 19 (continued)

Qualification	1993[T]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
nursing qual.	0.255	0.253	0.156	0.221	0.263	0.270	0.271	0.230	0.243	0.216
	(0.046)**	(0.045)**	(0.047)**	(0.068)**	(0.034)**	(0.029)**	(0.032)**	(0.035)**	(0.041)**	(0.042)**
RSA higher	0.124	0.172	-0.024	0.014	0.125	0.072	0.120	0.223	0.024	0.100
	(0.078)	(0.078)*	(0.049)	(0.066)	(0.093)	(0.065)	(0.088)	(0.103)*	(0.076)	(0.071)
RSA lower	0.053	0.091	0.098	0.030	0.067	0.053	-0.001	0.016	0.012	0.079
	(0.031)	(0.032)**	(0.028)**	(0.035)	(0.021)**	(0.022)*	(0.024)	(0.025)	(0.024)	(0.026)**
C&G advan. craft	-0.301	0.110	0.143	0.135	0.038	-0.071	0.004	-0.029	-0.021	-0.008
	(0.121)*	(0.134)	(0.160)	(0.095)	(0.094)	(0.115)	(0.100)	(0.137)	(0.085)	(0.066)
C&G craft	0.300	0.012	0.202	-0.013	0.111	0.072	0.255	0.157	0.045	0.020
	(0.172)	(0.083)	(0.060)**	(0.096)	(0.098)	(0.108)	(0.089)**	(0.116)	(0.088)	(0.117)
C&G other	0.074	-0.019	0.060	-0.101	-0.176	-0.235	-0.209	-0.114	-0.036	-0.149
	(0.123)	(0.067)	(0.058)	(0.059)	(0.068)**	(0.073)**	(0.053)**	(0.078)	(0.054)	(0.113)
HND/HNC	0.115	0.253	0.092	0.046	0.142	0.148	0.176	0.143	-0.014	0.211
	(0.089)	(0.092)**	(0.117)	(0.108)	(0.058)*	(0.071)*	(0.087)*	(0.127)	(0.079)	(0.089)*
ONC/OND	0.123	0.013	-0.045	-0.046	-0.131	-0.029	0.263	0.025	0.036	-0.010
	(0.069)	(0.074)	(0.072)	(0.118)	(0.082)	(0.098)	(0.154)	(0.111)	(0.062)	(0.093)
BTEC diploma	-0.209	-0.043	-0.168	0.023	0.058	0.049	0.048	0.124	-0.158	0.136
	(0.182)	(0.098)	(0.196)	(0.076)	(0.137)	(0.184)	(0.092)	(0.126)	(0.139)	(0.231)
NVQ 3-5	0.212	0.060	0.061	0.217	0.018	0.155	0.074	0.032	0.064	-0.045
	(0.146)	(0.088)	(0.105)	(0.094)*	(0.068)	(0.061)*	(0.050)	(0.053)	(0.043)	(0.046)
NVQ 2	-0.209	0.003	-0.183	-0.181	-0.133	-0.113	-0.114	-0.098	-0.147	-0.075
	(0.119)	(0.120)	(0.110)	(0.091)*	(0.046)**	(0.061)	(0.066)	(0.084)	(0.047)**	(0.035)*
NVQ1	0.448	-0.657	-0.387	-0.044	-0.162	-0.224	-0.096	-0.056	-0.105	-0.158
	(0.067)**	(0.051)**	(0.051)**	(0.059)	(0.124)	(0.092)*	(0.098)	(0.075)	(0.101)	(0.101)

Table 19 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
other	0.088	0.039	0.034	0.015	0.054	0.025	0.043	0.018	0.041	0.068
	(0.029)**	(0.030)	(0.027)	(0.028)	(0.018)**	(0.018)	(0.019)*	(0.021)	(0.020)*	(0.024)**
apprenticeship	-0.093	0.025	-0.282	0.088	-0.010	-0.144	0.072	-0.068	-0.062	-0.094
	(0.095)	(0.207)	(0.117)*	(0.066)	(0.070)	(0.085)	(0.105)	(0.125)	(0.117)	(0.113)
Constant	-3.519	17.134	-5.977	16.775	10.520	7.152	0.549	-15.399	-4.502	21.122
	(12.600)	(13.952)	(12.712)	(16.274)	(10.575)	(11.384)	(11.740)	(13.891)	(14.683)	(24.178)
Observations	1047	973	1018	953	1866	1737	1593	1368	1308	1029
R-squared	0.52	0.47	0.49	0.41	0.45	0.45	0.44	0.42	0.44	0.42

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region, workplace size and (except in 1993) public sector.

