

**The early post-school experiences of the unqualified / low  
qualified: using the Labour Force Survey to map the 14-16  
year old low-achievers**

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## **1. Introduction**

What becomes of those young people who show little aptitude or enthusiasm at school, and fail to obtain any qualifications there? Given the importance attached to formal qualifications we might expect that their lack of application in school will significantly affect them in later life. If so, what is the size of this effect, and can it be reduced by following certain routes after formal schooling? Finally, if such routes exist, then how many of the disaffected young people take-up such opportunities? This paper sets out the answers to these questions.

The answers are clearly important. They will reveal the costs of demotivation and under-achievement at school for the individuals involved, as well as the costs to society in terms of lower productivity (as measured by wage levels of those working and the unemployment and inactivity of those who are not). Such information can be presented to teenagers in schools, although it is of some doubt whether the information will be used to make rational decisions about the costs of effort now against the future costs of having possible lower status jobs or no job at all. Perhaps more use of the results might be made by policy-makers, who can see the costs to society of allowing demotivated young people to leave school without qualifications, and can therefore perform a cost-benefit analysis of possible interventions to prevent pupils leaving school with little or nothing to show.

Similarly, the analysis of possible routes that the unqualified school leavers can take in an attempt to improve their labour market prospects, for example vocational qualifications, will provide valuable information to such people on the value of these routes, thus again helping decision-making on the choice of future paths, at a time that will hopefully be when more rational choices might be made, particularly if sobering periods of unemployment and inactivity have been experienced. Of course, any higher wages or employment probabilities for those who have followed these routes will again provide information on the value of these routes to society (in the same way as the public value of school level qualifications was identified above) and so indicate the level of funding that can justifiably be directed towards them.

At this stage, it should perhaps be pointed out that the title and the above discussion implicitly assumes that those who leave school with no or low level qualifications were demotivated at school and therefore under-achieved. Of course, for some students, no matter what efforts they put in, they are never likely to achieve examination success. Unfortunately, the data set used in this paper contains no information on inherent ability, or indeed on any other aspects of childhood, and so it is impossible to say whether the low-achievers observed in the data set are so because of limited ability or limited application and motivation to succeed. The data present no way of even knowing the relative sizes of these two groups, although given the measure of low achievement used in most of this paper, namely the failure to acquire a single GCSE at grade C or above, then the suspicion would be that the demotivated underachievers form a substantial group. Nevertheless, it should be acknowledged that when the term ‘demotivated’ is used in this paper it is actually referring to all low-achievers, only because those with low ability cannot be separately identified.

The paper proceeds in the next section with a description of the data set used and of the analysis itself. The results are presented in Section 3, while a final section offers a summary and conclusions.

## **2. Data and Methodology**

The paper uses data from the Labour Force Survey in various years to follow an age group of individuals over the early part of their working lives, from the first year after the completion of compulsory schooling until the age of 25. The Labour Force Survey is a quarterly survey, with each individual respondent being included in the survey for five consecutive quarters before dropping out of the survey to be replaced by newcomers. Thus, data from the four quarters cannot simply be aggregated to form a large annual data set, since the same individuals would feature repeatedly in the sample. Therefore it might appear more appropriate to use simply a single quarter of data. However, a key part of the analysis that follows is an examination of wages, and wage data was only asked of LFS respondents in their final questionnaire (the fifth wave) from 1993 to 1996, and of respondents in their first and final questionnaire (waves 1 and 5) from 1997 onwards. This would greatly reduce the sample sizes for the analysis of wages if only one quarter’s data were to be used, and so it was decided

to merge the four quarters into an annual data set, and simply use those observations where the wage question was asked. Given the timing of the wage question (waves 1 and 5 at most), no individual can be in our annual data sets of four consecutive quarters twice. The end result is that the following number of respondents with usable data in the specified age cohort are observed in each survey: 3799 in 1996, 6322 in 1999 and 4662 in 2002.

The focus of the research is on young people in their early years following the completion of compulsory schooling, and how they progress. Ideally, longitudinal data that follow the same individuals over a period of time would be used for such an analysis. However, as just described, respondents only participate in the Labour Force Survey for one year, from, say, March of one year to March of the next year. The longitudinal data sets that are available, with the Youth Cohort Study appearing the most suitable for the current research, do not have large enough sample sizes to adequately perform the various decompositions described below. Therefore the LFS data are used to construct a 'pseudo cohort'. In the same way that a real cohort of individuals followed in a panel data set would age by one year each year, then we can create a pseudo cohort by examining all 17 year olds in our data set in one year, all 18 year olds in the data set the next year, all 19 year olds the following year, and so on. Although the actual individuals making up the samples so created would be different, since the LFS is a nationally representative survey the individuals in our pseudo cohort will be representative of the real cohort of this age in the national population.

In fact, the above methodology led to insufficient sample sizes, and so the pseudo cohort was constructed to cover an age band three years wide, rather than simply a single year. To be precise, the paper considers all of those individuals who were born between September 1<sup>st</sup> 1976 and August 31<sup>st</sup> 1979. Given that young people can leave school at the end of the school year that follows them being aged 15 on September the 1<sup>st</sup>, this means that our cohort were entitled to leave school in the summers of 1993, 1994 or 1995. This age group was deliberately chosen because the youngest of them were enjoying their first year beyond compulsory schooling in 1996, which is the first year in which the Labour Force Survey asked about all qualifications held by individuals (rather than just their highest three), which is crucial for the analysis that follows. Thus older age groups could not be considered, since

there is no data available for them in the years immediately following the end of compulsory schooling, which is the period of interest for this study. A younger group, who have completed compulsory schooling since 1995, could have been studied with the data available, but it was felt that they would have spent insufficient time in the labour force to accurately observe their outcomes.

