



National Research and Development Centre
for adult literacy and numeracy

Research report



Illuminating disadvantage: Profiling the experiences of adults with Entry level literacy or numeracy over the lifecourse

Samantha Parsons and John Bynner
November 2007



Leading education
and social research
Institute of Education
University of London

Published by the National Research and Development Centre
for Adult Literacy and Numeracy

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ISBN 978-1-905188-57-4

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NRDC is a consortium of partners led by the Institute of Education,
University of London (see back cover for a list of members) www.ioe.ac.uk

Design: www.chapmandesign.net

Cover photography: iStock

Print: dsi colourworks

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Samantha Parsons and John Bynner

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Preface

The 1958 and 1970 British birth cohort studies are among the best sources of information that we have about the role of literacy and numeracy in adult lives. Through their capacity to trace life back to birth, we are able to uncover the history of experience and circumstances that lie behind poor skills in adulthood and their consequences for life chances and adult functioning.

The first report of results from our age 34 survey of the 1970 British Cohort Study (BCS70), reported in *New Light on Literacy and Numeracy* (Bynner and Parsons, 2006), demonstrated the strong relationship between poor basic skills and a number of disadvantaged outcomes in adult life. These were particularly evident for adults whose skills were at Entry 2 or below. Problems identified earlier, at age 21, when basic skills were also assessed, had not receded for the 34-year-olds; in fact they had, if anything, become more entrenched.

In this report we go much further in illuminating the basic skills problem, examining the lives of 34-year-olds with Entry level literacy and numeracy, with particular emphasis on adults whose skills are at Entry 2 or below. The results give a disturbing picture of limited life chances. The *trajectory of disadvantage* begins early, characterised by poor family circumstances, limited educational achievement and low aspirations. But it is by no means inevitable. Many individuals who start their lives on an 'exclusion path' are of course able, through effective support at home, in the community, at school or college and in the workplace, to turn their lives round.

Solving the basic skills problem requires proper understanding of where it comes from and what its consequences are. This report supplies such information and therefore will be of great assistance to policy-makers and practitioners at every level of education and the social services. The findings need the widest possible consideration and debate.

Acknowledgements

We would like to thank Tamjid Mujtaba for the research contributions she made in the early stages of the analyses. We would also like to acknowledge all members of the research team at the National Centre for Social Research (NatCen) involved with the 2004 BCS70 survey, without whom this report could not have been produced. Our special thanks to Carli Lessof, Liz Fuller, Nadine Simmonds and Vanessa Foudouli. We would like to express our gratitude to the NatCen interviewers whose feedback and enthusiasm throughout the main fieldwork was of vital importance to the success of the survey. The cohort studies support team led by Peter Shepherd again played a vital role in all stages of the survey, as did Neville Butler, the founder of BCS70, whose extensive knowledge and experience of the earlier stages of the cohort study was critical to its success. The tracing team at the Centre for Longitudinal Studies (CLS), Institute of Education, put in tremendous work to maximise response rates. Our biggest thanks are, of course, to the BCS70 cohort members and their children who took part in the 2004 survey. They freely gave up some of their precious time to take part in our assessments and to provide us once again with vital information about their lives.

Executive Summary

This report arose from an NRDC longitudinal study of basic skills in the adult population using the 1970 British Cohort Study (BCS70)¹. The analysis reported there identified the individuals with National Qualifications Framework (NQF) Entry 2 literacy and numeracy skills as having particular difficulties in the labour market and in the community. We now take the previous analysis further, mapping out the distinctive features of the lifecourse and current situation of individuals with Entry 2 and below literacy and numeracy. We contrast the experiences from birth through to age 34 of men and women with Entry 2 skills against the experiences of men and women with Entry 3 and Level 1 or higher skills. In the earlier analyses included in *New Light in Literacy and Numeracy* (Bynner and Parsons, 2006), cohort members with Entry 3 skills held an intermediate position in terms of socio-economic and other characteristics, sometimes lying closer in their attributes to Entry 2 and below, but more frequently lying closer to those with Level 1 or higher skills. By comparing experiences of cohort members with Entry 2 skills against those of cohort members with Level 1 and higher skills, and not differentiating between Level 1 or Level 2 or higher skills as previously, we will see the increase in options and opportunities that go along with a relatively basic competence in literacy and numeracy. Level 1 literacy and numeracy skills is equivalent to GCSE grades D to G. GCSE qualifications at A* to C are at Level 2.

Assessed literacy and numeracy levels

While men had stronger numeracy skills than women, there was no difference in spread of literacy skills for men and women. Differences in the distribution of cohort members over the skills groups across Great Britain and regions within England were very apparent for numeracy. Men in Wales were the most likely to have Entry 2 skills (19 per cent), least likely to have Level 2 skills (23 per cent). Conversely, men in the South East were the least likely to have Entry 2 skills (9 per cent) and most likely to have Level 2 skills (36 per cent). For women, differences by geographical location did not give such clear distinctions. However, women in the South East and East Anglia were the least likely to have Entry 2 numeracy (16 per cent and 14 per cent respectively) and most likely to have Level 2 skills (25 per cent). Women living in the North, Yorkshire and Humberside or the East Midlands were most likely to have Entry 2 skills (21 per cent), women in the East Midlands, the North or Wales were the least likely to have Level 2 skills (14 per cent, 16 per cent and 18 per cent respectively). Given the lower incidence of poor literacy skills in the population, differences for literacy were most marked at the top end of performance. Cohort members living in the South East were most likely to have Level 2 literacy skills (67 per cent men, 66 per cent women), those living in Wales the least likely (52 per cent men and women).

¹ Bynner, J. and Parsons, S. (2006) *New Light on Literacy and Numeracy*. London: NRDC. Currently out of print and available to download on www.nrdc.org.uk/publications_details.asp?ID=78

Family background and family support factors

Cohort members with the poorest grasp of literacy or numeracy, particularly literacy, had a relatively disadvantaged home life in childhood, both economically and in terms of education levels and educational support offered by parents. More families of those with the poorest grasp of literacy were the most likely of all to have experienced these forms of disadvantage. Far fewer parents of cohort members with the poorest skills had enjoyed any extended education or gained any qualifications (76 per cent of mothers and 71 per cent of fathers of those with Entry 2 literacy had no qualifications in comparison with 50 per cent of mothers and 42 per cent of fathers of cohort members with Level 1 or higher literacy.) Fewer parents of cohort members with Entry level skills had read to their children every day when they were young (22 per cent of those with Entry 2 literacy compared with 40 per cent of those with Level 1 or higher literacy; 30 per cent of those with Entry 2 numeracy compared with 44 per cent of those with Level 1 or higher numeracy) or been viewed by teachers as interested in their children's education towards the end of primary school. Just 12 per cent of cohort members with Entry 2 literacy were viewed to have two parents who were 'very interested' in their education, compared with 36 per cent of those with Level 1 or higher literacy skills. Reflecting their own poor educational experiences, parents of those cohort members with Entry 2 literacy were nearly three times more likely to report having current, or previous, reading difficulties than parents of cohort members who went on to have competent literacy skills (17 per cent to 6 per cent). Far fewer parents of those cohort members with Entry 2 literacy also held aspirations for them to continue in education after age 16 – 27 per cent compared with 51 per cent with Level 1 or higher skills.

Early education performance and school environment

Cohort members with the poorest grasp of literacy or numeracy were less likely to have had formal pre-school educational experiences. As early as age 5 they had performed less well in cognitive assessments, falling further behind by age 10, as revealed by scores in the reading and maths assessments. Although half of cohort members with poor skills had been identified as such by their parents and identified themselves as having had poor skills in childhood (a far cry from the small percentages prepared to do so in adulthood), it still meant that the needs of half of them remained invisible. Teachers were also likely to recognise these difficulties in no more than half of those with the poorest skills. Help with reading or understanding of numbers when at school was received by relatively few (just 38 per cent of those with Entry 2 literacy received additional help with their reading, and just 11 per cent of those with Entry 2 numeracy received extra help with numbers). School intake somewhat reflected the poorer socio-economic background and local area of cohort members with the poorest grasp of skills in adulthood. But other characteristics of the school, including its teaching characteristics, did not differ across adult skills groups. What seemed to be critical is what the child brought with them into the classroom, acquired from their family background.

Getting ready for life and the outside world after compulsory education

At age 16, men and women with Entry level skills were the most likely to be disillusioned with school, and the vast majority wanted to leave at the first opportunity. They were four times more likely than those with Level 1 or higher skills to hold negative views on the value of education for future employment opportunities and on their chances of success in the

changed youth labour market that was there to greet them in the mid-1980s. In comparison with men who had Level 1 or higher skills, men with Entry level skills were more likely to hold low career aspirations and far less likely – perhaps realistically – to hold professional or managerial job hopes. Men with Entry 2 literacy presented as the most disillusioned and disappointed of all, while men and women with Level 1 or higher numeracy were the most positive and aspirational.

Post-16 education and learning experiences

Men and women with the poorest grasp of literacy or numeracy were by far the most likely to have left full-time education at the earliest opportunity with no qualifications. This combined educational disadvantage was most apparent among those with Entry 2 literacy. However, more than half of men and women with Entry level literacy or numeracy did have qualifications, but they were most likely to have gained them in their teens. What was encouraging, however, was that a sizeable proportion of men with Entry 2 skills did gain their first qualification(s) when in their 20s (23 per cent literacy, 18 per cent numeracy). They were motivated to return to learning at a later date despite the negative views on school and education that the majority had reported when in their teen years. Men and women with Level 1 or higher skills had a more continuous acquisition of qualifications.

Although men and women with Entry level skills were as likely to read newspapers and/or magazines, they were the most likely to never pick up a book. However, the fact that nearly half of men and six in ten women with Entry 2 skills did occasionally pick up a book was a source of encouragement. Perhaps of more concern, however, was the exclusion of adults with the poorest skills, particularly literacy, from the digital revolution that has taken place over the last decade. In comparison with those with Level 1 or higher skills, far more men and women with Entry 2 skills were without a computer (48 per cent to 16 per cent of men, 40 per cent to 17 per cent of women) or access to the internet at home (62 per cent to 19 per cent of men, 62 per cent to 23 per cent of women). Even if there was a computer in the home, they were the least likely to use it on a regular basis. Inclusion of a digital element within a basic skills class may be another way to interest adults in coming to classes to improve their literacy or numeracy.

Working life and occupational disadvantage

Large numbers of men and women with the poorest skills first entered the workforce at 16, but they had spent the least amount of time in full-time or part-time employment over the following 18 years. Men with Entry level skills spent more time unemployed or sick, and women in a full-time home-care role. Whether in their first job at age 16 or at age 34, men and women with Entry level skills in work had very different occupational profiles from men and women with a better grasp of the basic skills. They were far more likely to be in labour-intensive low-skilled jobs, often in the less secure, unregulated 'Other' parts of the labour market (16 per cent of men and 20 per cent of women with Entry 2 literacy compared with just 5 per cent of men and 3 per cent of women with Level 1 or higher literacy). Even when the impact of further education and qualifications were minimised by restricting comparisons between skills groups to those who had left full-time education at age 16, these differences did not disappear. Disadvantage extended into lack of opportunities within employment through lower levels of work-based training (12 per cent of men and 10 per cent of women

with Entry 2 literacy compared with 32 per cent of men and 21 per cent of women with Level 1 literacy) and promotion (27 per cent of men and 32 per cent of women with Entry 2 literacy compared with 54 per cent of men and 51 per cent of women with Level 1 or higher literacy).

Home and family life

Men with Entry 2 literacy were the most likely to be living with their parents at age 34, while men with Level 1 or higher numeracy were the least likely. Unsurprisingly, men with Entry 2 skills had moved home least since age 16, and they were the least likely to have ever moved for reasons to do with work. Both men and women with Entry level skills were also the most likely to live in disadvantaged housing conditions – rented and/or overcrowded accommodation – at age 34. As many as 13 per cent of women with Entry 2 literacy and 10 per cent with Entry 2 numeracy had experienced a spell of homelessness.

Men and women with Entry 2 literacy were the most likely of all groups to have never lived with a partner by age 34. However, early live-in partnerships were also *most* practised among women with Entry 2 skills. Women with Entry level skills were more than twice as likely as women with Level 1 or higher skills to have been a teenage mother and three times more likely to have 4+ children at age 34.

For the cohort members with children who also took part in the *Parent and Child Interview* in 2004, there were also some differences in supporting the educational development of their own children across skills groups. Cohort members with young children were no more or less likely to help them learn to recognise numbers, the alphabet, shapes or colours, no matter what their grasp of numeracy or literacy. However, cohort members with Entry 2 literacy were slightly less likely to read to or with their child(ren) regularly. Their children had fewer books in the home than other children and, according to reports from cohort members and the children (age 10+) themselves, they were less likely to read for enjoyment. Boys of cohort members with Entry 2 literacy were also the most likely to have stunted educational aspirations.

Conclusions

The picture of basic-skills-related disadvantage revealed by these research findings shows in graphic detail the difficulties many adults with poor literacy in particular and poor numeracy face. The problem does not recede with time but can continue to limit opportunities and diminish life chances and the quality of life in all the main domains of adult functioning: education, family, workplace and community. But many such adults with strong family and community connections are, of course, able to manage their lives effectively. Challenges arise when a lifecourse change, such as a child entering school or losing a job, exposes the skills limitation, which earlier had little significance. For others, the lifecourse will be marred throughout by difficulties and ultimately marginalisation and exclusion. The long-term processes involved extend across the whole of life and constitute what can be seen as a *trajectory of disadvantage* characterised by poor skills acquisition and the consequent obstacles to opportunities that this can entail.

This is not to say that, once embarked upon, a trajectory of disadvantage inevitably leads to disadvantaged outcomes. Many adults, through opportunities encountered in the workplace

and the community, can gain the motivation to change track, and with the right support are able to move their lives in more fulfilling directions. Nevertheless, tendencies towards social exclusion are present, and these supply a powerful signal to policy-makers that more needs to be done. Education is the critical means of bringing about the shift that is needed, not only for economic reasons but to ensure that people whose lives are at times hampered by accumulated difficulty can move them on to a more positive path. The existence of the Skills for Life strategy and the expansion of its targeting towards those at the very bottom of the basic skills distribution is acknowledgement of where the problem is biggest and where action is most urgently needed. But much more needs to be done.

Adult and continuing education and the development of peoples' skills are more than just a sticking plaster. They are the vital cement to building a society in which everybody has the capacity to achieve their goals and to contribute to the well-being of society as a whole. Anything less might be seen as an abdication of responsibility and a failure of political will.

1 Introduction

In 2004 the latest survey of the 1970 British Cohort Study (BCS70) took place, with a special emphasis on assessing the literacy and numeracy skills of all participating cohort members, now aged 34. The initial report on the results of this survey, *New Light on Literacy and Numeracy*², compared distributions of cohort members across literacy levels. Substantial differences in life chances, quality of life and social inclusion were evident between individuals at or below Entry 2 (and often those with Entry 3 literacy) compared with others at higher levels of literacy and numeracy competence as identified in the National Qualifications Framework (NQF). Earlier work, based on smaller samples of English and Welsh cohort members, showed that these poor basic skills had foundations in poor family background and bad educational experience pointing to continuing *trajectories of disadvantage* in which weak basic skills had a central part. Entry 2 or below skills were associated with lack of qualifications, poor labour market experience and prospects, poor material and financial circumstances, poor health prospects and lack of social and political participation³.

This report has been commissioned to map out the distinctive features of the lifecourse and current situation of individuals with qualifications at Entry 2 and below. We contrast the experiences from birth through to age 34 of men and women with Entry 2 skills against the experiences of men and women with Entry 3 and Level 1 or higher skills. In the earlier analyses included in *New Light*, cohort members with Entry 3 skills held an intermediate position in terms of socio-economic and other characteristics, sometimes lying closer in their attributes to Entry 2 and below, but more frequently lying closer to those with Level 1 or higher skills. By comparing experiences of cohort members with Entry 2 skills against those of cohort members with Level 1 and higher skills, and not differentiating between Level 1 or Level 2 or higher skills as previously, we will see the increase in options and opportunities that accompany a relatively basic competence in literacy and numeracy. Level 1 literacy and numeracy skills is equivalent to GCSE grades D-G in the NQF. GCSE qualifications grades A*-C are at Level 2.

Introduction to Britain's birth cohort studies

Before moving on to the analyses, some background to Britain's birth cohort studies will be helpful. Britain's nationwide birth cohort studies follow the same group of people from birth into and through adulthood, thus giving a picture of whole generations. By following up people from birth it is possible to find how present situations relate to past circumstances and to predict future functioning. Cohort studies are one of the richest resources for the study of

2 Bynner, J. and Parsons, S. (2006). *New Light on Literacy and Numeracy*. London: NRDC. Currently out of print and available to download on www.nrdc.org.uk/publications_details.asp?ID=78

3 Bynner, J. and Steedman, J. (1995) *Difficulties with Basic Skills*. London: The Basic Skills Agency. Parsons, S. and Bynner, J. (1998) *Influences on Adult Basic Skills*. London: The Basic Skills Agency. See also Bynner, J. and Parsons, S. (2006).

human development, covering all aspects of life. They are widely used by government and in academic research, both nationally and internationally. There are four such surveys in Britain:

- National Survey of Health and Development (NSHD), which began in 1946;
- National Child Development Study (NCDS), which began in 1958;
- 1970 British Cohort Study (BCS70), which began in 1970;
- Millennium Cohort Study (MCS), which began in 2000.

The first three of these studies are based on all births in Great Britain in one week in 1946, 1958 and 1970 respectively, whereas the MCS is based on births over a period of 12 months in 400 wards in the United Kingdom. There were more than 17,000 births in each study, other than NSHD, which took a sample of 5,500 births. NCDS, BCS70 and MCS are all managed by the Centre for Longitudinal Studies (CLS) at the Institute of Education, University of London. NSHD is based in the Department of Epidemiology and Public Health at University College, London.

BCS70 in detail

BCS70 began in 1970, when data were collected about all the babies born in England, Scotland and Wales⁴ in one week of April 1970. As shown in Figure 1.1, cohort members have since been followed up six times, at ages 5, 10, 16, 26, 30 and, most recently, 34, to collect data about their health, educational, social and economic circumstances. Additionally, a 10 per cent representative sample was followed up at age 21. In the early years, information was collected from parents, health professionals and teachers; the questionnaires were generally cross-sectional in design. As the cohort members became the primary source of the information gathered, the focus shifted to obtaining the 'complete history' of a cohort member's experience or involvement in, for example, education, full-time employment, independent living and home ownership, marriage, pregnancies and having children. Current statuses that provide a snapshot of British life for the cohort members are also routinely collected in all surveys. In the most recent (sixth) follow-up, carried out in 2004 when most cohort members were aged 34⁵, histories were updated and a wide variety of current information relating to all domains of adult life was gathered. The final 2004 sample size was 9,665 – 56 per cent of the original birth cohort and 74 per cent of the first (age 5) follow-up sample⁶.

Coverage of the 2004 survey

The 2004 survey had two main parts: the *Core Interview*, which every cohort member who agreed to take part completed, and the *Parent and Child Interview* that only cohort members with resident natural or adopted children from a randomly selected 1 in 2 sample completed.

The *Core Interview* involved a personal interview and an adult literacy and numeracy assessment. The interview comprised

- **Personal Interview:** a standard Computer Assisted Personal Interview (CAPI) and Computer

⁴ Data were collected about children born in Northern Ireland, but these children were not subsequently followed up.

⁵ Cohort members interviewed during February/March 2004 were still age 33; cohort members interviewed after their birthday in April 2005 were age 35.

⁶ For more detailed information on BCS70, NCDS or MCS refer to the Centre for Longitudinal Studies website www.cls.ioe.ac.uk

Assisted Self Interview (CASI) were used to update the cohort members' lives and to observe their current situation in respect of education, housing, health, work, home and family life, social attitudes and opinions.

- **Adult Assessments:** These assessment instruments measured a cohort member's literacy and numeracy skills and the presence of some symptoms associated with dyslexia (the term 'dyslexia', however, was not used with cohort members). Special instruments were designed for this assessment, comprising:
 - Test items from the national Skills for Life survey⁷, carried out to assess the general public's basic skills problems
 - Test items used in the previous 1991 BCS70 basic skills survey⁸
 - Test items adapted from the Dyslexia Adult Screening Test⁹.
- Apart from the objective assessment, for consistency with the earlier surveys through adulthood, the cohort member core interview also contained self-report questions inviting the respondent to report any basic skills difficulties. These were responded to before the cohort member attempted the multiple-choice and open-response literacy and numeracy assessments.

The *Parent and Child Interview* contained an additional CAPI section in the personal interview devoted to the children's family life and so on, paper-based self-completion questionnaires and the assessment of the children's cognitive skills¹⁰, including reading and maths, using tests selected from *The British Ability Scales* or BAS II¹¹.

More details of the questions asked and the adult and child assessments are supplied in the relevant chapters.

What's covered in the report

Chapter 2 introduces the literacy and numeracy skills of our sample. After briefly describing the assessment instrument, we compare the distribution of men and women across the literacy and numeracy skills groups, drawing attention to differences by country within Great Britain.

Chapters 3 and 4 profile the early life experiences of cohort members, making use of the full range of information collected during their childhood, at their birth, age 5, 10 and 16. Chapter 3 details family socio-economic background, parental education and family support measures, and in Chapter 4 we look at early cognitive and educational achievement, together with identification of difficulties at early ages by parents or teachers and consider some characteristics of the school environment itself. These various indicators of skills acquisition will flag up key targets of intervention prior to adulthood.

7 Williams, J., Clemens, S., Oleinikova, K. and Tarvin, K. (2003). *The Skills for Life survey: A national needs and impact survey of literacy, numeracy and ICT skills*. DfES Research Report 490. Department for Education and Skills.

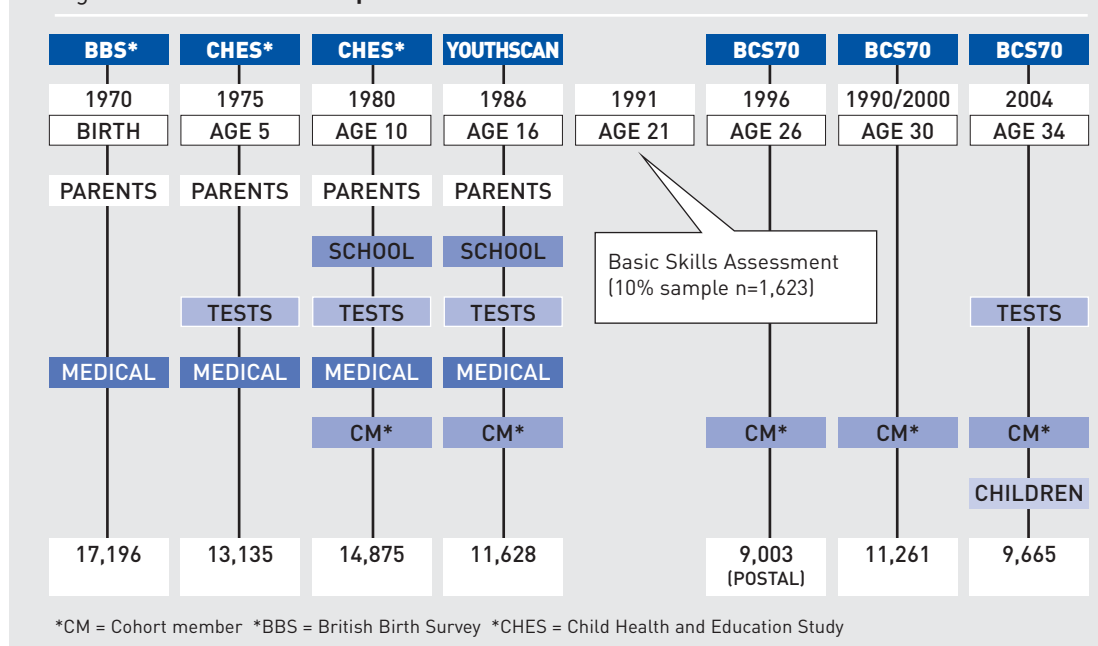
8 These items concerning the use of functional literacy and numeracy were developed by the Cambridge Training and Development Agency. For full details of all assessment items see Ekinsmyth, C. and Bynner, J. (1994) *The Basic Skills of Young Adults*. London: The Basic Skills Agency.

9 Fawcett, A. and Nicolson, R. (1998). *The Dyslexia Adult Screening Test (DAST)*. London: The Psychological Corporation.

10 All Cohort Members and eligible children participated in the assessments unless they were prevented from doing so by learning difficulties or communication difficulties to do with their sight, hearing or speech. The assessments were not carried out if the cohort member or their child refused. They were also stopped if the child showed signs of distress. There were stopping rules specific to most of the assessments, but interviewers were instructed to stop the exercise if the Cohort Member or child showed any signs of becoming distressed.

11 Elliot, C. D. (1983, 1996). *British Ability Scales II: Core Scale 2*. Berkshire: The NFER-NELSON Publishing Company Ltd.

Figure 1.1: BCS70 follow-up studies from 1970–2004



Chapter 5 looks at the educational aspirations and how cohort members at age 16 felt about looking ahead to the world of work.

From this point on we focus on differences across the performance levels in cohort members' experiences from age 16 up to age 34. First in Chapter 6 we look at education and qualifications and the relationship between poor literacy and numeracy and exclusion from digital media at home.

Chapter 7 and 8 move on to compare outcomes at age 34 in many spheres of adult life. Expanding the original *New Light* analyses, we use work and family life history data to look at how men and women with Entry 2 literacy and numeracy compared with men and women with more accomplished skills. In Chapter 7 we look at first employment up to current situation at 34, including work-related disadvantages. In Chapter 8 we turn to age of first leaving the parental home and experiences in the housing market up to age 34 and describe relationship formation and becoming a parent. For those with children we look at differences in parenting practices for the educational development of their children across skills groups. Chapter 9 draws some conclusions from the findings, with pointers for policy.

Focus of the report

Although the report focuses on disadvantages in early life associated with Entry level adult literacy and numeracy and their consequences in adult life, it should be recognised that these are based on statistical tendencies not causal inevitability. Given the right opportunities, motivational triggers and educational support, many adults transcend their early difficulties, and many of those who do not, manage to cope with their basic skills problems in adulthood and lead satisfying lives. Focusing mainly on the 'negative' merely highlights where the risks to life chances and the forms of adult disadvantage related to poor basic skills are to be found. Such information supplies the pointers to where policy interventions are most needed.

2 Assessment and distribution of literacy and numeracy skills across Great Britain

The new literacy and numeracy assessments designed for assessing cohort members in 2004 combined:

1. Open-response (OR) literacy and numeracy questions previously used to assess the functional literacy and numeracy skills of BCS70 cohort members at age 21 in 1991 (England and Wales sample only)¹².
2. Multiple-choice (MC) questions extracted from the 2002 Skills for Life National Baseline Survey¹³.

The aim of importing items from the Skills for Life (SfL) Survey was to enable cross-referencing from one survey to another and supply benchmarking to the national standards¹⁴. The OR items were included for continuity purposes. In this report we will be concentrating on the multiple-choice assessments. A brief description of the design of these assessments is given below¹⁵.

Literacy

A total of 30 multiple-choice literacy questions made up the final assessment, of which ten were screening questions (Entry 3). Respondents failing to answer at least six of these questions correctly went on to answer ten Entry 2 questions on the lower tier. Respondents who answered between six and ten screening questions correctly proceeded to the upper tier and answered five Level 1 and five Level 2 questions. Although question selection was heavily concentrated on the many aspects of 'Reading Comprehension', Figure 2.1 shows that 'Writing Composition', 'Grammar and Punctuation' and 'Spelling and Handwriting' were also covered by items on both the lower and upper tiers.

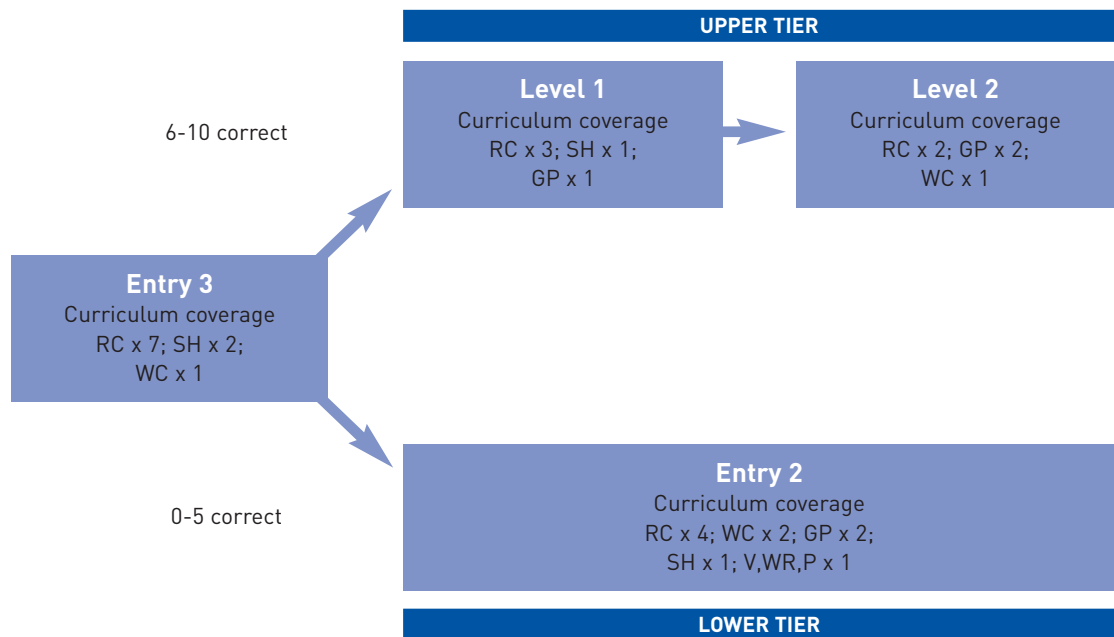
12 Ekinsmyth, C. and Bynner, J. (1995). *The Basic Skills of Young Adults*. London: The Basic Skills Agency.

13 Williams, J., Clemens, S., Oleinikova, K. and Tarvin, K. (2003). The baseline survey was devised by the Centre for the Development and Evaluation of Lifelong Learning (CDELL) at the University of Nottingham, for the Department for Education and Skills. Special thanks are reserved for Peter Burke, John Gillespie and Bob Rainbow, consultants at CDELL, for their help and guidance in all stages of development.

14 For a comprehensive review of adult reading, writing and numeracy assessment instruments for use in a UK setting, see Brooks, G., Heath, K. and Pollard, A. (2005). *Assessing adult literacy and numeracy: a review of research instruments*. London: NRDC.

15 For further details see Parsons, S. and Bynner, J. (2005) 'Measuring Basic Skills for Longitudinal Study: The design and development of instruments for use with cohort members in the age 34 follow-up in the 1970 British Cohort Study (BCS70)'. *Literacy and Numeracy Studies*, 14(2):7-30. See also Bynner, J. and Parsons, S. (2006).

Figure 2.1: Final literacy multiple-choice assessment



*The number of questions covering specific aspects of the literacy core curriculum. Reading: RC = Reading Comprehension, GP = Grammar and Punctuation, V,WR,P = Vocabulary, Word Recognition, Phonics. Writing: WC = Writing Composition, SH = Spelling and Handwriting.

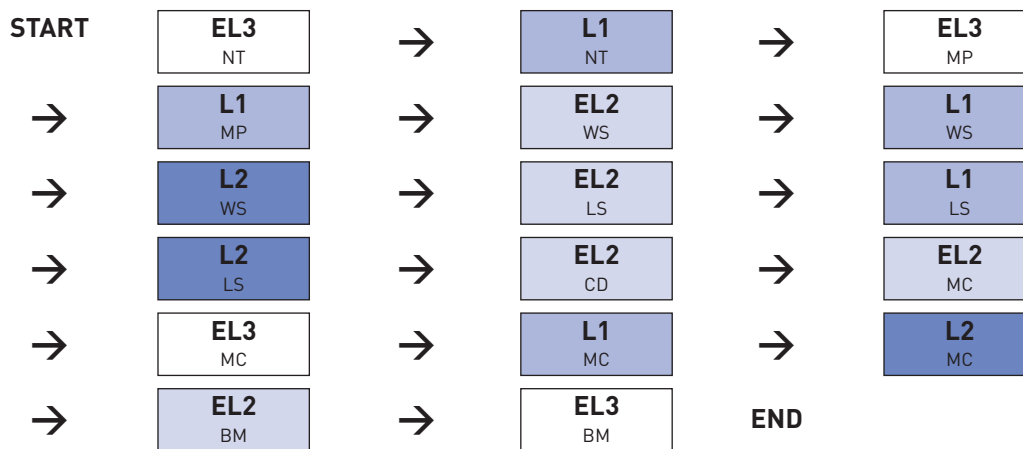
Numeracy

Unlike for literacy, all respondents attempted all questions in the numeracy MC assessment. The widespread and diverse nature of difficulties associated with numeracy – that people can be good at some numerical tasks and not others at the same level of difficulty – suggested that allowing a ‘spiky profile’ for number skills at the population level would have equal, if not more, value than restricting this examination to the one in four or one in three with the poorest grasp of numeracy. There were 17 questions in the final version of the assessment. To obtain as balanced a set of questions as possible in relation to curriculum coverage and difficulty levels, the final instrument was made up of five questions set at Entry 2, four at Entry 3, five at Level 1 and three at Level 2. Seven aspects of number skill from the numeracy curriculum were assessed by the selected items. These were:

- Basic Money (BM)
- Whole Numbers and Time (NT)
- Measures and Proportion (MP)
- Weights and Scales (WS)
- Length and Scaling (LS)
- Charts and Data (CD)
- Money Calculations (MC).