Table 20 The Returns to Detailed Qualifications – All Full-Time Employees Aged 51-55 on January 1st 1993, Males

Qualification	1993[†]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
higher degree	0.331	0.266	0.327	0.199	0.188	0.002	0.039	0.058	0.225	0.126
	(0.082)**	(0.076)**	(0.081)**	(0.094)*	(0.099)	(0.113)	(0.097)	(0.110)	(0.111)*	(0.115)
first degree	0.359	0.346	0.286	0.343	0.328	0.328	0.415	0.517	0.182	0.411
	(0.063)**	(0.060)**	(0.069)**	(0.085)**	(0.074)**	(0.077)**	(0.103)**	(0.095)**	(0.104)	(0.116)**
other HE	0.153	0.381	0.313	0.299	0.352	0.011	0.016	0.065	0.315	0.588
	(0.118)	(0.169)*	(0.122)*	(0.190)	(0.142)*	(0.109)	(0.129)	(0.168)	(0.146)*	(0.213)**
HE diploma	0.215	0.147	0.169	-0.054	0.182	0.202	-0.073	0.238	-0.048	0.273
	(0.090)*	(0.117)	(0.104)	(0.130)	(0.107)	(0.124)	(0.156)	(0.133)	(0.183)	(0.141)
2+ A levels	0.222	0.116	0.224	0.221	0.165	0.294	0.170	0.091	0.194	0.008
	(0.059)**	(0.053)*	(0.065)**	(0.072)**	(0.061)**	(0.064)**	(0.080)*	(0.071)	(0.087)*	(0.097)
1 A level	0.189	0.407	0.227	0.166	0.088	0.128	0.081	0.045	0.225	-0.020
	(0.085)*	(0.116)**	(0.140)	(0.112)	(0.120)	(0.102)	(0.116)	(0.129)	(0.189)	(0.145)
A/S levels	0.600			0.538	-2.488		-0.025	0.558		
	(0.371)			(0.100)**	(0.097)**		(0.055)	(0.351)		
5+ GCSEs A*-C	0.311	0.417	0.248	0.255	0.254	0.239	0.253	0.215	0.316	0.273
	(0.042)**	(0.045)**	(0.052)**	(0.054)**	(0.042)**	(0.038)**	(0.046)**	(0.052)**	(0.062)**	(0.062)**
1-4 GCSEs A*-C	0.137	0.135	0.239	0.177	0.173	0.101	0.155	0.115	0.102	0.279
	(0.061)*	(0.051)**	(0.051)**	(0.054)**	(0.039)**	(0.037)**	(0.042)**	(0.043)**	(0.056)	(0.067)**
GCSEs D-F	0.180	0.053	-0.015			0.278	0.068	-0.430		0.070
	(0.135)	(0.094)	(0.148)			(0.058)**	(0.219)	(0.261)		(0.102)
professional qual.	0.445	0.441	0.416	0.597	0.475	0.473	0.442	0.422	0.216	0.359
	(0.049)**	(0.053)**	(0.062)**	(0.092)**	(0.063)**	(0.068)**	(0.108)**	(0.083)**	(0.136)	(0.153)*
teaching qual.	0.164	0.128	0.127	0.011	0.002	-0.033	-0.018	-0.009	0.057	-0.009
	(0.074)*	(0.105)	(0.090)	(0.109)	(0.094)	(0.111)	(0.109)	(0.125)	(0.130)	(0.126)

Table 20 (continued)