The principal unit of analysis in the paper is the highest level of qualification achieved at school. Six levels of achievement are identified, namely no school qualifications at all, GCSEs at grades D-F, 1-4 GCSEs at grade C or above, 5 or more GCSEs at grade C or above, 1 A level and 2 or more A levels. At certain points of the paper, these levels are aggregated into three larger groups comprising the first 2 levels (denoted ‘no or low level school qualifications’), the middle two levels (denoted ‘lower secondary level school qualifications’) and the last two levels (denoted ‘upper secondary level school qualifications’).<sup>2</sup> The focus of the analysis is on the first group, who have obtained no qualifications at school, or at best GCSEs below level C, who we are assuming are those who were demotivated at age 14-16, although recall the discussion above concerning how much of this outcome can be attributed to a lack of ability. The results for the groups with better school qualifications are provided for comparison purposes.

Data are used from Labour Force Surveys three years apart, to prevent the age bands overlapping in the chosen years. Thus, we use data from 1996, when the chosen cohort were mostly aged 17-19, data from 1999, when they were aged 20-22, and data from 2002<sup>3</sup>, when they were aged 23-25. The analysis begins with a description of the levels of achievement in terms of school qualifications. This then provides an indication of the scale of the problem caused by low achievement at school. As throughout the paper, results are presented separately for males and females. Since the cohort are aged only 17-19 when we first observe them in 1996, some will still be in school, as so we should expect some upgrading in terms of highest qualification achieved by the time that we next observe them in 1999, mainly from the lower secondary to the upper secondary levels (i.e. from GCSEs to A levels). Although some people may take school level qualifications later in life, we would expect the

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<sup>2</sup> This aggregation is forced upon us by small cell sizes for some of the education levels.

<sup>3</sup> At the time of writing, only data from the first 3 quarters of 2002 were available.

picture of school qualification achievement to remain fairly constant between 1999 (age 20-22) and 2002 (age 23-25).

Having identified the scale of the problem, the analysis then begins to investigate its impact, by looking at the labour force status of individuals at each level of school achievement. Of particular interest is the size of any impact of demotivation and underachievement at school on the likelihood of being unemployed or inactive.

As the introduction made clear, as well as studying the extent of low achievement at school and its impact on labour market outcomes, we are also interested in whether this impact can be attenuated through the obtaining of post-school qualifications. The analysis therefore continues with an investigation, at the same 3 points in time as used above, of the qualifications obtained after leaving school, by level of school qualification obtained. The idea is then to determine whether low achievement at school leaves a permanent mark, or whether those who obtain qualifications after leaving school catch up their more successful contemporaries from school, in terms of labour market outcomes such as likelihood of employment and wages received. We differentiate between post-school qualifications at levels 1, 2, 3 and above 3. The qualifications in the first 3 categories are all vocational qualifications, since academic qualifications obtained after school are necessarily above the school qualification of A levels, which is a level 3 qualification. The final category of above level 3 post-school qualifications therefore contains both academic and vocational qualifications<sup>4</sup>.

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<sup>4</sup> Specifically, above level 3 qualifications are higher degrees, degrees, Higher Education diplomas and other Higher Education qualifications on the academic side, and professional, teaching and nursing qualifications plus HNC/HNDs on the vocational side. Vocational level 3 qualifications comprise higher level RSA qualifications, ONC/ONDs, City and Guilds Advanced Craft qualifications and NVQ 3 / advanced GNVQ qualifications. The vocational level 2 category comprises apprenticeships, City and Guilds Craft qualifications, BTEC diplomas and certificates and NVQ 2 / intermediate GNVQ qualifications. Finally, vocational level 1 qualifications is made up of City and Guilds 'other' qualifications, NVQ 1 / foundation GNVQ qualifications, lower level RSA qualifications and 'other qualifications.'

### **3 Results**

#### **a.) School Qualification Attainment**

The analysis begins in Table 1 by detailing the school qualifications obtained by our cohort by the year 1996, by which time they have all completed compulsory schooling. The results show that only a minority of the individuals in our cohort have failed to acquire any qualifications at school at all. Nevertheless, however, it is a significant minority, namely 20% of the males and 15% of the females. In addition, a further 9% of males and 8% of females have only achieved at best GCSE qualifications at grade D or below. Therefore just over a quarter of all boys and just under a quarter of all girls were leaving school in the mid-1990s with no qualifications of any note. This group forms the focus of the analysis that follows.

Looking further up the school qualifications hierarchy, large numbers, representing just over half of the cohort, hold GCSE qualifications at grade C or above as their highest attainment, two-thirds of whom have at least 5 such qualifications. The remainder of the cohort are the highest achievers, who have acquired A levels. Of those who reach this standard, the vast majority gain at least 2 A levels.

Of course, our cohort are aged 17-19 in 1996, and so some will not have had the chance to sit A level examinations at this stage. We would therefore expect an increase in the proportion of the cohort holding A levels, once the group have reached the age of 20-22 in 1999. This is indeed what we observe in Table 2. Once all of the group have past the normal completing age of upper secondary education (namely 18), one-third of both men and women have obtained at least 2 A levels, with a further 5% holding just 1. As expected, the new recruits to the A level group have emerged from the set of 5 or more good GCSE holders, whose numbers have fallen significantly over the period following progression to A level standard. Few of the individuals holding less than 5 good GCSEs seem to have made this progression though.