The 17 selected questions were presented in order of difficulty within each curriculum topic, e.g. all questions set at different levels of ‘Money Calculations’ were attempted before moving to the next set of questions on ‘Whole Numbers and Time’. This method was adopted because of its potential for capturing more of the elements of numeracy that an individual respondent could and could not do. The assessment started and ended with an Entry 3 question, as shown in Figure 2.2.

Figure 2.2: Final numeracy assessment – curriculum coverage and sequence of difficulty of questions



Note 1: Aspects of the numeracy core curriculum: NT = Whole Numbers and Time, MP = Measures and Proportions, WS = Weights and Scales, LS = Length and Scaling, CD = Charts and Data, MC = Money Calculations, BM = Basic Money.

Note 2: In combination, the selected MC and OR questions ensured that each aspect of the curriculum was covered by at least three questions at different levels of difficulty.

Converting performance in literacy and numeracy assessments into levels

By converting performance answers in the MC assessment into levels, we were able to classify respondents by their achieved level¹⁶. The classification by levels that was employed is based on the principle that, to pass a level, at least half the test questions at the given level had to be answered correctly, as follows:

For Literacy

- Below Entry 2: 0–5 correct answers at E2
- Entry 2: 6–10 correct answers at E2 and 0–5 at E3
- Entry 3: 6–10 correct answers at E3 and 0–2 at L1
- Level 1: 3–5 correct answers at L1 and 0–2 at L2
- Level 2: 3–5 correct answers at L1 and 3 at L2

For Numeracy

- Below Entry 2: 0–3 correct answers at E2
- Entry 2: 4–5 correct answers at E2 and 0–2 at E3
- Entry 3: 3–4 correct answers at E3 and 0–3 at L1
- Level 1: 4–5 correct answers at L1 and 0–2 at L2
- Level 2: 4–5 correct answers at L1 and 3 at L2

Literacy and numeracy levels across Great Britain

After classifying performance on the number of correct answers to the MC questions in terms of the literacy and numeracy levels used in the SfL Survey (Entry 2, Entry 3, Level 1 and Level 2) we now compare the distribution of men and women in the 2004 survey across the four levels of literacy and numeracy. Figure 2.3 shows that literacy performance of men and

¹⁶ National Qualification Framework (NQF) for England, Wales and Northern Ireland, as used in the Skills for Life survey.

women was nearly identical, but that men gave a better performance in the numeracy assessment. 31 per cent of men and 48 per cent of women were assessed with Entry 2 or 3 numeracy skills. In the initial *New Light* report literacy performance among cohort members in Scotland was nearly identical to that of the majority living in England, but there were slightly more who performed at the upper end for numeracy. The literacy and numeracy performance among those living in Wales was markedly lower. We expand this now by also exploring literacy and numeracy levels across regions within England. Figure 2.4 shows that men living in East Anglia and the South East are least likely to have Entry level numeracy (27 per cent and 26 per cent respectively), men in Wales the most likely (41 per cent). Among women, Figure 2.5 shows those most likely to have Entry level numeracy were living in the North of England (59 per cent) or in the East Midlands and Wales (54 per cent); least likely were women living in East Anglia (43 per cent) or Scotland (44 per cent). As no more than 7 per cent of men and 9 per cent of women have Entry 2 or 3 literacy, differences across geographic region were thus not so apparent. However, the most likely to have Entry level literacy were men and women in Wales, and women in the East Midlands (13 per cent); least likely were men in the South West (5 per cent) and men and women in the South East (6 per cent).

Figure 2.3 ‘Profiles of competence’ based on national standards

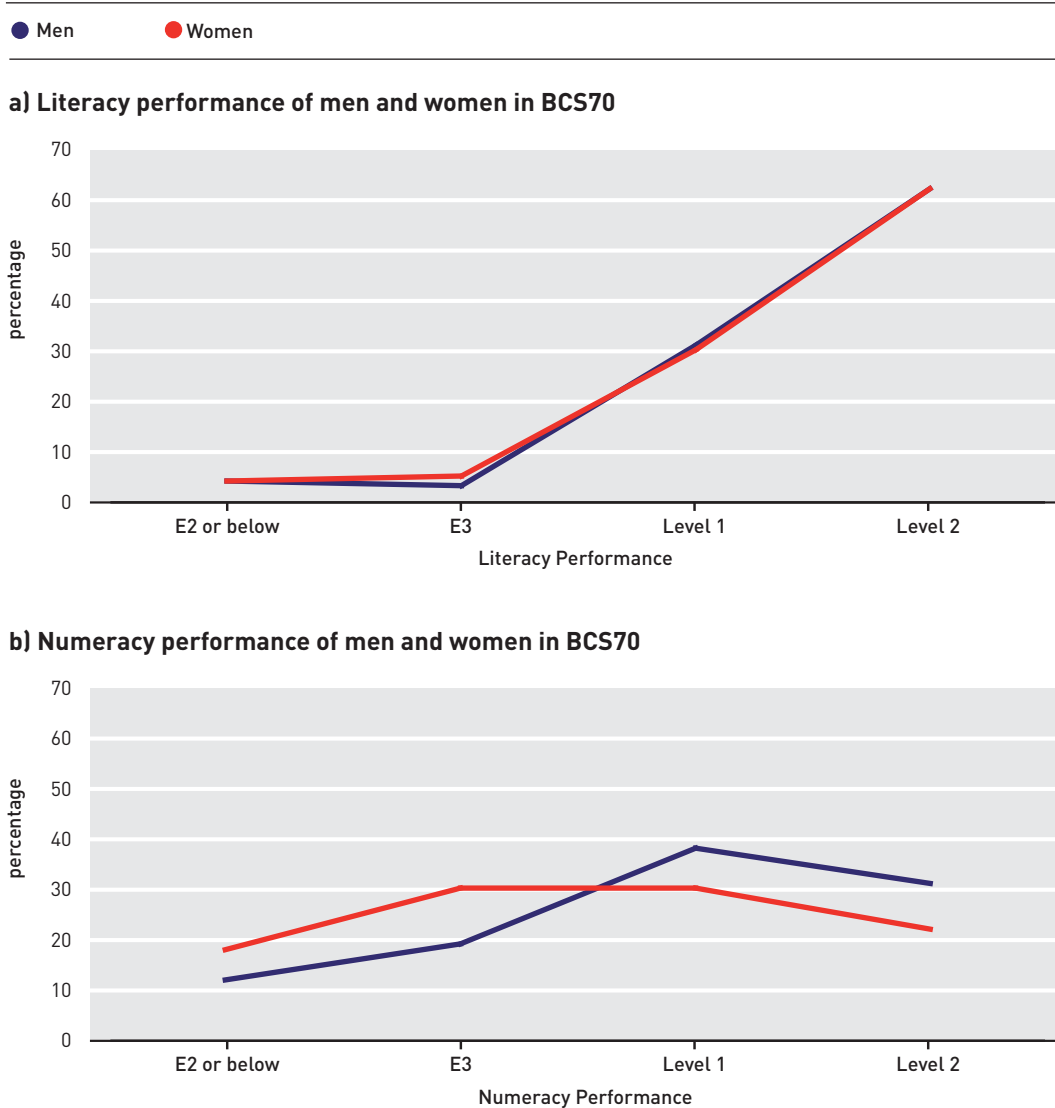
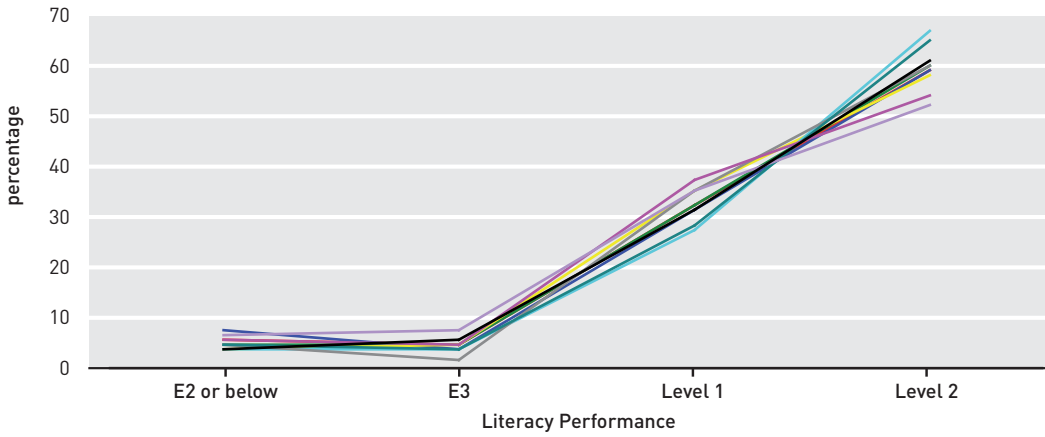


Figure 2.4 'Profiles of competence' based on national standards



a) Literacy performance of men in BCS70 by region in 2004



b) Literacy performance of women in BCS70 by region in 2004

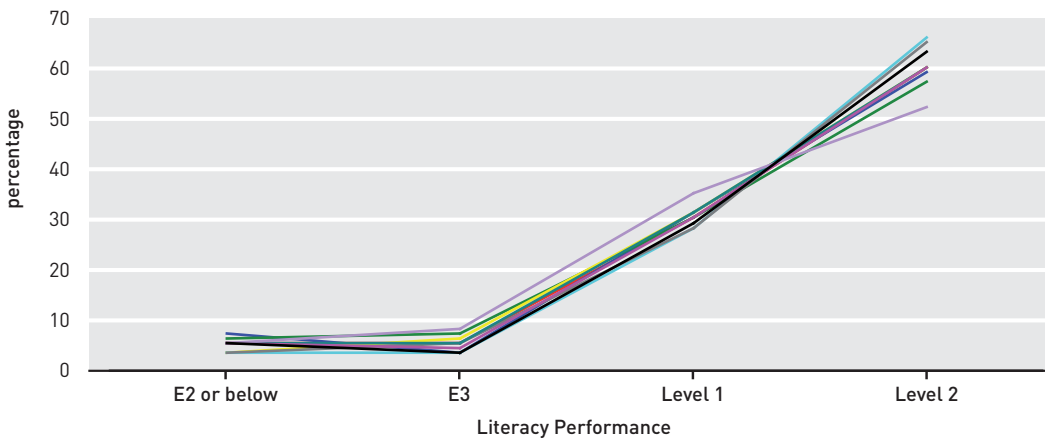
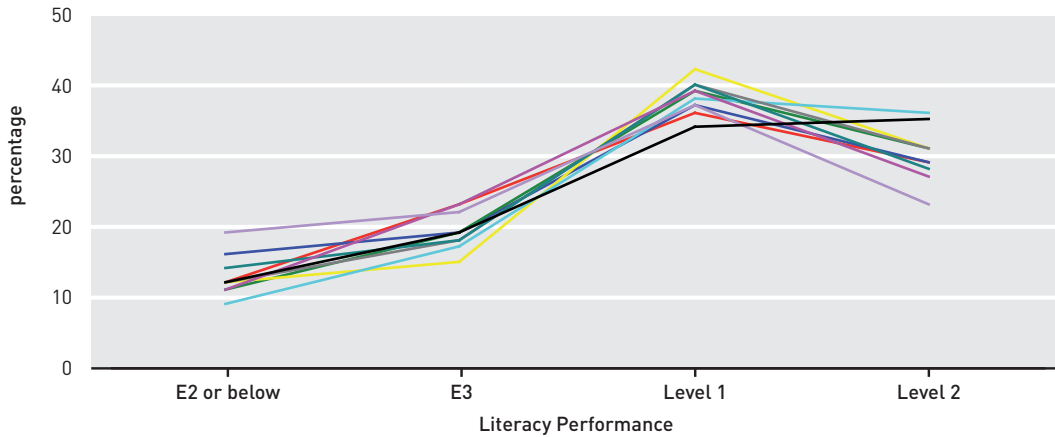


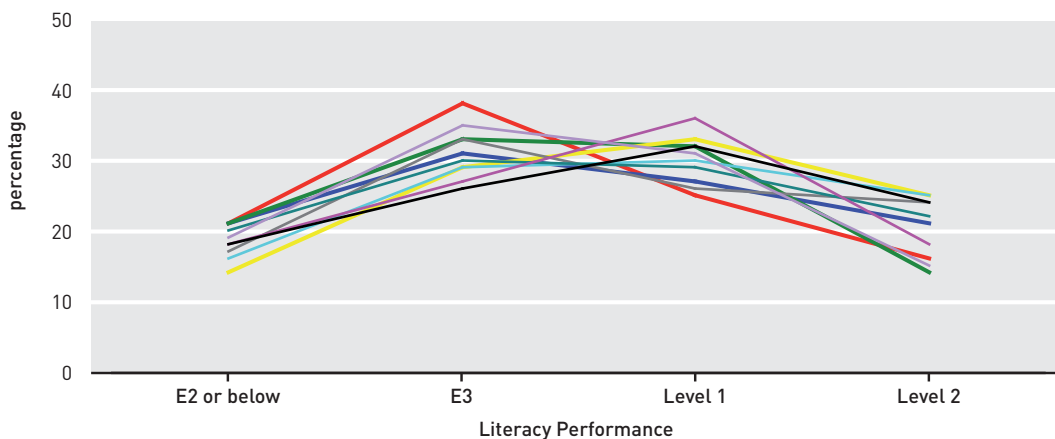
Figure 2.5 'Profiles of competence' based on national standards



a) Numeracy performance of men in BCS70 by region in 2004



b) Numeracy performance of women in BCS70 by region in 2004



Summary of assessed literacy and numeracy levels

Men had stronger numeracy skills than women. There was no difference in the distribution of literacy skills across the levels for men and women. Differences in the distribution of cohort members over the skills levels across Great Britain and the regions within England were very apparent for numeracy. Men in Wales were the most likely to have Entry 2 skills (19 per cent), least likely to have Level 2 skills (23 per cent). Conversely, men in the South East were the least likely to have Entry 2 skills (9 per cent) and most likely to have Level 2 skills (36 per cent). For women, differences by geographical location did not give such clear distinctions. However, women in the South East and East Anglia were the least likely to have Entry 2 numeracy (16 per cent and 14 per cent respectively) and most likely to have Level 2 skills (25 per cent). Women living in the North, Yorkshire and Humberside or the East Midlands were most likely to have Entry 2 skills (21 per cent), women in the East Midlands, the North or Wales were the least likely to have Level 2 skills (14 per cent, 16 per cent and 18 per cent respectively). Given the lower incidence of poor literacy skills in the population, differences for literacy were most marked at the top end of performance. Cohort members living in the South East were most likely to have Level 2 literacy skills (67 per cent men, 66 per cent women), those living in Wales the least likely (52 per cent men and women).

3 Early life experiences – family background, socio-economic disadvantage and family support measures

At each stage of development, a certain level of literacy and numeracy competence is achieved, which in turn influences later skills acquisition. There is a progressive build-up of skills, or indeed difficulties, that occur throughout childhood. Adult literacy and numeracy acquisition can be seen as being underpinned by a number of interrelated family socio-economic and later educational experiences. In difficult, disadvantaged home and family circumstances, and if parents' own educational achievements have been poor, a crucial element of learning support may be missing in the early years of skills acquisition. It falls to teachers then to play an increased role in the skills development of children. In the next two chapters we profile the early life experiences of cohort members living in Great Britain in 2004, making use of the full range of information collected during their childhood, at their birth, age 5, 10 and 16¹⁷. In this chapter we detail family socio-economic background, parental education and family support measures, and in Chapter 4 we look at early cognitive and educational achievement, together with identification of difficulties at early ages by parents, teachers and cohort members themselves. We also consider some characteristics of the school environment itself. These various indicators of skills acquisition will flag up key targets of intervention prior to adulthood.

Family background

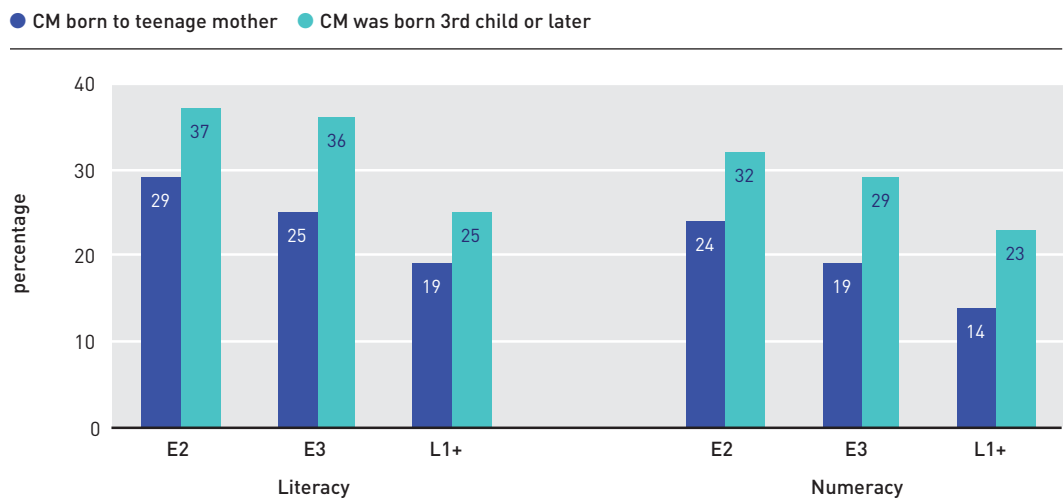
Fixed characteristics present at birth, such as sex and birthweight, together with social and economic factors in childhood, teenage motherhood and family social class, etc, cannot be changed, but it is important they are accounted for as research has shown that they relate to cognitive development (Wedge and Prosser, 1973; Pilling, 1990) and literacy and numeracy acquisition (Bynner and Steedman, 1995; Parsons and Bynner, 1998). Such variables are not direct influences on basic skills but indicators reflecting social background or the economic conditions of the child's home-life, building up a picture of the type of home environment which works for or against the learning process. These fixed characteristics are built upon by circumstances and experiences later on.

As we saw in Chapter 2, men are more likely than women to have competent numeracy skills. There were no differences across groups in average birthweight, but cohort members with Entry level literacy or numeracy were more likely to be born into larger families. Figure 3.1 shows that more than 1 in 3 men and women with Entry level literacy (37 per cent E2, 36 per

¹⁷ Only some measures are used at age 16 as a combination of data collection difficulties at the time, and the relatively small Scottish sample reduced numbers to unreliable levels.

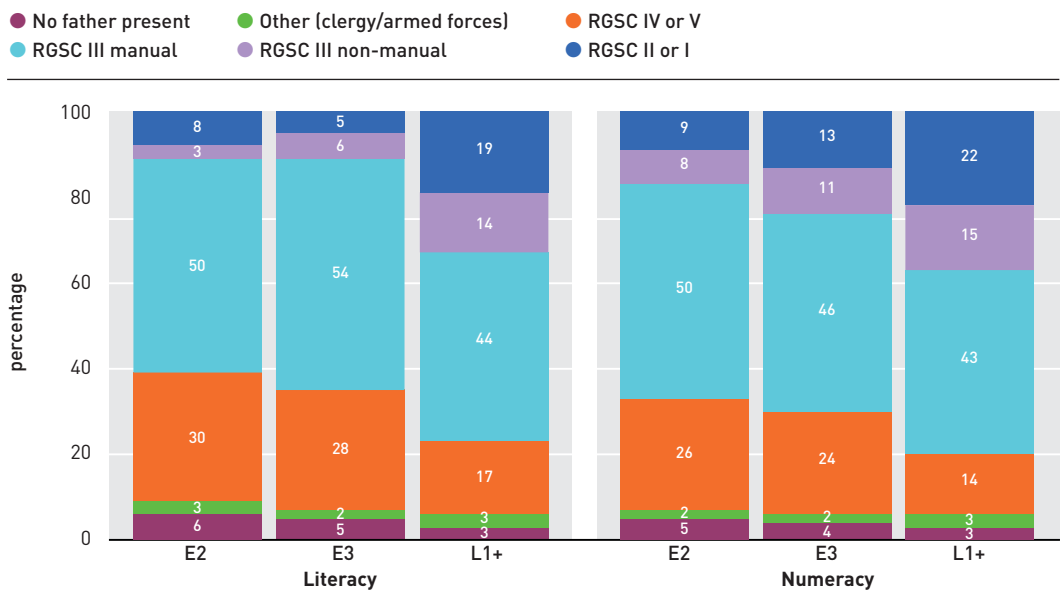
cent E3) were the third or later child born in comparison to 25 per cent of those with Level 1 or higher skills. Comparable figures for numeracy were 32 per cent (E2) and 23 per cent (L1+) respectively. The mothers of cohort members with Entry level literacy or Entry 2 numeracy were also the most likely to have been a teenage mother when they had their first child.

Figure 3.1 Cohort members’ mothers who had first child as a teenager and cohort members who were the 3rd or later child born, by grasp of literacy or numeracy



Family social class, as derived from the father’s occupation at the time cohort members were born, unsurprisingly showed distinctions by cohort members’ grasp of literacy or numeracy. Figure 3.2 shows that more than 1 in 4 fathers of cohort members with Entry level literacy or numeracy worked in unskilled or partly-skilled manual jobs (RGSC IV or V). In contrast, 1 in 3 fathers of cohort members with Level 1 or higher literacy or Level 1 or higher numeracy held a professional or other white-collar occupation back in 1970 (RSGC I, II or III non-manual). Although figures were low, men and women with Entry 2 literacy were the most likely to be have been born to a single mother, unsupported by a father at the time of their birth (6 per cent to 3 per cent with Level 1 or higher literacy).

Figure 3.2 Social class of family in 1970 by cohort members’ grasp of literacy or numeracy*



* Registrar Generals Social Class (RGSC): Professional/Managerial (I or II), Skilled non-manual (III non-manual), Skilled manual (III manual), Partly or Unskilled (IV or V).

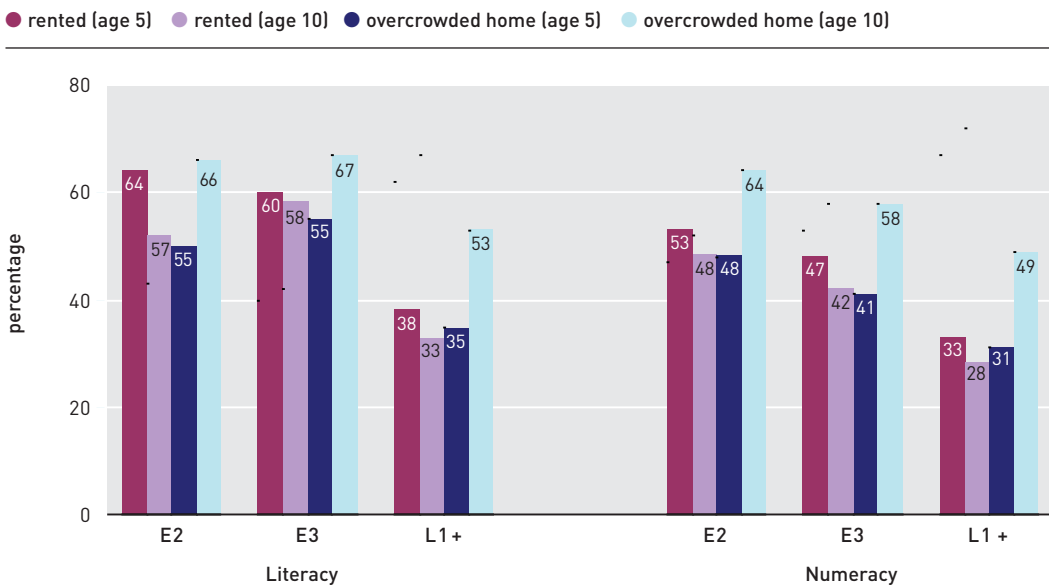
Socio-economic disadvantage during childhood

Overcrowding and housing

Around one-third of all cohort members lived in rented accommodation in their childhood (39 per cent age 5, 34 per cent age 10). This increased to nearly 2 in 3 for those with Entry 2 or 3 literacy and half of those with Entry 2 numeracy at age 5. Rented housing was lowest among cohort members with Level 1 or higher numeracy – 28 per cent when they were age 10 (1980).

As already discussed, cohort members with Entry 2 or 3 literacy and Entry 2 numeracy were more likely to be born into larger families. At the age of 5, 28 per cent of cohort members with Entry 2 literacy lived within a household with 6+ members compared to only 15 per cent of those with Level 1 or Level 2 literacy. Figure 3.3 shows that cohort members with the poorest grasp of literacy or numeracy were most likely to live in overcrowded accommodation in their childhood (defined here as more than one person per room). For example, around 1 in 3 cohort members with Level 1 or above literacy (35 per cent) or numeracy (31 per cent) lived in overcrowded accommodation when they were age 5 compared with more than half of those with Entry 2 or Entry 3 (55 per cent) literacy and nearly half those with Entry 2 numeracy (48 per cent).

Figure 3.3 Percentage of cohort members living in a rented or overcrowded home at ages 5 and 10 by grasp of literacy or numeracy at age 34

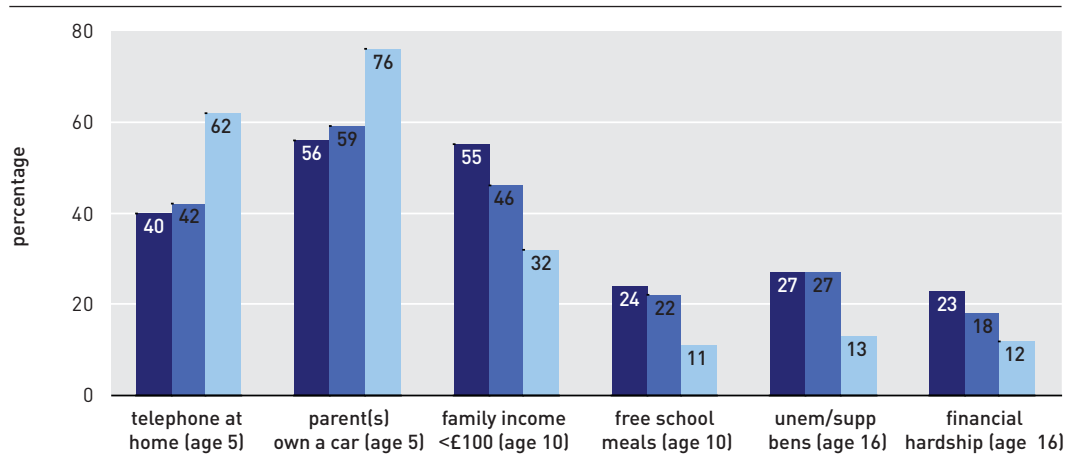


Financial circumstances

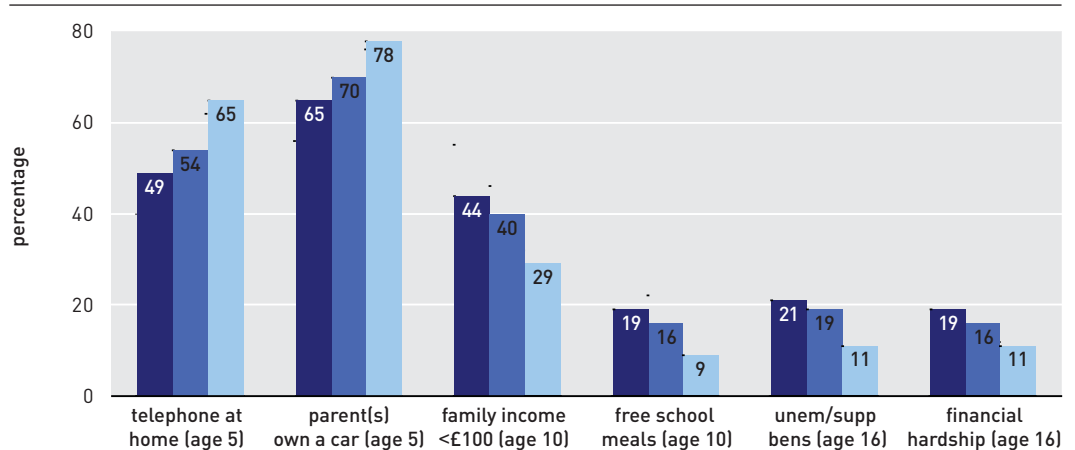
Many measures directly or indirectly measured the financial circumstances of cohort members during early childhood. Figure 3.4 shows that far more cohort members with Entry 2 or 3 literacy and, to a slightly lesser extent, Entry 2 numeracy grew up experiencing many aspects of economic disadvantage throughout their childhood compared to cohort members with a better grasp of literacy or numeracy. In most cases those with Entry 2 literacy came off the worst. For example, compared to those who grew up to have Level 1 or higher skills, families of cohort members who grew up to have only an Entry 2 grasp of literacy were far less likely to have a telephone (40 per cent to 62 per cent) or a car (56 per cent to 76 per cent) in 1975. They were far more likely to have had a low family income (55 per cent to 32 per cent) and to have received free school meals in 1980 (24 per cent to 11 per cent). In 1986, families were also more likely to have received state (unemployment or supplementary) benefits (27 per cent to 13 per cent) or to have reported experiencing financial hardship (23 per cent to 12 per cent). A picture is created of relatively disadvantaged family circumstances preceding literacy and numeracy difficulties. Economic disadvantage is part of the whole syndrome of factors which work against educational progress and inhibit literacy and numeracy skills acquisition.

Figure 3.4 Measures of economic disadvantage in childhood by cohort members' grasp of literacy or numeracy at age 34

(a) Literacy ● E2 ● E3 ● L1+



(b) Numeracy ● E2 ● E3 ● L1+



Family support

The educational level of parents has an obvious relationship with the literacy and numeracy development in their children. Cohort members with the poorest grasp of literacy or numeracy were the most likely to have parents who had left school at the end of compulsory education. Figure 3.5 shows that whereas around 4 in 10 cohort members with Level 1 or higher skills had a mother who experienced some level of extended education (39 per cent literacy, 44 per cent numeracy), this fell to less than 1 in 4 for men and women with Entry 2 or 3 literacy (19 per cent and 21 per cent respectively) or Entry 2 numeracy (23 per cent). Having a mother who stayed on in post-compulsory education was lowest at 19 per cent for men and women with Entry 2 literacy.

Figure 3.5 Mothers with post - compulsory education by cohort members' grasp of literacy or numeracy

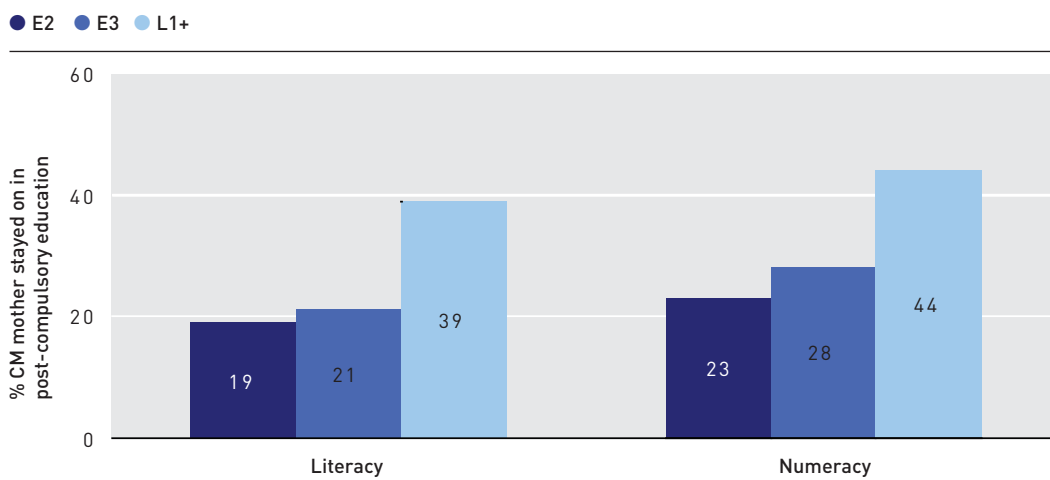
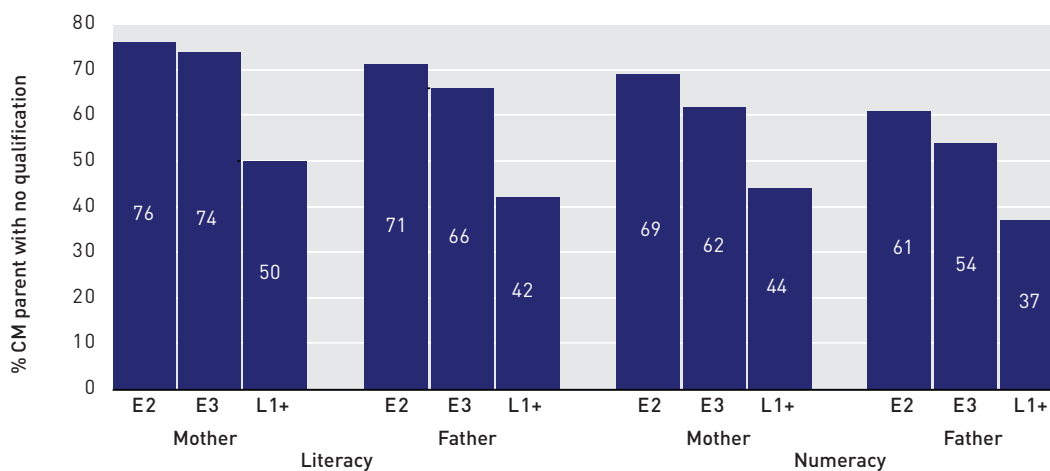


Figure 3.6 Parents with no qualifications by cohort members' grasp of literacy or numeracy

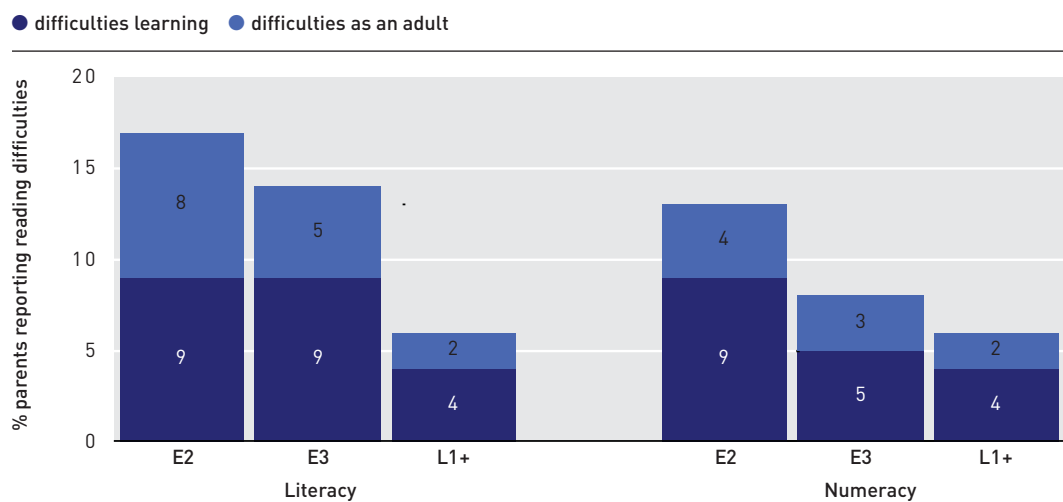


Unpacking the education experiences of cohort members' parents further, parents of those with Entry 2 literacy or numeracy were by far the least likely to have any qualifications. Figure 3.6 shows that most likely of all to not have any sort of formal qualification were mothers of cohort members with Entry 2 literacy (76 per cent), while least likely to not have a qualification were fathers of cohort members with Level 1 or higher numeracy (37 per cent).