Qualification	1993[T]	1994	1995	1996[‡]	1997	1998	1999	2000	2001	2002
nursing qual.	-0.402	0.201	-0.212	0.353	0.294	0.024	0.107	0.735	0.088	0.295
	(0.427)	(0.274)	(0.149)	(0.136)**	(0.179)	(0.175)	(0.089)	(0.215)**	(0.211)	(0.175)
RSA higher	0.438	0.027	0.214		0.603	-1.060		-0.401	-0.765	-0.166
	(0.266)	(0.077)	(0.135)		(0.108)**	(0.132)**		(0.232)	(0.480)	(0.074)*
RSA lower	0.014	-0.020	-0.008	0.565	0.008	-0.014	-0.148	-0.021	0.238	0.212
	(0.154)	(0.097)	(0.113)	(0.293)	(0.095)	(0.120)	(0.098)	(0.108)	(0.204)	(0.250)
C&G advan. craft	0.249	0.063	0.069	0.101	-0.014	0.019	0.046	-0.024	-0.019	-0.105
	(0.081)**	(0.058)	(0.065)	(0.075)	(0.048)	(0.052)	(0.054)	(0.063)	(0.067)	(0.093)
C&G craft	0.141	0.126	0.111	0.029	0.036	0.221	0.122	0.084	0.176	0.295
	(0.046)**	(0.055)*	(0.043)*	(0.079)	(0.076)	(0.084)**	(0.082)	(0.110)	(0.095)	(0.166)
C&G other	0.011	0.117	0.119	0.045	0.075	-0.099	-0.027	0.071	-0.037	-0.185
	(0.051)	(0.077)	(0.055)*	(0.060)	(0.071)	(0.078)	(0.072)	(0.098)	(0.076)	(0.147)
HND/HNC	0.274	0.123	0.245	0.152	0.205	0.319	0.275	0.177	0.114	0.287
	(0.054)**	(0.051)*	(0.057)**	(0.064)*	(0.046)**	(0.047)**	(0.051)**	(0.062)**	(0.061)	(0.083)**
ONC/OND	0.147	0.131	0.136	0.125	0.166	0.085	-0.026	0.168	0.178	0.065
	(0.051)**	(0.059)*	(0.064)*	(0.065)	(0.047)**	(0.054)	(0.060)	(0.057)**	(0.066)**	(0.078)
BTEC diploma	-0.016	-0.292		0.159	0.108		-0.173	-0.151	0.543	0.016
	(0.264)	(0.085)**		(0.406)	(0.138)		(0.076)*	(0.324)	(0.089)**	(0.062)
NVQ 3-5	-0.216	0.280	-0.267	-0.174	-0.025	0.288	0.042	0.108	0.005	0.139
	(0.101)*	(0.138)*	(0.167)	(0.111)	(0.164)	(0.101)**	(0.126)	(0.152)	(0.095)	(0.140)
NVQ 2		-0.283	-0.381	-0.210	-0.105	-0.117	0.146	0.131	0.082	-0.275
		(0.088)**	(0.141)**	(0.141)	(0.114)	(0.142)	(0.121)	(0.123)	(0.087)	(0.188)
NVQ1	-0.477		-0.356	0.375	-0.400	-0.171	-0.103	-0.023	-0.213	-0.045
	(0.533)		(0.127)**	(0.118)**	(0.289)	(0.191)	(0.190)	(0.193)	(0.095)*	(0.184)

Table 20 (continued)

Qualification	1993†	1994	1995	1996‡	1997	1998	1999	2000	2001	2002
other	0.123	0.036	0.076	0.041	0.047	0.059	0.063	0.073	0.030	0.081
	(0.029)**	(0.028)	(0.029)**	(0.030)	(0.022)*	(0.022)**	(0.024)**	(0.025)**	(0.030)	(0.030)**
apprenticeship	0.131	0.146	-0.049	0.034	-0.041	0.094	0.012	0.036	0.130	0.098
	(0.068)	(0.084)	(0.077)	(0.068)	(0.045)	(0.048)*	(0.050)	(0.044)	(0.052)*	(0.070)
Constant	-15.209	11.236	-2.699	-33.357	0.685	-1.000	37.048	15.444	21.764	48.652
	(16.509)	(16.547)	(18.237)	(19.708)	(17.363)	(17.891)	(18.865)*	(21.496)	(24.398)	(37.991)
Observations	1198	1146	1123	1083	1934	1722	1529	1263	1080	902
R-squared	0.39	0.37	0.35	0.35	0.30	0.34	0.31	0.34	0.33	0.31

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

† 1993, the 5+ GCSE A*-C and less than 5 GCSE A*-C actually refer to 4+ and less than 4 GCSEs A*-C respectively.

‡ In 1996, the LFS changes from asking about the highest 3 qualifications held, to asking about all qualifications held.

Control variables are included for age and age^2, ethnicity, region, workplace size and (except in 1993) public sector.