Table 3 displays the proportion of the cohort to have reached each school qualification level by the age of 23-25, in 2002. Although, individuals can of course

obtain GCSEs and A levels later in life, only small numbers do so, and so we would expect the school qualification distribution to be very similar for the cohort aged 23-25 in 2002 as it was aged 20-22 in 1999. Unfortunately there seems to be a slight slippage into the lower categories, so that 31% of men and 29% of women now report having no or only very low level school qualifications. Of course this is illogical, since people cannot have qualifications taken away from them, and so the proportion with no qualifications should not grow. One answer to this conundrum is to remember that we do not have a true cohort of individuals, and so we are not observing the same individuals at the different points in time. Although the surveyed respondents are representative of the nation's population in this age group, sampling error could explain the apparent rise in the proportion holding no school qualifications, with the unqualified being randomly over-represented in 2002. However, the growth in the numbers with no qualifications does seem to be quite large, and suggests something more than sampling error. In addition, if our group is examined in 2001 rather than 2002, a similar proportion of apparently unqualified school leavers emerges, again suggesting that this is not a random error phenomenon. The most likely explanation is that as people get older, they cease reporting their school level qualifications to surveys such as the Labour Force Survey, despite being explicitly told by the survey to list *all* of their qualifications. This is perhaps an important finding in itself, given the important uses made of these data and the reliability assumed of them. What it means for the current analysis is that when labour market outcomes for the cohort in 2002 are examined, the apparent low-achievers may have better school qualifications than are attributed to them, thus biasing upwards the estimated labour market outcomes for the truly unqualified school leavers. The picture for this group may therefore actually be worse than that drawn below.

#### **b.) Labour Market Status by School Qualification Attainment**

Tables 4 to 6 begin the analysis of the effects of under-achievement at school, for each of the studied points in time respectively. Table 4 begins when the cohort are

aged 17-19 in 1996<sup>5</sup>. Considering first males, we can see that fewer than half of those who left school with no qualifications are in employment<sup>6</sup>. It is true that a further 15% are studying, many of whom will probably be re-sitting their failed school examinations. In addition, 9% are also involved in government training schemes. This leaves a third of all young unqualified men not doing anything useful in 1996, although at least most of these are classified as unemployed and so are actively looking for a job<sup>7</sup>, rather than dropping out of the labour force altogether and being classified as inactive.

The second row of Table 4 reveals the advantage of even low level qualifications, since there is a large jump in the employment rate of those with at best grade D-F GCSEs, compared to the unqualified group (61% relative to 43%). Of course, we could ask whether it is actually a good thing that young people at the age of 17-19 are working at all, rather than continuing their education, and it is true that this group have a lower proportion still studying or involved in training than the unqualified group. However, they do also have significantly lower proportions doing nothing in the unemployed and inactive groups than the unqualified group, so overall it seems safe to say that even low level qualifications benefit labour force status. We also see a slight increase in economic activity moving from the 'poor GCSE' to the 'fewer than 5 good GCSEs' group. The big change comes, as we might expect, however, amongst those who have really succeeded in their GCSE examinations at age 16. Because of this earlier success, 30% of them are still studying at age 17-19.

We observe similar patterns for women, with the main difference from their male counterparts being a lower employment rate amongst the low-achievers in school, though *not* amongst the successful former pupils. Thus, only one-third of those women who left school with no qualifications are in employment at age 17-19, while almost two-thirds of those who achieve 5 or more good GCSEs are. This higher employment rate for female GCSE high achievers compared to males seems to come at the expense of further study, only 23% of this group of women being still in

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<sup>5</sup> The A level group are not included in Table 4, since the majority of the cohort had not yet had a chance to sit them in 1996.

<sup>6</sup> 'Employment' here includes self-employment.

<sup>7</sup> The definition of unemployment used here is the ILO definition, i.e. wants to work, has looked for work in the previous four weeks and is available to begin work within two weeks.

education in 1996, compared to 30%. Despite the better success of females at GCSE level, therefore, as shown in Table 1, fewer women than men seem to be encouraged to continue into post-compulsory education.

The other key difference between men and women is that women who do not work or study are much more likely to be inactive rather than unemployed, while the reverse is true for men. Thus, 28% of female unqualified school leavers are inactive at age 17-19 in 1996, and so have no attachment to the labour force or education at all. This number drops quickly though amongst women who have acquired school qualifications, falling to just 5% amongst the group with 5 or more good GCSEs.

Table 5 shows how things have changed by 1999 when our cohort have aged 3 years. Again considering men initially, the first thing to note is the increase in employment rates at the lower end of the school achievement spectrum. This is because very few of the group who achieved at best GCSEs at some level, as so in all probability left school at age 16, are still studying between the ages of 20-22. In addition, very few are involved in government training. By this age, therefore, if the low-achievers are not working, they are either unemployed or inactive. Around one-quarter of the group with no or very low qualifications are in this state in 1999, although the composition of the state differs according to whether no qualifications were obtained at all, or whether some GCSEs at grade D or below were obtained. In the former group, the non-working non-students are split evenly between unemployment and inactivity, while in the latter case, unemployment is the much more likely circumstance. Thus 12.6%, or 1 in 8, or all men who leave school with no qualifications have no contact with the labour market at all.

Amongst the group who achieved GCSEs at grade C or above, the employment rate is high at over 80%, with little difference according to whether fewer or greater than 5 such qualifications were acquired. At the top end of the school qualifications hierarchy, the employment rate naturally plummets again for the group with 2 or more A Levels, since many in this group will be studying for a degree when they are aged 20-22. Thus, the table shows that 35% of this group are studying in 1999.

For women, the polarisation between those successful and unsuccessful at school if anything seems to have increased for this cohort between 1996 and 1999. Thus, almost half (48%) of those women who left school with no qualifications are not working or studying when they are aged 20-22, the vast majority of whom are inactive rather than unemployed, as so have no contact with the labour force. Only 43% of this group are working, with small numbers studying or registered unemployed. Moving up the hierarchy, we observe the value of even low level GCSEs (grades D-F) for women, the employment rate rising to 62% for females with such qualifications, while the inactivity rate drops to 24%, which is still substantial, but much smaller than the 38% for women with no school qualifications at all. The inactivity rate continues to fall as we move up the school qualifications scale, while the employment rate rises until the 2+ A levels group is reached, many of whom are studying for degrees, as reflected in the 34% studying rate for this group.

