# Millennium Cohort Study Fourth Survey: A User's Guide to Initial Findings

# Edited by Kirstine Hansen, Elizabeth Jones, Heather Joshi and David Budge

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# **Centre for Longitudinal Studies**

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The views expressed in this work are those of the authors and do not necessarily reflect the views of the Economic and Social Research Council or the government departments contributing to the Study's funding. All errors and omissions remain those of the authors.

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### **EXECUTIVE SUMMARY**

The Millennium Cohort Study (MCS) is the fourth national birth cohort study in Britain. It has so far followed up the 'Children of the New Century' four times, and is set to track them through their teenage years and into adulthood. The fourth survey (MCS4) collected information from some 14,000 children born in 2000–02 across the UK. The latest survey was conducted when most of the children were aged 7, in 2008, following previous sweeps at 9 months, age 3 and age 5. This report is a first look at the MCS4 data. It offers mainly simple snapshots of the nation's 7-year-olds and their families but paves the way for more complex analysis of the longitudinal data accumulated so far.

**Chapters 1 and 2** introduce the content of the MCS4 survey and numbers participating in MCS4. Patterns of response are reviewed by UK country and by ethnicity. A total of 13,857 families took part in MCS4: 8,839 in England, 2,018 in Wales, 1,628 in Scotland and 1,372 in Northern Ireland. Altogether this is 1,389 fewer than at MCS3. The percentage of families who have participated in all MCS sweeps ranges from 59 per cent in Scotland to 64 per cent in Wales. Pakistani, Bangladeshi and black families have been more likely to drop out of the study than other ethnic groups.

As in previous MCS surveys, data were collected from both parent figures living with the cohort child. The main respondents were still mostly natural mothers but information was gathered on partners in 10,940 cases. Information, in the form of cognitive assessments and physical measurements, was also collected directly from the vast majority of the children (nearly 99% of those involved in MCS4). Most of the children (94%) also completed their own MCS questionnaire for the first time – answering questions about their schools, friends and enjoyment of life. This, like the rest of the fourth sweep of the study, has shed some fascinating light on the lives of the Millennium children and their families.

#### **Family demographics**

As **Chapter 3** reports, around 30 per cent of 7-year-old children were living apart from their natural fathers. Although the majority of children were still living with both of their natural parents (69%), over one in five children were now living with a lone natural mother (22%) and over one in 20 with a stepfather (7%).

One child in five had either gained or lost a parent in their household over the first seven years of life. Children were more likely to have lost their natural father from their home if, at the nine month survey, their parents were cohabiting rather than married. Sixty-nine per cent of the natural parents cohabiting at the first survey were still together at the age 7 sweep, including 20 per cent who had got married, compared with 87 per cent of those who had been married in the first place. Lone mothers at the first survey were more likely to have been joined by the child's natural father than a stepfather.

Younger mothers were more likely to have formed stepfamilies over the seven-year period, and older mothers to have become lone parents; but families headed by two natural parents were still more common among older mothers. Black (and Mixed) ethnic groups continued to show high rates of lone parenthood (nearly 50% among black Caribbean families). Contrasts between UK countries were minor.

Over four in ten (44%) children experienced the arrival of a younger full brother and sister in their first seven years of life and almost half of all 7-year-olds living with a stepfather had a younger half sibling. Pakistani and Bangladeshi cohort children had the largest number of siblings.

The majority of non-resident natural fathers maintain contact with their children, but a much lower proportion of them are reported to be making regular maintenance payments for the cohort child.

The complexity and diversity of family structures can be expected to continue increasing as the cohort gets older.

#### Parenting

**Chapter 4** analyses the responses to questions about parenting posed by the MCS4 survey. Overall, mothers were more likely to be happy with the amount of time they had to spend with their child (43%). Conversely, over half of fathers (56%) did not feel they had quite enough, or anywhere near enough, time with them. Predictably, employed mothers were much less happy in this respect than mothers who were not working.

Parents were asked about a range of parent–child activities such as storytelling, painting and going to the park. Mothers engaged in all the activities more often than fathers, with the exception of playing sports or physically active games. Mothers reported reading to their children more frequently than any other activity, with 42 per cent doing so every day compared to 16 per cent of fathers. Perhaps significantly, parents with lower qualifications engaged in some home learning activities, such as reading, less frequently than better-educated parents.

One in four fathers (26%) was involved in putting their child to bed every day, and around 85 per cent did so at least once a week. Fathers in Wales did bedtimes most frequently and fathers in Northern Ireland least often. Around 70 per cent of fathers looked after their child on their own at least once a week.

Mothers said they used a variety of discipline methods when their child was naughty. This included ignoring them, smacking, shouting, sending them to their room or the naughty chair, taking treats away and bribing them (e.g. with sweets). Overall, 96 per cent of mothers reported that their child went to bed at a regular time on weekdays (8pm on average). Further analysis should offer interesting insights into the parenting styles in MCS families.

#### **Child self-report**

The age 7 survey included a new element: the child self-completion questionnaire, the results of which are described in **Chapter 5**. This module was introduced not only to gather the cohort children's own views, but to increase their sense of belonging to the survey in the future. The questionnaire asked about their hobbies, their friends, their feelings and their attitudes to school. The children proved old enough to let their own 'voices' be heard. The chapter relates their answers to some key socio-demographic characteristics.

Boys were more likely than girls to enjoy watching television, videos and DVDs. They were also more likely to enjoy participating in sports and playing computer games or with a PlayStation. Girls were more likely to enjoy listening to music, drawing or making things. Children from more disadvantaged families and black ethnic groups were more likely than other children to play computer games. Girls were more likely to say that they had a lot of friends. Having friends who were a mixture of girls and boys was generally most common, but Asian children were more likely only to have friends of their own gender. Children from disadvantaged homes were more likely to worry, feel sad, be tired and like to be alone, but their feelings were also more polarised towards positive extremes. Although children from homes on low incomes were the most likely to say that they liked school a lot, children from higher income families agreed most often that they 'always tried to do their best at school'. Being bullied affected only a minority of children, but was more likely than average for boys, Pakistanis and Bangladeshis, the children of lone parents or poor families. Evidence of this kind should deepen our understanding of the circumstances that encourage children to flourish in school.

#### Education, schooling and childcare

**Chapter 6** reports on a wide range of data about children's experiences of schooling and out-of-school childcare at age 7. The children were mainly in Year 2 in England and Wales, and Primary 3 in Scotland and Northern Ireland. Nine out of ten were still in the same school as at age 5. Special educational needs had been identified for 9 per cent.

This chapter finds general similarities, but some differences, across the UK countries to which education policy is devolved. Children in England were the most likely to attend fee-paying schools, though even here the proportion was under one in twenty. In Scotland, mothers were particularly likely to want their children to continue in school past leaving age, and children were especially likely to get to school on foot. Mothers in Northern Ireland were the most likely to be very satisfied with their schools and their children were the least likely to have changed schools since age 5. Mothers in Wales were second most likely to report being very satisfied with their children's schools and their children were more likely to attend a breakfast or after-school club.

Children in Northern Ireland were reported to do the most homework, nearly two hours per week, compared to about one-and-a-half hours in the other countries. Parental support with homework was high across all social backgrounds, as was attendance at parents' evenings. The most educated parents were slightly less likely to help with homework, but their children were more likely to be among the minority (5%) getting help from outside tutors. Aspirations for children to continue their education past school-leaving age were very high across the board. The proportion of mothers wanting their children to attend university was as high as 96 per cent even where parents had no qualifications themselves.

#### **Cognitive development**

**Chapter 7** looks at the cognitive development of the MCS children at age 7. It examines their scores on a maths test as well as on two subscales from the British Ability Scales: Word Reading for verbal skills and Pattern Construction for non-verbal skills. It shows how these vary across a range of demographic and family characteristics. The children's future educational attainments are likely to be strongly associated with these skills.

Children in Wales and Northern Ireland scored higher than those in England on Pattern Construction, but children in England and Scotland scored higher than the other two countries on Word Reading. On the maths assessment, there were no differences by country.

Girls scored higher than boys on both verbal and non-verbal skills, but the difference was larger for Word Reading. There was no significant difference for the maths test.

Remarkably, the findings also suggest that children from ethnic minority groups showed higher (or at least as high) verbal skills at age 7 as white children. Indian children had overtaken whites by a clear margin, having been considerably behind on vocabulary at age 3, and still at age 5. Children growing up with single or cohabiting parents showed lower levels of reading ability, though the association is not necessarily one of cause and effect.

These results suggest that the socioeconomic resources available to the family are more consistently related to children's cognitive outcomes than are gender, ethnicity or country of residence. Children growing up with parents who are well-educated, have a professional job, or are living above the poverty line are performing better than their less privileged peers. The associations between children's scores and parents' relationships, work status, qualifications, occupations and poverty status were very similar for the three different assessments, though the magnitude of the gaps was greatest for verbal skills. This suggests that language and literacy skills are more sensitive to the home environment than non-verbal and numeracy skills. The relative gap in composite cognitive scores between children in advantaged and disadvantaged homes did not widen between ages 5 and 7.

#### Child behaviour

**Chapter 8** describes child behavioural adjustment at age 7 as assessed via the Strengths and Difficulties Questionnaire. This 25-item questionnaire, which was completed by the main respondent (normally the child's mother), was also used at the age 3 and age 5 surveys.

Four of its five sub-scales – emotional symptoms, conduct problems, hyperactivity and peer problems – are summarised in the Total Difficulties score. Eight per cent of 7-year-olds were classified as having serious behaviour problems with a further 6 per cent having borderline behavioural problems.

As was observed at ages 3 and 5, there were some striking differences between children from advantaged and disadvantaged backgrounds. Significantly fewer behavioural problems were reported for children of more educated parents or with two working parents. There was also still a significant difference between boys and girls. Boys were twice as likely as girls to display serious behaviour problems. Children in England had a higher rate of borderline problems than children growing up in Scotland, Northern Ireland or Wales. There were also differences between ethnic groups, with mothers of black African children reporting the lowest rates of problematic behaviour and black Caribbeans the highest. Children living in two-parent families showed fewer behaviour problems than those in other family arrangements. Children in stepfamilies were most likely to display serious behaviour problems.

Behavioural problems at age 7 were also found to be strongly associated with earlier problems (at age 3 and age 5), indicating that these problems are fairly consistent over time, although reversal of behaviour trends might also be possible. The association of social skills with the acquisition of cognitive skills at school remains to be explored, as does the account of behaviour given by the child's teacher. The results of the teacher survey will be reported later this year.

#### Child health

**Chapter 9** reports on the children's general health, longstanding conditions and diseases, by gender, ethnicity, country and socio-demographic circumstances. It also covers obesity and lifestyle factors which may contribute to these.

Although the majority of 7-year-olds were said to be in good health, children from disadvantaged backgrounds were more likely to be amongst the minority in poor health. This applies to most health indicators, and across a range of circumstances including parents' qualifications, family type and family poverty status. Advantaged children were more likely to suffer from hay fever and eczema. Bangladeshi and Pakistani children were least likely to be classed as in excellent or very good health. However, they were also among the least likely to be suffering from a longstanding condition. There was a big contrast in child health between black African and black

Caribbean groups. Black African children were the least likely to have a longstanding condition while black Caribbean children were the most, particularly respiratory conditions. However, there were some positive indicators for black Caribbean children in terms of boys' physical activity.

Just over one in five of the children (21%) were overweight, including 6 per cent who were obese. Girls were more likely than boys to be overweight and obese. Disadvantaged children were only slightly more likely to be overweight than others. They were however also less likely to engage in physical or sporting activities, to consume fruit and were more likely to go to bed late. Sleep and exercise may become important predictors of excess weight and other aspects of development at later ages. Children who had been skipping breakfast at age 5 were among those more likely to be obese at age 7. The age 7 results, in turn, may be precursors of future health problems and reflect outcomes of other early-childhood factors which have not yet been fully explored.

#### **Parental health**

MCS provides an unparalleled snapshot of adult health in the UK. It focuses on parents from disadvantaged and ethnic minority groups, and enables the connections to be made between parents' physical and mental health and their children's. Parental health is key to understanding and maintaining child health. The generations are linked, through environmental, lifestyle and genetic factors.

As **Chapter 10** points out, across almost all socioeconomic indicators, mothers and fathers in less advantaged circumstances were less healthy, physically and mentally, than more advantaged parents. For example, 22 per cent of mothers in income poverty rated their health as fair/poor compared to 10 per cent of those above the poverty line. These gaps are more evident than for child health (5% of children in families below the poverty line had fair/poor health compared to 2% of those who were not in poverty).

There are interesting patterns by ethnicity. Black African parents had good health compared to all other ethnic groups, especially black Caribbean parents. Bangladeshi mothers were more likely to rate their own health as poor, although also more likely not to report illness. Younger parents, and particularly those who were teenagers at the birth of the cohort child, were most likely to report poorer health, reflecting their relative social disadvantages. Among countries, Northern Ireland stood out as having the best self-rated parental health, highest life satisfaction and lowest symptoms of emotional stress.

Analysis of the lifestyle factors considered showed that greater alcohol consumption was associated with the more advantaged parents. However, smoking and obesity posed a particular threat to the health of disadvantaged parents, and could presage problems for the whole family in the future.

#### Parents' employment and education

**Chapter 11** examines the employment (and continuing education) of mothers and fathers when the cohort child was aged 7. Among mothers employed at MCS4 we report the type of occupation and the use of flexible employment arrangements, which may make it easier or possible to balance work and family responsibilities. Reasons for not being employed are also reported. Changes in families' combined employment status from earlier sweeps are described, and these also show up changes in partnership status. This chapter underlines how strongly related mothers' educational qualifications are to labour-force participation. It also reports that one in six mothers and one in seven fathers had acquired new educational or vocational qualifications since MCS3.

As cohort children passed through the first two years of primary school we saw a continued high level of employment amongst fathers and a net increase in mothers with paid work. Nearly two-thirds of mothers were employed when the cohort child was aged 7 and around three-quarters of them worked part-time. Mothers' overall employment was highest in Scotland, but the proportion in full-time jobs was highest in Northern Ireland (20%) and lowest in England (16%). Employment was still more common among mothers in two-parent families while some groups of mothers had little involvement in the labour force: those with low or no qualifications, or partners with lower-level occupations, Pakistanis and Bangladeshis, and lone mothers (although the latter group's employment rate has been increasing). Sweep 4 also confirmed that rotation in and out of employment was continuing. The outflows may become more substantial in the period after 2008. Employer provisions to help combine motherhood and work continue to be more favourable for mothers with managerial/professional or intermediate jobs. These mothers are, in turn, more likely to have partners in similar jobs than other mothers.

In summary, cohort children are being brought up by parents in very different situations. In some households both parents are workless, while in others each parent has a high-flying, full-time career. Such contrasts will clearly be reflected in the inequality of family income – examined in the next chapter – and are likely to have longer-term consequences for the family and the cohort child.

#### Income and poverty

**Chapter 12** reports family income in a way that is as close as possible to other data sources used to gauge poverty, and describes the characteristics of families at both ends of the income spectrum. Income is measured net of taxes and benefits, adjusted for family size and before housing costs. Families in poverty are those that have a net income below 60 per cent of the national median. This approximates the criterion used in official measures of child poverty and in monitoring progress towards its elimination. Income data collected in a multi-purpose survey such as this has some limitations – for example, the levels of child poverty recorded in MCS are not wholly comparable with official estimates. However, the pattern across MCS surveys,

as the children pass from infancy to age 7, looks very similar to the one that has emerged from the official series of statistics covering children of all ages. The key message is that poverty reduction appears to have stalled.

At MCS4, as at previous sweeps, about 30 per cent of families had income below the poverty line. Those in the bottom 20 per cent had incomes no more than 48 per cent of the national median. They had similar demographic characteristics to those classified in the broader band of poverty below 60 per cent of the national median: lone parents and couples without work, or where only the mother has a job, Pakistani, Bangladeshi and black families, residents in areas of minority ethnic concentration, social tenants, young mothers and those with poor education and poor health.

Gaining or losing employment often accompanies movements in and out of poverty. Despite their lower risk of poverty, working families are not immune from low income. Those in which at least one parent is earning constitute half of those classified below the poverty line. The level of income in the bottom fifth is one-sixth of the average level in the top fifth, which has an opposite demographic profile, characterised by dual earners, tertiary qualifications and home ownership, older mothers, and residence in 'advantaged' areas of England and Scotland. As in the official estimates for child poverty, Scotland had the lowest rate of income poverty (26%), while Northern Ireland and Wales had the highest (32 and 33% respectively). There were, however, regions of England with poverty rates well above these levels (North East 40%, other northern regions 35% and London 36%).

#### Housing, neighbourhood and residential mobility

**Chapter 13** presents some evidence of poorer housing quality and neighbourhood amenities for the MCS4 families with incomes below the poverty line. However, only a minority of the 'poor' are affected by damp (15% with some or great problems), lack of access for the child to parks or play areas (13%) or describe their home as 'disorganised' (20%). As for social capital, 7 per cent of the poor respondents said they had neither friends nor family in the local area compared with 4 per cent of those with income above the poverty line.

Most of this chapter is devoted to residential mobility between MCS3 and MCS4. Fewer MCS families moved home between sweeps 3 and 4 than between sweeps 2 and 3 (20% versus 24%). The most popular reasons for moving given by interviewed movers at sweep 4 were: wanting a larger home (37%), a better home (21%) and a better area (20%). Fifteen per cent of movers mentioned children's schooling as a reason for moving.

This chapter describes some social correlates of mobility. Residential mobility between MCS3 and MCS4 varied according to ethnicity. The rates of changing address ranged from 12 per cent among Indian families to 21 per cent among white families. Homeowners were less likely to move between sweeps 3 and 4 than tenants. Just over half of those renting privately (53%) moved, but only 20 per cent of

social tenants (local authority or housing association) moved. Workless families were more likely to move than those where at least one parent was employed at sweep 4; so were those who had considered their area at the previous sweep to be unsafe and/or a poor area for bringing up children.

#### Conclusion

What does this survey tell us about the topics on which the study was particularly designed to throw light? These are the differences between the four countries of the UK, and between ethnic groups, and the emergence or closing of gaps in the development of children from advantaged and disadvantaged homes.

The study shows that families throughout the UK are rather similar. Nevertheless, **Chapter 14** highlights some important and interesting inter-country differences. Scotland had the lowest child poverty rate and Wales the highest. Children in England were the most likely to say they enjoyed school while children in Wales were the most likely to be reported in excellent health. However, this study's major finding is that the variations in family circumstances and children's outcomes are far greater within countries, than between them.

Regardless of where they lived, ethnic minority families, apart from Indians, were considerably poorer than whites. This is a similar pattern to previous sweeps, although Indian families have drawn closer to whites. Verbal cognitive assessments revealed more dramatic gains for Indian children. By age 7, they had surpassed white children by a wide margin, and other minority children had also caught up with them. There is, however, much evidence of diversity between and within ethnic groups. This should caution against crude white/non-white comparisons.

There is also abundant evidence of the transmission of social and economic advantage. The key gap in cognitive ability between children from advantaged and disadvantaged backgrounds remained roughly constant between ages 5 and 7. The parental interviews suggest, however, that families across the social spectrum are taking an interest in their children's schooling and have high aspirations. Trouble may yet cloud the cohort members' future; but the conclusion from the age 7 survey must be that they are generally thriving, healthy and doing their best to learn.

#### Chapter 1

### INTRODUCTION

Kirstine Hansen and Elizabeth M. Jones

#### Chapter overview

This chapter looks puts the Millennium Cohort Study's fourth survey in context of the study as a whole and provides a guide to the succeeding chapters. It describes the design of the Millennium Cohort Study and then describes the following elements of the fourth survey:

- The response rate
- The content
- The fieldwork and the timetable
- The weighting

The Millennium Cohort Study (MCS) is the fourth national birth cohort study in Britain. It has so far followed up the 'Children of the New Century' four times, and is set to follow them through their teenage years and into adulthood. The fourth survey (MCS4) collected information from 13,857 families of children born in 2000–02 across the United Kingdom. This was done when the children were aged 7, in 2008. This addition to the datasets offers a chance to look at the situation of the Millennium Cohort children after two years of primary school. The children were previously surveyed at 9 months old (MCS1), 3 years old (MCS2) and 5 years old (MCS3). All four sweeps are intended to be used longitudinally to explore the lives and situations of the cohort children as they grow from birth to age 7 and beyond. The analyses presented in this report are only a building block towards this end.

This report offers a first look at the MCS4 data. This will be of interest to a wide range of readers, but its scope is limited to preliminary description. It is primarily intended to provide an introduction to potential users of the survey and to stimulate further analysis. Potential analysts should read it along with the documentation on the MCS sampling and response rates (Plewis, 2007; Ketende, 2010), the *Millennium Cohort Study First, Second Third and Fourth Surveys: Guide to the Datasets* (Hansen, 2010) and the technical report on fieldwork published by National Centre for Social Research (Chaplin-Gray et al., 2010), all of which are available from the CLS website (www.cls.ioe.ac.uk) and from the Data Archive at Essex University. A similar cross-sectional account of the first three surveys can be found in the reports edited by Dex and Joshi (2004) and Hansen and Joshi (2007, 2008). A collection of analyses of the first three surveys, taking a more in-depth, multi-dimensional and longitudinal approach across the data to age 5, was published in 2010 (Hansen et al.). This should also give an idea of the possibilities for further analysis when these data from age 7 can be better integrated.

#### The study design

It may help the reader of this report to bear in mind that this cohort study, unlike the previous British national birth cohort studies, is based on a sample of births across a whole year, with a disproportionately stratified and clustered sample design.<sup>1</sup> The sample for the first sweep was taken from babies born between 1<sup>st</sup> September 2000 and 31<sup>st</sup> August 2001 in England and Wales, who would form an academic-year cohort. In Scotland and Northern Ireland, birth dates run from 23<sup>rd</sup> November 2000 to 11<sup>th</sup> January 2002. The start was delayed to birth dates from 23<sup>rd</sup> November 2000 to avoid an overlap with an infant feeding survey. The sampled cohort was extended to 59 weeks of births to make up for a shortfall in numbers that became apparent during fieldwork. Children with sample birth dates were eligible for the survey if they lived in one of 398 selected electoral wards across the UK when aged 9 months. All children in these wards were eligible and the wards were selected according to a disproportionately stratified design.

The objective of this design was to ensure adequate representation of:

- All four UK countries;
- Areas in England with higher minority ethnic populations (identified as more than 30 per cent black or Asian in the ward at the 1991 Census);
- Disadvantaged areas (electoral wards whose value on the Child Poverty Index in1998–9 was above 38.4 per cent). This represents the cut-off threshold for the top 25 per cent of disadvantaged wards in England and Wales, and encompasses a slightly greater fraction in Scotland and Northern Ireland.

Further details can be found in *The Millennium Cohort Study: Technical Report on Sampling* (Plewis, 2007).

The selection of wards labelled 'disadvantaged' was made after the choosing of wards with concentrations of minority ethnic populations. All the wards selected in the 'ethnic' stratum had Child Poverty Index values above or close to the cut-off threshold, so they too can be thought of as 'disadvantaged' by this definition. The third, under-represented, stratum is the rest – non-disadvantaged; although, in this report, it is often called 'advantaged' as shorthand. The sampling weights associated with these strata will never change as they are fixed on entry to the cohort.

<sup>&</sup>lt;sup>1</sup> Past British national birth cohort studies, such as those of 1946, 1958 and 1970 (NSHD, NCDS and BCS70), have used a sample of all children born in a single week whereas MCS cohort members have a larger spread of ages. This makes it possible to differentiate by season of birth, but also implies that the complex sample design must be accounted for in analysis.

#### **Response at MCS4**

There were 19,244 families potentially eligible for inclusion in the issued sample for the fourth survey. They were families who had provided information at either of the first or second surveys, at ages 9 months and 3 years. The third survey at age 5 also attempted to follow up these families.

As shown in Table 1.1, the fourth sample achieved a response from 13,857 families or 72 per cent of the potentially eligible sample. As explained in Chapter 2, 'productive' families were those with some data from one of five data collection instruments. The non-productive cases are also shown in Table 1.1 by category of non-response. Some of these, such as emigrant families, would not have been eligible for the study. They were, on the whole, already known and were not issued to the field. Some refusals at sweeps 2 and 3 were not deemed 'permanent'. These families were therefore included among those the survey attempted to contact at sweep 4. The response rate out of cases issued to fieldwork was 82 per cent. There were 14,043 cohort children in the 13,857 productive families. The response rates to the individual survey elements within productive families were around 99 per cent for the main interview, cognitive assessments and physical measurements; 94 per cent for the child self-completion questionnaire; and 86 per cent for the partner interview in households where anyone was eligible (Chaplin-Gray et al., 2010).

Table 1.1: MCS	4 Overall Response		
		n	(%)
Productive		13,857	72.0
Ineligible		488 2.5	
Uncertain Eligibilit	y (including untraced movers)	848	4.4
	Refusals	3,516	18.3
Unproductive	Non-Contact	149	0.8
•p. •	Other	386	2.0
Total		19,244	100.0

#### **Content of the MCS4 Survey**

The structure of the data collection is set out in Table 1.2. Each main informant gave a computer-assisted personal interview (CAPI), during which they also completed a confidential questionnaire in computer-assisted self-interview mode (CASI). The topics covered in each part of the instrument are also shown in Table 1.2. In addition to the information collected from adults, there was direct contact with the cohort children for cognitive assessments, anthropometric measurements and a self-completion questionnaire.

Respondent	Mode	Summary of content			
Mother/Father	Interview	Module HD: Household demographics			
Mother/main		Module FC: Family context			
		Module ES. Early education, schooling and child behaviour			
		Module AB: Crinic and family activities and crinic benaviour			
		Module CH: Child health			
		Module PH: Parental health			
		Module FI: Employment, education and income			
		Module HA: Housing and local area			
		Module OM: Other matters			
	Self-completion	Module SC: Self-completion			
		- Child's temperament and behaviour			
		<ul> <li>Child's relationship with siblings</li> </ul>			
		– Parenting and parent-child relationship			
		– Mental health			
		- Relationship with partner			
		- Previous relationships, children living elsewhere, non			
		<ul> <li>Attitudes, ethnic identity, racial harassment and discrimination</li> </ul>			
		– Personality (OCEAN)			
		– Life satisfaction			
	Interview	Module Z: Consents and contact information			
*Father/Partner	Interview	Module FC: Family context			
		Module ES: Early education, schooling and childcare (some)			
		Module PA: Parenting activities			
		Module PH: Parental health			
		Module EI: Employment, education and income			
		Module OM: Other Matters			
	Self-completion	Module SC: Self-completion			
		- Parenting and parent-child relationship			
		– Mental health			
		- Relationship with partner			
		- Previous relationships, children living elsewhere			
		<ul> <li>Attitude, ethnic identity and racial harassment and discrimination</li> </ul>			
		– Personality (OCEAN)			
		– Life satisfaction			
	Interview	Module Z: Consents and contact information			
Interviewer	Observations	Cognitive assessment			
Child	Assessments	Story of Sally and Anne**			
		Pritich Ability Scalos: Word Poading			

Table 1.2: Summary of MCS4 Survey Elements			
Respondent	Mode	Summary of content	
Continued			
		British Ability Scales: Pattern Construction	
		Progress in Maths (Millennium Cohort Study edition)	
	Measurements	Height, weight, body-fat and waist circumference and physical activity monitoring	
	Self-completion	Hobbies, friends and family, feelings, school	
Teacher	Self-completion	Child's abilities and behaviour	
		Suspensions and exclusions	
		Language of schooling and language needs	
		Special Educational Needs/Additional support needs	
		Parental interest in education	
		Setting and streaming	
		Teacher demographics	
		Study child's class	

\*In the majority of cases the Main interview was undertaken by the mother/mother figure and the Partner interview was undertaken by the father/father figure. See Table 2.9.

\*\*The Child Theory of Mind Assessment 'The Story of Sally and Anne' was also administered at age 5. The results are not covered in this report, as they require detailed evaluation. The results of the MCS4 Teacher survey are also outside the scope of this report, as they came in later than the main fieldwork.

#### **Fieldwork for MCS4**

Following a competitive tender process, the National Centre for Social Research (NatCen) was appointed to carry out the fieldwork for both MCS3 and MCS4. The fieldwork in Northern Ireland was sub-contracted by NatCen to the Central Survey Unit of the Northern Ireland Statistics and Research Agency. The first wave of the main stage fieldwork started in England and Wales in January 2008 and in Scotland and Northern Ireland in April 2008. The survey also included a follow-on survey of teachers extending into 2009. Interviewer briefings included specific training in the administration of child cognitive assessments and physical measurements.

#### **Fieldwork timetable**

The fieldwork timetable for MCS4 was driven by the requirement to interview the family during the child's third year of compulsory schooling (Year 2 in England and Wales and Primary 3 in Scotland and Northern Ireland). As at MCS3, fieldwork was compressed into school years. In England and Wales, the cohort's birth dates span a single school year. However, in Scotland and Northern Ireland the birth dates are spread over more than one school year. In England, Wales and Northern Ireland, school year is normally determined by date of birth. In Scotland, school year is determined by parental preference in addition to date of birth. Table 1.3 sets out the

timetable for fieldwork with the families, while Table 1.4 shows the timing for the follow-on postal survey of the teachers of cohort children identified in the interviews.

Table '	Table 1.3: Fieldwork timetable for MCS4 – Main Survey						
Wave	Country	Dates of birth	Fieldwork				
E1	England	1 <sup>st</sup> September 2000 – 28 <sup>th</sup> February 2001	January – May 2008				
E2	England	1 <sup>st</sup> March 2001 – 11 <sup>th</sup> January 2002	April – August 2008				
W1	Wales	1 <sup>st</sup> September 2000 – 28 <sup>th</sup> February 2001	January – May 2008				
W2	Wales	1 <sup>st</sup> March 2001 – 11 <sup>th</sup> January 2002	April – August 2008				
S1	Scotland	1 <sup>st</sup> September 2000 – 28 <sup>th</sup> February 2001 (started school in August 2005)	April – August 2008				
S2	Scotland	1 <sup>st</sup> September 2000 – 28 <sup>th</sup> February 2001 (started school in August 2006) and 1 <sup>st</sup> March 2001 – 11 <sup>th</sup> January 2002	August – December 2008				
N1	Northern Ireland	24 <sup>th</sup> November 2000 – 1 <sup>st</sup> July 2001	April – August 2008				
N2	Northern Ireland	2 <sup>nd</sup> July 2001 – 11 <sup>th</sup> January 2002	September – December 2008				

Table 1.4: Fieldwork timetable for MCS4 – Teacher Survey					
Teacher Wave	Country	Main Fieldwork Wave	Teacher Fieldwork		
Wave 1	England and Wales	Interviews in E1, E2, W1, W2 up to end April 2008	June – November 2008		
Wave 2a	Scotland and Northern Ireland	Interviews in S1 and N1 up to end April 2008	July – December 2008		
Wave 2b	England and Wales	Interviews in E1, E2, W1, W2 up to end May 2008	July – December 2008		
Wave 3	England, Wales, Scotland, Northern Ireland	Interviews in E1, E2, W1, W2, S1, N1 up to end August 2008	October 2008 – February 2009		
Wave 4	Scotland and Northern Ireland	Interviews in S2 and N2 up to end December 2008	February – July 2009		

The result was that the bulk of interviews (two-thirds) took place in the first six months following and including the children's 7<sup>th</sup> birthdays. Average age at interview was 7 years 2 months. One-sixth of the interviews occurred while the children were not yet seven, and one sixth when they were just over seven-and-a-half (Ketende, 2010).

Table 1.5 shows the numbers of interviews achieved during each month of fieldwork during 2008, and the small 'overspill' into the first few week of 2009 for a few cases in Scotland, and even fewer interviewed in England, though these children may have originally been sampled in Scotland or Northern Ireland with later birth dates than those sampled in England.

Table 1.5: MC	Table 1.5: MCS4 Month of interview by country of interview							
	Unweighted observations (weighted column percentages)							
Month (2008)	England	Wales	Scotland	Northern Ireland	UK			
Jan	10				10			
	(0.1)				(0.1)			
Feb	593	104			697			
	(6.8)	(5.2)			( 5.8)			
March	1234	195			1429			
	(13.5)	(9.2)			(11.5)			
April	1831	331	167	171	2500			
	(20.8)	(17.0)	( 8.8)	(12.1)	(19.2)			
May	1693	345	135	194	2367			
	(19.1)	18.5)	(6.9)	(14.5)	(17.9)			
June	1308	241	31	260	1840			
	(14.5)	(12.6)	(1.8)	(20.7)	(13.5)			
July	968	260	16	50	1294			
	(10.9)	(13.2)	(0.8)	(2.7)	(9.8)			
Aug	757	275	78	28	1138			
	(8.6)	(13.9)	(4.9)	(1.9)	(8.3)			
Sept	375	159	389	171	1094			
	(4.3)	(7.7)	(24.2)	(13.7)	(6.7)			
Oct	92	54	374	206	726			
	(1.1)	(2.4)	(23.9)	(14.7)	(3.8)			
Nov	7	8	248	254	517			
	(0.1)	(0.4)	(16.5)	(16.6)	(2.3)			
Dec	8		130	42	180			
	(0.1)		(8.5)	(3.1)	(1.0)			
2009 Jan/Feb	11		54		65			
	(0.1)		(3.7)		(0.4)			
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)			
Unweighted	8887	1972	1622	1376	13857			
sample nos								
Weight used		do	ovwt1		dovwt2			

Overall the bulk of the data collection took place between March and June 2008. In England it tailed off over the summer and autumn, with a similar but somewhat delayed profile in Wales, as shown in Figure 1.1. In Scotland and Northern Ireland, where fieldwork did not start until April 2008, a clear lull in activity is visible between the two waves in the school holiday months. The relatively small size of the first wave in Scotland is also visible.





It so happens that one-sixth of all interviews took place before April 2008 just as onesixth of the interviews took place before the child' 7<sup>th</sup> birthday, but these are not necessarily the same children. Those interviewed before April could have had 7<sup>th</sup> birthdays any time between September 2007 and August 2008, and therefore have been aged anywhere between 6  $\frac{1}{2}$  and 7  $\frac{1}{2}$  at interview.

#### Weighting

#### Sample weights and corrections for clustered design

The disproportionate feature of the sampling design means that weighting is necessary to infer nationally representative estimates. Although the sample contains a disproportionate number of ethnic minority and disadvantaged children, when the sampling weights are applied, the weighted percentages of children in these groups will be close to their proportions in the UK population. Users are advised that where analysis is confined to data relating to a single country the sampling weight is weight 1. Where analysis covers all countries of the UK, the sampling weight is weight 2. Both weights are included in the deposited datasets. All analyses in this report allow for these weights using Stata 10's 'survey' commands.<sup>2</sup> The 'survey' commands also allow for the data being clustered by ward of initial residence. If individuals living in specific areas are more similar than individuals living elsewhere, the data will be correlated; a straightforward estimate of standard errors will be incorrect rendering the significance tests invalid. The correlation needs to be taken into account. There are several ways to do this, as described in Section 11, Part 7, of the Guide to the Datasets (Hansen, 2010) or Ketende (2010). Most of the tabulations presented here have used Stata 10's 'survey' commands.

<sup>&</sup>lt;sup>2</sup> Stata<sup>®</sup>: Data analysis and statistical software – see <u>www.stata.com</u>.

#### Non-response weighting at MCS4

As well as restoring representative estimates of the population which would otherwise be distorted by disproportionate sampling, we also use weighting to correct for bias which may be introduced though disproportionate losses to the sample, through non-response at the first survey and attrition at subsequent waves.

These non-response weights compound the sampling weights with a factor reflecting each productive family's chance of having been lost to the survey. Thus families with characteristics resembling those of many drop-outs are given a bigger attrition weight than those who do not. Details of how these weights were calculated, using multiple imputation, are given in the *Millennium Cohort Study Technical Report on Response* (Ketende, 2010) and also in Part 11, Section 7 of the MCS *Guide to the Datasets* (Hansen, 2010), along with the range of their resulting values, which are also plotted in Figures 2.1 and 2.2 of this report.

Some chapters in this report use 'overall' weights to adjust for attrition as well as sample design. Others, where attrition bias is less of a problem, use sampling weights. The weights used are clearly defined in each chapter.

#### Guide to this report

This report provides a quick tour of the different substantive areas in the fourth sweep of the MCS. It is not intended to explore any topic in depth, nor does it do justice to the possibilities for longitudinal or cross-domain analysis, let alone comparison with other datasets. However, where appropriate, chapters draw on evidence from these other sources. The report merely aims to point the way to those who would wish to do such work, and for whom the dataset has been constructed.

In each chapter the variables of interest are tabulated against a set of factors including the UK country, gender of child, a small collection of social and demographic indicators of the family context, ethnic group, family structure, age and educational attainment of parents, family income and parental employment. Chapter authors have made their own choices of exactly how these variables are defined, and have sometimes chosen to look at other variables relevant to their particular topic as well. Some have used the indicator of family poverty derived in Chapter 12 to approximate the official definition of net family income below 60 per cent of the national median. Readers should be aware that the income measures in the survey are not sufficiently detailed to make this an exact measure of the official child poverty threshold. This report only uses some of the variables gathered at sweep 4. Users should not assume that information is limited to those variables presented here.

The reader will find that authors have also chosen to confine many tabulations to cases where the main informant is the child's mother. This is for the sake of simplicity. Detailed attention to unusual cases is possible but is outside the scope of this report. Likewise, those where the partner interview was not with a father figure are generally excluded. This makes it clearer that we are talking about responses from mothers and fathers respectively. The evidence from other cases is not rejected

for all time, but it needs to be used with greater care. For some analyses that required the fathers to provide data, we do not include those two-parent families where the resident father did not complete an interview.

Similarly, in most chapters (except Chapter 5) the analysis of data about children sets aside the approximately 200 children who are the second and third of twins or triplets. Focused analysis of multiple birth families was beyond the scope of this descriptive report. The twin and triplet data provide the opportunity for future research on within- and between-family differences.

Chapter 2 examines the MCS4 response and location by country in more detail. Chapters 3 and 4 look at family demographics and parenting. Chapter 5 considers the children's own account of themselves – from a self-reported paper questionnaire – the first time such data have been collected. Chapter 6 focuses on different aspects of schools and out-of-school childcare; Chapter 7 on cognitive development; and Chapter 8 on behavioural development. Child health and parental health are surveyed in Chapters 9 and 10. Chapters 11 to 13 look at the parents and the contexts in which the cohort is being brought up: parental employment and education in Chapter 11; their income in Chapter 12; and their neighbourhood and housing in Chapter 13. A concluding chapter, 14, draws together a few themes that have already emerged.

#### References

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#### Chapter 2

### **MCS4 DATA**

#### Sosthenes C. Ketende

#### **Chapter overview**

This chapter looks at the response rate to sweep 4 of the Millennium Cohort Study (MCS) and summarises the patterns of response. It examines:

- Number of respondents (productive families)
- Response by UK country and ward type
- Response by ethnicity
- Number of cohort children in productive sample
- Residential mobility between UK countries
- Partner response rates
- Gender of main respondents
- Attrition and unit non-response survey weighting adjustment

#### Introduction

This chapter sets the scene for what follows by reviewing the numbers of families for whom sweep 4 data is available. It summarises patterns of response by the reasons for survey losses, by UK country and by ethnicity.

The issued sample for sweep 4 was 17,031 out of 19,244 or 88.5 per cent of the Millennium Cohort Study (MCS) families. The exclusion criteria included, but were not limited to, cohort child deaths, international emigrants, families judged to have refused permanently to take part in the survey and some cases of sensitive family circumstances (see Plewis (2007) and Ketende (2008) for more details).

The following definitions are used in tables and text throughout this chapter:

#### Productive

The families with some data from at least one of the data collection instruments other than data carried forward from previous sweeps.

#### Ineligible

Emigrations and child deaths.

#### Uncertain eligibility

Families who were away temporarily and those whose eligibility was uncertain, including untraced movers.

#### Unproductive

- Refusals (whether or not 'permanent' which may have been made at sweep 4 or cumulated from a previous survey).
- Non-contacts (i.e. address known but interviewer unable to make an appointment).
- Untraced, (current address not established).
- Other non-responses include: language problems, ill/incapacitated, deleted/lost data (files lost in fieldwork).

#### **MCS4** response

There were 13,857 productive families at sweep 4, as shown in Table 2.1. The response rate was therefore 72 per cent (13,857/19,244) of the MCS sample or 81per cent (13,857/17,031) of families issued to the field for sweep 4. This is 1,389 families fewer than at sweep 3. Sample loss between sweep 3 and 4 is nearly identical to the 1,444 families regained at sweep 3 having not participated at sweep 2 (see Ketende (2008) and Hansen and Joshi (2008) for more details). Over 71 per cent of these 1,444 families participated at sweep 4, see Table 2.3.

Response rates by UK country vary from nearly 70 per cent in Scotland to 73 per cent in Wales. Table 2.1 shows the numbers of productive cases and various types of unproductive cases by country. The biggest difference between UK countries is the refusal. Northern Ireland has the highest refusal rate (22%) and England the lowest (17%). Percentages in other response types are comparable across countries, although Scotland's lowest productive rate is mirrored by highest rates of ineligible and untraced.

Table 2.1: MCS4 response: families							
	England	Wales	Scotland	Northern Ireland	Total		
Productive	72.3	73.1	69.7	71.3	72.0		
	(8839)	(2018)	(1628)	(1372)	(13857)		
Refusal	17.4	19.1	18.6	22.1	18.3		
	(2131)	(526)	(434)	(425)	(3516)		
Other unproductive	2.0	2.5	2.2	0.9	2.0		
	(248)	(69)	(52)	(17)	(386)		
Ineligible	2.7	1.4	3.9	1.6	2.5		
	(327)	(40)	(91)	(30)	(488)		
Untraced	4.7	3.2	5.1	3.3	4.4		
	(579)	(87)	(118)	(64)	(848)		
No contact	0.8	0.7	0.6	0.8	0.8		
	(101)	(20)	(13)	(15)	(149)		
Total	100.0	100.0	100.0	100.0	100.0		
	(12225)	(2760)	(2336)	(1923)	(19244)		

Notes: Unweighted per cent. Unweighted sample in parentheses.

#### MCS4 response by UK country and ward type at entry to the sample

Table 2.2 shows that 78 per cent of non-disadvantaged families and about 65 per cent of families in areas of high minority ethnic populations in England were productive, providing the highest and lowest stratum-specific response at MCS4, just as it was at MCS3. The response rate for families sampled in the non-disadvantaged strata achieved 72 per cent in each UK country. Refusal rates varied from about 14 per cent in the 'England non-disadvantaged' to 22 per cent in disadvantaged wards in Northern Ireland.

Table 2.2: MCS4 Response by UK country and ward type at MCS1								
		Productive	Refusal	Other unpro- ductive	Ineligible	Untraced	No contact	Total
	Advantaged	78.5 (3788)	13.7 (663)	1.2 (60)	3.7 (180)	2.5 (119)	0.4 (18)	100.0 (4828)
England	Disadvantaged	70.3 (3377)	19.0 (912)	2.2 (105)	2.0 (95)	5.6 (267)	1.0 (50)	100.0 (4806)
	Ethnic	64.6 (1674)	21.5 (556)	3.2 (83)	2.0 (52)	7.4 (193)	1.3 (33)	100.0 (2591)
	Advantaged	74.8 (622)	18.4 (153)	3.0 (25)	1.7 (14)	2.0 (17)	0.1 (1)	100.0 (832)
Wales	Disadvantaged	72.4 (1396)	19.3 (373)	2.3 (44)	1.3 (26)	3.6 (70)	1.0 (19)	100.0 (1928)
Scotland	Advantaged	72.4 (829) 67.1	16.5 (189) 20.6	2.6 (30)	5.0 (57)	3.1 (36)	0.3 (4)	100.0 (1145)
	Disadvantaged	(799)	(245)	(22)	(34)	(82)	(9)	(1191)
Northern	Advantaged	73.9 (534)	21.6 (156)	0.4 (3)	1.7 (12)	1.8 (13)	0.7 (5)	100.0 (723)
Ireland	Disadvantaged	69.8 (838)	22.4 (269)	1.2 (14)	1.5 (18)	4.3 (51)	0.8 (10)	100.0 (1200)
Total		72.0 (13857)	18.3 (3516)	2.0 (386)	2.5 (488)	4.4 (848)	0.8 (149)	100.0 (19244)

Notes: Unweighted per cent. Unweighted sample in parentheses.

#### MCS longitudinal response history by UK country

The percentage of families who have participated in all MCS sweeps ranges from 59 per cent in Scotland to 64 per cent in Wales, see Table 2.3. The 60 per cent rate for England includes the new families who joined MCS at sweep 2. If these families are excluded, then 64 per cent of families in England who were in sweep 1 have participated in all sweeps to date.

Table 2.3 MCS Response History by UK country at MCS1						
Productive sweeps	England	Wales	Scotland	Northern Ireland	Total	
S1,2,3,4	60.4	64.5	59.2	60.9	60.9	
	(7387)	(1779)	(1384)	(1171)	(11721)	
S1,2,3	7.6	8.1	9.1	7.9	7.9	
	(927)	(223)	(212)	(151)	(1513)	
S1,2	6.3	6.6	6.7	5.7	6.3	
	(772)	(182)	(156)	(109)	(1219)	
S1,3,4	4.7	4.9	7.1	8.0	5.3	
	(573)	(136)	(166)	(154)	(1029)	
S1,2,4	2.2	2.8	2.7	1.8	2.3	
	(272)	(77)	(62)	(34)	(445)	

Table 2.3 MCS Response History by UK country at MCS1						
Productive sweeps	England	Wales	Scotland	Northern Ireland	Total	
Continued						
S1,3	2.1 (262)	1.6 (43)	2.2 (52)	3.0 (58)	2.2 (415)	
S1,4	0.9 (113)	0.9 (26)	0.7 (16)	0.7 (13)	0.9 (168)	
S1	10.0 (1227)	10.7 (294)	12.3 (288)	12.1 (233)	10.6 (2042)	
S2,3,4	3.8 (468)	0.0 (0)	0.0 (0)	0.0 (0)	2.4 (468)	
S2,3	0.8 (100)	0.0 (0)	0.0 (0)	0.0 (0)	0.5 (100)	
S2,4	0.2 (26)	0.0 (0)	0.0 (0)	0.0 (0)	0.1 (26)	
S2	0.8 (98)	0.0 (0)	0.0 (0)	0.0 (0)	0.5 (98)	
Total	100.0 (12225)	100.0 (2760)	100.0 (2336)	100.0 (1923)	100.0 (19244)	

Notes: Unweighted per cent. Unweighted sample in parentheses. S1 = families who joined MCS from sweep 1, S2 = families who joined MCS at sweep 2 (new families).

#### MCS4 response by ethnicity

Table 2.4 shows MCS4 response by the ethnic group of the cohort child using the six category Census classification (UK). Families with white cohort children had the highest response rate (74%) while those in the 'other' (this includes Chinese and other Asian) ethnic-group had the lowest (61%). The refusal rate was highest among families with Pakistani and Bangladeshi children (23%) and lowest (17%) among families with a child of mixed ethnicity. It should be noted that the ethnic group of the cohort children of mixed ethnicity. The relatively higher rates of attrition for Pakistani, Bangladeshi and black groups means that most authors have chosen the combined groups of this six-fold classification in the chapters that follow rather than distinguish separate groups within them.

Table 2.4 MCS4 Response by Cohort Member's Ethnicity							
	Productive	Refusal	Other	Ineligible	Untraced	No	Total
			unproductive			contact	
	73.6	17.5	1.8	2.6	3.8	0.7	100.0
White	(11591)	(2760)	(276)	(415)	(592)	(104)	(15738)
	64.5	18.2	3.2	5.2	8.1	0.8	100.0
Mixed	(383)	(108)	(19)	(31)	(48)	(5)	(594)
	69.0	21.9	2.6	1.4	4.4	0.6	100.0
Indian	(343)	(109)	(13)	(7)	(22)	(3)	(497)
Pakistani and	65.8	23.0	3.7	0.8	5.7	1.0	100.0
Bangladeshi	(888)	(311)	(50)	(11)	(77)	(13)	(1350)
Black or Black	62.8	21.0	2.2	1.5	10.0	2.5	100.0
British	(458)	(153)	(16)	(11)	(73)	(18)	(729)
Other ethnic group	61.1	19.1	3.6	4.0	10.2	2.0	100.0
(inc. Chinese and	(185)	(58)	(11)	(12)	(31)	(6)	(303)
other Asian)							
Total	72.1	18.2	2.0	2.5	4.4	0.8	100.0
	(13848)	(3499)	(385)	(487)	(843)	(149)	(19211)

Notes: Unweighted per cent. Unweighted sample in parentheses. Ethnicity data missing for 33 singleton cohort children.