Table 21 The Returns to Detailed Qualifications – All Full -Time Employees, Males, by Highest School Qualification 1996-2002

Qualification	No school qualifications	GCSEs D-F	1-4 GCSEs A*-C	5+ GCSEs A*-C	1 A level	2+ A levels
higher degree	0.187	0.212	0.180	0.143	0.112	0.065
	(0.028)**	(0.101)*	(0.033)**	(0.024)**	(0.033)**	(0.006)**
first degree	0.435	0.128	0.161	0.156	0.130	0.192
	(0.017)**	(0.044)**	(0.015)**	(0.010)**	(0.016)**	(0.005)**
other HE	0.169	0.363	0.115	0.087	-0.014	-0.016
	(0.030)**	(0.058)**	(0.023)**	(0.020)**	(0.041)	(0.015)
HE diploma	0.197	0.088	0.064	0.067	0.057	0.002
	(0.026)**	(0.049)	(0.023)**	(0.017)**	(0.026)*	(0.011)
professional qual.	0.560	0.343	0.263	0.268	0.226	0.293
	(0.025)**	(0.066)**	(0.022)**	(0.015)**	(0.025)**	(0.009)**
teaching qual.	0.112	0.091	0.065	0.070	0.119	0.027
	(0.030)**	(0.057)	(0.029)*	(0.019)**	(0.021)**	(0.008)**
nursing qual.	0.223	0.161	0.107	0.021	0.015	0.005
	(0.020)**	(0.063)*	(0.022)**	(0.018)	(0.033)	(0.018)
RSA higher	-0.015	0.041	-0.038	0.076	-0.016	-0.163
	(0.065)	(0.116)	(0.050)	(0.073)	(0.059)	(0.064)*
RSA lower	0.002	-0.097	-0.055	-0.082	-0.125	-0.147
	(0.017)	(0.027)**	(0.014)**	(0.016)**	(0.036)**	(0.019)**
C&G advan. craft	0.058	0.038	0.065	-0.018	-0.052	-0.169
	(0.008)**	(0.013)**	(0.006)**	(0.008)*	(0.025)*	(0.020)**
C&G craft	0.065	0.092	0.035	-0.013	0.006	-0.088
	(0.010)**	(0.015)**	(0.011)**	(0.015)	(0.039)	(0.029)**
C&G other	0.016	-0.004	-0.017	-0.054	-0.172	-0.114
	(0.009)	(0.013)	(0.009)	(0.013)**	(0.029)**	(0.019)**
HND/HNC	0.263	0.194	0.189	0.140	0.099	-0.024
	(0.011)**	(0.022)**	(0.008)**	(0.006)**	(0.012)**	(0.008)**
ONC/OND	0.149	0.164	0.128	0.072	0.020	-0.060
	(0.011)**	(0.019)**	(0.007)**	(0.006)**	(0.015)	(0.012)**
BTEC diploma	0.030	0.086	0.057	0.026	0.039	-0.079
	(0.024)	(0.028)**	(0.014)**	(0.016)	(0.040)	(0.035)*
NVQ 3-5	0.078	0.081	0.060	0.038	0.011	-0.076
	(0.011)**	(0.016)**	(0.009)**	(0.009)**	(0.021)	(0.015)**
NVQ 2	-0.077	-0.015	-0.041	-0.090	-0.206	-0.168
	(0.010)**	(0.013)	(0.009)**	(0.011)**	(0.032)**	(0.020)**
NVQ1	-0.079	-0.060	-0.080	-0.137	-0.084	-0.130
	(0.014)**	(0.019)**	(0.015)**	(0.022)**	(0.066)	(0.030)**

Table 21 (continued)

Qualification	No school qualifications	GCSEs D-F	1-4 GCSEs A*-C	5+ GCSEs A*-C	1 A level	2+ A levels
other	0.080	0.009	0.012	0.025	0.045	0.044
	(0.003)**	(0.007)	(0.004)**	(0.005)**	(0.010)**	(0.004)**
apprenticeship	0.055					
	(0.009)**					
Constant	0.349	-0.198	-0.072	-0.271	-0.316	-0.559
	(0.023)**	(0.053)**	(0.029)*	(0.030)**	(0.074)**	(0.033)**
Observations	68127	11626	35498	32035	7487	43775
R-squared	0.22	0.36	0.35	0.39	0.33	0.37

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

Control variables are included for age and age^2, ethnicity, region and workplace size

Table 22 The Returns to Detailed Qualifications – All Full -Time Employees, Females, by Highest School Qualification 1996-2002