By 2002, our cohort are aged 23-25, and for the vast majority formal education will be completed and they will be settling into their adult lives. Table 6 shows their labour force status at this age, again by level of school qualification. For men, we can again see the value of even low level school qualifications, since the employment rate jumps from 71% for the unqualified school leavers to 88% for those who at least acquired some GCSEs at grades D-F while in school. Amongst the former, unqualified group, then, almost a quarter are still without work as they reach their mid-twenties, over half of whom are classified as inactive and so do not even have any attachment to the labour force. For all the other groups, who acquired some qualifications at school, the inactivity rate is insignificantly small, while employment rates range from 83% to 91%. Amongst the A level groups, close to 10% still remain in education, even at this age.

For women, the unqualified school leavers seem to be drifting further out of the labour market as they progress into their mid-twenties. There are now over 40% of this group classified as inactive, with a further 5% officially unemployed. For half of all women who fail to achieve at school, therefore, their lives will not involve work even in their early to mid-twenties. Inactivity rates fall as we move up the school qualifications hierarchy, although still remain substantial: 30% for those with at best GCSEs at grades D-F, 22% for those with no more than 4 good GCSEs, and 13% for

those with 5 or more good GCSEs but who did not progress beyond this level. It is not until we reach the women who obtained A levels at school that we witness single-figure inactivity rates.

### **c.) The Acquisition of Post-School Qualifications**

The previous section revealed that significant amounts of studying take place after the end of compulsory schooling for our cohort. This section describes which post-school qualifications are actually obtained, with the analysis again by level of school qualification attainment. However, because of the large numbers of possible post-school qualifications, cell sizes can quickly become small, as so we aggregate the six school qualification levels into 3 broader categories, as described in the Data and Methodology section above. The results presented here are useful in their own right in showing which post-school qualifications are in demand, but also as a stepping stone to the final section of the paper, which analyses the effect of these qualifications on labour market outcomes, focussing on their benefit to individuals who have under-achieved at school.

Table 7 considers those who obtained no qualifications at all at school, or only low level qualifications, namely GCSEs at grades D-F. All 3 years are shown in successive columns of the table, to reveal any progression that has occurred. The Labour Force Survey asks respondents to list all qualifications that they hold, so the numbers in the table, showing the proportion of respondents in this group who report holding each qualification at the particular points in time are not mutually exclusive; the same individuals may be counted in the totals holding a range of qualifications<sup>8</sup>.

As we might expect, this group of low-achievers at school are very unlikely to eventually reach Higher Education, and so we observe insignificantly small acquisition rates of post-school academic qualifications for this group<sup>9</sup>. It is to

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<sup>8</sup> The exception to this is the NVQ/GNVQ categories, where a separate question in the survey asks for the respondents' *highest* qualification of this type. Thus, for example, an individual reporting that they hold an NVQ 2 qualification as their highest qualification of this type will not also be counted in the NVQ 1 category.

<sup>9</sup> It is true that 4% of both men and women in this category report having a degree by the time they are aged 23-25 in 2002, although these could be graduates who do not bother reporting their school

vocational qualifications that this group are more likely to turn. However, the acquisition rates of the various vocational qualifications by this group are mostly very small, with the exceptions of the relatively new NVQ / GNVQ qualifications, and, for males only, some craft qualifications, such as apprenticeships and City and Guilds. The unqualified / low qualified school leavers seem most likely to acquire NVQ qualifications at level 2<sup>10</sup>. Thus, in the early years after their unsuccessful completion of school (ages 17-19), 13% of such men and 14% of such women hold an NVQ 2 qualification. A proportion of such individuals then progress to level 3 in subsequent years, with the NVQ / GNVQ acquisition rates rising from 3.5% at age 17-19 to 7% at age 23-25 amongst men, and from 2% at age 17-19 to 5% at age 23-25 for women. These are very low numbers, however, and together with the almost complete failure of this group to acquire any higher-level qualifications, this means that the vast majority of low-achievers at school, remain low-achievers in the post-school world, and fail to obtain a level 3 qualification.

Table 8 reveals that those individuals who left school at 16, but did at least acquire some GCSEs at grade C or above, or much more likely than their unqualified / low qualified fellow leavers to acquire post-school vocational qualifications (although their acquisition rate of higher level academic qualifications is predictably similarly small). At the age of 17-19, the most predominant qualification to be acquired is NVQ 2's, with 9% of men and 13% of women holding this qualification. Many seem keen to progress, however, since the acquisition rates of NVQ / GNVQ 3's rises from 4% in 1996 to 18% in 1999 and 25% in 2002 for men, and from 5% in 1996 to a similar 19% in 1999 and 25% in 2002 for women. In addition, there is also significant acquisition of the more formalised BTEC qualifications at their higher levels, namely ONC/ONDs (level 3) and HNC/HNDs (level 4), with 12% of men and 10% of women holding the former, and 11% of men and 5% of women holding the latter, by the age of 23-25 in 2002. Thus for the group who were reasonably successful in their age 16 school examinations, but who, for whatever reason, did not go on to acquire upper secondary school level qualifications, the vocational route

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qualifications to the LFS anymore, giving rise to the apparent rise in the proportion failing to acquire any qualifications at school, as described in part a.) above.

<sup>10</sup> In addition, in this and subsequent tables, very large numbers indicate acquiring qualifications in the 'other' category. It is obviously impossible to know what qualifications they are actually indicating, but it will be assumed in the analysis that they are low level qualifications.

seems to offer a reasonable alternative route to level 3 and beyond for a significant number.

Table 9 reveals that those individuals who acquire A levels at the end of upper secondary education largely avoid the vocational route after leaving school, and flow straight into Higher Education if they do undertake any more education. Thus the acquisition rate of all vocational qualifications is below 10% for members of this group, of both sexes. Looking at academic qualifications, however, we observe that 54% of men in this cohort who obtained at least 1 A level have gone on to acquire a first degree, and 8% a higher degree, by the age of 23-25, with the similar figures for women being 56% and 5% respectively.

