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ABSTRACT

The relationship between literacy, numeracy, and employability was examined by analyzing data on basic skills that were collected in two of Great Britain's birth cohort studies--the National Child Development Study and the 1970 British Cohort Study. The functional literacy and numeracy skills of samples of 10% of the participants in each study were assessed. The analysis showed striking evidence of the significance of literacy and numeracy gains, both in gaining employment on leaving school and also in retaining and progressing in employment. In both cohorts, more than four-fifths of the young people in the lowest literacy and numeracy categories had left school at the minimum age of 16. Most such school leavers in the 1958 cohort were absorbed into the unskilled and semiskilled jobs that existed at the time, whereas two-thirds of such school leavers in the 1970 cohort entered training schemes or became unemployed. Many of the one-third who got jobs gained little job security or occupational training. Qualifications did not fully eliminate the effect of poor basic skills on unemployment and poor numeracy skills had surprisingly large impacts on rates of employment and occupational achievement, particularly in women, for whom poor numeracy skills equated to a "10% penalty" in employment rates. (Thirteen tables/figures are included. The bibliography lists 35 references.) (MN)

LITERACY, NUMERACY AND EMPLOYABILITY

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Introduction

A literate and numerate population is the goal of any industrialised society. Literacy and numeracy skills carry the means by which children are equipped for the education processes on which their location in the adult world will depend. As a country's cultural identity is also underpinned by the knowledge and skills transmitted from one generation to the next, basic skills also give access to a country's cultural heritage and values. Until relatively recently, however, basic skills were desirable attributes, but their absence did not necessarily deny the individual without them the ability to function in the adult world. Large areas of employment depending on unskilled work demanded little in terms of literacy and numeracy. Qualifications also did not count for much in such areas of the labour market and what employees needed to know to do the job was learnt on the job itself.

Through the 1970s and especially the 1980s, the labour market changed. The information technology revolution wiped out, or transformed, whole areas of industry. The fields of traditional male employment, especially unskilled manual work in factories, either disappeared or demanded new levels of education from employees. Young women fared better in this situation because their traditional route to adulthood had typically involved staying on beyond compulsory schooling to learn the secretarial and clerical skills required for white-collar office work. For boys the choice was more stark: stay on in education and get qualifications, or make your way in a depleted labour market, usually gaining entry to it via poor quality training schemes instead.

Countries differed in their response to this scenario. Those with highly developed apprenticeship systems such as the German speaking countries of Europe had never acknowledged a distinction between unskilled and skilled work (Taylor, 1981; Cassels, 1990). To them all employees had to be trained through an approved 3-year apprenticeship before they were ready to enter an adult job whatever its content might be. Other countries with strong systems of vocational schooling were also able to adapt to new labour market demands. Most of these such as the Scandinavian countries, for example, had very high standards of education to begin with and relatively few young people failed to gain basic skills or qualifications. For them the transformation and globalisation of the labour market was largely a matter of building on the solid foundations already there (OECD, 1998; Ashton and Green, 1996; McIntosh and Steedman, 2000).

In this new scenario, basic skills took on a new significance. Without these building blocks of educational competence, young people's capability for acquiring qualifications was very limited and the opportunities for employment were similarly restricted as well. Moreover the problem was not so much one of lacking these skills altogether. Few young school leavers in advanced industrialised countries were completely illiterate or innumerate; their problem was one of poor capability in using reading, writing and numberwork in everyday situations in the work place and outside. Such young people with poor *functional* literacy and numeracy tended to be relegated to the margins of the labour market, making do with the limited amount of unskilled, often part-time casual work that still existed there. Young men's response was often to move into a halfway house of training, interspersed with casual work and unemployment; young women frequently opted out altogether,

preferring the alternative route to adulthood of early motherhood instead (Banks et al, 1992; Bynner, Morphy and Parsons, 1997; Bynner, 2001).

Apart from the damage to individuals that poor basic skills came to represent, each country's economic competitiveness was also at stake. In the international study carried out by the Organisation of Economic Cooperation and Development (OECD, 1995) of adult functional literacy across OECD countries (IALS), substantial variation was shown in literacy levels and numeracy (described by OECD as 'quantitative literacy') levels, with Scandinavian countries showing very small proportions of people operating at the lowest levels (e.g. Sweden 7%) and English speaking countries like the UK, Australia, Canada, and the USA showing much higher proportions, rising to over one in five of the adult population. (OECD, 1995).

IALS stimulated a flurry of policy initiatives to cope with the problem of poor basic skills in Britain. The working group on adult basic skills under the chairmanship of Sir Claus Moser (DfEE, 1999) developed, over 20 meetings, a new strategy for making good the skills deficit leading to a major national remediation programme, 'Skills for Life,' and targets to reduce the proportions with poor basic skills to half of present levels within 10 years.

Much of the writing on the growing importance of basic skills to employment has come from commentators predicting future trends from changing economic scenarios (e.g. Ryan, 1991). Less widely known is the empirical evidence on the impact of these trends on individuals. In this paper I address a number of questions on the

impact of basic skills difficulties on individual life chances with respect to employment, using empirical evidence from longitudinal studies.

Is there evidence that basic skills are gaining in importance as protectors against unemployment?

Is the key basic skill for employability literacy or is numeracy also important?

How important are both literacy and numeracy skills, independent of qualifications, in relation to the probability of entering and retaining employment, and avoiding unemployment?

What would be the economic gain in raising basic skills levels? We consider each of these in turn.

The data

Our evidence comes from analysis of data on basic skills collected in two of Britain's birth cohort studies. These are national longitudinal enquiries based on following up single samples of people from birth into adulthood (Ferri, 1993; Bynner, Ferri and Shepherd, 1997). The National Child Development Study has collected data on over 17,000 people born in a single week in 1958 and subsequently at ages 7, 11, 16, 23, 33 and 37, when a 10% sample was contacted. The 1970 British Cohort Study (1970 cohort) similarly began with a sample of over 17,000 people born in a single week in 1970 who have been followed up in subsequent surveys at ages 5, 10, 16,

21 (10% sample) and 26. At earlier ages information was collected using a variety of sources including interviews with parents, teachers and medical professionals and educational tests and self-completion questionnaires. In adult life cohort members gave information themselves in interviews about their employment, education, family life, health, attitudes and social and political participation.