Table 2.5: Numbers of children and families by UK country and stratum at MCS1								
UK Country	Ward type at sweep 1	Number of singletons	Number of twins	Number of triplets	Total number of cohort children	Total number of productive families		
England	Advantaged	3738	96	6	3840	3788		
	Disadvantaged	3328	94	6	3428	3377		
	Ethnic	1662	22	3	1687	1674		
Wales	Advantaged	615	14	0	629	622		
	Disadvantaged	1383	24	3	1410	1396		
Scotland	Advantaged	814	30	0	844	829		
	Disadvantaged	791	10	9	810	799		
Northern Ireland	Advantaged	526	14	3	543	534		
	Disadvantaged	824	28	0	852	838		
Total		13681	332	30	14043	13857		

#### Number of cohort children in MCS4 productive sample

Notes: Unweighted sample.

Because some families had multiple births (twins or triplets), there were 14,043 cohort children in the MCS4 productive sample of 13,857 families. Table 2.5 shows the distribution of cohort children in the MCS4 productive sample by UK country and ward type at MCS1, and the number of cohort children in an interviewed family at sweep 4. A total of 166 families with twins, 10 with triplets and 13,681 with single cohort children participated at sweep 4 of the MCS.

#### MCS4 residential mobility between UK countries

Table 2.6 below shows MCS4 cohort families' residential moves between UK countries, with reference to their country of residence at MCS1. The table shows that 206 families moved from one UK country to another between sweep 3 and 4. As at sweep 3, England had the largest number of moves with a net gain of 48 families, while Wales had the largest net loss of 46 families. There was a net gain of four families in Northern Ireland and a net loss of six families in Scotland. The diagonal in of the MCS1 by MCS4 country table shows the number of families who did not move across countries between MCS1 and 4.

MCS1									
		UK country at MCS4				Total	Number families who moved:		
		England	Wales	Scotland	Northern Ireland	Total	Out	In	Net
UK country at MCS1	England	8767	29	32	11	8839	72	120	+48
	Wales	70	1941	6	1	2018	77	31	-46
	Scotland	41	2	1582	3	1628	46	40	-6
	Northern Ireland	9	0	2	1361	1372	11	15	+4
Total		8887	1972	1622	1376	13857	206	206	0

 Table 2.6: MCS4 Productive families' Residential Mobility between UK countries since

 MCS1

Notes: Unweighted sample numbers.

#### MCS4 partner response

MCS4 partner response rates are shown in Table 2.7 below. Overall 10,940 families included a partner eligible for interview, and 2,917 main respondents had no partner. Eighty-four per cent of the partners gave an interview, and proxy data was collected for another 2.3 per cent of partners. Wales had the highest partner interview rate at 87 per cent, followed by England at 84 per cent. The lowest partner participation rate was in Northern Ireland at about 78 per cent.

Table 2.7: MCS4 Partner response by UK country at interview								
	Partner interview	Proxy interview	No interview	Total				
England	84.4	2.5	13.0	100.0				
	(5933)	(177)	(917)	(7027)				
Wales	86.7	1.7	11.6	100.0				
	(1310)	(25)	(176)	(1511)				
Scotland	83.2	2.0	14.8	100.0				
	(1097)	(27)	(195)	(1319)				
Northern Ireland	77.6	1.8	20.6	100.0				
	(840)	(20)	(223)	(1083)				
Total	83.9	2.3	13.8	100.0				
	(9180)	(249)	(1511)	(10940)				

Notes: Unweighted per cent. Unweighted sample in parentheses. Lone-parent families excluded.

Table 2.8 shows partner response by the ethnic group of the cohort member. Partner participation was highest among families with a white cohort child (86%). Response was also relatively high among families with a mixed child at 82 per cent and those with a cohort child in the 'other' ethnic group which includes Chinese and other Asians at nearly 83 per cent. The lowest partner participation rates were in families with a Pakistani or Bangladeshi cohort child (68%), followed by those with a black or black British child at about 72 per cent. There were relatively more main respondents providing proxy information on partners among families with a Pakistani or Bangladeshi cohort child (5%) or a black or black British cohort child (4%), but even if

proxy interviews are included, families whose cohort children are of these ethnic groups have the lowest partner response rates.

Table 2.8: MCS4 Partner response by cohort member's ethnicity								
Cohort member's ethnicity	Partner	Proxy	No	Total				
	interview	interview	interview					
	85.8	2.0	12.2	100.0				
White	(7896)	(183)	(1126)	(9205)				
	82.0	3.1	14.9	100.0				
Mixed	(187)	(7)	(34)	(228)				
	80.4	1.3	18.3	100.0				
Indian	(251)	(4)	(57)	(312)				
	68.2	5.4	26.4	100.0				
Pakistani and Bangladeshi	(534)	(42)	(207)	(783)				
	71.6	4.0	24.4	100.0				
Black or black British	(179)	(10)	(61)	(250)				
Other ethnic group (inc. Chinese and	82.6	1.3	16.1	100.0				
other Asian)	(128)	(2)	(25)	(155)				
Total	83.9	2.3	13.8	100.0				
	(9175)	(248)	(1510)	(10933)				

Notes: Unweighted per cent. Unweighted sample in parentheses. Lone-parent families excluded. A few families eligible for this table were excluded due to missing data on their cohort child's ethnicity.

#### Main respondents are still mainly mothers

Table 2.9 shows the numbers of one and two-parent families responding to MCS4 by the sex of the main respondent and their relationship to the cohort child. As in previous surveys the vast majority of main respondents were female. All but 61 were the natural mothers (who constituted 96.6% of main informants at MCS4 but even more, 99.8%, at MCS1). There were however 404 male informants at MCS4, of whom 392 were natural fathers. Almost one in four (99) was a lone father, 35 were natural fathers living with a stepmother, and the rest represented other couples where for various reasons the man gave the main information. Thus the identity of informants has become a little more complex with developments in family structure, and the fact that that the main respondent does not have to answer the questions about pregnancy and childbirth which determined that the natural mother nearly always did the main interview initially. A main interview was conducted in 13,797 of the 13,857 families. There were 41 productive cases without either parental interview (i.e. only child assessments). In the analyses which follow samples are drawn according the purpose of each table. Where necessary, for example, analyses are confined to the cases where the main informant is either female or a natural mother.

member									
	All		Female		Male				
	Frequency	%	Natural mother	Other	Natural father	Other			
Main respondent in person (no-one eligible for partner)	2903	20.9	2784	20	98	1			
Main and partner respondent In person	9161	66.1	8885	33	236	7			
Main in person, partner by proxy	249	1.8	236	1	11	1			
Main in person, partner eligible but no response	1484	10.7	1431	7	45	1			
Main eligible but no interview, partner Interviewed in person	19	0.1	18	0	0	1			
Main eligible, no response (no-one eligible for partner)	18	0.1	17	0	1	0			
Main and partner eligible, no response from either	23	0.2	21	0	1	1			
Total	13857	100	13392	61	392	12			

# Table 2.9: MCS4 Parent interviews by sex of main respondent and relationship to cohort member

Notes: Unweighted observations and percentages. Sex is of MAIN respondent in the family, even if they were not interviewed. See Hansen and Joshi (2008) Table 23.

#### Attrition and unit non-response survey weighting adjustment

To allow for the attrition reported in the previous sections, and non-response out of the initial issued sample at MCS1, we generated attrition and non-response adjusted weights at MCS4 similar to previous sweeps. The inverse of the probability of being productive for all issued cases at sweep 4 were multiplied with the overall weight from all previous sweeps, including design weights, to produce MCS4 attrition and non-response adjusted weights (see Ketende (2010) for details including predictor variables of response). There are a set of three weights: weights for analyses of each UK country sample, weights for analyses for the whole of the UK sample, and weights for analyses of the Great Britain only sample – all adjusted for longitudinal attrition and unit non-response. Analyses reporting weighted estimates in all chapters in this report use these weights, unless otherwise stated.

Figures 2.1 and 2.2 compare the distributions of non-response and attrition adjusted weights for productive cases in MCS1 and MCS4. Unlike the sampling weights, the overall weights are not a constant within stratum, but reflect the estimated propensities of individual informants to respond. The country-specific weights, shown in Figure 2.1, sum to unity within country (when non-productive cases are included). The most extreme values, not plotted, ranged from 0.24 in ethnic wards in England to 3.73 in advantaged wards in Wales at MCS1. The minimum and maximum at MCS4 were 0.20 in England ethnic wards and 6.19 in advantaged wards in Northern Ireland.

The overall weights for analyses of the whole of the UK sample, which correct for the under-representation of England and sum to unity over all four countries, are plotted in Figure 2.2. The minimum and maximum weights at MCS1 were 0.13 in disadvantaged wards in Northern Ireland to 4.48 in advantaged wards in England.

Equivalent figures at MCS4 were 0.10 in disadvantaged wards in Northern Ireland and 7.88 in disadvantaged wards in England.

The figures plot the 5<sup>th</sup>, 25<sup>th</sup>, median, 75<sup>th</sup> and 95<sup>th</sup> percentiles of the distributions of the weights. If the over-sampled wards also showed above average non-response, we would expect the weights to move towards unity, between MCS1 and MCS4. In both figures, the weights are going down towards unity in advantaged wards where under sampling was done while in disadvantaged and ethnic wards, which were oversampled, the weights are going upwards towards unity, most clearly in England, as they suffered more attrition. A similar pattern is displayed in Figure 2.2. Note also that the dispersion of weights increases over time.

# Figure 2.1: Overall weights for country-specific analyses (weight1) – MCS1 and MCS4 distributions compared by stratum.



# Figure 2.2: Overall weights for analyses of the whole of the UK sample (weight2) – MCS1 and MCS2 distributions compared by stratum.



Although non-respondents at sweep 4 are systematically different from respondents on some key variables, logistic modelling of the sweep 4 response has found that these differences in the propensity to respond are small compared to the unequal selection probabilities built into the sample design. Plewis (2007) had already found the same in analysing the propensity to respond at sweeps 1 and 2. It is, therefore, unlikely that analyses using the attrition and non-response adjusted overall weights at sweep 4 will make a substantial difference beyond that due to unequal selection probabilities built into the sample design.

#### Conclusion

There were small differences in productive response by UK country with the highest rate in Wales. However, there were somewhat larger differences in refusal rates by UK country. Large differences in productive response rates also existed by ward type within all UK countries where the non-disadvantaged families consistently had a higher productive response rate than disadvantaged or ethnic families. Moreover, families in minority ethnic groups were more likely to refuse than those with a white cohort child.

Where partners were present, there is information on six out seven of them. The partner response rate was also highest in Wales. The degree of movement between UK countries continued to be very small. The number of main informants who were
not the natural mother of the cohort child, also continued to be small, but has been growing as diverse family arrangements emerge in the children's lives.

### References

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# Chapter 3

# FAMILY DEMOGRAPHICS

Lisa Calderwood

#### **Chapter overview**

This chapter looks at the composition and stability of the families in which the Millennium Cohort Study children live. It examines:

- Family type whether the children are living with both natural parents, in loneparent or step-parent families
- Changes in family type between the first and fourth surveys
- Number of siblings
- Types of siblings i.e. natural, half, step, foster siblings etc
- Non-resident fathers' contact with children and maintenance payments

### Introduction

Children's lives have changed significantly in the UK over the last 30 years. One of the main changes has been in the composition and stability of the families in which children live. Rising rates of partnership dissolution among families with children and increasing proportions of children born outside marital or cohabiting unions have meant it has become increasingly common for children to live apart from their natural father (Kiernan, 2004). This trend has in turn led to increasing proportions of children living with stepfathers as their natural mothers form new co-residential partnerships. This also entails more children living with half and step siblings as these new partnerships both produce new children and bring together children from previous relationships.

Overall, the proportion of children living in lone-parent families in Great Britain has increased from 7 per cent in 1971 to 26 per cent in 2009. About nine in ten lone-parent families are headed by mothers (ONS, 2009). In 2005, about 10 per cent of all families with dependent children in Great Britain were step-parent families (ONS, 2007) and 86 per cent of step-parent families in 2007 comprised a natural mother and stepfather (ONS, 2009). The proportion of children living in families with three or more children fell from 44 per cent in 1972 to 29 per cent in 2006. In 2006, 46 per cent of children lived in families with two children (ONS, 2007).

The changing nature of family life and its impact on the wellbeing of children has been a major concern for social policy since the 1980s. The rise in the proportion of children living with lone parents, with low levels of labour market participation and correspondingly high rates of dependency on state benefits, was one of the main reasons that the proportion of children growing up in poverty increased dramatically in the 1980s and 1990s. In 1998/9, there were 3.4 million children living in poverty. This had fallen to 2.8 million ten years later (DWP, 2010).

One policy response was the 1991 Child Support Act. This created the Child Support Agency (CSA) whose objective was to enforce payment of child maintenance by non-resident parents, who were primarily fathers. The change of government in 1997 brought a new emphasis. The aim of reducing poverty among lone-parent families was to be met through increasing lone mothers' participation in the labour market through schemes such as the New Deal for Lone Parents and the National Childcare Strategy (and its equivalents in Scotland, Wales and Northern Ireland).<sup>3</sup> In addition, state financial support to families with children was increased and redesigned through rises in child benefit and the introduction of in-work tax credits.

The changes in family life have also led to a morally charged debate between political parties about the reasons for, and broader impact of, the decline of the 'traditional' nuclear family and whether government policy should promote certain types of family forms. Labour party policy has tended to focus on the wellbeing of children and has been neutral between different family forms. For example, the longstanding married couple's tax allowance was abolished in 1999 and its restoration was included in the Conservative manifesto. The 2010 Conservative-Liberal Democrat coalition government has pledged to review the marriage penalty in the tax credit system as one of a battery of measures to promote 'strong and stable families of all kinds are the bedrock of a strong and stable society'.

This chapter provides evidence on the prevalence of different family types in which the Millennium Cohort children live, and how this has changed over the first seven years of their lives. It also provides evidence on differences between countries and some of the demographic factors which are associated with different family types and family change, including the marital status of the parents.

It goes on to describe the number and type of siblings living with the cohort child and examines some of the factors associated with this. Finally, this chapter provides evidence on contact with, and financial support from non-resident fathers and how this is related to other demographic factors, including the current relationship status of both mothers and non-resident fathers.

The sample for the analysis of family type and siblings in this chapter is all families. The data are taken from the household grid which includes information on household composition and relationships between household members. The sample of families with non-resident fathers in this chapter is headed by natural mothers without a partner or living with a stepfather. The data on contact with, and maintenance payments from, non-resident fathers are taken from the face-to-face interview with the mother and the data on the relationship status of mothers and non-resident fathers are taken from the face-to-face interview with the mother and the data on the relationship status of mothers and non-resident fathers are taken from the household grid in combination with information from the mothers in the self-completion questionnaire. All of the analysis in this chapter is at family level rather than child level. For this reason, references to the proportion of

<sup>&</sup>lt;sup>3</sup> The Childcare Strategy **for** Scotland 1998; Childcare Strategy for Wales: Childcare is for Children 1999; Children First – The Northern Ireland Childcare Strategy, 2000.

children are based on counting only one child per family in those families with multiple cohort children, i.e. twins and triplets.

### Family type

As children get older they are less likely to be living with both of their natural parents and more likely to be living in lone-parent or step-parent families. This is due to a combination of the dissolution of co-residential partnerships between their natural parents and the formation of new partnerships between one of their natural parents and a step-parent. However, family change can also occur in the opposite direction, i.e. natural parents who were not living together at the child's birth may start to do so later.

As shown in Table 3.1, by age seven over one in five (22%) children was living in a lone natural-mother family and over one in twenty (6%) was living with a natural mother and a stepfather. Around seven in ten (69%) children lived with both natural parents with just over half (55%) living with married natural parents. The relatively small number of families where children lived with a stepmother and natural father or a lone father are included in 'other' family type.<sup>4</sup>

The proportions of seven-year-old children living in lone-mother families and stepfather families are lower than those from the national statistics (reported above). The proportions for seven-year-old children are expected to be lower than for all children given the increasing incidence of family break-up and reconstitution at later ages. Another reason that they are lower is that the national statistics are for all lone parent and step-parent families i.e. including lone fathers and stepmother families, included here in 'other' family type.

There was a marked contrast between Northern Ireland and the other UK countries. The proportion of children living with married natural parents was much higher (61% compared with 55% in England, 53% in Scotland and 51% in Wales) and the proportion of children living in stepfather families was much lower (2% compared with 6% in England and 7% in Scotland and Wales).

Taking figures from earlier sweeps of the MCS (Calderwood, 2008) shows how the prevalence of different family types has changed since the children were nine months old. The proportion of all children at each survey living with both natural parents has declined steadily from 86 per cent at nine months, and 77 per cent at age five, to 69 per cent at age seven. Between nine months and age five, this decline was almost entirely explained by a reduction in the proportion living with cohabiting natural parents (24% to 14%). Interestingly, between ages five and seven, this reduction was largely due to a fall in the proportion living with married natural parents (63% to 55%). This notable fall in the proportion of married couple families is particularly interesting as at the first three sweeps it had been very stable at around 60 per cent. This may indicate delayed partnership dissolution among married couples. Another possible

<sup>&</sup>lt;sup>4</sup> There were 35 families with a stepmother and natural father and 98 lone (natural) fathers.

explanation is that the offsetting effect of the formation of new marriages by previously cohabiting parents or between lone mothers and non-resident fathers/stepfathers, which was evident between nine months and age five (Calderwood, 2006), may have lessened between ages five and seven. There have been corresponding rises in the proportion of children living in lone-mother families from 14 per cent at nine months, to 17 per cent at age five and 22 per cent at age seven and in stepfather families from under half a per cent at nine months, to 4 per cent and 6 per cent respectively.

Table 3.1: Family type by country at MCS4								
Family type	England	Wales	Scotland	Northern Ireland	UK			
Both natural parents	6421	1339	1204	1029	9993			
	(69.4)	(66.6)	(70.0)	(72.6)	(69.4)			
- Married	5232	1018	948	875	8073			
	(54.9)	(51.0)	(53.1)	(61.4)	(54.7)			
- Cohabiting	1074	297	245	138	1754			
	(13.2)	(14.4)	(16.2)	(10.1)	(13.4)			
- Other/unknown relationship	115	24	_	_	166			
	(1.3)	(1.2)			(1.2)			
Natural mother and stepfather	436	122	87	33	678			
	(5.8)	(6.5)	(6.7)	(2.2)	(5.7)			
Lone natural mother	1773	452	292	281	2798			
	(21.3)	(23.4)	(20.6)	(22.7)	(21.5)			
Other family type	257	59	39	33	388			
	(3.5)	(3.5)	(2.7)	(2.6)	(3.4)			
Total percentage	100	100	100	100	100			
Total observations	8887	1972	1622	1376	13857			
	8886	1970	1615	1380	13851			
Sign. (excluding marital status)					P=0.001			
Sign. (including marital status <sup>5</sup> )					P=0.000			

Sample: All families. Table displays unweighted observations and weighted percentages (country totals using dovwt1 and UK totals using dovwt2). Weighted total observations are in italics. Statistics for cells with fewer than 20 observations have been replaced with '-'.

Table 3.2 (and Figure 3.1) shows that family type was strongly related to the age of the main respondent.<sup>6</sup> Around 1 in 6 of them was still under 30 when the cohort child was aged 7. These younger parents show considerable contrast in family situation with those where the main respondent was 35 and over at MCS4. Children with a younger parent were much more likely to be living in a lone-mother family (39% compared with around 16%), or with a stepfather (15% compared with around 3%) and much less likely to be living with both natural parents (42% compared with around 79%) and with married natural parents (19% compared with around 68%). Among children with a mother/respondent aged 30 to 34, one in five lived in a lone-mother family and just under half (48%) lived with married natural parents.

<sup>&</sup>lt;sup>5</sup> All tables in this section include proportions for family type both with and without the natural parents split by their marital status. In order to do this, separate cross-tabulations were run for each table and the results of significance tests for both cross-tabulations are included in the tables.

<sup>&</sup>lt;sup>6</sup> 13,392 out of 13,857 (97%) of main respondents were natural mothers (see Table 2.9 in Chapter 2).





Table 3.2: Family type by main respondent's age at MCS4								
Family type	Under 30	30–34	35–39	40 plus	Total			
Both natural parents	1049	1986	3632	3326	9993			
	(42.3)	(65.0)	(78.5)	(79.6)	(69.4)			
- Married	513	1542	3128	2890	8073			
	(19.4)	(48.4)	(66.8)	(68.4)	(54.7)			
- Cohabiting	479	413	458	404	1754			
	(20.5)	(15.6)	(10.6)	(10.5)	(13.4)			
- Other/unknown relationship	57	31	46	32	166			
	(2.5)	(0.9)	(1.1)	(0.8)	(1.2)			
Natural mother and stepfather	313	169	126	70	678			
	(15.1)	(6.6)	(3.1)	(1.9)	(5.7)			
Lone natural mother	848	664	687	599	2798			
	(39.0)	(24.2)	(16.1)	(14.5)	(21.5)			
Other family type	83	95	84	126	388			
	(3.6)	(4.2)	(2.3)	(3.9)	(3.4)			
Total percentage	100	100	100	100	100			
Total observations	2293	2914	4529	4121	13857			
	2528	2938	<i>4410</i>	3975	<i>13851</i>			
Sign. (excluding marital status)				•	P=0.000			
Sign. (including marital status)					P=0.000			

Sample: All families. Table displays unweighted observations and weighted percentages (using dovwt2). Weighted total observations are in italics.

Table 3.3 shows that family type was also strongly related to ethnic group. Around nine in ten Indian (89%) and Bangladeshi (90%) children were living with both natural parents and their parents were almost always married to each other. A slightly lower proportion of Pakistani children were living with both natural parents (85%) and lone

motherhood was also slightly more common among Pakistani children than Indian and Bangladeshi children (14% compared with 10% and 8% respectively).

Black Caribbean and black African children were the most likely to be living in a lonemother family (50% and 43% compared with 22% overall). This was the most common family type for black Caribbean children. A minority of children, 40 per cent, in this ethnic group lived with both natural parents who were married to each other in just over half of these families, 23 per cent overall. In contrast, living with both natural parents was the most common situation for black African children (54%). In four-fifths of these families, the parents were married to each other.

Table 3.3: Family type at MCS4 by cohort member's ethnic group									
Family type	White	Mixed	Indian	Pakistani	Bangladeshi	Black Caribbean	Black African	Other Ethnic group	Total
Both natural	8297 (69.8)	202 (52 7)	305 (88 9)	539 (84.6)	224 (89.9)	63 (39.8)	149 (54 0)	169 (67.4)	9948 (69.6)
- Married	6537 (53.9)	147 (36.6)	299 (87.5)	522 (81.9)	208 (83.0)	41 (22.8)	126 (46.0)	156 (62.1)	8036 (54.9)
- Cohabiting	1648 (14.8)	51 (14.7)	_	_	_	_	_	—	1747 (13.5)
- Other/unknown relationship	112 (1.0)	_	_	_	_	_	_	_	165 (1.2)
Natural mother and stepfather	632 (6.3)	-	-	_	_	-	-	_	676 (5.7)
Lone natural mother	2280 (20.7)	149 (40.8)	30 (9.7)	80 (13.9)	—	79 (49.7)	104 (43.0)	46 (26.3)	2785 (21.6)
Other family type	319 (3.2)	_	_	_	_	-	_	-	346 (3.0)
Total percentage	100	100	100	100	100	100	100	100	100
Total observations	11528 <i>11731</i>	373 450	341 264	627 480	247 163	155 163	261 251	223 218	13755 13720
Sign. (excluding marital status)				•		•		•	P=0.000
Sign. (including marital status)									P=0.000

Sample: All families. 102 observations are excluded due to missing data on cohort member's ethnic group. Table displays unweighted observations and weighted percentages (using dovwt2). Weighted total observations are in italics. Statistics for cells with fewer than 20 observations have been replaced with '-'.

This section has shown that overall a clear majority of seven-year-old children are living with both of their natural parents. However, only a minority of black Caribbean children and those with younger main respondents live with both natural parents. Substantial proportions of children in these groups, as well as black African and children in the mixed ethnic group, live in lone-mother families. In addition, a notable and increasing proportion of children, particularly in families with main respondents under 30, are living with a stepfather as well as their natural mother.

The next section looks in detail at the family transitions in the first seven years of the children's lives.

# Change in family type

This section provides more detail on the different kinds of transitions which lie behind the overall net change in family type between nine months and seven years reported above. The analysis sample here is restricted to families who took part in both MCS1 and MCS4. In addition, for ease of interpretation, the sample is restricted to families containing either both natural parents, or a lone natural mother at MCS1, and then any situation where the child was living with the natural mother at MCS4. This restriction excludes the small number of cases where the child was living with a lonenatural father, a stepmother or neither natural parent at either survey, and those who were living with their natural mother and stepfather at MCS1.

Table 3.4 shows over one in five (21%) children had a change in family type between nine months and age seven. Their household had either gained a parent (if they started out with a lone mother) or lost a parent (if they were originally living with both natural parents). This proportion was slightly lower in Northern Ireland compared with other UK countries (18% compared with 21% in England and 22% in Wales and Scotland).

This is likely to be an underestimate of the total proportion of children with a family change between nine months and seven years because some of the children who were in the same family type at MCS1 and MCS4 may have experienced changes at some point during this period e.g. if their parents had split up after the first survey but got back together by the age seven interview, these events would not be apparent.

Table 3.4: Any change in family type between MCS1 and MCS4 by country								
Family type	England	Wales	Scotland	Northern Ireland	UK			
Both natural parents at MCS1 and MCS4	5910	1261	1150	958	9279			
	(69.9)	(65.4)	(68.1)	(68.9)	(69.4)			
Lone natural mother at	688	232	118	151	1189			
MCS1 and MCS4	(9.3)	(12.8)	(9.4)	(13.3)	(9.7)			
Change in family type	1558	413	310	232	2513			
	(20.8)	(21.7)	(22.4)	(17.8)	(20.9)			
Total percentage	100	100	100	100	100			
Total observations	8156	1906	1578	1341	12981			
	<i>8154</i>	1895	1564	1342	12787			
Sign.					P=0.001			

Sample: All families responding at both MCS1 and MCS4 where family type at MCS1 was either both natural parents or lone natural mother and natural mother was resident at MCS4. Table displays unweighted observations and weighted percentages (country totals using dovwt1 and UK total using dovwt2). Weighted total observations are in italics.

Table 3.5 shows the change and stability of family change up to age seven by family type at MCS1 and country. Overall, more than a third (37%) of children living with a lone parent at nine months had a change in their family situation by age seven compared with less than one in five (18%) children living with both natural parents at nine months.

Over eight in ten (82%) children who were living with their two natural parents at nine months were still living with both of them at age seven while around one in seven (14%) was living with their natural mother only and just under one in twenty (4%) was living in a stepfather family by age seven. In Northern Ireland, a higher proportion of

families containing both natural parents were still together by age seven (87% compared with 82% in all other UK countries). A similar proportion had made the transition to lone-mother families (13% compared with 14% in all other countries) but a much lower proportion had made the transition to stepfather families (1% compared with 4% in all other countries).

Looking at transitions from lone natural-mother families, Table 3.5 shows around one in five (21%) children living with their natural mother only at nine months, was living with both of their natural parents at age seven. In around a quarter of these families (6% overall) their natural parents were now married to each other. Around one in six (16%) children who were living in lone natural-mother families at nine months was living in a stepfather family by age seven.

The addition of the natural father into a lone-mother family was more common in Northern Ireland (28%) and Scotland (23%) than England (20%) and Wales (19%). The transition from lone-mother family to stepfather family was also much less common in Northern Ireland (7%) compared with England and Wales (both 16%) and Scotland (21%). Interestingly, in Scotland, the proportion of children living with lone parents at nine months who experienced family change by age seven was higher than in all other countries (45% compared with 36% in England and Wales and 34% in Northern Ireland).

Table 3.5: Type of change in family type between MCS1 and MCS4 by country							
Family type at MCS1	Family type at MCS4	England	Wales	Scotland	Northern Ireland	UK	
Both natural parents	Both natural	5910	1261	1150	958	9279	
	parents	(81.7)	(81.7)	(82.1)	(86.5)	(82.0)	
	Lone natural	935	216	172	130	1453	
	mother	(14.3)	(14.1)	(14.0)	(12.5)	(14.2)	
	Natural mother	240	61	43	_	356	
	and stepfather	(4.0)	(4.2)	(3.8)		(3.8)	
Total percentage		100	100	100	100	100	
Total observations		7085	1538	1365	1100	11088	
		6975	1517	1298	1069	10832	
Sign.				•		P=0.003	
Lone natural mother	Lone natural	688	232	118	151	1189	
	mother	(64.1)	(64.4)	(55.4)	(65.7)	(63.4)	
	Both natural	227	78	52	70	427	
	parents	(19.6)	(19.3)	(23.2)	(27.8)	(20.5)	
	- Married	86	_	_	24	142	
		(5.6)			(8.1)	(5.8)	
	- Cohabiting	97	45	35	36	213	
		(10.0)	(11.1)	(15.0)	(15.5)	(11.0)	
	- Other or	44	_	_	_	72	
	unknown	(4.0)				(3.7)	
	relationship						
	Natural mother	156	58	43	20	277	
	and stepfather	(16.3)	(16.3)	(21.4)	(6.5)	(16.1)	
Total percentage		100	100	100	100	100	
Total observations		1071	368	213	241	1893	
		1179	378	267	273	1954	
Sign. (excluding						P=0.001	
marital status)							
Sign. (including						P=0.002	
marital status)							

Sample: All families responding at both MCS1 and MCS4 where family type at MCS1 was either both natural parents or lone natural mother and natural mother was resident at MCS4. Table displays unweighted observations and weighted percentages (country totals using dovwt1 and UK total using dovwt2). Weighted total observations are in italics. Statistics for cells with fewer than 20 observations have been replaced with '-'.

Table 3.6 shows that among natural parents, almost nine in ten (88%) couples who were married at nine months, were still together when the children were seven compared with 69 per cent of those couples who were cohabiting at nine months. Almost one in four (23%) children living with cohabiting parents at nine months was in lone mother families by age seven compared with only one in ten (10%) living with married parents at nine months

Table 3.6: Type of change in family type between MCS1 and MCS4 by marital status of natural parents: couples at MCS1								
Family type at MCS1	Family type at MCS4	Married at MCS1	Cohabiting at MCS1	Total				
Both natural parents	Both natural parents	7200 (87.7)	2049 (69.4)	9249 (82.2)				
	Lone natural mother	771 (10.1)	661 (23.4)	1432 (14.1)				
	Natural mother and stepfather	153 (2.2)	195 (7.2)	348 (3.8)				
Total percentage		100	100	100				
Total observations		8124 7692	2905 3097	11029 <i>10766</i>				
Sign.				P=0.000				

Sample: All families responding at both MCS1 and MCS4 where family type at MCS1 was both natural parents and their marital status was not other or unknown and natural mother was resident at MCS4. Table displays unweighted observations and weighted percentages (using dovwt2). Weighted total observations are in italics.

Table 3.7 shows that children's risk of family change in their first seven years of life decreases with the age of the mother (who is usually the main respondent). Almost four in ten (39%) children living with main respondents aged under 30 and one in four (25%) living with main respondents aged 30–34 had a family change between MCS1 and MCS4 compared with 16 per cent and 13 per cent respectively of those with main respondents aged 35–39 and 40 and over.

at MCS4 at MCS4								
Family type	Under 30	30–34	35–39	40 plus	Total			
Both natural parents at MCS1 and MCS4	820	1815	3475	3169	9279			
	(37.4)	(64.5)	(78.8)	(81.9)	(69.4)			
Lone natural mother at MCS1 and MCS4	473	266	236	214	1189			
	(23.1)	(10.7)	(5.6)	(5.3)	(9.7)			
Change in family type	770	636	624	483	2513			
	(39.4)	(24.8)	(15.6)	(12.7)	(20.9)			
Total percentage	100	100	100	100	100			
Total observations	2063	2717	4335	3866	12981			
	2243	2704	<i>417</i> 9	<i>3660</i>	<i>12787</i>			
Sign.					P=0.000			

Sample: All families responding at both MCS1 and MCS4 where family type at MCS1 was either both natural parents or lone natural mother and natural mother was resident at MCS4. Table displays unweighted observations and weighted percentages (using dovwt2). Weighted total observations are shown in italics.

Table 3.8 gives more detail on the type of family change by main respondent's age. It shows that, regardless of their original family situation, children living with younger mothers were more likely than those with older main respondents to experience family change in their first seven years of life. This indicates that the relationship status of younger parents is more changeable than older parents For example, where the children had been with both natural parents initially, children had experienced

family change in 38 per cent of cases if the main respondent was under 30 at MCS4, and 11 per cent of cases where they were aged 40 and over. Where the child had been living with a lone mother at MCS1, the figures were 42 per cent for the younger group of parents, and 28 per cent for the older. Table 3.9 shows that the association between family change and parents' marital status holds for all parental age groups among families who started out as two natural parents. For lone-mother families at age nine months, the most common family transition by age seven was to a partnership of both natural parents. This applied to all age groups except the youngest (Table 3.8).

MCS4				-	-	-
Family type at MCS1	Family type at MCS4	Under 30	30-34	35-39	40 plus	Total
Both natural parents	Both natural parents	820	1815	3475	3169	9279
		(62.2)	(77.0)	(86.1)	(88.5)	(82.0)
	Lone natural mother	304	368	427	354	1453
		(27.3)	(16.9)	(11.6)	(10.2)	(14.2)
	Natural mother and	121	108	83	44	356
	stepfather	(10.4)	(6.0)	(2.3)	(1.4)	(3.8)
Total percentage		100	100	100	100	100
Total observations		1245	2291	3985	3567	11088
		1350	2266	3826	3390	10832
Sign.						P=0.000
Lone natural mother	Lone natural mother	473	266	236	214	1189
		(58.1)	(66.1)	(66.6)	(72.2)	(63.4)
	Both natural parents	183	108	73	63	427
		(19.6)	(23.2)	(20.5)	(19.0)	(20.5)
	- Married	47	37	28	30	142
		(4.3)	(6.1)	(7.7)	(7.6)	(5.8)
	- Cohabiting	98	58	30	27	213
		(11.0)	(14.1)	(8.2)	(9.5)	(11.0)
	- Other or unknown	38	-	_	_	72
	relationship	(4.3)				(3.7)
	Natural mother and	162	52	41	22	277
	stepfather	(22.2)	(10.8)	(12.8)	(8.8)	(16.1)
Total percentage		100	100	100	100	100
Total observations		818	426	350	299	1893
		893	438	352	271	1954
Sign. (excluding marital						P=0.000
status)						
Sign. (including marital						P=0.000
status)						

Table 3.8: Type of change in family type between MCS1 and MCS4 by main respondent's age at

Sample: All families responding at both MCS1 and MCS4 where family type at MCS1 was either both natural parents or lone natural mother and natural mother was resident at MCS4. Table displays unweighted observations and weighted percentages (using dovwt2). Weighted total observations are in italics. Statistics for cells with fewer than 20 observations have been replaced with '--'.

parents at MCS1 and main respondent's age at MCS4								
Family type at MCS1	Family type at MCS4	Under 30	30–34	35–39	40 plus	Total		
Both natural parents -	Both natural parents	342	1305	2884	2669	7200		
married	_	(73.3)	(82.5)	(88.9)	(90.6)	(87.4)		
	Lone natural mother	73	193	266	239	771		
		(20.2)	(13.7)	(9.1)	(8.2)	(10.3)		
	Natural mother and	25	45	53	30	153		
	stepfather	(6.6)	(3.8)	(2.0)	(1.2)	(2.3)		
Total percentage		100	100	100	100	100		
Total observations		440	1543	3203	2938	8124		
		431	1431	3017	2749	7628		
Sign.				•		P=0.000		
Both natural parents -	Both natural parents	467	504	586	492	2049		
cohabiting		(57.9)	(67.7)	(75.8)	(79.7)	(69.4)		
~	- Married	112	165	175	137	589		
		(13.6)	(22.3)	(22.7)	(21.6)	(19.8)		
	- Cohabiting	347	336	404	349	1436		
	_	(42.9)	(45.2)	(51.9)	(57.3)	(48.7)		
	- Other or unknown	_	_	_	_	24		
	relationship					(0.9)		
	Lone natural mother	219	174	157	111	661		
		(30.0)	(22.5)	(20.9)	(18.1)	(23.3)		
	Natural mother and	92	62	27	_	195		
	stepfather	(12.1)	(9.9)	(3.3)		(7.3)		
Total percentage		100	100	100	100	100		
Total observations		778	740	770	617	2905		
		880	829	799	629	3137		
Sign. (excluding marital status)						P=0.000		
Sign. (including marital status)						P=0.000		

Table 3.9: Type of change in family type between MCS1 and MCS4 by marital status of natural

Sample: All families responding at both MCS1 and MCS4 where family type at MCS1 was both natural parents and their marital status was not other or unknown and natural mother was resident at MCS4. Table displays unweighted observations and weighted percentages (using dovwt2). Weighted total observations are in italics. Statistics for cells with fewer than 20 observations have been replaced with '-'.

This section has shown that although the majority of children lived in stable family circumstances in their first seven years of life, a significant minority (21%) had experienced a change in their family situation. Children living with a lone mother at MCS1 were more likely to experience family change than those living with both natural parents at MCS1 (37% compared with 18%) and children living with cohabiting natural parents at MCS1 were more likely to experience family compared with 18%). For many children living with married natural parents (31% compared with 12%). For many children family change represented a weakening of the ties between their natural parents, but, in some cases, the change represented a strengthening of these ties. In particular, one in five (20%) natural parents who were cohabiting at nine months had got married to each other by seven years and one in five (21%) lone natural mothers at nine months was living with the child's natural father by seven years. Overall, lone natural mothers were more likely to have started living with the child's natural father than with a stepfather (21% compared with 16%).

For some of these children, the arrival of a stepfather may have been associated with another change. Their mother may have had another baby with her new partner and the cohort child may have acquired a younger half brother or sister. It is also possible that the stepfather may have brought his children from previous relationships into the household and the cohort child may now have a stepbrother or sister. The next two sections will broaden the picture of our families to include their co-resident brothers and sisters.

### Number of siblings

Although overall the average number of children per family has declined over the last 30 years, the increase in stepfamilies makes it now more likely for children to be living with half or stepbrothers and sisters. Stepfamilies also tend to be larger; 27 per cent of them have three or more children compared with 18 per cent of non-stepfamilies (ONS, 2007).

This section provides evidence on the overall number of siblings per family and the next section looks at different types of siblings. This information comes from the household grid which collects data on everyone present in the cohort member's household and the relationships between household members. Both sections explore how number of siblings and the presence of different types of siblings vary by country, age of the main respondent, ethnic group of the cohort child and family type.

The definition of sibling used in this section includes step, half, foster and adopted siblings besides full natural siblings excluding those who are part of a twin or triplet of the cohort child. The definition of sibling used in these sections is restricted to corresidential siblings (and so excludes siblings living elsewhere) and includes corresidential siblings of any age (and so includes co-residential siblings who are adults).

Table 3.10 shows that almost nine in ten (86%) seven-year-olds had at least one sibling. This has increased from just under six in ten (57%) at nine months (Calderwood, 2008). The most common number of siblings was one, with just under half (46%) of children in this category. Over one in four (27%) had two siblings and one in seven (14%) had three or more.

There were some differences between countries in the number of siblings. Children in Northern Ireland and England were less likely to be the only child in the family than in Scotland and Wales (12% and 13% respectively compared with 16%). Children in Northern Ireland also had more siblings than in all other countries. In this country, 30 per cent of children had two siblings compared with between 25 and 27 per cent in England, Wales and Scotland and 20 per cent had three or more children compared with 11–14 per cent in the other UK countries.

	Country at MCS4							
Number of siblings	England	Wales	Scotland	Northern Ireland	UK			
None	1117	306	260	152	1835			
	(13.1)	(15.9)	(16.4)	(12.0)	(13.6)			
One	4007	911	812	519	6249			
	(46.3)	(46.0)	(48.0)	(38.0)	(46.0)			
Two	2398	506	403	428	3735			
	(26.8)	(25.6)	(25.0)	(29.7)	(26.7)			
Three or more	1365	249	147	277	2038			
	(13.7)	(12.5)	(10.7)	(20.3)	(13.7)			
Total percentage	100	100	100	100	100			
Total observations	8887	1972	1622	1376	13857			
	8886	1970	1615	1380	13851			

Sample: All families. Table displays unweighted observations and weighted percentages (country totals using dovwt1 and UK totals using dovwt2). Weighted total observations are in italics.

Table 3.11 shows that the number of siblings is strongly related to the age of the mother. Children of main respondents under 30 and 40 and over were less likely than those with main respondents in their thirties to have any siblings. Children with main respondents under 30 were particularly less likely than all other groups to have three or more siblings.

Table 3.11: Number of siblings by main respondent's age at MCS4							
Number of siblings	Under 30	30–34	35–39	40 plus	Total		
None	468	333	465	569	1835		
	(19.9)	(11.6)	(10.6)	(14.3)	(13.6)		
One	979	1253	2177	1840	6249		
	(42.2)	(44.7)	(48.8)	(46.3)	(46.0)		
Two	594	846	1225	1070	3735		
	(26.7)	(28.2)	(26.8)	(25.3)	(26.7)		
Three or more	252	482	662	642	2038		
	(11.1)	(15.4)	(13.8)	(14.0)	(13.7)		
Total percentage	100	100	100	100	100		
Total observations	2293	2914	4529	4121	13857		
	2528	2938	4410	3975	13851		
Sign.					P=0.000		

Sample: All families. Table displays unweighted observations and weighted percentages (using dovwt2). Weighted total observations are in italics.

Table 3.12 shows how the number of siblings varied by the cohort member's ethnic group. Indian, Pakistani and Bangladeshi children were much less likely (10%, 7% and 4% respectively) and black Caribbean and mixed children were much more likely (18% and 22% respectively) to be the only child in the family than children in other ethnic groups (13–14%). Pakistani, Bangladeshi and black African children had more siblings than children in other ethnic groups. The most common number of siblings was two for Pakistani children (39%) and three or more for Bangladeshi (42%) and black African (32%) children. In all other groups the most common number of siblings was one.

Table 3.12: Number of siblings by cohort member's ethnic group at MCS4									
Number of siblings	White	Mixed	Indian	Pakistani	Bangladeshi	Black Caribbean	Black African	Other ethnic group	Total
None	1578	72	30	32	_	29	28	21	1801
	(13.5)	(21.5)	(9.8)	(6.5)		(18.1)	(13.4)	(13.5)	(13.4)
One	5520	151	165	114	53	59	58	87	6207
	(48.5)	(38.6)	(50.1)	(18.3)	(22.0)	(37.1)	(24.1)	(37.9)	(46.1)
Two	3019	100	119	228	76	45	77	56	3720
	(25.9)	(28.4)	(33.8)	(38.6)	(31.4)	(28.4)	(30.3)	(26.3)	(26.8)
Three or more	1411	50	27	253	107	22	98	59	2027
	(12.1)	(11.6)	(6.3)	(36.7)	(42.3)	(16.3)	(32.2)	(22.3)	(13.7)
Total	100	100	100	100	100	100	100	100	100
percentage									
Total	11528	373	341	627	247	155	261	223	13755
observations	11731	450	264	480	163	163	251	218	13720
Sign.									P=0.000

Sample: All families. 102 observations are excluded due to missing data on cohort member's ethnic group. Table displays unweighted observations and weighted percentages (using dovwt2). Weighted total observations are in italics. Statistics for cells with fewer than 20 observations have been replaced with '-'.

As Table 3.13 shows, number of siblings is also related to family type. Children living with lone mothers are the most likely (26%) and those living with married natural parents are the least likely (8%) to be the only child in the family. Children living in stepfather families are the most likely, of the major groups, to have three or more siblings (19% compared with 14% overall).

Table 3.13: Number of siblings by family type at MCS4										
Number of siblings	Married natural parents	Cohabiting natural parents	Natural parents (other/ unknown)	Natural mother and stepfather	Lone natural mother	Other family type	Total			
None	630 (7.6)	232 (13.0)	_	116 (15.0)	723 (26.2)	118 (32.2)	1835 (13.6)			
One	3862 (49.9)	841 (47.2)	57 (40.8)	259 (37.8)	1084 (39.5)	146 (37.0)	6249 (46.0)			
Тwo	2377 (29.3)	449 (26.3)	51 (25.6)	188 (28.4)	589 (20.9)	81 (20.1)	3735 (26.7)			
Three or more	1204 (13.3)	232 (13.5)	42 (23.8)	115 (18.8)	402 (13.5)	43 (10.8)	2038 (13.7)			
Total percentage	100	100	100	100	100	100	100			
Total observations	8073 7575	1754 1863	166 169	678 791	2798 2982	388 472	13857 13851			
Sign.							P=0.000			

Sample: All families. Table displays unweighted observations and weighted percentages (using dovwt2). Weighted total observations are in italics. Statistics for cells with fewer than 20 observations have been replaced with '--'.

This may be related to the prevalence of half-siblings and step-siblings in this family type. The next section examines this in more detail.

### Types of siblings

This section provides evidence on the different types of siblings living with the cohort child. A natural sibling is one with whom the cohort child shares both biological parents and a half-sibling is one with whom the cohort child shares one biological parent. No biological parents are shared between step-siblings, foster or adoptive siblings. However, unlike foster or adoptive siblings, one of the biological parents of a step-sibling usually still lives with them and is a step-parent to the cohort child.

The shared natural parent of half-siblings may be either their natural mother or their natural father. However, as most children continue to live with their natural mother when their parents live apart, in most families these half-siblings will be the natural child of the cohort member's mother with a new partner (if they are a younger half-sibling) or previous partner (if they are an older half-sibling). Similarly, step-siblings can be the biological child of either a stepfather or a stepmother.

Table 3.14 shows the overall prevalence of different types of siblings by country, with natural siblings by far, the most common. More children had older natural siblings (47%) than younger natural siblings (44%). Around one in six (16%) children was living with a half-sibling at age seven. Older half-siblings were more common than younger half-siblings (12% compared with 5%). Less than one in a hundred children lived with a step, foster or adoptive sibling.

Table 3.14: Type of siblings by country at MCS4										
Type of siblings	England	Wales	Scotland	Northern Ireland	UK					
Any natural sibling	7032	1467	1244	1148	10891					
	(77.5)	(73.8)	(75.1)	(82.9)	(77.3)					
Sign.					P=0.000					
Older natural sibling	4345	895	747	753	6740					
	(47.5)	(45.1)	(45.4)	(54.6)	(47.4)					
Sign.					P=0.002					
Younger natural sibling	4030	786	676	658	6150					
	(43.7)	(39.8)	(41.9)	(47.0)	(43.5)					
Sign.					P=0.000					
Any half-sibling	1306	364	206	131	2007					
	(16.4)	(18.4)	(15.1)	(9.6)	(16.1)					
Sign.					P=0.000					
Older half-sibling	966	277	160	98	1501					
	(11.6)	(13.7)	(11.1)	(6.9)	(11.5)					
Sign.					P=0.017					
Younger half-sibling	401	107	53	41	602					
	(5.7)	(5.8)	(4.4)	(3.2)	(5.4)					
Sign.					P=0.000					
Any step sibling	55	_	_	_	89					
	(0.8)				(0.8)					
Sign.					P=0.276					

Children in Northern Ireland were the least likely to have a half-sibling (10% compared with 15% in Scotland, 16% in England and 18% in Wales).

Table 3.14: Type of siblings by country at MCS4									
Type of siblings	England	Wales	Scotland	Northern Ireland	UK				
Continued	•	•			•				
Older step sibling	36 (0.5)	-	_	_	55 (0.5)				
Sign.		•			P=0.461				
Younger step-sibling	20 (0.3)	-	_	_	35 (0.3)				
Sign.					P=0.064				
Any foster or adoptive sibling	27 (0.3)	-	_	_	43 (0.3)				
Sign.					P=0.395				
Total observations	8887 8886	1972 1970	1622 1615	1376 <i>1380</i>	13857 13851				

Sample: All families. Table displays unweighted observations and weighted percentages (country totals using dovwt1 and UK totals using dovwt2). Weighted total observations are in italics. Statistics for cells with fewer than 20 observations have been replaced with '-'.

Table 3.15 shows how type of sibling varies with main respondent's age. Children of main respondents aged 40 and over are almost three times as likely to have older siblings than children of main respondents aged under 30 (60% compared with 23%) and children of main respondents aged under 30 are twice as likely as children of main respondents aged 40 and over to have younger siblings (54% compared with 27%). Overall, the proportion of children living with half siblings declines with the age of the main respondent. Among children of main respondents under 30, 23 per cent had a half-sibling. This falls to 18 per cent in the 30–34 age group, 13 per cent in the 35–34 age group and 14 per cent in the 40 plus age group. However, as with natural siblings, children of older main respondents are more likely to have older half-siblings and children of younger main respondents are more likely to have younger half-siblings.