At the other end of the qualification scale, just 3 per cent of all mothers held a degree (or equivalent), the lowest percentage being for mothers of cohort members with Entry level literacy or numeracy. Differences across groups were more apparent for fathers. Fathers of cohort members with Level 1 or higher numeracy were the most likely to have degree (or equivalent) qualifications (20 per cent), fathers of cohort members with Entry 2 or 3 literacy the lowest (5 per cent and 4 per cent respectively).

In the final part of this section on parental education, we look at their own basic grasp of reading. In 1986, when cohort members were 16, parents were asked about any difficulties they had themselves when learning to read or in reading at present. Eight per cent of parents (either mother or father) reported reading difficulties – 5 per cent that they had experienced difficulties when learning to read, 3 per cent that they still had difficulties with reading as an adult. However, Figure 3.7 shows that cohort members with Entry 2 or 3 literacy or Entry 2 numeracy were more than twice as likely to have one or other of their parents report past or current difficulties with reading as parents of cohort members with Level 1 or higher skills. This was highest at 17 per cent for parents of cohort members with Entry 2 literacy.

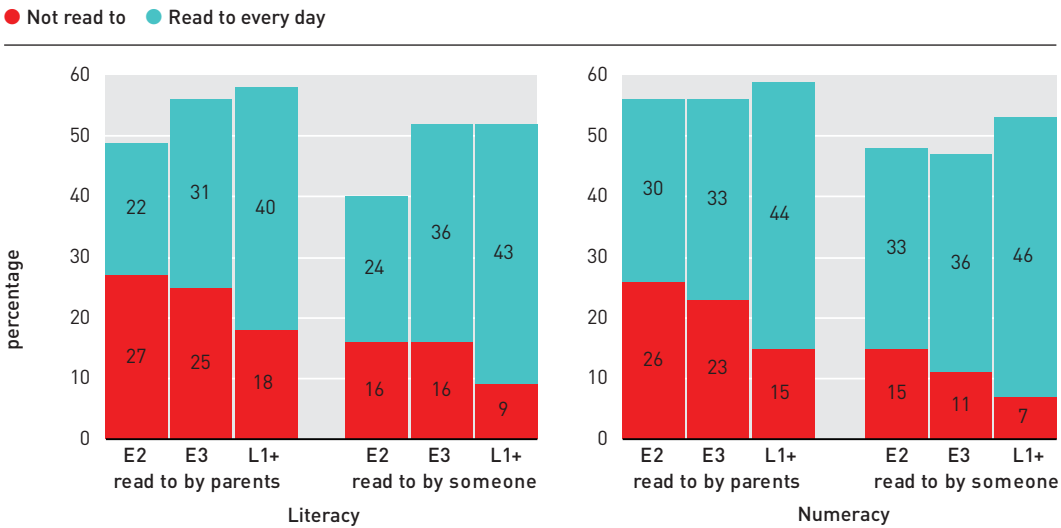
Figure 3.7 **Parents’ self-reported reading difficulties by cohort members’ grasp of literacy or numeracy**



Reading by parents to their child

When their child was age 5, parents were asked if they, or another family member, read to them, and if so, how often in a week. Cohort members who grew up to have the poorest literacy or numeracy were the least likely to have been read to by their parent or another family member (older sibling) at least once in a week at this time. Figure 3.8 shows that, among those with Entry level literacy or numeracy, 1 in 4 had not been read to at all by their parents. More importantly, in comparison with men and women who grew up to have a competent grasp of literacy, those with Entry 2 literacy were almost half as likely to have been read to every day by either a parent (22 per cent to 40 per cent) or when other family members (older siblings) were included (24 per cent 43 per cent). Most likely to have been read to every day (by any family member) were cohort members who went on to have Level 1 or higher numeracy (46 per cent).

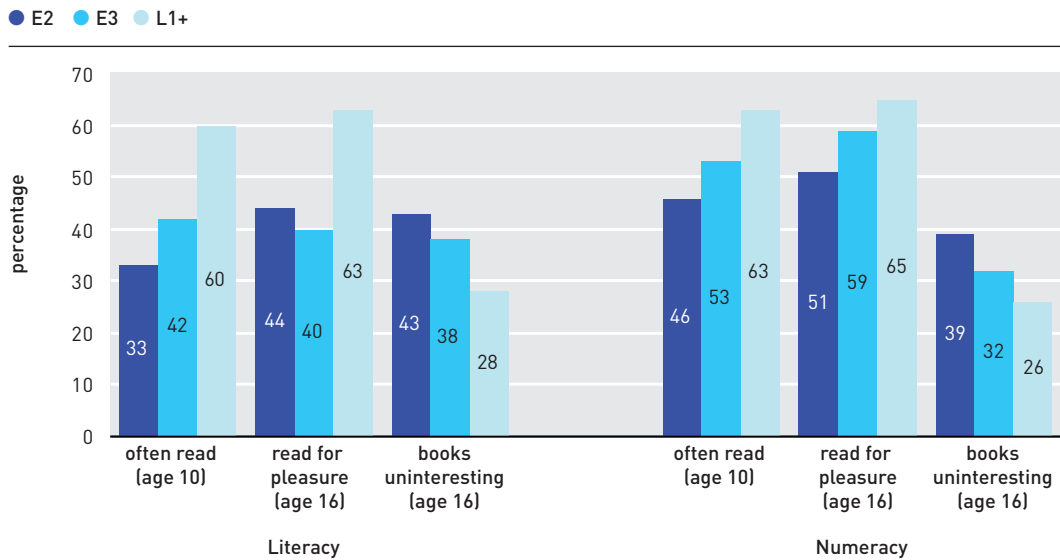
Figure 3.8 How often cohort member read to at age 5 by parent or other family member by grasp of literacy or numeracy



Own reading habits in childhood

When cohort members reached age 10, far fewer parents of cohort members with Entry 2 literacy reported that they ‘often’ read in their spare time (33 per cent compared with 60 per cent with Level 1 or higher literacy skills). Moreover, Figure 3.9 shows that at age 16, cohort members with Entry 2 or 3 literacy were the least likely to report that they had read a book for pleasure in the four weeks prior to interview (44 per cent Entry 2, 40 per cent Entry 3 compared to 63 per cent with Level 1 or higher literacy). In line with this, men and women with Entry level literacy or Entry 2 numeracy were the most likely to cite the reason they did not read books more at age 16 as being that they found books uninteresting. This was again highest at 43 per cent for adults with Entry 2 literacy, lowest at 26 per cent for those who went on to gain competent skills in numeracy (26 per cent).

Figure 3.9 Childhood reading practices by cohort members’ grasp of literacy and numeracy at age 34

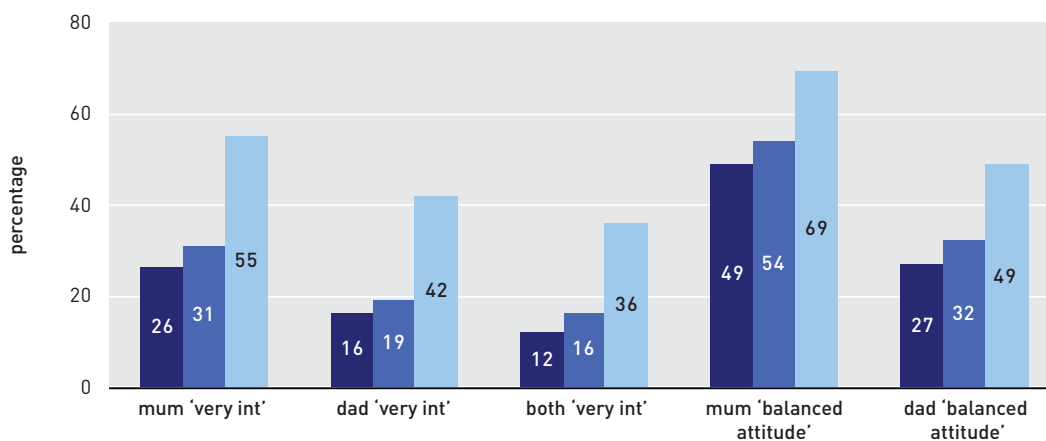


Parental interest in their child's education and aspirations held for post-16 education

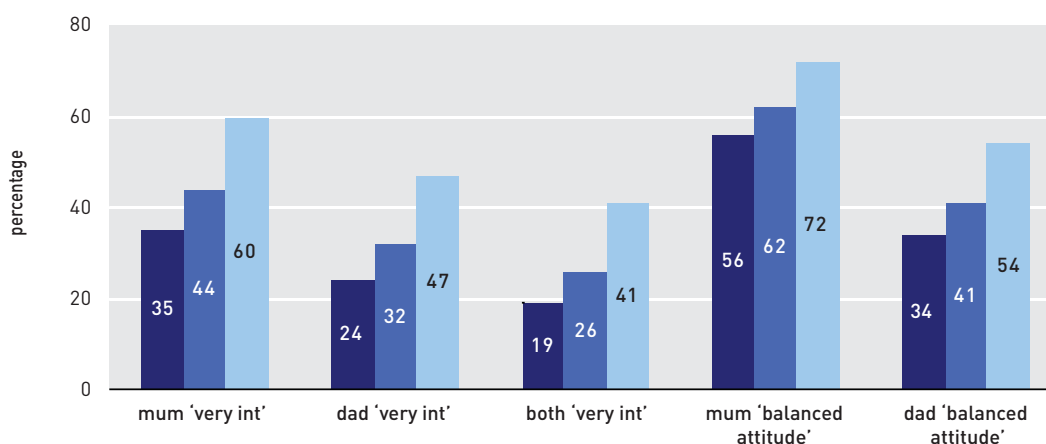
When cohort members were age 10, their current teacher was asked to grade the level of interest parents had shown in their child's education and what attitude they held towards their child at school – 'over concerned', 'balanced', 'dismissive', etc. Figure 3.10 shows that in comparison with cohort members with Level 1 or higher skills, those who had Entry 2 literacy were less than half as likely as cohort members with Level 1 or higher skills to have had a mother or father who was 'very interested' in their education. The picture was comparable between numeracy skills groups. Cohort members with Entry level literacy and Entry 2 numeracy were also the least likely to have a mother or a father with a 'balanced' attitude to their education. Reflecting that fathers traditionally tend to become more involved in their child's education as they progress through secondary education, teachers felt they 'could not say' about the interest of 1 in 3 of all fathers, presumably as they had not seen them at school¹⁸. However, this was highest for fathers of cohort members with Entry 2 literacy (46 per cent) and lowest for fathers of cohort members with Level 1 or higher numeracy (28 per cent). When interest of both parents was combined, cohort members with Entry 2 literacy were three times less likely than those with Level 1 or higher skills to have two parents who were thought to be 'very interested' in their education (12 per cent to 36 per cent). Cohort members with Entry 3 literacy or Entry 2 numeracy were half as likely (16 per cent to 36 per cent literacy, 19 per cent to 41 per cent numeracy).

Figure 3.10 **Mothers' and fathers' interest in and attitude to their child's education when they were age 10 by the child's subsequent grasp of literacy or numeracy**

(a) Literacy ● E2 ● E3 ● L1+



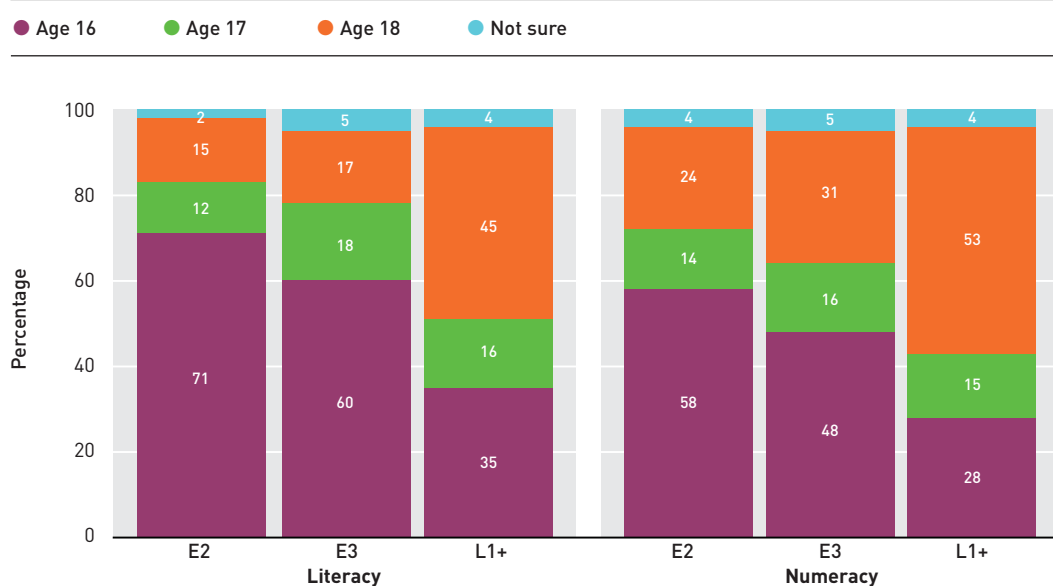
(b) Numeracy ● E2 ● E3 ● L1+



Parental aspirations for their child's education

At this time, when cohort members were age 10, their parents were also asked if they wanted them to continue in education post-16. Figure 3.11 shows that parents of cohort members with Entry 2 skills were by far the most likely to have wanted their child to leave full-time education at the earliest opportunity compared to parents of cohort members with Level 1 or higher skills (71 per cent to 35 per cent literacy, 58 per cent to 28 per cent numeracy).

Figure 3.11 **Parental aspirations for cohort members' continuing with education (age 10) by cohort members' grasp of literacy or numeracy**



Summary of family background and family support factors

Cohort members with the poorest grasp of literacy or numeracy, particularly literacy, had a relatively disadvantaged home life in childhood, both economically and in terms of education levels and educational support offered by parents. Families of those with the poorest grasp of literacy were the most likely of all to have experienced these forms of disadvantage. Far fewer parents of cohort members with the poorest skills had enjoyed any extended education or gained any qualifications. 76 per cent of mothers and 71 per cent of fathers of those with Entry 2 literacy had no qualifications in comparison with 50 per cent of mothers and 42 per cent of fathers of cohort members with Level 1 or higher literacy. Fewer parents of cohort members with Entry level skills had read to their children every day when they were young (22 per cent Entry 2 literacy, 40 per cent Level 1 or higher literacy) or had been viewed by teachers as interested in their children's education towards the end of primary school. Just 12 per cent of cohort members with Entry 2 literacy had been considered to have two parents who were 'very interested' in their education, compared with 36 per cent of those with Level 1 or higher literacy skills. Reflecting their own poor educational experiences, parents of those with Entry 2 literacy were nearly three times more likely to report having current or previous reading difficulties than parents of those who went on to have competent literacy skills (17 per cent to 6 per cent). Far fewer parents of those with Entry 2 literacy also held aspirations for their children to continue in education after age 16 – 27 per cent compared with 51 per cent with Level 1 or higher skills.

18 It was not that the child did not have a stable father figure. This was a separate answer category.

4 Early education performance and school environment

Cognitive and educational achievement assessment

Previous research has shown that early measures of cognitive development and educational attainment are closely related to performance in the adult literacy and numeracy assessments (Bynner and Steedman, 1995; Parsons and Bynner, 1998). Many assessments were undertaken by the children at age 5 and 10¹⁹. We explored performance in all of the assessments and found the same pattern of results was replicated across the adult skills groups. Adults with the poorest grasp of literacy or numeracy had the lowest average scores in childhood, adults with Level 1 or higher skills the highest average scores in childhood. We report here the assessments showing the biggest differences in performance scores (for results from all assessments included at age 5 and age 10 see Appendix).

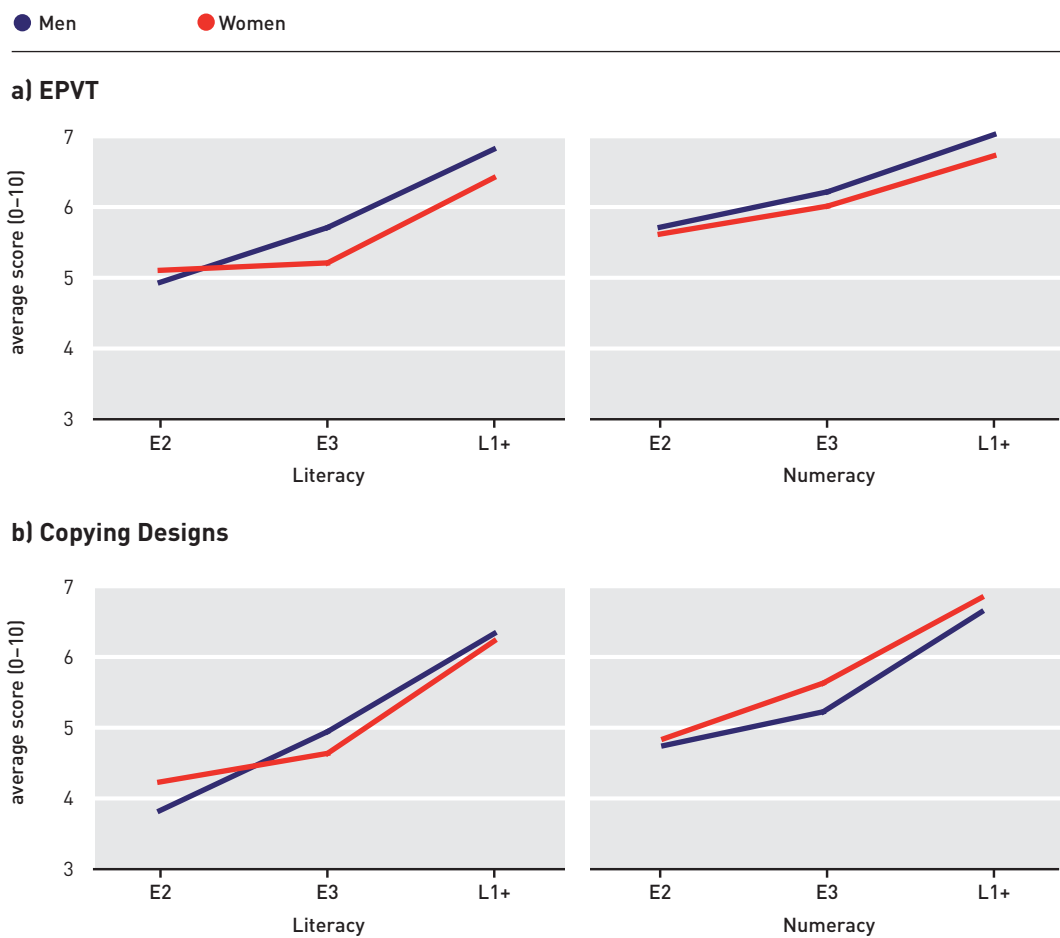
Age 5

By examining the results of performance in tests as early as age 5, the age the vast majority of children in the UK start their formal education, it was possible to see if adults with a poor grasp of literacy or numeracy had struggled at the very first stage of their formal education. As most children at age 5 were not readers (see reports by their mothers later in this section), the most salient measures we have at age 5 are to do with language development and visual-motor co-ordination – the *English Picture Vocabulary Test (EPVT)* and the *Copying Designs test*²⁰ respectively. While the age of cohort members at the time they completed these tests varied between 4 years 11 months and 6 years 4 months, average age was identical across adult literacy and numeracy groups (5 years 1 month). The range of scores in the two tests varied, so for easier comparison, these were rescaled to both fall within the range 0–10. Figure 4.1 shows that performance in the *Copying Designs* test differentiated most across adult skills groups. It also shows that men and women with Entry 2 literacy or numeracy at age 34 had the lowest performance scores in both of these assessments at age 5; men and women with Level 1 or higher skills the highest performance scores.

¹⁹ For the full range of cognitive and educational achievement assessments at age 5 and age 10 see Appendix.

²⁰ In the *EPVT* the interviewer says a word e.g. 'drum', 'insect', and the child has to point to the picture (from a possible four) that corresponds to this word. In the *Copying Designs* test the child has to copy eight different shapes, such as a square, circle, diamond. For further details on these assessments see documentation on the CLS website: <http://www.cls.ioe.ac.uk/studies.asp?section=00010002000200090001>

Figure 4.1 Average scores in cognitive assessments at age 5 by grasp of literacy and numeracy at age 34

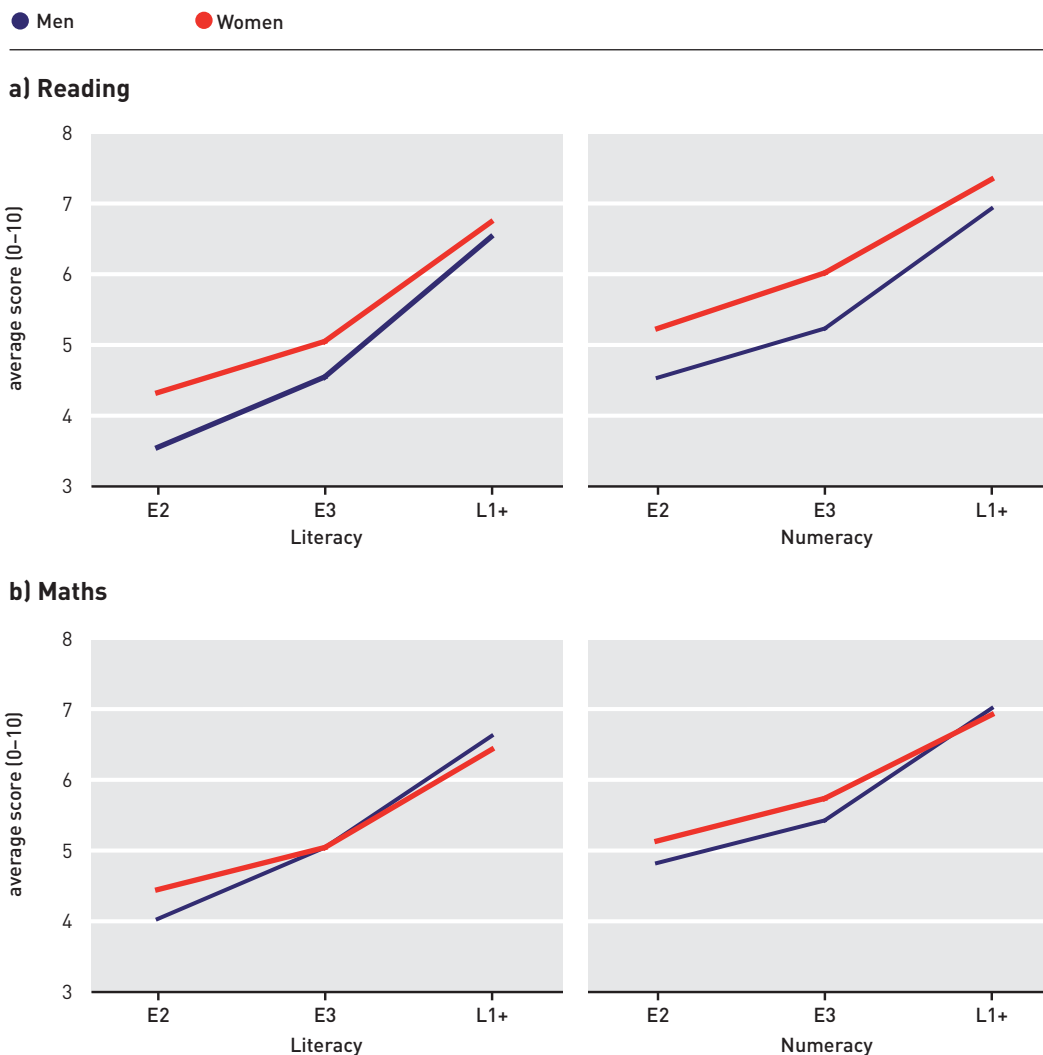


Age 10

Assessments at age 10 are a way of summarising individual achievement at primary school prior to the big move up to secondary school. We look at performance in the two assessments most closely related to adult literacy and numeracy performance: the *Edinburgh Reading Test* and the *Friendly Maths Test*²¹. Figure 4.2 shows that men performed worse than women in the reading test at age 10 in each skills group, and that, once again, performance in both assessments was lowest for adults with Entry 2 literacy and highest for adults with Level 1 or higher numeracy. The gradient in performance across groups had, however, increased between age 5 and 10. It was widest for performance in the reading test between literacy skills groups and widest of all for men. This highlights that the earlier difficulties are identified and intervention measures are put in place, the more likely that skills deficits and difficulties in adulthood can be prevented, or at least minimised.

21 For further details on these assessments, see documentation on the CLS website: <http://www.cls.ioe.ac.uk/studies.asp?section=00010002000200080001>

Figure 4.2 Average scores in assessments at age 10 by grasp of literacy and numeracy at age 34



Identification of difficulties

Questions of learning or educational ‘difficulties’ have a strong presence in cohort studies with questions on self-reported reading, writing and number difficulties being included in the most recent survey. Back in earlier surveys, questions were put to parents, teachers and the cohort members themselves.

What did parents think of their child’s reading, writing and grasp of numbers?

Early identification of literacy and numeracy difficulties, together with early help and assistance from both parents and teachers, can be critical for the child acquiring the foundations of learning. If difficulties are not detected, they can be compounded over time. Before completing a reading test at age 5²², cohort members’ mothers were asked if their child could read at all. In BCS70 overall, 33 per cent of parents reported that their child could

²² Schonell, F.J. and Schonell, F.E. (1950), *A Graded Word Reading Test*. Edinburgh: Oliver and Boyd; Schonell F.J. and Schonell, F.E. *Graded Word Reading Test (1972 Revised Norms)*. Edinburgh: Oliver and Boyd. Also see the test booklet produced for the age 5 survey on the Centre for Longitudinal Studies website. <http://www.cls.ioe.ac.uk/studies.asp?section=00010002000200090001>

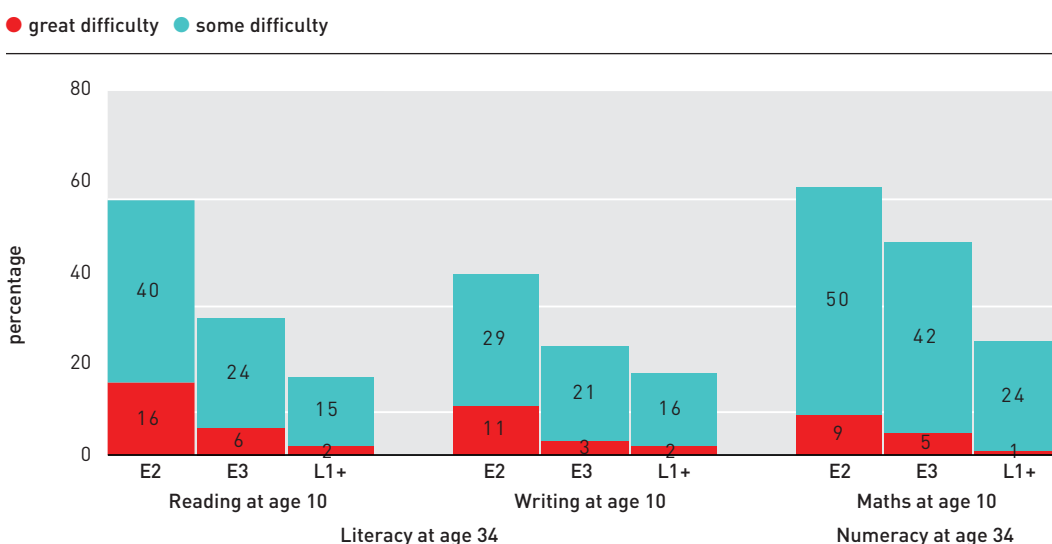
not read at all and a further 18 per cent that their child ‘could recognise a few letters’. However, Figure 4.3 shows that ‘not being able to read at all’ was highest at more than 1 in 2 (52 per cent) among those who grew up to have Entry 2 literacy, and lowest at around 1 in 4 (28 per cent) among those who grew up to have Level 1 or higher numeracy.

Figure 4.3 Cohort members whose parent reported that they could not read or could just recognise a few letters at age 5 by cohort members’ grasp of literacy or numeracy at age 34



In the main interview at age 10, the mother or father figure were asked if they thought their son or daughter had ‘no difficulties’, ‘some difficulties’ or ‘great difficulties’ with reading, writing or maths. Figure 4.4 shows that more than half of cohort members who had been assessed with Entry 2 literacy skills at age 34 had been thought to have ‘some’ or ‘great’ difficulties with reading by a parent, but this meant that nearly half had parents who did not think they had any problems at all – which would be very unlikely to be the case. By the time cohort members reached 16, just 11 per cent of mothers of those who grew up to have Entry 2 literacy thought that their child currently had difficulties with reading, with an additional 27 per cent reporting that their child had had difficulties learning to read.

Figure 4.4 Cohort members whose parents reported that they had ‘great’ or ‘some’ difficulty with reading, writing or maths at age 10 by cohort members’ grasp of literacy or numeracy



The reporting of reading difficulties by parents of children who had Level 1 or higher literacy skills at 34 was very low. Two per cent had been thought to have 'great difficulty' with reading by their mothers at age 10. At age 16, this had fallen to just 1 per cent. There was a similar pattern for reporting of writing difficulties at age 10, although overall percentages with 'some' or 'great' difficulty was lower in all groups, reflecting the lower level of importance attached to competency in writing skills in comparison with having a good grasp of reading.

Six in 10 adults with Entry 2 numeracy had been identified by their parents as having 'some' (50 per cent) or 'great' (9 per cent) difficulty with maths at school at age 10, in comparison with 1 in 4 with Level 1 or higher numeracy skills (1 per cent great difficulty, 24 per cent some difficulty).

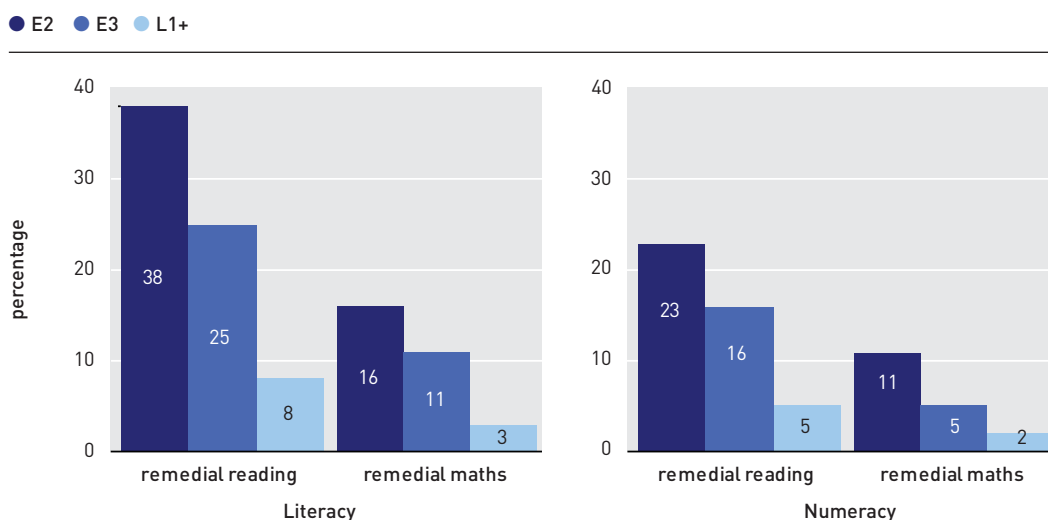
What did teachers think of cohort members' skills?