In both studies the cohort members in the 10% sample also had their functional literacy and numeracy assessed in a half hour testing session at the end of 45 minute interview (Ekinsmyth and Bynner, 1994; Bynner and Parsons, 1997b). Functional literacy and numeracy is defined by the Basic Skills Agency (BSA), the government agency responsible for developing basic skills in England and Wales, as "the ability to read, write and speak in English and use mathematics at a level necessary to function and progress at work and in society in general" (BSA, 1997). The data from these assessments has formed the basis of a series of studies using birth cohort study data carried out for the Adult Literacy and Basic Skills Unit (ALBSU) and more recently the Basic Skills Agency (BSA) (Bynner, 1995, 1996, 1997, 1998, 1999, 2001; Bynner et al, 2001; Bynner, Morphy and Parsons, 1997; Bynner and Parsons, 1997a, 1997b, 2001, in press; Bynner and Steedman, 1995; Ekinsmyth and Bynner, 1994; Parsons and Bynner, 1998a, 1998b, 1999a, 1999b, 2000).

Distribution of scores

Different basic skills tests were used in the 1970 cohort and the 1958 cohort surveys. Both comprised tasks of varying difficulty mapping into the four levels of

literacy and three levels of numeracy defining the BSA 'Wordpower' (foundation, 1, 2, 3) and 'Numberpower' (foundation, 1, 2) standards. Examples include looking up the telephone number of a plumber in "Yellow pages" (Wordpower level 1) and working out the area of a room (Numberpower foundation level). Full details are supplied for the 1970 cohort in Ekinsmyth and Bynner (1994) and for the 1958 cohort in Bynner and Parsons, (1997b). For the 1970 cohort there were 16 literacy and 14 numeracy tasks and for the 1958 cohort 23 literacy and 16 numeracy tasks.

Correct answers on each test were aggregated to produce a total score. As we might expect, far more respondents were able to handle the literacy than the numeracy tasks producing highly skewed distribution of literacy scores and a relatively symmetrical distribution of numeracy scores (Figures 1a & 1b). Although for the literacy scores the distribution was very similar for men and women in the case of the numeracy scores women tended to have more difficulties as reflected in a lower overall mean score.

Figure 1a – Distribution of Assessed Literacy Scores

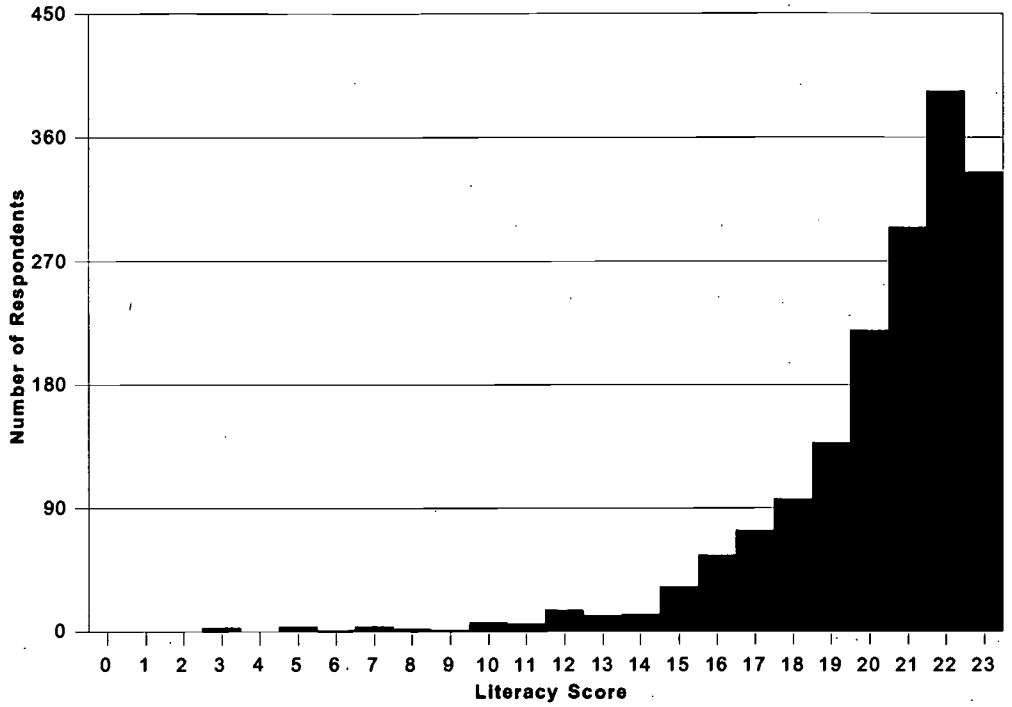
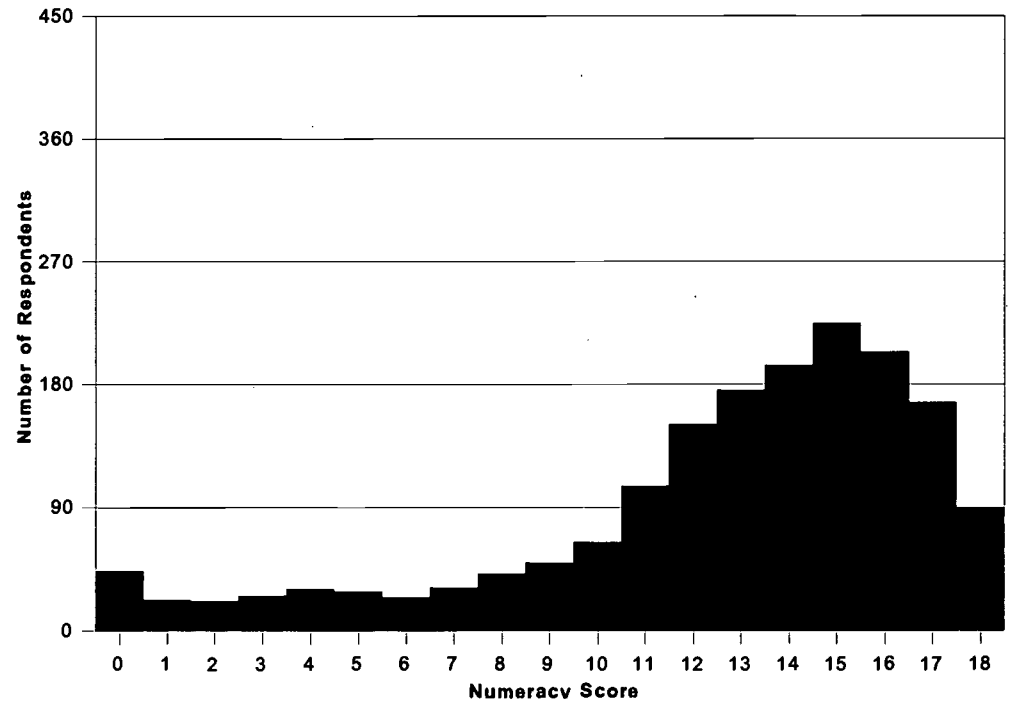