Table 3.15: Type of siblings by main respondent's age at MCS4									
Type of siblings	Under 30	30–34	35–39	40 plus	Total				
Any natural sibling	1529	2355	3787	3220	10891				
	(65.7)	(79.7)	(82.7)	(76.8)	(77.3)				
Sign.					P=0.000				
Older natural sibling	504	1348	2334	2554	6740				
	(22.9)	(45.5)	(50.9)	(60.3)	(47.4)				
Sign.	P=0.000								
Younger natural sibling	1278	1571	2152	1149	6150				
	(54.1)	(51.7)	(46.6)	(27.4)	(43.5)				
Sign.					P=0.000				
Any half-sibling	457	465	545	540	2007				
	(22.7)	(18.0)	(13.1)	(14.0)	(16.1)				
Sign.					P=0.000				
Older half-sibling	142	348	496	515	1501				
_	(6.6)	(13.0)	(11.7)	(13.3)	(11.5)				
Sign.					P=0.000				
Younger half-sibling	332	159	72	39	602				
	(17.0)	(6.6)	(1.9)	(1.1)	(5.4)				
Sign.					P=0.000				
Any step-sibling	28	23	24	_	89				
	(1.8)	(0.9)	(0.6)		(0.8)				
Sign.			· · · ·		P=0.000				

Table 3.15: Type of siblings by main respondent's age at MCS4									
Type of siblings	Under 30	30–34	35–39	40 plus	Total				
Continued									
Older step-sibling	-	-	-	_	55 (0.5)				
Sign.			•		P=0.089				
Younger step-sibling	_	_	_	_	35 (0.3)				
Sign.			•		P=0.000				
Any foster or adoptive sibling	-	-	-	-	43 (0.3)				
Sign.					P=0.090				
Total observations	2293 2528	2914 2938	4529 4410	4121 3975	13857 13851				

Sample: All families. Table displays unweighted observations and weighted percentages (using dovwt2). Weighted total observations are in italics. Statistics for cells with fewer than 20 observations have been replaced with '-'.

As shown in Table 3.16, there is a strong association between cohort member's ethnic group and the type of siblings. Black Caribbean and mixed children were much less likely than average to have natural siblings (65% and 66% respectively compared with 78% overall) and much more likely to have half-siblings (28% and 20% respectively compared with 16% overall). The half-siblings of children in these ethnic groups are more likely to be older than younger.

A higher proportion of Indian, Pakistani, Bangladeshi and black African children had natural siblings compared with the average for all children (89%, 92%, 95% and 84% respectively compared with 78% overall). This reflects the fact, described in the previous section, that children in these groups had a higher number of siblings overall. Children in these groups were also less likely than average to have a half-sibling (1%, 2%, 3% and 8% respectively compared with 16% overall).

Table 3.16: Type of sibling by cohort member's ethnic group at MCS4									
Type of siblings	White	Mixed	Indian	Pakistani	Bangladeshi	Black Caribbean	Black African	Other ethnic group	Total
Any natural sibling	8938 (76.8)	254 (65.9)	305 (89.3)	584 (92.0)	234 (95.2)	100 (65.3)	225 (83.6)	195 (82.8)	10835 (77.5)
Sign.	(1010)	(0010)	(0010)	(0=10)	(***-)	(0000)	(0010)	(0=10)	P=0.000
Older natural sibling	5420 (46.1)	158 (42.0)	184 (54.4)	401 (62.6)	180 (74.0)	70 (43.5)	169 (61.7)	123 (54.9)	6705 (47.5)
Sign.	, í								P=0.000
Younger natural sibling	4905 (42.3)	152 (39.8)	163 (47.4)	413 (65.3)	162 (65.6)	49 (35.6)	148 (55.0)	125 (49.9)	6117 (43.7)
Sign.			•	•		•		•	P=0.000
Any half-sibling	1818 (17.4)	71 (20.3)	-	-	-	42 (28.2)	24 (8.3)	-	1997 (16.2)
Sign.									P=0.000
Older half- sibling	1356 (12.4)	53 (13.4)	_	—	_	37 (24.2)	-	-	1496 (11.6)
Sign.			-	-				_	P=0.000
Younger half- sibling	547 (5.8)	23 (8.4)	-	-	-	-	-	-	597 (5.4)
Sign.									P=0.000

Table 3.16: Type of sibling by cohort member's ethnic group at MCS4									
Type of siblings	White	Mixed	Indian	Pakistani	Bangladeshi	Black Caribbean	Black African	Other ethnic group	Total
Continued									
Any step- sibling	75 (0.8)	—	—	—	-	-	-	-	87 (0.7)
Sign.									P=0.564
Older step- sibling	48 (0.5)	—	—	—	-	-	-	-	55 (0.5)
Sign.									P=0.681
Younger step- sibling	27 (0.2)	_	_	_	_	_	_	—	33 (0.3)
Sign.								-	P=0.708
Any foster or adoptive sibling	31 (0.2)	_	_	_	_	_	_	_	38 (0.2)
Sign.									P=0.423
Total observations	11528 <i>11</i> 731	373 <i>450</i>	341 264	627 480	247 163	155 163	261 251	223 218	13755 <i>13720</i>

Sample: All families. 102 observations are excluded due to missing data on cohort member's ethnic group. Table displays unweighted observations and weighted percentages (using dovwt2). Weighted total observations are in italics. Statistics for cells with fewer than 20 observations have been replaced with '-'.

Table 3.17 shows that there is also a strong association between type of sibling and family type. Children living with married natural parents were the most likely to have natural siblings (89%), and children living with a lone natural mother (58%), and natural mother and a stepfather (48%), are the least likely to have natural siblings. This was also true in relation to younger natural siblings. The highest proportion of children with half-siblings was those living in stepfather families (55%). In stepfather families, half-siblings were very likely to be younger than the cohort child whereas in lone-mother families, half-siblings were more likely to be older.

Table 3.17: Type of siblings by family type at MCS4									
Type of siblings	Married natural parents	Cohabiting natural parents	Natural parents (other/ unknown)	Natural mother and stepfather	Lone natural mother	Other family type	Total		
Any natural sibling	7221 (89.3)	1359 (77.2)	139 (81.6)	318 (47 6)	1655 (58 5)	199 (50.5)	10891 (77.3)		
Sign.	(00.0)	(11:2)	(01:0)	(11.0)	(00.0)	(00.0)	P=0.000		
Older natural sibling	4556 (55.9)	642 (37.2)	87 (49.0)	220 (33.6)	1101 (37.9)	134 (32.9)	6740 (47.4)		
Sign.					· · · ·		P=0.000		
Younger natural sibling	4058 (49.8)	957 (54.4)	87 (53.7)	144 (21.0)	811 (29.3)	93 (24.2)	6150 (43.5)		
Sign.					· · · ·		P=0.000		
Any half sibling	526 (7.2)	335 (19.7)	26 (15.5)	356 (55.0)	673 (25.0)	91 (24.4)	2007 (16.1)		
Sign.							P=0.000		
Older half sibling	524 (7.2)	332 (19.5)	22 (12.0)	91 (12.7)	483 (17.2)	49 (10.8)	1501 (11.5)		
Sign.					-	-	P=0.000		
Younger half sibling	_	_	_	301 (47.3)	241 (9.8)	48 (15.1)	602 (5.4)		

Table 3.17: Type of siblings by family type at MCS4									
Type of siblings	Married natural parents	Cohabiting natural parents	Natural parents (other/ unknown)	Natural mother and stepfather	Lone natural mother	Other family type	Total		
Sign.							P=0.000		
Continued									
Any step-sibling	-	—	-	49 (8.1)	_	-	89 (0.8)		
Sign.							P=0.000		
Older step-sibling	-	-	-	32 (5.2)	_	-	55 (0.5)		
Sign.					•		P=0.000		
Younger step- sibling	—	—	—	—	—	—	35 (0.3)		
Sign.							P=0.000		
Any foster or adoptive sibling	24 (0.2)	—	—	_	—	—	43 (0.3)		
Sign.							P=0.000		
Total observations	8073 7575	1754 1863	166 169	678 791	2798 2982	388 472	13857 13851		

Sample: All families. Table displays unweighted observations and weighted percentages (using dovwt2). Weighted total observations are in italics. Statistics for cells with fewer than 20 observations have been replaced with '-'.

This section has shown that natural siblings are by far the most common type of sibling and that over three-quarters (77%) of seven-year-old children are living with a natural sibling. Over four in ten (44%) children experienced the arrival of a younger natural brother and sister by age seven. New siblings were more common in families with younger parents, or where the parents were living as a couple, married or cohabiting.

Although overall the arrival of a younger half-sibling was uncommon (5%), almost half (47%) of children living with a natural mother and stepfather and one in six (17%) children living with a main respondent aged under 30 had this experience. This is likely to reflect the higher prevalence of step-parent families among younger mothers.

Children of older respondents, those living with cohabiting natural parents or a lone mother were most likely to have older half-siblings. These older half-siblings are likely to be from a previous relationship of their mother's, though they may also be the child of their natural father from a prior relationship.

Half-siblings were also relatively common for black Caribbean and mixed children, even though few of them lived with a step-parent. In these families, the half-siblings are almost all older than the cohort child and so likely to be from a prior relationship of their natural mother.

### **Non-resident fathers**

We have seen earlier that over one in four children, at age seven years, was not living with their natural father. For a small minority of these families, the child's natural father may have died but in most families he is likely to be living elsewhere.

This section provides evidence on frequency of contact with, and the regularity of maintenance payments from, the non-resident natural father.

Much of the literature on non-resident fathers' involvement relates contact rates and payment of child support to aspects of children's behaviour. Given the policy interest in child support, it is not surprising that research has focused on this area. A review of evidence from the US has shown that while payment of child support is consistently related to positive child outcomes, frequency of contact alone does not seem to be. Rather it is the nature of contact that is the critical factor in relation to child development and adjustment (Amato and Gilbreth, 1999).

There is a limited body of quantitative evidence in the UK about children's contact with their non-resident fathers and child support. A survey of around 600 non-resident fathers in the UK in 1995–6 found that around 57 per cent reported that they were currently paying child support and 68 per cent reported seeing their child at least once a month, with nearly half seeing them at least one a week (Bradshaw et al., 1999). Work using the 1991 sweep of the National Child Development Study (1958 cohort) reported that seven in ten fathers who did not live with their children had contact with them (Clarke and Burghes, 1997). More recent work using a subsample of families drawn from the Avon Longitudinal Study of Parents and Children (ALSPAC) found that eight in ten children had some contact with their non-resident fathers and among those in contact a third saw their children at least weekly (Dunn, 2003). A school-based survey reported that 43 per cent of non-resident fathers had face-to-face contact at least once a week with their child (Welsh et al., 2004).

The sample used in this section is lone natural-mother families and families with a natural mother and a stepfather. The information on contact and maintenance payments is reported by the natural mother as part of the main interview. Frequent contact was defined as three or more times a week. Less frequent contact was defined as once or twice a week or less often.

Table 3.18 shows the frequency of contact and paying maintenance by non-resident natural fathers by country. Around one in five (19%) children are in frequent contact with their non-resident natural father, over half are in less frequent contact (52%) and around three in ten (29%) are not in any contact. Over half of non-resident fathers (52%) do not make maintenance payments. Four in ten (39%) non-resident fathers make regular payments and less than one in ten (8%) makes irregular payments.

A higher proportion of children in Northern Ireland (25%) and Wales (21%) have frequent contact with their non-resident natural fathers than in England (18%) and Scotland (17%). Interestingly, the association between maintenance payments and country is the inverse of the relationship between contact and country. A lower proportion of non-resident fathers in Northern Ireland (31%) and Wales (35%) make regular maintenance payments than in England (40%) and Scotland (39%).

MCS4		····			, <b>,</b>
Contact and maintenance	England	Wales	Scotland	Northern	UK
payments by non-resident				Ireland	
natural father					
Contact					
Frequent (three or more times a	406	118	63	76	663
week)	(18.4)	(21.0)	(17.0)	(25.2)	(18.7)
Less frequent (weekly or less often)	1126	261	188	128	1703
	(52.8)	(46.0)	(51.5)	(41.4)	(51.9)
None	600	171	103	93	967
	(28.8)	(33.0)	(31.4)	(33.4)	(29.3)
Total percentage	100	100	100	100	100
Total observations	2132	550	354	297	3333
	2326	569	413	322	3630
Sign.				·	P=0.008
Maintenance payments					
Regular	833	193	152	92	1270
	(40.1)	(34.7)	(38.6)	(30.6)	(39.2)
Irregular	174	37	23	25	259
	(8.5)	(6.5)	(6.0)	(8.1)	(8.2)
None	1116	318	180	180	1794
	(51.5)	(58.8)	(55.4)	(61.3)	(52.6)
Total percentage	100	100	100	100	100
Total observations	2123	548	355	297	3323
	2317	566	414	322	3619
Sign.					P=0.035

Table 3.18: Contact and maintenance payments by non-resident natural father by country at

Sample: Lone natural mother families and lone natural mother and stepfather families. 143 observations are excluded due to missing data on contact and 153 due to missing data on maintenance. Table displays unweighted observations and weighted percentages (country totals using dovwt1 and UK total using dovwt2). Weighted total observations are in italics.

Table 3.19 (and Figure 3.2) shows the association between maintenance payments and contact. Substantial proportions of non-resident natural fathers who are in contact with their children do not pay any maintenance. Over a third (36%) of nonresident fathers who are in frequent contact and four in ten (40%) who are in less frequent contact do not pay maintenance. While the vast majority (85%) of nonresident parents who are not in contact do not pay maintenance, around one in seven (15%) of these non-resident fathers support their children financially.



# Figure 3.2: Maintenance payments by non-resident natural father by contact at MCS4

Table 3.19: Maintenance payments by non-resident natural father by contact with non- resident natural father at MCS4									
Maintenance payments by non-resident natural father	Frequent (three or more times a week)	Less frequent (weekly or less often)	None	Total					
Regular	334	834	100	1268					
	(51.4)	(50.5)	(11.3)	(39.2)					
Irregular	77	148	34	259					
	(12.4)	(9.1)	(3.7)	(8.2)					
None	251	714	829	1794					
	(36.2)	(40.3)	(85.0)	(52.7)					
Total percentage	100	100	100	100					
Total observations	662	1696	963	3321					
	679	1877	1 <i>060</i>	<i>3616</i>					
Sign.		•		P=0.000					

Sample: Lone natural mother families and lone natural mother and stepfather families. 155 observations are excluded due to missing data on contact and maintenance. Table displays unweighted observations and weighted percentages (using dovwt2). Weighted total observations are in italics.

Table 3.20 tabulates contact and maintenance payments by non-resident natural fathers by natural mother's age.<sup>7</sup> Overall, children of younger mothers were less likely to be in contact with their non-resident natural fathers than children of older mothers. The relationship between mother's age and maintenance payments was similar.

 Table 3.20: Contact and maintenance payments by non-resident natural father by natural mother's age at MCS4

<sup>&</sup>lt;sup>7</sup> In the sample analysed in this section, all main respondents were natural mothers.

Contact and maintenance	Under 30	30–34	35–39	40 plus	Total
payments by non-resident					
natural father					
Contact					
Frequent (three or more times a	188	159	167	149	663
week)	(16.4)	(17.4)	(20.3)	(23.6)	(18.7)
Less frequent (weekly or less	484	422	451	346	1703
often)	(44.5)	(52.9)	(58.8)	(57.3)	(51.9)
None	443	233	162	129	967
	(39.1)	(29.7)	(20.9)	(19.1)	(29.3)
Total percentage					
	100	100	100	100	100
Total observations	1115	814	780	624	3333
	1315	885	816	615	3630
Sign.					P=0.000
Maintenance payments					
Regular	311	329	368	262	1270
	(27.9)	(43.1)	(49.6)	(44.0)	(39.2)
Irregular	74	63	70	52	259
	(7.7)	(7.6)	(8.9)	(8.9)	(8.2)
None	726	420	340	308	1794
Total paraantaga	(64.4)	(49.2)	(41.5)	(47.2)	(52.6)
rotal percentage	100	100	100	100	100
Total aba an action a	100	100	770	100	100
I OTAI ODSERVATIONS	1111	812	(/8	622	3323
<b></b>	1300	884	815	014	3019
Sign.					P=0.000

Sample: Lone natural mother families and lone natural mother and stepfather families. 143 observations are excluded due to missing data on contact and 153 due to missing data on maintenance. Table displays unweighted observations and weighted percentages (using dovwt2). Weighted total observations are in italics.

There is evidence in the literature that the current partnership status of the natural mother and the non-resident natural father can have a big impact on frequency of contact between the non-resident parent and the child (Cooksey and Craig, 1998). For this reason, the MCS questionnaire includes questions in the self-completion section of the interview designed to collect more detailed information about the relationship statuses of lone mothers and of non-resident fathers. Lone mothers were asked whether they were in a relationship with someone who did not live in the household and, if they were, whether this person was the natural father of the cohort child. The question about whether the non-cohabiting partner was the child's father was only asked if the lone mother had said earlier in the interview that she was on friendly terms with the non-resident natural father. If the lone mother was in contact with the non-resident natural father, and if she had not already said that she was in a relationship with him, there was a question about whether or not the non-resident natural father had a partner. The answers to these questions were used to classify the relationship status of the natural mother and the natural father.

Table 3.21 tabulates contact and maintenance payments by non-resident natural fathers against natural mother's relationship status. Unsurprisingly, if the child's natural mother was in a relationship with the non-resident natural father, there was a high likelihood of frequent contact (83%). Conversely, if the natural mother was in a relationship with someone other than the non-resident natural father, frequent contact was much less likely especially if the mother was living with this new partner. Around one in twenty (6%) non-resident fathers saw their child frequently if the mother and

child were living with a stepfather and around one in seven (15%) saw their child frequently if the mother was in a non-cohabiting relationship with someone else.

The link between maintenance payments and natural mother's relationship status was less strong. The main difference between the groups was that non-resident natural fathers who were in a (non co-resident) relationship with natural mothers were the most likely to be paying maintenance (68% compared with around 47–49% in other major groups).

Table 3.21: Contact and maintenance payments by non-resident natural father by natural										
mother's relation	ship status	at MCS4								
Contact and maintenance payments by non-resident natural father	Living with step- father	Lone mother, in a relationship with non- resident natural father	Lone mother, in a relationship	Lone mother, not in a relationship	Lone mother, relationship status not known	Total				
Frequent (three or more times a week)	49 (6.0)	76 (83.3)	127 (15.0)	357 (21.8)	54 (23.5)	663 (18.7)				
Less frequent (weekly or less often)	336 (53.9)	_	454 (56.0)	781 (52.0)	113 (45.6)	1703 (51.9)				
None	259 (40.1)	_	224 (29.0)	416 (26.3)	68 (30.9)	967 (29.3)				
Total percentage	100	100	100	100	100	100				
Total observations	644 751	95 106	805 903	1554 <i>1640</i>	235 230	3333 3630				
Sign.			•		•	P=0.000				
Maintenance payments										
Regular	261 (42.0)	49 (56.1)	329 (40.9)	575 (37.8)	56 (26.3)	1270 (39.2)				
Irregular	50 (7.5)	-	49 (6.6)	127 (8.8)	23 (10.3)	259 (8.2)				
None	331 (50.6)	36 (32.2)	425 (52.6)	848 (53.4)	154 (63.4)	1794 (52.6)				
Total percentage	100	100	100	100	100	100				
Total observations	642 748	95 106	803 900	1550 1639	233 226	3323 3619				
Sign.		·				P=0.005				

Sample: Lone natural mother families and lone natural mother and stepfather families. 143 observations are excluded due to missing data on contact and 153 due to missing data on maintenance. Table displays unweighted observations and weighted percentages (using dovwt2). Weighted total observations are in italics. Statistics for cells with fewer than 20 observations have been replaced with '-'.

Table 3.22 tabulated contact and maintenance payments by non-resident natural fathers against the father's relationship status. Non-resident fathers who are in a relationship with the lone natural mother, also shown in Table 3.21, are those with most frequent contact and maintenance. Non-resident natural fathers who are in a relationship with someone else are less likely to be in frequent contact than those who are not in a relationship (16% compared with 36%).

As with natural mother's relationship, non-resident natural father's relationship is less strongly related to maintenance payments than contact. There is very little difference in the proportion paying maintenance between non-resident natural fathers who are in a relationship with someone other than the natural mother and non-resident natural fathers who are not in a relationship (63% compared with 61%).

Table 3.22: Contact and maintenance payments by non-resident natural father by non-										
resident natural father's relationship status at MCS4										
Contact and	In a relationship	In a	Not in a	Relationship	Total					
maintenance	with lone	relationship	relationship	status not						
payments by non-	natural mother			known						
resident natural father										
Contact										
Frequent (three or more	76	183	303	101	663					
times a week)	(83.3)	(15.7)	(36.0)	(7.5)	(18.7)					
Less frequent (weekly	_	890	470	324	1703					
or less often)		(84.3)	(64.0)	(22.8)	(51.9)					
None	_	_	_	967	967					
<b>-</b>				(69.7)	(29.3)					
l otal percentage	400	400	400	100	400					
	100	100	100	100	100					
Total observations	95	1073	773	1392	3333					
	106	1193	803	1529	3630					
Sign.		1			P=0.000					
Maintenance payments										
Regular	49	603	362	256	1270					
	(56.1)	(56.2)	(49.0)	(19.6)	(39.2)					
Irregular	-	82	82	85	259					
		(7.3)	(11.6)	(6.7)	(8.2)					
None	36	385	328	1045	1794					
Total a sus suts as	(32.2)	(36.5)	(39.4)	(73.7)	(52.6)					
l otal percentage	100	100	100	100	100					
<b>T</b> ( ) ) (	100	100	100	100	100					
I otal observations	95	1070	//2	1386	3323					
0	100	1192	603	1918	3019					
Sign.					P=0.000					

Sample: Lone natural mother families and lone natural mother and stepfather families. 143 observations are excluded due to missing data on contact and 153 due to missing data on maintenance. Table displays unweighted observations and weighted percentages (using dovwt2). Weighted total observations are in italics. Statistics for cells with fewer than 20 observations have been replaced with '-'.

This section has shown that overall seven in ten (71%) non-resident fathers were in contact with their child with a significant minority (19%) in contact three or more times a week. Overall, just less than half (47%) of non-resident fathers paid child maintenance. Significant proportions of non-resident fathers who were in contact with their child did not pay maintenance. Overall, there is clear evidence of continuing relationships between non-resident fathers and their seven-year-old children and some evidence of continuing relationships between lone natural mothers and non-resident natural fathers.

### Conclusion

This chapter has shown that a significant minority of seven-year-old children are living apart from their natural father. Although the majority of children were still living with both of their natural parents (69%), over one in five children was now living with a lone natural mother (22%) and over one in twenty with a stepfather (7%). In addition, the proportion of children living with married natural parents had fallen to just over half (55%).

Longitudinal analysis of family change between MCS1 and MCS4 also showed a significant minority of children (21%) had either gained or lost a parent in their household over the first seven years of life. The parents that children have lost since their first year are primarily their natural fathers. Children were more likely to have lost their natural father from their home if, at the nine month survey, their parents were cohabiting rather than being married.

Lone mothers at MCS1 were more likely to have subsequently formed a new livingtogether partnership with the child's natural father than with a stepfather. Including also those families starting out with both natural parents at MCS1, most of the parents arriving in the children's homes since nine months were stepfathers. It remains relatively uncommon for seven-year-olds to be living with a stepfather, with just over one in twenty (6%) in this family situation. Interestingly, almost half of all seven-year-olds living with a stepfather had a younger half-sibling as a result their mother's relationship with their stepfather.

Children whose mothers were under 30 at MCS4 were almost twice as likely than average to have experienced family change and this was particularly likely to have involved the acquisition of a stepfather.

The experience of family change or living apart from natural fathers can be associated with poverty and other negative outcomes for children. As these experiences are particularly concentrated among children of young mothers, these findings imply support for policies aimed at reducing teenage pregnancy in the UK. They also imply that families with young parents may benefit from further additional targeted support from government policy.

This chapter also provided evidence of the continuing relationships between sevenyear-old children and their non-resident natural fathers. In the context of policy towards non-resident fathers, these results show that in the majority of families contact is taking place, often very frequently, but that far fewer non-resident fathers pay child maintenance. However, this finding should be interpreted with caution as there is no evidence here about the reasons for non-payment of maintenance or the ability of non-resident fathers to do so. In addition, it should be noted that the evidence presented here is the mother's report of receiving child maintenance which may be different from the father's report about making payments.

Finally, it should be noted that the associations described in this chapter are all bivariate and as such should be interpreted with caution. This evidence does not take account of the causal pathways between the different factors considered in this

chapter nor does it consider the influence of other variables, collected in other parts and waves of the survey.

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# Chapter 4

# PARENTING

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### **Chapter overview**

This chapter looks at various aspects of parenting such as:

- Time spent with child
- Family activities
- Discipline
- Parenting competence
- Bedtime regularity
- Child's involvement with household chores

### Introduction

The Millennium Cohort Study includes data on various aspects of parenting such as discipline, practices and activities. Parenting is of great interest to those in research and policy because of its potential to have strong and lasting effects and because it mediates or moderates external influences on children.

Many aspects of parenting are known to be related to child outcomes, both during childhood and later in life. Parenting and disciplinary style have been found to be associated with child and adolescent behaviour (Amato and Fowler, 2002; Sandstrom, 2007; Simons and Conger, 2007) and school grades (Amato and Fowler, 2002; Dornbusch et al., 1987).

Parental literacy-related beliefs and activities (such as shared book reading) have been related to children's early literacy development (Bennett et al., 2002; Bingham, 2007; Richman and Colombo, 2007). Bingham (2007) showed that mothers' education and beliefs about literacy development were related to the emotional and instructional quality of their book-reading interactions with their children.

Though research has found associations between parenting behaviours and values and child outcomes, it is important to note that the causality of these relationships is not clear and that it is very difficult to untangle the effects of a given parental variable from the effects of other, co-related parental and family variables.

This chapter describes the parenting items in MCS4 and presents the responses to the questions. Main respondents were asked about their discipline approaches, activities with the cohort child, feelings about time spent with the child, and parenting attitudes. Partner respondents were asked a subset of these questions. Answers are reported separately for main and partner respondents. Responses to questions are

shown for main respondents who are natural, adoptive, foster, or stepmothers of the cohort children, including families where no one responded to the partner interview. Responses to questions directed at the partner respondents are reported for those who are resident natural, adoptive, foster, or stepfathers of the cohort children. Hence, there are more responses from mothers than fathers in these tables.

### Time spent with child

Both main and partner respondents were asked, in the self-completion section of the interview, to report how they felt about the amount of time they were able to spend with their children at age 7. Overall, mothers were more likely to be happy with the time available (43%) or to feel they spent more than enough or too much time with their children (26%) than fathers (35% and 9%). Conversely, over half of fathers (56%) did not feel they had quite enough or anywhere near enough time to spend with their children compared with 30 per cent of the mothers.

Mothers' and fathers' responses to this question are shown in Table 4.1 and 4.2 respectively, by a selection of key characteristics. Mothers in Northern Ireland were slightly more likely to feel they spend more than enough time with their children than mothers in other UK countries.

						1		
	Un	Unweighted Observations (Weighted Percentage)						
	Too Much	More than Enough	Just Enough	Not Quite Enough	Nowhere Near Enough	Total Obs		
All Responding Mothers at MCS4	288	3280	5707	3169	858	13302		
	(2.1)	(24.3)	(43.1)	(23.8)	(6.6)	(100.0)		
Country at MCS4								
England	205	2064	3679	1966	560	8474		
	(2.2)	(23.4)	(43.5)	(23.8)	(7.0)	(100.0)		
Wales	31	486	791	481	133	1922		
	(1.8)	(25.5)	(41.1)	(24.7)	(6.7)	(100.0)		
Scotland	30	356	664	428	93	1571		
	(2.2)	(23.9)	(42.2)	(26.1)	(5.6)	(100.0)		
Northern Ireland	22	374	573	294	72	1335		
	(1.8)	(28.3)	(44.6)	(20.5)	(4.8)	(100.0)		
Unweighted sample size	288	3280	5707	3169	858	13302		
Weighted observations	279	<i>3</i> 236	5750	<i>3181</i>	<i>876</i>	<i>13321</i>		
					p=0.000			
Mother's Age at MCS4								
20 to 29	74	694	882	446	135	2231		
	(3.3)	(30.8)	(39.0)	(20.3)	(6.4)	(100.0)		
30 to 39	143	1757	3099	1726	455	7200		
	(1.9)	(23.8)	(43.4)	(24.2)	(6.5)	(100.0)		
40 and above	71	829	1726	977	268	3871		
	(1.6)	(20.6)	(45.4)	(25.6)	(6.8)	(100.0)		
Unweighted sample size	288	3280	5707	3169	858	13302		
Weighted observations	279	3236	5750	<i>3181</i>	<i>876</i>	<i>13321</i>		
					p=0.000			

Table 4.1: How do you feel about the amount of time you have available to spend with your child? Mothers at MCS4

	Un	Unweighted Observations (Weighted Percentage)						
	Too Much	More than Enough	Just Enough	Not Quite Enough	Nowhere Near Enough	Total Obs		
Continued								
Mother's Ethnicity ()								
White	185	2649	4941	2872	797	11444		
	(1.8)	(23.6)	(43.0)	(24.6)	(6.9)	(100.0)		
Mixed	5	40	40	25	7	117		
	(4.3)	(35.1)	(32.7)	(20.4)	(7.5)	(100.0)		
Indian	11	105	139	64	12	331		
	(2.4)	(27.0)	(46.6)	(19.3)	(4.5)	(100.0)		
Pakistani or Bangladeshi	42	311	328	64	13	758		
	(5.3)	(37.6)	(46.2)	(8.9)	(1.9)	(100.0)		
Black	26	118	179	108	19	450		
	(5.8)	(24.0)	(42.7)	(23.4)	(3.8)	(100.0)		
Other	19	57	79	35	10	200		
	(7.3)	(24.0)	(44.6)	(18.2)	(5.0)	(100.0)		
Unweighted sample size	288	3280	5706	3168	858	13300		
Weighted observations	279	3236	5749	<i>3180</i>	876	13319		
5				I	p=0.000			
Mother's Employment Status a	t MCS4							
Not employed	233	1879	2100	650	159	5021		
	(4.5)	(35.9)	(42.0)	(13.7)	(3.6)	(100.0)		
Employed	55 (0.6)	1401 (17.2)	3607 (43.8)	2519 (30.0)	699 (8.4)	8281 (100.0)		
Unweighted sample size	288	3280	5707	3169	858	13302		
Weighted observations	279	3236	5750	3181	876	1332 <i>1</i>		
					p=0.000			
Mother's Highest Qualificatio	n at MCS4			1	-			
No qualifications	91	587	561	169	47	1455		
	(6.5)	(37.6)	(39.4)	(12.5)	(3.8)	(100.0)		
NVQ1	34	266	405	155	57	917		
	(4.1)	(28.8)	(44.0)	(16.8)	(6.2)	(100.0)		
NVQ2	58	910	1537	782	239	3526		
	(1.5)	(25.4)	(43.6)	(22.6)	(6.7)	(100.0)		
NVQ3	34	489	854	518	145	2040		
	(1.5)	(23.9)	(41.7)	(25.6)	(7.2)	(100.0)		
NVQ4	44	775	1804	1189	283	4095		
	(0.9)	(18.9)	(44.3)	(28.8)	(7.0)	(100.0)		
NVQ5	5	120	390	314	73	902		
	(0.4)	(12.8)	(43.6)	(34.8)	(8.4)	(100.0)		
Unweighted sample size	266	3147	5551	3127	844	12935		
Weighted observations	260	<i>3123</i>	<i>5596</i>	3139	858	12977		
Family Type at MCS4					p=0.000			
Two-parent	186	2526	4636	2536	643	10527		
	(1.5)	(23.7)	(44.4)	(24.0)	(6.2)	(100.0)		
Lone parent	102	754	1071	633	215	2775		
	(4.1)	(26.1)	(38.5)	(23.2)	(7.9)	(100.0)		
Unweighted sample size	288	3280	5707	3169	858	13302		
Weighted observations	279	3236	5750	<i>3181</i>	876	1332 <i>1</i>		
	·		•		n=0.000			

Table 4.1: How do you feel about the amount of time you have available to spend with your child? Mothers at MCS4

Sample includes all mothers responding to question. Sixteen responses of 'not sure' have been excluded. Table displays unweighted observations and weighted percentages (country means using weight1, UK means using weight2).

# Table 4.2: How do you feel about the amount of time you have available to spend with your child? Fathers at MCS4

<i>Jean en an en a</i>							
	Unweighted Observations (Weighted Percentage)						
	Too Much	More than Enough	Just Enough	Not Quite Enough	Nowhere Near Enough	Total Obs	
All Responding Fathers	52	782	2920	3248	1271	8273	
at MCS4	(0.6)	(8.6)	(35.0)	(39.9)	(15.7)	(100.0)	
Country at MCS4							
	37	509	1851	2039	866	5302	
England	(0.6)	(8.1)	(33.9)	(39.9)	(17.2)	(100.0)	
	6	109	399	463	187	1164	
Wales	(0.6)	(9.7)	(35.1)	(39.2)	(15.2)	(100.0)	
Scotland	5	83	354	425	144	1011	
Scolland	(0.7)	(9.2)	316	321	74	796	
Northern Ireland	(0.5)	(9.7)	(41.1)	(39.6)	(9.0)	(100.0)	
Unweighted sample size	52	782	2920	3248	1271	8273	
Weighted observations	51	690	2800	3200	1261	8003	
					n=0.000		
Father's Age at MCS4	1	1		1	p=0.000		
	4	52	132	124	58	370	
20 to 29	(1.6)	(11.7)	(34.3)	(35.4)	(17.0)	(100.0)	
20 to 20	26	359	1299	1512	606	3802	
30 to 39	(0.7)	(8.7)	(33.9)	(40.5)	(16.1)	(100.0)	
40 and above	(0.5)	(8.2)	(36.0)	(39.9)	(15.3)	(100.0)	
Linweighted sample size	52	782	2920	3248	1271	8273	
Weighted observations	51	690	2800	3200	1261	8003	
		•		•	p=0.078		
Father's Ethnicity							
	34	557	2453	2933	1178	7155	
White	(0.6)	(7.8)	(34.3)	(41.0)	(16.3)	(100.0)	
Mixed	1	3	20	20		54	
IVIIXED	(2.0)	(5.7)	(32.3)	(33.4)	(20.5)	(100.0)	
Indian	(0.4)	(15.1)	(36.5)	(35.3)	(12.7)	(100.0)	
Pakistani or	5	116	200	102	27	450	
Bangladeshi	(1.1)	(25.5)	(43.4)	(23.2)	(6.5)	(100.0)	
¥	4	32	75	69	11	191	
Black	(2.0)	(14.6)	(38.2)	(37.3)	(7.2)	(100.0)	
	5	11	70	31	12	140	
Other	(2.6)	(7.2)	(50.6)	(23.1)	(12.3)	(100.0)	
Unweighted sample size	51	779	2906	3234	1266	8236	
weighted observations	51	660	2785	3184	1257	7968	
					p=0.000		
Father's Employment Sta	tus at MCS	4				1	
	24	235	294	72	16	52	
Not employed	(4.3)	(34.5)	(47.4)	(10.6)	(2.9)	(0.6)	
Energlassa d	28	547	2626	3176	1255	7632	
Employed	(0.3)	(6.3)	(33.3)	(42.4)	(17.5)	(100.0)	
Weighted observations	52 52	782 677	2920	3248	1271	8273	
		0//	2,07	0210	<u> </u>	0007	
Father's Highest Qualific	ation at MC	S4			p=0.000	1	
	16	170	321	186	71	764	
No qualifications	(2.5)	(21.0)	(41.1)	(25.2)	(10.0)	(100.0)	

Table 4.2: How do you feel about the amount of time you have available to spend with
your child? Fathers at MCS4

	Unweighted Observations (Weighted Percentage)							
	Too Much	More than Enough	Just Enough	Not Quite Enough	Nowhere Near Enough	Total Obs		
Continued								
NVQ1	6	62	143	162	77	764		
	(1.3)	(12.3)	(33.0)	(36.1)	(17.3)	(100.0)		
NVQ2	10	193	704	772	337	764		
	(0.5)	(8.7)	(34.6)	(39.2)	(16.8)	(100.0)		
NVQ3	4	103	446	488	215	764		
	(0.3)	(7.7)	(35.1)	(39.4)	(17.5)	(100.0)		
NVQ4	8	151	890	1103	395	764		
	(0.3)	(5.6)	(34.4)	(43.7)	(15.9)	(100.0)		
NVQ5	3	49	311	433	131	764		
	(0.2)	(4.9)	(34.1)	(47.1)	(13.7)	(100.0)		
Unweighted sample size	47	728	2815	3144	1226	7960		
Weighted observations	47	652	2716	<i>3110</i>	1216	7741		
					p=0.000			

Sample includes all fathers responding to question. Nine responses of 'not sure' have been excluded. Table displays unweighted observations and weighted percentages (country means using weight1, UK means using weight2).





Younger mothers (those aged 20–29 at the time of the interview) were slightly more likely than those aged 30 or over to report they had enough time with their child. Conversely, as the age of the mother increased, the proportions feeling that they had not quite or nowhere near enough time with their children at age 7 increased slightly too.

Pakistani and Bangladeshi mothers reported the highest levels of satisfaction with the time they had with their children (89% having enough or more than enough time). White mothers felt they had the least time with nearly a third reporting not enough or nowhere near enough.

Employed mothers were much less happy with the amount of time they had than mothers who were not working. Twice as many employed mothers did not feel they had enough time with their children (38%) compared with those who were not in work at the time of the interview (17%), showing that even as the cohort children are getting older, the issue of work-life balance is still very pertinent to mothers. There was also a tendency for mothers with higher qualifications to be less satisfied with the amount of time they had with their children; this could partly be due to their greater likelihood of being employed outside the home. Over half (57%) of mothers with postgraduate level qualifications (NVQ5) felt they did not have enough time compared with 16 per cent of those with no qualifications. There was very little variation between mothers in lone or two-parent households.

Fathers' responses to the question of how they felt about the amount of time they were able to spend with their children are shown in Table 4.2. Their responses overall followed a similar pattern to those given by mothers. The vast majority of fathers at MCS4 were in employment and an even greater proportion of these working fathers felt that they did not have enough time with their children (60%) than did working mothers. It is well documented that UK men work the longest hours in Europe and these answers show that work-life balance is also an issue for the fathers of this cohort of children. While overall there was little variation between fathers in different UK countries, fathers in Northern Ireland were almost half as likely as those in England to say they had nowhere near enough time with their children (9% compared to 17%). The proportions of both mothers and fathers feeling they did not have enough time with the child was aged 5. However, when the child was aged 3, mothers' were considerably less likely to say that they did not have enough time with the child (19% at 3 versus 30% at 7).

### **Family activities**

Both parents were asked how often they engaged in a number of activities with their children. A selection of their responses is shown in Tables 4.3 to 4.10. The full list of the activities that both main and partner respondents were asked about were reading to or with their child; telling stories not from a book; doing musical activities; drawing, painting, or making things; playing sports or physically active games; playing with toys or games indoors; and going to a park or outdoor playground with their children. Mothers reading to the child every day had fallen from 62 per cent at age 3, via 53 per cent at age 5 to 42 per cent at age 7, which may well reflect the child's increased time at school and the development of their own ability to read. The transition to school ages was also reflected in the frequency of fathers reading daily to the child, with 23% doing so at age 3, falling to 16 per cent at ages 5 and 7.

Table 4.3: How often c	lo you rea	d to your chi	Id? Mothers a	t MCS4			
		Unweighted Observations (Weighted Percentage)					
		Qavaral	One or Ty	vo Times			
	Every	Several Times a			ا مع		Total
	Dav	Week	A Week	A Month	Often	Not at All	Obs
All Responding Mothers	5516	3551	2855	640	366	406	13334
at MCS4	(41.6)	(27.0)	(21.4)	(4.8)	(2.6)	(2.7)	(100.0)
Country at MCS4							
	3529	2283	1823	379	208	271	8493
England	(42.1)	(27.0)	(21.3)	(4.6)	(2.4)	(2.6)	(100.0)
	763	529	445	87	54	50	1928
Wales	(39.2)	(27.1)	(23.4)	(4.7)	(2.8)	(2.9)	(100.0)
Sectland	596	437	352	98	58	36	1577
Scotland	(37.3)	(20.0)	(22.0)	(5.6)	(3.0)	(2.3)	(100.0)
Northern Ireland	(47 1)	(22.1)	(17.8)	(5.9)	(3.5)	(3.6)	(100.0)
Unweighted sample size	5516	3551	2855	640	3666	406	13334
Weighted observations	5559	3562	2858	652	360	365	13356
				•	•	p=0.000	
Mother's Age at MCS4							
	772	670	539	113	69	77	2240
20 to 29	(34.4)	(29.6)	(24.6)	(5.2)	(2.9)	(3.2)	(100.0)
	2969	1913	1551	358	213	215	7219
30 to 39	(41.4)	(26.9)	(21.3)	(5.0)	(2.9)	(2.6)	(100.0)
10 and above	1775	968	(10,4)	169	84 (1.8)	114	3875
Linweighted sample size	(40.7)	25.4)	2855	640	366	(2.0)	1333/
Weighted observations	5539	3593	2845	635	345	358	13315
Theighted excertatione	0000	0000	2010	000	0.0	p=0.000	10010
Mother's Ethnicity							1
	4965	3050	2352	554	289	259	11469
White	(43.2)	(26.8)	(20.7)	(4.8)	(2.4)	(2.0)	(100.0)
	31	47	23	4	6	6	117
Mixed	(26.4)	(44.7)	(20.0)	(3.1)	(2.6)	(3.3)	(100.0)
	109	87	97	18	11	10	332
Indian	(31.9)	(25.6)	(29.8)	(5.3)	(3.5)	(3.9)	(100.0)
Pakistani or	198	195	211	30	39	87	760
Bangladeshi	(20.5)	(20.4)	(27.2)	(4.1)	(4.7)	(11.1)	(100.0)
Black	(31.0)	(30.6)	(26.3)	(4.9)	(3.2)	(3.9)	(100.0)
Black	70	44	49	12	4	22	201
Other	(35.0)	(21.6)	(21.5)	(5.9)	(2.8)	(13.2)	(100.0)
Unweighted sample size	5516	3549	2855	640	366	406	13332
Weighted observations	5539	3591	2845	635	345	358	13313
	<u> </u>					p=0.000	
Mother's Employment St	atus at MC	S4		-			
	1927	1317	1121	249	183	245	5042
Not employed	(38.8)	(26.4)	(22.2)	(4.9)	(3.6)	(4.1)	(100.0)
E se s la va d	3589	2234	1734	391	183	161	8292
Employed	(43.3)	(27.3)	(20.9)	(4.7)	(2.0)	(1.8)	(100.0)
Weighted observations	5530	3001	2000	635	635	635	13334
Weighted observations	0003	0000	2040	000	000	n=0.000	10010
Mother's Highest Qualifi	cation at M	CS4				p=0.000	I
	424	341	375	84	73	168	1465
No qualifications	(29.9)	(21.9)	(27.6)	(5.6)	(4.6)	(10.3)	(100.0)
	325	253	230	55	34	22	919
NVQ1	(34.6)	(30.0)	(24.0)	(6.6)	(3.5)	(1.4)	(100.0)
	1342	1015	810	190	91	84	3532
NVQ2	(38.5)	(29.1)	(22.6)	(5.4)	(2.4)	(2.1)	(100.0)

Table 4.3: How often do you read to your child? Mothers at MCS4								
		Unweighte	d Observations	s (Weighted P	ercentage)	-		
		Several	One or T	wo Times	-			
	Every Day	Times a Week	A Week	A Month	Less Often	Not at All	Total Obs	
Continued	-				•	·		
NVQ3	860 (42.6)	572 (28.4)	442 (21.1)	88 (4.3)	48 (2.0)	33 (1.5)	2043 (100.0)	
NVQ4	2012 (49.5)	1051 (26.0)	732 (17.6)	167 (3.9)	80 (1.7)	62 (1.4)	4104 (100.0)	
NVQ5	445 (50.4)	229 (24.9)	164 (18.4)	35 (3.2)	17 (2.0)	12 (1.2)	902 (100.0)	
Unweighted sample size <i>Weighted observations</i>	5408 <i>54</i> 26	3461 <i>3496</i>	2753 2753	619 <i>612</i>	343 315	381 338	12965 12940	
						p=0.000		
Family Type at MCS4			-					
Two-parent	4442 (42.4)	2804 (26.9)	2252 (21.4)	494 (4.6)	267 (2.3)	288 (2.4)	10547 (100.0)	
Lone parent	1074 (38.9)	747 (27.2)	603 (21.3)	146 (5.3)	99 (3.5)	118 (3.7)	2787 (100.0)	
Unweighted sample size Weighted observations	5516 5539	3551 3593	2855 2845	640 635	366 345	406 358	13334 13315	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			•	•	•	p=0.000		

Sample includes all mothers responding to question. Table displays unweighted observations and weighted percentages (country means using weight1, UK means using weight2).

Table 4.4: How often do you read to your child? Fathers at MCS4								
		Unweighted Observations (Weighted Percentage)						
	<b>E</b> uran i	Several	One or T	wo Times			Total	
	Every Day	Week	A Week	A Month	Less Often	Not at All	Obs	
All Responding Fathers at MCS4	1308	2058	2776	1157	568	417	8284	
	(15.7)	(24.8)	(33.6)	(14.3)	(6.9)	(4.8)	(100.0)	
Country at MCS4								
England	824	1274	1828	770	351	264	5311	
	(15.1)	(24.0)	(34.8)	(14.9)	(6.7)	(4.4)	(100.0)	
Wales	148	291	409	161	97	59	1165	
	(13.2)	(25.4)	(34.3)	(13.7)	(7.8)	(5.6)	(100.0)	
Scotland	200 (20.1)	287 (27.6)	306 (30.1)	120 (12.0)	60 (6.3)	38 (3.8)	1011 (100.0)	
Northern Ireland	136	206	233	106	60	56	797	
	(17.9)	(26.4)	(28.3)	(13.1)	(7.1)	(7.2)	(100.0)	
Unweighted sample size	1308	2058	2776	1157	568	417	8284	
Weighted observations	1257	1989	2691	<i>114</i> 3	550	383	8014	
						p=0.000		
Father's Age at MCS4								
20 to 29	36	67	150	59	27	32	371	
	(11.1)	(16.2)	(43.2)	(15.9)	(5.6)	(8.0)	(100.0)	
30 to 39	603	925	1298	547	263	172	3808	
	(15.2)	(24.6)	(34.3)	(15.1)	(6.6)	(4.2)	(100.0)	
40 and above	669	1066	1328	551	278	213	4105	
	(16.4)	(25.3)	(33.0)	(13.9)	(6.9)	(4.6)	(100.0)	
Unweighted sample size	1308	2058	2776	1157	568	417	8284	
Weighted observations	1254	1974	2743	<i>116</i> 8	541	369	<i>8050</i>	
						p=0.000		
Table 4.4: How often d	lo you re	ad to your cl	hild? Fathers	at MCS4				
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		Unweigl	nted Observati	ons (Weighted	Percentage)			
		Several	One or T	wo Times				
	Every Day	Times a Week	A Week	A Month	Less Often	Not at All	Total Obs	
Continued								
Father's Ethnicity								
	1133	1824	2407	1020	474	304	7162	
White	(15.6)	(25.0)	(34.1)	(14.7)	(6.6)	(4.1)	(100.0)	
	10	14	16	10	3	1	54	
Mixed	(14.0)	(26.9)	(32.7)	(20.3)	(5.4)	(0.6)	(100.0)	
	40	55	82	29	17	23	246	
Indian	(16.2)	(18.4)	(39.2)	(11.3)	(6.5)	(8.3)	(100.0)	
Pakistani or	54	83	157	56	48	55	453	
Bangladeshi	(12.7)	(19.7)	(34.5)	(12.7)	(10.7)	(9.7)	(100.0)	
Disala	38	50	58	26		9	192	
Віаск	(18.6)	(22.8)	(29.2)	(16.9)	(6.4)	(6.0)	(100.0)	
Other	25	29	43	13	10	20	140	
	(17.0)	(21.5)	(31.2)	(11.2)	(6.0)	(13.1)	(100.0)	
Weighted ebservations	1240	2000	2703	1104	503	412	0247 9022	
	1249	1974	2737	1100	540	300	0033	
						p=0.000		
Father's Employment Sta	atus at MO	CS4						
	96	136	192	73	67	79	643	
Not employed	(13.9)	(21.3)	(30.4)	(11.7)	(10.4)	(12.3)	(100.0)	
	1212	1922	2584	1084	501	338	7641	
Employed	(15.7)	(24.8)	(34.4)	(14.7)	(6.4)	(4.0)	(100.0)	
Linuciated comple size	1200	2059	0776	1157	569	447	0004	
Weighted short size	1300	2000	2770	1107	500 541	417	0204	
	1204	1974	2743	1100	541	309	8050	
						p=0.000		
Father's Highest Qualific	ation at M	ICS4						
	110	116	216	124	81	120	767	
No qualifications	(13.8)	(14.5)	(28.3)	(18.6)	(9.9)	(14.9)	(100.0)	
· · · ·	40	96	142	83	45	44	450	
NVQ1	(8.0)	(22.4)	(31.7)	(19.4)	(9.3)	(9.3)	(100.0)	
	258	439	738	339	158	88	2020	
NVQ2	(12.5)	(20.7)	(37.2)	(17.4)	(8.0)	(4.2)	(100.0)	
	188	303	445	181	93	47	1257	
NVQ3	(15.9)	(23.6)	(35.2)	(15.2)	(6.7)	(3.3)	(100.0)	
	491	749	842	286	122	59	2549	
NVQ4	(18.7)	(29.1)	(33.9)	(11.4)	(5.0)	(1.9)	(100.0)	
	187	299	293	98	32	18	927	
NVQ5	(19.3)	(32.6)	(32.4)	(10.2)	(3.3)	(2.3)	(100.0)	
Unweighted sample size	1274	2002	2676	1111	531	376	7970	
Weighted observations	1215	1925	2656	1131	509	337	7773	
						p=0.000		

Sample includes all fathers responding to question. Table displays unweighted observations and weighted percentages (country means using weight1, UK means using weight2).