Although many parents of children who did not develop a basic competency in reading or numbers *did* identify these difficulties at age 10, half of these parents did not. As discussed, by age 16, just 11 per cent of parents of those with Entry 2 literacy thought that their child had a problem with reading. If parents don't think there is a problem then the emphasis falls on teachers to identify and address the problem.

Remedial help at age 10

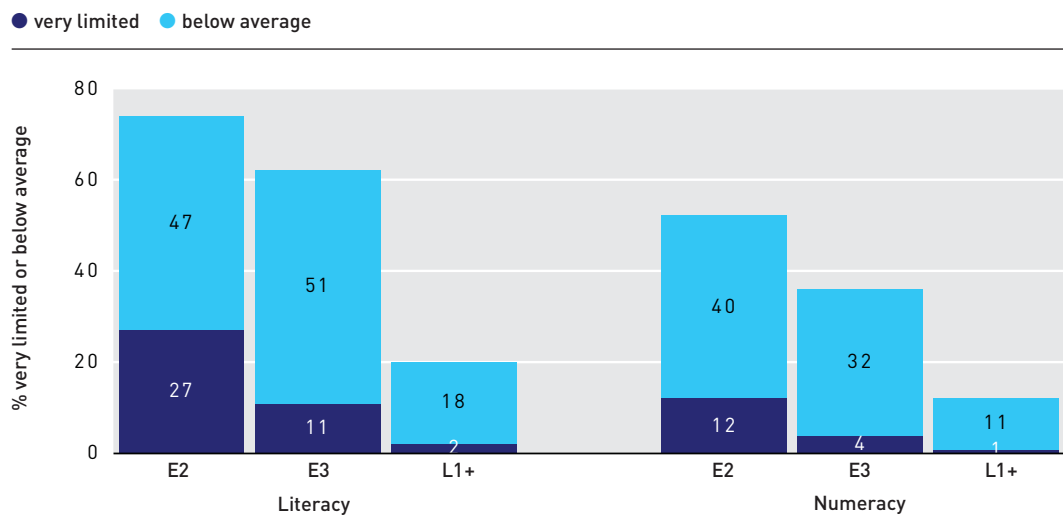
The teachers of the children when they were age 10 were asked to say whether the child received any therapeutic or special help when they were at school. Eighty-six per cent of all children received no special help at all and 14 per cent were either in a remedial class or received some kind of remedial help. Although remedial help had been received by more adults with the poorest literacy or numeracy, very many had not been identified as needing any additional help. Figure 4.5 shows that 38 per cent of adults with Entry 2 literacy and 25 per cent of adults with Entry 3 literacy had received occasional or regular remedial help for their reading development. A low 11 per cent of adults with Entry 2 numeracy had received occasional or regular remedial help for their mathematics development. This was actually highest at 16 per cent for adults with Entry 2 literacy. Eight per cent of adults with Level 1 or higher literacy had received remedial help with reading, 5 per cent of adults with Level 1 or higher numeracy had had remedial mathematics help.

Figure 4.5 Cohort members receiving remedial reading or mathematics help at school at age 10 by grasp of literacy or numeracy



Although it was not a direct measure of reading and or difficulties with numbers, teachers were also asked to rate the children’s general knowledge at age 10. Figure 4.6 shows the substantial differences that emerged by adult skills groups. Teachers of 27 per cent of cohort members with Entry 2 literacy and 12 per cent with Entry 2 numeracy thought they had ‘very limited’ general knowledge. No more than 2 per cent of adults with Level 1 or higher skills had been thought to have a ‘very limited’ general knowledge at age 10. Nearly three-quarters of teachers had correctly identified among those with the poorest literacy, if not a learning difficulty, then at least a limitation in wider learning experiences. It was the more specific needs of the children – help with reading or numbers – that teachers were less able to correctly identify.

Figure 4.6 : Teachers reporting cohort members with a ‘very limited’ or ‘below average’ general knowledge at age 10 by grasp of literacy or numeracy



When cohort members reached age 16, their teachers were again asked to rate their skills, and to say whether their reading and writing skills were appropriate for their age. Nearly all cohort members with Level 1 or higher skills were rated with average or above-average reading or writing skills, as were around 9 in 10 of those with Entry 3 numeracy and 8 in 10 of those with Entry 2 numeracy or Entry 3 literacy. Even half of those who went on to have only Entry 2 literacy in adulthood were thought to have average or above-average reading or writing skills at age 16 by their teacher. This means that, although teachers were far more likely to have identified the adults with Entry 2 literacy with reading or writing skills below that expected for their age, around half were again not thought to have any related difficulties. Figure 4.7 shows that just 31 per cent of adults with Entry 2 literacy were thought to have ‘moderately’ or ‘severely’ impaired reading skills at age 16. Figure 4.8 shows that just 16 per cent had ‘well below average’ writing skills. It seems very unlikely that half of the adults with the poorest grasp of literacy at age 34 had average or above-average reading skills when they were 16, particularly if we consider their relatively poor performance in the reading assessment at age 10 (see Figure 4.2).

Figure 4.7 : Cohort members whose teacher reported that they had below-average reading skills by cohort members' grasp of literacy or numeracy at age 34

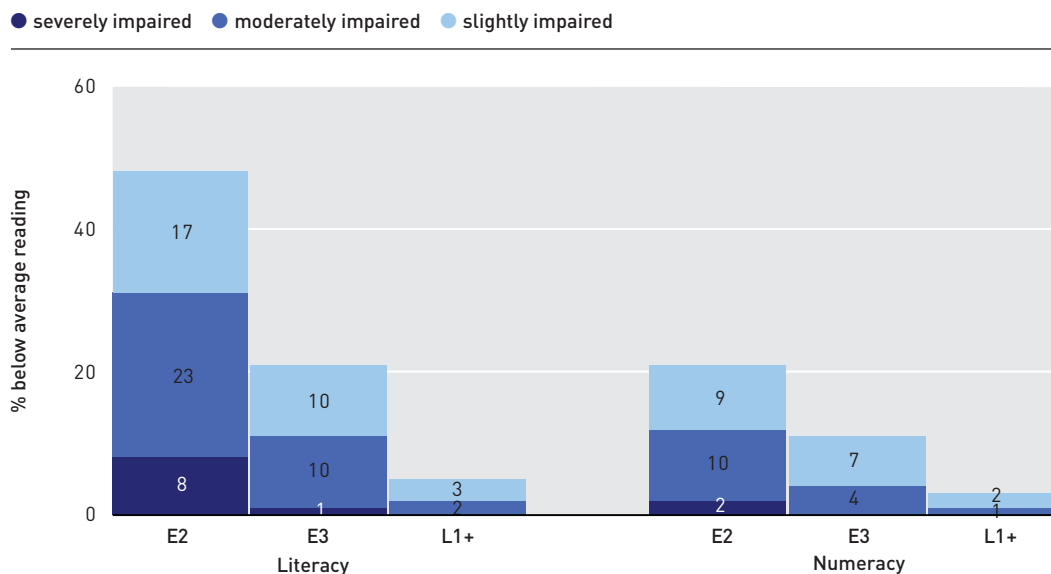
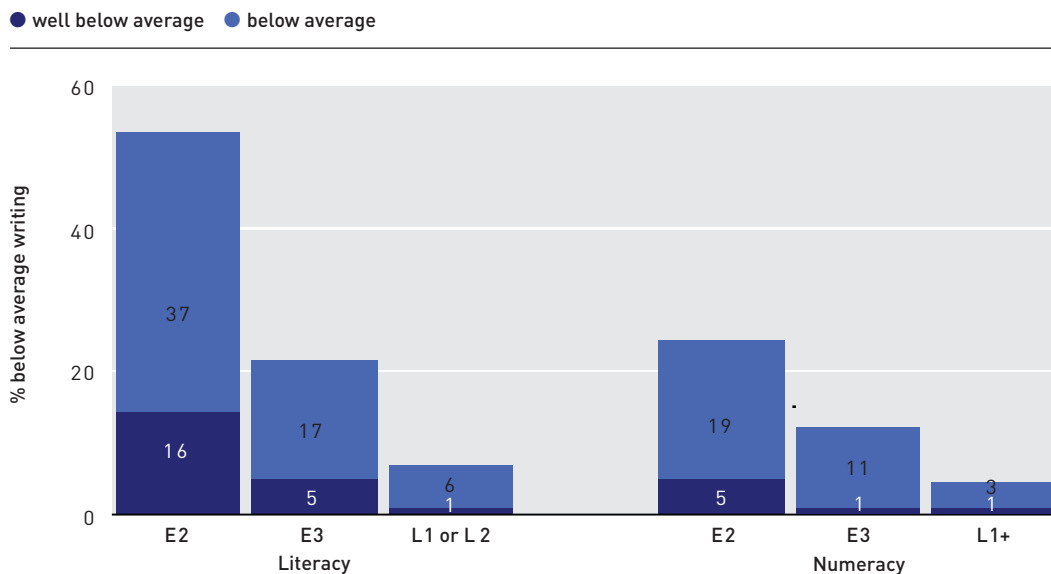


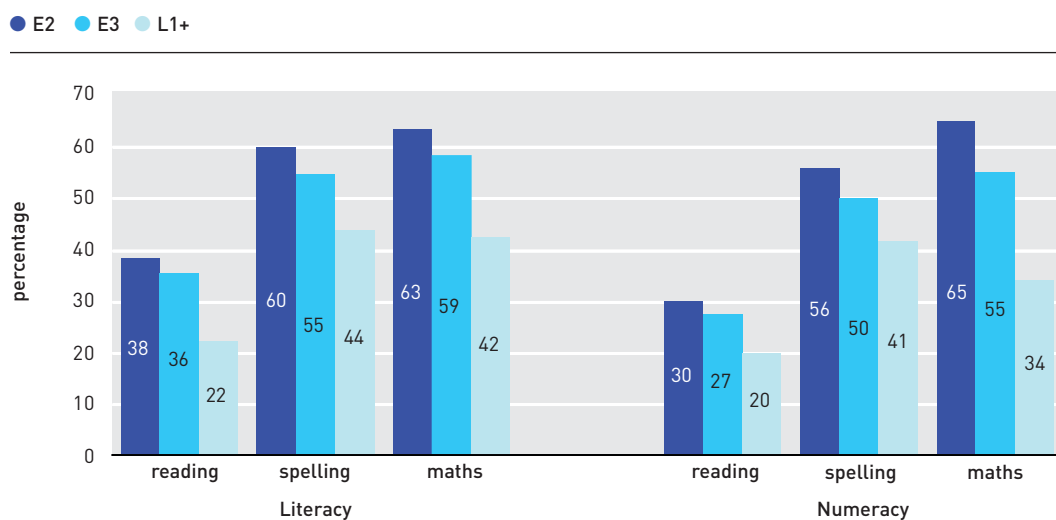
Figure 4.8 Cohort members whose teacher reported that they had below-average writing skills by cohort members' grasp of literacy or numeracy at age 34



What did cohort members think of their own skills?

Although cohort members had completed various educational and medical assessments since their birth in 1970, at age 10 they also answered a short questionnaire. This included questions on their personality, behaviour, self-esteem and on how 'well' or 'not so well' they thought they were doing in a number of subjects at school. Around 4 in 10 of all children reported that they did 'not so well' in writing, with only small differences being recorded across groups. However, Figure 4.9 shows that cohort members with Entry 2 literacy or numeracy did have some insight into their poor grasp of the basic skills as, compared to adults with Level 1 or higher skills, they were by far the most likely to report that they did 'not so well' in reading, spelling or maths. Differences were most pronounced in the percentages reporting that they did 'not so well' in maths when they were 10 by their grasp of numeracy at age 34 (65 per cent Entry 2, 34 per cent Level 1+).

Figure 4.9 Cohort members who thought they did ‘not so well’ in reading, spelling and maths when they were age 10 by their grasp of literacy or numeracy at age 34



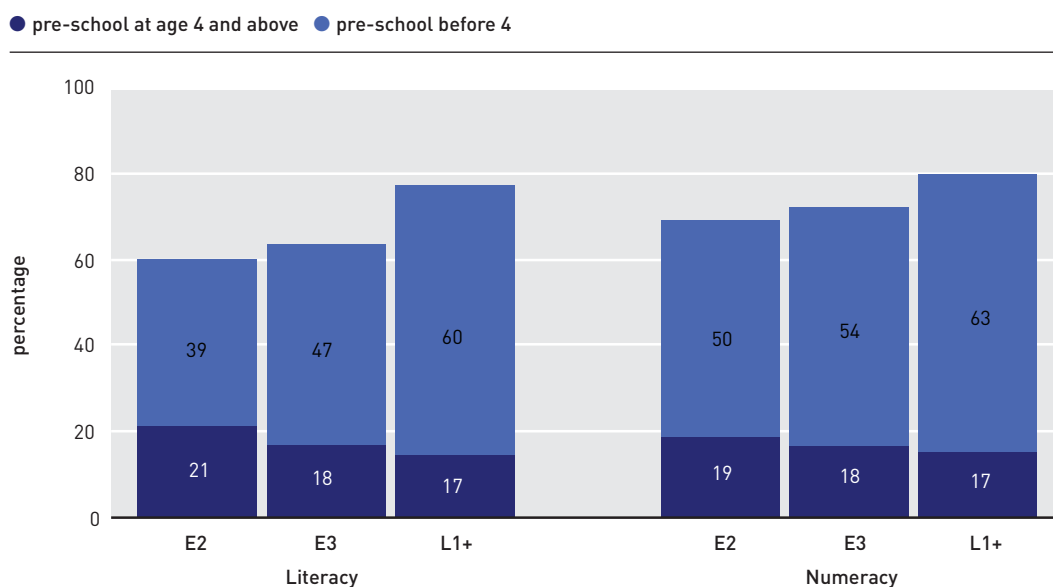
School factors

The majority of the measures on aspects of school life that might influence the development of a child’s literacy and numeracy were collected at age 10, but we do know about any pre-school experience they might have had.

Attendance at pre-school

Seventy-six per cent of all cohort members had some kind of pre-school experience such as a play-group, nursery, etc. Cohort members with Entry 2 literacy were the least likely to have had pre-school experience, particularly pre-school experience before they were age 4. Figure 4.10 shows that just 39 per cent had had pre-school experience before they were four years old in comparison with around 6 in 10 of those with Level 1 or higher skills (60 per cent literacy, 63 per cent numeracy).

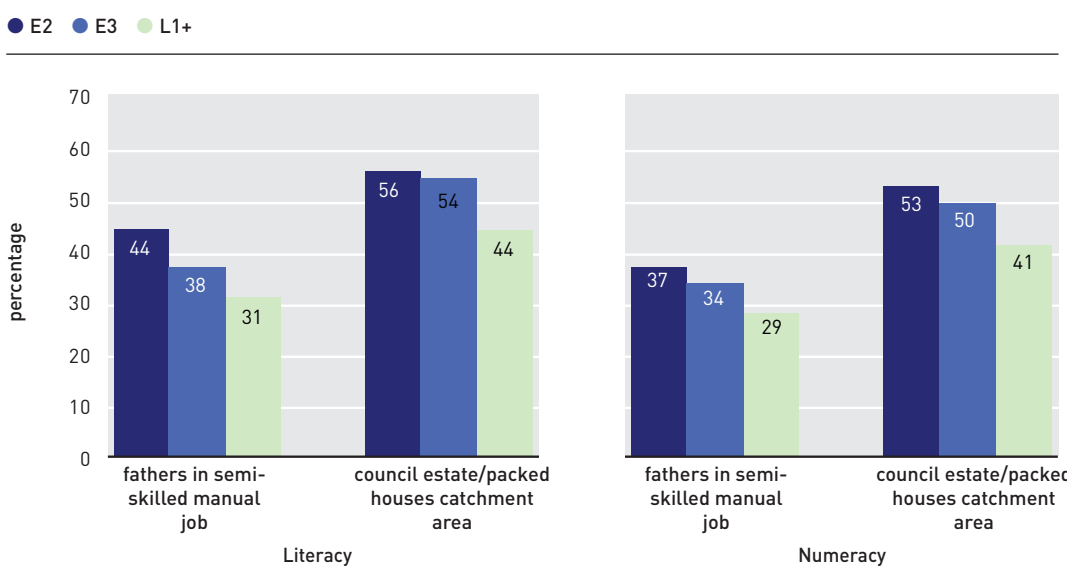
Figure 4.10 Pre-school experience by cohort members’ grasp of literacy and numeracy



Type of school at age 10

At age 10, 73 per cent of all cohort members went to a (government) maintained school. Twenty-three per cent were in voluntary controlled or voluntary aided, 3 per cent in an independent school. There was little difference across adult numeracy skills groups, although 10 per cent more children with the poorest literacy went to a maintained school in comparison with those with Level 1 or higher skills (82 per cent to 72 per cent). However, overall, the data collected from schools revealed relatively little association between school characteristics and the acquisition of basic literacy and numeracy. The style of teaching approaches employed in the classroom, such as open or traditional teaching, didactic or exploratory, planned lessons, etc, did not differ between adult skills groups, and in a regular week, all children spent an average of 4.7 hours developing reading skills²³, 5.4 hours on maths and number work. Average class size was 29, and overall academic ability of children in schools also did not differ widely across skills groups. Similar proportions were rated by the head teacher with 'above' or 'below' average ability. However, at the bottom end of ability, twice as many children in schools that adults with Entry 2 literacy attended had been rated with 'low' academic ability in comparison with schools where adults with Level 1 or higher literacy attended (12 per cent to 6 per cent). What also differed somewhat across adult skills groups were the occupations of the fathers of children in the school. In comparison with adults with Level 1 or higher skills, Figure 4.11 shows that adults with Entry 2 literacy were more likely to have gone to a school with a higher proportion of children whose fathers worked in semi-skilled manual work (44 per cent to 31 per cent). Comparable figures for numeracy groups were 37 per cent to 29 per cent. The difference in socio-economic intake of the schools cohort members went to at age 10 is further reflected by the higher proportion of children in schools where adults with the poorest literacy or numeracy went to, coming from 'council estate' or 'closely-packed, multiple-occupied houses' catchment areas (56 per cent to 44 per cent Level 1 or higher literacy; 53 per cent to 41 per cent Level 1 or higher numeracy).

Figure 4.11 **Difference in student population in cohort member's school at 10 by grasp of literacy and numeracy**



²³ This included instructional reading, reading for pleasure, poetry and literature.

Summary of early education performance and school environment

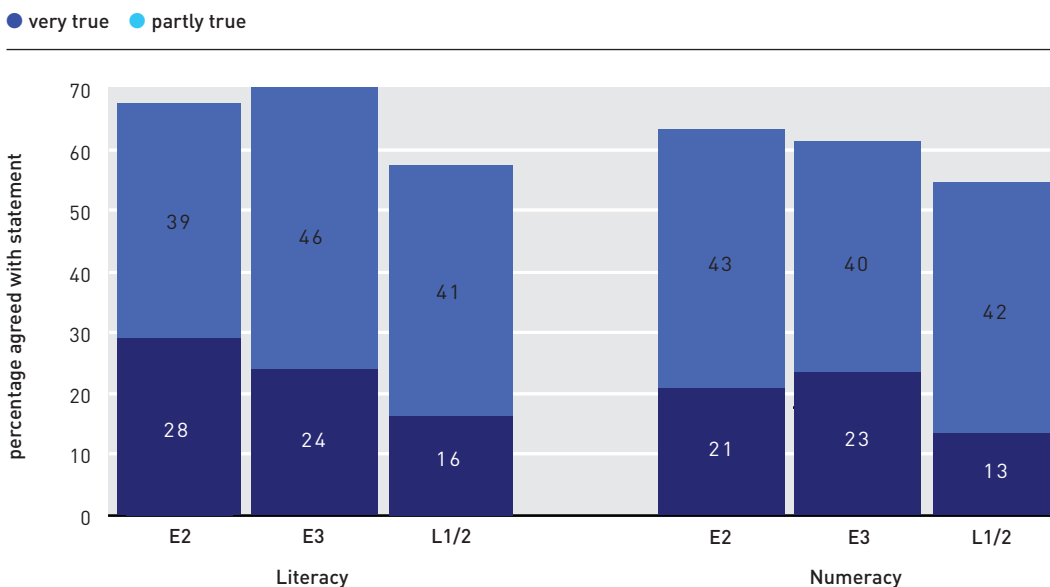
Cohort members with the poorest grasp of literacy or numeracy were less likely to have had formal pre-school experiences. As early as age 5 they had performed less well in cognitive assessments, falling further behind by age 10, as revealed by scores in the reading and maths assessments. Although half of cohort members with poor skills had been identified as such by their parents and identified themselves as having had poor skills in childhood (a far cry from the small percentages in adulthood), it still meant that the needs of half of them remained invisible. Teachers were also likely to recognise these difficulties in no more than half of those with the poorest skills, with help with reading or understanding of numbers when at school being received by relatively few (highest at 38 per cent for those with Entry 2 literacy, lowest at 11 per cent for those with Entry 2 numeracy). School intake somewhat reflected the poorer socio-economic background and local area of cohort members with the poorest grasp of skills in adulthood. But other characteristics of the school, including its teaching characteristics, did not differ across adult skills groups. What seems to be critical is what the child brings with them into the classroom that they have acquired from their family background.

5 Getting ready for life and the outside world after compulsory education

School and educational aspirations

The previous chapter highlighted the relatively poor identification of early literacy and numeracy difficulties. It is perhaps not surprising therefore to find that cohort members with the poorest grasp of literacy or numeracy expressed the most negative views on school and were the most likely to want to leave at the earliest opportunity. At age 16, they were asked many questions about their views, attitudes and aspirations, including whether they considered the statement 'I do not like school' to be 'very true', 'partly true' or 'not true at all'. Figure 5.1 clearly shows that over half of each adult literacy group partly agreed with the statement, but teenagers with the poorest literacy were the most negative about their time at school.

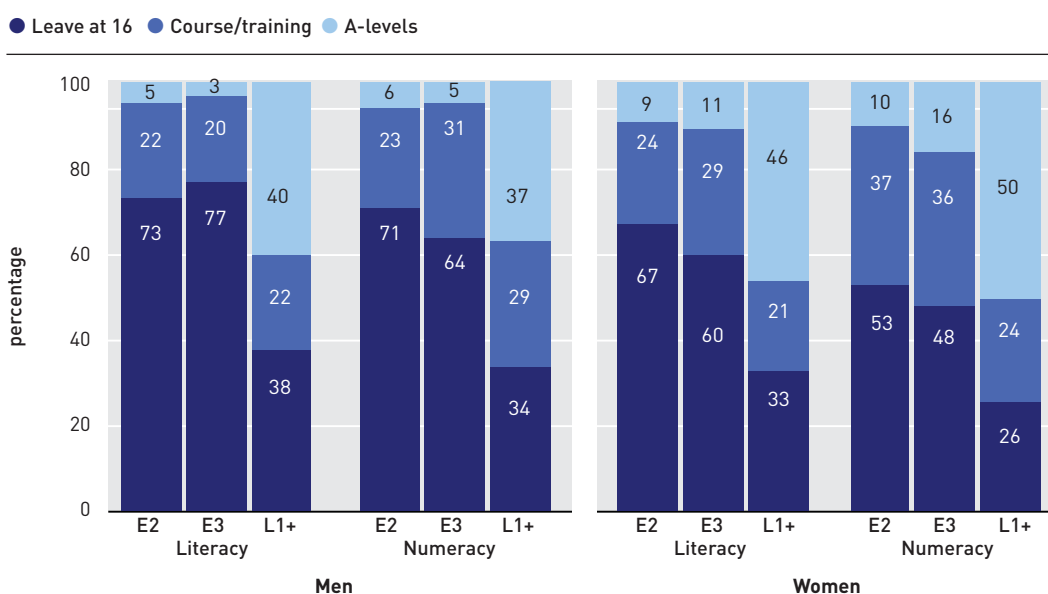
Figure 5.1 'I do not like school' at age 16 by cohort members' grasp of literacy or numeracy at age 34



We turn now to cohort members' educational aspirations following the end of compulsory education in April 1986. What did they want to be doing in the following September, the start of the next school year? We have already observed that six years earlier the parents of cohort members with Entry 2 skills were the least likely to want their son or daughter to continue in post-16 education, and Figure 5.2 shows that the cohort members themselves reflected this

view. In comparison with cohort members with Level 1 or higher skills, those with Entry level skills were twice as likely to have wanted to leave school. However, 27 per cent of men with Entry 2 literacy, 23 per cent with Entry 3 literacy and 29 per cent with Entry 2 numeracy did want to study for further qualifications or take up training opportunities, not just find employment. This increased to 33 per cent for women with Entry 2 literacy and to 40 per cent for women with Entry 3 literacy respectively, and to 47 per cent for women with Entry 2 numeracy. This compared with the 62 per cent of men with Level 1 or higher literacy and the 67 per cent of women with Level 1 or higher numeracy who wanted to study for further qualifications or take up training opportunities.

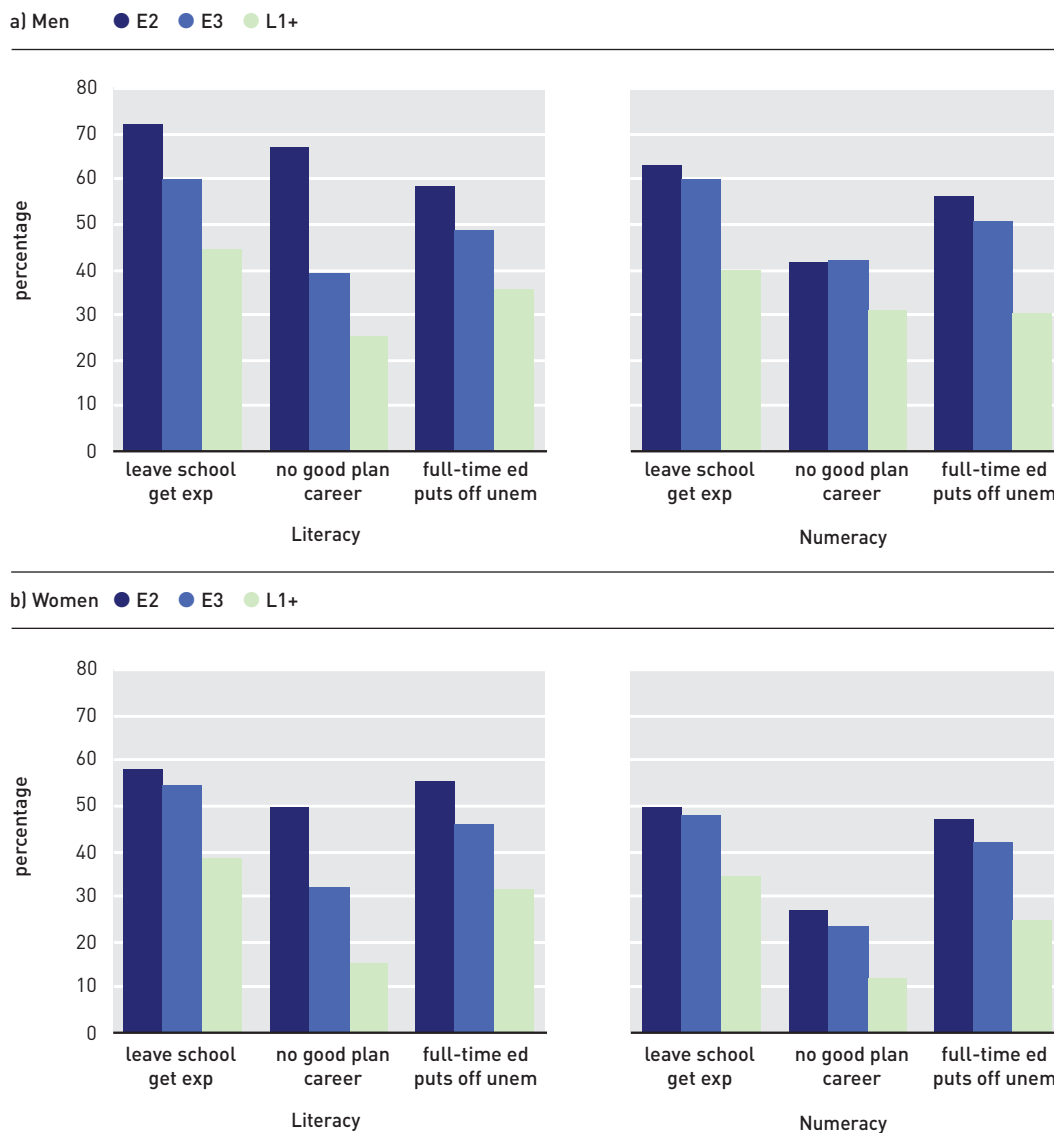
Figure 5.2 Cohort members' own post-16 education and training aspirations by grasp of literacy or numeracy



Views on the value of education, training and work

How did the cohort members as teenagers view their next step, which for many – particularly those with Entry level literacy or numeracy – would be into the changed and precarious world of work and training that was on offer to early school-leavers in the mid-1980s? A set of questions posed to them at age 16 revealed marked differences as to what was needed to gain employment. Men and women with Entry 2 skills were far more likely than men and women with Level 1 or higher skills at 16 to have ‘agreed fully’ or ‘agreed partly’ that ‘full-time education only put off unemployment’, that it was ‘best to leave school as soon as possible to get some experience’, that ‘job experience was more important than qualifications’ and that it was ‘no good planning a career as there were not enough jobs’. Perhaps realistically, more of those with Entry level skills also believed that it was ‘not what you knew, but who you knew’ that mattered in getting a job. Overall, men with Entry 2 literacy held the most negative views towards these aspects of employment at age 16; women with Level 1 or higher numeracy held the most positive views. Figure 5.3 displays a selection of these results.

Figure 5.3 Percentage who agreed with negative views on aspects of education and employment at age 16 by grasp of literacy and numeracy



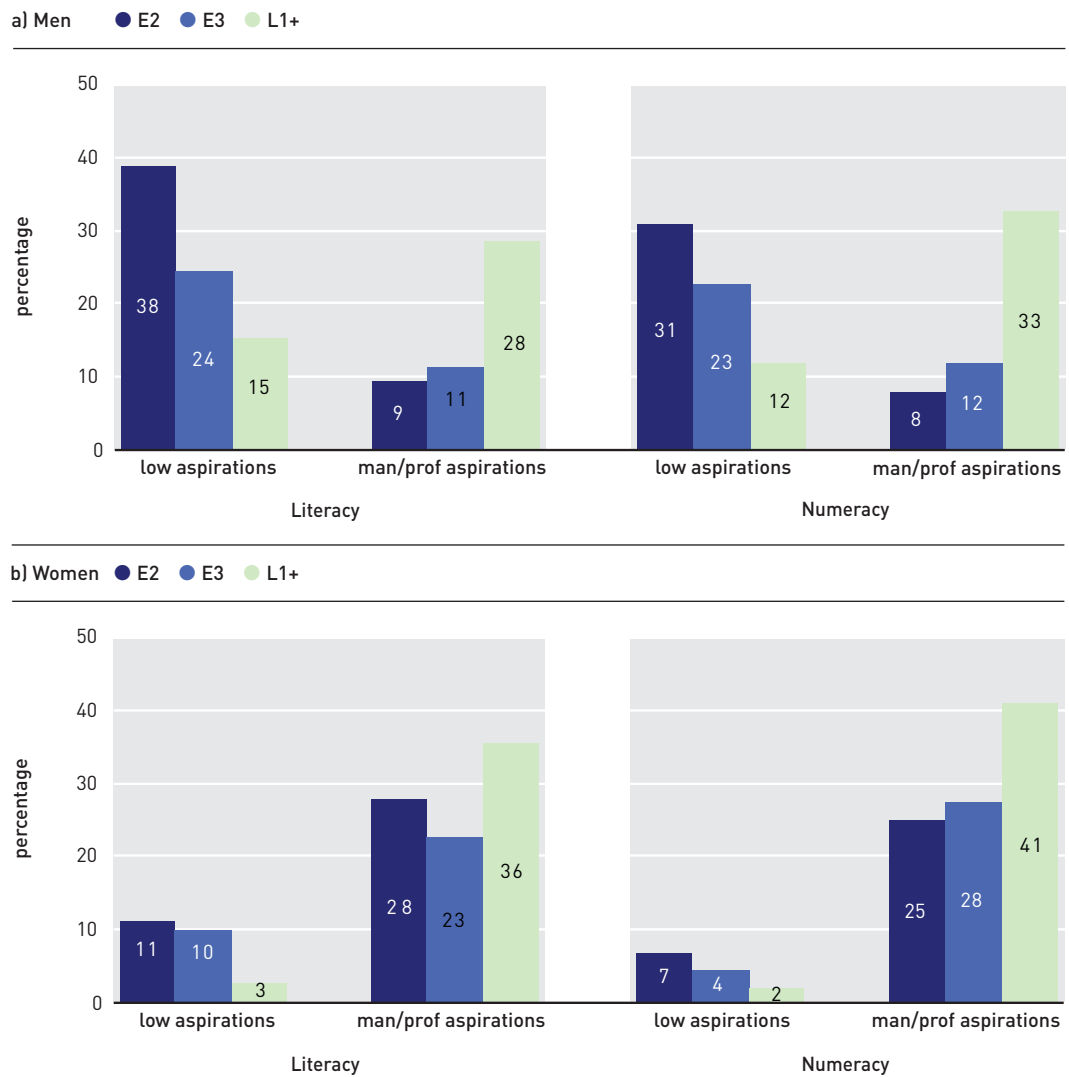
Early career aspirations

This air of negativity and to some extent disillusionment carried through to their career aspirations. Figure 5.4 shows that among men, those with Entry 2 skills were at least twice as likely to have had *low* career aspirations²⁴ at the age of 16 as men with Level 1 or higher skills (38 per cent to 15 per cent literacy, 31 per cent to 12 per cent numeracy); women were three times less likely (11 per cent to 3 per cent literacy, 7 per cent to 2 per cent numeracy). Reflecting their lack of skills and poorer socio-economic background, men with Entry 2 literacy were one third as likely to have aspirations towards a managerial or professional career in comparison with men with Level 1 or higher literacy skills (9 per cent to 28 per cent). Men with Entry 2 numeracy were a quarter as likely as those with Level 1 or higher numeracy (8 per cent to 33 per cent). Differences for women across skills groups were not as apparent, perhaps reflecting the 'white-collar' office-based job aspirations of many women

²⁴ Low career aspirations here refer to teenagers reporting that their first or joint first choice for a job was in the service industry, on an assembly line, in maintenance or transport.

rather than the more physical, manual work that was more readily available as an alternative for less skilled men.