Qualification	No school qualifications	GCSEs D-F	1-4 GCSEs A*-C	5+ GCSEs A*-C	1 A level	2+ A levels
higher degree	0.164	0.482	0.348	0.174	0.128	0.071
	(0.029)**	(0.101)**	(0.054)**	(0.027)**	(0.024)**	(0.008)**
first degree	0.433	0.163	0.187	0.197	0.167	0.192
	(0.018)**	(0.085)	(0.020)**	(0.011)**	(0.013)**	(0.005)**
other HE	0.236	0.285	0.124	0.089	0.108	0.044
	(0.029)**	(0.080)**	(0.022)**	(0.016)**	(0.024)**	(0.014)**
HE diploma	0.196	0.290	0.147	0.104	0.116	0.068
	(0.025)**	(0.054)**	(0.019)**	(0.013)**	(0.019)**	(0.009)**
professional qual.	0.587	0.451	0.401	0.311	0.252	0.318
	(0.036)**	(0.184)*	(0.030)**	(0.023)**	(0.024)**	(0.011)**
teaching qual.	0.325	0.120	0.172	0.306	0.255	0.192
	(0.026)**	(0.119)	(0.023)**	(0.013)**	(0.015)**	(0.006)**
nursing qual.	0.271	0.241	0.198	0.147	0.104	0.011
	(0.011)**	(0.030)**	(0.009)**	(0.008)**	(0.012)**	(0.008)
RSA higher	0.114	0.016	0.099	-0.007	-0.001	-0.063
	(0.025)**	(0.047)	(0.021)**	(0.022)	(0.041)	(0.027)*
RSA lower	0.101	0.069	0.040	-0.034	-0.050	-0.108
	(0.007)**	(0.012)**	(0.005)**	(0.006)**	(0.011)**	(0.008)**
C&G advan. Craft	0.071	0.083	-0.021	-0.095	-0.081	-0.156
	(0.028)*	(0.040)*	(0.019)	(0.020)**	(0.039)*	(0.030)**
C&G craft	0.021	0.024	0.006	-0.019	0.002	-0.020
	(0.022)	(0.030)	(0.019)	(0.022)	(0.045)	(0.039)
C&G other	-0.037	-0.069	-0.054	-0.076	-0.111	-0.141
	(0.014)**	(0.019)**	(0.012)**	(0.015)**	(0.034)**	(0.023)**
HND/HNC	0.211	0.211	0.133	0.106	0.070	-0.025
	(0.021)**	(0.042)**	(0.013)**	(0.010)**	(0.014)**	(0.010)**
ONC/OND	0.109	0.131	0.098	0.068	-0.042	-0.054
	(0.021)**	(0.023)**	(0.010)**	(0.008)**	(0.018)*	(0.016)**
BTEC diploma	0.060	0.069	0.036	-0.011	0.051	-0.023
	(0.031)*	(0.032)*	(0.014)*	(0.016)	(0.029)	(0.027)
NVQ 3-5	0.067	0.103	0.072	0.034	0.027	-0.041
	(0.012)**	(0.020)**	(0.009)**	(0.008)**	(0.016)	(0.013)**
NVQ 2	-0.060	-0.002	-0.046	-0.071	-0.108	-0.172
	(0.009)**	(0.014)	(0.008)**	(0.009)**	(0.020)**	(0.017)**

Table 22 (continued)

Qualification	No school qualifications	GCSEs D-F	1-4 GCSEs A*-C	5+ GCSEs A*-C	1 A level	2+ A levels
NVQ1	-0.087	-0.042	-0.077	-0.096	-0.062	-0.119
	(0.015)**	(0.026)	(0.017)**	(0.021)**	(0.037)	(0.027)**
other	0.100	-0.005	0.033	0.037	0.032	0.034
	(0.005)**	(0.010)	(0.005)**	(0.005)**	(0.009)**	(0.005)**
apprenticeship	-0.039					
	(0.018)*					
Constant	0.553	-0.014	0.305	0.059	0.085	-0.277
	(0.040)**	(0.082)	(0.039)**	(0.035)	(0.073)	(0.037)**
Observations	25693	4041	18428	20101	5903	26159
R-squared	0.28	0.32	0.31	0.36	0.37	0.37

Data: Labour Force Survey.

Heteroskedastistic-consistent standard errors in parentheses.

** significant at 1% significant level * significant at 5% significant level.

Control variables are included for age and age^2, ethnicity, region, workplace size and public sector.