Figure 1b – Distribution of Assessed Numeracy Scores



To simplify the data the scores were grouped to distinguish between those with 'very poor' (below foundation standard), 'poor' literacy (foundation standard) and average literacy, and similarly for numeracy. Cut-offs were decided on the basis of the content of the tasks and breaks in the distributions of scores showing maximum discrimination with other variables.

On this basis, 6% of the 1958 cohort was defined as having very low (below foundation) literacy scores, 13% had low (foundation) scores and 81% had average scores. For numeracy the comparable percentages were: 23%, very low; 25% low; 52% average. Notably there were also gender differences in the scores, with women faring particularly badly on the numeracy tests: 27% of women were in the very low category compared with 19% of men. Thus, as exemplified in the individual tasks, 46% of women could not calculate the area of a room in square feet compared with 26% of men; 73% of women could not work out the cost of a 12.5% service charge on a restaurant bill compared with 65% of men. Comparable score distributions, groupings and gender differences were found for the 1970 cohort data (Ekinsmyth and Bynner, 1994).

Are basic skills becoming more important in employability?

Lack of basic skills – especially reading- is the key ingredient of a poor educational career leading to lack of qualifications. Therefore the changing role of qualifications in employment gives a good indication of the changing significance of basic skills as well. The increasing role of qualifications in gaining access to and retaining employment is demonstrated by comparing those with qualifications and those

without them in the two cohorts in terms of employment status at different ages between 17 and 21 (Figures 2a to 2d). Restricting the analysis to cohort members who left school at the minimum age of 16, we find very little difference in the employment levels in both cohorts between those who gained 'good' examination results (top 25%). In relation to those with no qualifications, there is a striking gap. The proportions in employment in the 1958 cohort were much the same as for those with qualifications, but for those without qualifications in the 1990 cohort, the proportions in employment were consistently 20% lower, a finding which applied equally to young women and young men. Thus at age 21 over 90% of young men and 70% of young women without qualifications in the 1958 cohort were in employment compared with 75% of the young men and 45% of the young women without qualifications in the 1970 cohort.

Figure 2a – Cross-Cohort Comparison of Early School Leavers
% men who obtained very good exam results at 16 in full-time employment between 17-21

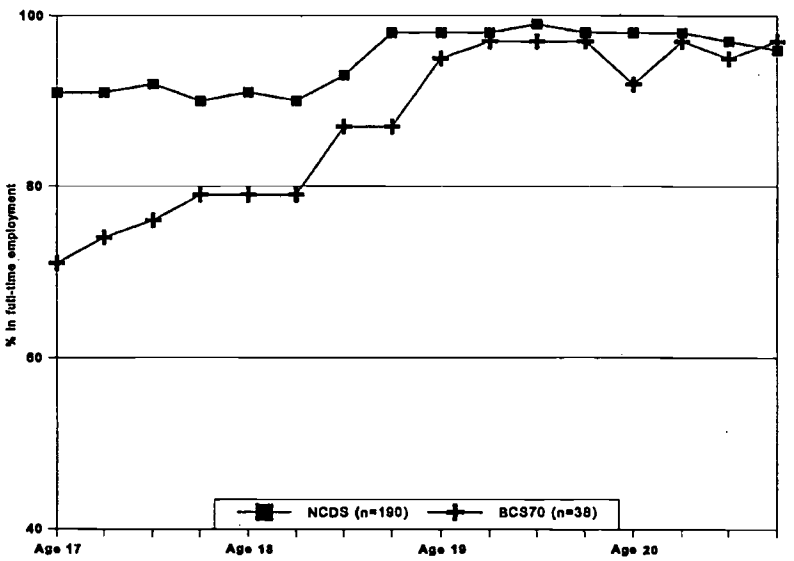


Figure 2b – Cross-Cohort of Early School Leavers

% men without any exam passes at 16 in full-time employment between 17-21

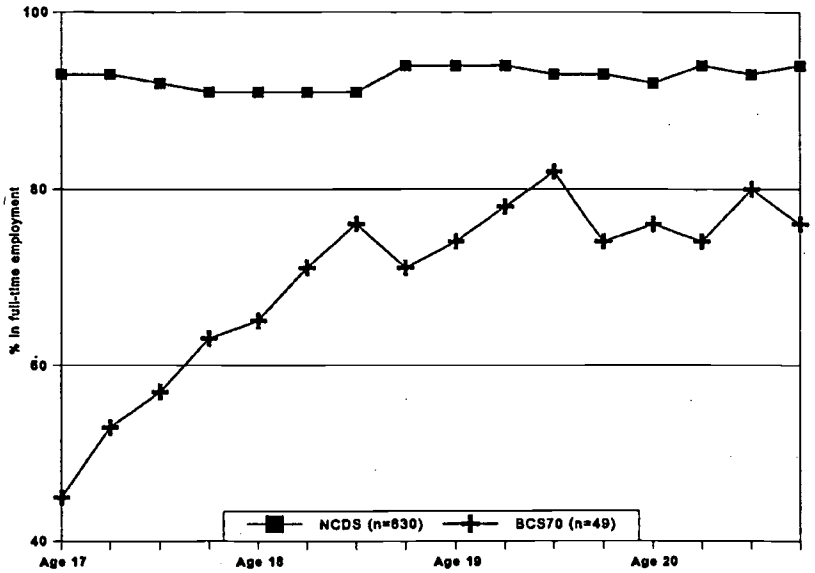


Figure 2c – Cross-Cohort of Early School Leavers

% women who obtained very good exam results at 16 in full-time employment between 17-21