Figure 5.4 Cohort members with low or high career aspirations at age 16 by their grasp of literacy or numeracy at age 34



More generally, at age 16, cohort members answered a set of questions about what sort of job they wanted in terms of content, environment and economic return. What ‘mattered very much’, ‘mattered somewhat’ or ‘didn’t matter’? High earnings were more important to the teenage boys than the girls, but there were no marked differences across groups, and an understanding boss mattered very much to 2 out of 3 of all teenagers. In comparison with men with Level 1 or higher skills, aspects of future work that mattered very much for men with Entry 2 literacy skills were working outside in the open (38 per cent to 9 per cent), doing work that involved making or building something (40 per cent to 15 per cent) and working for themselves (38 per cent to 9 per cent). This is perhaps an early acknowledgement that the best chance of employment and economic success may be outside the regular employment market. Long-term job security also mattered less to men with Entry 2 literacy (43 per cent to 63 per cent).

As was the case for men, differences among the women were most marked across literacy

groups. In comparison with women with Level 1 or higher skills, women with Entry 2 literacy were least likely to be seeking an interesting job (53 per cent to 75 per cent reported it mattered 'very much') or a job that offered long-term security (27 per cent to 53 per cent), but were most likely to say that they wanted a job with regular hours (57 per cent to 30 per cent) and one that offered a 'quiet life' (25 per cent to 5 per cent literacy).

Summary of getting ready for life and the outside world after compulsory education

At age 16, men and women with Entry level skills were the most likely to be disillusioned with school and the great majority wanted to leave education at the first opportunity. They were four times more likely than those with Level 1 or higher skills to hold negative views on the value of education for future employment opportunities and on their chances of success in the changed youth labour market of the mid-1980s. In comparison with men who had Level 1 or higher skills, men with Entry level skills were more likely to hold low career aspirations and far less likely – though perhaps realistically – to hold professional or managerial job hopes. Men with Entry 2 literacy were the most disillusioned and disappointed group of all. Men and women with Level 1 or higher numeracy were the most positive about their prospects and had the higher aspirations.

6 Post-16 education and learning experiences

From this point on we focus on differences across the performance levels in cohort members' experiences from age 16 up to age 34. We expand the analyses from what was included in *New Light* and take a more comprehensive look at differences between skills groups in the timing of relationships, parenthood, the move to independent living and experiences in the labour market. We consider first when qualifications were gained, post-16 education and access and use of computers and the internet in a home environment.

Leaving full-time education and gaining qualifications

We see the educational aspirations of both parents and cohort members reflected in the age when they actually left full-time education. Fifty per cent of men and 42 per cent of women had left full-time education by the time they were 16. Figures 6.1 and 6.2 show that this departure from education by age 16 increased to 80 per cent for men with Entry 2 literacy and 70 per cent for men with Entry 3 literacy and Entry 2 and 3 numeracy. For women, around two-thirds with either Entry 2 or 3 literacy (69 per cent) and Entry 3 numeracy (62 per cent) had left full-time education by age 16. The most likely to have spent time in post-16 education were women with Level 1 or higher numeracy – just 30 per cent had left at age 16.

Figure 6.1 Percentage remaining in full-time continuous education after age 16 by grasp of literacy

● E2 ● E3 ● L1+

a) Men

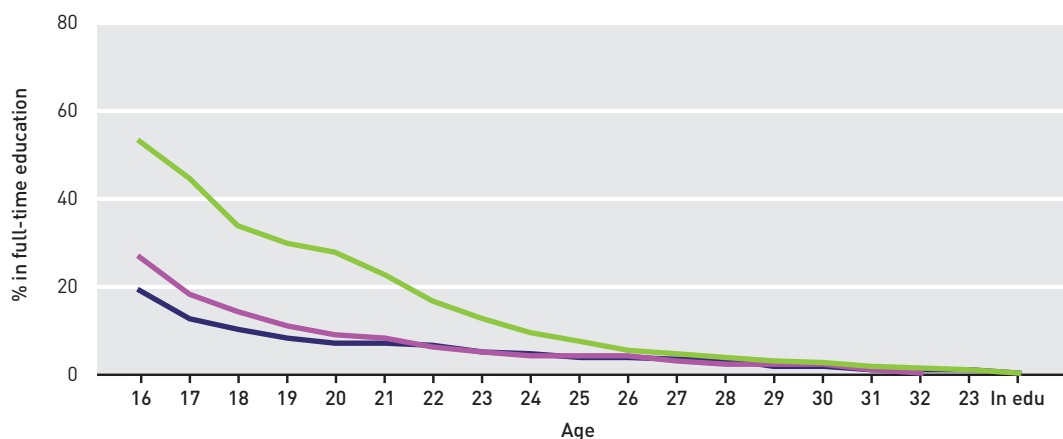


Figure 6.1 Continued

● E2 ● E3 ● L1+

b) Women

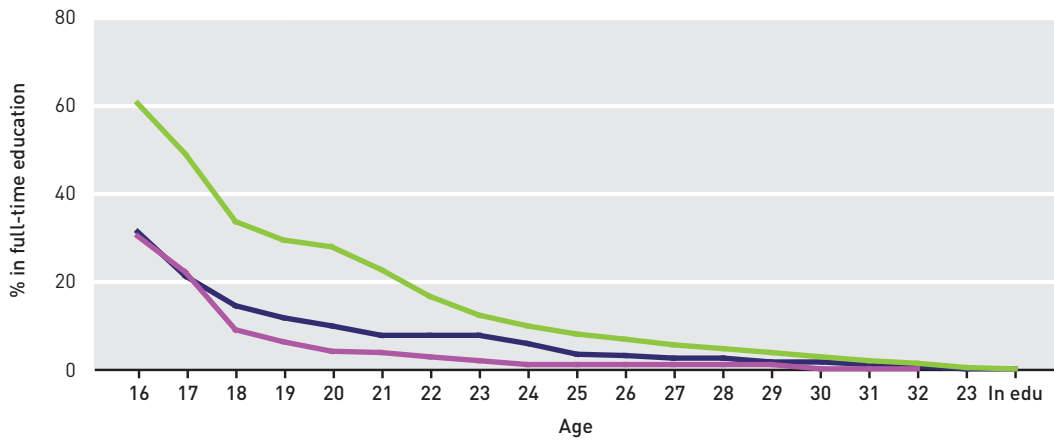
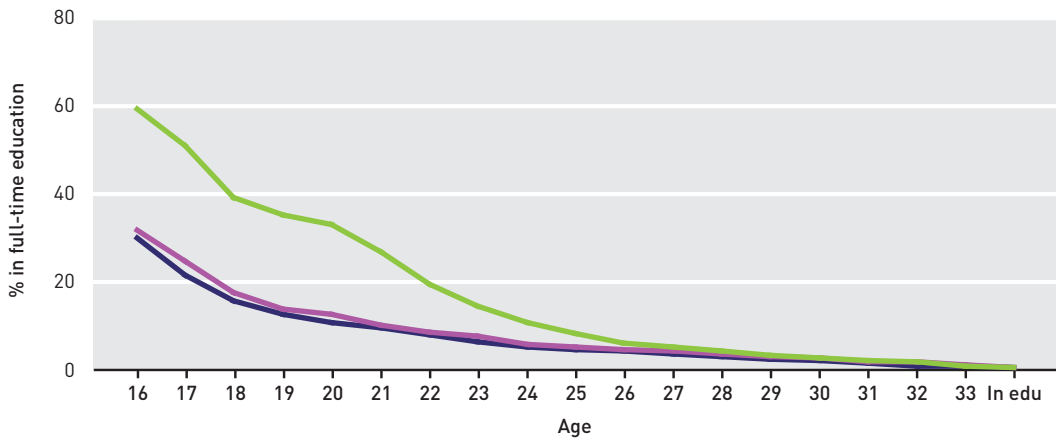


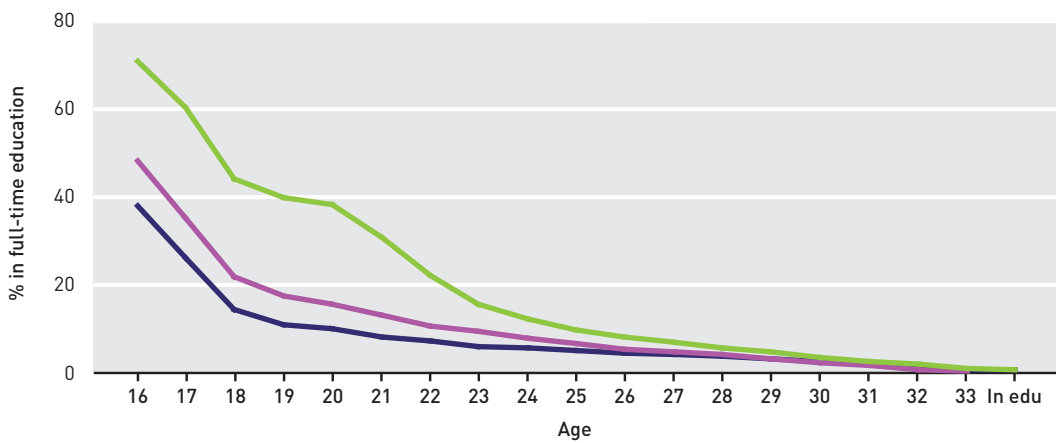
Figure 6.2 Percentage remaining in full-time continuous education after age 16 by grasp of numeracy

● E2 ● E3 ● L1+

a) Men



b) Women

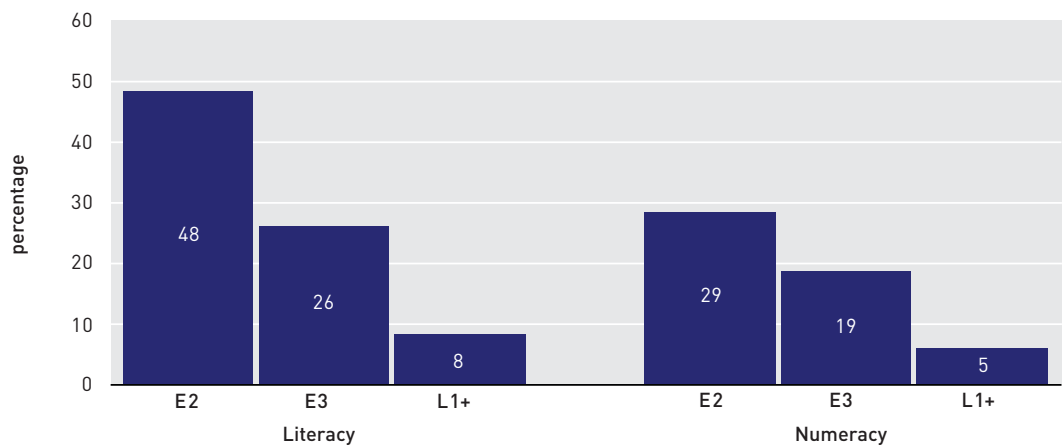


As expected, the *New Light* report showed considerable differences in highest achieved academic qualification between the literacy and numeracy skills groups. Whereas more than one in four men and women (26 per cent and 29 per cent respectively) with Level 1 or higher literacy had a degree (or higher), just 4 per cent of men and 7 per cent of women with Entry 2 literacy and 6 per cent of men and 5 per cent of women with Entry 3 literacy were qualified at this level. Differences by numeracy for those holding a degree-level qualification were even greater: 33 per cent of men and 41 per cent of women with Level 1 or higher numeracy held a degree compared with 5 per cent of men and 8 per cent of women with Entry 2 numeracy.

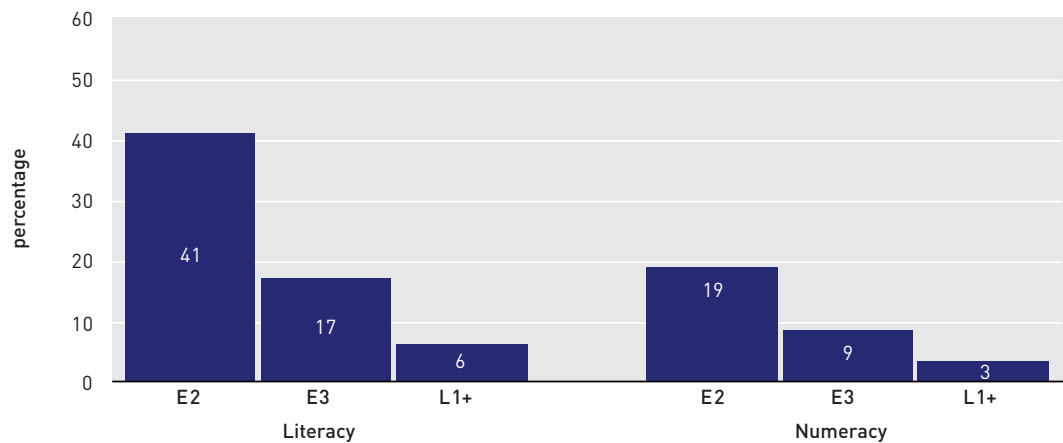
At the other end of the academic scale, Figure 6.3 shows that nearly 48 per cent of men with Entry 2 literacy and nearly 29 per cent with Entry 2 numeracy had no academic qualifications at all, compared with just 8 per cent of men with Level 1 or higher literacy and 5 per cent of men with Level 1 or higher numeracy. Women with Level 1 or higher numeracy were the least likely to lack qualifications (3 per cent).

Figure 6.3 **Men and women with no academic qualifications or a degree (or higher) by grasp of literacy and numeracy**

Men ● no qualifications



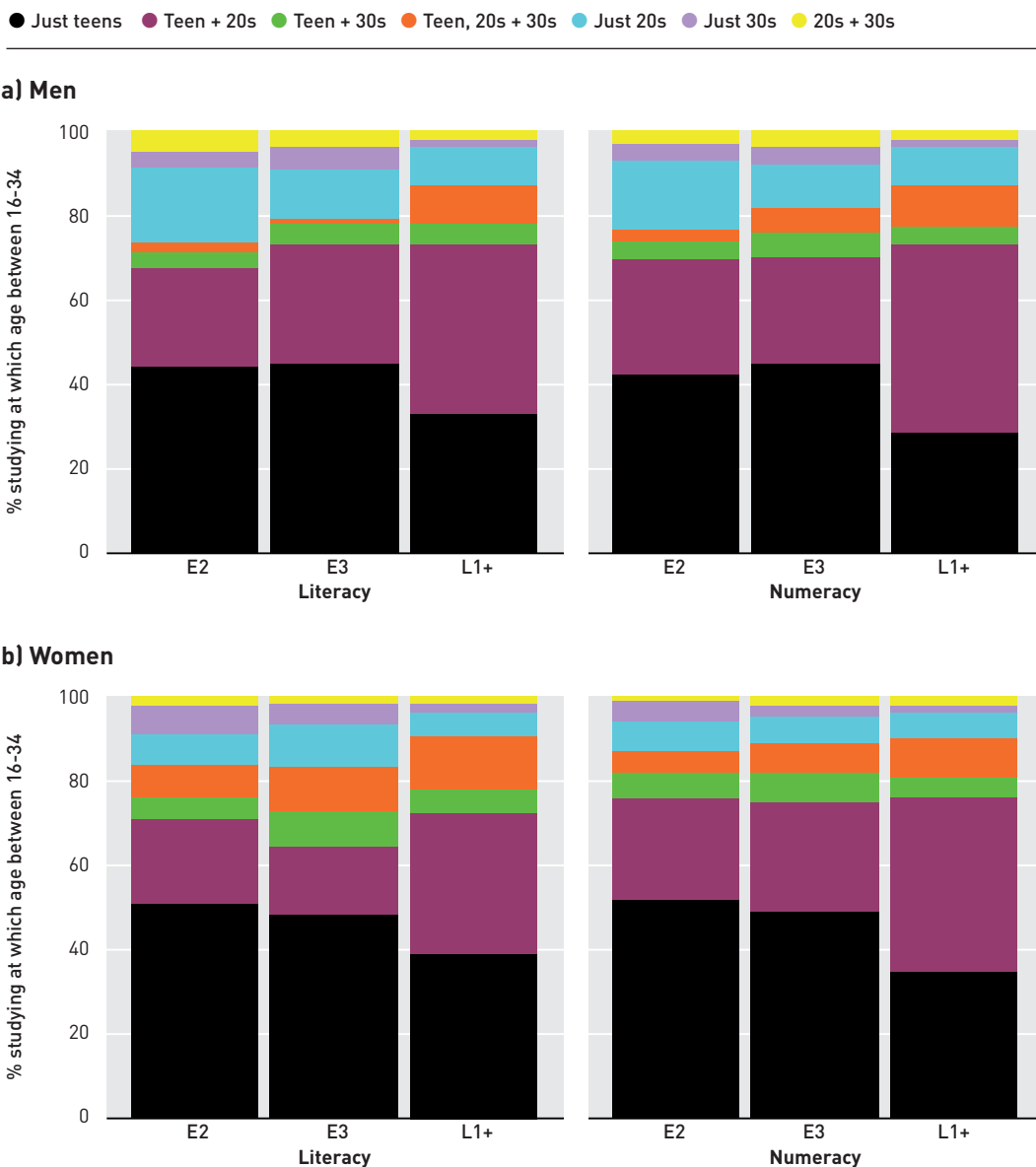
Women ● no qualifications



When in the lifecourse were qualifications – highest and otherwise – attained? In the surveys of cohort members that took place in 2000 and 2004, detailed information was collected about all qualifications each participating cohort member had achieved between age 16 and 34.

Figure 6.4 shows that men and women with Entry level skills who had gained some kind of qualification were most likely to have only gained these qualifications as a teenager, presumably when still in full-time compulsory education. However, a significant number, particularly men, had returned to education and gained their first qualifications in either their 20s or their 30s. Men and women with Level 1 or higher literacy or numeracy had a more continuous relationship with education, being the most likely to have first gained qualifications as a teenager and then continued to accrue qualifications in their 20s and/or 30s. Men with Level 1 or higher literacy or numeracy had gained qualifications during each of these three decades – their teens, 20s and 30s compared with no more than 1 in 50 men with Entry 2 or 3 literacy and 1 in 33 men with Entry 2 numeracy. Differences among women followed the same pattern but were less pronounced.

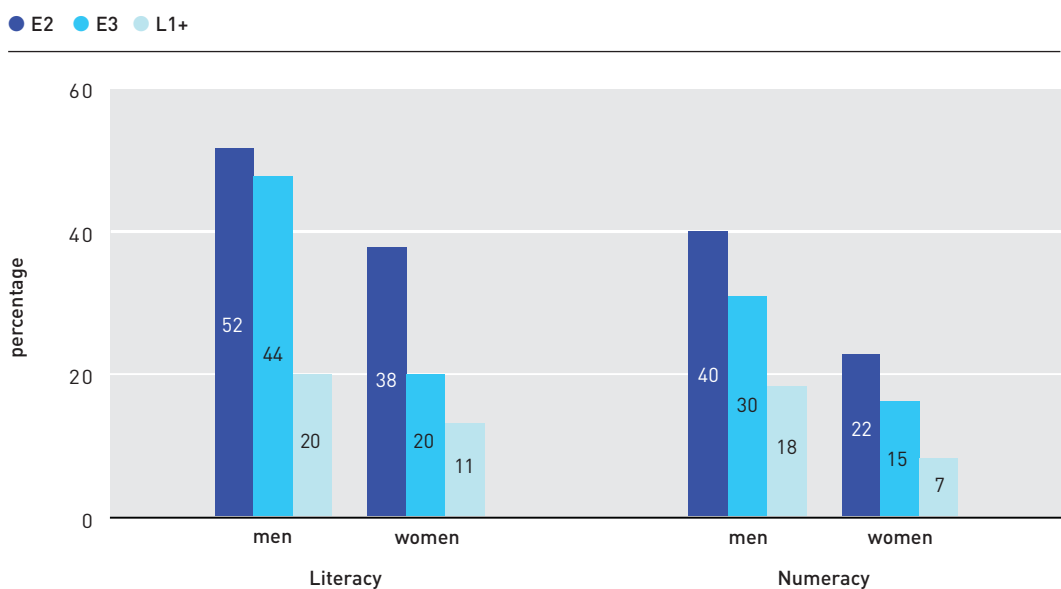
Figure 6.4 **When qualifications were gained by grasp of literacy and numeracy**



Reading practices at age 34

Learning, as captured by qualifications gained, was less continuous among adults with the poorest literacy and numeracy. But what about general information gathering, on a day-to-day basis, from written materials – either in print or digital form? Reading practices comprise the application of reading and numerical skills in everyday life. We asked all men and women how often they read magazines, newspapers and books: every day, most days, once in a week, once in a month, less often than that, or never. Forty-four per cent of all men and 32 per cent of all women read a magazine or newspaper every day, with only small differences emerging across skills groups. Men and women with Entry 2 literacy were the most likely to report that they never read a magazine or newspaper; men and women with Level 1 or higher skills were the least likely (13 per cent men, 8 per cent women). However, differences across skills groups in how often a book was read were marked. Book reading was less common than magazine or newspaper reading among 34-year-olds, with 25 per cent of women and just 14 per cent of men picking up and reading a book every day. This fell to just 11 per cent of women and 4 per cent men with Entry 2 literacy. Figure 6.5 shows that 52 per cent of men and 40 per cent of women with Entry 2 literacy *never* read a book. Men and women with Level 1 or higher numeracy were the least likely to report that they never read a book (11 per cent men, 7 per cent women). However, on a more positive note, it did mean that around half of the men and women with the poorest literacy did occasionally pick up a book for enjoyment or information.

Figure 6.5 Percentage never reading books by grasp of literacy or numeracy

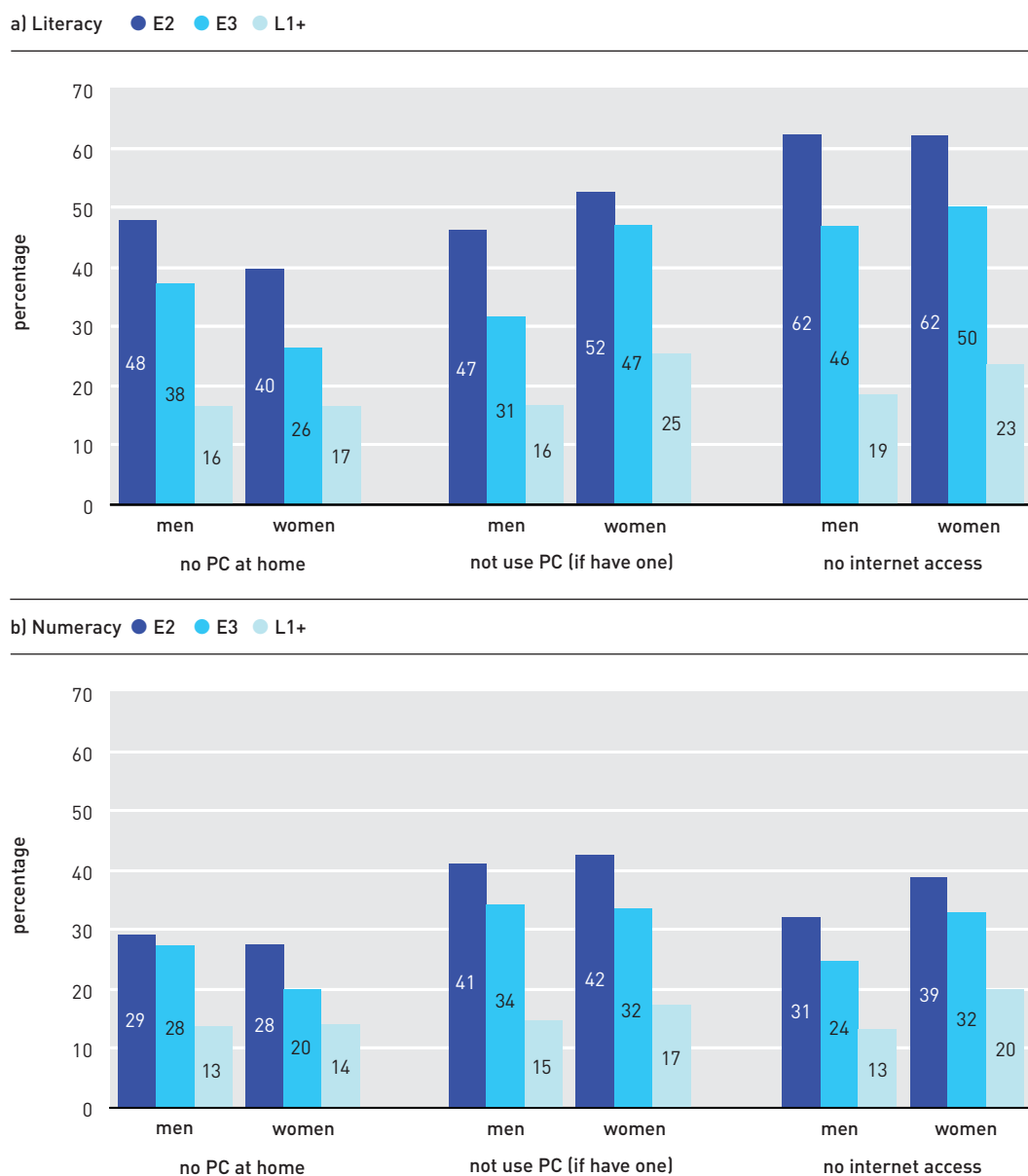


Inclusion in the digital revolution

Computer use and internet access have become almost an essential tool for modern living; to not have an email address is becoming more excluding for men and women across all generations. Among our 34-year-olds, men and women with poor literacy and numeracy were the most likely to not have a computer at home. This ‘digital divide’ was most apparent across literacy groups, a reflection of the more disadvantaged socio-economic circumstances that surround men and women with Entry 2 literacy. Figure 6.6 shows that 48 per cent of men and 40 per cent of women with Entry 2 literacy did not have a computer in their home compared

with just 16 per cent of men and 17 per cent of women with Level 1 or higher literacy. Among those who did have a computer in their home, actual use was far less frequent among those with poor literacy and numeracy. Around half of those with Entry 2 literacy who had a computer at home used it less than once in a week (47 per cent men, 52 per cent women). This compared with 16 per cent of men and 25 per cent of women with Level 1 or higher literacy skills. Around 1 in 4 households (21 per cent men, 26 per cent women) did not have access to the internet. This increased to 62 per cent for men and women with Entry 2 literacy, and 46 per cent for men and 50 per cent for women with Entry 3 literacy. Most likely to have access to the internet at home were men with Level 1 or higher numeracy – just 13 per cent had no access.

Figure 6.6 Evidence of the 'digital divide' by grasp of literacy or numeracy



Summary of post-16 education and learning experiences

Men and women with the poorest grasp of literacy or numeracy were by far the most likely to have left full-time education at the earliest opportunity with no qualifications. This combined educational disadvantage was most apparent among those with Entry 2 literacy. However, more than half of men and women with Entry level literacy or numeracy did have qualifications, but they were the most likely to have gained them exclusively in their teenage years. However, a sizeable proportion of men with Entry 2 skills did gain their first qualification(s) when in their 20s. They were motivated to return to learning at a later date despite the negative views on school and education the majority reported when in their teenage years. Men and women with Level 1 or higher skills had a more continuous relationship with education and the acquisition of qualifications.

Although men and women with Entry level skills were as likely as those with higher skills to read newspapers and/or magazines, they were the most likely to never pick up a book. However, the fact that nearly half of men and just over half of women with Entry 2 skills do occasionally pick up a book is encouraging. Perhaps of more concern, however, was the exclusion of adults with the poorest skills, particularly literacy, from the digital revolution that has taken place over the last decade. In comparison with those with Level 1 or higher skills, far more men and women with Entry 2 skills were without a computer or access to the internet at home. Even if there was a computer in the home, they were the least likely to use it on a regular basis. Inclusion of a digital element within a basic skills class may be another way to interest adults to come to classes to improve their literacy or numeracy.

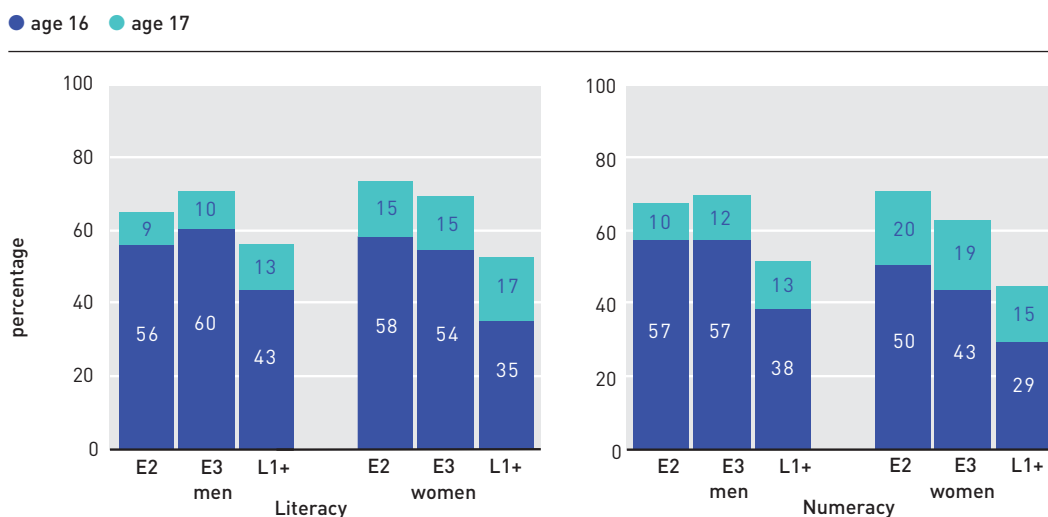
7 Working life and occupational disadvantage

In this chapter we look at the first job cohort members held when first entering the workforce after leaving school potentially in 1986 when they reached 16, and their engagement in the labour market over the following 18 years. We conclude by looking at the occupation they currently held at the time of interview in 2004.

Age at first job

One per cent of men and 2 per cent of women had never worked by the time they were 34. This was highest at 11 per cent of men and women with Entry 2 literacy and 5 per cent with Entry 2 numeracy. Among those who had ever worked, in line with their earlier exit from full-time compulsory education, men and women with below Level 1 literacy or numeracy were the first to enter the labour market. Figure 7.1 shows that at least half of men and women with Entry 2 or 3 literacy began working when still 16. More than half of men with Entry 2 or 3 numeracy and women with Entry 2 numeracy had also entered the workforce at age 16. By the end of their teenage years, more than 8 in 10 men and women with Entry level skills had begun their working lives. Entrance to the workforce at age 16 was lowest for men and women with Level 1 or higher numeracy – 38 per cent men and 29 per cent women. By age 19 around three-quarters of men and women with Level 1 or higher skills had taken their place in the workforce.