The preceding tables in some way mask the average acquisition rates of post-compulsory qualifications, because of the large numbers of qualifications included, and their non-mutually exclusive status. Tables 10-12 therefore summarise the information in Tables 7-9 respectively, showing the proportions of each school qualification achievement group who reach each of the post-compulsory qualification levels. Thus Table 10 shows clearly what was suggested above, that very few of those who leave school with no or only low level qualifications manage to acquire meaningful post-compulsory qualifications. Of the men who fall into this category of low school achievers, for example, 42% fail to acquire any qualifications at all after leaving school, 26% acquire at best a level 1 qualification, and 17% acquire at best a level 2 qualification. Only 16% of the demotivated low-school achievement males manage to reach level 3 in post-school qualifications, just over half of whom stop at this level, with the remainder going on to a higher level. For women, the proportion of the low-school achievers adding nothing post-school is even higher, slightly, than for men, at 44%. Only 13% of such women reach level 3 in terms of post-school qualifications, approximately half of whom then achieve even higher. In summary, therefore, it does not appear that post-school vocational qualifications have been at all successful in raising those who failed at school up to the generally accepted desirable level (level 3), or even, for that matter, to level 2.

Table 11 paints a much more positive picture for those members of our cohort who acquired good GCSEs at the end of compulsory schooling, even though they did not

continue their formal education to the upper secondary level. Amongst this group, only 23% of men and 22% of women fail to add any qualifications after leaving formal education, while the level with the highest acquisition rate is level 3. Thus, amongst the group who failed to reach level 3 in formal schooling, vocational qualifications are successful in getting a quarter up to at best level 3, with a further 17% of men and 14% of women in this group reaching an even higher level. In total, therefore, around 4 out of every 10 individuals who decide to leave school at age 16 with good GCSEs go on to reach at least level 3 through post-school qualifications.

Finally, Table 12 shows that amongst the top achievers at school who acquired A levels, the majority (two-thirds) go on to acquire high level qualifications, most commonly bachelors degrees. A significant minority, 18% of men and 13% of women, do not obtain any further qualifications after their A levels. The remainder acquire vocational qualifications at the various levels, this group being the least likely of the 3 school qualification groups to do so.

We now examine how far the acquisition of these various post-school qualifications can help the demotivated low-achievers in terms of labour market success.

#### **d.) The Impact of Post-School Qualifications on Labour Market Success**

For this final section of the paper, only the 2002 data are used to consider our cohort when they are aged 23-25. Prior to this age, significant numbers of the cohort group were still in full-time education, while others may not have settled into a suitable job. By the age of 23-25, however, the cohort members should be finding something close to their permanent position in the labour market (if they are to have one at all). Of course, Table 6 above showed that some members of the group were still studying at this age, and they are therefore excluded from this analysis of labour market success. The results are presented separately for men and women, in Tables 13 and 14 respectively.

As throughout this paper, the focus here is on the group who left school with no or only very low level qualifications. The aim is to see to what extent post-school qualifications improve their situation. The first thing to note, considering men first in

Table 13, is that there is a clear hierarchy of labour market success across the three levels of school attainment if they do not add anything further qualifications, as we might expect. Thus, those who leave school with nothing, and do not go on to acquire post-school qualifications either, have an employment rate of just 69%. Those who add nothing to their good GCSEs have an 82% likelihood of employment, while those who have only A levels have a 94% employment probability.

If these various groups acquire post-school qualifications, however, then the most dramatic effect is observed on the labour market success of the unqualified / low-qualified school-leavers. Vocational qualifications at level 1 have a small effect on the employment rate of the lowest group, which rises to 76%. It is at vocational level 2, however, that we really start to observe the positive impact of these qualifications kicking in. With post-school qualifications at this level, the employment rate of those men who left school with nothing rises to 90%. Note that this is actually a higher employment rate than those who reached level 2 via the academic route and stopped there (i.e. those who obtained good GCSEs at school but no post-school qualifications), who, as stated above, have an 82% employment rate. The 90% employment rate of the unqualified school leavers with vocational level 2 qualifications is also quite close to that of their more successful peers at school who have also acquired vocation level 2 qualifications, who have employment rates of 94% and 92% respectively for GCSE and A level holders.

Moving up another level, if the unqualified / low-qualified school leavers manage to reach level 3 via the vocational route, then they have a 93% employment rate, which again compares favourably with the 94% employment rate of those men who reach level 3 via the academic route (i.e. A levels but not post-school qualifications). If we compare employment rates of all those with level 3 post-school vocational qualifications, across the 3 levels of school attainment, then they are very similar. It therefore appears that those men who left school with nothing to show for their time there manage to eliminate their disadvantage in terms of finding employment, if they obtain level 3 vocational qualifications after leaving school.

The men do not completely wipe out any disadvantage of their failure at school, however, as the final column of wages reveals, although the differences are small.

Men who leave school with no or only very low qualifications earn on average £5.80 an hour in 2002. This is of course less than men who leave school with good GCSEs or A levels, who earn on average £6.76 an hour and £8.08 an hour respectively if they do not acquire any post-school qualifications. Note that the unqualified school leavers actually earn more (£7.21 compared to £6.76) than the GCSE group on average if the former acquire vocational level 2 qualifications, and so reach the same level as GCSEs via the vocational rather than the academic route. However, if the school leavers with GCSEs were also to acquire vocational level 2 qualifications, this would take their wages back above their unqualified contemporaries from school who obtained similar vocational qualifications post-school (£7.51 compared to £7.21). At level 3, a vocational qualification for the unqualified / low qualified school leavers cannot match A levels in terms of wages, however. Thus the unqualified male school leaver who obtains a level 3 vocational qualification post-school earns on average £7.16 an hour, compared to the £8.08 hourly wage of the school leaver who acquired A levels. If the latter were also to acquire a level 3 vocational qualification, this would raise his wage rate further, to £8.24 an hour, and exacerbate this difference.<sup>11</sup> Thus post-school qualifications cannot quite make up for a lack of success at school, although they close the gap considerably<sup>12</sup>.