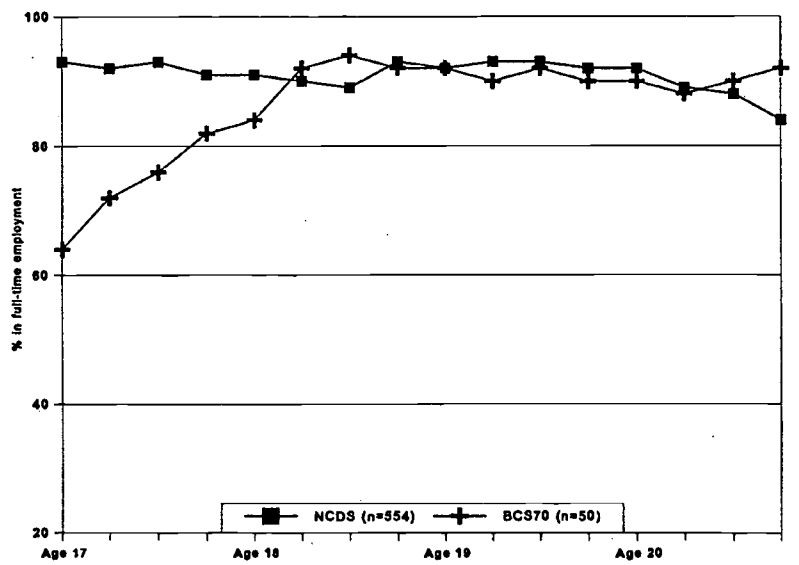
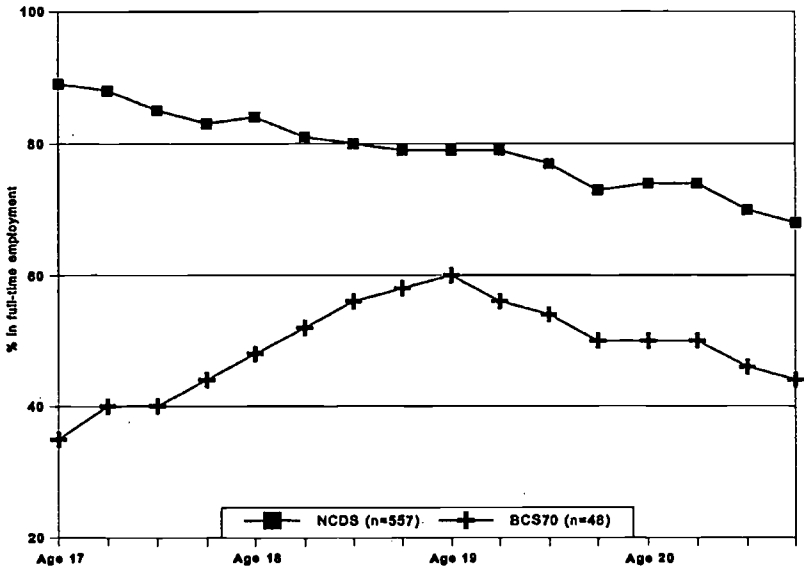


Figure 2d – Cross-Cohort of Early School Leavers

% women without any exam passes at 16 in full-time employment between 17-21



What proportion of the young people lacking basic skills failed to gain any qualifications or only minimal ones, i.e. below level 2 or 'O level'? 44% of the 1970 cohort young men and 33% of the young women with very low literacy scores had not obtained any qualifications at all when they left school compared with 10% of men and 9% of women of the population as a whole. Up to level 1 the figures were 82% men and 71% women. The figures for numeracy were slightly lower, 32% of males and 22% of females with very low numeracy scores had gained no formal qualifications and 69% men and 62% women had gained no more than level 1. Much the same picture applied for the 1958 cohort born 12 years earlier. 46% of men and 45% of women in the very low literacy groups had gained no qualifications and 31% of men and 23% of women in the very low numeracy groups.

Lack of qualifications for the poor basic skills groups was reflected further in early leaving. In both cohorts over four fifths of the young people in the lowest literacy and numeracy categories in this cohort had left school at the minimum age of 16 – slightly more young men than young women. Thus although there has been a rise in the proportion of young people gaining qualifications in the British system and in staying on beyond the compulsory leaving age, this appears to have had no impact on those at the bottom end of the educational achievement scale. Those with poor basic skills were leaving just as much as before pointing to greater polarisation in the more recent cohort, as the trend of staying on passed them by.

What follows for these young people in the labour market? In the 1958 cohort, most were absorbed into the unskilled and semi-skilled jobs that existed then; some gaining good training and moving into skilled jobs. In the 1970 cohort, such school leavers faced a far less certain future: the majority - two out of three with very poor basic skills - entered training schemes or became unemployed. Many of the one third who got jobs gained little security from them or any occupational training, drifting in and out of work between spells of unemployment. At age 21, 35% of the 1970 cohort young men with poor literacy were unemployed. Among the young women with poor literacy much the same proportion (34%), said they were at home engaged in 'housecare' and another 8% said they were unemployed.