Table 4.5: How often do you do musical activities with your child? Mothers at MCS4											
		Unweighted	d Observation	s (Weighted P	ercentage)						
	Every	Several Times a	One or T	wo Times		Not at					
	Day	Week	A Week	A Month	Often	All	Total Obs				
All Responding Mothers	4106	3183	2969	1417	732	925	13332				
at MCS4	(32.1)	(24.0)	(22.0)	(10.5)	(5.3)	(6.1)	(100.0)				
Country at MCS4											
England	2483 (30.9)	2027 (24.1)	1908 (22.0)	905 (10.7)	509 (5.7)	659 (6.5)	8491 (100.0)				
~~~~	685	466	399	187	75	116	1928				
Wales	(36.4)	(24.4)	(20.0)	(10.1)	(3.5)	(5.6)	(100.0)				
	506	392	359	181	79	60	1577				
Scotland	(33.1)	(24.6)	(23.1)	(10.1)	(5.1)	(4.0)	(100.0)				
	432	298	303	144	69	90	1336				
Northern Ireland	(32.9)	(21.8)	(23.4)	(10.5)	(5.2)	(6.3)	(100.0)				
Unweighted sample size	4106	3183	2969	1417	732	925	13332				
Weighted observations	4291	3201	2935	1409	705	813	13354				
						p=0.000					
Mother's Age at MCS4											
	914	542	451	128	73	132	2240				
20 to 29	(41.5)	(25.2)	(19.8)	(5.7)	(2.8)	(5.0)	(100.0)				
	2238	1721	1645	762	368	484	7218				
30 to 39	(31.2)	(24.0)	(22.6)	(10.8)	(5.3)	(6.2)	(100.0)				
	954	920	873	527	291	309	3874				
40 and above	(24.7)	(23.8)	(22.5)	(13.6)	(7.9)	(7.5)	(100.0)				
Unweighted sample size	4106	3183	2969	1417	732	925	13332				
Weighted observations	4168	3212	2939	1415	738	841	13312				
						p=0.000					
Mother's Ethnicity											
	3742	2803	2554	1221	580	567	11467				
White	(32.8)	(24.3)	(22.1)	(10.7)	(5.3)	(4.7)	(100.0)				

Table 4.5: How often do you do musical activities with your child? Mothers at MCS4											
		Unweighted	Observation	s (Weighted P	ercentage)	-					
	_	Several	One or T	wo Times							
	Every	Limes a	A Wook	A Month	Less	Not at	Total Obs				
Continued	Day	vveek	A Week	A Month	Oiten	All	Total Obs				
Continued	00	00	00	40		0	447				
Mixed	38 (33.8)	(21.2)	28	16	(3.0)	9 (5.6)	117 (100.0)				
INIXED	74	78	75	30	25	50	332				
Indian	(24.6)	(22.3)	(21.1)	(8.9)	(7.2)	(16.0)	(100.0)				
Pakistani or	102	131	151	93	72	211	760				
Bangladeshi	(14.3)	(19.0)	(19.0)	(11.1)	(8.3)	(28.2)	(100.0)				
	102	106	115	38	37	55	453				
Black	(20.9)	(27.4)	(25.1)	(8.5)	(7.2)	(10.9)	(100.0)				
	48	41	46	18	15	33	201				
Other	(22.3)	(24.3)	(21.8)	(9.3)	(7.2)	(15.1)	(100.0)				
Unweighted sample size	4106	3182	2969	1416	732	925	13330				
Weighted observations	4168	3211	2939	1414	738	841	13310				
						p=0.000					
Mother's Employment Sta	atus at MC	S4									
	1561	1148	1087	481	265	500	5042				
Not employed	(31.8)	(23.9)	(21.4)	(9.2)	(5.0)	(8.6)	(100.0)				
	2545	2035	1882	936	467	425	8290				
Employed	(31.0)	(24.3)	(22.5)	(11.5)	(5.9)	(4.9)	(100.0)				
	4106	3183	2969	1417	732	925	13332				
Unweighted sample size	4168	3212	2939	1415	738	841	13312				
Weighted observations											
						p=0.000					
Mother's Highest Qualific	ation at M	CS4									
	383	311	320	115	87	249	1465				
No qualifications	(29.3)	(21.5)	(20.0)	(8.0)	(5.3)	(16.0)	(100.0)				
	285	213	206	97	51	67	919				
NVQ1	(31.5)	(23.2)	(22.3)	(10.1)	(6.0)	(6.9)	(100.0)				
NIV (00	1137	812	801	392	183	206	3531				
NVQ2	(32.9)	(23.4)	(22.4)	(11.1)	(5.3)	(4.9)	(100.0)				
	(22.2)	493	437	207	(5.2)	(1.6)	2043				
11/03	1281	1034	889	465	243	192	4104				
NVQ4	(30.8)	(25.0)	(21.9)	(11.8)	(6.2)	(4.3)	(100.0)				
	383	237	219	112	44	192	901				
NVQ5	(29.3)	(26.5)	(24.0)	(12.7)	(4.6)	(4.3)	(100.0)				
Unweighted sample size	4012	3100	2892	1388	712	859	12963				
Weighted observations	4072	3114	2857	1391	721	784	12938				
Family Type at MCS4											
	3037	2534	2394	1193	622	765	10545				
Two-parent	(29.0)	(24.3)	(22.8)	(11.4)	(6.1)	(6.5)	(100.0)				
	1069	649	575	224	110	160	2787				
Lone parent	(39.5)	(23.6)	(19.6)	(8.0)	(3.7)	(5.6)	(100.0)				
Unweighted sample size	4106	3183	2969	1417	732	925	13332				
Weighted observations	4168	3212	2939	1415	738	841	13312				
						n = 0.000					

Sample includes all mothers responding to question. Table displays unweighted observations and weighted percentages (country means using weight1, UK means using weight2).

Table 4.6: How often d	o you pla	ay sports or	physically ac	tive games w	ith your child	I? Mother	s at MCS4		
		Unweight	ted Observatio	ns (Weighted F	Percentage)				
		Several	One or T	wo Times					
	Every Day	Times a Week	A Week	A Month	Less Often	Not at All	Total Obs		
All Responding Mothers at MCS4	659 (5.3)	1705 (13.2)	4203 (31.7)	2818 (21.3)	1983 (14.7)	1964 (13.9)	13332 (100.0)		
Country at MCS4							<u> </u>		
·····, ·····	364	1042	2710	1784	1235	1356	8491		
England	(4.5)	(12.7)	(32.1)	(21.6)	(14.5)	(14.5)	(100.0)		
	125	291	619	386	266	241	1928		
Wales	(6.9)	(15.6)	(32.7)	(19.1)	(13.4)	(12.4)	(100.0)		
	63	179	472	419	259	185	1577		
Scotland	(4.6)	(11.5)	(29.5)	(26.4)	(15.6)	(12.5)	(100.0)		
	107	193	402	229	223	182	1336		
Northern Ireland	(8.8)	(14.4)	(29.9)	(16.8)	(16.4)	(13.7)	(100.0)		
Unweighted sample size	659	1705	4203	2818	1983	1964	13332		
Weighted observations	707	1759	4228	2844	1957	1858	13354		
						p=0.000			
Mother's Age at MCS4					-				
	163	325	698	419	305	328	2238		
20 to 29	(7.4)	(13.5)	(32.0)	(19.0)	(13.0)	(15.0)	(100.0)		
	335	915	2343	1565	1032	1028	7218		
30 to 39	(4.5)	(13.0)	(32.7)	(22.1)	(14.0)	(13.7)	(100.0)		
	161	465	1162	834	646	608	3876		
40 and above	(3.8)	(12.3)	(29.8)	(22.5)	(16.9)	(14.7)	(100.0)		
Unweighted sample size	659	1705	4203	2818	1983	1964	13332		
Weighted observations	642	1715	4229	2885	1945	1896	13312		
Mother's Ethnicity						, p=0.000			
Mother 3 Ethnicity	570	4500	0704	0500	1000	4.400	44400		
	579	1520	3734	2520	1693	1420	11466		
White	(4.9)	(13.2)	(32.7)	(22.4)	(14.5)	(12.2)	(100.0)		
Mixed	5	14	28	29	20	21	117		
IVIIXED	(2.5)	(13.4)	(22.3)	(20.8)	(14.4)	(20.6)	(100.0)		
Indian	(1.2)	30	108	54	43	(22,7)	332		
Indian Dekieteni er	(4.3)	(11.6)	(33.5)	(14.6)	(13.4)	(22.7)	(100.0)		
Bandadeshi	(3.8)	(0,0)	(21.6)	(11.0)	(14, 1)	204 (38.7)	(100.0)		
Baligiadesili	(3.0)	(9.9)	107	(11.9)	(14.1)	(30.7)	(100.0)		
Black	(5.5)	(10.0)	(21.3)	(20.5)	(17.9)	(2/1.0)	(100.0)		
Diack	(3.3)	21	56	20.5)	41	48	201		
Other	(3.3)	(10.9)	(30.0)	(13.9)	(17.6)	(24.3)	(100.0)		
Unweighted sample size	659	1705	4202	2818	1982	1964	13330		
Weighted observations	642	1715	4228	2885	1944	1896	13310		
					-	p=0.000			
Mother's Employment Sta	atus at MO	CS4					1		
	287	635	1419	902	737	1063	5043		
Not employed	(5.7)	<u>(12.8</u> )	(28.7)	(18.4)	(14.1)	(20.3)	(100.0)		
	372	1070	2784	1916	1246	901	8289		
Employed	(4.3)	(12.9)	(33.7)	(23.7)	(14.9)	(10.5)	(100.0)		
Unweighted sample size	659	1705	4203	2818	1983	1964	13332		
Weighted observations	642	1715	4229	2885	1945	1896	13312		
						p=0.000			
Mother's Highest Qualification at MCS4									
	86	164	366	217	195	437	1465		
No qualifications	(6.5)	(11.5)	(24.8)	(15.5)	(13.1)	(28.6)	(100.0)		
	51	130	267	169	127	174	918		
NVQ1	(5.3)	(15.4)	(29.3)	(18.7)	(13.2)	(18.1)	(100.0)		

		Unweight	ed Observation	ns (Weighted P	ercentage)						
		Several	One or T	wo Times							
	Every	Times a				Not at					
	Day	Week	A Week	A Month	Less Often	All	Total Obs				
Continued											
	186	439	1073	699	583	551	3531				
NVQ2	(4.7)	(11.9)	(31.8)	(20.0)	(16.3)	(15.3)	(100.0)				
	93	285	659	447	292	266	2042				
NVQ3	(4.2)	(14.4)	(32.3)	(22.6)	(14.1)	(12.4)	(100.0)				
	180	530	1421	1009	611	354	4105				
NVQ4	(4.4)	(13.0)	(34.5)	(25.7)	(14.4)	(8.1)	(100.0)				
	86	122	321	1009	124	81	902				
NVQ5	(6.5)	(14.1)	(35.4)	(25.7)	(14.7)	(7.4)	(100.0)				
	631	1670	4107	2760	1932	1863	12963				
	610	1680	4129	2821	1897	1801	12938				
						p=0.000					
Family Type at MCS4											
	93	1341	3388	2254	1581	1501	10545				
Two-parent	(4.2)	(12.6)	(32.5)	(21.8)	(15.0)	(13.6)	(100.0)				
	180	364	815	564	402	463	2787				
Lone parent	(4.4)	(13.8)	(29.3)	(21.1)	(13.3)	(16.4)	(100.0)				
Unweighted sample size	659	1705	4203	2818	1983	1964	13332				
Weighted observations	642	1715	4229	2885	1945	1896	13312				
						p=0.000					

Table 4.6: How often do you play sports or physically active games with your child? Mothers at MCS4

Sample includes all mothers responding to question. Table displays unweighted observations and weighted percentages (country means using weight1, UK means using weight2).

Table 4.7: How often do you play sports or physically active games with your child? Fathers at CMS4											
	Unw	eighted O	bservations	(Weighted Po	ercentage)		Total Obs				
		Several	One or T	wo Times							
	Every Day	l imes	A Week	A Month	Less	NOt at All					
	902	1032	3170	1332	579	360	8284				
All Responding Fathers at MCS4	(11.1)	(22.7)	(38.9)	(16.3)	(6.8)	(4.2)	(100.0)				
Country at MCS4	()	(/	(0010)	(1010)	(0.0)	()	(10010)				
	558	1137	2093	881	373	269	5311				
England	(10.9)	(22.0)	(39.5)	(16.4)	(6.8)	(4.5)	(100.0)				
Ť	150	325	430	138	74	48	1165				
Wales	(12.5)	(27.4)	(38.1)	(11.9)	(6.6)	(3.5)	(100.0)				
	103	226	383	205	72	22	1011				
Scotland	(10.4)	(22.6)	(37.4)	(20.6)	(7.0)	(2.0)	(100.0)				
	91	244	264	108	60	30	797				
Northern Ireland	(11.6)	(32.2)	(32.0)	(13.0)	(7.3)	(4.0)	(100.0)				
Unweighted sample size	902	1932	3170	1332	579	369	8284				
Weighted observations	893	1904	3072	1274	546	324	8014				
					р	=0.000					
Father's Age at MCS4											
	55	119	115	44	21	17	371				
20 to 29	(14.6)	(34.3)	(27.9)	(13.3)	(4.7)	(5.2)	(100.0				
	444	888	1511	587	243	135	3808				
30 to 39	(12.2)	(22.1)	(40.6)	(15.9)	(6.0)	(3.2)	(100.0)				
	403	925	1544	701	315	217	4105				
40 and above	(9.7)	(21.9)	(38.5)	(17.1)	(7.7)	(5.1)	(100.0)				
Unweighted sample size	902	1932	3170	1332	579	369	8284				
Weighted observations	891	1824	3133	1316	546	340	8050				
				•	p	=0.000					

	Unw	eighted Ol	oservations	(Weighted Po	ercentage)		Total Obs
		Several	One or T	wo Times	Loco	Not	
	Every Day	a Week	A Week	A Month	Often	at All	
Continued							
Father's Ethnicity							
	811	1733	2732	1140	475	271	7162
White	(11.3)	(23.4)	(38.8)	(16.2)	(6.4)	(3.8)	(100.0)
	6	14	19	10	4	1	54
Mixed	(12.0)	(24.2)	(37.4)	(17.1)	(7.5)	(1.8)	(100.0)
	16	64 (05.0)	98	35	20	13	246
Indian	(7.5)	(25.6)	(39.7)	(15.2)	(8.6)	(3.4)	(100.0)
	44	FC	171	01	4.4	60	450
Pakistani or Bandladeshi	(11.6)	50 (12.0)	(37.1)	(16.0)	(9.7)	(12.9	453
Fakistani or Bangiadeshi	1/	(12.0)	72	(10.9)	(9.7)	)	(100.0)
Black	(7.6)	(14.4)	(37.6)	(22.3)	(13.3)	(4.8)	(100 0)
Diack	(7.0) Q	22	64	23	(13.3)	11	140
Other	(4.2)	(13.8)	(51.5)	(16.3)	(6.9)	(7.2)	(100.0)
Unweighted sample size	897	1919	3156	1331	577	367	8247
Weighted observations	887	1818	3128	1315	545	340	8033
					r		
Eathor's Employment Status at M	CS4				ŀ	-0.000	
Father's Employment Status at M	6.54					-	1
						98	
	94	121	196	75	59	(15.4	643
Not employed	(15.2)	(20.0)	(30.4)	(10.3)	(8.8)	)	(100.0)
Employed	808	1811	2974	1257	520	2/1	(100.0)
Employed	(10.7)	(22.9)	(39.0)	(10.6)	(6.6)	(3.3)	(100.0)
Weighted observations	902 801	1932	3170	1332	579	309	0204 8050
weighted observations	091	1024	5755	1310	540	340	0000
					, p	=0.000	
Father's Highest Qualification at	MCS4						
	90	140	051	117	00	86	767
No qualifications	(12.7)	(20.1)	(22.2)	(12.5)	(10,1)	(10.3	(100.0)
	(12.7)	(20.1)	(33.3)	(13.5)	(10.1)	)	(100.0)
NVO1	61	90	156	61	40	42	450
	(13.4)	(20.5)	(34.6)	(13.8)	(8.7)	(9.1)	(100.0)
NVQ2	239	476	759	307	147	92	2020
· · · · <b>~</b> _	(11.8)	(22.6)	(37.4)	(16.4)	(7.5)	(4.3)	(100.0)
	162	313	481	186	74	41	1257
NVQ3	(12.2)	(23.6)	(40.0)	(15.5)	(5.3)	(3.4)	(100.0)
NVQ3	(	000			167	1 10 1	25/10
NVQ3 NVQ4	239	632	1013	(47.0)	(6.0)		(100.0)
NVQ3 NVQ4	239 (10.0)	632 (23.7)	1013 (39.8)	(17.8)	(6.3)	(2.4)	(100.0)
NVQ3 NVQ4 NVQ5	239 (10.0) 89 (12.7)	632 (23.7) 219 (22.1)	1013 (39.8) 405 (45.7)	(17.8) 163	(6.3) 50	(2.4) 8 (0.7)	(100.0) 927
NVQ3 NVQ4 NVQ5	239 (10.0) 89 (12.7)	632 (23.7) 219 (23.1)	1013 (39.8) 405 (45.7) 3065	(17.8) 163 (16.8)	(6.3) 50 (5.0)	(2.4) 8 (0.7)	(100.0) 927 (100.0)
NVQ3 NVQ4 NVQ5 Unweighted sample size	(10.0) 89 (12.7) 872 864	632 (23.7) 219 (23.1) 1872 1775	1013 (39.8) 405 (45.7) 3065 3029	(17.8) 163 (16.8) 1275 1271	(6.3) 50 (5.0) 556 528	(2.4) 8 (0.7) 330 305	(100.0) 927 (100.0) 7970 7773

, Sample includes all fathers responding to question. Table displays unweighted observations and weighted percentages (country means using weight1, UK means using weight2).

Table 4.8: How often de	o you pla	ay with toys or g	games indoo	rs with your o	child? Fat	hers at MC	S4
		Unweighted	l Observations	s (Weighted Pe	rcentage)	•	
			One or T	wo Times			
	Every Dav	Several Times a Week	A Week	A Month	Less Often	Not at All	Total Obs
All Responding Fathers	859	2131	3177	1301	493	322	8283
At MCS4	(10.2)	(26.0)	(38.5)	(15.9)	(5.9)	(3.5)	(100.0)
Country at MCS4							
Frankrad	526	1306	2072	866	327	213	5310
England	(10.0)	(24.6)	<u>(39.6)</u> 431	(16.5)	(6.0)	(3.3)	(100.0)
Wales	(12.2)	(28.1)	(36.0)	(13.8)	(6.0)	(4.5)	(100.0)
	97	293	406	144	47	24	1011
Scotland	(9.5)	(28.9)	(39.8)	(14.6)	(4.8)	(2.4)	(100.0)
Northarn Iroland	83	207	268	141	60	38	797
Linweighted sample size	(9.0)	(20.3)	3177	1301	493	(4.5)	8283
Weighted observations	820	2082	3088	1272	473	278	8013
				·		0.008	
Father's Age at MCS4	•						
	58	124	115	38	24	12	371
20 to 29	(15.0)	(31.9)	(34.5)	(9.5)	(6.5)	(2.6)	(100.0)
	444	1097	1435	533	188	111	3808
30 to 39	(11.3)	(28.8)	(38.5)	(14.4)	(4.8)	(2.2)	(100.0)
40 and above	357	(21.6)	(40.1)	(18.4)	(6.9)	(4.4)	(100.0)
Unweighted sample size	859	2131	3177	1301	493	322	8283
Weighted observations	814	2043	3147	1299	478	267	8049
						p=0.000	
Father's Ethnicity							
	751	1903	2774	1122	396	215	7161
White	(10.2)	(26.1)	(39.5)	(16.1)	(5.5)	(2.7)	(100.0)
Misso	5	18	17	5	6	3	54
IVIIXed	(8.1)	(31.0)	(35.0)	(8.4)	(12.3)	(5.2)	(100.0)
Indian	(9.5)	(23.5)	(39.0)	(19.1)	(4.1)	(4.9)	(100.0)
Pakistani or	42	87	143	76	45	60	453
Bangladeshi	(9.3)	(18.9)	(33.8)	(15.6)	(11.2)	(11.2)	(100.0)
Plack	17	37	59 (20.4)	39	24	16	(100.0)
DIACK	11	(17.9)	65	(20.0)	11	(7.0)	140
Other	(5.5)	(14.2)	(48.5)	(11.9)	(9.2)	(10.7)	(100.0)
Unweighted sample size	854	2123	3159	1296	492	322	8246
Weighted observations	811	2040	3141	1295	477	267	8032
Faile and a Franklaum and Ota		24				p=0.000	
Father's Employment Sta		.54	100				0.40
Not employed	108	153	182	84	47	69 (9.4)	643 (100.0)
Not employed	751	1978	2995	1217	446	253	7640
Employed	(9.4)	(25.6)	(39.9)	(16.5)	(5.8)	(2.8)	(100.0)
Unweighted sample size	859	2131	3177	1301	493	322	8283
Weighted observations	814	2043	3147	1299	478	267	8049
Fotheria Highert Our-life		CC4				p=0.000	
Father's Highest Qualifica				400	70	05	707
No qualifications	78 (11 9)	167 (20 P)	264	103	70 (8 2)	85	/67 (100 0)
no qualifications	<u>(11.8)</u> 58	(20.0) 107	<u>(35.∠)</u> 158	68	(0.3)	(10.1) 27	(100.0) 450
NVQ1	(14.3)	(24.5)	(35.5)	(14.7)	(6.7)	(4.3)	(100.0)
	216	528	747	320	136	72	2019
NVQ2	(10.1)	(25.5)	(37.2)	(16.8)	(7.0)	(3.5)	(100.0)

Table 4.8: How often do	o you pla	ay with toys or g	games indoo	rs with your o	hild? Fat	hers at MC	S4			
		Unweighted Observations (Weighted Percentage)								
			One or T	wo Times						
	Every Day	Several Times a Week	A Week	A Month	Less Often	Not at All	Total Obs			
Continued										
	159	341	472	185	66	34	1257			
NVQ3	(12.1)	(27.3)	(38.0)	(14.8)	(5.8)	(1.9)	(100.0)			
	236	685	1021	427	123	57	2549			
NVQ4	(8.7)	(26.7)	(40.7)	(17.4)	(4.6)	(1.9)	(100.0)			
	79	234	403	152	40	19	927			
NVQ5	(8.4)	(23.7)	(45.9)	(15.9)	(4.3)	(1.8)	(100.0)			
Unweighted sample size	826	2062	3065	1255	467	294	7969			
Weighted observations	788	1982	3043	1258	453	246	7771			
						p=0.000				

Sample includes all fathers responding to question. Table displays unweighted observations and weighted percentages (country means using weight1, UK means using weight2).

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Table 4.9: How often do you take your child to the park or an outdoor playground? Mothers at MCS4									
		Unweight	ed Observatio	ns (Weighted	Percentage)				
		Several	One or Ty	vo Times					
	Every	Times a					Total		
	Day	Week	A Week	A Month	Less Often	Not at All	Obs		
All Responding Mothers	453	1453	4990	4077	1541	817	13331		
At MCS4	(3.4)	(11.0)	(37.1)	(30.7)	(11.9)	(6.0)	(100.0)		
Country at MCS4									
	273	927	3188	484	1007	513	8490		
England	(3.2)	(11.0)	(36.9)	(37.9)	(12.0)	(5.9)	(100.0)		
	77	223	738	578	190	122	1928		
Wales	(4.4)	(11.9)	(36.5)	(30.1)	(10.3)	(6.8)	(100.0)		
	58	173	580	504	174	88	1577		
Scotland	(3.8)	(11.1)	(37.4)	(31.0)	(10.9)	(5.8)	(100.0)		
	45	130	484	413	170	94	1336		
Northern Ireland	(3.6)	(9.8)	(37.9)	(29.0)	(12.7)	(7.0)	(100.0)		
Unweighted sample size	453	1453	4990	4077	1541	817	13331		
	400	1473	4943	4092	1001	619	13352		
						p=0.5			
Mother's Age at MCS4	-								
	96	300	901	619	191	132	2239		
20 to 29	(4.0)	(13.5)	(40.1)	(27.8)	(8.6)	(6.0)	(100.0)		
	219	784	2779	2216	800	419	7217		
30 to 39	(3.1)	(10.9)	(38.2)	(30.8)	(11.3)	(5.7)	(100.0)		
	138	369	1310	1242	550	266	3875		
40 and above	(3.4)	(9.5)	(33.0)	(32.6)	(15.1)	(6.4)	(100.0)		
Unweighted sample size	453	1453	4990	4077	1541	817	13331		
weighted observations	446	1463	4937	4092	1579	793	13310		
						p=0.000			
Mother's Ethnicity									
	377	1226	4219	3616	1337	690	11465		
White	(3.3)	(10.8)	(36.5)	(31.6)	(11.9)	(5.9)	(100.0)		
	4	17	39	41	13	3	117		
Mixed	(1.4)	(15.2)	(31.3)	(38.8)	(11.7)	(1.7)	(100.0)		
	13	23	119		39	31	332		
Indian Daliatani a	(3.5)	(7.1)	(33.7)	(33.5)	(12.2)	(10.0)	(100.0)		
Pakistani or	33	103	336	163	(13	53	/61		
Bangiadéshi	(4.3)	(13.0)	(45.3)	(20.3)	(10.2)	(6.9)	(100.0)		
Black	15	62	1/9	106	61	30	453		
BIACK	(3.3)	(13.9)	(38.9)	(23.1)	(14.8)	(6.0)	(100.0)		

		Unweigh	ted Observatio	ns (Weighter	Percentage)		
		Several		wo Times	Fercentage)		-
	Everv	Times a			-		Total
	Day	Week	A Week	A Month	Less Often	Not at All	Obs
Continued			•	•	•		•
	11	22	97	43	18	10	201
Other	(3.2)	(11.7)	(52.2)	(19.1)	(9.0)	(4.8)	(100.0)
Unweighted sample size	453	1453	4989	4076	1541	817	13329
Weighted observations	446	1463	4936	4091	1579	793	13308
						p=0.000	
Mother's Employment Sta	tus at MC	S4				•	•
Mother 3 Employment ota		04	1	1	1		1
	213	650	1912	1330	525	412	5042
Not employed	(4.1)	(13.2)	(37.9)	(26.7)	(10.5)	(7.7)	(100.0)
Employed	240	803	3078	2/4/	1016	405	8289
Linpidyed	(2.9)	(9.0)	(30.0)	(33.3)	(12.7)	(4.9)	(100.0)
Weighted observations	455	1463	4990	4077	1579	793	13310
Weighted observations	440	1400	4007	4002	10/0	7.00 n.0.000	10010
						p=0.000	
Mother's Highest Qualification	ation at M	CS4					
	66	187	552	338	155	166	1464
No qualifications	(4.5)	(13.4)	(37.4)	(23.5)	(10.5)	(10.9)	(100.0)
	23	96	335	267	116	81	918
NVQ1	(2.7)	(11.4)	(34.5)	(30.7)	(12.9)	(7.9)	(100.0)
NIVOO	118	405	1275	1088	416	229	3531
NVQ2	(3.2)	(11.0)	(30.6)	(30.7)	(12.0)	(6.5)	(100.0)
	(1 0)	(11.0)	(38.1)	(31.2)	(11.4)	(4 3)	(100.0)
11/25	125	414	1567	1342	491	165	4104
NVQ4	(2.8)	(10.6)	(37.2)	(32.7)	(12.5)	(4.1)	(100.0)
	29	73	341	319	101	39	902
NVQ5	(3.5)	(7.0)	(37.8)	(35.3)	(12.0)	(4.4)	(100.0)
Unweighted sample size	437	1407	4845	3984	1505	784	12962
Weighted observations	431	1414	4789	3992	1547	763	12935
						p=0.000	
Family Type at MCS4						•	
	342	1082	3948	3274	1282	617	10545
Two-parent	(3.2)	(10.2)	(36.9)	(31.2)	(12.7)	(5.7)	(100.0)
	111	1082	1042	803	259	200	2786
Lone parent	(3.7)	(10.2)	(37.9)	(29.0)	(8.9)	(6.7)	(100.0)
Unweighted sample size	453	1453	4990	4077	1541	817	13331
Weighted observations	446	1463	4937	4092	1579	793	13310
						p=0.000	

Sample includes all mothers responding to question. Table displays unweighted observations and weighted percentages (country means using weight1, UK means using weight2).

 Table 4.10: How often do you take your child to the park or an outdoor playground? Fathers at

 MCS4

		Unweighte	d Observatio	ns (Weighted	Percentage)		
		Several	One or T	wo Times			
		Times a					
All Responding Eathors at	Every Day	Week	A Week	A Month	Less Often	Not at All	Total Obs
MCS4	(1.4)	(7.8)	(36.1)	(34.8)	(14.3)	(5.7)	(100.0)
Country at MCS4							
	69	409	1967	1845	741	279	5310
England	(1.2)	(7.2)	(36.4)	(35.4)	(14.4)	(5.3)	(100.0)
	23	92	424	379	180	66	1164
Wales	(1.8)	(8.4)	(36.0)	(32.2)	(15.6)	(6.0)	(100.0)
Scotland	20	86 (8 0)	387	(33.8)	133	(5.2)	(1009
ocoliand	10	68	244	287	118	70	797
Northern Ireland	(1.2)	(9.3)	(31.4)	(35.4)	(14.3)	(8.5)	(100.0)
Unweighted sample size	122	655	3022	2850	1172	1172	8280
Weighted observations	113	622	2888	2786	1146	1146	8010
						p=0.016	ò
Father's Age at MCS4							
	8	38	125	110	57	33	371
20 to 29	(2.4)	(12.6)	(30.3)	(30.3)	(15.6)	(8.9)	(100.0)
20 to 20	55	313	1443	1355	457	183	3806
30 10 39	(1.4)	304	1454	1385	658	243	4103
40 and above	(1.2)	(7.0)	(35.1)	(34.7)	(16.2)	(5.8)	(100.0)
Unweighted sample size	122	655	3022	2850	1172	459	8280
Weighted observations	110	603	2925	2824	1146	438	8047
						p=0.000	
Father's Ethnicity							
	96	539	2569	2521	1039	395	7159
White	(1.3)	(7.3)	(36.0)	(35.6)	(14.4)	(5.4)	(100.0)
Mixed		10	20	21	2	1	(100.0)
WIXEU	(0.0)	21	96	76	(4.3)	(0.0)	246
Indian	(0.8)	(7.7)	(38.2)	(33.2)	(13.2)	(7.0)	(100.0)
Pakistani or	13	53	189	124	46	27	452
Bangladeshi	(3.2)	(10.0)	(43.5)	(26.9)	(9.9)	(6.4)	(100.0)
	5	16	66	66	31	8	192
BIACK	(2.7)	(6.7)	(31.7)	(36.0)	(18.4)	(4.3)	(100.0)
Other	(2.1)	(8.8)	(44.5)	(26.0)	(13.9)	(4.8)	(100.0)
Unweighted sample size	122	651	3005	2841	1167	457	8243
Weighted observations	110	602	2919	2820	1142	437	8031
						p=0.024	
Father's Employment Sta	tus at MCS4						
	32	81	214	153	81	82	643
Not employed	(4.6)	(12.3)	(32.9)	(23.1)	(13.9)	(13.1)	(100.0)
<b>F</b> acada da d	90	574	2808	2697	1091	377	7637
Employed	(1.1)	(7.1)	(36.6)	(36.1)	(14.3)	(4.8)	(100.0)
Weighted observations	110	603	2925	2824	1146	438	8047
						n=0.000	
Father's Highest Qualific	ation at MCS	4				μ-0.000	1
i aller 5 mgnest wudillie	16	75	282	206	104	83	766
No qualifications	(2,8)	(10.5)	(38.0)	(25.3)	(12.8)	(10.6)	(100.0)
	7	34	146	146	68	48	449
NVQ1	(1.6)	(6.6)	(32.4)	(33.0)	(15.7)	(10.7)	(100.0)
Continued							

Table 4.10: How often do you take your child to the park or an outdoor playground? Fathers at	
MCS4	

	Unweighted Observations (Weighted Percentage)							
		Several	One or Two Times					
	Even: Dev	Times a		A Month	Loss Ofton	Not at All	Total Oba	
	Every Day	week	Aweek	A MONUT	Less Oilen	NOL AL AII	Total Obs	
	27	157	710	704	285	137	2020	
NVQ2	(0.9)	(7.6)	(34.9)	(35.6)	(14.2)	(6.9)	(100.0)	
	23	98	472	415	197	52	1257	
NVQ3	(2.0)	(6.9)	(36.7)	(35.5)	(15.2)	(3.8)	(100.0)	
	29	204	981	902	343	89	2548	
NVQ4	(1.2)	(7.6)	(37.9)	(36.0)	(13.8)	(3.4)	(100.0)	
	10	62	329	374	126	25	926	
NVQ5	(0.6)	(5.8)	(36.8)	(39.8)	(14.2)	(2.8)	(100.0)	
Unweighted sample size	112	630	2920	2747	1123	434	7966	
Weighted observations	102	582	2835	2729	1103	418	7770	
						p=0.000	)	

Sample includes all fathers responding to question. Table displays unweighted observations and weighted percentages (country means using weight1, UK means using weight2).

As with the amount of time they have with their children, the extent to which parents engage in activities may be influenced by a number of factors including whether or not they work, how much time they have at home to spend with their children, how many other children they have, and also what resources are available to them. The list of activities included in the interview is not exhaustive and obviously parents may spend time with their children in activities that were not asked about. For instance there may be culture-specific activities that were not included in the questionnaire.

Overall, mothers engaged in all the activities asked about more often than fathers, with the exception of playing sports or physically active games. Mothers reported reading to their children more frequently than any of the other activities, with 42 per cent doing so every day.

Some similar patterns emerged across the various activities reported in Tables 4.3 to 4.10 for both mothers and fathers. However, there was no consistent pattern of variation across the different countries. For instance, mothers in Northern Ireland and England read to their children most frequently, while for fathers, it was those in Scotland and Northern Ireland who were the most regular readers. The question on how often parents took their children to the park showed that it was mothers in Wales and fathers in Scotland who did this most often.

A clearer pattern emerged when looking at the age of parents at the time of the interview. Other than reading, the youngest parents (aged 20–29 at the interview) were consistently involved in activities more frequently than their older counterparts.

Overall, Pakistani and Bangladeshi parents tended to engage in activities less frequently than other parents.

Differences by parental employment status were not consistent. Parents who were not working were more likely to be clustered at each end of the response options; for most activities, a higher percentage of parents who were not working reported engaging in the activity every day and a higher percentage also reported never engaging in the activity. An exception to this was reading, with more mothers and fathers in employment reading with or to their child every day. Other than this, there were few consistent differences.

Differences across qualification levels were, however, highly consistent. For almost every activity, parents with higher qualification levels reported engaging in the activity more often than did parents with lower qualification levels. The exceptions were musical activities and visits to a park or playground (and helping with homework, see Chapter 5).

For both mothers and fathers, rates of employment rise in step with increasing levels of qualification. This may account for some of the inconsistent patterns seen for employment status. Parents who were not working were more likely to have low qualifications. Because those with lower qualification levels engaged less frequently in activities with their children, it could be predicted that non-working parents would similarly engage in these activities less frequently. At the same time, parents who are not working may be expected to engage in activities more frequently with their children because they may have more free time. These contradictory expectations may explain why higher rates both of engaging in activities every day and of never engaging in them were seen for parents who were not working.

There was generally very little variation between lone and partnered mothers in the frequency of doing the various activities. One exception to this once again concerned reading. Mothers with a resident partner were slightly more likely to read with or to their child every day than those on their own. However, mothers with no partner were considerably more likely to engage in musical activities every day (40% compared to 29% for partnered mothers).

Two questions were asked only of fathers about how often they put their children to bed and how often they looked after their children on their own. Responses are shown in Tables 4.11 and 4.12. Overall, more than a quarter (26%) of fathers were involved in putting their child to bed every day and around 85 per cent managed to do this at least once a week. Fathers in Wales did bedtimes most frequently and fathers in Northern Ireland least. As with other activities, the youngest fathers were most involved at bedtime (30% doing so every day) but conversely they were also most likely not to do this at all (9%). A similar pattern emerged according to whether a father worked or not. Nearly a third (32%) of fathers not in employment were involved in bedtime every day compared to a quarter of those in work, but 16 per cent of non-employed fathers were never involved compared to just 5 per cent of employed fathers.

Around 70 per cent of fathers looked after their child on their own at least once a week. Fathers in Northern Ireland were the most likely to do this with 80 per cent compared to 69 per cent in England. As with other activities, Pakistani and Bangladeshi fathers looked after their children on their own least frequently. Perhaps unsurprisingly, fathers who did not work were much more likely to look after their

child every day than those in employment (22% compared to 8%). The responses on father involvement were similar at age 5.

		Unweighted O	bservations (	Weighted Pe	ercentage)		
			One or Tw	vo Times			
	Everv Dav	Several Times a Week	A Week	A Month	Less Often	Not at All	Total Obs
All Responding Fathers	2065	3087	1819	428	327	556	8282
at MCS4	(25.9)	(38.0)	(21.6)	(5.1)	(3.6)	(5.8)	(100.0)
Country at MCS4			,	,			
,	1303	1877	1180	293	230	426	5309
England	(25.8)	(36.6)	(21.8)	(5.4)	(3.8)	(6.5)	(100.0)
	313	432	252	58	44	66	1165
Wales	(27.4)	(37.0)	(21.6)	(4.9)	(3.6)	(5.6)	(100.0)
	263	444	218	32	22	32	1011
Scotland	(26.7)	(43.5)	(20.4)	(3.4)	(2.2)	(3.8)	(100.0)
	186	334	169	45	31	32	797
Northern Ireland	(22.8)	(42.6)	(21.1)	(5.5)	(3.8)	(4.2)	(100.0)
Unweighted sample size	2065	3087	1819	428	327	556	8282
Weighted observations	2072	3048	1728	410	286	469	8013
ž					•	P<0.005	
Eathor's Age at MCS4						1 < 0.005	
i auter 5 Aye al WO34	400	400	70	47	4 5	05	074
20 to 20	106	120	78 (19 0)	1/	15	35	3/1
20 to 29	(30.3)	(31.9)	(18.9)	(5.8)	(3.9)	(9.1)	(100.0)
20 to 20	1018	1427	805	159	150	248	3807
30 10 39	(28.3)	(37.3)	(20.8)	(4.3)	(3.4)	(3.6)	(100.0)
40 and above	941	1540	930	252	162	2/3	4104
	(23.2)	(30.1)	(22.0)	(6.0)	(3.6)	(0.3)	(100.0)
Unweighted sample size	2065	3087	1819	428	327	500	8282
Weighted observations	2003	3014	1742	420	291	500	0049
						p=0.000	
Father's Ethnicity							
	1877	2830	1553	350	223	328	7161
White	(26.8)	(39.0)	(21.5)	(5.0)	(3.0)	(4.7)	(100.0)
	9	21	1553	4	2	2	54
Mixed	(16.6)	(39.2)	(21.5)	(4.9)	(5.0)	(2.9)	(100.0)
	51	66	57	15	2	38	246
Indian	(20.3)	(27.7)	(23.8)	(6.7)	(5.0)	(13.4)	(100.0)
Pakistani or	49	69	107	34	57	136	452
Bangladeshi	(11.2)	(19.4)	(22.2)	(6.1)	(11.7)	(29.3)	(100.0)
	50	50	44	12	15	21	192
Black	(30.9)	(24.5)	(19.0)	(8.2)	(7.8)	(9.6)	(100.0)
Other	24	38	32	12		27	140
	(17.2)	(29.2)	(23.7)	(8.0)	(4.4)	(17.5)	(100.0)
Unweighted sample size	2060	3074	1809	427	323	552	8245
weighted observations	2061	3005	1730	419	269	499	6033
						p=0.000	
Father's Employment St	atus at MCS	4					
	197	160	105	32	42	106	642
Not employed	(32.2)	(24.5)	(16.3)	(5.3)	(5.8)	(15.9)	(100.0)
	1868	2927	1714	396	285	450	7640
Employed	(25.4)	(38.5)	(22.1)	(5.2)	(3.4)	(5.4)	(100.0)
Unweighted sample size	2065	3087	1819	428	327	556	8282
Weighted observations	2083	3014	1742	420	291	500	8049
						p=0.000	
Father's Highest Qualific	cation at MC	S4				F 0.000	1
	1/6	202	150	51	61	1/5	767
No qualifications	(22.0)	(26.0)	(10,7)	(6 1)	(7.2)	(18.1)	
i io quannoanolio	(22.0)	(20.0)	(13.7)	(0.1)	(1.2)		

Table 4.11: How often do you get your child ready for bed or put your child to bed? Fathers at         MCS4						
	Unweighted C	Observations (Weighted Pe	rcentage)			
		One or Two Times				

			One or Tw	o Times			
		Several Times					Total
	Every Day	a Week	A Week	A Month	Less Often	Not at All	Obs
Continued							
	127	136	94	25	22	46	450
NVQ1	(30.6)	(30.9)	(20.8)	(5.2)	(4.1)	(8.4)	(100.0)
	530	703	460	120	76	130	2019
NVQ2	(26.3)	(35.1)	(22.2)	(6.1)	(3.8)	(6.6)	(100.0)
	334	496	264	45	44	74	1257
NVQ3	(28.3)	(39.6)	(20.3)	(3.5)	(3.1)	(5.3)	(100.0)
	629	496	566	117	75	80	2548
NVQ4	(25.2)	(39.6)	(22.2)	(4.8)	(2.8)	(3.0)	(100.0)
	227	390	205	47	26	32	927
NVQ5	(24.9)	(41.8)	(22.6)	(5.3)	(2.0)	(3.4)	(100.0)
Unweighted sample size	1993	3008	1748	408	304	507	7968
Weighted observations	2019	2941	1681	398	268	464	7772
						p=0.000	

Sample includes all fathers responding to question. Table displays unweighted observations and weighted percentages (country means using weight1, UK means using weight2).

Table 4.12: How often do you look after your child on your own? Fathers at MCS4								
		Unweighted	Observations	(Weighted Pe	ercentage)			
		Several Times	One or T	wo Times				
	Every Day	a Week	A Week	A Month	Less Often	Not at All	<b>Total Obs</b>	
All Responding Fathers	817	2273	280	1426	693	235	8280	
at MCS4	(9.4)	(28.0)	(34.3)	(17.4)	(8.3)	(2.4)	(100.0)	
Country at MCS4								
-	509	1303	1828	983	505	179	5307	
England	(9.0)	(25.4)	(34.7)	(18.9)	(9.2)	(2.8)	(100.0)	
-	135	336	395	193	75	31	1165	
Wales	(11.0)	(28.6)	(35.1)	(16.1)	(6.6)	(2.6)	(100.0)	
	89	344	333	163	69	13	1011	
Scotland	(9.0)	(35.0)	(32.8)	(15.4)	(6.9)	(0.9)	(100.0)	
	84	290	280	87	44	12	797	
Northern Ireland	(10.2)	(36.2)	(34.3)	(11.5)	(6.3)	(1.5)	(100.0)	
Unweighted sample size	817	2273	2836	1426	693	235	8280	
Weighted observations	755	2242	2765	1392	662	195	8011	
						p=0.000		
Father's Age at MCS4								
	36	114	117	60	30	14	371	
20 to 29	(9.9)	(31.0)	(31.4)	(16.5)	(7.7)	(3.6)	(100.0)	
	343	1070	1322	60	294	125	3806	
30 to 39	(8.7)	(26.9)	(35.4)	(16.5)	(8.1)	(3.0)	(100.0)	
	438	1089	1397	714	369	96	4103	
40 and above	(9.6)	(26.4)	(34.2)	(18.3)	(9.4)	(2.1)	(100.0)	
Unweighted sample size	817	2273	2836	1426	693	235	8280	
Weighted observations	742	2161	2784	1449	703	209	8046	
						p=0.000		
Father's Ethnicity								
	685	2088	2503	1240	519	125	7160	
White	(9.0)	(28.0)	(35.3)	(18.1)	(7.8)	(1.9)	(100.0)	
	3	12	20	10	7	2	54	
Mixed	(5.8)	(19.6)	(36.2)	(18.8)	(14.2)	(5.4)	(100.0)	
	3	43	72	40	35	22	246	
Indian	(5.8)	(17.0)	(30.6)	(18.9)	(13.8)	(6.1)	(100.0)	

		Unweiahted	Observations	s (Weighted P	ercentage)		
			One or T	wo Times	j,		
	Every Day	a Week	A Week	A Month	Less Often	Not at All	Total Obs
Continued	<u> </u>						
Pakistani or	3	56	128	84	88	69	452
Bangladeshi	(5.8)	(12.8)	(27.2)	(19.4)	(20.4)	(14.8)	(100.0)
	44	45	58	27	14	3	191
Black	(17.1)	(25.6)	(31.1)	(13.2)	(10.3)	(2.7)	(100.0)
	21	17	45	18	28	11	140
Other	(14.1)	(17.4)	(27.4)	(14.1)	(20.9)	(6.1)	(100.0)
Unweighted sample size	814	2261	2826	1419	691	232	8243
Weighted observations	740	2154	2778	1447	702	208	8030
		p=0.000					
Father's Employment S	Status at M	CS4					
	136	174	165	70	56	42	643
Not employed	(22.3)	(25.7)	(26.7)	(11.1)	(8.4)	(5.8)	(100.0)
	681	2099	2671	1356	637	193	7637
Employed	(8.2)	(26.9)	(35.2)	(18.6)	(8.8)	(2.3)	(100.0)
Unweighted sample size	817	2273	2836	1426	693	235	8280
Weighted observations	742	2161	2784	1449	703	209	8046
						p=0.000	
Father's Highest Qualif	ication at M	ACS4					
	95	188	219	106	107	51	766
No qualifications	(12.6)	(23.6)	(28.6)	(14.8)	(14.0)	(6.5)	(100.0)
	63	114	152	62	40	19	450
NVQ1	(13.6)	(25.1)	(35.6)	(13.0)	(8.7)	(4.1)	(100.0)
	216	579	152	304	153	51	2018
NVQ2	(10.0)	(28.2)	(35.6)	(15.5)	(8.4)	(2.5)	(100.0)
	122	357	440	215	90	33	1257
NVQ3	(9.3)	(27.6)	(35.5)	(18.1)	(7.4)	(2.1)	(100.0)
	222	699	891	496	201	40	2549
NVQ4	(8.2)	(26.4)	(35.0)	(20.6)	(8.3)	(1.6)	(100.0)
	68	262	329	186	65	16	926
NVQ5	(6.2)	(28.0)	(36.1)	(20.6)	(7.6)	(1.5)	(100.0)
Unweighted sample size	786	2199	2746	1369	656	210	7966
Weighted observations	722	2091	2699	1394	671	192	7769
						n = 0.000	

Table 4.12: How often do you look after your child on your own? Fathers at MCS4

Sample includes all fathers responding to question. Table displays unweighted observations and weighted percentages (country means using weight1, UK means using weight2).

# Discipline

In the self-completion questionnaire, mothers were asked how frequently they used specific methods of discipline when their children were naughty. This included ignoring them, smacking them, shouting at them, sending them to their room or the naughty chair, taking treats away, telling them off, and bribing them (e.g. with treats or sweets). A selection of responses appears in Tables 4.13 to 4.15.

Unsurprisingly, mothers used a variety of methods and some more frequently than others. It should be noted that the questions do not ask how often the children were naughty, so mothers with children who are naughty more often are likely to report higher use of some forms of discipline.

What was perhaps surprising was that, overall, there was little systematic variation in the frequency with which mothers used the different methods of discipline asked

about, according to the characteristics tabulated here. Where differences did emerge, they were greatest between older (those aged 30and over) and younger mothers (those aged under 30) and between those with higher qualifications and those with few or no qualifications. As there is a strong relationship between age and qualification level, these are likely to be the same mothers.

#### Ignoring child when naughty

Mothers were asked how often they ignored their children when they were naughty (Table 4.13). Ignoring bad behaviour has been suggested as a tool to combat a situation where a child seeks any attention (even negative). As at the age 5 survey, around half of all mothers did this rarely or never and about a third ignored bad behaviour only sometimes. Younger mothers (those under 30) were slightly more likely to do this often or daily than mothers over the age of 40 at the time of interview (18% compared to 11%).

There was also a small variation between how frequently mothers with a tertiary-level qualification level ignored behaviour compared to mothers with fewer qualifications. Around 12 per cent of mothers with NVQ4 or 5 said they ignored bad behaviour often or daily compared to 16 per cent of those with NVQ1 or no qualifications.

	Ur	weighted Ob	servations (Weig	hted Percent	ade)	
				,	-g-,	Total
	Never	Rarely	Sometimes	Often	Daily	Obs
All Responding Mothers	3305	393	3875	1417	211	12563
At MCS4	(25.8)	(29.7)	(31.0)	(11.6)	(1.7)	(100.0)
Country at MCS4						
	2014	2351	2436	920	137	7858
England	(25.1)	(30.2)	(30.9)	(12.0)	(1.7)	(100.0)
	506	544	573	227	29	1879
Wales	(25.9)	(29.1)	(31.1)	(12.4)	(1.6)	(100.0)
	418	467	485	146	25	1541
Scotland	(26.8)	(30.1)	(31.8)	(9.7)	(1.7)	(100.0)
	367	393	381	124	20	1285
Northern Ireland	(28.9)	(29.7)	(30.1)	(9.7)	(1.6)	(100.0)
Unweighted sample size	3305	3755	3875	1417	211	12563
Weighted observations	3285	3815	3942	1474	216	12732
					p=0.261	
Mother's Age at MCS4						
	494	605	625	310	69	2103
Under 30	(22.4)	(29.7)	(29.8)	(14.9)	(3.2)	(100.0)
	1769	2012	2141	766	102	6790
30 to 39	(25.2)	(29.8)	(31.9)	(11.7)	(1.5)	(100.0)
	1042	1138	1109	341	40	3670
40 and above	(28.0)	(30.6)	(30.3)	(9.9)	(1.2)	(100.0)
	2205	2755	2075	1417	011	10560
Weighted absorvations	3305	3133	30/3	1488	211	12003
	3211	3/0/	3922		217	12030
					p=0.000	

	Un	weighted Ob	servations (Weig	ghted Percenta	age)	
	Never	Rarely	Sometimes	Often	Daily	Total Obs
Continued						
Mother's Ethnicity						
	2921	3356	3413	1289	172	11151
White	(25.4)	(30.2)	(30.8)	(12.0)	(1.6)	(100.0)
	20	30	37	14	4	105
Mixed	(14.8)	(27.8)	(38.6)	(15.7)	(3.2)	(100.0)
Indian	(24.4)	(5 (28 7)	98	27	6	283
Indian	(24.4)	(20.7)	(34.9)	(9.0)	(2.2)	(100.0)
Pakistani or Bangladeshi	(23.9)	(27.6)	(35.4)	(9.9)	(3.1)	(100.0)
Takistani or Dangiadeshi	108	111	114	30	10	373
Black	(30.8)	(28.1)	(28.4)	(10.0)	(2.6)	(100.0)
	51	40	44	12	3	150
Other	(34.7)	(25.5)	(31.3)	(7.4)	(1.0)	(100.0)
Unweighted sample size	3304	3755	3874	1417	211	12561
Weighted observations	3216	3787	3921	1488	217	12628
					p=0.157	
Mother's Employment Statu	us at MCS4					
	1169	1322	1310	564	11/	1/88
Not employed	(25.1)	(30.5)	(28.9)	(13.0)	(2.5)	(100.0)
Not employed	2136	2433	2556	853	97	8075
Employed	(25.7)	(29.7)	(32.3)	(11.1)	(1.3)	(100.0)
Unweighted sample size	3305	3755	3875	1417	211	12563
Weighted observations	3217	3787	3922	1488	217	12630
					p=0.000	
Mother's Highest Qualificat	tion at MCS4	4				
	302	355	301	129	40	1127
No qualifications	(26.0)	(30.8)	(26.8)	(13.1)	(3.4)	(100.0)
	236	254	257	109	18	874
NVQ1	(25.5)	(30.2)	(28.6)	(13.3)	(2.4)	(100.0)
	936	995	1015	403	57	3406
NVQ2	(25.9)	(30.4)	(30.0)	(12.1)	(1.7)	(100.0)
	519	579	630	213	26	1967
NVQ3	(25.8)	(29.3)	(32.4)	(11.4)	(1.2)	(100.0)
	1028	(20.4)	(33.3)	425	53 (1.4)	4014
11/04	196	282	203	106	(1.4)	881
NVQ5	(22.1)	(33.0)	(32.5)	(12.1)	(0,3)	(100.0)
Unweighted sample size	3217	3677	3792	1385	198	12269
Weighted observations	3126	3708	3836	1451	200	12322
	-				p<0.005	
Family Type at MCS4						
	2654	3006	3098	1045	138	9941
Two-parent	(26.0)	(30.5)	(31.0)	(11.1)	(1.4)	(100.0)
	651	749	777	372	73	2622
Lone parent	(23.7)	(28.1)	(31.1)	(14.3)	(2.9)	(100.0)
Unweighted sample size	3305	3755	3875	1417	211	12563
Weighted observations	3217	3787	3922	1488	217	12630

, p=0.000 Sample includes all mothers completing self-completion instrument and responding to the question. Excludes 241 responding 'can't say'. Table displays unweighted observations and weighted percentages (country totals using weight 1, UK totals using weight2).

# Smacking

Smacking the child was not a common form of punishment (Table 4.14). Over 90 per cent of all mothers did this rarely or never. However, those in Northern Ireland were a little more likely to report smacking than mothers in the other UK countries. Forty-seven per cent of mothers in Northern Ireland said they never smacked their child compared to 56 per cent of mothers in Wales. Overall, 53 per cent of mothers said they never smacked the child when naughty. At the age 5 survey, this percentage was 45.

Unweighted Observations (Weighter Percentage)         Total Obs           Never         Rarely         Sometimes         Often         Daily         Total Obs           All Responding Mothers at MCS4         6662         5040         892         114         7         12715           Country at MCS4         (52.6)         (39.8)         (6.6)         (0.9)         (0.1)         (100.0)           Country at MCS4         (52.7)         (39.6)         (6.8)         (0.9)         (0.1)         (100.0)           Wales         (55.8)         (37.6)         (56.6)         (1.0)         (0.0)         (100.0)           Wales         (55.4)         (42.0)         (4.8)         (0.8)         (0.1)         (100.0)           Northern Ireland         (47.5)         (42.0)         (4.8)         (0.8)         (0.1)         (100.0)           Unweighted sample size         6662         5040         892         114         7         12715           Weighted Observations         652.9)         (38.3)         (7.2)         (1.4)         (0.0)         (100.0)           Under 30         (50.9)         (41.4)         (7.0)         (0.8)         (0.0)         (100.0)           Under 30         (	Table 4.14: How often	mother smac	ks child whei	n naughty at N	ACS4		
Never         Rarely         Sometimes         Otten         Daily         Obs           All Responding Mothers at MCS4         6662         5040         892         114         7         12715           Country at MCS4         (52.6)         (39.8)         (6.6)         (0.9)         (0.1)         (100.0)           Country at MCS4         1184         3120         591         70         6         7971           England         (52.7)         (39.6)         (6.8)         (0.9)         (0.1)         (100.0)           Wales         (55.8)         (37.6)         (5.6)         (1.0)         0.0         1900           Scotland         (52.4)         (42.0)         (4.8)         (0.8)         (0.1)         (100.0)           Unweighted sample size         6662         5040         892         114         7         12715           Weighted Observations         6780         5137         853         116         7         12893           Under 30         (52.9)         (38.3)         (7.2)         (1.4)         (0.2)         (100.0)           Under 30         (50.9)         (41.4)         (7.0)         (0.8)         (0.1)         (100.0)           <		Unwe	eighted Observ	vations (Weight	ed Percenta	ge)	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Never	Rarely	Sometimes	Often	Daily	l otal Obs
at MCS4         (52.6)         (33.8)         (6.6)         (0.9)         (0.1)         (100.0)           Country at MCS4         4184         3120         591         70         6         7971           England         (52.7)         (39.6)         (6.8)         (0.9)         (0.1)         (100.0)           Wales         (55.8)         (37.6)         (5.6)         (1.0)         (0.0)         (100.0)           Scotland         (52.4)         (42.0)         (4.8)         (0.8)         (0.1)         (100.0)           Inweighted sample size         6662         5040         892         114         7         12715           Weighted Observations         6780         5137         853         116         7         12893           Under 30         (52.9)         (38.3)         (7.2)         (1.4)         (0.2)         (100.0)           Under 30         (55.7)         (37.9)         (5.6)         (0.7)         (0.1)         (100.0)           Unweighted sample size         6662         5040         892         114         7         12893           Under 30         (52.9)         (38.3)         (7.2)         (1.4)         (0.2)         (100.0)	All Responding Mothers	6662	5040	892	114	7	12715
Country at MCS4           England         4184 (52.7)         3120 (39.6)         591 (6.8)         70 (0.9)         6 (0.1)         700 (100.0)           Wales         (55.8)         (37.6)         (5.6)         (1.0)         (0.0)         (100.0)           Wales         (55.8)         (37.6)         (5.6)         (1.0)         (0.0)         (100.0)           Scotland         (52.4)         (42.0)         (4.8)         (0.8)         (0.1)         (100.0)           Northern Ireland         (47.5)         (42.0)         (9.2)         (1.3)         (0.0)         (100.0)           Unweighted sample size         6662         5040         892         114         7         12715           Weighted Observations         6780         5137         853         116         7         1289           Under 30         (52.9)         (38.3)         (7.2)         (1.4)         (0.2)         (100.0)           30 to 39         (50.9)         (41.4)         (7.0)         (0.8)         (0.0)         (100.0)           Unweighted sample size         6662         5040         892         114         7         12715           Weighted Observations         6730         5097<	at MCS4	(52.6)	(39.8)	(6.6)	(0.9)	(0.1)	(100.0)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Country at MCS4						