Figure 7.1 Age men and women entered workforce by literacy or numeracy



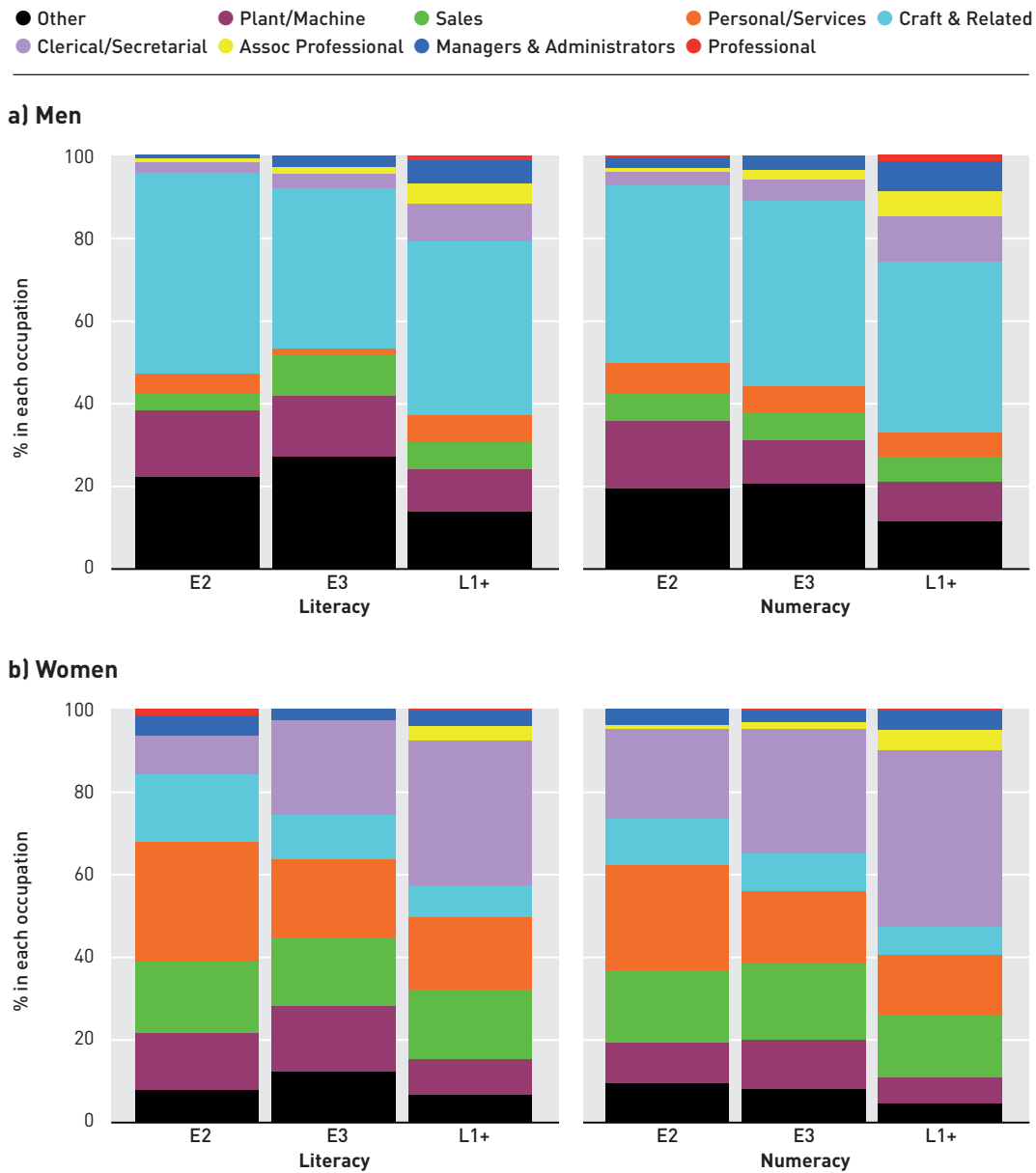
First Job

The first job of men and women with Entry level skills, including those on training schemes²⁵, reflected their limited education and few qualifications. To create a more level playing field in terms of education, we compare first jobs among those who had entered the workforce at age 16. Figure 7.2 shows that of the nine classified occupation groups, around 4 in 10 men in each of the literacy and numeracy skills groups had their first job within the Skilled Trade group of occupations (painters and decorators, plumbers, electrical engineers, butchers). Men with Entry level skills were the most likely to have found a job within the Plant/Machine group (working on an assembly line, as exhaust fitters or in road/rail maintenance) or in the myriad unskilled jobs classified under 'Other' occupations (labourers, packers, kitchen assistants). At the other end of the occupation scale, 21 per cent of men with Level 1 or higher literacy and 26 per cent with Level 1 or higher numeracy entered the workforce in a 'white collar' office-based occupation classified as Professional, Associated Professional, Managerial or Clerical. This compared with just 4 per cent of men with Entry 2 literacy and 7 per cent of men with Entry 2 numeracy who had entered this kind of occupation.

More than half of all women entered the workforce at age 16 in either a Clerical/Secretarial or a Personal/Services occupation (care assistant, nursing auxiliary, hairdresser). However, Figure 7.2 shows that in comparison with women who had Level 1 or higher skills, women with Entry 2 skills, particularly literacy, were the least likely to have had an office-based Clerical/Secretarial job (9 per cent to 35 per cent literacy, 22 per cent to 43 per cent numeracy) and more likely to have had a job in the Personal/Services sector (30 per cent to 17 per cent literacy, 25 per cent to 15 per cent numeracy). Women with Entry 2 skills were twice as likely as women with Level 1 or higher skills to have entered work in traditional 'male' Skilled Trade occupations (16 per cent to 8 per cent literacy; 11 per cent to 6 per cent numeracy). Very few women entered the workforce in an occupation classified as Professional, Associated Professional or Managerial.

²⁵ Many cohort members did not distinguish between their first paid training scheme and first paid employment.

Figure 7.2 First job on entrance to the workforce at age 16 by grasp of literacy and numeracy



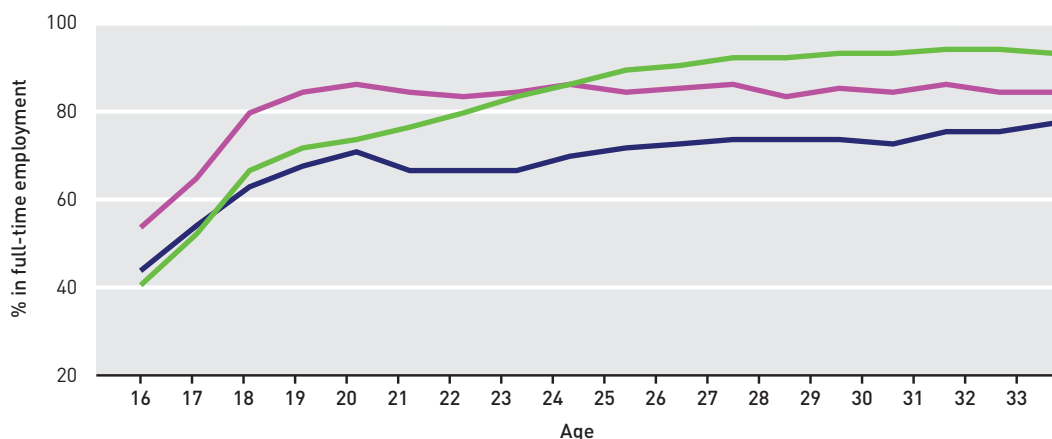
Working life

What happened in later working life? Between April 1986, when cohort members turned 16 and could leave full-time education, and March 2004, the month before their 34th birthday, there were 18 years of possible economic activity. In the graphs below, we first chart the percentage of men and women who spent the most part of any one year in full-time employment between their 16th and 34th birthdays. We then detail the proportion of time spent in each economic 'status' such as full-time paid employment, full-time home-care role, education, training, unemployment, etc, during the 18-year period.

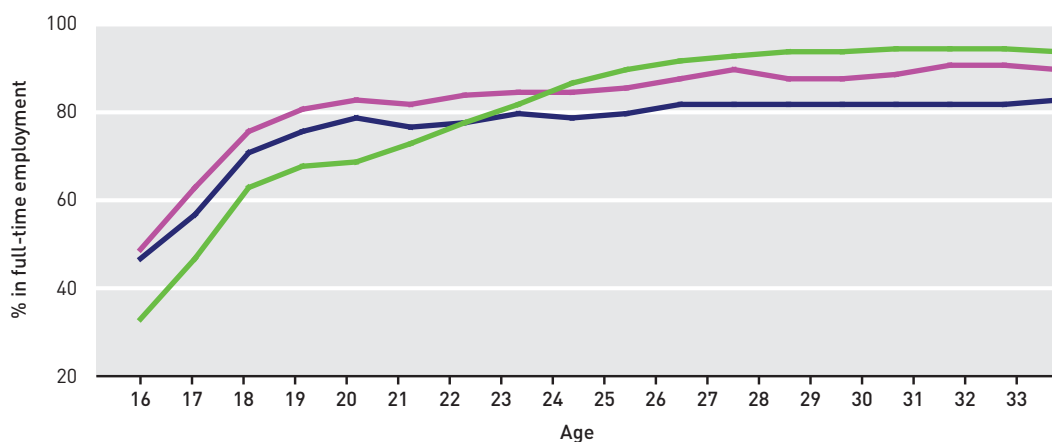
Figure 7.3 Percentage of men in full-time employment from April 1986 (age 16) up to March 2004 (age 33) by literacy and numeracy

● E2 ● E3 ● L1+

a) Literacy



b) Numeracy



Men: employment between age 16 and 34

Figure 7.3 shows that in each year from the time they turned 16, fewer men with Entry 2 literacy or numeracy were engaged in full-time work in comparison to men with Entry 3 literacy or numeracy. From age 24, once further education and training experiences had for the main been completed, men with Level 1 or higher skills were consistently the most likely to be in full-time work. Taken over the complete 18 years, men with Entry 2 literacy spent an average of 12 years in full-time employment compared with more than 14 years for men with Entry 3 or higher skills. Taking this further, Figure 7.4a shows the percentage of time spent in each economic activity by men across the literacy and numeracy groups. As before, we restrict the analyses to men who left full-time continuous education at age 16. Figure 7.4b shows that for men, time spent in full-time employment was pretty equal across groups, with the exception of men with Entry 2 literacy, for whom the figure was much lower. However, whereas time not in full-time employment was largely spent in full-time education by men with Level 1 or higher literacy or numeracy, for men with Entry level skills, time was spent across a number of other activities, with unemployment, government training and sickness all featuring. The more disrupted working lives of men with Entry level skills is very evident when we look at the number of episodes of unemployment that were experienced from first entering the labour market. Forty per cent of men with Entry 2 literacy had experienced at

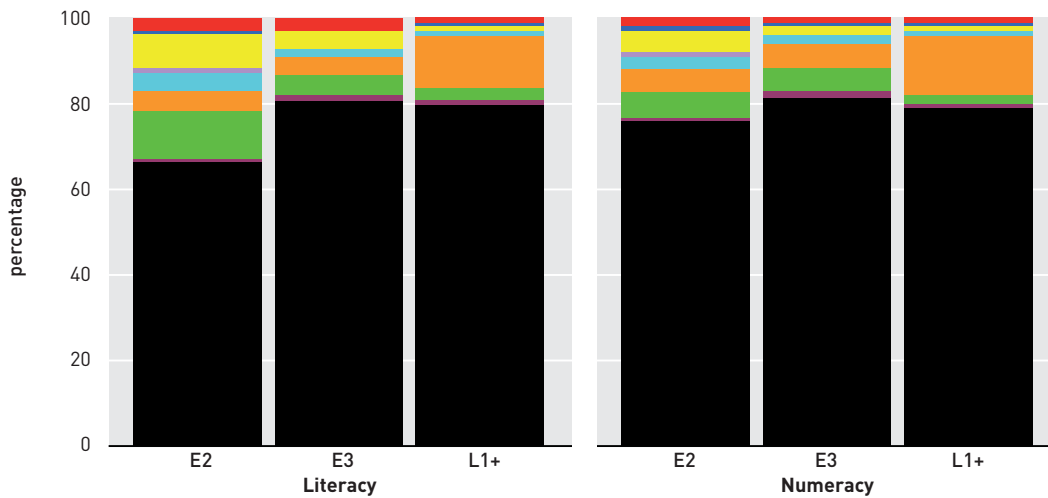
least one spell of unemployment compared to 34 per cent of men with Entry 1 or higher literacy. Men with Entry 2 literacy were three times as likely as men with Level 1 or higher skills to have experienced three or more spells of unemployment, or indeed four or more spells. Between numeracy groups, men with Entry 2 (or Entry 3) skills were twice as likely as men with Level 1 or higher skills to have experienced 3+ or 4+ spells of unemployment. Even when restricting the analysis to men who had left full-time education at age 16, differences between groups remained roughly the same. For example, 3+ spells of unemployment was experienced by 12 per cent of men with Entry 2 literacy compared with 5 per cent of men with Level 1 or higher literacy skills.

Overall, nearly two years had been spent unemployed by all men with Entry 2 literacy (23 months), twice the time spent by men with Entry 3 literacy (12 months) and four times that of men with Level 1 or higher skills (six months). Men with Entry 2 numeracy had spent 13 months unemployed compared to just four months in the case of men with Level 1 or higher skills. Differences remained as wide among early school-leavers.

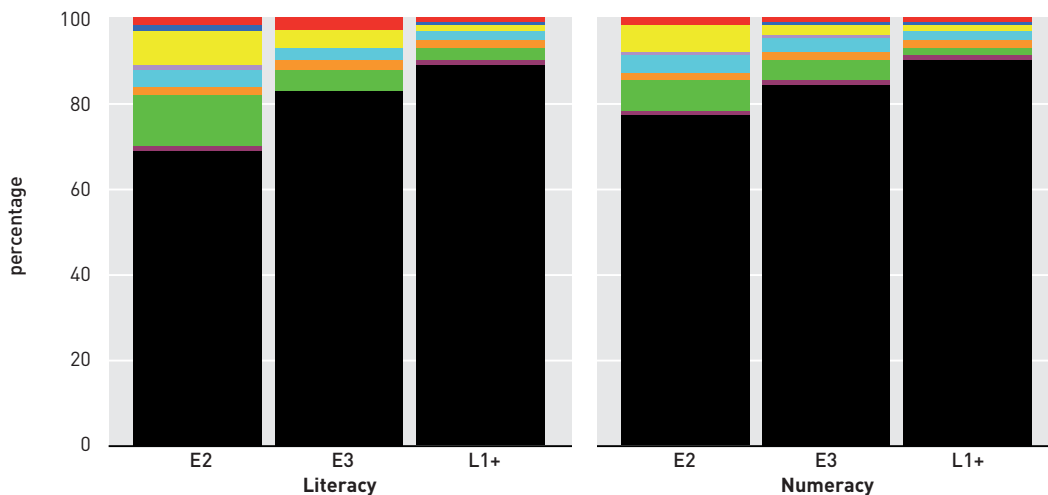
Figure 7.4 **Proportion of time spent in each economic status between age 16 and age 33. Men by grasp of literacy and numeracy**

- Full-time emp
- Part-time emp
- Unemployed
- Education
- Training
- Home-care
- Sick
- Other
- Missing

a) All men



b) Early school-leavers



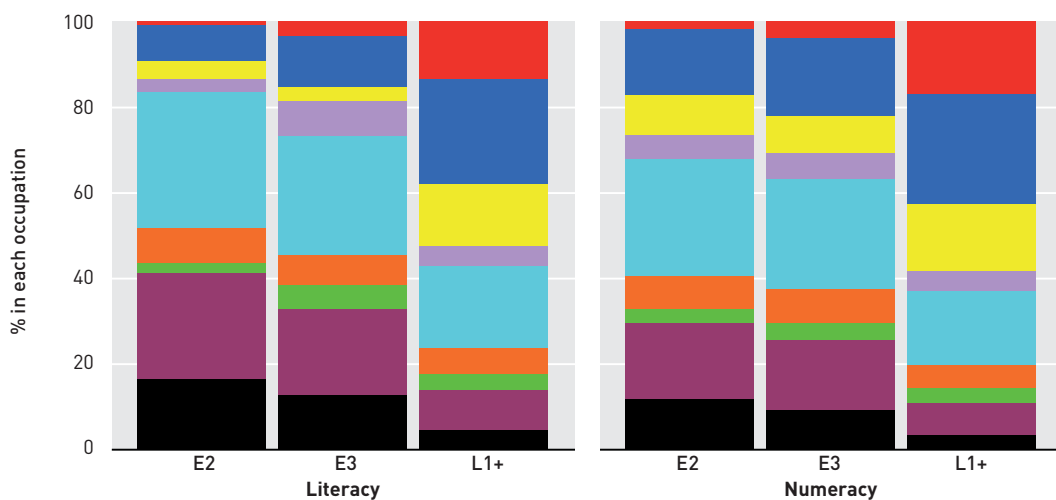
Men: current occupation at age 34

From the time of their first job to the job held at age 34, a sizeable proportion of men had moved into a managerial/administrative position. However, Figure 7.5 shows that it was the Craft and Related employment sector that employed as many as 1 in 3 men with Entry 2 literacy, and 1 in 4 men with Entry 3 literacy and Entry 2 numeracy. One in four men with Entry 2 literacy were also plant/machine operatives. More than half the men with Level 1 or higher skills held associated professional, professional or managerial positions. Even among early school-leavers, at least 1 in 3 men with Level 1 or higher skills were in such occupations compared to 1 in 10 men with Entry 2 or 3 literacy and 1 in 6 men with Entry 2 numeracy. Men with Entry level skills were also more likely to work locally. Forty-five per cent of men with Entry 2 literacy and 38 per cent with Entry 3 literacy or Entry level numeracy travelled less than 15 minutes to their place of work. This compared with 31 per cent of men with Level 1 or higher literacy and 29 per cent with Level 1 or higher numeracy. There were no differences across groups in terms of reported job satisfaction or job security.

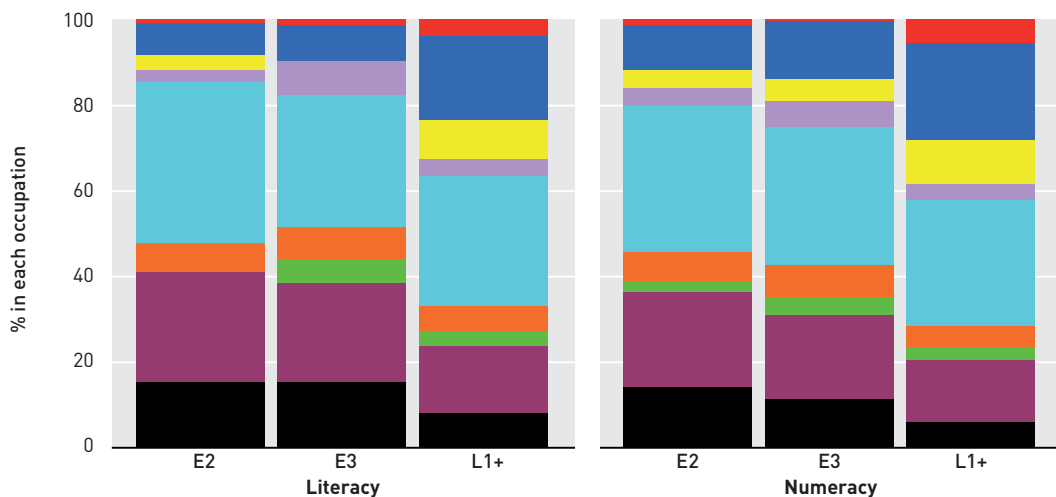
Figure 7.5 **Current occupation at age 34 for men by grasp of literacy and numeracy**



a) All men



b) Early school-leavers



Earlier analyses included in *New Light* revealed the extent of the disadvantage experienced by men with the poorest skills in the workplace. In comparison with men who had Level 1 or higher skills, men with Entry 2 numeracy were *almost* half as likely to use a computer at work (43 per cent to 78 per cent) or to have received work-related training from their employer (18 per cent to 35 per cent). They were also far less likely to have been promoted (38 per cent to 58 per cent). Men with Entry 2 literacy were almost one third as likely to have used a computer at work (26 per cent to 78 per cent) or to have received work-related training from their current employer (12 per cent to 32 per cent). They were half as likely to have been promoted at work (27 per cent to 54 per cent).

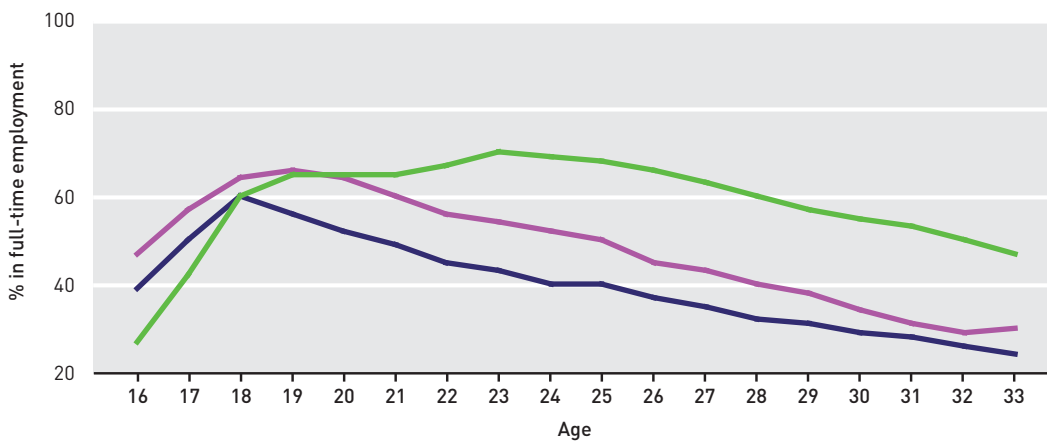
Women: employment between age 16 and 34

Figure 7.6 shows that from age 16, fewer women with Entry 2 literacy were employed full-time in each year right up to age 34, in comparison with women with Entry 3 literacy (from age 18, in comparison with those with Level 1 or higher). In comparison with women with Entry 3 numeracy, women with Entry 2 numeracy had the lowest percentage in full-time employment in every year from age 19. From the time they reached their early 20s (age 21 literacy, age 23 numeracy) women with Level 1 or higher skills were the most likely to be engaged in full-time employment.

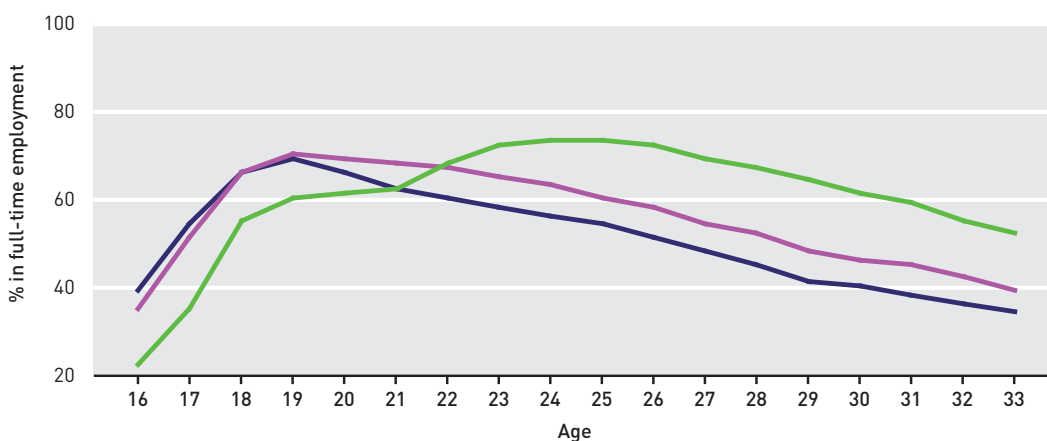
Figure 7.6 Percentage of women in full-time employment between April 1986 (age 16) and March 2004 (age 33) by grasp of literacy or numeracy

● E2 ● E3 ● L1+

a) Literacy



b) Numeracy

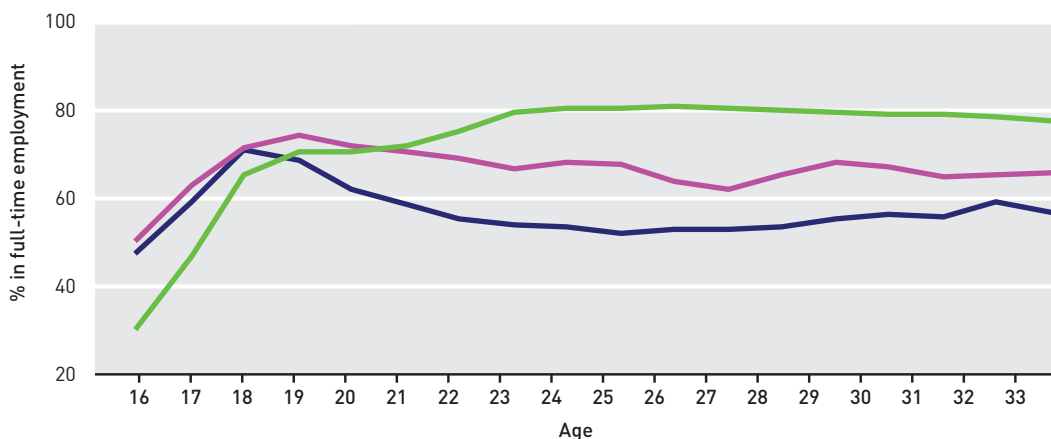


The earlier entrance to motherhood for women with Entry level skills (see Chapter 8) is evident in their exit from full-time employment, starting almost as soon as their engagement with it had begun in the teenage years. The decline was sharpest for women with Entry 2 literacy. The later start to motherhood for women with Level 1 or higher skills is reflected in levels of full-time employment starting to decline in the mid-20s. However, as many women juggle child-care and paid employment by returning to part-time employment after the birth of a child, it was important to include part-time employment levels when considering women’s engagement with paid employment. Figure 7.7 shows that, even when part-time paid employment was taken into account, women with Entry 2 skills were the least likely to be in paid employment in each and every year from age 19 (literacy) and age 21 (numeracy). Around four-fifths of women with Level 1 or higher skills were in paid employment from age 23 compared with around two-thirds of women with Entry 2 numeracy and just half of women with Entry 2 literacy.

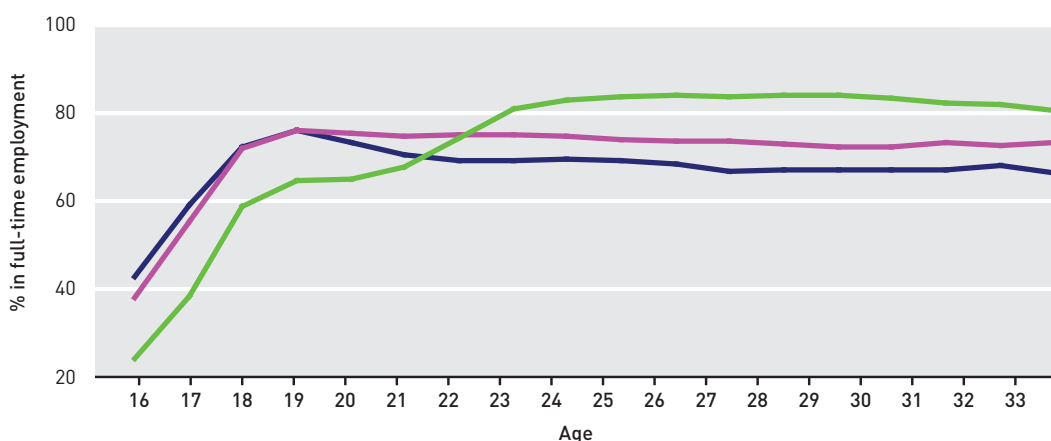
Figure 7.7 **Percentage of women in full- or part-time employment between April 1986 (age 16) and March 2004 (age 33) by grasp of literacy or numeracy**

● E2 ● E3 ● L1+

a) Literacy



b) Numeracy

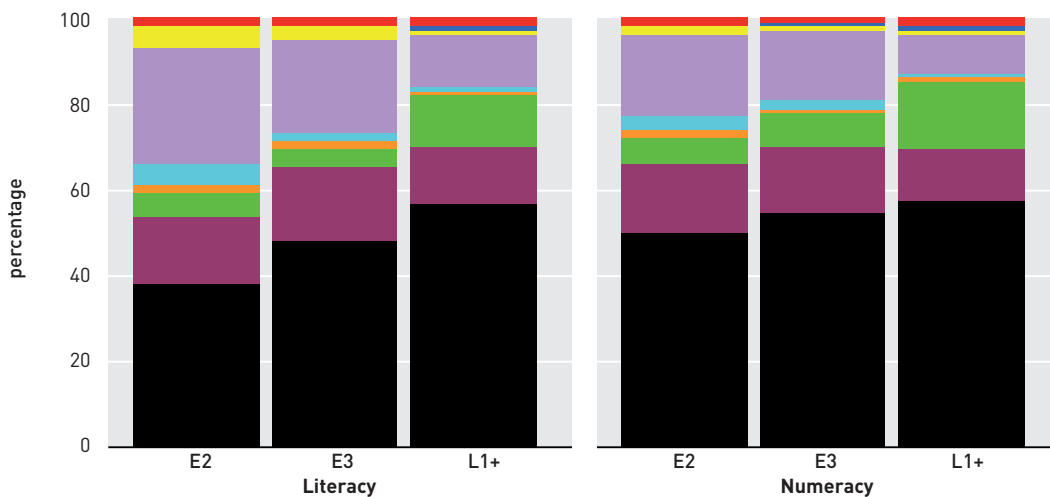


This non-engagement with paid employment, or rather early entrance to motherhood, by many women with Entry 2 skills is clearly reflected in Figure 7.8. Here we see that these women had spent at least twice as much time in a full-time home-care role as women with Level 1 or higher skills. Even when restricted to early school-leavers, women with Entry 2 skills spent most time outside paid employment. This is largely to do with the increased number of children women with Entry 2 skills have by age 34 in comparison to other women (see Figure 8.10). However, a simple regression analysis showed that the number of children a women had by age 34 and her performance in the literacy assessment at age 34 both independently predicted the amount of time a women had spent in a full-time home-care role between age 16 and 34. In other words, the amount of time spent in a full-time home-care role was not just explained by the number of children she had. Her poor grasp of literacy was also an important factor.

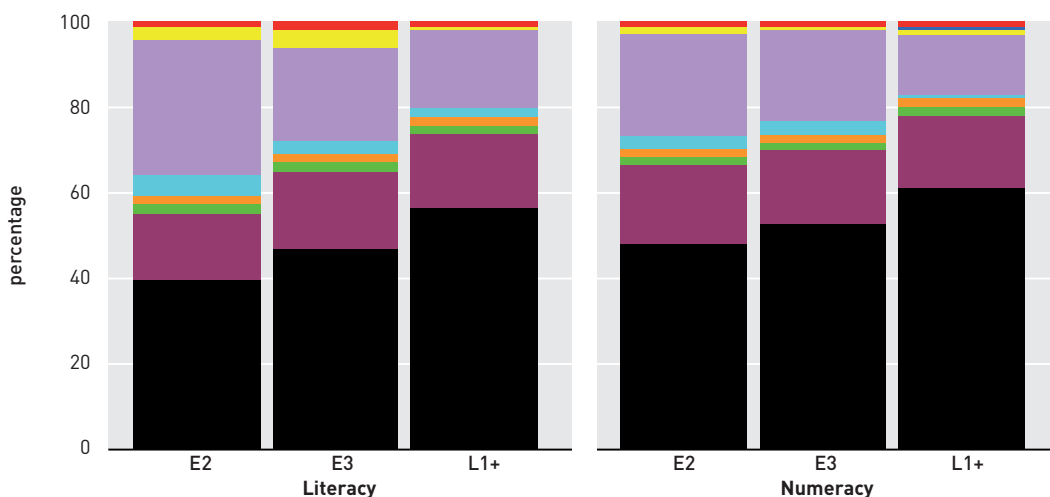
Figure 7.8 **Proportion of time spent in each economic status between age 16 and age 33. Women by grasp of literacy and numeracy**

● Full-time emp ● Part-time emp ● Education ● Training ● Unemployed
 ● Home-care ● Sick ● Other ● Missing

a) All women



b) Early school-leavers



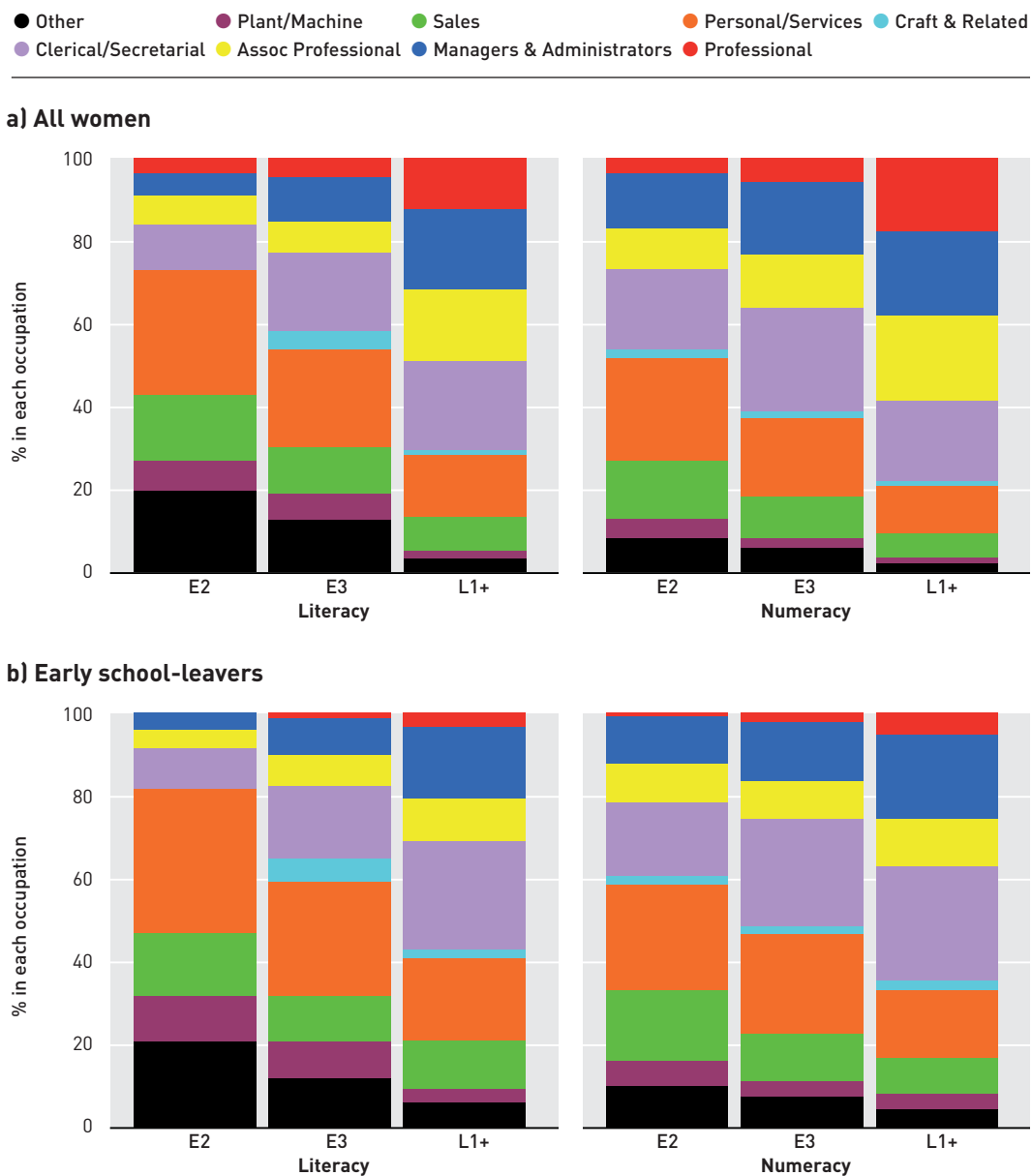
Unemployment had been experienced by around one-fifth of women in all skills groups, but as for men, women with Entry 2 skills were the most likely to have experienced repeated episodes. Five per cent of women with Entry 2 literacy had been unemployed on at least three occasions, compared to 1 per cent of women with Entry 3 or Level 1 and higher skills. Differences by numeracy were negligible. Differences were identical for early school-leavers. Translating this into time spent in unemployment, as for men, women with Entry 2 literacy had experienced almost twice as much unemployment as women with Entry 3 skills (11 months to 5 months) and nearly four times as much as women with Level 1 or higher skills (3 months). Although the number of separate spells of unemployment did not differ for women across numeracy groups, women with Entry 2 numeracy had experienced three times as much unemployment as women with Level 1 or higher skills (6 months to 2 months).