Although the earlier, 1958 cohort, encountered the deep recession of the early 1980s, and many lost their jobs; they had gained the employment experience post-16 which is critically important to employers' recruitment strategies. The most common forms of employment among the very low literacy group (two thirds) were

'craft and related' or 'plant and machine operatives' and among the women 'clerical and secretarial' and 'personal services'. They had received less occupational training throughout their time in the labour market than had their counterparts with average basic skills. They were also less likely to have gained promotion and the proportion with low wages was consistently higher. However because of the early work experience that most of them had, few failed to gain employment once the economy recovered. Consequently in the mid-1980s, most who had been unemployed returned to employment. In the case of the 1970 cohort, the damage could be more permanent. The status of not being in education, employment or training post-16 has been shown to have long lasting effects on employment prospects for young men and in the case of young women, damaging psychological consequences as well (SEU, 1999; Bynner and Parsons, in press.)

Does numeracy matter?

Examining the post school trajectories of young people with poor basic skills, we see signs of another more unexpected phenomenon - the important role of numeracy in employment, especially for women. To compare the relative importance of literacy and numeracy in employability, we broke the 1958 cohort sample into 4 groups: good literacy/good numeracy; good literacy/poor numeracy; poor numeracy/good literacy; and poor literacy/poor numeracy (Bynner and Parsons, 1997a). Figures 3a and 3b plot for men and women separately the percentages of the 37 year-old respondents in full-time employment at different ages in each of these 4 categories.

Figure 3a - % men in full-time employment between age 16-37

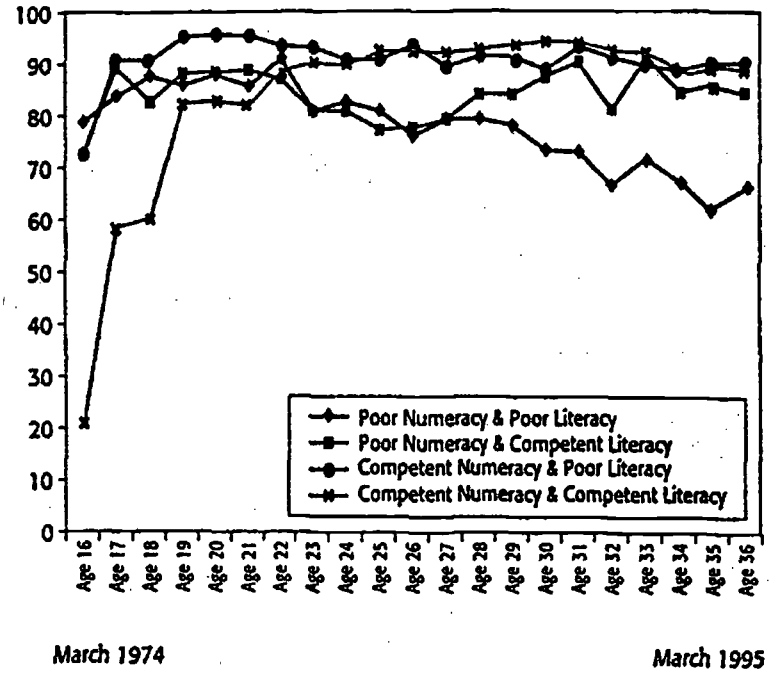
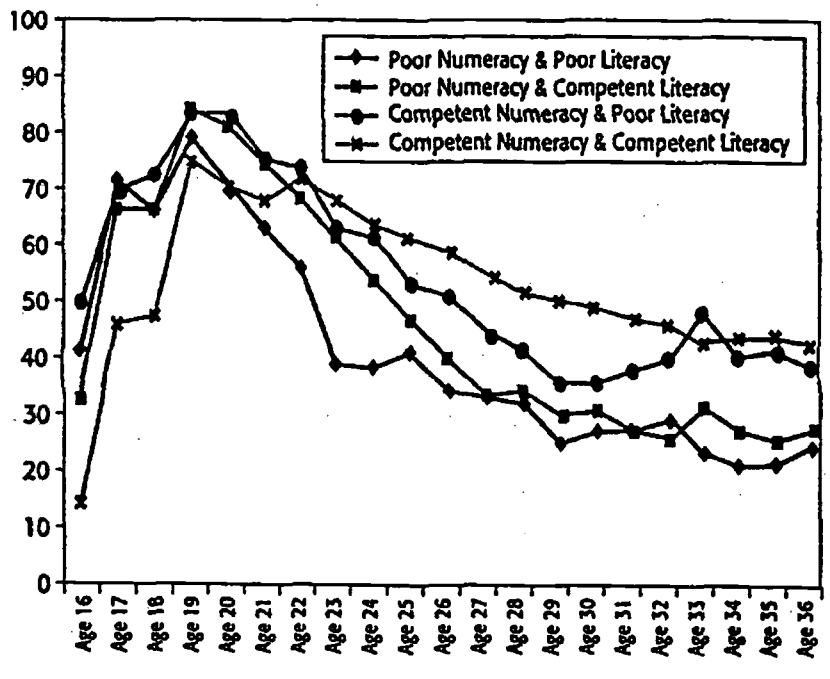


Figure 3b - % women in full-time employment between age 16-37



As we might expect, those in the poor literacy/poor numeracy category showed from the early twenties onwards by far the lowest employment rates - some 25% below the rates for the competent numeracy/competent literacy groups for men and 20% for the comparable comparison among women. The more notable finding was the employment rates for the poor numeracy/competent literacy group. For men this group had slightly lower rates of employment than the group with poor literacy/competent numeracy, but for women the gap between these two groups was quite substantial, well over 10%. In other words, poor numeracy rather than poor literacy carried the bigger penalty for these 37-year old women's employability prospects. It has been noted for some time in examining employment trends that numeracy skills have steadily moved up the ladder of the attributes that employers demand of their employees (Atkinson and Spilsbury, 1993).