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		4184	3120	591	70	6	7971
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	England	(52.7)	(39.6)	(6.8)	(0.9)	(0.1)	(100.0)
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		1080	695	106	19	0	1900
Scotland $814$ $655$ $74$ $11$ $1$ $1$ $1555$ Scotland $(52.4)$ $(42.0)$ $(42.0)$ $(0.8)$ $(0.1)$ $(100.0)$ Northern Ireland $(47.5)$ $(42.0)$ $(9.2)$ $(1.3)$ $(0.0)$ $(100.0)$ Unweighted sample size Weighted Observations $6662$ $5040$ $892$ $114$ $7$ $12715$ Weighted Observations $6780$ $5137$ $853$ $116$ $7$ $12293$ method baservationsMother's Age at MCS4Under 30 $(52.9)$ $(38.3)$ $(7.2)$ $(1.4)$ $(0.2)$ $(100.0)$ $3489$ $2801$ $526$ $57$ $1$ $6874$ $30$ to $39$ $(50.9)$ $(41.4)$ $(7.0)$ $(0.8)$ $(0.0)$ $(100.0)$ $40$ and above $(55.7)$ $(37.9)$ $(5.6)$ $(0.7)$ $(0.1)$ $(100.0)$ $10$ weighted observations $6730$ $5097$ $848$ $110$ $8$ $12793$ Mother's EthnicityWhite $(53.2)$ $(40.2)$ $(5.7)$ $(0.8)$ $(0.1)$ $(100.0)$ $1143$ $152$ $91$ $43$ $4$ $0$ $290$ $101an$ $(51.6)$ $(31.6)$ $(15.4)$ $(1.4)$ $(0.0)$ $(100.0)$ $101$ $131$ $175$ $60$ $3$ $1$ $370$ $102$ $91$ $43$ $4$ $0$ $290$ $101$ $131$ $175$ $677$ $94$ $4$ $1128$	Wales	(55.8)	(37.6)	(5.6)	(1.0)	(0.0)	(100.0)
Scotland         (52.4)         (42.0)         (4.8)         (0.8)         (U.1)         (100.0)           Northern Ireland         (47.5)         (42.0)         (9.2)         (1.3)         (0.0)         (100.0)           Unweighted sample size         6662         5040         892         114         7         12715           Weighted Observations         6780         5137         853         116         7         12893           Mother's Age at MCS4		814	655	74	11		1555
Northern Ireland $(47.5)$ $(42.0)$ $(9.2)$ $(1.3)$ $(0.0)$ $(100.0)$ Unweighted sample size $6662$ $5040$ $892$ $114$ $7$ $12715$ Weighted Observations $6780$ $5137$ $853$ $116$ $7$ $12893$ p=0.001           Mother's Age at MCS4 $1143$ $809$ $149$ $29$ $4$ $2134$ Under 30 $(52.9)$ $(38.3)$ $(7.2)$ $(1.4)$ $(0.0)$ $(100.0)$ $30$ to 39 $(50.9)$ $(41.4)$ $(7.0)$ $(0.8)$ $(0.0)$ $(100.0)$ $40$ and above $(55.7)$ $(37.9)$ $(5.6)$ $(0.7)$ $(0.1)$ $(100.0)$ Unweighted sample size $6662$ $5040$ $892$ $114$ $7$ $12715$ Weighted Observations $6730$ $5097$ $848$ $110$ $8$ $12793$ White $(53.2)$ $(40.2)$ $(5.7)$ $0.8$ $4$ $11281$	Scotland	(52.4)	(42.0)	(4.8)	(0.8)	(0.1)	(100.0)
Notitient metald $(47.5)$ $(42.0)$ $(9.2)$ $(1.3)$ $(0.0)$ $(100.0)$ Unweighted sample size         6662         5040         892         114         7         12715           Weighted Observations         6780         5137         853         116         7         12893           Mother's Age at MCS4 $p=0.001$ $p=0.001$ Mother's Age at MCS4          (52.9)         (38.3)         (7.2)         (1.4)         (0.2)         (100.0)           104 and above         (55.7)         (37.9)         (5.6)         (0.7)         (0.1)         (100.0)           10 weighted Sample size         6662         5040         892         114         7         12715           Weighted Observations         6730         5097         848         110         8         12793           Mother's Ethnicity           983         4523         677         94         4         11281           White         (53.2)         (40.2)         (5.7)         (0.8)         (0.1)         (100.0)           Indian         (51.6)         (31.6)         (15.4)         (1.4)	Northern Ireland	584 (47 5)	570	121	14		(100.0)
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Northern Ireland	(47.5)	(42.0)	(9.2)	(1.3)	(0.0)	(100.0)
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Unweighted sample size	6662	5040	892	114	7	12715
model         p=0.001           Mother's Age at MCS4         1143         809         149         29         4         2134           Under 30         (52.9)         (38.3)         (7.2)         (1.4)         (0.2)         (100.0)           3489         2801         526         57         1         6874           30 to 39         (50.9)         (41.4)         (7.0)         (0.8)         (0.0)         (100.0)           40 and above         (55.7)         (37.9)         (5.6)         (0.7)         (0.1)         (100.0)           Unweighted sample size         6662         5040         892         114         7         12715           Weighted Observations         6730         5097         848         110         8         12793            -         12715         Wite         (53.2)         (40.2)         (5.7)         (0.8)         (0.1)         (100.0)         104         4         11281 <td< td=""><td>Weighted Observations</td><td>6780</td><td>5137</td><td>853</td><td>116</td><td>7</td><td>12893</td></td<>	Weighted Observations	6780	5137	853	116	7	12893
Mother's Age at MCS4           Under 30         1143         809         149         29         4         2134           Under 30         (52.9)         (38.3)         (7.2)         (1.4)         (0.2)         (100.0)           3489         2801         526         57         1         6874           30 to 39         (50.9)         (41.4)         (7.0)         (0.8)         (0.0)         (100.0)           40 and above         (55.7)         (37.9)         (5.6)         (0.7)         (0.1)         (100.0)           Unweighted sample size         6662         5040         892         114         7         12715           Weighted Observations         6730         5097         848         110         8         12793           p=0.005           P=0.005           Mother's Ethnicity           Myite         (53.2)         (40.2)         (5.7)         (0.8)         (0.1)         (100.0)           46         46         11         1         0         104           Mixed         (43.1)         (11.5)         (0.5)         (0.0)         (100.0)           152         91 <td></td> <td></td> <td></td> <td></td> <td></td> <td>p=0.001</td> <td></td>						p=0.001	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Mother's Age at MCS4						
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		1143	809	149	29	4	2134
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Under 30	(52.9)	(38.3)	(7.2)	(1.4)	(0.2)	(100.0)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		3489	2801	526	57	1	6874
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	30 to 39	(50.9)	(41.4)	(7.0)	(0.8)	(0.0)	(100.0)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		2030	1430	217	28	2	3707
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	40 and above	(55.7)	(37.9)	(5.6)	(0.7)	(0.1)	(100.0)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Unweighted sample size	6662	5040	892	114	7	12715
Mother's Ethnicity         5983         4523         677         94         4         11281           White         (53.2)         (40.2)         (5.7)         (0.8)         (0.1)         (100.0)           Mixed         46         46         11         1         0         104           Mixed         (44.8)         (43.1)         (11.5)         (0.5)         (0.0)         (100.0)           Indian         (51.6)         (31.6)         (15.4)         (1.4)         (0.0)         (100.0)           Pakistani or         277         155         77         6         2         517           Bangladeshi         (53.0)         (30.2)         (14.7)         (1.6)         (0.4)         (100.0)           131         175         60         3         1         370           Black         (37.0)         (45.2)         (17.1)         (0.6)         (0.1)         (100.0)           0ther         (49.4)         (33.2)         (13.1)         (4.3)         (0.0)         (100.0)           Unweighted sample size         6660         5040         892         114         7         12713           Weighted Observations         6728         5097 </td <td>Weighted Observations</td> <td>6730</td> <td>5097</td> <td>848</td> <td>110</td> <td>8</td> <td>12793</td>	Weighted Observations	6730	5097	848	110	8	12793
Mother's Ethnicity         5983         4523         677         94         4         11281           White         (53.2)         (40.2)         (5.7)         (0.8)         (0.1)         (100.0)           Mixed         46         46         11         1         0         104           Mixed         (44.8)         (43.1)         (11.5)         (0.5)         (0.0)         (100.0)           1         152         91         43         4         0         290           Indian         (51.6)         (31.6)         (15.4)         (1.4)         (0.0)         (100.0)           Pakistani or         277         155         77         6         2         517           Bangladeshi         (53.0)         (30.2)         (14.7)         (1.6)         (0.4)         (100.0)           131         175         60         3         1         370           Black         (37.0)         (45.2)         (17.1)         (0.6)         (0.1)         (100.0)           Unweighted sample size         6660         5040         892         114         7         12713           Weighted Observations         6728         5097         848						p=0.005	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Mother's Ethnicity						
White $(53.2)$ $(40.2)$ $(5.7)$ $(0.8)$ $(0.1)$ $(100.0)$ 46461110104Mixed $(44.8)$ $(43.1)$ $(11.5)$ $(0.5)$ $(0.0)$ $(100.0)$ 152914340290Indian $(51.6)$ $(31.6)$ $(15.4)$ $(1.4)$ $(0.0)$ $(100.0)$ Pakistani or2771557762517Bangladeshi $(53.0)$ $(30.2)$ $(14.7)$ $(1.6)$ $(0.4)$ $(100.0)$ Black $(37.0)$ $(45.2)$ $(17.1)$ $(0.6)$ $(0.1)$ $(100.0)$ 0ther $(49.4)$ $(33.2)$ $(13.1)$ $(4.3)$ $(0.0)$ $(100.0)$ Unweighted sample size66605040892114712713Weighted Observations67285097848110812791		5983	4523	677	94	4	11281
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	White	(53.2)	(40.2)	(5.7)	(0.8)	(0.1)	(100.0)
Mixed $(44.8)$ $(43.1)$ $(11.5)$ $(0.5)$ $(0.0)$ $(100.0)$ 152914340290Indian $(51.6)$ $(31.6)$ $(15.4)$ $(1.4)$ $(0.0)$ $(100.0)$ Pakistani or2771557762517Bangladeshi $(53.0)$ $(30.2)$ $(14.7)$ $(1.6)$ $(0.4)$ $(100.0)$ Black $(37.0)$ $(45.2)$ $(17.1)$ $(0.6)$ $(0.1)$ $(100.0)$ 0ther $(49.4)$ $(33.2)$ $(13.1)$ $(4.3)$ $(0.0)$ $(100.0)$ Unweighted sample size $6660$ $5040$ $892$ $114$ 7 $12713$ Weighted Observations $6728$ $5097$ $848$ $110$ $8$ $12791$		46	46	11	1	0	104
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Mixed	(44.8)	(43.1)	(11.5)	(0.5)	(0.0)	(100.0)
Indian $(51.6)$ $(31.6)$ $(15.4)$ $(1.4)$ $(0.0)$ $(100.0)$ Pakistani or Bangladeshi $277$ $155$ $77$ $6$ $2$ $517$ Bangladeshi $(53.0)$ $(30.2)$ $(14.7)$ $(1.6)$ $(0.4)$ $(100.0)$ 131 $175$ $60$ $3$ $1$ $370$ Black $(37.0)$ $(45.2)$ $(17.1)$ $(0.6)$ $(0.1)$ $(100.0)$ 0 $71$ $50$ $24$ $6$ $0$ $151$ Other $(49.4)$ $(33.2)$ $(13.1)$ $(4.3)$ $(0.0)$ $(100.0)$ Unweighted sample size $6660$ $5040$ $892$ $114$ $7$ $12713$ Weighted Observations $6728$ $5097$ $848$ $110$ $8$ $12791$		152	91	43	4	0	290
Pakistani or Bangladeshi         277         155         77         6         2         517           Bangladeshi         (53.0)         (30.2)         (14.7)         (1.6)         (0.4)         (100.0)           131         175         60         3         1         370           Black         (37.0)         (45.2)         (17.1)         (0.6)         (0.1)         (100.0)           71         50         24         6         0         151           Other         (49.4)         (33.2)         (13.1)         (4.3)         (0.0)         (100.0)           Unweighted sample size         6660         5040         892         114         7         12713           Weighted Observations         6728         5097         848         110         8         12791	Indian	(51.6)	(31.6)	(15.4)	(1.4)	(0.0)	(100.0)
Bangladeshi         (53.0)         (30.2)         (14.7)         (1.6)         (0.4)         (100.0)           131         175         60         3         1         370           Black         (37.0)         (45.2)         (17.1)         (0.6)         (0.1)         (100.0)           71         50         24         6         0         151           Other         (49.4)         (33.2)         (13.1)         (4.3)         (0.0)         (100.0)           Unweighted sample size         6660         5040         892         114         7         12713           Weighted Observations         6728         5097         848         110         8         12791	Pakistani or	277	155	77	6	2	517
131         175         60         3         1         370           Black         (37.0)         (45.2)         (17.1)         (0.6)         (0.1)         (100.0)           71         50         24         6         0         151           Other         (49.4)         (33.2)         (13.1)         (4.3)         (0.0)         (100.0)           Unweighted sample size         6660         5040         892         114         7         12713           Weighted Observations         6728         5097         848         110         8         12791	Bangladeshi	(53.0)	(30.2)	(14.7)	(1.6)	(0.4)	(100.0)
Black         (37.0)         (45.2)         (17.1)         (0.6)         (0.1)         (100.0)           71         50         24         6         0         151           Other         (49.4)         (33.2)         (13.1)         (4.3)         (0.0)         (100.0)           Unweighted sample size         6660         5040         892         114         7         12713           Weighted Observations         6728         5097         848         110         8         12791	Black	131	1/5	60	3		370
Other         71         50         24         6         0         151           Other         (49.4)         (33.2)         (13.1)         (4.3)         (0.0)         (100.0)           Unweighted sample size         6660         5040         892         114         7         12713           Weighted Observations         6728         5097         848         110         8         12791	DIACK	(37.0)	(45.2)	(17.1)	(0.6)	(0.1)	(100.0)
Unweighted sample size         6660         5040         892         114         7         12713           Weighted Observations         6728         5097         848         110         8         12791	Othor		00 (22.2)	<u> </u>	0		
Unweighted sample size         6660         5040         892         114         7         12713           Weighted Observations         6728         5097         848         110         8         12791	Otter	(49.4)	(33.2)	(13.1)	(4.3)	(0.0)	(100.0)
Weighted Observations         6728         5097         848         110         8         12791           n=0.000         n=0.000	Unweighted sample size	6660	5040	892	114	7	12713
n-0.000	Weighted Observations	6728	5097	848	110	8	12791
						p=0.000	

Table 4.14: How often	Table 4.14: How often mother smacks child when naughty at MCS4								
	Unwe	ighted Observ	ations (Weight	ed Percenta	ge)	Total			
	Never	Rarely	Sometimes	Often	Daily	Obs			
Continued									
Mother's Employment St	atus at MCS4								
	2372	1771	370	55	6	4574			
Not employed	(52.0)	(39.4)	(7.4)	(1.1)	(0.1)	(100.0)			
	4290	3269	522	59	1	8141			
Employed	(53.0)	(40.1)	(6.2)	(0.7)	(0.0)	(100.0)			
Continued									
Unweighted sample size	6662	5040	892	114	7	12715			
Weighted Observations	6730	5097	848	110	8	12793			
					p=0.022				
Mother's Highest Qualified	cation at MCS4								
	648	404	86	18	5	1161			
No qualifications	(55.6)	(35.4)	(6.9)	(1.7)	(0.4)	(100.0)			
	427	368	78	8	2	883			
NVQ1	(48.3)	(41.5)	(9.2)	(0.7)	(0.3)	(100.0)			
	1727	1426	260	29	0	3442			
NVQ2	(50.2)	(42.3)	(6.9)	(0.7)	(0.0)	(100.0)			
NW (00	1029	828	120	16	0	1993			
NVQ3	(50.5)	(43.3)	(5.5)	(0.7)	(0.0)	(100.0)			
	2158	1610	257	25	0	4050			
NVQ4	(54.4)	(39.1)	(5.9)	(0.6)	(0.0)	(100.0)			
	529	302	46	12	0	889			
NVQ5	(62.2)	(31.0)	(5.2)	(1.6)	(0.0)	(100.0)			
Unweighted sample size	6518	4938	847	108	(	12418			
weighted Observations	0078	4989	804	102	8	12481			
					p=0.000				
Family Type at MCS4		1			1	1			
	5234	4029	709	80	4	10056			
I wo-parent	(52.3)	(40.2)	(6.7)	(0.8)	(0.0)	(100.0)			
	1428	1011	709	34	3	2659			
Lone parent	(53.7)	(38.6)	(6.7)	(1.2)	(0.1)	(100.0)			
Unweighted sample size	6662	5040	892	114	7	12715			
vveighted Observations	6730	5097	848	110	8	12793			
						p=0.241			

Sample includes all mothers completing self-completion instrument and responding to the question. Eighty-nine observations excluded because respondents answered 'can't say' to question. Table displays unweighted observations and weighted percentages (country totals using weight1, UK totals using weight2).

## Shouting at child

Very few mothers (3%) reported that they never shouted at their child when they were naughty. (Table not shown). While most mothers reported that they used shouting as a form of discipline, it was fairly evenly spread in frequency, with around 25 per cent of mothers doing so 'rarely', 38 per cent 'sometimes' and 30 per cent 'often'.

There was generally very little variation between mothers in different circumstances. However, even though the difference was small, mothers under 30 were twice as likely as those aged 40 and over to report using this form of discipline every day (8% compared to 3%). While mothers with no qualifications were twice as likely as mothers with the highest qualifications to never shout, they were also twice as likely to use this as a discipline method every day.

#### Sending child to their bedroom or naughty chair

Sending a child to their bedroom or the naughty chair was another form of discipline commonly used by all mothers, with 60 per cent of them reporting using this form at least sometimes. (Table not shown). Younger mothers were much more likely than older ones to report sending their children to their bedroom or using a naughty chair often or daily. Twice as many mothers under 30 (30%) did this often or daily, compared to those aged 40 and over (12%).

Overall 12 per cent of all mothers never used 'time out' with their children. Mothers in Scotland were even less likely than mothers in the other UK countries to report never using this method of 'time out' with their children. Eight per cent never did this compared to 14 per cent in Northern Ireland.

#### Taking treats away

Taking treats away was another tactic that most mothers (63%) used at least sometimes. (Table not shown). However, mothers under 30 were twice as likely to take treats away in response to naughty behaviour as were mothers aged 40 and over, with 26 per cent doing this often or daily compared to 12 per cent of the oldest mothers.

## Telling child off/Reasoning with a naughty child

Virtually all mothers reported telling their child off when they were naughty and over a half did this often or daily (Table 4.15). As with other forms of discipline, there were some differences between how frequently older and younger mothers used this method with their children. Mothers aged 40-plus were half as likely as those under 30 to tell their child off daily (6% compared with 12%).

Mothers who did not work outside the home were a little more likely than employed mothers to report telling their child off every day (12% compared to 7%).

There was some variation between how often higher qualified mothers, and those with few or no qualifications, told their child off. Over half (55%) of mothers with degrees (NVQ4 or 5) reported telling their child off often compared to 43 per cent of those with no qualifications.

Over half of mothers said that they usually reasoned with their child (often or daily) when he or she was naughty. (Table not shown). There were differentials by education of mother, with over two-thirds (70%) of those with the highest qualifications (NVQ5) giving this response compared to less than half (47%) of those with no qualifications.

Table 4.15: How often mother tells child off when naughty at MCS4								
		Unweighted C	Observations (V	Veighted Perce	ntage)			
	Never	Rarely	Sometimes	Often	Daily	Total Obs		
All Responding Mothers	104	1624	4546	5328	1137	12739		
At MCS4	(0.6)	(12.8)	(35.6)	(42.0)	(9.0)	(100.0)		
Country at MCS4								
	86	1004	2888	3315	680	7973		
England	(0.8)	(12.6)	(35.8)	(42.2)	(8.6)	(100.0)		
	7	292	718	719	172	1908		
wales	(0.3)	(15.2)	(38.1)	(37.4)	(9.0)	(100.0)		
Scotland	(0,2)	(11.6)	(32.4)	(45.8)	(10.1)	(100.0)		
	8	158	443	567	124	1300		
Northern Ireland	(0.5)	(12.3)	(34.0)	(42.8)	(10.4)	(100.0)		
Unweighted sample size	104	1624	4546	5328	1137	12739		
Weighted Observations	79	1658	4593	5426	1161	12916		
					p=0.000			
Mother's Age at MCS4								
	16	344	697	816	264	2137		
Under 30	(0.6)	(16.0)	(32.1)	(38.8)	(12.5)	(100.0)		
	59	848	2429	2906	638	6880		
30 to 39	(0.8)	(12.2)	(34.9)	(43.0)	(9.1)	(100.0)		
10 and above	29	43Z (11 4)	(38.5)	(43.6)	235	3722		
Unweighted sample size	104	1624	4546	5328	1137	12739		
Weighted Observations	89	1625	4534	5429	1129	12806		
			•	•	p=0.000			
Mother's Ethnicity					F 0.000			
	46	1006	2000	4960	000	11200		
White	40 (0.4)	(12.4)	(35.0)	4009 (43.4)	(8,8)	(100.0)		
VVInce	4	14	36	38	12	104		
Mixed	(4.5)	(10.8)	(37.8)	(37.9)	(9.0)	(100.0)		
	6	53	115	96	22	292		
Indian	(1.1)	(16.4)	(43.0)	(33.3)	(6.2)	(100.0)		
Pakistani or	29	85	203	146	58	521		
Bangladeshi	(4.9)	(14.2)	(39.7)	(29.4)	(11.8)	(100.0)		
Black	(3.0)	(16.6)	(37.8)	(34.8)	(7.7)	(100.0)		
	8	25	51	49	16	149		
Other	(4.9)	(15.9)	(36.0)	(34.9)	(8.4)	(100.0)		
Unweighted sample size	104	1624	4544	5328	1137	12737		
Weighted Observations	89	1625	4531	5429	1129	12804		
					p=0.000			
Mother's Employment Sta	tus at MC	S4						
	58	673	1563	1769	534	4597		
Not employed	(1.1)	(14.9)	(33.6)	(38.7)	(11.7)	(100.0)		
	46	951	2983	3559	603	8142		
Employed	(0.5)	(11.4)	(36.4)	(44.6)	(7.1)	(100.0)		
Unweighted Sample Size	104 80	1624	4546	5328	1137	12739		
	03	1025	4004	3423	n_0.000	12000		
Mother's Highest Qualifica	ation at M	CS4			p=0.000			
	30	236	406	356	140	1168		
No qualifications	(2.3)	(19.8)	(35.0)	(30.9)	(12.0)	(100.0)		
	4	139	322	332	92	889		
NVQ1	(0.4)	(15.5)	(34.7)	(37.9)	(11.5)	(100.0)		
	24	468	1243	1406	309	3450		
NVQ2	(0.6)	(13.0)	(36.5)	(41.6)	(8.3)	(100.0)		
NVQ3	(0.5)	∠ວອ (12.3)	(32.7)	(45.2)	(9,3)	(100.0)		

Table 4.15: How often mother tells child off when naughty at MCS4							
		Unweighted Observations (Weighted Percentage)					
	Never	Rarely	Sometimes	Often	Daily	Obs	
Continued							
NVQ4	18 (0.5)	393 (9.9)	1476 (35.6)	1853 (46.6)	311 (7.5)	4051 (100.0)	
NVQ5	6 (0.7)	75 (10.0)	327 (36.8)	414 (45.2)	69 (7.4)	891 (100.0)	
Unweighted sample size Weighted Observations	97 85	1570 1574	4438 4418	5229 5320	1106 1097	12440 12494	
					p=0.000		
Family Type at MCS4							
Two-parent	80 (0.6)	1224 (12.1)	3625 (35.6)	4259 (43.0)	884 (8.6)	10072 (100.0)	
Lone parent	24 (0.9)	1224 (12.1)	921 (34.7)	1069 (40.3)	253 (9.4)	2667 (100.0)	
Unweighted sample size Weighted Observations	104 89	1624 1625	4546 <i>4534</i>	5328 5429	1137 <i>11</i> 29	12739 12806	
			·			p=0.014	

Sample includes all mothers completing self-completion instrument and responding to the question. 65 observations excluded who responded 'can't say' to question. Table displays unweighted observations and weighted percentages (country totals using weight1, UK totals using weight2).

#### Bribing child with sweets or a treat

While three-quarters of mothers reported that they never or rarely resorted to bribing children when they were naughty, those with qualifications at or above A level (NVQ3 or above) were slightly more likely than those with fewer or no qualifications to report sometimes using this tactic to combat bad behaviour. (Table not shown).

## **Parenting competence**

Mothers were asked to rate how they felt about being a parent. The majority of them thought they were better than average or very good parents (Table 4.16). This suggests a small improvement in parents' confidence across the surveys since age 3. At that survey 30 per cent of mothers rated themselves very good, at age 5, 31 per cent and at 7, 35 per cent<sup>8</sup>.

Younger mothers (under 30) felt a little less confident than did older parents in their parenting competence. Fifty-five per cent of those under 30 felt they were better than average or very good compared to around 64 per cent of those over 30. Indian, Pakistani, Bangladeshi and black mothers were more likely to feel they were very good parents than were white mothers.

Mothers with the highest qualifications (NVQ4 or above) were more likely to feel they were better than average or very good parents than were those with fewer qualifications. Nearly three-quarters of the highest-qualified mothers rated

<sup>&</sup>lt;sup>8</sup> Note that these comparisons of cross-sections are not tracing out the experience of individuals longitudinally, which is beyond the scope of this report, but would be an avenue ripe for research.

themselves positively as a parent compared to around a half of mothers with no qualifications or NVQ1. However, mothers with no qualifications were more likely to rate themselves as a very good parent (41%) than were mothers with NVQ5 (31%).

Although employed mothers were a little more likely than those not working outside the home to report that they felt they were a better than average or very good parent (64% compared to 59%), those not employed were slightly more likely to think they were a very good parent (37% compared to 33%).

There was very little variation between mothers in different UK countries or between those in lone or two-parent families.

Table 4.16: How mother feels as a parent at MCS4							
	Un	weighted C	bservations (	Weighted Perce	ntage)		
	Not Very Good Parent	Have Some Trouble	Average Parent	Better Than Average	Very Good Parent	Total Obs	
All Responding Mothers	55	345	4283	3469	4577	12729	
at MCS4	(0.4)	(3.1)	(34.5)	(27.1)	(34.9)	(100.0)	
Country at MCS4							
England	34	238	2620	2204	2881	7977	
	(0.4)	(3.4)	(34.1)	(27.8)	(34.3)	(100.0)	
Wales	6	43	686	449	716	1900	
	(0.2)	(2.6)	(36.1)	(23.8)	(37.3)	(100.0)	
Scotland	8	43	534	474	494	1553	
	(0.7)	(2.9)	(35.4)	(28.6)	(32.4)	(100.0)	
Northern Ireland	7	21	443	342	486	1299	
	(0.8)	(2.0)	(33.3)	(25.8)	(38.0)	(100.0)	
Unweighted sample size	55	345	4283	3469	4577	12729	
Weighted Observations	58	398	4447	<i>3499</i>	4497	12899	
					p=0.007		
Mother's Age at MCS4							
Under 30	11	91	819	464	743	2128	
	(0.6)	(5.2)	(38.7)	(21.6)	(33.8)	(100.0)	
30 to 39	28	176	2260	1912	2504	6880	
	(0.4)	(2.7)	(33.8)	(27.7)	(35.3)	(100.0)	
40 and above	16	78	1204	1093	1330	3721	
	(0.3)	(2.3)	(32.8)	(29.9)	(34.6)	(100.0)	
Unweighted sample size	55	345	4283	3469	4577	12729	
Weighted Observations	58	398	4447	<i>3499</i>	4497	<i>12899</i>	
					p=0.000		
Mother's Ethnicity							
White	42	319	3972	3122	3823	11278	
	(0.4)	(3.2)	(35.5)	(27.4)	(33.6)	(100.0)	
Mixed	0 (0.0)	1 (0.6)	33 (28.8)	32 (33.6)	40 (37.0)	106 (100.0)	
Indian	1	4	67	71	148	291	
	(0.1)	(2.6)	(23.9)	(24.7)	(48.7)	(100.0)	
Pakistani or	3	10	113	130	263	519	
Bangladeshi	(0.8)	(1.7)	(22.3)	(26.2)	(49.0)	(100.0)	
Black	4	6	71	76	226	383	
	(0.9)	(2.2)	(22.0)	(18.6)	(56.2)	(100.0)	
Other	5	5	27	36	77	150	
	(3.7)	(3.3)	(21.5)	(26.0)	(45.6)	(100.0)	
Unweighted sample size	55	345	4283	3467	4577	12727	
Weighted Observations	58	398	4447	3497	4497	12897	
					p=0.000		

	Un	ntage)				
	Not Very Good Parent	Have Some Trouble	Average Parent	Better Than Average	Very Good Parent	Total Obs
Continued						-1
Mother's Employment Sta	atus at MCS4					
Not employed	23	165	1580	1009	1801	4578
	(0.5)	(4.2)	(36.3)	(21.6)	(37.4)	(100.0)
Employed	32	180	2703	2460	2776	8151
	(0.4)	(2.4)	(33.4)	(30.3)	(33.4)	(100.0)
Unweighted sample size	55	345	4283	3469	4577	12729
Weighted Observations	58	398	4447	<i>3499</i>	4497	12899
					p=0.000	
Mother's Highest Qualific	ation at MCS	4				
No qualifications	8	45	419	172	516	1160
	(0.6)	(4.6)	(38.5)	(14.9)	(41.4)	(100.0)
NVQ1	3	36	341	175	334	889
	(0.5)	(4.8)	(38.7)	(19.2)	(36.8)	(100.0)
NVQ2	18	99	1288	790	1254	3449
	(0.5)	(3.1)	(37.9)	(23.1)	(35.3)	(100.0)
NVQ3	14	60	657	575	687	1993
	(0.7)	(3.2)	(34.1)	(28.9)	(33.0)	(100.0)
NVQ4	11	73	1232	1367	1370	4053
	(0.2)	(2.0)	(30.7)	(33.9)	(33.2)	(100.0)
NVQ5	1	21	254	324	287	887
	(0.2)	(2.9)	(27.9)	(37.8)	(31.2)	(100.0)
Unweighted sample size	55	334	4191	3403	4448	12431
Weighted Observations	58	383	4352	3429	4377	12600
Family Type at MCS4					p=0.000	
Two-parent	32	222	3363	2844	3615	10076
	(0.3)	(2.5)	(34.1)	(28.4)	(34.8)	(100.0)
Lone parent	23	123	920	625	962	2653
	(0.9)	(5.2)	(35.9)	(22.8)	(35.2)	(100.0)
Unweighted sample size Weighted Observations	55	345	4283	3469	4577	12729
	58	398	4447	3499	4497	12899

Sample includes all mothers completing self-completion instrument and responding to the question. Seventy-six observations excluded who responded 'can't say' to question on parenting competence. Table displays unweighted observations and weighted percentages (country totals using weight1, UK totals using weight2).

## **Bedtime regularity**

Main respondents were asked whether their children went to bed at a regular time on weekdays during term time at age 7 (Table 4.17). Overall, 96 per cent reported that their children went to bed at a regular time. The modal weekday bedtime was 8pm.

Mothers in Northern Ireland reported the most regular bedtimes and those in Wales the least. Nearly two-thirds of mothers under 30 always had a regular weekday bedtime for their children compared to just over a half of mothers aged 40 and over.

While overall 4 per cent of mothers reported that their children never or almost never had a regular bedtime, this rose to 8 per cent of those with no qualifications.

Table 4.17: On weekdays during term time, does your child go to bed at a regular time? Mothers atMCS4

	Unwoid				
	Never or Almost		(weighted Ferce	illage)	-
	Never	Sometimes	Usually	Always	Total Obs
All Responding Mothers at	521	764	4098	7953	13336
MCS4	(3.8)	(5.4)	(31.0)	(59.8)	(100.0)
Country at MCS4			· · · ·		
	339	478	2628	5050	8495
England	(3.9)	(5.3)	(31.0)	(59.8)	(100.0)
	91	115	609	1113	1928
Wales	(5.3)	(6.1)	(32.1)	(56.5)	(100.0)
Sectland	35	82	505	955	1577
Scolland	(2.2)	89	(31.0)	835	(100.0)
Northern Ireland	(4.3)	(7.2)	(26.4)	(62.2)	(100.0)
Unweighted sample size	521	764	4098	7953	13336
Weighted Observations	523	746	4108	7981	13358
				p=0.003	
Mother's Age at MCS4					
	97	143	554	1447	2241
20 to 29	(4.3)	(5.9)	(25.7)	(64.1)	(100.0)
30 to 30	243	387	2167	4422	(100.0)
30 10 39	(3.3)	(5.2)	(30.0)	2084	(100.0)
40 and above	(4.5)	(5.5)	(36.4)	(53.6)	(100.0)
Unweighted sample size	521	764	4098	7953	13336
Weighted Observations	508	719	4130	7960	13317
				p=0.000	)
Mother's Ethnicity					
	425	589	3590	6866	11470
White	(3.7)	(4.8)	(31.5)	(60.0)	(100.0)
	7	10	32	68	117
Mixed	(5.4)	(8.4)	(26.9)	(59.2)	(100.0)
Indian	(5.5)	(7.6)	(26.9)	(60.1)	(100.0)
indian	39	72	228	422	761
Pakistani or Bangladeshi	(4.2)	(9.4)	(31.0)	(55.4)	(100.0)
	26	44	108	275	453
Black	(4.9)	(10.8)	(23.0)	(61.3)	(100.0)
Other	8 (3.7)	23	55 (25.9)	115 (55.6)	(100.0)
Unweighted sample size	521	764	4097	7952	13334
Weighted Observations	508	719	4129	7960	13315
				p=0.000	)
Mother's Employment Statu	s at MCS4			Ľ	·
	229	379	1414	3022	5044
Not employed	(4.3)	(6.9)	(28.4)	(60.4)	(100.0)
	292	385	2684	4931	8292
Employed	(3.5)	(4.4)	(32.6)	(59.4)	(100.0)
Weighted Observations	521 508	704 710	4098 4130	7953	13330
Troighted Observations	500	113		n_0.000	13317
Mother's Highest Qualificati	ion at MCS4			p=0.000	<u>'  </u>
moniel o nigileot qualilleati	10/	110	303	800	1/65
No qualifications	1∠4 (8.1)	(9.3)	(28.1)	(54.5)	(100 0)
	50	71	259	539	919
NVQ1	(4.9)	(6.7)	(27.6)	(60.9)	(100.0)

Table 4.17: On weekdays during term time,	does your child go to	bed at a regular time? I	Mothers at
MCS4			

		Unweigh	ted Observation	s (Weigh	ted Percer	ntage)	
	Never N	or Almost ever	Sometimes	U	sually	Always	Total Obs
Continued							
		147	196		1073	2116	3532
NVQ2	(-	4.0)	(5.3)	(	30.6)	(60.2)	(100.0)
		57	100	`	632	1254	2043
NVQ3	(	2.7)	(5.1)	(3	31.0)	(61.2)	(100.0)
		101	177		1326	2502	4106
NVQ4	(	2.5)	(3.7)	(3	32.7)	(61.0)	(100.0)
		17	32		314	539	902
NVQ5	(	1.9)	(3.9)	(	35.9)	(58.2)	(100.0)
Unweighted sample size	4	496	724	3	3997	7750	12967
Weighted Observations		484	682	4	4027	7749	12943
						p=0.000	
Family Type at MCS4	·						
	371	573	329	)2		6312	10548
Two-parent	(3.4)	(5.1)	(31.	3)		(60.1)	(100.0)
	150	191	80	6		1641	2788
Lone parent	(5.3)	(6.3)	(29.	9)		(58.5)	(100.0)
Unweighted sample						7953	
size Weighted	521	764	409	8		7960	13336
Observations	508	719	413	30			13317
						<b>n</b> 0.000	

Sample includes all mothers responding to question. Table displays unweighted observations and weighted percentages (country means using weight1, UK means using weight2).

## Child's involvement with household chores

A new question in the age 7 survey probed the extent to which children were involved with household chores. Mothers were asked how often their seven-year-olds were expected to do tasks such as tidying up their bedroom, washing dishes or caring for pets.

As Table 4.18 shows, nearly a third of children were expected to do household chores every day. While there was generally little variation across the different countries, mothers in Northern Ireland reported both the highest rates of frequent involvement by their children in household tasks but also the highest rates of no involvement.

Similarly the youngest mothers (those under 30) were more likely than older ones to give children chores every day, but also more likely to not expect them to do any.

Mothers with no qualifications were much more likely to never give their children household tasks, with 18 per cent never doing so compared to 5 per cent of graduate mothers (NVQ4 and over).

		Unweight	ed Observatio	ns (Weighted P	ercentage)		
		Several	One or T	wo Times			
	Every	Times a			Less		Total
	Day	VVeek	A Week	A Month	Offen	Not at All	UDS
All Responding Mothers At MCS4	(31.6)	2697 (20.1)	(27.0)	(7.9)	(4.5)	(8.9)	(100.0)
Country at MCS4	(01.0)	(2011)	(2110)	(110)	(1.0)	(0.0)	(100.0)
	2611	1720	2377	683	399	702	8492
England	(31.4)	(20.2)	(27.6)	(8.0)	(4.5)	(8.2)	(100.0)
	593	391	506	165	80	193	1928
Wales	(30.5)	(20.6)	(25.5)	(8.6)	(4.3)	(10.4)	(100.0)
	466	326	441	138	81	125	1577
Scotland	(30.5)	(20.2)	(27.9)	(7.9)	(5.3)	(8.3)	(100.0)
Northern Ireland	403 (35.6)	260	325	97	(3.3)	(11.8)	(100.0)
Linweighted sample size	(35.0)	2697	(24.3)	(0.3)	601	1169	13332
Weighted observations	4218	2686	3608	1058	595	1189	13353
					•	p=0.001	
Mother's Age at MCS4	1						1
	775	412	550	146	95	263	2241
20 to 29	(35.1)	(18.6)	(24.3)	(6.4)	(4.3)	(11.4)	(100.0)
	2270	1468	2005	579	312	584	7218
30 to 39	(31.7)	(20.4)	(27.9)	(7.9)	(4.3)	(7.7)	(100.0)
	1088	817	1094	358	194	322	3873
40 and above	(28.4)	(20.7)	(28.4)	(9.2)	(5.1)	(8.0)	(100.0)
Unweighted sample size	4133	2697	3649	1083	601	1169	13332
	4160	2004	3040	1062	003	1132	13312
Matheria Ethnicity						p=0.000	
Mother's Ethnicity	0040	0050	0445	0.40	407	0.4.4	44400
White	(31.9)	2352	(27.4)	948	497	944 (7 9)	(100.0)
White	42	20	29	11	9	6	117
Mixed	(38.5)	(17.3)	(18.5)	(11.0)	(6.9)	(7.8)	(100.0)
	93	67	101	13	24	34	332
Indian	(26.9)	(19.7)	(27.7)	(4.2)	(8.3)	(13.2)	(100.0)
Pakistani or	186	136	231	48	40	120	761
Bangladeshi	(24.1)	(17.6)	(29.3)	(6.0)	(5.8)	(17.2)	(100.0)
Black	156	84 (16.8)	112	4/	21	33	453
DIACK	46	38	(20.1)	16	10	32	201
Other	(20.1)	(21.9)	(29.0)	(7.5)	(5.7)	(15.9)	(100.0)
Unweighted sample size	4133	2697	3647	1083	601	1169	13330
Weighted observations	4185	2684	3644	1062	603	1132	13310
						p=0.000	
Mother's Employment Sta	tus at MCS	64					
	1643	941	1288	367	206	596	5041
Not employed	(32.9)	(18.8)	(25.6)	(7.1)	(4.1)	(11.5)	(100.0)
	2490	1756	2361	716	395	573	8291
Employed	(30.5)	(21.0)	(28.5)	(8.5)	(4.8)	(6.7)	(100.0)
Unweighted sample size	4133	2697	3649	1083	601	1169	13332
	4160	2004	3040	1062	003	1132	13312
Matharla Llinhaat Qualifia	ation of MC	204				p=0.000	
wother's highest qualific			000	<u> </u>	00	000	4.400
No qualifications	415	242	383	91 (5 0)	68	263	1462
ino qualifications	(30.6)	(10.1)	(24.0)	(5.9)	(4.4)	(18.2)	
	304 (33 6)	140	(25.6)	80 (0 A)	44 (5 /)	(115)	(100.0)
	1098	738	923	295	153	325	3532
NVQ2	(30.9)	(20.6)	(27.1)	(8.5)	(4.4)	(8.5)	(100.0)

		Unweighted Observations (Weighted Percentage)					
	Franc	Several	Several One or Two Times		1.000		Total
	Day	Week	A Week	A Month	Often	Not at All	Obs
Continued							
	682	394	555	153	95	163	2042
NVQ3	(33.4)	(19.0)	(28.2)	(7.7)	(4.7)	(7.0)	(100.0)
	1257	901	1183	381	181	203	4106
NVQ4	(31.3)	(22.4)	(28.4)	(8.7)	(4.4)	(4.8)	(100.0)
	283	208	255	75	37	44	902
NVQ5	(31.2)	(22.9)	(28.4)	(9.0)	(3.8)	(4.6)	(100.0)
Unweighted sample size	4039	2629	3542	1063	578	1112	12963
Weighted observations	4091	2618	3536	1043	584	1066	12937
						p=0.000	
Family Type at MCS4							
	3205	2179	2949	871	481	859	10544
Two-parent	(30.5)	(20.7)	(28.1)	(8.3)	(4.6)	(7.8)	(100.0)
•	928	518	700	212	120	310	2788
Lone parent	(34.6)	(18.3)	(24.8)	(6.8)	(4.4)	(11.0)	(100.0)
Unweighted sample size	4133	2697	3649	1083	601	1169	13332
Weighted observations	4185	2684	3646	1062	603	1132	13312
						p=0.000	

Sample includes all mothers responding to question. Table displays unweighted observations and weighted percentages (country means using weight1, UK means using weight2).

# Conclusion

This chapter has provided a description of the MCS4 parenting data, which cover a variety of aspects of behaviour and attitudes. We looked for variation by some family characteristics, including country of residence, employment, ethnicity and qualification level. There are mainly continuities in the socio-demographic patterns observed at the two previous surveys, but there are some changes in family life as the child gets older. For example, mothers were more likely to feel they had enough time with the child at age 3 than at age 7, and less likely to read to them every day still more often than those fathers from whom we have information.

The finding that parents with lower qualification levels engaged in some home learning activities (such as reading to their children) less frequently than do parents with higher qualification levels is consistent with family literacy ideas that hold that children with parents without good literacy skills to pass on are disadvantaged (Hannon, 1999). Such views and findings are often used to support programmes to improve adult literacy and other skills.

It is important to make a note of caution about causality and the difficulty of untangling co-related family and parenting variables. For example, does reading to children itself improve children's literacy skills? Or do other factors both make reading to children more likely and lead to better literacy skills? The answer to this first question is important to policy; if the answer is yes, programmes to improve adult literacy skills and promote parental reading to children will have an effect on child literacy skills. If the answer is no, such programmes will have little or no effect.

Similar questions can be applied to other parenting behaviours and styles and other child outcomes. One important feature of the MCS data is the scope to look at the behaviours of mothers and fathers within the same families, as well as across the different ages, which would add enormously to the untangling of parenting behaviours. Further analysis would also allow classification of parenting styles e.g. authoritarian versus authoritative or boundaries versus laissez faire.

This chapter contains only descriptive data and cannot address these issues. It does provide a description of the rich data on parenting activities, beliefs and styles that, when linked to data on child outcomes, can be used to help address these questions. We have not attempted to make longitudinal links with the earlier data from ages 9 months, 3 years and 5 years to age 7, which would help to answer some of these questions. The fact that the data are longitudinal also will allow for the analysis of how parenting at different child ages relates to outcomes.

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# Chapter 5

# **CHILD SELF-REPORT**

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#### **Chapter overview**

This chapter looks at the responses of MCS children to a self-completion questionnaire and examines them in relation to their socio-demographic and socioeconomic background. The children answered questions about:

- Hobbies: listening to or playing music; reading; watching TV, videos or DVDs; using a computer or playing console games; sports and games (indoors and outdoors).
- Friends: who they were (boys, girls or a mixture), how many they had, whether they had any best friends.
- Feelings: whether and how often they felt happy, sad or worried, laughed or lost their temper; whether they liked to be alone and if they had fun with their family at weekends
- School: if and how much they liked it and certain subjects, their classroom behaviour, if they felt safe in the playground, tiredness and bullying.

The fourth survey of the Millennium Cohort Study included a new mode of data collection: the child paper self-completion questionnaire. This module was added as a response to the policy agenda of 'listening to the child's voice' (NSPCC, 2008) and to increase cohort members' sense of belonging to the survey in the future. The questionnaire aims to explore the cohort members' hobbies, who their friends are, their feelings and their attitudes to school. The questions were designed to assess the wellbeing of children from their own point of view and to identify the characteristics and the factors that are related to their wellbeing. In addition, understanding the experience of the children in schools may help schools to increase their own effectiveness.

The questionnaire uses language suitable for children aged 7 who are in their second year of schooling, and was piloted before being adopted by the MCS. The majority of the questions were adapted from existing longitudinal studies, such as the Avon Longitudinal Study of Parents and Children (ALSPAC), The Longitudinal Study of Australian Children and the Effective Provision of Pre-School Education (EPPE) project. An open-ended question – 'And finally, when you grow up, what would you like to be?' – was put to the children at the end of the questionnaire, but their answers are not covered in this chapter. The full text of the questionnaire can be found in the MCS4 area of the CLS website (www.cls.ioe.ac.uk/MCS4questionnaires) or with the documentation of MCS4 at the UK Data Archive. The questionnaire was administered in the cohort child's home, ideally whilst their parents were completing their interview.

All participating cohort children were included (i.e. twins and triplets). The reason for this inclusion is that this analysis is of a child-based sample as opposed to a familybased sample used in other chapters. Overall, 94 per cent of the cohort members participated. The total sample of children in the analysis is 13,066. This is the unweighted total. The weighted total is 13,069. The numbers in all tables are unweighted observations. The percentages are all weighted to give a more accurate representation of the population. The analysis applied appropriate weights to correct for attrition.

Natural, adoptive, foster or stepmothers who were main respondents were included in the analysis and categorised as 'mothers', regardless of whether they had a biological relationship with the cohort member. Main respondents who were fathers were not included in the analysis, so that the variables about parental qualifications and employment should apply unambiguously to mothers (see Table 2.9 in Chapter 2). It must be noted that throughout this chapter 'black' refers to both black and black British children.

# **Existing literature**

This method of interviewing young children is relatively new and therefore existing literature is limited. The EPPE project, however, published findings linking five-yearold children's perception of school to their cognitive ability. EPPE was a longitudinal study in selected areas of England (DCSF, 2008), mainly concerning the effects of pre-school provision on young children's intellectual, social and behavioural development (the latest extension to the project, Effective Pre-School, Primary and Secondary Education 16+, is following the same group of students through their final year of compulsory school and into post-school educational, training and employment). Looking at differences in their enjoyment of school, feelings of anxiety and isolation, academic and behavioural self-image, and their views of primary school, EPPE showed that attending a pre-school is associated with a child's development and that the quality of pre-school centres is directly related to a child's cognitive and behavioural development. This research also investigated the selfperceptions of younger pupils (Year 2 – the same age as the MCS children in this survey) and their relationship to later cognitive and behavioural outcomes in Year 5, as well as their progress from Year 1 to Year 5. Overall, the EPPE results suggest that children with a positive self-image (academic and behavioural) are likely to experience positive progress and development in these areas, suggesting that there is a reciprocal relationship between children's views of themselves and levels of attainment and behaviour. Positive experiences of school were also found to foster better educational outcomes and greater enjoyment of school.