Women: current occupation at age 34

Women with Entry 2 literacy were far more likely than others to work in the myriad of unskilled insecure jobs classified as 'Other' occupations; 20 per cent were in such jobs in comparison with 8 per cent Entry 2 numeracy and just 2 per cent Level 1 or higher literacy. Figure 7.9 also shows the relegation of these women to less skilled jobs in Sales (checkout work), Personal/Service (cleaning) jobs, or traditional 'male' work. More than half (54 per cent) worked in these three occupation groups compared to one quarter of women with Level 1 or higher literacy and 19 per cent with Level 1 or higher numeracy. As for men, many women with Level 1 or higher skills now held jobs with *responsibility*. Around half of women with Level 1 or higher skills worked as a Professional, Associate Professional or a Manager/Administrator (49 per cent literacy, 58 per cent numeracy). This compared to 16 per cent of women with Entry 2 literacy and 27 per cent with Entry 2 numeracy. In some ways, the fact that any held such positions was quite startling and worthy of a closer look. However, even when restricted to early school-leavers, the very different occupational profiles of women across the skills groups remained apparent. Women with Level 1 or higher literacy were more than twice as likely to be in a Clerical/Secretarial job than women with Entry 2 literacy (26 per cent to 10 per cent). Women with Entry 2 literacy were still more than three times as likely as those with Level 1 or higher skills to have a job classified under 'Other' occupations. Differences for numeracy were almost as apparent. As for men, women with Entry level skills were more likely to work locally. More than half of those with Entry level literacy or Entry 2 numeracy had a less than 15-minute journey to work compared with two-fifths of those with Level 1 or higher literacy and a third of those with Level 1 or higher numeracy.

In *New Light*, the exclusion of women with Entry level literacy or Entry 2 numeracy from work that requires modern up-to-date skills was very apparent. Women with Entry 2 literacy were the most disadvantaged of all. Relatively few needed to use a computer (PC) at work – 39 per cent Entry 2 literacy compared with 78 per cent of women with Level 1 or higher literacy and 85 per cent of women with Level 1 or higher numeracy. Investment by employers in women in terms of training was lower than for men overall, but women with Entry 2 literacy were the least likely to have been on a training course provided by their current employer, and women with Level 1 or higher numeracy the most likely. One-third of women with Entry 2, Entry 3 literacy or Entry 2 numeracy had been promoted in comparison with more than half of women with Level 1 or higher skills.

Figure 7.9 Current occupation at age 34 for women by grasp of literacy and numeracy



Summary of working life and occupational disadvantage

Large numbers of men and women with the poorest skills first entered the workforce at 16, but they had spent the least amount of time in full-time or part-time employment over the following 18 years. Men with Entry level skills spent more time unemployed or sick, women in a full-time home-care role. Whether in their first job at age 16 or at age 34, men and women with Entry level skills in work had very different occupational profiles from men and women with a better grasp of the basic skills. They were far more likely to be in labour-intensive, low-skilled jobs, often in the less secure, unregulated 'Other' parts of the labour market. Even when the impact of further education and qualifications was minimised by restricting comparisons between skills groups to those who left full-time education at age 16, these differences did not disappear. Lower levels of training and promotion show that employers were less likely to have invested in these men and women.

8 Home and family life

We now turn to home and family life. We look at the first time cohort members moved away from their family/parental home to embrace independent living, and the reasons behind that and any subsequent moves. We also look at partnership formation and parenthood. Among those with children, we look at parental involvement in the skills development of their children.

Leaving the family home for the first time

Figure 8.1 shows that few men had left the family home by 16 or 17 (8 per cent overall), but between age 18 to 21 there was a gradual move away, particularly among men with Level 1 or higher skills. By the end of 1991, when age 21, more than 42 per cent with Level 1 skills had moved away from the family home compared with 30 per cent of men with Entry level skills. At age 34, 9 per cent of all men still lived in the family home with their parents – highest at 22 per cent for men with Entry 2 literacy and lowest at 8 per cent for men with Level 1 or higher numeracy (also see Figure 8.7).

Figure 8.1 **Age at which men first left the family home by grasp of literacy and numeracy**

● E2 ● E3 ● L1+

a) Literacy

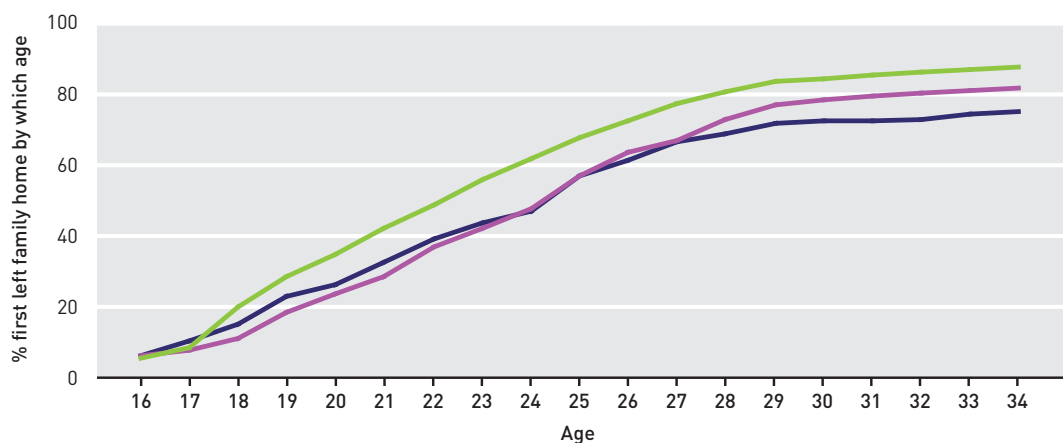


Figure 8.1 Continued

● E2 ● E3 ● L1+

b) Numeracy

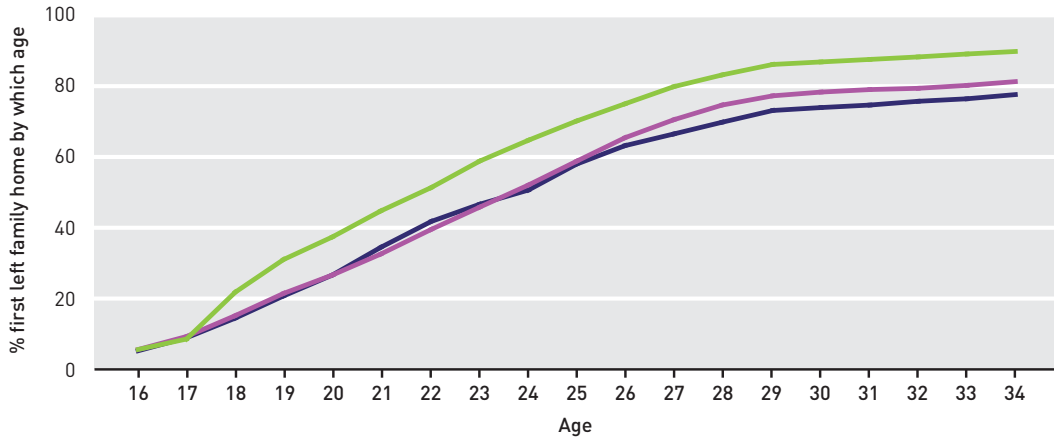
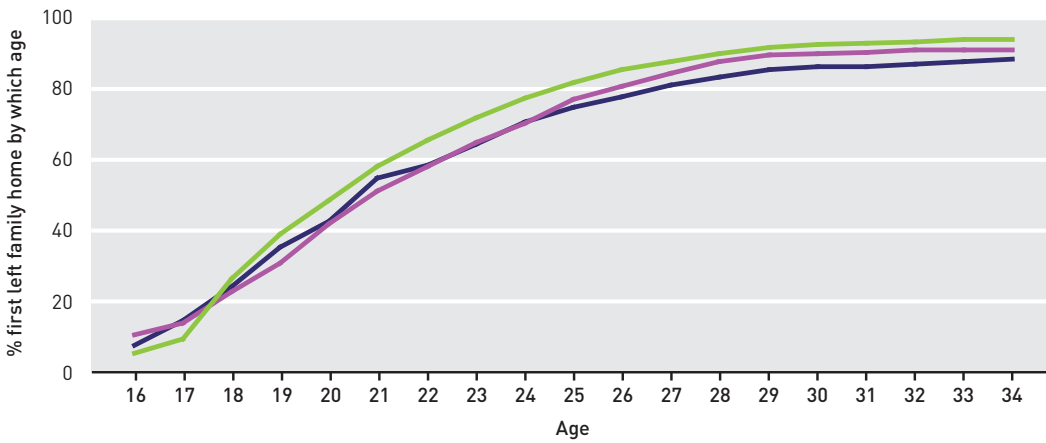


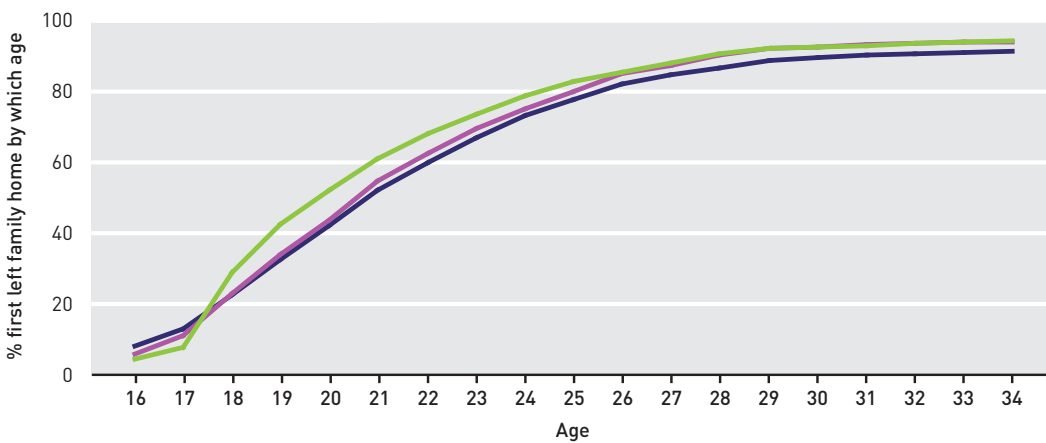
Figure 8.2 Age at which women first left the family home by grasp of literacy and numeracy

● E2 ● E3 ● L1+

a) Literacy



b) Numeracy



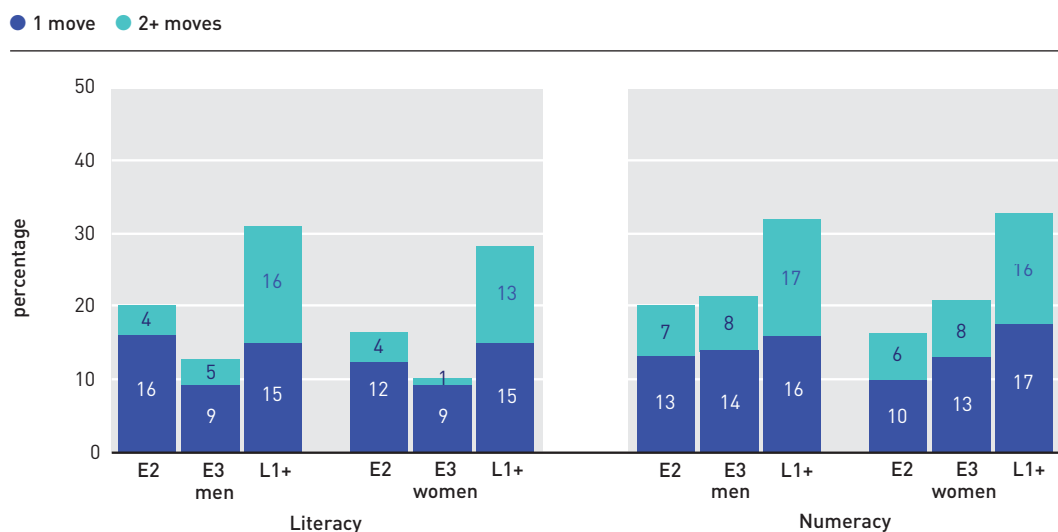
Thirty-eight per cent of all women had moved away to live independently from their parents before they were 20. However, Figure 8.2 shows that, whereas more women with Entry level literacy skills made the move away from the parental home at age 16 or 17, by age 18 it was women with Level 1 or higher skills - particularly numeracy - who were more likely to have moved away from home. The pursuit of tertiary education or training opportunities presumably lay behind many of these moves. Women in all skills groups were less likely than men to be living with their parents at age 34.

Moving on

By the time cohort members were 34, men and women with Level 1 or higher skills were the most likely to have moved home on a number of occasions. Since age 16, men and women had, on average, lived in five different homes by age 34. This was highest at six for women with Level 1 or higher numeracy skills and lowest at three for men with Entry 2 literacy. This could either be perceived as few moves being indicative of a relatively stable home environment or that men with Entry level skills lacked the financial ability – or opportunity – to take advantage of the economic and lifestyle rewards that moves in the housing market over the last decade or so have generally given. It is more likely to be the latter. As the *New Light* report showed, men and women with Entry level literacy or numeracy were most likely to live in disadvantaged housing conditions, rented and/or overcrowded accommodation, at age 34, in comparison with men and women with better skills.

Looking further into the reasons for these moves, we found that, among cohort members who had ever moved home, around half had moved at least once as they wanted a better or bigger home; 40 per cent because of a relationship breakdown and around 30 per cent for reasons to do with work. There were no differences across groups in the number of times cohort members had moved to be in a better or bigger home or because of a relationship failure, but men and women with Entry level skills were less likely to have moved for reasons to do with work. Figure 8.3 shows that, whereas 4 per cent of men and women with Entry 2 literacy skills had moved at least twice for reasons to do with work, this increased threefold for women (13 per cent) and fourfold for men (16 per cent) with Level 1 or higher skills.

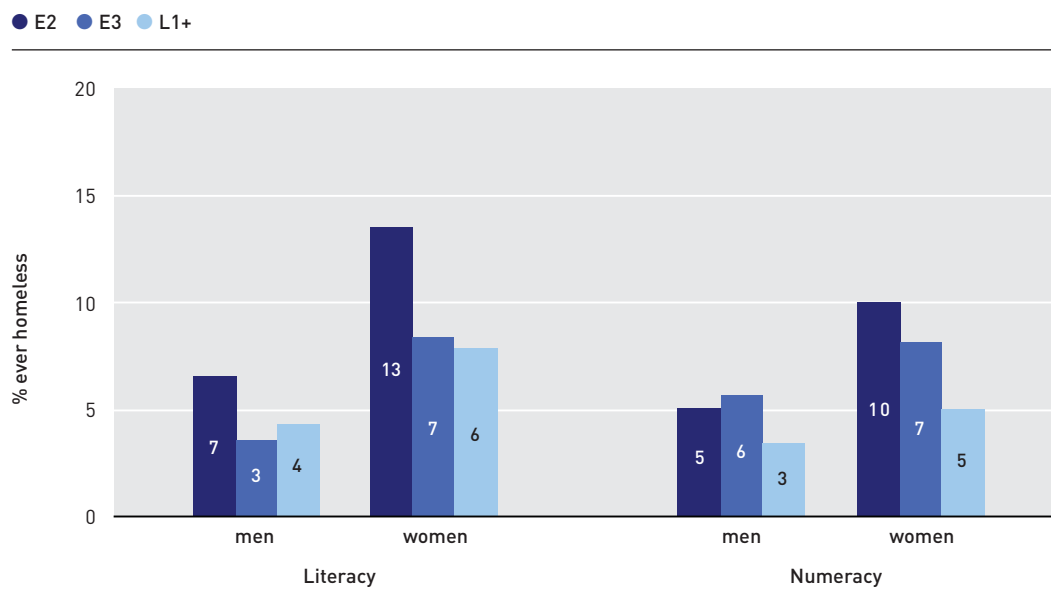
Figure 8.3 Number of times men and women moved house for reasons to do with work by grasp of literacy and numeracy



Homelessness

Six per cent of all men and 5 per cent of all women had experienced at least one spell of homelessness. Figure 8.4 shows that this was highest among men and women with Entry 2 skills – particularly women. As many as 13 per cent of women with Entry 2 literacy and 10 per cent of women with Entry 2 numeracy had experienced homelessness. This compared with 7 per cent of men with Entry 2 literacy and 5 per cent with Entry 2 numeracy.

Figure 8.4 Percentage who had ever been homeless by grasp of literacy and numeracy



First live-in partnership

To emphasise the different nature of the move to independent living by men and women in the different skills groups, we look at age of first living with a partner. At age 34, 20 per cent of all men and 13 per cent of all women had never lived with a partner. Figures 8.5 and 8.6 show that, for both men and women, lack of partnership was highest amongst those with Entry 2 literacy – 29 per cent men and 20 per cent women.

Early live-in partnerships were twice as likely among women as men. For example, 11 per cent of all women and 5 per cent of all men had lived with a partner by age 18. By age 21, this had increased to 39 per cent of women and 22 per cent of men.

For women, early live-in partnerships were more frequent among those with Entry level skills. For example, 28 per cent of women with Entry 2 literacy skills had first moved in with their partner while still a teenager compared with 18 per cent of women with Level 1 or higher skills. Differences among men were much less apparent. Eleven per cent of those with Entry 2 or 3 numeracy skills had first lived with a partner as a teenager, compared with 7 per cent with Level 1 or higher numeracy skills.

Figure 8.5 Age men first lived with a partner by grasp of literacy and numeracy

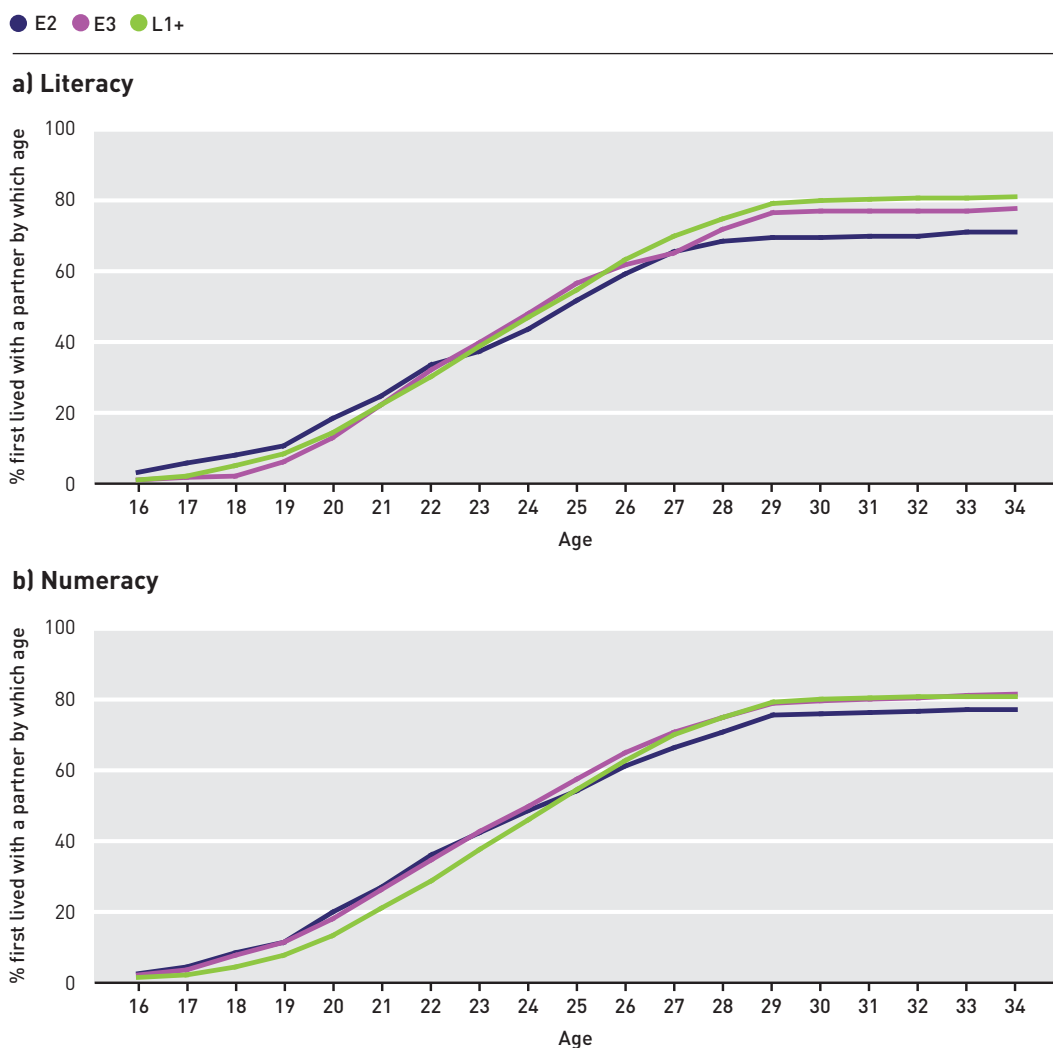
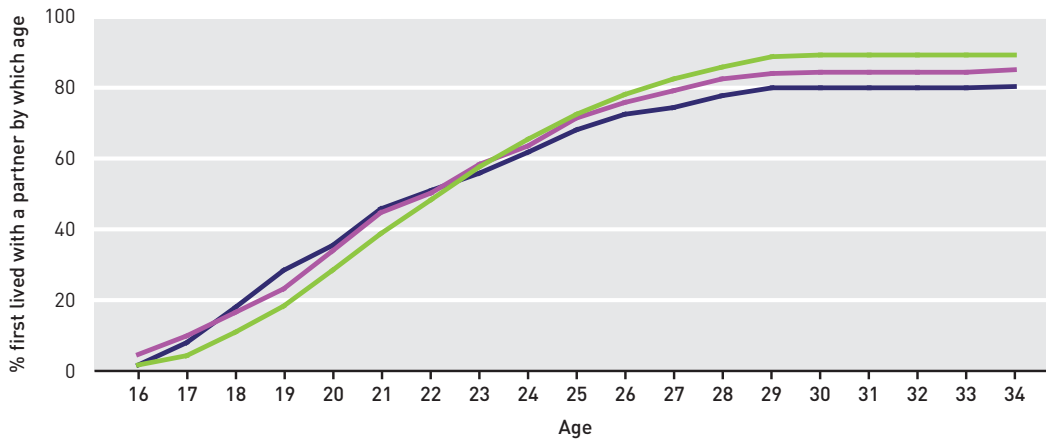


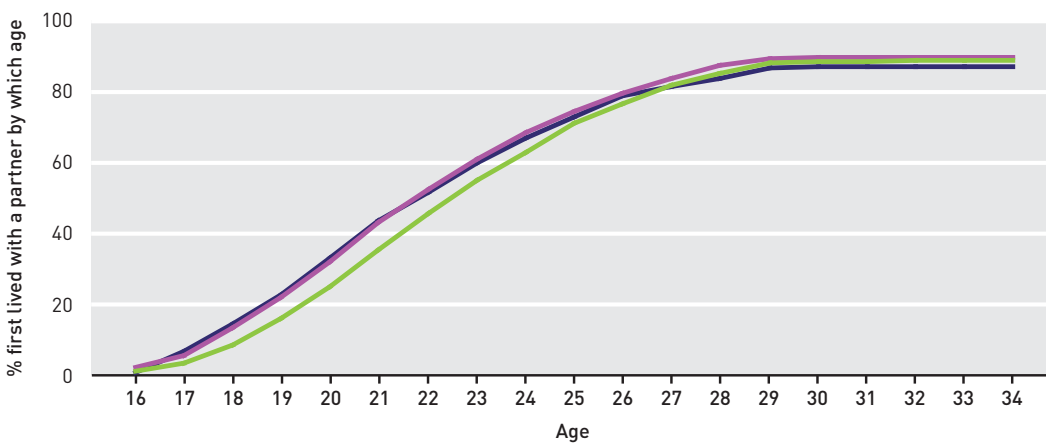
Figure 8.6 Age women first lived with a partner by grasp of literacy and numeracy

● E2 ● E3 ● L1+

a) Literacy



b) Numeracy



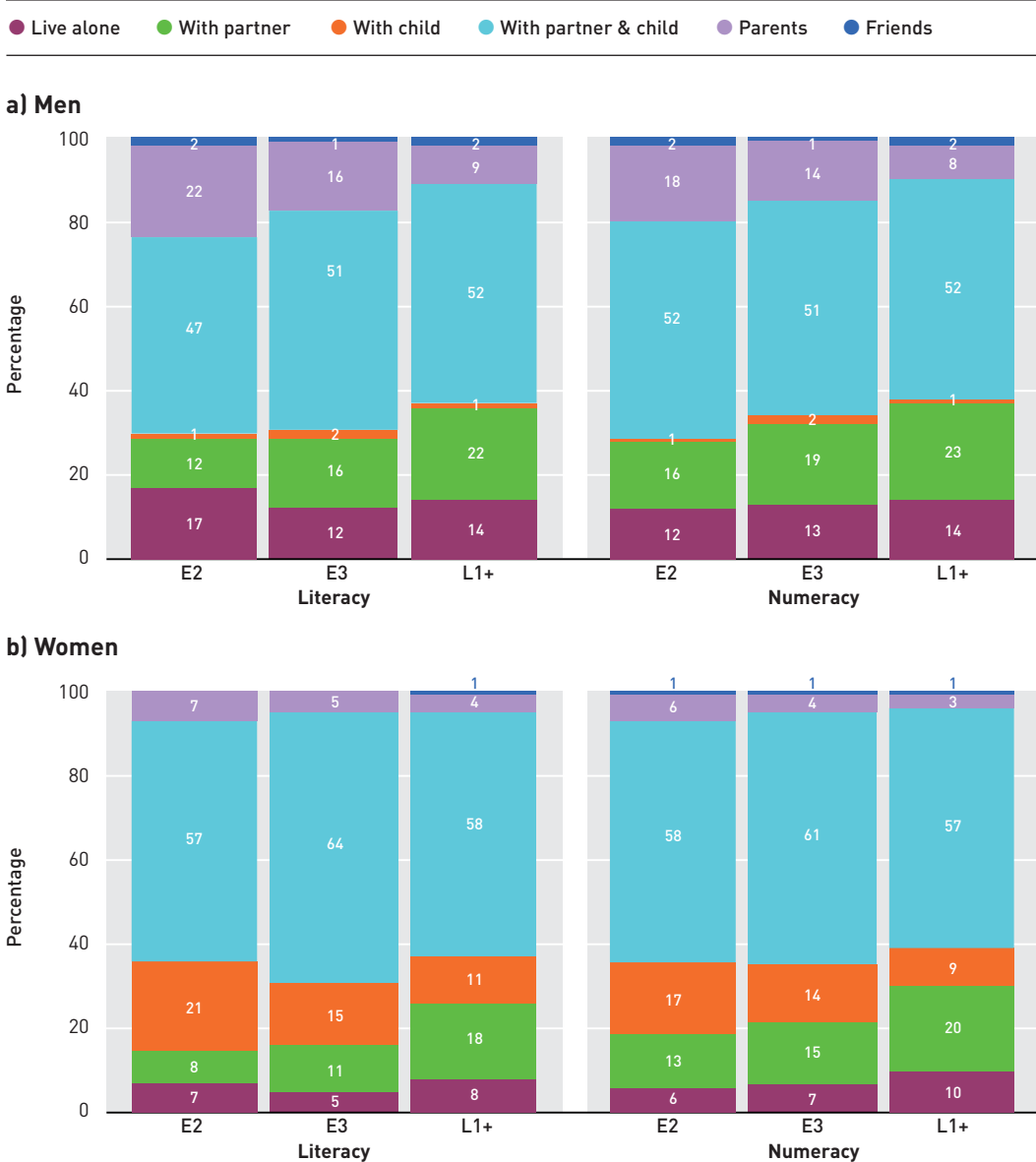
Marriage

Around two-thirds of men and women were, or had been, married at age 34 (60 per cent men, 69 per cent women). Least likely to have married were men with Entry 2 skills (45 per cent literacy, 51 per cent numeracy). Among those who had married by age 34, 84 per cent of women and 78 per cent of men were in their first marriage. Marital breakdown was most likely among men with Entry level literacy (26 per cent Entry 2, 29 per cent Entry 3). There were no differences across skills groups for women.

Family living at age 34

By age 34, more than half of men and women lived with their partner and child(ren) (52 per cent men, 58 per cent women). Fourteen per cent of men and 8 per cent of women lived alone; 1 per cent of men and 12 per cent of women lived as a single parent. Figure 8.7 shows that single parenthood was highest among women with Entry 2 skills (21 per cent literacy, 17 per cent numeracy). Just under 10 per cent of all men lived with their parent(s) at age 34 in comparison to no more than 4 per cent of women. However, this was highest, at 22 per cent, among men with Entry 2 literacy and lowest of all, at 3 per cent, for women with Level 1 or higher numeracy.

Figure 8.7 Living arrangements at age 34 by grasp of literacy or numeracy



Becoming a parent

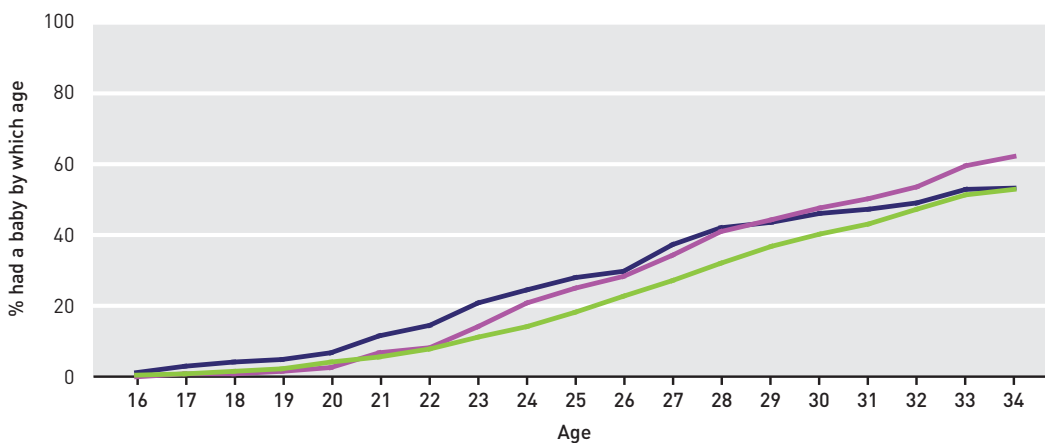
By age 34, 45 per cent of all men had yet to become a father, with teenage parenthood – or the reporting of being a teenage father – being a relatively rare event, at just 2 per cent. Figure 8.8 shows that teenage fatherhood was highest, at 5 per cent, among those with Entry 2 literacy or numeracy. Until they reached their early 30s, men with Level 1 or higher skills were least likely to have become a father.