Apart from lower employment rates women in the lowest numeracy group also had the poorest occupational achievement as shown by the types of work they were in and the quality of their occupational experience. The highest proportion at age 37 in manual jobs were in the two poor numeracy groups, 55% poor numeracy/poor literacy, 41% poor numeracy/competent literacy. This was in sharp contrast to those in the two *good* literacy groups, where less than one in four were in manual jobs. For men these gradients were not so marked, the big gap lying between those with competent literacy/competent numeracy and the rest – under 40% compared with over 70%. In other groups women with poor numeracy were also least likely to have received any work-related training over the whole of their occupational careers from 16 onwards; they received the lowest wages and they were the least likely to have ever been promoted.

The reason for the relatively poor showing in the labour market of women (and men) with numeracy problems is probably the development of the IT-based office. Although numeracy skills may not be directly related to competence in using computers, indirectly there is certainly a connection. Competence in IT use and the capability to continue to upgrade one's skills in this area is something that employees increasingly need to be able to do. Apart from this, greater accountability demands including responsibility for monitoring costs and budget keeping, is increasingly expected of all employees. The ability to comprehend complex instructions and regulations and to train others is also becoming mandatory in many forms of employment. Some indication of the relative lack of these attributes among people with low numeracy scores is given in Table 1, which shows the percentages of men and women at four numeracy levels who reported being 'good' at a number of work-related skills. Notably there were sharp gradients for writing clearly, reading plans, typing and keyboard, computing, teaching, maths calculations and comprehension. Surprisingly, gradients for these skills were less marked across the comparable literacy levels. The reason why lack of these attributes penalises women can be seen in other kinds of skills that respondents with poor numeracy claimed to have. Men with poor numeracy claimed more than those with good numeracy, 'tool-using' and 'construction skills'; women claimed 'caring' skills. The former can lead to a niche in the building trades for men; the latter are more closely associated with child care.

Table 1 – Work related skills and numeracy score (1958 cohort)

	Very low %	Low %	Average %	Good %
Men				
Write clearly	37	47	48	65
Reading plans	36	56	62	70
Typing/keyboard	13	15	21	34
Computing	11	18	23	41
Teaching	23	34	33	48
Maths calculation	21	34	49	68
Comprehension	39	54	64	78
(n=100%)	147	184	194	272
Women				
Write clearly	61	76	74	83
Reading plans	23	34	38	50
Typing/keyboard	25	39	34	37
Computing	13	24	21	31
Teaching	46	49	52	60
Maths calculation	14	36	35	51
Comprehension	37	65	70	77
(n=100%)	239	249	223	189

Is poor numeracy and literacy independently damaging to employability over and above qualifications?

So far we have examined bivariate relationships basically displaying the poor profiles in terms of employability attributes of those with poor basic skills compared with others and noting a particular problem for women with poor numeracy skills. Such analyses can be misleading in that it may well be that the penalty lies not so much in the literacy or numeracy deficit per se, but in its consequences for poor school performance and consequently lack of qualifications. To determine whether poor

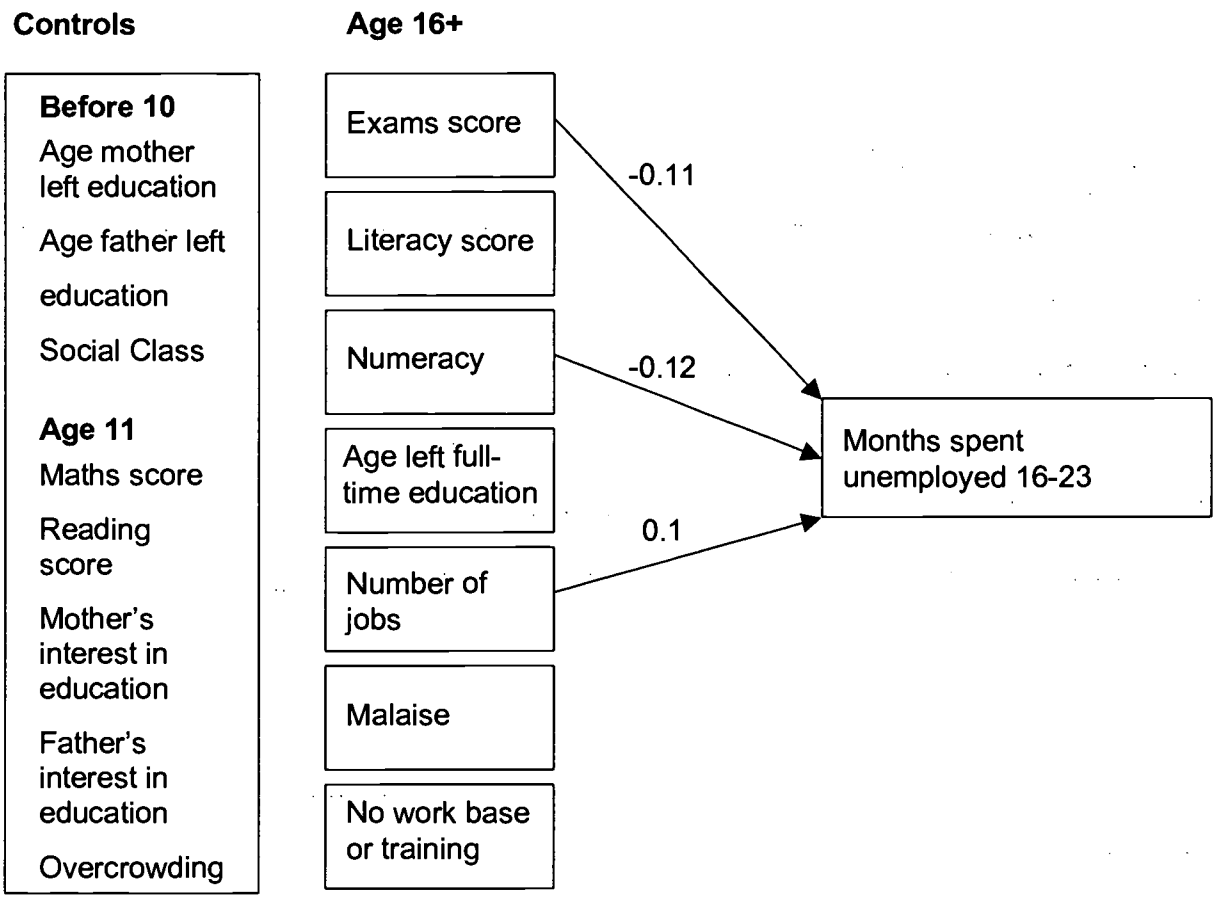
basic skills pose a distinct obstacle for adults in the labour market, structural equation modelling methods available in the LISREL programme (Jöreskog and Sörbom, 1979) were employed. We modelled the effect of literacy and numeracy on the number of months spent unemployed since leaving school at 16, taking account of prior circumstances and achievement as recorded in the longitudinal data back to birth. The modelling was carried out on the two cohorts for men and women separately with a view to determining whether there were also signs of an increasing role for basic skills and other attributes in employability in the more recent cohort.