## The aim of this chapter

In their own questionnaire, the MCS cohort children were asked 38 questions which were divided into four sections:

Hobbies

- Feelings
- Friends
- Schooling

In the analysis that follows, each question is examined in turn and any statistically significant relationships with socio-demographic characteristics are reported. The main response categories in this questionnaire were mostly: 'I like it a lot', 'I like it a bit', 'I don't like it' or 'All of the time', 'Some of the time', 'Never'. This initial analysis of the child self-completion concentrated on the 'I like it a lot' and 'All of the time' response categories. The key characteristics are gender, ethnicity, the country the child lives in, the employment status of the mother (employed or not), the mother's highest educational qualification (from no qualifications to NVQ level 5 and above), family type (lone-parent or two-parent family) and the total family income. This overview gives a first glimpse of the children's answers and provides a foundation for further exploration of the data.

## Hobbies

In the first section of the questionnaire, the children were asked about the things that they enjoy doing. These comprised listening to and playing music; watching television, videos or DVDs; drawing, painting or making things; and playing on the computer or other games.

Table 5.1 shows proportions liking each activity 'a lot' by the key socio-demographic characteristics. Girls (66%) were more likely than boys (46%) to like listening to, and playing, music a lot. Black, white and children of mixed ethnicity reported liking music more often than children from other ethnic groups. This might suggest that music is more important in some cultures. Children in Wales were the most likely to enjoy music a lot, followed by those in Northern Ireland, Scotland and England. The children were also asked how much they enjoyed watching television, videos and DVDs (Table 5.1). Unlike listening to music, boys were more likely to enjoy watching television than girls (79% and 68% respectively). With regard to ethnic group, the same pattern of responses was found for watching television as listening to music with black, white and mixed ethnicity children enjoying watching television more than children from other ethnic groups. Most other differences were so small they do not reflect any real difference in TV watching. There was no relationship between children's enjoyment and the level of parental income. Any relationships with the enjoyment of watching TV, videos and DVDs are unlikely to be about access. Most children have access to a television. Another study showed that children in poorer families were more than twice as likely as other children to have a television in their bedroom (Nairn et al., 2007). It is also possible that children who are not allowed to watch television may tend to like it more.

As for drawing and making things, girls were much more likely than boys to report liking these activities a lot (81% and 62%, see Table 5.1). These activities were also more favoured by children of more educated mothers and higher income families. Boys were much more likely than girls to enjoy playing console games such as Xbox and PlayStation, with four-fifths of boys stating that they liked console games a lot compared to only half of the girls. A significant relationship was also seen when looking at ethnicity in regard to the question about using a computer and playing computer games. Over three-quarters of black children (77%) reported liking these activities a lot. Lower percentages were seen for other ethnic groups: Pakistani or Bangladeshi (68%), white (67%) and 'other' ethnicities (54%). The lower the mother's level of qualification or the family income, the more the children reported enjoying console games a lot. Children in lone rather than two-parent families were also significantly more likely to report enjoying console games (71% and 66% respectively). Consoles were more likely to be enjoyed by children living in more disadvantaged families.

Boys were more likely than girls to enjoy sports and playing games, both inside or outside. However, overall, a higher proportion of children enjoyed playing sports and games outside (see Table 5.1). Northern Ireland had the highest proportion of children enjoying this activity a lot (77%), followed by Wales (72%), Scotland (72%) and England (69%). Children whose mothers were working were also more likely to report enjoying sports and games outside a lot (71%), compared to those where she was not working (69%). The difference in these percentages is very small and although significant, may not reflect any great difference in the average enjoyment of playing sports and games outside.

Table 5.1: Hobbies -	Table 5.1: Hobbies – those reporting to like each activity 'a lot'							
	Listening to or playing music	Watching television, videos or DVDs	Drawing, painting or making things	Using a computer or playing games	Playing sports and games outside	Playing sports and games inside		
Country								
England	4609	6020	5872	5550	5746	3876		
	(55.3)	(73.2)	(70.5)	(67.0)	(69.3)	(46.7)		
Wales	1093	1377	1324	1259	1316	906		
	(60.2)	(75.6)	(72.9)	(69.2)	(71.9)	(49.5)		
Scotland	840	1136	1083	1005	1066	695		
	(56.5)	(75.0)	(72.6)	(67.7)	(72.2)	(46.3)		
Northern Ireland	770	969	921	902	999	655		
	(58.5)	(75.2)	(72.2)	(69.6)	(77.1)	(50.4)		
	P=0.007	P=0.159	P=0.167	P=0.244	P=0.000	P=0.010		
Sex								
Male	3040	5091	4005	5351	4838	3183		
	(46.4)	(78.6)	(61.6)	(82.0)	(74.0)	(48.5)		
Female	4272	4411	5195	3365	4289	2949		
	(65.5)	(68.2)	(80.6)	(52.0)	(65.8)	(45.4)		
	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.009		
Child's ethnicity				•	•			
White	6203	8023	7690	7304	7691	5200		
	(56.3)	(73.9)	(70.9)	(67.2)	(70.1)	(47.3)		
Mixed	188	243	248	219	222	159		
	(54.8)	(73.7)	(71.6)	(64.7)	(66.8)	(46.1)		
Indian	173	220	234	209	225	150		
	(52.3)	(66.2)	(71.2)	(65.0)	(68.6)	(45.4)		
Pakistani or	395	529	567	519	531	325		
Bangladeshi	(50.5)	(67.8)	(71.4)	(68.2)	(69.5)	(42.5)		
Black	225	292	275	296	287	185		
	(57.2)	(74.2)	(69.4)	(75.1)	(71.4)	(50.5)		

Table 5.1: Hobbies – those reporting to like each activity 'a lot'							
	Listening to or playing music	Watching television, videos or DVDs	Drawing paintin or making things	g, Using a g computer or g playing s games	Playing sports and games outside	Playing sports and games inside	
Continued						-	
Other inc. Chinese	89 (48.9)	121 (67.2)	122 (72.5)	103 (53.5)	119 (72.0)	80 (44.8)	
	P=0.041	P=0.001	P=0.99	2 P=0.010	P=0.882	P=0.389	
Mother's employment st	atus						
Employed/on leave	4391 (54.9)	5810 (74.1)	1928 (25.3)	5174 (65.3)	5624 (71.2)	3699 (46.5)	
Not employed/on leave	2670 (57.4)	3357 (72.1)	1025	3230 (70,6)	3206 (68.5)	2221 (47,9)	
	P=0.032	P=0.047	P=0.04	4 P=0.000	P=0.007	P=0.199	
Mother's highest qualified	cation						
No qualifications	773	955	262	926	912	623	
Overseas/other	(58.1)	(72.9)	(20.3)	(70.4)	(67.7)	(46.1)	
qualification only	(52.6)	(69.4)	(20.7)	(69.6)	(68.9)	(41.6)	
NVQ level 1	508 (58 4)	637 (75-2)	190 (22 9)	610 (71.3)	582 (69.1)	416 (47.6)	
NVQ level 2	1939	2463	750	2304	2355	1615	
	(56.9)	(74.3)	(23.4)	(69.4)	(70.5)	(48.2)	
NVQ level 3	(58.4)	(73.6)	(24.1)	(68.0)	(69.5)	(47.5)	
NVQ level 4	2103	2819	1013	2505	2777	1792	
NVQ level 5 +	(53.5) 450	(72.4) 625	(26.7)	(63.9)	(71.1) 628	(46.4) 407	
	(50.9)	(72.9)	(24.3)	(60.4)	(71.8)	(47.1)	
	P=0.001	P=0.575	P=0.02	9 P=0.000	P=0.503	P=0.504	
Number of Parents/care	rs in the hou	isehold					
Two parents/carers	5743 (55.3)	7511 (73.3)	2476 (24.7)	6826 (66.2)	7266	4843 (46.4)	
One parent/carer	1569	1991	582	1890	1861	1289	
	P=0.094	P=0.373	P=0.233	P=0.000	P=0.335	P=0.070	
Total income			11				
Less than £10,400	2676	3410	978	3261	3244	2249	
£10,400 to less than	(57.0) 1365	(73.5) 1756	(21.2) 547	(70.6)	(69.7)	(49.1)	
£20,800	(56.0)	(73.8)	(23.7)	(67.9)	(68.1)	(44.4)	
£20,800 to less than £31 200	1293 (56.4)	1682 (73.2)	556 (25.0)	1515 (65.5)	1603 (69.3)	1089 (46 2)	
£31,200 and more	944	1256	470	1106	1213	786	
£41 600 to less than	(54.8) 468	<u>(74.9)</u> 624	(28.7) 237	<u>(66.2)</u> 549	(72.4)	(46.7) 397	
£52,000	(53.1)	(73.1)	(28.1)	(63.5)	(70.7)	(45.7)	
Continued		F 07	404	400	540	010	
£52,000 – £80,000		507 (71.4)	184 (25.7)	436 (60.7)	518 (72.8)	319 (44.8)	
£80,000 and more	371	267	86	219	265	183	
	(52.4) P=0.169	(72.2) P=0.801	(25.8) P=0.001	(59.5) P=0.000	(70.9) P=0.116	(48.2) P=0.054	
All responding 'a lot '	7312	9502	9200	8716	9127	6132	
Unweighted sample size	12937	12903	12897	12886	12920	12909	

Note: Other response categories, not shown, are 'a little bit' and 'don't like it'.

# Friends

This section of the questionnaire asked the children about their friends (Tables 5.2 to 5.4). More girls (68%) reported having a lot of friends compared with boys (60%). Children in Northern Ireland and Wales were more likely to have lots of friends than those in Scotland or England. There was also a significant relationship between ethnic group and the number of friends they reported having, with black children and white children being more likely than children from other ethnic groups to report having lots of friends. Having a lot of friends was also more common in two-parent families compared to lone-parent families (64%:62%), in families where the mother was employed (65%) compared to families where she was not (61%) and in families with higher incomes.

	Lots	Some	Not Many	Total Observations
Country				
England	5148 (62.5)	2262 (26.4)	896 (11.1)	8306
Wales	1244 (68.1)	406 (22.4)	172 (9.5)	1822
Scotland	966 (64.5)	384 (25.0)	154 (10.5)	1504
Northern Ireland	882 (68.0)	304 (22.8)	121 (9.2)	1307
				P=0.000
Sex				
Male	3920 (59.5)	1850 (28.8)	727 (11.8)	6497
Female	4320 (67.1)	1506 (22.9)	616 (10.0)	6442
				P=0.000
Child's ethnicity				
White	7004 (63.6)	2711 (25.4)	1130 (11.0)	10845
Mixed	214 (62.8)	97 (28.1)	24 (9.1)	335
Indian	186 (58.0)	116 (33.5)	28 (8.5)	330
Pakistani or Bangladeshi	401 (52.9)	272 (33.3)	100 (13.8)	773
Black	286 (72.7)	79 (18.5)	33 (8.7)	398
Other inc. Chinese	88 (56.1)	59 (34.3)	22 (9.6)	169
				P=0.000
Mother's employment status				
Employed/on leave	5131 (64.6)	2012 (25.8)	724 (9.6)	7867
Not employed/on leave	2818 (60.8)	1238 (26.4)	570 (12.8)	4626
	× /	, ,	. ,	P_0 000

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Table 5.2: How many friend	ds do you have?			
	Lots	Some	Not Many	Total Observations
Continued				
Mother's highest qualification	I			
No qualifications	783	363	170	1316
	(60.7)	(26.6)	(12.7)	
Overseas/other qualification	178	104	43	325
only	(53.4)	(32.4)	(14.2)	
NVQ level 1	542	208	98	848
	(61.9)	(24.5)	(13.6)	
NVQ level 2	2113	829	375	3317
	(63.1)	(25.4)	(11.5)	
NVQ level 3	1253	472	196	1921
	(64.7)	(24.6)	(10.7)	
NVQ level 4	2511	1058	333	3902
	(63.7)	(27.5)	(8.9)	
NVQ level 5 +	567	216	78	861
	(66.9)	(23.7)	(9.4)	
	. ,			P=0.007
Number of Parents/carers in t	he household			
Two parents/carers	6550	2699	1021	10270
	(63.5)	(26.3)	(10.2)	
One parent/carer	1690	657	322	2669
	(62.4)	(24.5)	(13.1)	
	()	(=)	()	P=0.380
Total income				1
Less than £10 400	2870	1193	567	4630
2000 (1011 210, 100	(61.6)	(25.3)	(13.1)	1000
£10,400 to less than £20,800	1489	642	264	2395
	(61.1)	(27.4)	(11.5)	2000
£20,800 to less than £31,200	1506	572	212	2290
220,000 10 1000 11011 201,200	(65.6)	(24.9)	(9.4)	2200
£31 200 and more	1077	445	152	1674
	(64.0)	(26.6)	(9.4)	10/4
£41 600 to less than £52 000	571	232	61	864
$z_{\pm 1}, 000 t0 1033 that 202,000$	(65.7)	(26.3)	(7 9)	004
£52 000 - £80 000	/80	172	62	717
202,000 - 200,000	(67 6)	(24.2)	(8.2)	, , , ,
£80,000 and more	245	00	25	360
	240 (64 6)	(29 E)	20 (6 7)	209
	(04.0)	(20.0)	(0.7)	P_0.002
All responding shildren				F=0.003
	0040	2256	1040	12.020
Unweighted sample size	0240	3330	1343	12,939

Significant patterns were also seen when looking at the gender of the reported friends (Table 5.3). Girls were more likely to be mostly friends with both boys and girls (47% compared to 35%) than just with girls. Pakistani and Bangladeshi children were the least likely to have mixed gender friendships (18%). Children were more likely to say that their friends were mostly a mixture of boys and girls if they were in a lone-parent family or if their mother's educational attainment was low.
The children were also asked whether they had any best friends – almost all did (data not shown). Neither the children's gender nor ethnic group had any bearing on the number of best friends reported. However, children whose mothers had low educational attainment (no qualifications or NVQ level 1) were slightly more likely than those with highly educated mothers (NVQ level 5) to say that they had many best friends (96%:92%).

The final question in this section asked children how much they enjoyed playing with their friends. Again, almost all children said that they enjoyed playing with their friends. Ninety-two per cent of girls and 89 per cent of boys rated playing with their friends as something they liked doing a lot. There was little substantial variation by social categories (data not shown).

	Mostly boys	Mostly girls	A mixture of	Total
			boys and girls	observations
Country				
England	2767	2245	3285	
	(33.6)	(25.8)	(40.6)	8297
Wales	578	443	796	
	(32.9)	(24.1)	(43.0)	1817
Scotland	496	371	636	
	(32.2)	(24.5)	(43.3)	1503
Northern Ireland	440	315	554	
	(35.0)	(22.4)	(42.6)	1309
				P=0.531
Sex			1	
Male	2252	4027	185	
	(62.0)	(2.7)	(35.3)	6464
Female	2612	3727	74	
	(3.9)	(49.1)	(47.0)	64113
	(0.0)	(10.1)	(11.0)	P=0.000
Child's ethnicity				1 - 0.000
White	4066	6527	203	
Winte	(33.1)	(24.3)	(42.6)	10796
Mixed	(33:1)	206	10	10100
Mixed	(30.8)	(29.5)	(39.7)	336
Indian	(30.0)	200	(00.7)	550
Indian	(40.5)	(35.4)	(24.1)	307
Pakistani or Rangladoshi	(40.3)	(33.4)	(24.1)	521
Paristanii of Bangiaueshi	321	420	20 (17.5)	767
Plaak	(40.9)	(41.0)	(17.5)	101
DIACK	(20.0)	230	9	207
Othering Chinese	(30.9)	(24.0)	(44.5)	397
Other Inc. Chinese	64 (22.0)	103	(25 0)	100
	(32.6)	(32.2)	(35.2)	169
				P=0.000
Mother's employment statu	S		· · · · · ·	
Employed/on leave	2920	4805	117	_
	(33.5)	(24.8)	(41.8)	7842
Not employed/on leave	1772	2693	130	
	(33.3)	(26.1)	(40.6)	4595
				P=0.360

	Mostly boys	Mostly girls	A mixture of boys and girls	Total observations
Continued				
Mother's highest qualification				
No qualifications	549	706	51	
	(34.2)	(27.7)	(38.1)	1306
Overseas/other	119	193	12	
qualification only	(35.3)	(24.8)	(39.9)	324
NVQ level 1	346	476	23	
	(31.5)	(22.0)	(46.6)	845
NVQ level 2	1315	1919	73	
	(32.1)	(253.7)	(42.2)	3307
NVQ level 3	726	1155	34	
	(34.6)	(23.9)	(41.5)	1915
NVQ level 4	1364	2473	45	
	(34.5)	(25.4)	(40.1)	3882
NVQ level 5 +	272	574	9	
	(30.9)	(26.1)	(42.9)	855
		( )		P-0.016
lumber of neverta/severa in th	ha hawaahald			1 =0.010
sumber of parents/carers in t	ne nousenoid			
wo parents/carers	3434	2705	4126	
	(33.4)	(25.9)	(40.7)	10265
One parent/carer	847	669	1145	
	(33.6)	(24.1)	(42.3)	2661
				P=0.226
Total income				
_ess than £10,400	1524	1252	1843	
	(33.6)	(26.4)	(39.9)	4619
£10400 to less than £20,800	786	648	959	
	(33.0)	(25.1)	(41.9)	2393
20800 to less than £31,200	746	559	981	
	(33.2)	(25.2)	(41.6)	2286
C31,200 and more	554	409	713	
	(32.8)	(24.1)	(43.1)	1676
241.00 to less than £52.000	300	229	336	
, - · · · · · · · · · · · · · · · · · ·	(35.0)	(25.1)	(39.9)	865
52.000 to less than £80.000	237	186	296	
,	(32.0)	(26.2)	(41.8)	719
280.000 and more	134	91	143	-
	(37.3)	(23.2)	(39.5)	368
	(	()	(20.0)	P=0.474
All responding children				
	4004	2274	5074	40.000

	Нарру	Worried	Sad	Quiet
Country				
England	2919	458	268	1302
-	(35.1)	(5.8)	(3.3)	(15.6)
Wales	726	115	50	278
	(40.0)	(6.2)	(2.7)	(15.6)
Scotland	607	59	40	250
	(41.6)	(4.3)	(3.0)	(17.5)
Northern Ireland	612	57	35	215
	(46.1)	(4.7)	(3.1)	(17.8)
	P=0.000	P=0.075	P=0.789	P=0.163
Sex				
Male	2252	387	221	1049
	(33.4)	(6.2)	(3.5)	(16.1)
Female	2612	302	172	996
	(39.5)	(5.1)	(2.9)	(15.6)
	P=0.000	P=0.027	P=0.097	P=0.517
Child's ethnicity				
White	4066	548	301	1653
	(36.3)	(5.4)	(3.0)	(15 4)
Mixed	120	(3.4)	6	48
VIIACU	(34.0)	(8.9)	(17)	(16.7)
Indian	117	18	(1.7) 9	56
	(37.8)	(6.2)	(1.9)	(19.3)
Pakistani or Bangladeshi	321	52	42	159
	(40.3)	(7.5)	(6.5)	(20.9)
Black	153	34	24	75
	(38.2)	(8.6)	(7.1)	(18.0)
Other inc. Chinese	64	9	9	40
	(38.4)	(3.6)	(4.1)	(21.3)
	P=0.450	P=0.011	P=0.000	P=0.011
Nother's employment status		I		
	2020	346	182	1113
Imployed/officave	(36.0)	(4.5)	(2.6)	(14-3)
Not employed/on leave	1772	311	187	845
tot employed/on leave	(37.1)	(7.4)	(4.1)	(18.4)
	P=0.431	P=0.000	P=0.000	P=0.000
Mother's highest qualification	1 -0.101	1 -0.000	1 -0.000	1 -0.000
	540	100	07	077
No qualifications	549	108	67	(22.2)
	(41.2)	(8.9)	(0.1)	(22.3)
Jverseas/other qualification	119	18	10	56
	(35.1)	(5.4)	(3.4)	(17.1)
	340		30 (5.0)	(20.9)
	(39.0)	(0.0)	(5.0)	(20.8)
	1313 (29.4)	191		04∠ (15 0)
	(30.4)	(0.0)	(2.9)	(10.8)
	120 (26 0)		)C	294 (14 0)
	(30.0)	(0.4)	(2.8)	(14.9)
	(22 5)	138	80 (2.4)	523 (12-2)
	(33.5)	(3.4)	(2.4)	(13.3)
	$\angle I \angle$	30	10	90
	(30.4)	(4.4)	(1.4)	(12.0)
	P=0.000	P=0.000	P=0.000	P=0.000

Table 5.4: Feelings – those reporting to feel a particular way 'all of the time'					
	Нарру	Worried	Sad	Quiet	
Number of Parents/carers in	the household	·	·	·	
Two parents/carers	3858	495	295	1581	
	(36.3)	(5.1	(3.0)	(15.3)	
One parent/carer	1006	194	98	464	
	(36.7)	(8.0)	(3.9)	(18.1)	
	P=0.780	P=0.000	P=0.059	P=0.002	
Total income					
Less than £10,400	1791	329	193	882	
	(37.4)	(7.9)	(3.5)	(19.3)	
£10,400 to less than £20,800	924	129	83	391	
	(36.9)	(5.6)	(2.9)	(16.3)	
£20,800 to less than £31,200	855	117	56	332	
	(36.1)	(5.2)	(3.2)	(14.8)	
£31,200 and more	619	57	35	208	
	(36.1)	(3.8)	(0.0)	(12.3)	
£41,600 to less than £52,000	289	28	5	121	
	(32.4)	(3.3)	(0.0)	(13.8)	
£52,000 to less than £80,000	255	20	17	66	
	(35.6)	(2.5)	(2.0)	(9.3)	
£80,000 and more	131	9	4	45	
	(36.1	(2.3)	(1.4)	(11.5)	
	P=0.246	P=0.000	P=0.000	P=0.000	
All responding 'all of the					
time'	4864	689	393	2045	
Unweighted sample size	12,877	12,800	12,841	12,813	

Note: Other response categories, not shown, are 'some of the time' and 'never'.

# Feelings

Children were asked such questions as how often they feel happy, how often they feel sad and how often they worry. The aim of these questions was to get a sense of the child's general wellbeing. It was first explained to the children that everyone has times when they feel happy, sad or angry and they were asked to check a box stating whether they felt like this all of the time, some of the time or never. The results can be found in Tables 5.4 and 5.5.

When asked how often they felt happy, girls were more likely than boys to say that they felt happy 'all of the time' (40%:33%). Thirty-five per cent of children in England said they felt happy all of the time compared to 40 per cent in Wales, 42 per cent in Scotland and 46 per cent in Northern Ireland.

The children were then asked how often they worried about things. The proportion who worried all of the time was very low, and there was no great difference between boys and girls (6%:5%). Black, mixed, Pakistani or Bangladeshi children were, however, more likely to worry all the time (8–9%) than children in 'other' ethnic groups (Indian 6%, white 5%, other 4%).

The proportion of children who said that they felt sad all of the time was also very low (see Table 5.4). Gender had no bearing on how often children said that they felt sad. The characteristics associated with feeling sad all of the time were being in a family where the mother was not employed or had a lower educational attainment. Pakistani, Bangladeshi and black children were more likely than children from other ethnic minorities to report feeling sad all of the time (7%, compared to 'other' 4%, white 3% and mixed or Indian 2%).

Children were also asked how often they were quiet (Table 5.4). Again, there was no gender difference but there were ethnic differences. Pakistani, Bangladeshi and children from other ethnic groups including Chinese were the most likely to be quiet all of the time (21%) and white children the least (15%). Twenty-two per cent of children whose mothers had no educational qualifications said they were quiet all of the time, compared to around 13 per cent of children with graduate mothers.

A minority (9%) of children liked being alone all of the time, boys more than girls (10%:8%). See Table 5.5.

Children were also asked how often they laugh (Table 5.5). Nearly 42 per cent overall said they laughed all the time; 48 per cent in Northern Ireland versus 40 per cent in England. More girls (44%) than boys (39%) said that they laughed all the time. Black children were the most likely to say they laughed all the time (54%). White children, those of mixed ethnic background and other ethnic groups were the least likely to laugh all of the time (around 4 in 10). Mother's educational attainment and family income were also inversely related to how often a child laughed. Children in lone-parent families were more likely to laugh, even though (as in Table 5.4) they were also more likely to say that they worried all of the time.

Boys were almost twice as likely as girls (13%:7%) to say that they lost their temper all of the time (Table 5.5). Children living in more disadvantaged families also said they had short tempers. At least twice as many children whose mothers had no more than NVQ1 said they lost their temper all of the time, as opposed to those whose mothers were graduates.

	Laugh	Lose my temper	I like to be alone
Country		<u> </u>	1
England	3393	820	738
	(40.3)	(10.1)	(9.3)
Wales	841	173	165
	(46.4)	(9.3)	(8.7)
Scotland	672	127	117
Nie othe sure land in a	(46.2)	(9.1)	(8.1)
Northern Ireland	622	136	81 (6 0)
	(46.4) D 0.000	(11.3) D 0.320	(0.9)
Sev	P=0.000	P=0.330	P=0.043
Male	2610	040	621
Male	(39.2)	(13.2)	(10.2)
Female	2000	/138	470
	(43.8)	(6.7)	(7.9)
	P=0.000	P=0.000	P=0.000
Ethnicity			
White	4577	1011	902
-	(40.9)	(9.6)	(8.9)
Mixed	136	41	39
	(40.6)	(14.5)	(13.5)
Indian	141	36	23
	(45.2)	(11.9)	(6.1)
Pakistani or Bangladeshi	368	87	80
	(45.6)	(11.1)	(11.2)
Віаск	203	51	36
Other inc. Chinese	(33.7)	(12.0)	(9.0)
	(40,0)	(9.0)	(6.2)
	P=0.003	P=0.098	P=0.054
Mother's employment status			
Employed/on leave	3278	682	5/18
	(40.7)	(8.8)	(7.2)
Not employed/on leave	2040	536	514
	(42.2)	(12.0)	(12.3)
	P=0.129	P=0.000	P=0.000
Mother's highest qualification			
No qualifications	647	173	165
	(48.0)	(13.4)	(14.2)
Overseas/other qualification only	146	36	4.9
	(38.9)	(11.6)	(12.0)
NVQ level 1	415	128	75
	(48.5)	(16.0)	(9.3)
NVQ IEVEI 2	1478	367	316
	(42.9)	(11.5)	(10.1)
	UCS (/13 U)	COT (0 0)	(0.5)
NVQ level 4	1402	282	258
	(37.0)	(6.9)	(6.8)
NVQ level 5 +	288	47	43
	(31.6)	(5.6)	(4.9)
	P=0.000	P=0.000	P=0.000
Number of parents/carers in the h	ousehold		
Two parents/carers	4306	916	812
	(40.7)	(0,0)	(0.0)

Table 5.5: Feelings – those reporting to laugh, lose their temper or wanting to be alone 'all of the time'

	Laugh	Lose my temper	I like to be alone			
One parent/carer	1222 (44.2)	340 (13.7)	289 (12,1)			
	P=0.010	P=0.000	P=0.000			
Total income						
Less than £10,400	2120	562	473			
	(45.0)	(12.8)	(11.3)			
£10,400 to less than £20,800	1065	250	235			
	(41.9)	(11.1)	(10.4)			
£20,800 to less than £31,200	979	194	166			
	(41.4)	(8.6)	(7.8)			
£31,200 and more	678	131	109			
	(39.9)	(7.6)	(6.5)			
£41,600 to less than £52,000	306	58	62			
	(34.9)	(7.1)	(7.3)			
£52,000 to less than £80,000	258	39	34			
	(35.2)	(5.3)	(4.6)			
£80,000 and more	122	22	22			
	(30.5)	(4.6)	(6.4)			
	P=0.000	P=0.000	P=0.000			
All responding 'all of the time'	5528	1256	1101			
Unweighted sample size	12,871	12,813	12,833			

Table 5.5: Feelings – those reporting to laugh, lose their temper or wanting to be alone 'all of the time'

Note: Other response categories, not shown, are 'some of the time' and 'never'.

Table 5.6: How often do you have fun with your family at the weekend?				
	All of the time	Some of the time	Never	Total observations
Country		· · · · ·		
England	5122 (62.1)	2859 (34.8)	253 (3.1)	8234
Wales	1182 (65.2)	585 (32.8)	39 (2.0)	1806
Scotland	940 (63.4)	512 (33.7)	40 (2.9)	1492
Northern Ireland	851 (65.9)	399 (30.7)	40 (3.4)	1290 P=0.037
Sex	_	11		1 -0.001
Male	3977 (61.6)	2233 (34.7)	226 (3.7)	6436
Female	4118 (63.6)	2122 (34.1)	146 (2.3)	6386
Child's ethnicity				P=0.038
White	6799 (62.5)	3665 (34.6)	287 (2.9)	10751
Mixed	193 (57.8)	123 (36.8)	17 (5.4)	333
Indian	213 (66.1)	103 (31.2)	11 (2.7)	327
Pakistani or Bangladeshi	490 (64.8)	248 (33.0)	24 (2.2)	762
Black	256 (66.0)	119 (28.7)	19 (5.3)	394
Continued				

	All of the time	Some of the	Never	Total
		time		observations
Other Inc. Chinese	89	72	8	400
	(53.8)	(42.4)	(3.9)	169 D 0.014
Matharia ampleument status				P=0.014
mother's employment status		1		
Employed/on leave	4995	2628	184	
	(63.2)	(34.3)	(2.5)	7807
Not employed/on leave	2810	1596	1/4	4500
	(01.3)	(34.9)	(3.0)	4000 P=0.070
Mothor's highest qualification				1 =0.070
		400		
No qualifications	807	430	66	4000
Overease/ethor qualification	(61.2)	(33.5)	(5.3)	1303
only	195	(22.9)	13	225
	530	(33.6)	(4.2)	525
	(64 1)	(32.6)	(3.3)	835
NVQ level 2	2033	1161	99	000
	(61.2)	(35.9)	(3.0)	3293
NVQ level 3	1247	607	52	
	(65.3)	(32.0)	(2.7)	1906
NVQ level 4	2447	1336	88	
	(62.6)	(34.9)	(2.4)	3871
NVQ level 5 +	535	303	13	
	(61.2)	(37.5)	(1.4)	851
				P=0.102
Number of parents/carers in t	he household			
Two parents/carers	6460	3460	258	
·	(63.1)	(34.4)	(2.5)	10,178
One parent/carer	1635	895	114	
	(60.7)	(34.5)	(4.7)	2644
				P=0.067
Total income		· · ·		1
Less than £10,400	2825	1556	192	1570
040,400 to loss these 000,000	(61.4)	(34.3)	(4.4)	4573
£10,400 to less than £20,800	1515	793 (24.7)	() () () () () () () () () () () () () (	2205
620 800 to loss than 631 200	(61.7)	(34.7)	(3.5)	2385
220,800 to less than 251,200	(61.6)	(36.3)	44 (2 0)	2277
f31 200 and more	1076	549	20	2211
201,200 and more	(65.0)	(33.4)	(1.6)	1654
£41.600 to less than £52.000	558	290	14	1001
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(64.6)	(33.8)	(1.6)	862
£52,000 to less than £80,000	462	236	<u>11</u>	
	(65.6)	(33.0)	(1.4)	709
£80,000 and more	241	116	5	
	(66.0)	(32.5)	(1.4)	362
				P=0.067
All responding children	0005	4055	070	40.000
Unweighted sample size	8095	4355	372	12,822

# Schooling

The final section of the questionnaire asks the children about their school. The aims of these questions are to find out how much they enjoy school and how they see their behaviour at school and academic performance. They are also asked about how often they are bullied and how often they feel left out.

As shown in Table 5.7, in general girls liked school significantly more than boys. Sixty-three per cent of girls said they liked school a lot compared to 43 per cent of boys. Black children were the most likely to say they enjoyed school a lot (67%) followed by Pakistani, Bangladeshi and Indian children (63–65%). Only half of white children said that they enjoyed school a lot. This finding concurs with other research on 14- to 16-year-olds which showed that white teenagers were more likely to be disengaged than young people from ethnic minorities (Ross, 2009). The lower the mother's educational attainment the more likely the child was to say he or she liked school a lot. These results are not what we expected. We also noted that the children of more educated or employed mothers were less likely to say explicitly that they do not like school (Figure 5.1).



# Figure 5.1: How much do you like school?

Table 5.7: How much do y	ou like school?			
	l like it a lot	l like it a bit	I don't like it	Total observations
Country		I	1	
England	4461	2504	1253	8218
	(53.2)	(30.6)	(16.2)	
Wales	955	530	319	
	(51.8)	(30.1)	(18.1)	1804
Scotland	712	492	289	1 4 0 0
Northern Ireland	(47.7)	(31.0)	(20.5)	1493
	(50.2)	(28.2)	(21.6)	1300
	(00.2)	(20:2)	(2110)	P=0.009
Sex				
Male	2752	2148	1527	6427
	(42.6)	(33.6)	(23.8)	•
Female	4039	1753	596	6388
	(62.8)	(27.5)	(9.8)	
				p=0.000
Child's ethnicity			I	
White	5471	3330	1921	
Winte	(50.8)	(31.2)	(18.0)	10722
Mixed	59	28	18	10722
MIXEG	(53.2)	(24.8)	(22.0)	105
Indian	203	87	24	100
indian	(65.1)	(28.0)	(6.9)	314
Pakistani or Bangladeshi	423	175	59	014
a angladeshi	(62 3)	(27.9)	(9.8)	657
Black	244	106	.39	001
Black	(66,6)	(25.0)	(8.4)	389
Other inc. Chinese	124	54	9	000
	(66.2)	(28.7)	(51)	187
	(00.2)	(_0)	(011)	p=0.000
Mother's employment status				P 0.000
Employed/on loavo	4026	2501	1296	
Employed/on leave	4020	(22.2)	(16.6)	7912
Not amployed/ap loove	(31.1)	(32.2)	(10.0)	7013
Not employed/on leave	(54.1)	(28.2)	(17.6)	4562
	(34.1)	(20.2)	(17.0)	P=0.008
Mothor's highest qualificatio	n			r =0.000
Mother's highest qualificatio	754	004	0.4.4	l
No qualifications	(51 (57.0)	294	244	1000
Oversee of ather swelification	(57.9)	(21.7)	(20.4)	1209
Overseas/other qualification	185	87	48	220
	(54.5)	(29.3)	(10.3)	320
	40/	(26.9)	10/	020
	(33.0)	(20.0)	(20.2)	030
	(52 0)	341 (29 6)	(19 5)	2200
	1014	(20.0)	(10.0)	3300
	(52 2)	(31 5)	(16.2)	1008
	1022	(31.3)	509	1900
	(10 0)	(25.1)	(15 1)	2861
	(43.3)	210	107	3004
	427 (78.8)	(28 7)	(12 /)	853
	(40.0)	(30.7)	(12.4)	D_0.002
Continued				F=0.002
Continueu				

Table 5.7: How much do you like school?					
	l like it a lot	l like it a bit	l don't like it	Total	
				observations	
Number of parents/carers in	the household				
Two parents/carers	5405	3180	1593		
	(52.7)	(31.5)	(15.8)	10178	
One parent/carer	1386	721	530		
	(51.9)	(27.5)	(20.6)	2637	
				P=0.585	
Total income					
Less than £10,400	2493	1246	819		
	(54.0)	(27.6)	(18.5)	4558	
£10,400 to less than £20,800	1234	700	451		
	(50.2)	(29.6)	(20.2)	2385	
£20,800 to less than £31,200	1197	713	369		
	(53.1)	(30.3)	(16.6)	2279	
£31,200 and more	873	539	243		
	(52.6)	(33.0)	(14.3)	1655	
£41,600 to less than £52,000	452	297	105		
	(52.3)	(35.9)	(10.9)	854	
Continued					
£52,000 to less than £80,000	349	281	87		
	(49.7)	(39.3)	(10.9)	717	
£80,000 and more	193	125	49		
	(51.3)	(35.3)	(13.4)	367	
				P=0.244	
All responding children					
Unweighted sample size	6791	3901	2123	12,815	

Girls enjoyed reading more than boys with 65 per cent of girls saying that they liked reading a lot compared to only 48 per cent of boys (Table 5.8). Pakistani and Bangladeshi children were the most likely to say they enjoyed reading a lot (68%), followed by black children (62%). White children were the least likely to say they enjoyed reading a lot (56%). None of the other characteristics examined showed significant relationships with reading.

The children were asked how much they liked maths and working with numbers, and Table 5.8 shows a different pattern than was seen for reading. Fewer children reported they liked number work than reading, but slightly more boys reported enjoying maths (55%) than girls (52%). Children of other ethnic groups including Chinese were the most likely to enjoy number work a lot (63%) compared to Pakistani or Bangladeshi children (62%), black (60%), Indian (59%), white (53%) and children with a mixed ethnicity (52%).

Ethnicity was related to how much the children enjoyed science but not as strongly as with maths. Gender appeared to have no bearing on enjoyment of science. The final question in this section asked the children how much they enjoyed physical education (PE). About three-quarters of children liked PE, significantly more girls than boys (77% and 74%). Black children were the most likely to say they enjoyed PE a lot (87%). For all other ethnic groups the proportion was 75 to 78 per cent.

Table 5.8: School – Reading, number work, science or PE, reports of 'liking a lot'						
	Reading	Number work	Science	PE		
Country						
England	4771	4420	4304	6148		
	(56.9)	(53.0)	(52.6)	(74.0)		
Wales	1018	1022	858	1428		
Scotland	(55.9)	(55.7)	(49.6)	(78.1)		
Scotland	(53.8)	(56.2)	(49.9)	(82.7)		
Northern Ireland	735	719	572	1151		
	(55.3)	(54.5)	(47.7)	(87.9)		
	P=0.279	P=0.093	P=0.016	P=0.000		
Sex						
Male	3105	3597	3246	4917		
Fomolo	(48.1)	(55.1)	(52.3)	(74.3)		
remale	4221	3408	3158	5026		
	P=0.000	P=0.010	P=0.530	P=0.008		
Child's ethnicity						
White	6029	5780	5247	8312		
	(55.6)	(52.7)	(51.1)	(75.1)		
Mixed	200	176	192	253		
	(59.8)	(51.5)	(57.4)	(75.4)		
Indian	190	188	169	243		
Dakistani ar Dangladashi	(59.3)	(59.2)	(51.6)	(76.7)		
Pakistani or Bangiadeshi	516	4/5	429	599 (78 4)		
Black	236	231	223	338		
	(62.4)	(60.4)	(59.2)	(86.9)		
Other inc. Chinese	105	108	97	134		
	(56.7)	(63.2)	(57.5)	(75.3)		
	P=0.000	P=0.000	P=0.006	P=0.003		
Mother's employment status						
Employed/on leave	4427	4194	3880	6052		
	(56.2)	(56.2)	(51.5)	(75.7)		
Not employed/on leave	2642	2557	2294	3544		
	(50.9) P=0.519	P=0.043	(52.5) P=0.352	P=0.722		
Mother's highest qualification	1 -0.010	1 -0.0 10	1 -0.002	1 -0.122		
No qualifications	786	751	628	1029		
	(58.5)	(55.9)	(50.9)	(77.8)		
Overseas/other qualification only	165	193	155	243		
	(47.3)	(61.1)	(51.2)	(70.3)		
NVQ level 1	478	472	404	672		
	(57.5)	(55.9)	(50.8)	(78.7)		
	(55.6)	(53.9)	(51.9)	(76.5)		
NVQ level 3	1093	1022	969	1524		
	(57.0)	(52.0)	(53.8)	(77.8)		
NVQ level 4	2172	2035	1933	2901		
	(56.4)	(52.3)	(51.4)	(73.0)		
NVQ level 5 +	508	445	440	643		
	(58.2) P=0.122	(51.1) P=0.000	(52.4) P=0.811	P=0.000		
Number of parents/carers in the	household	1 -0.000	1-0.011	1 -0.000		
Two parents/carers	5852	5564	5098	7873		
	(56.8)	(53.8)	(51.9)	(75.3)		
One parent/carer	1474	1441	1306	2070		
	(55.8)	(52.9)	(52.3)	(76.40		
	P=0.413	P=0.479	P=0.770	P=0.323		

Table 5.8: School – Reading, number work, science or PE, reports of 'liking a lot'				
	Reading	Number work	Science	PE
Continued	•	·		
Total income				
Less than £10,400	2617	2597	2265	3594
	(56.7)	(55.7)	(52.0)	(76.9)
£10,400 to less than £20,800	1327	1286	1178	1848
	(54.6)	(52.0)	(51.2)	(74.9)
£20,800 to less than £31,200	1320	1214	1145	1760
	(57.9)	(52.5)	(52.7)	(75.3)
£31,200 and more	940	883	826	1277
	(55.5)	(52.6)	(52.3)	(75.0)
£41,600 to less than £52,000	495	467	450	655
	(57.3)	(53.3)	(53.1)	(75.3)
£52,000 to less than £80,000	405	369	359	544
	(56.6)	(51.8)	(51.9)	(73.7)
£80,000 and more	222	189	181	265
	(62.4)	(51.00)	(41.8)	(71.5)
	P=0.126	P=0.168	P=0.838	P=0.367
All responding 'like it a lot'	7326	7005	6404	9943
Unweighted sample size	12.801	12.801	12.387	12.805

Note: Other response categories, not shown, are 'a little bit' and 'don't like it'

The next section of the schooling questions asked children about how they thought they performed and behaved at school. Around half reported that they answered questions in class a lot (Table 5.9). The proportion was slightly higher for girls than for boys. Pakistani and Bangladeshi children were the most likely to give this answer (60%) and white children were the least likely to do so (47%).

	I like it a lot	l like it a bit	l don't like it	Total observations
Country				
England	3987	3174	1050	
-	(48.1)	(38.5)	(13.4)	8211
Wales	880	680	241	
	(47.5)	(38.9)	(13.6)	1801
Scotland	700	600	190	
	(46.4)	(40.3)	(13.3)	1490
Northern Ireland	679	446	173	
	(52.7)	(33.6)	(13.7)	1298
				P=0.016
Sex		·		
Male	2967	2445	1012	
	(45.6)	(38.1)	(16.3)	6424
Female	3279	2455	642	
	(50.7)	(38.9)	(10.4)	6376
		(/		p=0.000
Child's ethnicity			•	
White	5142	4160	1446	
	(47.0)	(39.1)	(13.9)	10748
Mixed	159	126	45	
	(48.2)	(37.1)	(14.6)	330
Indian	162	134	26	
	(52.6)	(39.7)	(7.7)	322
Pakistani or Bangladeshi	434	257	66	
-	(60.4)	(31.5)	(8.1)	757
Black	214	137	39	
	(55.9)	(34.4)	(9.7)	390

Table 5.9: How much do you like answering questions in class?					
	l like it a lot	l like it a bit	l don't like it	Total observations	
Continued					
Other inc. Chinese	89	62	15		
	(54.2)	(39.8)	(6.0)	166	
				p=0.000	
Mother's employment status					
Employed/on leave	3751	3110	940		
	(47.2)	(40.5)	(12.3)	7801	
Not employed/on leave	2256	1636	667		
	(49.1)	(35.5)	(15.4)	4559	
				P=0.113	
Mother's highest qualification	n				
No qualifications	659	407	224		
	(50.1)	(31.9)	(18.0)	1290	
Overseas qualification only	166	107	45	040	
	(50.4)	(35.1)	(14.50	318	
NVQ level 1	413	289	131	000	
	(49.0)	(33.1)	(17.2)	033	
	(47.3)	(38.5)	(14.2)	3296	
NVQ level 3	950	734	222	0200	
	(49.8)	(38.2)	(11.9)	1906	
NVQ level 4	1828	1600	437		
	(46.9)	(41.6)	(11.4)	3865	
NVQ level 5 +	387	372	90		
	(43.6)	(45.3)	(11.1)	849	
				P=0.084	
Number of parents/carers in t	the household				
Two parents/carers	2272	1597	685		
-	(47.8)	(39.7)	(12.5)	10,170	
One parent/carer	1180	895	309		
	(49.0)	(34.3)	(16.6)	2630	
				P=0.349	
Total income					
Less than £10,400	2272	1597	685		
	(49.5)	(34.6)	(15.9)	4554	
£10,400 to less than £20,800	1180	895	309	0004	
	(47.4)	(38.7)	(13.9)	2384	
£20,800 to less than £31,200	1092	902	276	2270	
£31,200 and more	(40.1)	(40.0)	(11.9)	2270	
£31,200 and more	(46.6)	(41.5)	(11.9)	1656	
£41 600 to less than £52 000	417		90	1000	
	(48.1)	(41.7)	(10.1)	853	
£52,000 to less than £80,000	329	317	70		
	(45.9)	(43.8)	(10.4)	716	
£80,000 and more	172	159	36		
	(46.0)	(44.5)	(9.6)	367	
				P=0.492	
All responding children	00.10	4000	1051	40.000	
Unweighted sample size	6246	4900	1654	12,800	

As shown in Table 5.10, most children said they tried their best at school all of the time. Girls were more likely than boys to say this (85% and 74%). No relationship was seen with ethnicity, mother's highest qualification or whether the child was in a one or two-parent family. There was however a significant but small lead in self-reported effort for children in higher income families and where mothers were employed.

Half of the girls interviewed believed that their teachers thought they were clever all of the time compared to 44 per cent of boys. Black children were the most likely to think this (57%) compared to only 46 per cent of white children and about half of the children in any of the other ethnic groups (50–52%). This question did draw out some results that are counter-intuitive. Namely that children with non-employed mothers and children in lower income families were also more likely to believe that their teachers thought they were clever all of the time. Although statistically significant, the percentage differences are quite small.

When asked whether they thought they behaved themselves in class all of the time four-fifths of girls answered 'yes' compared to three-fifths of boys. Indian, Pakistani and Bangladeshi children were the most likely to say that they behaved in class all of the time (72–74%), followed by white children and those of other ethnic groups (71%), mixed (68%) and finally black children (60%). Children in two-parent families were more likely to say they behaved in class (71%) than children in lone-parent families (67%).

	I do my best	I feel safe in the playground	My teacher thinks I'm clever	l behave well in class
Country				
England	6507	4958	3827	5728
	(79.2)	(60,6)	(46.5)	(69-9)
Wales	1455 (80.9)	1134 (62.9)	831 (46.3)	1290
Scotland	1209 (80.8)	962 (64.9)	747 (52.2)	1093 (74.0)
Northern Ireland	1062 (81.5)	868 (67.4) P=0.132	672 (52.7) P=0.000	931 (71.9) P=0.054
Sex	1 -0.000	1 =0.102	1 -0.000	1 =0.004
Male	3992	3992	2815	3945
	(73.9)	(62.0)	(43.9)	(61.2)
Female	3930	3930	3262	5097
	(85.3)	(60.8)	(50.8)	(79.8)
Child's ethnicity	P=0.249	P=0.000	P=0.000	P=0.000
White	6705	6705	5004	7622
	(79.8)	(61.6)	(46.1)	(70.6)
Mixed	204	204	168	231
	(83.4)	(60.8)	(51.6)	(67.9)
Indian	184	184	155	230
	(78.7)	(57.2)	(50.0)	(73.6)
Pakistani or Bangladeshi	450	450	405	550
	(75.8)	(59.6)	(51.3)	(72.1)
Black	230	230	218	232
	(77.1)	(60.3)	(57.1)	(59.9)
Other inc. Chinese	96	96	83	118
	(76.0)	(60.3)	(51.1)	(70.6)
	P=0.718	P=0.138	P=0.010	P=0.002
Mother's employment status	s	1 -0.100	1-0.010	1 -0.002
Employed/on leave	4913	4913	3606	5554
	(80.7)	(80.7)	(45.9)	(71.0)

Table 5.10: Responses of 'all of the time', to questions about school – doing their best, feeling safe, teacher opinion and good behaviour

# Table 5.10: Responses of 'all of the time', to questions about school – doing their best, feeling safe, teacher opinion and good behaviour

	l do my best	I feel safe in the playground	My teacher thinks I'm clever	l behave well in class
Continued				
Not employed/on leave	2746	2746	2253	3180
	(77.7)	(77.7)	(49.5)	(69.5)
	P=0.069	P=0.001	P=0.002	P=0.138
Mother's highest qualification	l			
No qualifications	738	738	692	897
	(77.6)	(57.0)	(53.9)	(69.0)
Overseas/other gualification	183	183	137	216
only	(73.8)	(56.9)	(43.5)	(64.6)
NVQ level 1	485	485	411	590
	(77.0)	(57.9)	(47.4)	(72.1)
NVQ level 2	2061	2061	1584	2343
	(79.9)	(61.6)	(47.0)	(70.4)
NVQ level 3	1213	1213	921	1386
	(80.2)	(63.4)	(48.8)	(72.3)
NVQ level 4	2434	2434	1740	2726
	(80.5)	(62.9)	(45.2)	(70.5)
NVQ level 5 +	542	542	372	573
	(80.0)	(63.4)	(43.7)	(68.1)
	<u>(00.0)</u>			(00:1) D 0 101
	P=0.011	P=0.103	P=0.001	P=0.164
Number of parents/carers in the	ne nousenoid			
Two parents/carers	8163	6321	4798	7279
·	(79.9)	(61.6)	(47.1)	(71.4)
One parent/carer	2070	1601	1279	1763
	(78.1)	(60.5)	(48.3)	(66.5)
	P=0.396	P=0.176	P=0.377	P=0.000
Total income				
Less than £10,400	3570	2749	2280	3160
·	(77.6)	(59.8)	(49.9)	(69.4)
£10,400 to less than £20,800	1861	1443	1116	1659
	(76.9)	(59.7)	(45.8)	(68.6)
£20,800 to less than £31,200	1858	1402	1067	1637
	(81.5)	(61.5)	(47.4)	(71.7)
£31,200 and more	1339	1074	749	1188
	(80.7)	(64.2)	(44.6)	(71.2)
£41,600 to less than £52,000	718	547	375	607
	(84.7)	(64.1)	(45.4)	(71.3)
£52,000 to less than £80,000	582 (81 7)	467	(43.3)	527 (74.2)
£80,000 and more	305	240	182	264
	(83.7)	(63.0)	(48.7)	(71.2)
	P=0.005	P=0.000	P=0.008	P=0.166
All responding 'all of the				
time'	10233	7922	6077	9042
Unweighted sample size	12,806	12,760	12,672	12,760

Note: Other response categories, not shown, are 'some of the time' and 'never'.

Almost half of the girls interviewed thought that school was interesting all of the time (Table 5.11). This was significantly more than boys. Pakistani, Bangladeshi and Indian children were most likely to find school interesting and white children were the least likely. Children with non-employed mothers and children whose mothers had a lower educational attainment were more likely to find school interesting all of the time.

A very small proportion of children stated that they were always unhappy at school, boys significantly more than girls (9%:6%). Children from 'other' ethnic groups were more likely to be unhappy all of the time and white and Indian children were the least likely to feel unhappy. Children from poorer families were more likely to say that they were unhappy at school. They were significantly more likely to report always feeling unhappy at school if their mothers had a lower educational attainment, if they were in a lone-parent family, if their mothers were not employed and if they lived in a low-income family.

Table 5.11 also shows the answers to how often the children felt tired at school. This is important as tired children are unlikely to be able to concentrate and are therefore less likely to learn. Just over a quarter of boys and just under a quarter of girls stated they always felt tired at school. There was no evident relationship with ethnicity; however, the lower the mother's educational attainment the more likely the children were to say they felt tired at school all of the time (32% of children of mothers with no qualifications compared to 17–22% with mothers with at least an NVQ level 4). Children in lone-parent families were also more likely to report this tiredness (30% compared to 23% of children in two-parent families) and those in families with lower total incomes (27% of those earning less than £20,800). Children in more disadvantaged families may be less likely to have a set bed time and routine therefore making it more likely that they would feel more tired. Children in disadvantaged households were also more likely to be sharing bedrooms with other siblings or perhaps sleeping in communal or less quiet areas. See Chapter 4 on Parenting.

As part of the questions aiming to gauge children's anxiety and isolation levels at school they were asked how often they felt safe in the playground (Table 5.10). Overall, 62 per cent felt safe all of the time. There were no significant differences in the proportions of those who felt safe and unsafe by gender, ethnicity or family type, or by mothers' job status. There was however a relationship with total income. The higher the total income bracket, the more likely children were to always feel safe in the playground. At least 64 per cent of children in families with a total income of at least £31,200 felt safe in the playground compared to 60 per cent of those in families with less than  $\pounds$ 10,400.

	School is	I feel unhappy at	I get tired at	I get fed up
	interesting	school	school	at school
Country				
England	3595	559	1930	1167
	(43.1)	(7.2)	(24.2)	(14.6)
Wales	755	142	467	308
	(40.9)	(7.4)	(25.7)	(17.1)
Scotland	584	114	381	305
	(39.6)	(8.3)	(26.3)	(21.3)
Northern Ireland	569	99	337	259
	(44.0)	(7.9)	(25.2)	(21.0)
	P=0.109	P=0.638	P=0.387	P=0.000
Sex				
Male	2424	543	1757	1356
	(37.8)	(8.6)	(27.4)	(20.7)
Female	3079	371	1358	683
	(47.8)	(6.00)	(21.6)	(10.5)
	P=0.000	P=0.000	P=0.000	P=0.000
Child's ethnicity				
White	4399	738	2685	1756
	(40.9)	(6.8)	(24.8)	(15.8)
Mixed	163	30	66	51
	(49.1)	(10.7)	(21.7)	(15.9)
Indian	174	20	58	28