For women, we observe vocational qualifications having a substantial impact on employment rates, particularly for the unqualified / low qualified school leavers, but a very small effect on wages. With respect to employment, Table 14 shows that women who leave school with no worthwhile qualifications, and remain unqualified after school, only have a 35% likelihood of employment. If they obtain vocational

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<sup>11</sup> The reader may note that the acquisition of vocational qualifications at levels 1 or 2 appear to actually lower the wages of school leavers with A levels. This is probably the result of the simple analysis employed here, with no controlling variables. Thus, the results should not be read as saying that wages would actually fall for an A level holder who acquired such low vocational qualifications, but that the A level holders who bother to get such qualifications, which are ranked lower than the A levels he holds, are probably of lower quality on average than the general class of A level holders, and so earn less for this reason.

<sup>12</sup> The exception is the 'above level 3' group. The average wage amongst the unqualified school leavers who reach this level is £10.06, which is greater than the average wage of either GCSE holders or A levels holders who reach above level 3 post school. However, there are actually very few unqualified school leavers who end up acquiring qualifications above level 3, as Table 10 showed, and so the average wage calculated for this group in Table 13 is based upon a limited number of observations, and so will be susceptible to the influence of a few outliers. In addition, recall from the discussion of Tables 1-3 that some people with higher level qualifications appear to stop reporting their school qualifications by 2002, so that some in this group apparently unqualified from school but above level 3 post school may actually have school level qualifications.

qualifications, however, then their employment rate rises rapidly, to 59% (with level 1 vocational qualifications), 66% (with level 2 vocational qualifications) and 83% (with level 3 vocational qualifications)<sup>13</sup>. These employment rates following the acquisition of vocational qualifications are close to the employment rates of those who reached level 2 and 3 via the academic route, with the employment rates of those with no post-school qualifications but either good GCSEs or A levels at school respectively being 67% and 88% respectively.

Vocational qualifications also boost the employment probability of those women whose highest school level qualification is good GCSEs. If such women do not add further qualifications post-school then, as stated above, they have a 67% likelihood of employment. With vocational qualifications at level 2 this probability rises to 74%, and at level 3 to 88%. Since 88% is also the employment probability of those women who obtain A levels but no post-school qualifications, then we can say that vocational level 3 qualifications for women with at best GCSE qualifications from school are successful in raising the likelihood of employment for this group to that of women who reach level 3 via the academic route (A levels).

The acquisition of vocational qualifications after formal schooling does not seem to have a large effect on the wages of women in our cohort. It is not immediately obvious why this should be the case, but may be related to selection issues, which of course are not controlled for in the simple analysis used here. For example we know that those women with few qualifications are much less likely to participate in the labour force, which means that those who do choose to do so may have made this decision because of particular unobserved characteristics of themselves or their jobs that give them higher than expected wages. These higher wages for the low qualified who have chosen to work then close the wage differentials on more highly qualified women.

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<sup>13</sup> However, the vocational qualifications may not have a causal impact on female employment, but may merely be indicators of female selection issues, which should always be considered when considering female employment. For example, those women who have bothered to obtain work-related vocational qualifications are probably more likely to be women who choose to work rather than stay at home with families, thus readily explaining their higher employment rate.

#### **4. Conclusion**

This paper has taken data on the cohort of individuals who were entitled to leave school in the summers of 1993, 1994 or 1995, and examined their further education decisions and early labour market outcomes.

The results revealed that still sizeable minorities of this recent cohort have not obtained any qualifications by the time that they complete compulsory schooling. The analysis then went on to show that such a situation can significantly impact on labour market success, with this group of unqualified school leavers being much less likely to be employed than their contemporaries at school who obtained qualifications. For men, those without work are split approximately equally between unemployment and inactivity. Women who do not work after leaving school with no qualifications are much more likely to be inactive than to be unemployed, however.

What can this group do to solve their lack of employment opportunities? The obvious answer is to try to obtain some qualifications post-school, which could involve re-sits of school qualifications, but more likely vocational qualifications. The results however reveal that although there is some take up of NVQ level 2 qualifications by both male and female unqualified school leavers, and of apprenticeships and low level City and Guilds qualifications by such men, very few individuals who obtained no school level qualifications manage to reach level 3 through the vocational route, and only around a third of this group manage even to reach level 2. This is a pity, because the final part of the paper shows that for those unqualified school leavers who do obtain vocational level 2 or 3 qualifications, the gap between their labour market outcomes, such as employment probabilities and wages, and the labour market outcomes of those who reach these levels via the academic route at school closes dramatically.

The vocational route as it stands therefore seems to be for the group who do obtain good GCSEs at school, since a level 3 vocational qualification for this group also closes the employment and wage gaps on those with A levels from school, and crucially there is significant take-up of these qualifications by the GSCE group.

Therefore over 40% of the both men and women in our cohort who leave school with at best GCSEs manage to obtain a level 3 qualification or better post-school.

The implication is therefore that, if there is always going to be a significant minority that emerge from school at age 16 having failed along the academic route, then more needs to be done to help them reach level 2 or level 3 along the vocational route, otherwise this group is going to remain, and probably become increasingly, marginalised on the labour market.