The final outcome of the analysis reported in full in Bynner (1998) is most easily demonstrated by examining the relationship between unemployment over the period 16 to 23 (1958 cohort) and 16-21 (1970 cohort) for men with a number of other variables measured prior to and after the age of 16.[1] The former variables are treated for our purposes as 'controls' and the post 16 variables including adult literacy and numeracy scores as the explanatory variables of interest. These comprise exam score, literacy score, numeracy score, age left education, number of jobs, 'Malaise' (a measure of depression – Rutter, Tizard and Whitemore, 1970), number of jobs and whether the cohort member had received any work based training.

Figures 4a & 4b list the variables that were included in the analysis and also show for men the results of the modelling schematically. Effects are given as 'path coefficients' – standardized partial regression coefficients – which show the relative strengths of the relationships between the outcome variable – number of months

spent unemployed and each explanatory variable, taking account of other explanatory variables and the controls. Only statistically significant paths (P<.05) are shown. Table 2 shows for men and women the goodness of fit statistics for the LISREL models and the percentages of variance in unemployment explained by all the other variables in the model.

Figure 4a – Effect of literacy and numeracy on amount of time spent unemployed between 16 and 23 taking account of earlier achievements and circumstances: 1958 cohort.



[1] Another analysis in which the period for recording unemployment in the 1958 cohort was extended from 23 to 33 produced the same results and is not reported here.

Figure 4b - Effect of literacy and numeracy on amount of time spent unemployed between 16 and 23 taking account of earlier achievements and circumstances: 1970 cohort.

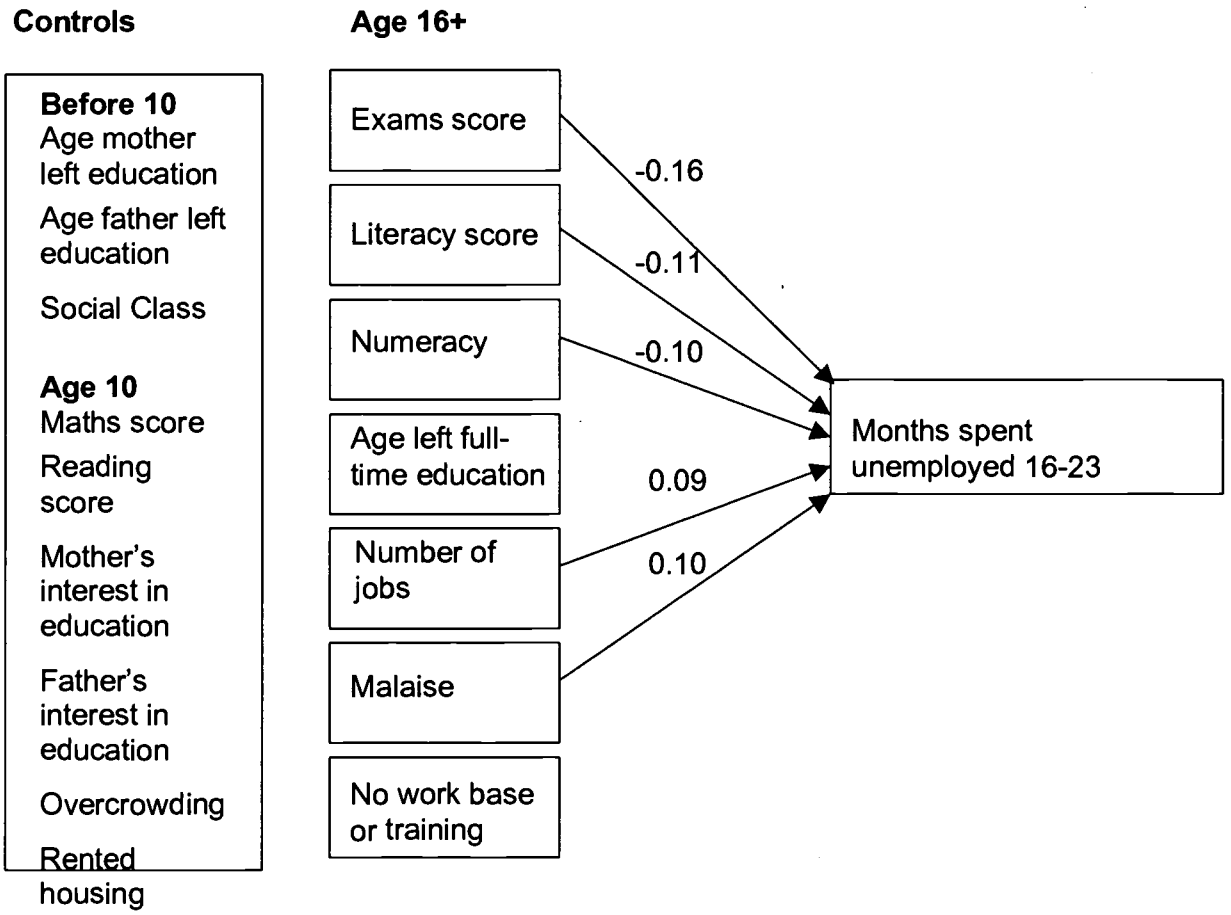


Table 2 – Goodness-of-Fit (GFI) Indicators for LISREL models

	1958 Cohort				1970 Cohort			
	Males		Females		Males		Females	
GFI Indicators	**a**	**b**	**a**	**b**	**a**	**b**	**a**	**b**
x^2	2578	414	2666	438	1379	261	1381	189
df	42	56	42	56	42	56	42	56
AGFI	0.11	0.85	0.12	0.86	0.35	0.89	0.45	0.92
RMS	0.13	0.06	0.13	0.07	0.13	0.07	0.11	0.05
R^2%	05	05	02	02	01	11	07	08
n	801	801	913	913	746	746	875	875

Note: R^2 = percentage of variance in unemployment explained by the model.