	(53.0)	(6.9)	(16.7)	(8.3)
Pakistani or Bangladeshi	432	76	168	99
	(57.4)	(10.7)	(23.6)	(14.6)
Black	198	26	81	68
	(54.1)	(8.4)	(23.8)	(18.7)
Other inc. Chinese	96	13	27	19
	(57.3)	(12.3)	(18.1)	(14.2)
	P=0.000	P=0.003	P=0.152	P=0.063
Mother's employment status				
Employed/on leave	3209	443	1741	1158
	(40.9)	(5.6)	(23.0)	(14.5)
Not employed/on leave	2061	428	171	819
	(44.7)	(9.7)	(27.3)	(17.9)
	P=0.002	P=0.000	P=0.000	P=0.000
Mother's highest qualification				
No qualifications	624	156	380	249
	(48.2)	(13.20)	(31.5)	(19.5)
Overseas/other qualification	146	31	83	48
only .	(41.6)	(8.3)	(26.7)	(17.2)
NVQ level 1	388	78	234	142
	(47.0)	(9.9)	(28.4)	(17.5)
NVQ level 2	1432	248	831	578
	(43.4)	(74)	(25.4)	(16.6)
NVQ level 3	861	137	463	328
	(44.5)	(7.2)	(24.0)	(17.3)
NVQ level 4	1498	181	864	528
	(37.9)	(4.5)	(22.0)	(13.2)

	School is interesting	I feel unhappy at school	I get tired at school	I get fed up at school
NVQ level 5 +	318	39	160	104
	(38.2)	(4.5)	(17.2)	(12.2)
	P=0.000	P=0.000	P=0.000	P=0.000
Number of parents/carers in the	e household			-
Two parents/carers	4378	645	2340	1507
-	(42.6)	(6.3)	(23.1)	(14.3)
One parent/carer	1125	269	775	532
	(43.2)	(10.9)	(29.9)	(20.6)
	P=0.623	P=0.000	P=0.000	P=0.000
Total income				-
Less than £10,400	2040	427	1206	841
	(44.6)	(9.9)	(26.9)	(18.5)
£10400 to less than £20,800	1053	198	602	430
	(43.4)	(8.6)	(27.3)	(18.6)
£20800 to less than £31,200	951	136	559	312
	(41.4)	(5.9)	(24.0)	(12.4)
Continued				
£31,200 and more	694	79	377	216
	(42.5)	(4.7)	(22.0)	(12.8)
£41,600 to less than £52,000	347	30	177	115
	(40.6)	(3.5)	(20.5)	(12.6)
£52,000 to less than £80,000	266	34	134	92
	(37.2)	(4.4)	(18.8)	(12.6)
£80,000 and more	152	10	60	33
	(40.7)	(2.9)	(15.8)	(8.4)
	P=0.058	P=0.000	P=0.000	P=0.000
All responding 'all of the				
time'	5503	914	3115	2039
Unweighted sample size	12,757	12,784	12,800	12,932

# Table 5.11: Responses of 'all of the time', to questions on feelings about school

Note: Other response categories, not shown, are 'some of the time' and 'never'.

One in ten boys and one in twelve girls said that they were bullied at school all of the time (Table 5.12). Pakistani and Bangladeshi children were the most likely to report this followed by mixed ethnicity children, Indian children, black children, white children and children of 'other' ethnic groups. This finding conflicts with other research on the characteristics of bullying victims in secondary schools in England which shows that white children are more likely to be bullied than children from ethnic minority groups (Green et al., 2010). The difference may reflect genuine differences in bullying related to the victim's age but we would need to carry out further analyses, taking into account multiple factors which may be related to bullying to make a more like-for-like comparison. Children in lone-parent families were more likely to report being bullied all of the time (13% compared to 8% of children in two-parent families), as were those whose mothers had lower educational attainment, those whose mothers were not employed and those in lower income families. Sixteen per cent of children whose mothers had no qualifications reported being bullied at school all of the time compared to only 6 per cent of those whose mothers had attained at least an NVQ level 4. Twice as many children in families with an income of less than

£10,400 reported being bullied compared to those in families with an income of at least £31,200 (12% and 6%).

Table 5.12 also shows a very small proportion of children who said that they were always horrible to other children at school and the proportion was higher for boys (4% compared to 2% of girls). Children of mixed ethnicity were the most likely to admit to this (6%), followed by Indian, Pakistani or Bangladeshi and black children (all 4%). As with bullying, children in disadvantaged families – lone-parent families, children whose mothers were not employed or had a lower educational attainment and children in families with a lower income – were more likely to say that they were horrible to other children at school (for example, 5% of children from lone-parent families compared to 2% of children from two-parent families). The results from the two questions on bullying – whether they reported being bullied themselves and whether they reported being horrible to other children – highlight the important finding in this analysis that the characteristics of the victims and perpetrators are the same.

Boys were more likely than girls to say that they always talked when they should be doing their work (17% and 11%). Children in lone-parent families, with mothers with a lower educational attainment, non-employed mothers and in lower income families were all more likely to say that they talked in class all the time. Eighteen per cent of children in lone-parent families reported doing so (compared to only 13% of children in two-parent families) and 17 per cent of children with an unemployed parent (compared to 12% of those whose mothers were employed). Seventeen per cent of children in families whose total income was less than £10,400 said that they talked all the time in class (compared to 9% of children in families with at least £42,000).

The final question in this section asked the children how often they felt left out of things at school. This question focused on social exclusion. Neither gender nor ethnicity had any relationship with the answers. However again, children in more disadvantaged families were more likely to report feeling left out all of the time. Eleven per cent of children whose mothers were not employed felt left out of things at school compared to 7 per cent of children whose mothers were employed. Thirteen per cent of children in lone-parent families felt left out (compared to 7% in two-parent families). As shown in Figure 5.2, 14 per cent of children whose mothers had qualifications (5–6% of those with at least an NVQ level 4). There was also a significant relationship between household total income and whether or not the child felt socially excluded at school. Eleven per cent of children in low income families (< $\pm$ 10,400) felt left out all of the time compared to no more than 5 per cent of those in families that had an annual income of at least £31,200.



Figure 5.2: How often do you feel left out of things by other children?

Table 5.12: Respor school	nses of 'all of the time',	to questions o	n interactions with	other children at
	I talk to my friends when I shouldn't	I am bullied	I am horrible to other children at school	I feel left out of things by other children
Country				
England	1111	767	227	656
	(13.8)	(9.3)	(2.9)	(8.4)
Wales	321	186	32	145
	(17.4)	(10.1)	(2.1)	(8.1)
Scotland	176	112	30	112
	(12.5)	(8.2)	(2.1)	(8.2)
Northern Ireland	170	103	27	98
	(13.8)	(8.5)	(1.8)	(7.6)
	P=0.008	P=0.458	P=0.063	P=0.812
Sex				
Male	1113	678	215	528
	(17.1)	(10.6)	(3.7)	(8.4)
Female	665	490	101	483
	(10.5)	(7.8)	(1.9)	(8.2)
	P=0.000	P=0.000	P=0.000	P=0.680
Child's ethnicity				
White	1479 (13.7)	948 (8.9)	(2.5)	831 (8.0)
Mixed	45	32	13	31
	(14.0)	(11.0)	(6.4)	(11.5)
Indian	38	28	13	23
	(11.6)	(9.4)	(4.4)	(7.6)
Pakistani or	111	103	29	79
Bangladeshi	(14.8)	(14.0)	(4.1)	(11.4)
Black	75	35	14	33
	(18.2)	(9.3)	(4.3)	(10.0)

Table 5.12: Responses of 'all of the time', to questions on interactions with other children at school				
	I talk to my friends when I shouldn't	l am bullied	I am horrible to other children at school	I feel left out of things by other children
Continued				
Other inc. Chinese	14	13	4	5
	(7.6)	(7.8)	(2.4)	(5.1)
	P=0.226	P=0.018	P=0.005	P=0.054
Mother's employment st	tatus	1		
Employed/on leave	966 (12 0)	585 (7.5)	131	488
Not employed/on leave	749	523	172	483
	(16.7)	(11.5)	(4.3)	(11.0)
	P=0.000	P=0.000	P=0.000	P=0.000
Mother's highest qualified	cation			
No qualifications	247	191	74	164
	(19.9)	(16.2)	(5.7)	(13.4)
Overseas/other	41	29	10	31
NVQ level 1	155	99	37	99
	(17.3)	(13.1)	(5.2)	(13.0)
NVQ level 2	485	324	73	301
	(14.8)	(9.6)	(2.7)	(9.3)
NVQ level 3	261	180	35	136
NVQ level 4	444	227	60	194
	(10.8)	(5.6)	(1.7)	(4.9)
NVQ level 5 +	81	58	14	46
	(10.0)	(6.3)	(2.4)	(6.1)
	P=0.000	P=0.000	P=0.000	P=0.000
Number of parents/care	rs in the household	1	-	
Two parents/carers	1309	839	218	703
One parent/carer	(12.7)	(0.2)	(2.3)	308
	(17.9)	(13.0)	(4.7)	(12.8)
	P=0.000	P=0.000	P=0.000	P=0.000
Total income				
Less than £10,400	766	542	167	490
	(16.9)	(12.0)	(4.3)	(11.4)
£10,400 to less than	359	246	71	199
£20,000 £20,800 to less than	(15.5)	(11.0)	(3.2)	(9.4)
£31,200	(12.3)	(7.5)	(1.6)	(7.0)
£31,200 and more	175	111	19	94
	(10.6)	(6.3)	(1.3)	(5.3)
£41,600 to less than 52,000	89 (9.4)	53 (6.5)	8 (0.8)	36 (4 1)
£52,000 to less than	72	34	12	25
£80,000	(9.4)	(4.4)	(2.0)	(3.3)
£80,000 and more	40	16	5	15
	(9.0) P=0.000	(4.1) P=0.000	(1.b) P=0.000	(4.b) P=0.000
All responding 'all of	1 -0.000	r =0.000	r =0.000	r =0.000
the time'	1778	1168	316	316
Unweighted sample size	12,878	12,872	12,875	12,875

Unweighted sample size12,87812,872Note: Other response categories, not shown, are 'some of the time' and 'never'.

# Conclusion

This chapter has provided a summary description of the MCS child self-completion information about hobbies (reading, watching TV, playing game consoles, playing sports), their feelings (including whether they felt happy, sad or worried), their friends (who they were, how many they had) and their school experience. Various relationships were statistically significant when looking at these topics by key socio-demographic characteristics: gender, the country they live in (within the UK), ethnicity, family income, mother's highest qualification, family type (lone-parent or two-parent family) and whether or not the mother was currently working.

There were many differences between girls and boys. Boys were more likely than girls to enjoy watching television, videos, and DVDs. They were also more likely to enjoy participating in sports and playing games on a computer or a PlayStation. Girls were more likely to enjoy listening to music, drawing or making things. Girls were also more likely to say that they had a lot of friends of both sexes and that they enjoyed playing with their friends. It would have been interesting to look at this question in relation to the number of siblings of each child, and this would be an idea for future research. The analysis also showed us that children from more disadvantaged families were more likely to enjoy music and playing computer games than children from less disadvantaged families.

In regards to feelings, whereas girls were more likely to say they were happy, boys were more likely to say they worried. It would be possible using this data to examine the children's feelings in relation to their mothers' mental health status and how often they felt depressed, for example, as this may affect the children's feelings and general wellbeing. Children from more disadvantaged families were more likely to worry, feel sad, be tired and like to be alone. A consistent theme throughout this basic analysis of feelings was the more disadvantaged the family the more extreme emotional behaviour the children are likely to express.

The school questions also produced some interesting results, particularly in relation to behaviour and possible self-esteem and confidence. Children from higher income families were more likely to say that they always tried to do their best at school.

One important feature of the questionnaire exercise is the scope to look at the children's hobbies, feelings, relationships and attitudes to school in relation to certain socio-demographic statistics. It is crucial, however, to note that this analysis is only descriptive and therefore we cannot make any claims on causality. There are underlying relationships between the socio-demographic characteristics, for example between ethnicity and lone parenthood (more than half of black dependent children live with a lone parent compared with 21% of white children and 14% of Asian or Asian British children (ONS, 2009; see also Chapter 3 of this report)). Ethnic minority groups are also twice as likely to be poor (Palmer and Kenway, 2007; see also Chapter 12 of this report). Future analysis should take account of these relationships and therefore deliver more robust results. It must also be noted that whether children should report their own wellbeing is a topic of ongoing debate. Limited information exists about the quality of child report when items are interviewer administered. Even

less is known about children's ability to self-complete questions.

Finally, there are many additional characteristics that will play important roles in relation to attitudes to school. Research has shown that poorer children are less likely to eat healthy food. By having a poorer diet they are less likely to get all their essential nutrients. Information from the Health Survey for England (HSE) also shows us that children in lower income families are more likely to be obese (NHS Information Centre, 2008). These factors are highly likely to affect a child's general mood and wellbeing. Further investigation into the MCS data would allow these factors to be taken into consideration when examining wellbeing.

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# **Chapter 6**

# EDUCATION, SCHOOLING AND CHILDCARE

Kirstine Hansen and Elizabeth M. Jones

#### **Chapter overview**

This chapter looks at children's education, schooling experiences and childcare arrangements at age 7. In particular, it examines the following:

- Cohort member's school
- Absences from school
- Special education needs
- Mother's satisfaction with school and educational aspirations
- Parental involvement
- Homework
- Travel to school
- Out of school clubs
- Childcare

# Introduction

This chapter reports on children's education, schooling experiences and childcare arrangements at age 7.

Most children aged 7 are in Year 2 in England and Wales and Primary 3 in Scotland and Northern Ireland. In England and Wales, children of this age are at Key Stage 1 (KS1) of the National Curriculum,<sup>9</sup> when they are assessed in reading; writing (including handwriting and spelling); speaking and listening; maths; and science. The teacher-assessed tasks and tests for KS1 pupils can be taken at a time the school chooses. The results are not reported publicly but they are given to parents and are used to help the teacher assess children's work. By the age of 7, most children are expected to achieve level 2. Seven-year olds in Northern Ireland will generally be at KS1 of the Northern Ireland Curriculum, which is based on the National Curriculum used in England and Wales. In Scotland, children of this age will usually be at the first level of the Curriculum for Excellence, when they are encouraged to develop their thinking and learning across a broad range of subjects and contexts.

<sup>&</sup>lt;sup>9</sup> In Wales, the new Foundation Phase will be extended to cover 3 to 4-year-olds in 2008. 5 to 6-yearolds from 1st August 2010. The roll-out will have been completed by September 2011 for all children up to the age of 7. This will replace the National Curriculum. Although Key Stage 1 is being phased out, it still applied in 2008 to the children in the MCS cohort. There is no statutory requirement to teach English at Key Stage 1 in Welsh-medium schools.

The sample used in this chapter consists of Millennium Cohort Study (MCS) families in which the main respondent is the cohort member's mother and the partnerrespondent, if there is one, is the cohort member's father. In total, 13,244 of the 13,857 families who took part in the fourth sweep of the MCS fell into this category; these are the families that were retained for these analyses. In families with twin and triplet cohort members, records for only one child per family were used, making the number of cohort members equal to the number of families.

All data used are cross-sectional, from the fourth sweep of MCS only, unless otherwise specified. The schooling and education variables are tabulated across a number of demographic and social variables, including country of residence at MCS4, parental qualifications, family poverty status, parental occupational status, child gender, parent partnership status, and father's relationship to the child. Unless otherwise stated, all information is provided by the mother through the main respondent interview. The parental qualification variable is the higher of the mother's and father's qualification levels or the mother's qualification if she is a lone parent or information on the father's qualifications is not available. Families are classified as being in poverty if their equivalised income is below 60 per cent of the median household income. Parent occupational status is condensed into two categories one for those with at least one parent in a professional or managerial occupation and the other for those with no parent in such an occupation. For parents living in the same household, partnerships are classified as married or cohabiting. The father's relationship to the child is an indicator of whether the partner resident in the household is the natural father of the cohort member child. Each education and childcare variable is shown tabulated against country, child and family variables that might be expected to be related to it. For example, all percentages and means reported are weighted for original sampling and attrition up to MCS4 as well as adjusted for the complex survey design.

# Cohort member's school

The large majority of children (94%) were in Year 2/Primary 3. Five per cent were in Year 3/Primary 4 and another 1 per cent were in Year 1/Primary 2 or another year. The majority of children were in the same school they were in at age 5 (MCS3) but around 11 per cent of children had changed schools at least once since the previous MCS sweep. Children in Northern Ireland were less likely to have changed schools (5%). Of those in the UK who had changed schools, 92 per cent did so once, and 7 per cent twice.

Most MCS children attend state schools but 3.9 per cent of them attend fee-paying schools. This figure is similar to the proportion at MCS3 when 4.1 per cent of children attended private schools. It was mostly the same children who were in fee-paying schools at each sweep. Of those in fee-paying schools at MCS4, 86 per cent had also been in such schools at MCS3. A very small percentage (less than 1%) of those who were in a state school at MCS3 were in a fee-paying school at MCS4. Rates of attending fee-paying schools were higher in England (4.5%) than in Scotland (2.5%), Northern Ireland (1.5%) and Wales (1.4%).

# Absences from school

Regular school attendance is important for children's futures. Pupils who miss school frequently can fall behind with their work and do less well in exams. In addition, research suggests that children who attend school regularly could also be at less risk of getting involved in antisocial behaviour or crime (Hansen, 2003). If a child misses school without good reason, schools and local authorities have a number of legal powers that they can use. Authorised local authority staff, police officers and head teachers can issue penalty notices to parents of children who are not attending school regularly. In England, the fine is £50.<sup>10</sup> In addition, the local authority may prosecute parents, which could result in a more severe penalty. Parents could get a fine of up to £2,500, a community order or, in extreme cases, a jail sentence of up to three months. The specific periods of time that lead to penalties are up to school or local authority discretion. If the court thinks it will help to stop a child missing school, it may also impose a Parenting Order, which requires parents to attend parenting education or support classes.<sup>11</sup>

Table 6.1 shows the number of complete weeks that children had missed, both out of all respondents, and out of those who had missed two or more complete weeks. Ninety-five per cent of children had missed fewer than two weeks. Of those who missed two or more, just over half were absent for two weeks and 11 per cent missed five or more weeks. Ill health was by far the most common reason for extended absence, with foreign holidays being the second most common (see Table 6.2).

Table 6.1: Number of complete weeks off school,* MCS4				
	Of all res	pondents	Of those m	nissing >=2
	Obs	%	Obs	%
Fewer than 2	12491	94.5		
2	413	3.1	413	55.8
3	180	1.3	180	23.0
4	70	0.6	70	10.3
5 or more	81	0.6	81	10.9
Unweighted sample size	13235		744	
Weighted count	13185		730	

\*Periods of continuous absence in term-time lasting two weeks or more.

Note. Percentages are weighted for sampling and attrition. Obs (number of observations) are unweighted.

Table 6.2: Main reason for extended absence, MCS4			
	Obs	%	
III health	498	63.8	
Needed to help out at home or other family issue	7	0.8	
Child out of country on holiday	177	23.9	
Other reason	71	11.5	
Unweighted sample size	753		
Weighted count	740		

Note. Percentages are weighted for sampling and attrition. Obs (number of observations) are unweighted.

#### Special education needs

<sup>&</sup>lt;sup>10</sup> If paid within 28 days –  $\pm$ 100 if paid within 42 days.

<sup>&</sup>lt;sup>11</sup> Scotland and Wales do not impose such penalties.

The term 'special educational needs' (SEN) refers to children who have learning difficulties or disabilities (or occasionally, talents) that make it harder for them to learn or access education than most children of the same age. A substantial minority of children will have SEN of some kind at some time during their education. Help will usually be provided in their mainstream school, sometimes with the involvement of outside specialists. Children with SEN may need extra help in a range of areas, for example in schoolwork; expressing themselves or understanding what others are saying; making friends or relating to adults; behaving properly in school; or organising themselves. They may also have some kind of sensory or physical needs which may affect them in school. Some children with identified special needs also have a 'statement' of special educational needs which not only sets out a child's needs but the help they should receive. It is reviewed annually. In January 2010, 2.7 per cent of pupils across all schools in England had statements of SEN, the same percentage as the previous two years.<sup>12</sup> The figure for Wales (3%) was almost identical.<sup>13</sup> Scotland does not have SEN statements, but does refer to pupils' Additional Support Needs (ASNs); in 2009 approximately 5 per cent of pupils in mainstream primary schools had ASNs.<sup>14</sup> In Northern Ireland in October 2009, 4 per cent of pupils had SEN statements.<sup>15</sup>

Table 6.3 shows the frequency of identified special needs among the cohort children. About 9 per cent had an identified special need, though only 3 per cent had statements for their special needs. The most common problems were learning difficulties and speech and language problems.

Table 6.3: Receipt of special education for identified needs, MCS4				
	Obs	% of those with needs	% of all	
Has any special needs	1080	100.0	8.8	
Learning difficulties	307	28.5	2.5	
Other reason	256	23.5	2.1	
Speech or language problems	242	21.7	1.9	
Dyslexia	151	13.9	1.2	
Autism or Asperger's	148	13.8	1.2	
Behaviour problems or hyperactivity	114	10.8	1.0	
ADHD	96	9.0	0.8	
Hearing problems	40	4.1	0.4	
Other physical disability	42	3.4	0.3	
Sight problems	37	3.2	0.3	
Medical or health problem	39	3.1	0.3	

 <sup>&</sup>lt;sup>12</sup> Department for Children, Schools and Families (2008) Trends in Education and Skills.
 <u>http://www.dcsf.gov.uk/trends/index.cfm</u>. (Last accessed 12 April 2010); DfE: Special Educational Needs in England (January 2010) <u>http://www.dcsf.gov.uk/rsgateway/DB/SFR/s000939/index.shtml</u>
 <sup>13</sup> Pupils with Statements of Special Educational Needs (January 2010)

http://wales.gov.uk/topics/statistics/headlines/schools2010/100616/?lang=en

<sup>&</sup>lt;sup>14</sup> Pupils in Scotland (2009) <u>http://www.scotland.gov.uk/Publications/2009/11/05112711/9</u>

<sup>&</sup>lt;sup>15</sup> Enrolments at schools and in funded pre-school education in Northern Ireland 2009/10 http://www.deni.gov.uk/february press release 2-4.pdf

Table 6.3: Receipt of special education for identified needs, MCS4						
		% of those with				
	Obs	needs	% of all			
Gifted	30	3.0	0.3			
Bullied	5	0.5	0.0			
Mental illness or depression	6	0.4	0.0			
Unweighted sample size	13151					
Weighted count	13103					

Note. Percentages are weighted for sampling and attrition. Obs (number of observations) are unweighted.

Table 6.4 shows the prevalence of special education needs by child and family characteristics. Rates of special need identification were highest in Scotland and lowest in Wales and Northern Ireland. The higher the parents' qualification level, the less likely their children are to have identified special needs – nearly 12 per cent of children with parents with no qualification had special needs identified by the school, while just under of 7 per cent of those with a parent with a higher degree had an identified special need. Children who were not living in poverty were less likely to have an identified special need, as were children of parents who were in a professional or managerial occupation.

		Yes		Base
*Whether statemented or not	Obs	Weighted %	Obs	Weighted count
Country		-		
England	699	(8.8)	8433	8441
Wales	142	(7.3)	1958	1950
Scotland	161	(10.4)	1587	1585
Northern Ireland	91	(7.1)	1342	1340
				P=0.008
Highest parental qualification				
None	110	(11.5)	987	981
NVQ Level 1	75	(12.4)	612	676
NVQ Level 2	268	(9.6)	2851	3015
NVQ Level 3	185	(9.0)	2148	2109
NVQ Level 4	328	(7.7)	4680	4573
NVQ Level 5	92 (	6.6)	1679	1556
				P<0.001
Family income poverty				
Not in poverty	694	(7.9)	9378	9456
In poverty	400	(11.1)	3934	3812
				P<0.001
Parental occupational status				
Professional or Managerial	333	(6.9)	5356	5319
Other	421	(8.5)	5287	5228
				P=0.019
All	1094	(8.8)	12226	12100

Most children (75%) had one identified need in their plans; 15 per cent had two and 7 per cent had three (Table 6.5).

Table 6.5 Number of issues in special needs plan, MCS4				
	Obs	%		
1	796	74.9		
2	163	14.8		
3	67	6.8		
4	20	1.4		
5	10	1.1		
6	8	0.5		
Unweighted sample size	1069			
Weighted count	1148			

Note. Percentages are weighted for sampling and attrition. Obs (number of observations) are unweighted.

The numbers of children having difficulty with maths, reading and writing are shown in Table 6.6. For all subjects, the majority of children (69 to 73%) were reported to have no difficulty. The subject with which the fewest children had difficulty was reading -27 per cent compared to 31 per cent for maths and writing.

Table 6.6: Difficulties at school with subjects, MCS4						
	No difficulty	No difficulty Some difficulty				
	9292	3385	453			
Maths	(68.9)	(27.3)	(3.8)			
	9656	2965	534			
Reading	(72.6)	(23.1)	(4.3)			
	9398	3239	515			
Writing	(69.5)	(26.4)	(4.2)			
Unweighted sample size	13152					
Weighted count	13106					

Note. Unweighted obs in regular font, weighted percentages in parentheses, weighted count in italics. Percentages and count are weighted for sampling and attrition.

# **Satisfaction and aspirations**

Mothers were asked how satisfied they were with their child's current school. The results are shown in Table 6.7. Overall, close to two-thirds of mothers reported being very satisfied, nearly one-third said they were fairly satisfied, and 6 per cent reported that they were not satisfied. Mothers in Wales and Northern Ireland were more likely to report being very satisfied. The dissatisfaction rate was highest in England.

Table 6.7: Mother's satisfaction with current school, MCS4						
	Very satisfied	Fairly satisfied	Not satisfied	Obs count		
Country						
England	5109 (61.9)	2710 (32.4)	480 (5.8)	8310 <i>8316</i>		
Wales	1345 (69.5)	516 (26.6)	72 (3.9)	1933 <i>19</i> 22		

Table 6.7: Mother's satisfaction with current school, MCS4					
	Very satisfied	Fairly satisfied	Not satisfied	Obs count	
Continued					
Scotland	1005	480	78	1563	
	(64.4)	(30.4)	(5.2)	<i>1559</i>	
Northern Ireland	974	289	56	1319	
	(73.3)	(22.7)	(4.0)	<i>1320</i>	
				P=0.000	
Highest parental qualification <sup>1</sup>					
None	608	289	70	967	
	(60.0)	(33.)	(6.4)	962	
NVQ Level 1	373	197	34	604	
	(61.4)	(32.7)	(5.8)	662	
NVQ Level 2	1807	858	142	2807	
	(62.2)	(32.2)	(5.6)	2969	
NVQ Level 3	1369	640	109	2118	
	(63.5)	(31.0)	(5.5)	2078	
NVQ Level 4	2999	1376	236	4611	
	(64.2)	(30.4)	(5.4)	<i>4506</i>	
NVQ Level 5	1071	515	68	1657	
	(63.2)	(32.5)	(4.3)	1531	
				P=0.473	
Family income poverty					
Not in poverty	6050	2767	433	9250	
	(63.9)	(31.0)	(5.0)	9318	
In poverty	2378	1227	262	3867	
	(60.4)	(32.7)	(6.9)	3751	
				P=0.000	
Parental occupational status					
Professional or managerial	3463	1599	244	5306	
	(64.4)	(30.7)	(4.9)	5253	
Other	3408	1629	291	5328	
	(61.9)	(32.4)	(5.7)	5256	
				P=0.048	
All	8433	3995	697	13125	
	(62.9)	(31.5)	(5.6)	<i>13</i> 075	

Note. Unweighted obs in regular font, weighted percentages in parentheses, weighted count in italics. Percentages and count are weighted for sampling and attrition. <sup>1</sup>NVQ = National Vocational Qualification. Levels range from 1 (basic work activities that are routine and predictable) to 5 (senior management). Also includes academic qualifications, with NVQ1 being equivalent to some basic school-leaving qualifications and NVQ5 being equivalent to a postgraduate qualification or higher degree. Overseas and other unclassified qualifications are excluded.

Reported satisfaction was not significantly different across different parental qualification levels. Mothers in families below the poverty line were less likely to report being very satisfied and more likely to report not being satisfied with their children's schools. Those in families with at least one parent in a professional or managerial occupation were more likely to report being very satisfied and less likely to report not being satisfied.

A very high percentage of mothers reported wanting their children to stay on at school past the minimum leaving age (98 per cent) and attend university (97 per cent). The percentages of mothers wanting their children to stay on at school are shown in Table 6.8. Scottish mothers were especially likely to say they wanted their children to stay on at school. The higher the parental qualification level, the higher the rate of wanting their children to stay on at school. Mothers in families where a

parent has (or had) a professional or managerial job were significantly more likely to want their children to finish school, while those living in poverty were less likely. These differences are statistically different, but rates were universally very high.

Similar patterns are seen for mothers' reports of wanting their children to go to university (Table 6.8). However, while mothers in Scotland were most likely to want their child to attend university, the differences among countries are not statistically significant. Mothers in families with higher parental qualification levels or a parent in a professional or managerial occupation were more likely to want their children to attend university. For this question, there was no difference between mothers in families above or below the poverty line.

	Stay in sch	ool past minimum aving age_	Go to u	niversity
		Obs		Obs
	Yes	Count	Yes	Count
Country				
	7902	8065	7397	7630
England	(97.8)	8046	(96.6)	7580
	1859	1892	1759	1818
Wales	(97.9)	1876	(96.7)	1797
	1517	1531	1433	1465
Scotland	(99.1)	1531	(97.9)	1465
	1268	1299	1205	1221
Northern Ireland	(96.4)	1299	(96.9)	1235
		P=0.001		P=0.079
Highest parental qualification				
	906	942	840	877
None	(95.5)	937	(95.6)	861
	573	584	528	550
NVQ Level 1	(97.7)	640	(95.7)	595
	2627	2703	2440	2542
NVQ Level 2	(96.6)	2832	(95.5)	2641
	2013	2048	1891	1948
NVQ Level 3	(98.4)	2000	(96.6)	1891
	4463	4522	4207	4314
NVQ Level 4	(98.4)	4404	(97.2)	4179
	1615	1629	1557	1579
NVQ Level 5	(99.3)	1510	(98.4)	1467
		P=0.000		P=0.001
Family income poverty				
	8866	9014	8313	8563
Not in poverty	(98.1)	9042	(96.7)	8530
	3672	3765	3473	3577
In poverty	(97.3)	3636	(96.7)	3439
		P=0.021		P=0.970
Parental occupational status				
	5146	5208	4854	4979
Professional or managerial	(98.6)	5143	(97.3)	4889
	5049	5158	4734	4892
Other	(97.7)	5064	(96.1)	4772
		P=0 048		P=0.003
	12546	12787	11794	12148
All	(97.8)	12411	(96.7)	11976

Note. Unweighted obs in regular font, weighted percentages in parentheses, weighted count in italics. Percentages and count are weighted for sampling and attrition.

# Parental involvement

Parental involvement and interest in their children's education has been a strong predictor of children's educational success in past research (Barnard, 2004, Lee and Bowen, 2006). In the MCS4 sample, someone in the family had attended a parents' evening at school in 93 per cent of families. Of those who hadn't attended one, more than half had not done so because there had not yet been a parents' evening. Mothers had attended a parents' evening in 89 per cent of families.

The percentages of resident partners who had attended a parents' evening are shown in Table 6.9. Overall, just under two-thirds of partners had attended at least one evening. There was no difference in rates of attendance by the child's gender. Partners who were married to the mother were somewhat more likely to have attended a parents' evening. Partners in families with higher parental qualifications were more likely to attend, as were partners who are the natural fathers, those who are not in poverty, and those in families with a parent in a professional or managerial occupation.

MCS4						
	Yes %	Obs	Base Obs	Base count		
Child gender						
Male	(63.1)	2954	4867	4842		
Female	(63.3)	2904	4733	4636		
				P=0.899		
Relationship between parents		-	<u>.</u>			
Married	(65.0)	4770	7650	7337		
Cohabiting	(57.1)	1088	1950	2141		
				P=0.000		
Highest parental qualification						
None	(42.6)	192	452	401		
NVQ Level 1	(42.0)	126	297	316		
NVQ Level 2	(57.3)	974	1774	1859		
NVQ Level 3	(62.1)	891	1530	1517		
NVQ Level 4	(68.4)	2549	3826	3770		
NVQ Level 5	(70.6)	995	1470	1371		
				P=0.000		
Partner is natural father	1	-	-1	1		
No	(54.1)	374	696	746		
Yes	(64.0)	5484	8904	8731		
Family income						
Not in poverty	(66.0)	4782	7488	7574		
In poverty	(50.5)	870	1762	1565		
				P<0.001		
Parental occupational status						
Professional or Managerial	(71.2)	3124	4512	4528		
Other	(57.7)	2080	3748	3675		
				P<0.001		
All with resident partner	(63.2)	5858	9600	9477		

Table 6.9: Whether resident partner has been to parents' evenings at school,MCS4						
	Vac 0/	Oha	Dees Ohe	Dees		

# Homework

Schools are encouraged to plan homework carefully alongside work that children do at school, and to ensure that all activities are appropriate for individual children. In England and Wales the government guideline for the amount of time children in Years 1 and 2 should spend on homework is 1 hour per week.<sup>16</sup> At MCS4 nearly all (98%) children received homework. The average amount of time spent per week on homework was 86 minutes. Time spent on homework per week was not significantly different for those children who did and did not receive help at home (86 and 84 minutes per week, respectively). Average minutes of homework did vary by country; the means were 69 in Wales, 84 in England, 87 in Scotland, and 115 in Northern Ireland. The average amount of time in England was nearly half an hour over the guideline.

Table 6.10 shows the percentage of children who receive help with reading, writing or maths from someone at home (i.e. in the family) and the frequency of that help. Overall, 79 per cent of children received help with at least one of these subjects. Children with parents with higher qualification levels were less likely to receive subject help at home, contrary to what one might expect. Similarly, children in families living in poverty were more likely to get help at home, as were children who did not have a parent in a professional or managerial occupation. Among children who did receive help, those with parents with lower-level qualifications were more likely to get help every day, while those with parents with higher-level qualifications were more likely to get help several times a week. There was no significant difference in the frequency of receiving help among those who did receive it by the income status of the family or the parents' occupational status.

		-		-			
			If yes, how often				
	Yes	Every day	Several times /week	1 or 2 times /week	1 or 2 times /month	Less often	Obs count
Highest parental qualification							
None	797	290	273	216	14	4	970
	(84.5)	(37.5)	(31.2)	(28.4)	(1.9)	(1.0)	<i>974</i>
NVQ Level 1	151	182	179	141	10	3	608
	(85.1)	(31.6)	(37.8)	(28.0)	(1.6)	(1.0)	667
NVQ Level 2	2247	728	852	591	61	14	2819
	(80.3)	(31.5)	(37.7)	(27.0)	(3.0)	(0.8)	2981
NVQ Level 3	1665	591	609	423	36	6	2121
	(78.6)	(34.8)	(37.2)	(25.6)	(2.1)	(0.3)	2079
NVQ Level 4	3521	1296	1300	793	101	30	4616
	(76.7)	(35.8)	(36.9)	(23.5)	(3.1)	(0.7)	<i>4</i> 510
NVQ Level 5	1262	458	475	275	43	11	1655
	(77.1)	(34.0)	(39.5)	(21.8)	(3.9)	(0.8)	<i>1535</i>
	P=0.000					P=0.005	

Table 6.10: Does anyone at home help child with reading, writing, or maths? MCS4

<sup>&</sup>lt;sup>16</sup> In Scotland and Northern Ireland, homework policy is left to the discretion of schools.

Table 6.10: Does anyone at home help child with reading, writing, or maths? MCS4							
			lf y	es, how of	ten		
	Yes	Every day	Several times /week	1 or 2 times /week	1 or 2 times /month	Less often	Obs count
Continued							
Family income poverty							
Not in poverty	7139 (77.7)	2512 (34.2)	2658 (37.4)	1715 (24.6)	203 (3.1)	49 (0.7)	9264 9332
In poverty	3157 (82.3)	1128 (34.4)	1132 (35.9)	809 (26.6)	66 (2.3)	21 (0.8)	3886 3772
	P=0.000					P=0.140	
Parental occupational status							
Professional or Managerial	4032 (76.6)	1409 (33.8)	1508 (37.7)	954 (24.2)	129 (3.6)	31 (0.7)	5309 5258
Other	4249 (79.9)	1492 (34.1)	1570 (37.1)	1064 (25.7)	97 (2.5)	25 (0.6)	5342 5273
	P=0.001					P=0.130	
All	10301 (79.0)	3642 (34.3)	3792 (37.0)	2524 (25.2)	269 (2.8)	71 (0.7)	13157 <i>13110</i>

Note. Unweighted obs in regular font, weighted percentages in parentheses, weighted count in italics. Percentages and count are weighted for sampling and attrition.

In addition to receiving help with homework from someone at home, a small percentage of MCS children (5%) received tutoring or extra lessons outside of school in reading, writing or maths (see Table 6.11). Children in England were more likely than children in other UK countries to receive tutoring. Children of parents with higher qualifications were more likely to be receiving tutoring. This is the opposite of the pattern seen for receiving help from someone at home. There were no differences in the rates of receiving tutoring by family poverty status or parents' occupational status.

Table 6.11. Does child get extra lessons outside of school in reading, writing, or maths, MCS					
	Yes %	Obs	Base obs	Base count	
Country					
England	(5.3)	553	8940	11375	
Wales	(3.0)	64	1988		
Scotland	(1.6)	25	1629		
Northern Ireland	(2.9)	37	1383	562	
				P=0.000	
Highest parental qualification	n				
None	(3.8)	48	970	974	
NVQ Level 1	(3.6)	26	608	667	
NVQ Level 2	(3.8)	108	2818	2980	
NVQ Level 3	(4.2)	99	2121	2079	
NVQ Level 4	(5.3)	226	4616	4510	
NVQ Level 5	(6.8)	108	1656	1535	
				P=0.001	
Continued					

Table 6.11. Does child get extra lessons outside of school in reading, writing, or maths, MCS						
	Yes %	Obs	Base obs	Base count		
Family income poverty						
Not in poverty	(4.8)	442	9264	9332		
In poverty	(4.9)	201	3886	3772		
				P=0.889		
Parental occupational status						
Professional or managerial	(5.4)	284	5310	5258		
Other	(4.6)	243	5341	5271		
				P=0.138		
All	(4.8)	645	13157	13109		

Note. Unweighted obs in regular font, weighted percentages in parentheses, weighted count in italics. Percentages and count are weighted for sampling and attrition.

# **Travel to school**

In September 2003 the Department for Education and Skills,<sup>17</sup> jointly with the Department of Transport, introduced the 'Travelling to School Initiative', which aims to develop a strategic approach to promoting the use of walking, cycling and public transport and reducing car dependency for journeys to school. The initiative operates throughout the UK, with several agencies in the devolved administrations being co-ordinated by the transport charity Sustrans.

The modes of transport used by MCS children to get to school are shown in Table 6.12. Overall, half of children get to school by car and 42 per cent by walking. The remaining forms of transport—school or local authority bus, public transport, bicycle or other—are used by not more than 3 per cent each. More than half (55%) of the children in Scotland walk to school in contrast to one-quarter in Northern Ireland. Children outside England are more likely to take a school or local authority bus, and children in Northern Ireland are more likely to take public transport or car. There is some variation in mode of travel to school by parental characteristics. The higher the parental qualifications, the more likely the children are to travel to school by car and the less likely they are to walk. Car travel is more likely in families above the poverty level or where a parent has a professional or managerial occupation.

Table 6.12: How child travels to school, MCS4							
	Public	School or					Obs
	transport	LA bus	Car	Bicycle	Walking	Other	count
Country							
	153	138	3508	84	4402	36	8332
England	(1.9)	(1.9)	(42.5)	(1.1)	(52.1)	(0.5)	8338
	29	110	957	6	826	9	1938
Wales	(1.4)	(5.5)	(48.4)	(0.2)	(44.0)	(0.4)	1928
Continued							

<sup>&</sup>lt;sup>17</sup> Now the Department for Education
Table 6.12: How chi	ld travels to	school, MCS	4				
	Public transport	School or LA bus	Car	Bicycle	Walking	Other	Obs count
	25	104	580	17	828	11	1565
Scotland	(1.9)	(6.6)	(35.2)	(0.9)	(54.9)	(0.6)	1561
	54	136	805	3	331	6	1322
Northern Ireland	(4.8)	(10.4)	(59.1)	(0.3)	(25.1)	(0.3)	1322
							P=0.000
Highest parental qual	ification						
	40	32	242	5	651	3	974
None	(4.8)	(2.6)	(23.7)	(0.7)	(67.9)	(0.2)	970
	19	21	175	3	389	1	608
NVQ Level 1	(3.2)	(3.0)	(26.0)	(0.7)	(67.1)	(0.0)	667
	71	104	1121	16	1491	13	2819
NVQ Level 2	(2.4)	(2.7)	(39.3)	(0.6)	(54.4)	(4.6)	2981
	40	81	943	18	1033	4	2121
NVQ Level 3	(1.7)	(3.0)	(42.5)	(1.0)	(51.6)	(0.2)	2079
	69	175	2396	41	1902	30	4615
NVQ Level 4	(1.4)	(2.8)	(50.2)	(1.1)	(43.8)	(0.6)	4509
	18	61	853	24	687	10	1656
NVQ Level 5	(1.1)	(2.8)	(49.9)	(1.5)	(44.0)	(0.7)	1535
							P=0.000
Family income povert	у						
	138	348	4589	89	4039	53	9264
Not in poverty	(1.4)	(2.9)	(47.6)	(1.1)	(46.4)	(0.5)	9332
	123	139	1260	21	2330	9	3886
In poverty	(3.4)	(2.6)	(30.9)	(0.7)	(62.0)	(2.5)	3772
							P=0.000
Parental occupational	status						
Professional or	67	185	2764	50	2204	35	5309
managerial	(1.3)	(2.7)	(50.5)	(1.1)	(43.9)	(0.6)	5257
	99	205	2353	39	2619	35	5342
Other	(1.8)	(2.7)	(42.5)	(0.9)	(51.5)	(0.6)	5273
	•						P=0.000
	261	488	5850	110	6374	62	13157
All	(2.0)	(2.9)	(42.8)	(1.0)	(50.9)	(0.5)	13109

Note. Unweighted obs in regular font, weighted percentages in parentheses, weighted count in italics. Percentages and count are weighted for sampling and attrition.

# Out of school clubs

Mothers were asked to report whether, where, and how often their children attend breakfast or after-school clubs. Just over one-quarter of children attended one or the other. Table 6.13 shows the breakdown of those attending each type of club. Children were most likely to attend an after-school club only (61 per cent of those attending a club), followed by breakfast club only (23 per cent), then both breakfast and after-school club (16 per cent). Children who attended both unsurprisingly spent the most time per week at the clubs – they attended an average of 9 hours a week. Those who attended only breakfast or only after-school clubs attended an average of 3.9 and 3.3 hours per week, respectively. In a similar pattern, the children most likely to be attending their clubs for childcare reasons were those who attended both types of club (76 per cent), followed by breakfast club only (51 per cent), then after-school club only (33 per cent). Both types of club tended to be on school premises, but breakfast club was more likely to be at school.

Table 6.13: Whether child	Table 6.13: Whether child attends breakfast or after-school clubs MCS4											
	Of all respondents	Of those who attend a club	Mean hours per week	For childcare reasons	On school premises							
No club	9858 (72.4)	_	_	_	_							
Breakfast club only	994 (6.3)	994 (22.8)	3.89	492 (51.3)	935 (94.1)							
After-school club only	2263 (16.8)	2263 (60.9)	3.33	810 (33.4)	1743 (79.5)							
Breakfast and after-school club	649 (4.5)	649 (16.2)	8.99	507 (75.8)	552 (84.4)							
Unweighted sample size	13764	3906	3594	3904	3904							
Weighted count	13761	3802	3509	3799	3799							

Note. Unweighted obs in regular font, weighted percentages in parentheses, weighted count in italics. Percentages and count are weighted for sampling and attrition.