**Table 1: 17-19 Year Olds in 1996 by Highest School Qualification Achieved (%)**

School qualifications	Males	Females
none	19.9	14.7
GCSE D-F	8.9	7.6
1-4 GCSE A*-C	19.8	19.5
5+ GCSE A*-C	31.7	34.9
1 A level	2.6	2.9
2+ A levels	17.2	20.5

Source: Labour Force Survey

**Table 2: 20-22 Year Olds in 1999 by Highest School Qualification Achieved (%)**

School qualifications	Males	Females
none	20.4	18.7
GCSE D-F	7.6	5.3
1-4 GCSE A*-C	17.4	18.3
5+ GCSE A*-C	17.5	19.3
1 A level	4.5	4.9
2+ A levels	32.6	33.6

Source: Labour Force Survey

**Table 3: 23-25 Year Olds in 2002 by Highest School Qualification Achieved (%)**

School qualifications	Males	Females
none	24.5	23.4
GCSE D-F	6.1	5.4
1-4 GCSE A*-C	18.0	14.9
5+ GCSE A*-C	16.8	17.9
1 A level	3.9	5.1
2+ A levels	30.8	33.4

Source: Labour Force Survey

**Table 4: Labour Force Status of 17-19 Year Olds in 1996 (%)**

School qualifications	Males					Females				
	employed	training	unemployed	studying	inactive	employed	training	unemployed	studying	inactive
none	42.5	8.6	25.6	15.3	8.0	33.4	3.7	13.6	21.6	27.7
GCSE D-F	61.3	6.0	18.9	10.4	3.4	52.7	8.2	10.2	15.8	13.1
1-4 GCSE A*-C	61.9	7.7	16.8	12.3	1.3	59.3	7.6	12.2	9.9	11.0
5+ GCSE A*-C	55.8	3.7	7.8	29.9	2.7	62.0	2.7	7.6	22.9	4.7

Source: Labour Force Survey

**Table 5: Labour Force Status of 20-22 Year Olds in 1999 (%)**

School qualifications	Males					Females				
	employed	training	unemployed	studying	inactive	employed	training	unemployed	studying	inactive
none	63.5	2.2	13.5	8.3	12.6	43.3	0.5	9.4	8.7	38.2
GCSE D-F	72.6	1.9	19.2	3.0	3.3	62.3	0.0	11.3	2.3	24.1
1-4 GCSE A*-C	81.5	0.5	10.4	4.2	3.4	67.8	0.0	8.3	3.0	20.9
5+ GCSE A*-C	81.5	0.5	7.8	7.4	2.7	76.2	0.6	5.5	6.1	11.5
1 A level	75.7	1.0	8.9	12.4	2.0	78.5	0.7	2.2	11.3	7.3
2+ A levels	53.3	0.6	8.5	35.0	2.6	56.3	0.2	5.1	34.1	4.3

Source: Labour Force Survey

**Table 6: Labour Force Status of 23-25 Year Olds in 2002 (%)**

School qualifications	Males					Females				
	employed	training	unemployed	studying	inactive	employed	training	unemployed	studying	inactive
none	70.5	0.1	10.1	5.8	13.4	48.4	0.3	5.4	4.1	41.8
GCSE D-F	88.3	0.8	7.6	0.0	3.3	62.2	0.0	6.8	0.6	30.4
1-4 GCSE A*-C	83.1	0.6	8.3	2.6	5.4	69.6	0.0	6.1	2.3	21.9
5+ GCSE A*-C	90.8	0.0	4.7	1.5	3.1	81.7	0.0	2.7	3.1	12.5
1 A level	87.9	1.2	0.9	8.9	1.1	89.0	0.0	2.1	3.7	5.2
2+ A levels	84.4	0.0	5.2	8.1	2.2	83.8	0.1	4.2	6.5	5.4

Source: Labour Force Survey



**Table 7: Post School Qualifications Obtained By Those With No or Low Level  
School Qualifications (%)**

qualification	Males			Females		
	Age 17-19 (1996)	Age 20-22 (1999)	Age 23-25 (2002)	Age 17-19 (1996)	Age 20-22 (1999)	Age 23-25 (2002)
<b>Academic</b>						
Higher degree	0.0	0.1	1.5	0.0	0.0	0.6
Degree	0.0	2.0	4.0	0.0	1.3	4.3
Other HE	0.2	0.6	0.3	0.0	0.4	0.0
HE diploma	0.2	0.2	0.0	0.0	0.0	1.2
<b>Vocational</b>						
Professional	0.0	0.0	1.1	0.0	0.0	0.4
Teaching	0.0	0.0	0.0	0.0	0.0	0.4
Nursing	0.0	0.2	0.1	0.3	0.0	0.3
HND/HNC	0.6	1.0	1.3	0.5	0.8	0.9
RSA higher	0.0	0.1	0.1	0.5	0.0	0.1
ONC/OND	1.0	2.0	0.8	0.5	0.9	1.4
C&G ad. craft	0.1	1.3	2.2	0.1	0.3	0.7
NVQ/GNVQ 3-5	3.5	6.9	7.2	2.2	5.2	4.6
apprenticeship	3.1	11.1	13.2	2.5	4.4	3.5
C&G craft	1.5	3.0	6.2	0.0	0.3	1.3
BTEC diploma	1.6	1.5	0.6	1.2	1.4	1.1
NVQ/GNVQ 2	13.4	10.9	10.2	14.3	13.3	14.2
C&G other	4.5	5.1	7.6	1.8	2.6	3.3
NVQ/GNVQ 1	3.5	5.0	3.0	4.2	4.1	2.3
RSA lower	1.0	1.6	0.5	3.5	2.8	3.6
Other	14.6	28.4	39.3	17.6	31.9	36.4