The most noticeable result is the statistically significant path coefficient for numeracy in the model for both cohorts and that, in accordance with prediction, more post 16 attributes are implicated in the experience of unemployment in the 1970 cohort than for the 1958 cohort. For the 1958 cohort, the predictors of unemployment were exam score, number of jobs and numeracy. None of the other variables had statistically significant path coefficients. In the 1970 cohort the situation was more complicated. This time exam scores, literacy score and numeracy score were all implicated independently as effects on unemployment, as was number of jobs. And this time 'Malaise', i.e. depression, also showed an effect on unemployment. We therefore see in the more recent cohort, psychological attributes together with work experience accompanying poor basic skills and poor exam results in damaging the employment career. This wider range of employability attributes in the more recent cohort is also reflected in the percentages of variance explained (R^2) – Table 2. The percentages for the 1970 cohort were over twice to three times the size of those for the 1958 cohort.

For the 1958 cohort, the notable factor, over and above lack of qualifications in predicting unemployment was numeracy, again pointing to the critical importance to modern employment of this basic skill. But perhaps even more notable is the fact that qualifications, which might be expected to mediate fully the effects of poor basic skills on unemployment, do not eliminate their effects. In other words, there is an added deficit over and above the lack of qualifications that people with more basic skills carry into the labour market. For the 1970 cohort this extended not only to numeracy but to literacy as well. This perhaps more than anything else underlines the importance to economic policy of enhancing basic skills.

Value to the economy

This last point draws attention to the need to estimate more precisely what the economic benefits of enhancing basic skills might be. For this purpose colleagues in London's Institute of Fiscal Studies, used information from the microeconomic analysis of the kind reported here to estimate the impact of achieving the national targets for literacy and numeracy enhancement (Bynner et al, 2001). This involved reduction to half the current proportion of 20% in the category of foundation level or below for literacy and a reduction from 40% to 30% for those in the low numeracy category. The precise estimate of the earnings return to basic skills (i.e. the increase in earnings that could be predicted from a rise in basic skills levels), was entered into the IFS macroeconomic model of the tax and benefits system (TAXBEN) with and without the probability of increased employment taken into account. The results are reported in Table 3. With enhanced probability of employment taken into account the model points to a net benefit to government finances if the numeracy target was achieved of £2.54 billion and £0.44 billion for achievement of the literacy target.

Table 3 – The effects of implementing the Moser targets in the year 2000

Outcome (tax year 2000-01 only)	Effects		
	With no employment effect	Additional employment effect	Total
Numeracy:			
Total wage bill	£5.07 bn	£1.20 bn	£7.27 bn
Total employment	N/A	100,300	100,300
Net government finances	£1.91 bn	£0.62 bn	£2.54 bn
Literacy:			
Total wage bill	£0.43 bn	£0.58 bn	£1.00 bn
Total employment	N/A	45,200	45,200
Net government finances	£0.16 bn	£0.28 bn	£0.44 bn

Conclusions

The results reviewed here show striking evidence of the significance of literacy and numeracy skills both in gaining employment on leaving school, but also in retaining it and progressing in it. Literacy and numeracy are not only the key building blocks of educational progress and qualifications, but entry into and progression in the labour

market as well. It is particularly notable that poor basic skills retain their effects alongside qualifications independently in the prediction of unemployment. It is also notable that of the two basic skills, if anything, poor numeracy seems to carry the most significance in these labour market effects.

Women's numeracy performance tends to be weaker than men's, in consequence women appear to be particularly disadvantaged by this lack of competence in an area that seems to be of growing importance in the modern economy. In the new tech. businesses and ICT based offices that increasingly dominate the modern labour market, numeracy is a key attribute in gaining and retaining employment. Such office jobs have traditionally attracted young women over and above the manual alternatives and typically those who do not gain them leave the labour market early, frequently to have children. In the 1970 cohort, for example, one in five of the young women with very poor basic skills had had two or more children by the age of 21 compared with one in twenty of the young women in the sample as a whole (Ekinsmyth and Bynner, 1994). The traditional route into female employment of a year extra at secondary school to acquire secretarial skills before seeking an office job may no longer be adequate for the labour market demands that will need to be met. The capability to master computing packages and increasingly to handle costs and manage budgets places a high premium on numeracy skills.

In the case of men, numeracy skills traditionally went with many of the semi-skilled and skilled occupations that men entered such as the building trades. There was therefore an incentive for men to acquire these skills with unemployment and consequently with lack of use they tended to deteriorate (Parsons and Bynner,

1998b). The regulatory frameworks for modern employment, also attach increasing importance to handling written communications. Health and safety regulations, for example, on business sites have no force if many of those employed are not able to read them easily. Similarly, ICT gains increasing prominence in all the traditional areas of employment - as much for the self-employed craftsmen as for the secretary in the modern office. Consequently, the upgrading of skills in all areas of the labour market is essential to keep a foothold in it. In this sense strategies to enhance basic skills will remain at the forefront of government policy in the modern industrialised state.

The consequence of not succeeding in this area is the phenomenon that poses perhaps the biggest threat to cohesive society, social exclusion. From the cohort comparisons presented we have seen the signs of increasing polarisation in labour market positions between those with competence in the basic skills and those without it (also see, Bynner and Parsons, 2001; Bynner, 1995, 1996, 1999, 2001). The latter become increasingly marginalized in the modern state. And marginalization of a substantial minority of the population is where social cohesion begins to break down.

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30

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