Although the transition from living at home with parents to a live-in relationship did not show vast differences between skills groups, the earlier transition to adulthood is far more apparent when looking at early parenthood among women. Around 1 in 3 (31 per cent) of all women had not had a baby by age 34, but women with Entry level skills were the most likely to have become a mother. Figure 8.9 shows that women with Entry level literacy or numeracy were more than twice as likely to have been a teenage mother compared with women with Level 1 or higher skills (18 per cent Entry 2 literacy, 8 per cent Level 1 or higher literacy). Women with Entry level skills were more likely to be a parent in comparison with women with Level 1 or higher skills right up until age 34. During their 20s, women with Entry 2 literacy were more likely to have become a mother in comparison with women with Entry 3 literacy, but this gap between groups disappeared once they hit their 30s.

Figure 8.8 Age men had their first child by grasp of literacy and numeracy

● E2 ● E3 ● L1+

a) Literacy



b) Numeracy

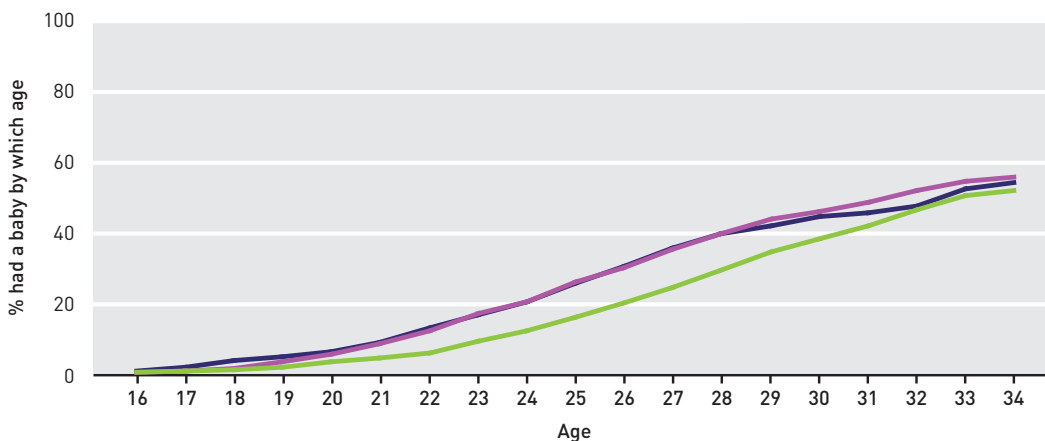
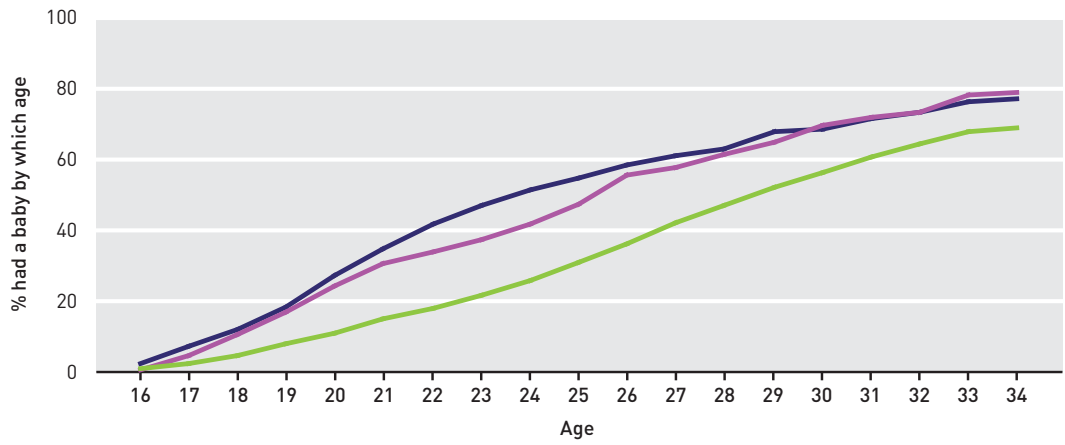


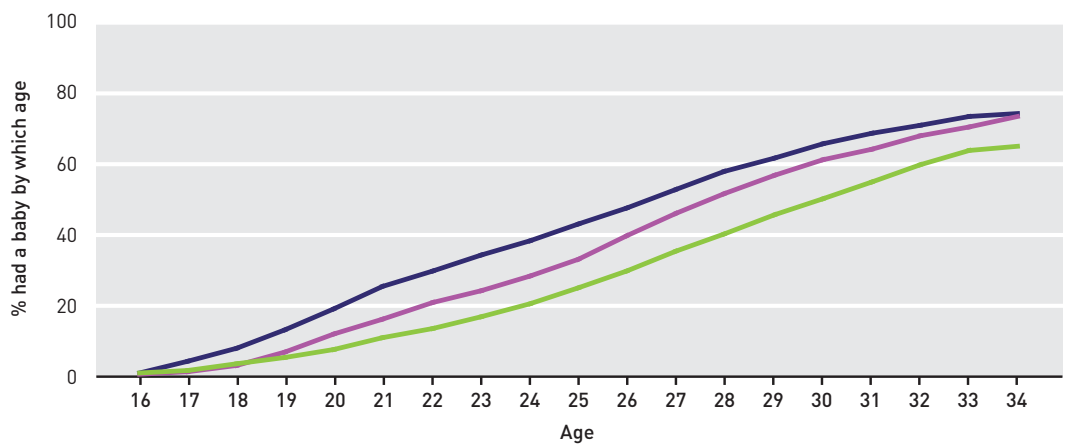
Figure 8.9 Age women had their first child by grasp of literacy and numeracy

● E2 ● E3 ● L1+

a) Literacy



b) Numeracy

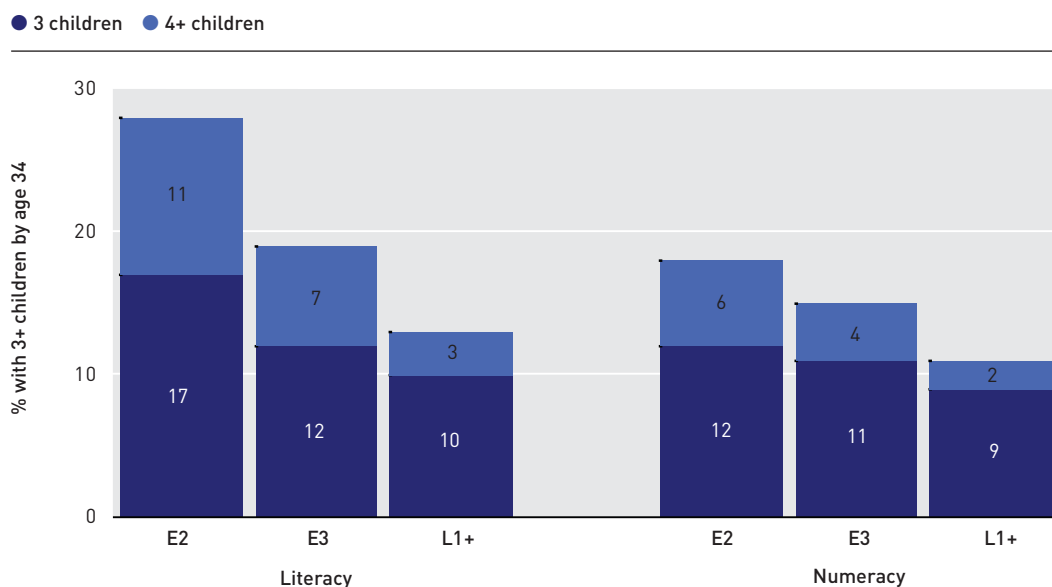


Number of children

By age 21, 8 per cent of women with Entry 2 literacy had two or more children. Although relatively low, this was four times the proportion in the case of women with Level 1 or higher literacy (2 per cent). Women with Entry level numeracy were twice as likely as women with Level 1 or higher numeracy to have two or more children by age 21. The differences for women across skills groups continued to be very apparent as the cohort grew into their 30s. Figure 8.10 shows that, by the time cohort members reached age 34, women with Entry 2 literacy were more than twice as likely as women with Level 1 or higher skills to have 3+ children (28 per cent to 13 per cent) and more than three times as likely to have 4+ children (11 per cent to 3 per cent). Although overall levels were much lower, women with Entry 2 numeracy were also three times as likely as women with Level 1 or higher numeracy to have 4+ children.

Among men, 7 per cent of all men had 3+ children by age 34, only marginally higher at between 9–10 per cent for men with Entry 2 or 3 literacy.

Figure 8.10 **Percentage of women with 3+ children at age 34 by grasp of literacy or numeracy**



Different partnerships

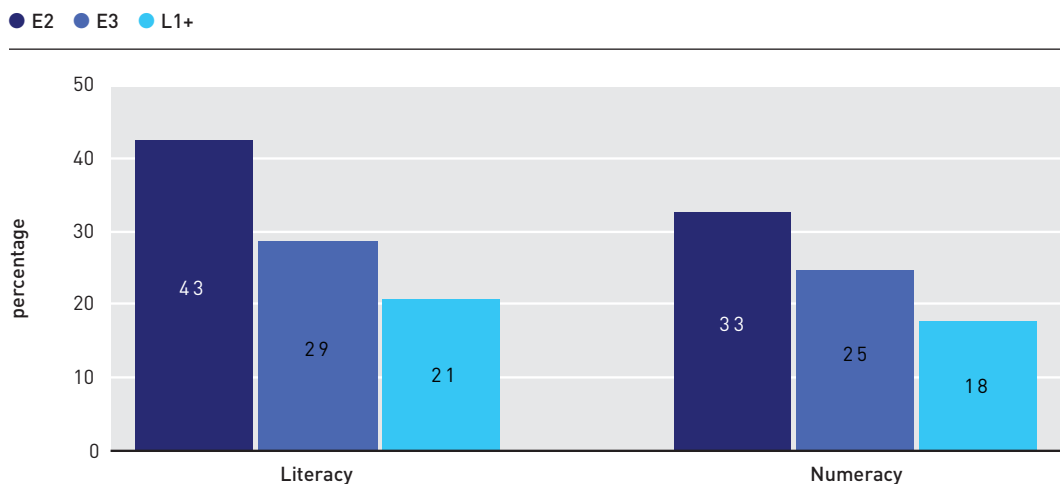
A possible indicator of a less stable family environment is the number of partners a cohort member has had, or more specifically, how many of their children are a result of different partnership formations. Men and women with Entry 2 skills were more than twice as likely to have children with more than one partner. For example, 18 per cent of women with Entry 2 skills who had children, had them with different partners, compared with 8 per cent of women with Level 1 or higher skills. Comparable figures for men were 11 per cent and 5 per cent. However, the figures in all likelihood will even out later as men and women with higher level skills entered parenthood at a later age.

Helping children learn

In 2004 a representative 1-in-2 sample of cohort members also took part in an additional component of the survey, *The Parent and Child Interview*, if they had children of their own²⁶. The *Parent and Child Interview* had numerous components. Apart from assessing the cognitive skills of cohort members' children, parents also answered many questions about the development of their children or their own parenting styles. Among these questions were some to do with parental help with the skills and reading development of their children. As the age range of children varied from a few days up to 16 years and 11 months, questions were set to be age-appropriate.

Among cohort members with younger children (newborn to 5 years 11 months), there were no differences across adult skills groups in the levels of support offered to help children learn basic numbers, the alphabet, recognise colours or shapes and sizes. Very few parents did not report helping with any of these (12 per cent). However, Figure 8.11 shows that children (newborn to 16 years 11 months) of cohort members with Entry 2 skills were the least likely to be growing up in a home with many books. In comparison to children of cohort members with Level 1 or higher skills, they were twice as likely to have (or to share with their siblings) fewer than 20 books – 43 per cent to 21 per cent literacy, 33 per cent to 18 per cent numeracy. More than half of children of cohort members with Level 1 or higher skills had 50-plus books compared with around one third of children of parents with Entry 2 skills. For children up to age 10, the vast majority of cohort members reported that they read to, or with, their children either every day or several times a week (80 per cent). However, perhaps as a reflection of the general lack of books or reading generally in households where at least one parent had reading (literacy) difficulties, the least likely to do this were parents with Entry 2 literacy (73 per cent). Figure 8.12 shows that parents with Entry 2 literacy were also the least likely to report that their child(ren) between age 6 and 16 read for enjoyment every day and most likely to report that they never read or only read several times a year.

Figure 8.11 Cohort members reporting that their child(ren) age 0-16 had fewer than 20 books by cohort members' grasp of literacy and numeracy



²⁶ For an overview of the content of the Parent and Child Interview, see Bynner, J. and Parsons, S. (2005).

Figure 8.12 Cohort members reporting how often their child(ren) age 6-16 read, by cohort members' grasp of literacy

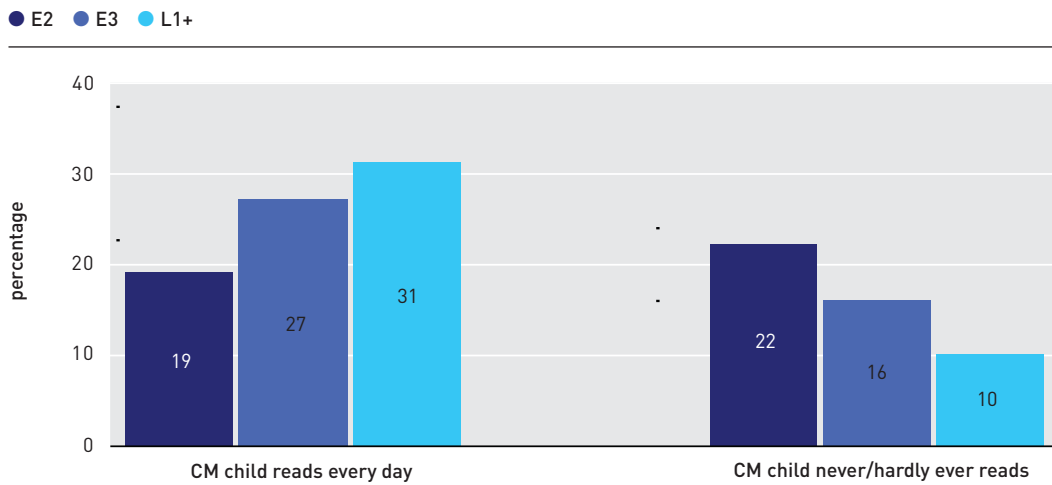
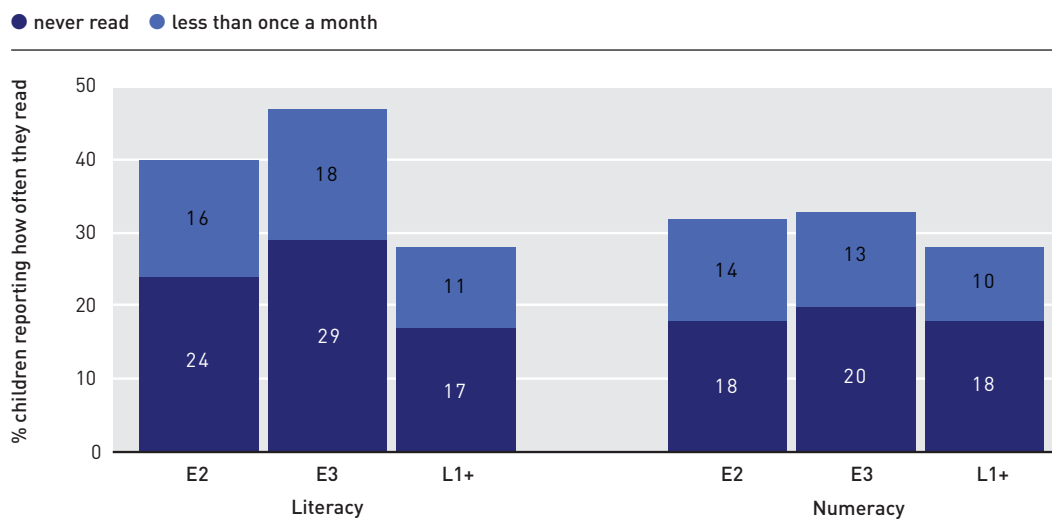


Figure 8.13 Cohort members' children (age 10-16) reporting how often they read, by cohort members' grasp of literacy



Children between 10 and 16 years were themselves asked to report how often they had read a book that was not to do with school during the past week. Figure 8.13 shows that children of parents with Entry 2 literacy were most likely to report that they never read, or if they did, less than once a month. There were minimal differences for parents' numeracy.

Children were also asked if they liked school and their teachers. Although 1 in 3 children of cohort members with Level 1 or higher skills reported that they nearly always enjoyed school and liked nearly all of their teachers, this fell to 1 in 4 among children of cohort members with Entry level literacy or numeracy. The aspiration for continuing in education post-16 was lowest among boys of cohort members with Entry 2 literacy. In line with this, they were most likely to report that it was 'not very' or 'not at all' likely that they would study for a degree. Differences for girls were not as marked.

Summary of home and family life

Men with Entry 2 literacy were the most likely to be living with their parents at age 34, men with Level 1 or higher numeracy the least likely. Unsurprisingly, men with Entry 2 skills had lived in the fewest different homes since age 16 and they were the least likely ever to have moved for reasons to do with work. Both men and women with Entry level skills were also the most likely to live in disadvantaged housing conditions – rented and/or overcrowded accommodation – at age 34. As many as 13 per cent of women with Entry 2 literacy and 10 per cent with Entry 2 numeracy had experienced a spell of homelessness.

Men and women with Entry 2 literacy were the most likely of all groups to have never lived with a partner by age 34. However, early live-in partnerships were also *most* practised among women with Entry 2 skills. Women with Entry level skills were more than twice as likely as women with Level 1 or higher skills to have been a teenage mother and three times more likely to have 4+ children at age 34.

For the cohort members with children who also took part in the *Parent and Child Interview* in 2004, there were also some differences in supporting the educational development of their own children across skills groups. Cohort members with young children were no more or less likely to help them learn to recognise numbers, the alphabet, shapes or colours, whatever their grasp of numeracy or literacy. However, cohort members with Entry 2 literacy were slightly less likely to read to or with their child(ren) regularly. Their children had fewer books in the home than other children, and according to reports from cohort members and the children (age 10+) themselves, they were less likely to read for enjoyment. Boys of cohort members with Entry 2 literacy were also the most likely to have stunted educational aspirations.

9 Conclusions

The findings presented in the preceding chapters set out the particular challenges faced in lives characterised by very poor acquisition of literacy and numeracy.

Our first report on the BCS70 age 34 survey, *New Light on Literacy and Numeracy*, drew attention to the significance of literacy and numeracy at NQF Entry level or below, with Entry 2 carrying particular penalties. The survey and the analysis were mainly cross-sectional, and highlighted the associations between literacy and numeracy proficiency and life outcomes for 34-year-olds in 2004. However, BCS70 as a whole contains a much wider range of data about this sample of British lives than was drawn on in *New Light*, charting development from birth through to adulthood. By drawing on the full range of data collected about the cohort's lives, we have been able to see more clearly the 'staging posts' in life chances where opportunities arise, or obstacles get in the way. We started with the relationship between poor skills, family background and literacy and numeracy development in early life. Next we moved to compulsory schooling, further education and labour market entry and performance. We completed the story with partnership and family life. All need to be contextualised in terms of another factor – geography. The varying qualifications distribution of the population across the NQF from one region of the country to another raises another set of questions about life chances and educational provision that national policy needs to address – as does the much higher percentage of women than men with Entry level numeracy skills.

The picture gained is one of stumbling blocks to progress early on and relatively little amelioration, at the level of the population as a whole, later. This finding is particularly prominent for literacy but numeracy difficulties also carry penalties in peoples' lives.

The trajectories of advantage and disadvantage can be clearly seen, with poor basic skills playing a key/central role in the re-enforcement of exclusion which is repeated from one generation to the next. Against a background of material disadvantage and lack of parental aspiration and support, the childhood stage of such trajectories is characterised typically by the constant struggle to keep up educationally. The adulthood that often follows is marred by poor opportunities and limited progression towards desired goals and a fulfilling life. In a high-tech world that is increasingly automated and globalised, with a massive growth of service industry and a decline in unskilled manufacturing work, life chances are seriously curtailed. And progress to what were at one time realisable goals in the workplace, the family and the community, even for those with poor basic skills, is seriously impeded. The relative lack of access to ICT at work or at home of adults with Entry level literacy is a particularly striking finding in this respect.

The early signals of future difficulties are manifested in poor educational outcomes, including

weak cognitive skills in early childhood, remedial provision, lack of qualifications and exit from the education system at the earliest possible age. A poor labour market experience typically follows in the form of difficulties in getting the first job and retaining it. Training opportunities are rare and the work entered unskilled. Aspirations remain low, especially among men. Unemployment and casual work is the common experience. In all these features, a growing gap compared to earlier cohorts across the skills levels is apparent, with those at Entry level becoming the most marginalised.

But the problem is not just about exclusion from educational achievement and stable and satisfying employment. Progress to family life may be problematic as well. Adults with Entry level skills – especially women – are the first to leave home, only being overtaken by others at higher skill levels when the latter groups go on to higher education. Women at Entry 2 are ahead of their peers in their entry into partnerships and in the timing of their first child. They are also much more likely than men to have made this transition before the age of 18.

From the early 20s onward there is a reversal as those with higher level skills on the more extended transition increasingly catch up. In the case of men at Entry 2, a strong polarising effect is also apparent. Far more men with Entry level skills had never married by age 34, and those who had married were more likely than other men to have experienced marital breakdown. Many more such men than women at the age of 34 were also likely to be found living at home with their parents.

This is not to say that all individuals with poor basic skills follow a path of exclusion or disadvantage. Through opportunities encountered in education, in the workplace and in the community, many are able to turn their lives around. Hence poor literacy and numeracy acquisition in childhood is not an irreversible contributor to problems in adulthood. The fact that substantial minorities stay on at school past the minimum age, gain qualifications and progress in their careers shows that, given the right circumstances, personal resilience can overcome adversity of the kind that poor basic skills presents.

What is clear, however, is that from an early age, for those with Entry level skills, obstacles against getting on to the achievement track keep accumulating over time, making progression in education and employment increasingly difficult. What may matter then is whether the individual's relationships, family, community and workplace re-enforce the difficulties or supply the support needed to overcome them.

In this respect, careers tend to diverge between men and women with men, in many respects, having the least opportunities and often the poorest outcomes. Thus the role of male partner and provider is weakened by the poor job prospects and marginalised labour market statuses that poor basic skills can lead to. A sizeable proportion of Entry 2 men tend to be without partners and without children. On the other hand, those who have had children tend to have had them with more than one partner.

For women, poor educational achievement underpins poor employment prospects, especially in the non-manual office jobs that young women tend to favour. In contrast to men in this situation, the outcome for low-skilled women is frequently early partnership and parenthood, offering the alternative career path of mother and carer. Though such young women – particularly following partnership breakdown – may be isolated and stressed through poverty and ill health, they are often more able to cope with the help of other women in comparable situations. The problem arises when the static nature of the situation offers no chance to move

out of it, even when changing lifecourse pressures demand it. New challenges of children entering school, redundancy and ill health can break the *status quo*, which brings the skills difficulty back into prominence as an obstacle to personal and social well-being.

This is where the 'Choice Agenda' has the least chance of being realised, not only by parents but also, by extension, their children. Our analysis revealed that parents with Entry level skills supply the least support for their children, both in terms of helping them learn to read and their general educational development. They were less likely to read to or with their child(ren) regularly, there were fewer books available in the home for their children to read, and the children in turn were less likely to read for enjoyment. Boys of cohort members with Entry 2 literacy were also the most likely to have stunted educational aspirations. Hence the pattern of poor performance is likely to be repeated across the generations.

The antidote must be education in whatever form it can be offered to adults in the community, in the classroom and in the workplace. Entry level literacy and numeracy can never be an acceptable level of capability, which is why programmes such as Skills for Life will continue to be necessary for a long time to come.

The main messages from this report suggest that, given the right circumstances and the motivation to succeed, adults who started their lives on the worst form of disadvantaged trajectory can, with proper support, transform their opportunities and ultimately their life chances. But the problem remains that such an achievement is still restricted to relatively small numbers, suggesting that a significant minority of adults will continue to lead marginalised and unfulfilling lives. As noted earlier, the problem is likely to come to a head when major lifecourse events in the family and the workplace present challenges that can no longer be met. This is likely to be the time of most difficulty for such adults, but it is also when motivation may be stimulated in the most effective way.

It is therefore all the more important that remedial programmes and the pedagogy that takes place in them are based on understanding of the problems that adults can have and what it is in their lives that will produce the most significant motivational change. This makes the case for embedded approaches that contextualise the teaching in subject matter closest to the learner's situation and interests, relating learning to what individuals recognise as their most pressing needs²⁷. The cost of not getting it right is enormous, not only in personal but also in economic terms, as the research following the Moser Report that established the Skills for Life policy showed²⁸.

Skills for Life was seen as a relatively temporary measure to restore life chances to adults through skills acquisition, after which, for subsequent generations, the education system would ensure that the problem no longer arose. We now know that quick solutions to such longstanding problems are unlikely to be totally effective. Education through such initiatives as 'Family literacy' and 'Literacy and numeracy hours' can achieve a lot in reducing the skills deficit for school-leavers. However, a proportion of individuals in a mass education system are

27 For powerful evidence of the effectiveness of the embedded approach, see Casey, H., Cara, O., Eldred, J., Grief, S., Hodge, R., Ivanič, R., Jupp, T., Lopez, D. and McNeil B. (2006) *"You wouldn't expect a maths teacher to teach plastering...": Embedding literacy, language and numeracy in post-16 vocational programmes – the impact on learning and achievement*. London: NRDC.

28 Bynner, J., McIntosh, S., Vignoles, A., Dearden, L., Reed, H. and Van Reenen, J. (2001) *Improving adult basic skills: benefits to the individual and to society*, DfEE Research Report RR251. London: HMSO.

always going to miss out. Furthermore, as expectations of what is needed rise, the pressure towards marginalisation grows. This means that Skills for Life be seen, not as a stop-gap, but as an essential part of the education system.

The next step needs to be widespread debate about the issues exposed in this report and the policy options for resolving them. Skills for Life has moved the agenda in the right direction. What needs to follow is commitment to a comprehensive educational strategy that extends throughout life and in some ways, it must diminish: far fewer people use it when they are older.

Appendix

Table A1a: Average scores in cognitive tests taken at age 5 by cohort members' grasp of literacy at age 34

	English Picture Vocabulary Test	Copying Designs	Profile Test	Draw-a-Man Test
Men				
Entry 2	4.9 (sd 2.0) (n=144)	3.8 (sd 2.0) (n=155)	3.8 (sd 2.4) (n=129)	4.0 (sd 1.6) (n=145)
Entry 3	5.7 (sd 1.8) (n=114)	4.9 (sd 2.2) (n=124)	4.1 (sd 2.6) (n=113)	4.3 (sd 1.4) (n=119)
Level 1+	6.8 (sd 1.7) (n=3,277)	6.3 (sd 2.5) (n=3,473)	4.5 (sd 2.6) (n=3,350)	4.8 (sd 1.4) (n=3,430)
Women				
Entry 2	5.1 (sd 2.0) (n=139)	4.2 (sd 2.4) (n=157)	4.1 (sd 2.4) (n=142)	4.5 (sd 1.5) (n=149)
Entry 3	5.2 (sd 1.9) (n=163)	4.6 (sd 2.1) (n=172)	4.0 (sd 2.3) (n=162)	4.8 (sd 1.3) (n=169)
Level 1+	6.4 (sd 1.8) (n=3,555)	6.2 (sd 2.3) (n=3,778)	4.3 (sd 2.4) (n=3,669)	5.3 (sd 1.3) (n=3,750)
Max Score	10	10	10	10

*sd=standard deviation; n=number of cohort members

Table A1b Average scores in cognitive tests taken at age 5 by cohort members' grasp of numeracy at age 34

	English Picture Vocabulary Test	Copying Designs	Profile Test	Draw-a-Man Test
Men				
Entry 2	5.7 (sd 2.0) (n=410)	4.7 (sd 2.4) (n=437)	4.0 (sd 2.5) (n=399)	4.3 (sd 1.4) (n=420)
Entry 3	6.2 (sd 1.9) (n=632)	5.2 (sd 2.3) (n=687)	4.2 (sd 2.5) (n=648)	4.6 (sd 1.5) (n=674)
Level 1+	7.0 (sd 1.7) (n=2,491)	6.6 (sd 2.4) (n=2,625)	4.5 (sd 2.6) (n=2,542)	4.9 (sd 1.4) (n=2,597)
Women				
Entry 2	5.6 (sd 1.9) (n=661)	4.8 (sd 2.3) (n=717)	4.0 (sd 2.4) (n=675)	4.8 (sd 1.4) (n=700)
Entry 3	6.0 (sd 1.8) (n=1,158)	5.6 (sd 2.2) (n=1,240)	4.3 (sd 2.4) (n=1,200)	5.1 (sd 1.3) (n=1,231)
Level 1+	6.7 (sd 1.7) (n=2,037)	6.8 (sd 2.3) (n=2,149)	4.4 (sd 2.5) (n=2,098)	5.4 (sd 1.3) (n=2,137)
Max Score	10	10	10	10

*sd=standard deviation; n=number of cohort members

Table A2a: **Average scores in cognitive tests taken at age 10 by cohort members' grasp of literacy at age 34**

	Edinburgh Reading Test	BAS Word Definitions	BAS Similarities	BAS Matrices	Friendly Maths Test	BAS Recall of Digits
Men						
Entry 2	3.5 (sd 1.7) (n=124)	1.7 (sd 1.1) (n=124)	5.8 (sd 1.2) (n=123)	3.4 (sd 1.7) (n=120)	4.0 (sd 1.6) (n=124)	5.6 (sd 1.3) (n=124)
Entry 3	4.5 (sd 1.7) (n=117)	2.3 (sd 1.3) (n=117)	6.3 (sd 1.0) (n=116)	4.4 (sd 1.9) (n=117)	5.0 (sd 1.5) (n=117)	6.0 (sd 1.3) (n=117)
Level 1 or 2	6.5 (sd 1.8) (n=3,154)	3.6 (sd 1.6) (n=3,123)	7.1 (sd=0.9) (n=3,102)	5.7 (sd 1.9) (n=3,127)	6.6 (sd 1.6) (n=3,155)	6.7 (sd 1.2) (3,119)
Women						
Entry 2	4.3 (sd 1.9) (n=140)	2.0 (sd 1.3) (n=137)	5.9 (sd 1.2) (n=136)	4.1 (sd 1.9) (n=135)	4.4 (sd 1.7) (n=140)	6.0 (sd 1.3) (n=137)
Entry 3	5.0 (sd 1.6) (n=171)	2.2 (sd 1.3) (n=167)	6.2 (sd 1.0) (n=164)	4.4 (sd 1.7) (n=165)	5.0 (sd 1.4) (n=171)	6.1 (sd 1.1) (n=167)
Level 1 or 2	6.7 (sd 1.7) (n=3,456)	3.2 (sd 1.5) (n=3,437)	6.9 (sd 1.0) (n=3,428)	6.0 (sd 1.8) (n=3,425)	6.4 (sd 1.5) (n=3,457)	6.7 (sd 1.2) (n=3,430)
Max Score	10	10	10	10	10	10

*sd=standard deviation; n=number of cohort members; BAS=British Ability Scales II

Table A2b: **Average scores in cognitive tests taken at age 10 by cohort members' grasp of numeracy at age 34**

	Edinburgh Reading Test	BAS Word Definitions	BAS Similarities	BAS Matrices	Friendly Maths Test	BAS Recall of Digits
Men						
Entry 2	4.5 (sd 1.8) (n=393)	2.4 (sd 1.4) (n=389)	6.4 (sd 1.1) (n=382)	4.0 (sd 1.8) (n=387)	4.8 (sd 1.6) (n=392)	6.0 (sd 1.3) (n=390)
Entry 3	5.2 (sd 1.8) (n=628)	2.8 (sd 1.4) (n=619)	6.6 (sd 0.9) (n=616)	4.6 (sd 1.8) (n=620)	5.4 (sd 1.5) (n=627)	6.3 (sd 1.3) (n=620)
Level 1 or 2	6.9 (sd 1.6) (n=2,372)	3.8 (sd 1.5) (n=2,354)	7.3 (sd=0.9) (n=2,341)	6.2 (sd 1.7) (n=2,355)	7.0 (sd 1.5) (n=2,375)	6.8 (sd 1.2) (n=2,348)
Women						
Entry 2	5.2 (sd 1.7) (n=655)	2.3 (sd 1.2) (n=650)	6.3 (sd 1.0) (n=643)	4.6 (sd 1.8) (n=644)	5.1 (sd 1.4) (n=656)	6.2 (sd 1.2) (n=648)
Entry 3	6.0 (sd 1.7) (n=1,122)	2.7 (sd 1.3) (n=1,110)	6.6 (sd 1.0) (n=1,108)	5.3 (sd 1.8) (n=1,106)	5.7 (sd 1.4) (n=1,123)	6.4 (sd 1.2) (n=1,109)
Level 1 or 2	7.3 (sd 1.5) (n=1,990)	3.6 (sd 1.5) (n=1,981)	7.2 (sd 0.9) (n=1,977)	6.5 (sd 1.6) (n=1,975)	6.9 (sd 1.3) (n=1,989)	6.9 (sd 1.2) (n=1,977)
Max Score	10	10	10	10	10	10

*sd=standard deviation; n=number of cohort members; BAS=British Ability Scales II

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This report is funded by the Department for Innovation, Universities and Skills as part of Skills for Life: the national strategy for improving adult literacy and numeracy skills.

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NRDC is a consortium of partners led by the Institute of Education, University of London with:

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