Source: Labour Force Survey

**Table 8: Post School Qualifications Obtained By Those With at Best Lower  
Secondary Level School Qualifications (%)**

qualification	Males			Females		
	Age 17-19 (1996)	Age 20-22 (1999)	Age 23-25 (2002)	Age 17-19 (1996)	Age 20-22 (1999)	Age 23-25 (2002)
<b>Academic</b>						
Higher degree	0.0	0.0	0.1	0.0	0.0	0.3
Degree	0.0	1.2	6.3	0.0	0.6	4.6
Other HE	0.2	0.8	0.8	0.1	1.2	1.4
HE diploma	0.2	0.5	0.6	0.4	0.5	0.9
<b>Vocational</b>						
Professional	0.0	0.1	0.4	0.0	0.1	0.6
Teaching	0.0	0.1	0.3	0.0	0.1	0.3
Nursing	0.0	0.1	0.2	0.2	0.9	2.9
HND/HNC	0.8	6.6	10.9	0.4	4.6	4.9
RSA higher	0.0	2.4	0.1	0.2	0.3	0.2
ONC/OND	3.8	11.4	12.2	3.1	7.7	10.4
C&G ad. craft	0.6	1.9	4.9	0.3	0.7	1.3
NVQ/GNVQ 3-5	4.2	17.8	24.6	4.5	18.7	25.3
apprenticeship	1.9	13.9	20.9	1.5	5.4	5.4
C&G craft	2.2	4.3	4.2	0.5	1.5	0.6
BTEC diploma	3.1	4.0	1.7	2.3	2.6	2.0
NVQ/GNVQ 2	9.4	18.7	17.5	13.0	20.7	21.9
C&G other	4.2	0.8	7.7	2.7	3.4	2.4
NVQ/GNVQ 1	3.1	4.4	4.5	2.0	4.5	4.1
RSA lower	1.6	2.4	2.2	6.3	11.6	10.0
Other	11.0	28.6	35.9	16.1	30.7	30.8

Source: Labour Force Survey

**Table 9: Post School Qualifications Obtained By Those With Upper Secondary  
Level School Qualifications (%)**

qualification	Males			Females		
	Age 17-19 (1996)	Age 20-22 (1999)	Age 23-25 (2002)	Age 17-19 (1996)	Age 20-22 (1999)	Age 23-25 (2002)
<b>Academic</b>						
Higher degree	0.0	0.8	7.8	0.0	0.5	4.8
Degree	0.3	20.4	53.8	0.2	20.4	55.5
Other HE	0.4	1.2	0.7	1.0	1.2	0.9
HE diploma	0.0	0.8	2.1	0.3	1.5	3.7
<b>Vocational</b>						
Professional	0.0	0.1	3.5	0.0	0.5	3.1
Teaching	0.0	0.1	0.7	0.0	0.7	4.1
Nursing	0.0	0.1	0.2	0.0	0.4	2.9
HND/HNC	1.0	4.6	8.5	0.8	6.3	6.6
RSA higher	0.0	0.2	0.0	0.5	0.4	0.2
ONC/OND	0.8	3.3	3.2	1.4	2.0	3.0
C&G ad. craft	0.2	0.5	0.4	0.0	0.1	0.2
NVQ/GNVQ 3-5	0.8	5.4	5.6	2.5	4.4	6.6
apprenticeship	0.7	0.9	3.1	0.0	0.2	1.1
C&G craft	0.3	0.3	0.5	0.0	0.1	0.1
BTEC diploma	0.6	1.3	0.8	0.8	1.5	0.7
NVQ/GNVQ 2	1.3	2.0	3.6	1.1	2.5	4.3
C&G other	0.9	0.8	1.8	0.7	0.7	0.7
NVQ/GNVQ 1	0.8	0.8	0.7	0.7	1.2	1.4
RSA lower	3.2	2.2	1.5	6.3	5.7	5.6
Other	11.4	18.9	27.7	13.1	20.5	28.5

Source: Labour Force Survey

**Table 10: Summary of Post School Qualifications of those with No or Low Level School Qualifications (23-25 Year Olds in 2002) (%)**

	Males	Females
None	41.6	43.9
Vocational level 1	25.9	27.0
Vocational level 2	17.1	16.1
Vocational level 3	8.6	6.1
Above level 3	6.9	6.9

Source: Labour Force Survey

**Table 11: Summary of Post School Qualifications of those with at Best Lower Secondary Level School Qualifications (23-25 Year Olds in 2002) (%)**

	Males	Females
None	22.6	22.3
Vocational level 1	16.2	17.1
Vocational level 2	19.8	20.2
Vocational level 3	24.8	26.6
Above level 3	16.6	13.7

Source: Labour Force Survey

**Table 12: Summary of Post School Qualifications of those with Upper Secondary  
Level School Qualifications (23-25 Year Olds in 2002) (%)**

	Males	Females
None	18.1	12.8
Vocational level 1	8.2	8.8
Vocational level 2	3.0	3.1
Vocational level 3	4.5	5.6
Above level 3	66.3	69.7

Source: Labour Force Survey

**Table 13: Employment Probabilities and Average Wage Levels for 23-25 Year  
Old Men in 2002, by Qualification Combinations**

	Employment rate (%)	Average Hourly Wage (£)
No/low school qualifications		
+ none	69.0	5.80
+ vocational level 1	76.4	6.65
+ vocational level 2	89.5	7.21
+ vocational level 3	93.2	7.16
+ above level 3	85.6	10.06
Lower secondary qualifications		
+ none	82.3	6.76
+ vocational level 1	86.8	7.54
+ vocational level 2	94.0	7.51
+ vocational level 3	90.8	7.45
+ above level 3	89.3	8.85
Upper secondary qualifications		
+ none	93.9	8.08
+ vocational level 1	96.3	7.60
+ vocational level 2	91.7	7.50
+ vocational level 3	94.4	8.24
+ above level 3	91.5	10.00

**Table 14: Employment Probabilities and Average Wage Levels for 23-25 Year  
Old Women in 2002, by Qualification Combinations**

	Employment rate (%)	Average Hourly Wage (£)
No/low school qualifications		
+ none	35.1	5.76
+ vocational level 1	58.6	6.73
+ vocational level 2	66.4	5.70
+ vocational level 3	82.5	5.68
+ above level 3	90.6	7.79
Lower secondary qualifications		
+ none	67.1	6.25
+ vocational level 1	72.2	6.89
+ vocational level 2	74.3	6.13
+ vocational level 3	87.6	6.72
+ above level 3	94.4	7.24
Upper secondary qualifications		
+ none	88.1	6.93
+ vocational level 1	89.1	7.47
+ vocational level 2	78.0	6.63
+ vocational level 3	89.5	8.52
+ above level 3	91.0	8.77

Source: Labour Force Survey