The percentages of children who attend a breakfast or after-school club by selected characteristics are shown in Table 6.14. Children in Wales were more likely than children in other countries to attend a club which may reflect the Free Breakfast Initiative providing clubs in Wales. Children with parents with higher qualification levels were more likely to attend, though the most notable difference is between children whose parents have no qualifications and those whose parents have any level of qualification. Children whose families have poverty-level income are less likely to attend, while children who had a parent in a professional or managerial occupation were more likely to attend a club. Differences between ethnic groups are not shown as they were not significant.

		Obs
	Yes	Count
Country		
	2406	8784
England	(27.5)	8781
	733	2011
Wales	(35.6)	2011
	425	1611
Scotland	(25.0)	1612
	342	1358
Northern Ireland	(25.5)	1356
		P=0.000
Highest parental qualification		
	236	1067
None	(22.2)	1064

		Obs	
	Yes	Count	
	178	644	
NVQ Level 1	(27.2)	713	
	802	2957	
NVQ Level 2	(26.4)	3140	
	636	2197	
NVQ Level 3	(28.5)	2165	
	1387	4781	
NVQ Level 4	(28.3)	4679	
	576	1724	
NVQ Level 5	(32.4)	1604	
	· · · ·		P=0.000
Family income poverty			
	2840	9617	
Not in poverty	(28.6)	9742	
	1064	4138	
In poverty	(25.3)	4013	
			P=0.003
Parental occupational status			
	1719	5486	
Professional or managerial	(30.1)	5438	
	1546	5621	
Other	(27.2)	5570	
			P=0.003
	3906	13764	
All	(27.6)	13761	

Note. Unweighted obs in regular font, weighted percentages in parentheses, weighted count in italics. Percentages and count are weighted for sampling and attrition.

## Childcare

In addition to attending school and clubs before or after school, some MCS children also have childcare arrangements during the week, at weekends, or during school holidays. The rates of use and the hours spent in each type of care are shown in Table 6.15. The most commonly used childcare arrangement on weekdays, weekends, and holidays was a grandparent taking responsibility for the child. All other care arrangements were used much less frequently. Children were in the care of non-resident parents more often at weekends and during holidays than on termtime weekdays. They were left in the charge of older siblings more often on term-time weekdays than term-time weekends or holidays. Other relatives and friends or neighbours were used least often at term-time weekends.

The most frequently used care arrangements were not necessarily the ones in which children spent the most time when they were in them. Children spent the most time per week during term time with non-resident parents, if they did this at all. During holidays, childminders or settings described as nurseries provided the longest periods of cover, though very few used the latter. Holiday clubs were attended by 9 per cent of children, who spent an average of nine days of the holiday there.

Table 6.15. Amount of time in childcare arrangements MCS4												
	Term-time weekdays			Term	-time we	ekend	Holidays					
	N using	% using	Mean hrs/wk	N using	% using	Mean hrs/wk	N using	% using	Mean days			
Nursery	60	0.3	6.64				109	0.7	11.27			
Childminder	744	5.4	7.92				438	3.1	13.06			
Grandparent	3790	27.2	5.90	2648	20.1	8.24	4294	32.9	9.04			
Non-resident parent	338	2.9	11.34	874	6.6	22.26	546	4.8	9.11			
Older sibling	679	5.0	4.45	490	3.7	3.46	468	3.3	7.12			
Other relative	861	6.1	4.44	624	4.7	5.33	917	7.1	6.16			
Friend/neighbour	809	6.5	3.04	283	2.1	3.90	580	4.9	4.60			
Holiday club							1116	9.1	8.98			

Note. Percentages and means are weighted for sampling and attrition. Obs (N using) are not weighted.

### Conclusions

This chapter has summarised a wide range of data about children's experiences of schooling and childcare at age seven. In general, while many experiences are shared across the cohort there are some notable exceptions, related to the areas or families in which the children are growing up.

Mothers in Scotland were most likely to want their children to continue in school past leaving age, and their children were most likely to travel to school on foot. Children in Northern Ireland were less likely to have changed schools and their mothers were most likely to be very satisfied with their schools. Children in Northern Ireland were also more likely to travel to school by public transport or in a car and less likely to walk. Mothers in Wales were also more likely to report being very satisfied with their children's schools and their children were more likely to attend a breakfast or afterschool club.

Few children missed more than two weeks of school. Of those who did, the most common reason was illness, though nearly a quarter of those who missed two or more weeks did so because of a foreign holiday.

Mothers in families with higher parental qualifications, or a professional or managerial occupation, or not living in poverty were even more likely than others to want their children to continue in school past leaving age and attend university. However, aspirations for these outcomes were very high across the board. In fact, the percentage of mothers wanting their children to attend university is far higher than their own or current university attendance rates.

Higher parental qualifications, professional or managerial occupation status, and not living in poverty were also associated with a number of other variables, including higher maternal satisfaction with child's school, children being more likely to ride to school in a car, higher rates of tutoring and extra lessons, and higher rates of children attending breakfast or after-school clubs. Unexpectedly, higher parental qualifications are associated with lower rates of children receiving help from someone at home with reading, writing and maths, although it is shown in Chapter 4 that they are positively associated with home learning activities like reading with the child.

The overarching impression from the parental interview is one of all families, right across the social spectrum, taking an interest in the Millennium Children's schooling and aspiring for them to do well, both in terms of attendance at parents' meetings at school and in terms of wanting their children to go university. This is not a picture of a general exclusion of disadvantaged families from educational engagement, or of inequalities in home background leading to inequalities in schooling at 7.

These analyses are purely descriptive and do not demonstrate any causality among the variables. More in-depth analyses will be needed to examine how family and child characteristics interact to affect schooling experiences and attainment. These analyses will be enriched for many of the MCS cases by the forthcoming linkage with school administrative data and the results of the MCS4 survey of teachers. Each of these will help relate the child's school and home background to the various strands of development being tracked in this study.

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## Chapter 7

# **COGNITIVE DEVELOPMENT**

Elizabeth M. Jones and Ingrid Schoon

#### **Chapter overview**

This chapter looks at the cognitive development of the 7-year-old Millennium Cohort children as measured via three assessments:

- British Ability Scales Pattern Construction
- British Ability Scales Word Reading
- Progress in Mathematics

It also examines changes since age 5 and combines assessment scales to establish an overall cognitive ability index.

## Introduction

In this chapter we look at the cognitive development of 7-year-old children who are participants in the Millennium Cohort Study (MCS). We examine their scores on three cognitive assessments using a verbal and non-verbal subscale of the British Ability Scales as well as a maths test, and assess how these vary across a range of demographic and family characteristics.

Cognitive development in the early years is of great importance to later outcomes, and performance on cognitive assessments from as early as ages 3 and 5 has been found to be related to later school achievement, academic attainment and occupational outcomes (Caspi et al., 1998; Duncan et al., 2007), as well as adult health (Batty et al., 2007; Mirowsky and Ross, 2003). Poor cognitive performance early in life has also been found to be related to higher chances of unemployment, low qualifications and low income; this relationship is seen even when other factors are controlled for (Feinstein and Bynner, 2004). It is thus crucial to learn more about variations in early cognitive attainment which can be useful to effectively target interventions aiming to build up cognitive skills.

Differences in early cognitive outcomes associated with family socioeconomic and environmental characteristics are potentially of great interest to policy-makers and social scientists, as they can relate to inequalities that may persist throughout life if not tackled early. Children growing up in disadvantaged situations are at greater risk of performing poorly on cognitive assessments, which then can lead to the poorer outcomes later in life (Duncan and Brooks-Gunn, 1997; Schoon, 2006). However, although academic attainment is largely stable throughout childhood, children do demonstrate both shifts and fluctuations in the development of these skills, particularly during early and middle schooling (Huston and Ripke, 2006; Pungello et al., 1996; Schoon, 2006). Furthermore, there is evidence showing promising effects of early intervention programmes, such as Sure Start, which can improve the life chances of young children and their families (Melhuish et al., 2008). The Effective Provision of Pre-school Education (EPPE) project in the UK was also able to observe beneficial effects of early education (Sylva, Melhuish, Sammons, Siraj-Blatchford and Taggart, 2004).

The aim of this chapter is to outline the evidence on socio-demographic variations in cognitive attainment of 7-year-olds.

### Sample and data

The sample used in this chapter is drawn from children of families participating in the age 7 survey of MCS. Nearly 99 per cent of children completed the cognitive assessments administered to them at this fourth sweep. Of the 13,857 families with child cognitive data, we retained those in which the main respondent is the cohort member's mother and the partner respondent, if there is one, is the cohort member's father. These criteria were met by 13,244 families. In families with cohort members who were twins or triplets records for only one child per family were included, making the number of cohort members equal to the number of families. The exact number of observations reported in the following will vary due to missing data on outcome and demographic variables. All analyses were adjusted for the appropriate sampling and attrition weights.

Three scales were used for the cognitive assessment in the fourth MCS sweep. They are the Pattern Completion and Word Reading subscales from the British Ability Scales (BASII; Elliott, 1996; Hill, 2005) and the Progress in Maths assessment. All were directly administered to the children by interviewers who were specially trained, but were not professional psychologists. For the two subscales of the BAS age-related starting points, decision points, and alternative stopping points were used to ensure that the motivation and self-esteem of the child were protected, that the testing focused on the most suitable items for the child, and that the assessment time was kept to a minimum (Hill, 2005).

*Pattern Construction* is a test of non-verbal reasoning and spatial visualisation in which children construct patterns using flat squares or solid cubes (BASII; Elliott, 1996; Hill, 2005). The raw score was transformed into an ability score, which was adjusted for the specific subset of items administered. The ability score was then transformed into a T-score, which is standardised based on the child's score relative to the average score of the BAS norming sample for children of the same age group. The T-score has a mean of 50 and standard deviation of 10. A child with a Pattern Construction T-score of 50 has a score equal to the average for his age group in the

norming sample; a child with a T-score of 60 has a score that is one standard deviation above the average for her age group in the norming sample.

The *Word Reading* scale is an assessment of children's verbal ability. The children are shown words on cards and asked to read them out. The test was also available in Welsh. Similar to the Pattern Construction scale, the raw score was converted to an ability score, which was transformed into a standard score that adjusts for a child's age. This standard score was then rescaled to be a T-score so that like the standardised score for Pattern Construction, the Word Reading T-score has a mean of 50 and standard deviation of 10.

The *Progress in Mathematics (PiM)* test assesses children's skills on all UK National Curricula mathematics content. Children complete a variety of mathematical problems covering numbers, shape, space, measures and data handling. The raw score, which had a range of 0 to 15, was transformed into an internally-referenced T-score. That is, a z-score was computed using the mean and standard deviation of the MCS sample, and this was then rescaled to have a mean of 50 and standard deviation of 10. Unlike the T-scores for the two BAS scores, the T-score for Progress in Maths is not adjusted for age at interview.

Tables 7.1 to 7.3 report descriptive statistics of these assessments. The first column reports the mean score. The standard error of the mean gives an idea of the precision of this estimate. The centile columns show the values of the score at various points in the distribution. For example, in Table 7.1 a T-score of 39 is the value which divides the bottom 10 per cent from the rest, and the values at the 90<sup>th</sup> percentile, 67 is the threshold of the top 10 per cent. The tables also provide information regarding the following child and family variables: country of residence at the time of the interview, the child's gender and ethnicity, the relationship status of the main and partner respondents (mother and father), the combined work status of the parents, the highest qualification level of the parents, family poverty status and parental occupational status. For qualification and occupational status, the qualification and occupation used is whichever was higher of the father or the mother; in the case of a lone parent, it is the mother's qualification and status only.

In Wales, families had the option of the children doing the assessments in the Welsh language. One hundred and twenty-six children completed the Welsh-language reading assessment, whose scores, while available for separate analysis, are not covered in this chapter. In all, 82 completed the numeracy assessment in Welsh (for which a standardised Welsh version was available), and 49 completed Pattern Construction in Welsh (without a standardised translated versions). The latter two scores are incorporated in the data presented here.

Table 7.1: Means for BAS F	Pattern C	Constructio	n					
					Percentile	)		
		Standard						
	Mean	Error	10th	25th	50th	75th	90th	Obs
Full sample	52.8	0.20	39	46	53	60	67	13703
Country								
England	52.6	0.23	39	45	53	60	66	8803
Wales	54.1	0.40	41	47	54	61	68	1937
Scotland	53.6	0.45	40	47	53	60	67	1602
Northern Ireland	54.3	0.48	41	48	54	61	68	1361
Cohort member gender						-		
Male	52.7	0.20	38	45	53	60	67	6895
Female	53.5	0.22	40	46	53	60	67	6808
Cohort member ethnicity								
White	53.6	0.17	41	47	54	61	67	11427
Mixed	51.3	0.68	37	45	52	60	67	367
Indian	51.6	0.92	39	45	51	58	65	339
Pakistani and Bangladeshi	46.9	0.64	34	41	47	54	61	854
Black	46.3	0.88	33	40	47	53	59	438
Other	51.8	0.94	39	44	51	58	68	178
Family relationship status								
Married	54.3	0.21	41	47	54	61	68	8184
Cohabiting	52.5	0.28	39	45	53	60	66	2093
Lone	50.7	0.25	37	44	1	8	65	2851
Family work status								
No parent working	48.8	0.31	35	42	49	56	63	2105
At least one parent working	53.9	0.17	40	47	54	51	67	11448
Highest parental qualification								
None	46.9	0.43	31	41	48	54	60	1039
NVQ 1	49.1	0.47	36	42	49	56	62	623
NVQ 2	51.6	0.23	38	45	52	58	65	2929
NVQ 3	52.9	0.29	39	46	53	60	66	2187
NVQ 4	55.2	0.21	42	49	55	62	68	4798
NVQ 5	56.3	0.29	42	49	57	64	70	1743
Family poverty status								
Above poverty	54.4	0.17	41	48	54	61	68	9627
Below poverty	49.9	0.27	36	42	51	57	64	4058
Parental occupational status								
Professional or managerial	52.3	0.21	39	45	53	60	66	5470
Other	55.7	0.21	42	49	55	63	69	5497

## **BAS Pattern Construction**

Means for the non-verbal test, BAS Pattern Construction, are shown in Table 7.1. Children in Wales and Northern Ireland scored higher than children in England. The mean for children in Scotland was not significantly different from the means for children in the other countries. Girls scored higher than boys – this difference only just reached statistical significance, although the actual mean difference is less than one T-score point. White children scored significantly higher than children of all other ethnic groups other than Indian or 'other' ethnicity. Each family marital status group scored significantly differently on the Pattern Construction task; children with married parents scored higher than those with cohabiting parents, who in turn scored higher than children living with lone parents. Children with at least one working parent scored higher than children with no working parent in the household, and children with parents who have higher qualifications scored higher than children of parents with lower qualification levels. Children living in families in poverty scored lower than children not living in poverty, and those with parents in professional or managerial roles scored higher than those with parents in other occupations.

#### **Changes since age 5: Pattern Construction**

Pattern Construction had also been administered at age 5.<sup>18</sup> The overall mean was slightly higher at age 7 than age 5 (52.8 versus 51.3). The differences among groups were generally larger at age 7 than they were at age 5; lower-scoring groups had similar means at the two surveys but the higher-scoring groups tended to have higher means at age 7, meaning that their progress between the two sweeps was faster than the progress of the children in the norming sample. For example, at age 5, children of parents with no qualifications had a mean T-score of 46.4, which is 88 per cent of the score for those with a parent with a higher degree (mean of 53.0). At age 7 the two groups (not necessarily the same children) had means of 46.9 and 56.3, meaning the children of parents with no qualifications had a mean score that is 83 per cent of the mean for children with a parent with a higher degree. This shows a slightly widening relative gap. The gap between children of different ethnic groups also widened slightly. At both sweeps, the groups with the lowest means (Pakistani and Bangladeshi, and black children) had scores around 46 or 47, while the mean for the highest scoring group (white children) went from 52 at age 5 to 54 at age 7. Children living in poverty had a mean of 48.8, and those not in poverty had a mean of 52.2 at age 5; their means at age 7 were 49.9 and 54.4 respectively. Those in poverty had a mean score that was 93 per cent of that of those not in poverty at age 5; and a mean score that was 92 per cent of the score for those not in poverty at age 7. Figure 7.1 shows the gaps in mean T-scores on Pattern Construction by gender. parental gualification and poverty at ages 5 and 7, widening of some counts but not all.

<sup>&</sup>lt;sup>18</sup> For detailed results from MCS3, see Jones and Schoon (2009).



Figure 7.1: Gaps in Pattern Construction Scores at Ages 5 and 7

## **BAS Word Reading**

The means, standard errors and centiles for BAS Word Reading are shown in Table 7.2. Children in England and Scotland scored significantly higher than children in Wales and Northern Ireland. Girls scored significantly higher than boys. This difference is larger than the gender difference on Pattern Construction, which is not surprising given past research showing that girls tend to outperform boys most strongly on verbal and language assessments (Maccoby and Jacklin 1974; Hopman et al., 1988).

Table 7.2: Means for BAS Word Reading												
		Standard										
	Mean	Error	10th	25th	50th	75th	90th	Obs				
Full sample	49.7	0.17	38	43	50	57	64	13591				
Country												
England	50.6	0.20	38	43	52	58	64	8846				
Wales	47.1	0.59	34	40	47	54	61	1774				
Scotland	49.4	0.38	38	43	50	56	63	1614				
Northern Ireland	47.4	0.44	35	40	48	55	61	1357				
Cohort member gender	-					-	-	-				
Male	48.8	0.20	36	42	49	57	64	6852				
Female	50.6	0.18	39	44	52	57	63	6739				
Cohort member ethnicity	-					-	-	-				
White	49.6	0.18	37	43	50	57	63	11302				
Mixed	50.4	0.65	39	43	52	58	65	370				
Indian	53.7	0.81	40	47	54	61	68	337				
Pakistani and Bangladeshi	50.4	0.53	38	43	50	57	64	856				

Table 7.2: Means for BAS Word Reading											
		Standard		-	Percentile	)	-				
	Mean	Error	10th	25th	50th	75th	90th	Obs			
Continued											
Black	50.4	0.70	38	43	50	57	65	446			
Other	50.2	1.09	38	45	53	58	64	179			
Family relationship statue	5										
Married	51.3	0.19	39	44	52	58	64	8094			
Cohabiting	48.4	0.28	37	42	49	55	63	2074			
Lone	47.1	0.24	35	40	48	55	61	2847			
Family work status											
No parent working	45.1	0.30	32	38	45	53	59	2108			
At least one parent working	50.6	0.17	39	43	51	58	64	11334			
Highest parental qualification	ation		•			•					
None	43.5	0.45	32	37	43	51	58	1041			
NVQ 1	45.1	0.43	34	39	45	52	58	619			
NVQ 2	47.7	0.24	37	41	48	55	61	2920			
NVQ 3	49.4	0.26	38	43	50	56	63	2162			
NVQ 4	51.8	0.20	40	45	53	59	65	4739			
NVQ 5	53.9	0.28	42	49	55	61	66	1722			
Family poverty status											
Above poverty	51.1	0.17	39	44	52	58	64	9528			
Below poverty	46.2	0.24	34	40	46	54	60	4046			
Parental occupational status											
Professional or managerial	52.8	0.20	41	47	53	59	66	5418			
Other	48.6	0.17	37	42	49	55	62	5437			

Note: T scores, mean = 50, SD =10. Means and standard errors are weighted for sample selection and attrition. Centiles are weighted, but not adjusted for the clustered sampling design. Number of observations are unweighted.

Indian children scored higher than whites and all other ethnic groups (Indian children are 4 points ahead of white children, and have a mean score that is 108 per cent of the mean score for white children). The other ethnic groups also had mean scores above the whites, but with margins of error which meant the lead was not statistically significant. This pattern is different from the one seen for the non-verbal Pattern Construction task, where white children were the highest scoring group. This is a remarkable finding, suggesting that ethnic minority children demonstrate language ability that is at least as good white children. Although there was not an exactly equivalent reading test at earlier ages, the scores on naming vocabulary at ages 3 and 5 showed that ethnic minority children were initially well behind white children but were catching up by age 5, with Indian children in the vanguard (Dearden and Sibieta, 2010).

The patterns for family relationship status, family work status, parental qualifications, family poverty status and parental occupational status with Word Reading are very similar to those observed for Pattern Construction. Children with married parents scored significantly higher than those with cohabiting parents, who scored higher than children living with a lone parent. Children with at least one working parent scored higher than children with no working parent. There was a strong trend for

parents with higher qualifications to have children who scored higher. Children in income poverty scored lower than children not in poverty, and children who have a parent in a professional or managerial occupation scored higher than children with parents in other occupations.

#### Changes since age 5: Word Reading

Word Reading was not administered at age 5, but the Naming Vocabulary subscale of the BAS was. Though both scales measure verbal skills, Word Reading (WR) measures receptive language at age 7 and Naming Vocabulary (NV) expressive language at age 5. Expressive skills require the child to say something, while receptive skills demonstrate an understanding of language. As such, the two scores are not strictly comparable. The correlation between Word Reading score at age 7 and Naming Vocabulary score at age 5 is 0.34. Nevertheless the picture on verbal skills for ethnic groups is very different from age 5. At the earlier sweep, white children scored the highest, with other ethnic groups significantly behind – Pakistani and Bangladeshi children the lowest. At age 7, white children were no longer the highest scoring group on receptive language (Word Reading); the highest scoring group was Indian children. This reversal could be due to actual changes in verbal ability, perhaps due to experience of schooling, or to the two scales assessing different skills, or both.

The gaps at age 7 by social variables such as parental education and income level are quite similar to, though slightly smaller than, the gaps at age 5. The gap between children with parents with no qualifications and those with a parent with a higher degree was 12 at age 5 and 10 at age 7 – children of parents with no qualifications had a mean that was 79 per cent of the mean for those with parents with higher degrees at age 5 and that was 81 per cent of the mean for those with parents with higher degrees at age 7. The gap between those in poverty and those not in poverty was 6 at age 5 and 5 at age 7 – the mean for those in poverty was 89 and 90 per cent of the mean for those not in poverty at ages 5 and 7, respectively.

## **Progress in Mathematics**

The mean scores for PiM are shown in Table 7.3. There are no significant differences in the means for children from different UK countries and also no significant difference between the scores for boys and girls.

Table 7.3: Means for Progress in Maths											
		Standard			Percentile	)					
	Mean	Error	10th	25th	50th	75th	90th	Obs			
Full sample	49.9	0.22	37	44	51	59	62	13576			
Country											
England	49.9	0.26	37	44	51	59	62	8847			
Wales	50.1	0.39	37	44	51	59	62	1936			
Scotland	49.6	0.45	37	44	51	55	62	1611			
Northern Ireland	50.5	0.40	37	44	51	59	62	1362			

Table 7.3: Means for Progress in Maths											
		Standard			Percentile	)					
	Mean	Error	10th	25th	50th	75th	90th	Obs			
Continued											
Cohort member gender											
Male	50.0	0.22	37	44	51	59	62	6930			
Female	49.9	0.21	37	44	51	59	62	6826			
Cohort member ethnicity											
White	50.3	0.19	37	44	51	59	62	11469			
Mixed	50.1	0.63	37	44	51	58	62	369			
Indian	51.2	0.89	37	44	51	62	66	338			
Pakistani and Bangladeshi	45.0	0.57	30	37	44	55	59	855			
Black	47.6	0.99	34	41	48	55	62	446			
Other	48.8	0.94	34	41	51	59	62	179			
Family relationship status								_			
Married	51.1	0.20	37	44	51	59	62	8206			
Cohabiting	49.2	0.28	37	44	47	55	62	2101			
Lone	48.1	0.28	34	41	48	55	62	2869			
Family work status								_			
No parent working	46.2	0.31	34	41	48	55	59	2126			
At least one parent working	50.7	0.18	37	44	51	59	62	11478			
Highest parental qualification								-			
None	44.5	0.44	30	37	44	51	59	1047			
NVQ 1	46.1	0.49	30	41	44	51	59	628			
NVQ 2	48.7	0.25	34	41	48	55	62	2942			
NVQ 3	49.6	0.26	37	44	51	59	62	2188			
NVQ 4	51.8	0.19	41	44	51	59	62	4813			
NVQ 5	53.2	0.29	41	48	55	59	66	1749			
Family poverty status											
Above poverty	51.2	0.19	37	44	51	59	62	9657			
Below poverty	47.0	0.26	34	41	48	55	62	4082			
Parental occupational status											
Professional or managerial	52.6	0.19	41	48	51	59	62	5484			
Other	49.0	0.21	36	41	48	55	62	5509			

Note: Means and standard errors are weighted for sample selection and attrition. Centiles are weighted, but not adjusted for the clustered sampling design. Number of observations are unweighted.

Pakistani and Bangladeshi children scored lower than children from all other ethnic groups, except black children. There were no other significant differences among children of different ethnic groups.

There were significant differences for all of the remaining characteristics. Children of married parents scored higher than children of cohabiting or lone parents, and children of cohabiting parents scored higher than those of lone parents. Children who had at least one parent working scored higher than children who had no working parent. There is a strong trend for parental qualifications; the higher the parental qualification level, the higher the child's score. Children in families who are not in poverty scored higher than children in families in poverty, and children with a parent in a professional or managerial occupation scored higher than those with parents in other occupations.

There was no mathematics assessment administered at age 5, so we are unable to compare group differences on maths across the two sweeps.

### Overall cognitive ability index

The three assessment scales were combined into a single index using principal components analysis (PCA), as had been done with the scales at age 5 (Jones and Schoon, 2009). PCA analysis of the three scales confirmed the presence of a general underlying cognitive factor. The underlying factor accounted for 63 per cent of the total variance among the three tests.

We saved the scores for the Overall Cognitive Index, based on the first unrotated factor from the PCA. The scores were then standardised to a mean of 100 and a standard deviation of 15. The means and centiles for this overall index are shown in Table 7.4.

Table 7.4: Means for overal	l cognit	ive index						
		Standard			Percentile	•		
	Mean	Error	10th	25th	50th	75th	90th	Obs
Full sample	99.8	0.28	80	90	101	111	119	13450
Country					-			-
England	100.1	0.37	80	90	101	111	119	8760
Wales	99.1	0.75	80	89	100	109	118	1761
Scotland	99.8	0.66	81	92	101	111	119	1588
Northern Ireland	99.4	0.65	80	90	100	110	119	1341
Cohort member gender					-			
Male	99.2	0.32	79	89	100	110	119	6760
Female	100.5	0.31	82	91	102	111	118	6690
Cohort member ethnicity								
White	100.3	0.29	81	91	101	111	119	11187
Mixed	99.7	0.91	79	91	100	112	119	364
Indian	102.2	1.26	82	91	104	114	121	337
Pakistani and Bangladeshi	93.4	0.87	73	83	93	105	114	850
Black	94.9	1.45	74	86	96	107	115	437
Other	98.8	1.39	82	89	101	110	120	176
Family relationship status								
Married	102.3	0.31	83	93	103	112	120	8033
Cohabiting	98.1	0.41	79	89	99	108	117	2052
Lone	95.7	0.39	76	86	97	107	116	297
Family work status								
No parent working	92.2	0.44	72	82	93	103	113	2068
At least one parent working	101.4	0.26	83	92	102	112	119	11235
Highest parental qualification								
None	88.9	0.64	68	80	90	100	109	1023
NVQ 1	92.4	0.62	72	82	93	102	111	611
NVQ 2	96.9	0.34	78	88	97	107	115	2882
NVQ 3	99.2	0.37	80	90	100	109	117	2142
NVQ 4	103.5	0.30	85	95	104	113	121	4700
NVQ 5	106.5	0.42	89	98	107	116	123	1710

Table 7.4: Means for overall cognitive index											
		Standard			Percentile	)					
	Mean	Error	10th	25th	50th	75th	90th	Obs			
Continued											
Family poverty status											
Above poverty	102.3	0.27	84	94	103	112	120	9446			
Below poverty	93.9	0.38	73	84	95	105	114	3987			
Parental occupational status											
Professional or managerial	105.0	0.30	88	97	106	115	122	5400			
Other	98.1	0.27	79	89	99	108	116	5366			

Note: Means and standard errors are weighted for sample selection and attrition. Centiles are weighted, but not adjusted for the clustered sampling design. Number of observations are unweighted.

There were no significant differences among the four countries on the overall index. Girls had a statistically significantly higher score on the index than boys. Pakistani and Bangladeshi and black cohort members had lower scores than the other ethnic groups, but there were no other significant differences by ethnicity. As would be expected, the differences in the overall index followed the same patterns as for the scales that make it up: children of married parents, of working parents, of parents with higher qualifications, who were not in poverty, and of professional and managerial parents scored higher.

#### Changes since age 5: Overall ability

We compare the gaps on the overall index at age 7 to the gaps on the overall index at age 5. It is important to remember that the indices at the two times include different scales. The age 5 index included three BAS scales: Picture Similarities, Naming Vocabulary and Pattern Construction. The age 7 index includes Pattern Construction, Word Reading and the mathematics assessment while the age 5 index does not include any assessment of mathematical or quantitative skills. Both indices have reasonably similar degrees of variation.

The gaps between ethnic groups were smaller at age 7 than they had been at age 5. In the earlier sweep, the largest gap (between Pakistani and white cohort members) was 15 score points, or 86 per cent below whites. At age 7 the largest gap (between Indian, and Pakistani and Bangladeshi cohort members combined) was just under 9 points (equivalent to 9 per cent of the white children's score). This reduction may be due to the difference in the specific scales included, as some ethnic minority groups scored well on the Word Reading scale, but it could also reflect the benefit of schooling enabling the minority children to catch up.

The gap across parental qualification levels was very similar at the two times – around 16 points at age 5 (91 for those with parents with no qualifications versus 106 for those with a parent with a higher degree) and 18 points at age 7. The gap between those in poverty and those not was around 8 points at both age 5 and at age 7. The findings suggest persistent achievement gaps between different social groups, with ethnic minority groups catching up, especially Indians.

### Correlations with assessments at ages 3 and 5

To give an idea of the consistency in the cognitive assessment over the previous three sweeps, we report the correlations of the age 7 assessments with those administered at ages 3 and 5. One of the assessments used at age 7 had also been administered at age 5: BAS Pattern Construction. The other assessments used at age 5 were also subscales of the BAS, namely the Picture Similarities and Naming Vocabulary subscales. Assessments at age 3 included the BAS Naming Vocabulary subscale and the Bracken School Readiness scale (Bracken, 2002).

The correlations among these assessments are shown in Table 7.5. Not surprisingly, some of the highest correlations were observed between the same scales administered at two time points – Pattern Construction at age 7 and 5 (r = .54), and Naming Vocabulary at ages 5 and 3 (r = .55). However, some of the other correlation coefficients were nearly as high. The Progress in Maths scale correlated close to .50 with the age 7 BAS scales, which is actually higher than the correlation between the two BAS scales. The Bracken at age 3 was strongly associated with BAS Naming Vocabulary at both age 3 and age 5. The correlations among the BAS subscales scales tend to be only moderate, suggesting that they tap into different domains of cognitive ability.

Table 7.5: Correlations of	Age 7 Ass	essments v	vith Age 3 a	and 5 Assess	sments		
	Pattern Constr.	Word Reading	Progress in Maths	Picture Similarities	Naming Vocab.	Pattern Constr.	Naming Vocab.
MCS4 Word Reading	0.31						
MCS4 Progress in Maths	0.47	0.49					
MCS3 Picture Similarities	0.28	0.21	0.29				
MCS3 Naming Vocabulary	0.30	0.34	0.36	0.29			
MCS3 Pattern Construction	0.54	0.31	0.38	0.32	0.31		
MCS 2 Naming Vocabulary	0.27	0.28	0.28	0.19	0.55	0.25	
MCS 2 Bracken	0.33	0.42	0.37	0.24	0.50	0.31	0.58

Note: Correlation coefficients are weighted for sample selection and attrition.

Overall, the correlations of assessments at one time point with assessments at another time point range from 0.19 to 0.55, which indicates that while there is some continuity, there is also a fair amount of change from one sweep to the next.

### Conclusions

Educational qualifications in the children's future are likely to be strongly associated with both verbal and non-verbal attainment and capabilities, as well as progress in maths. The findings suggest a persistent attainment gap for different social groups, although some ethnic minority groups appear to be catching up, especially Indians. The patterns of differences across child and family characteristics vary however across the different assessments. The patterns for differences across UK country were opposite for the two verbal and non-verbal BAS scales, with children in Wales and Northern Ireland scoring higher than children in England on Pattern

Construction, but children in England and Scotland scoring higher on Word Reading. On the maths assessment, there were no differences by country.

Girls scored higher than boys on both BAS subscales, but the difference was larger for Word Reading than for Pattern Construction. There was no significant gender difference for the maths test. This is in line with past research on gender differences, which has found that girls tend to score higher than boys on tests of verbal ability, and that there are generally smaller differences favouring boys or no significant difference on tests of quantitative ability (Machin and McNally, 2005; Nowell and Hedges, 1998; Strand et al., 2006).

Remarkably, the findings also suggest that children from ethnic minority groups, at age 7, tend to score higher on verbal skills (significantly so for Indian children), achieve a similar score in maths (except for Pakistani and Bangladeshi children), yet score slightly lower on the non-verbal task compared to white children. White children scored higher on the Pattern Construction task than most other groups. The findings suggest rapid progress of children from ethnic minorities, who continue to catch up with white children, following their progress already observed between ages 3 and 5 (Dearden and Sibieta, 2010). This finding is also echoed by the study of secondary schoolchildren in England in 2003 and 2006 by Cassen and Kingdon (2007), which found that Indian and Chinese pupils were most successful at avoiding academic failure, and that white working class boys were the ones falling behind.

At age 7, children growing up with parents who are well educated, have a professional job, or are living above the poverty line, are performing better than their less privileged peers, as they did at age 5. The patterns for these variables – relationship between parents, work status, parental qualifications, poverty status and parental occupational status varied for the different assessments and for different indicators of socioeconomic resources, with the greatest gap apparent for differences in parental education. The findings thus suggest that the socioeconomic resources available to the family are consistently related to a range of cognitive outcomes, whereby parental education is a key dividing factor, more so than family status, gender, ethnicity, or even poverty. Future research will have to confirm this finding in a multivariate analysis.

It is important to keep in mind that these analyses can tell us nothing about causality. For example, lower average cognitive attainment for children below rather than above the poverty line do not tell us that poverty causes lower scores. Future research will have to examine in more detail the processes linking parental education, family poverty, family structure and ethnicity to levels of academic attainment. In addition, the above analyses do not explore the way in which characteristics of the child and family variables may interact to affect cognitive outcomes. Future research can investigate more fully changes (or stability) in cognitive development across the early years, and how child, family and environmental factors may interact to affect outcomes and changes in outcome over time and in different cultural contexts, i.e. for ethnic minority children. Interactions between cognitive and behavioural development and health should be another key focus of investigation.

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## Chapter 8

# CHILD BEHAVIOUR AT AGE 7

Matt Brown and Ingrid Schoon

#### **Chapter overview**

This chapter provides a summary of child behaviour at age 7 as measured by the Strengths and Difficulties Questionnaire. It highlights:

- Behavioural differences between children from advantaged and disadvantaged backgrounds
- Fewer behavioural problems among children living in families with higher levels of parental qualifications or in families with two working families
- Behavioural differences between boys and girls
- Differences in behavioural problems between UK countries and between ethnic groups
- Risk/advantage associated with different family arrangements two parent families, stepfamilies etc
- Whether behaviour problems have persisted since earlier surveys

There is ongoing concern regarding the behavioural adjustment and development of young children (Maughan et al., 2005; Maughan et al., 2004; Rutter and Smith, 1995). Epidemiological studies suggest that 8–22 per cent of pre-school children exhibit moderate to clinically significant emotional and behavioural problems (Campbell, 1995; Ford et al., 2003 and 2004) and prevalence rates for children living in poverty are particularly high (Feil et al., 2005; Parry-Langdon, 2008). Early behaviour problems can interfere with the ability to engage in classroom learning activities, can undermine early social behaviours (such as forming relationships with peers and teachers) and thus are a risk factor for future social and academic difficulties (Denham, 2006). Gaining a better understanding of appropriate and effective methods to address the social and emotional needs of today's vulnerable children and to identify which children are at greatest risk for behavioural maladjustment remains an ongoing challenge (Ford et al., 2004), especially as there is evidence that targeted parenting programmes can help parents to improve their relationship with their child and to improve their child's behaviour (NICE, 2007). The aim of this chapter is therefore to examine the demographic factors associated with behavioural adjustment in a contemporary sample of school-aged children.

### Sample and data

Drawing on data collected for the UK Millennium Cohort, child behavioural adjustment at age 7 was assessed via the Strengths and Difficulties Questionnaire (SDQ). The psychometric properties of the SDQ scale are good, and the SDQ has already been used in two previous sweeps of MCS (age 3 and age 5), enabling us to

assess stability and change in behavioural adjustment during early childhood. The SDQ is a 25-item questionnaire, which was included in the self-completion section of the interview and completed by the main respondent (normally the child's mother). The SDQ is suitable for 3 to16-year-olds and has been well validated as a clinical tool for identifying emotional and behavioural disorders (Goodman, 1997, 2001; Goodman et al., 1998).

The 25 items of the SDQ generate scores for five subscales: emotional symptoms, conduct problems, hyperactivity, peer problems and pro-social behaviour, with scores for each subscale ranging between 0 and 10. Higher scores indicate greater presence of each particular behaviour. The scores for the four problematic behaviours (emotional symptoms, conduct problems, hyperactivity and peer problems) are then summed to produce an overall 'total difficulties' score which ranges between 0 and 40. Scores between 14 and 16 are classified as borderline, and scores of 17 and above are classified as serious behaviour problems (Goodman, 2001).

The analyses reported in this chapter are based on parental reports on 13,489 children. In families with twins or triplets only data for the first listed child were used, making the number of cohort members equal to the number of families. All analyses were adjusted for sample weights, clustering of the sample design and attrition.

Sample sizes vary across the various subscales of the SDQ as a result of incomplete information. Pro-social scores could be calculated for 13,476 children whereas hyperactivity scores could only be calculated for 13,422. 'Total difficulties' scores were calculated for 13,363.

### Results

Table 8.1 shows the mean scores and standard errors for each of the SDQ scales. The mean score for total difficulties is 7.5 and hyperactivity was the problematic behaviour which seemed most prevalent, with the mean score on this subscale (3.4) being over double the mean scores for each of the other three problematic scales.

Table 8.1: Tot	tal SDQ score	s, MCS4				
	Emotional symptoms	Conduct problems	Hyper- activity	Peer problems	Pro-social	Total difficulties (sum of four problematic behaviours)
Mean score	1.5	1.4	3.4	1.2	8.6	7.5
SE	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Obs.	13443	13472	13422	13452	13476	13363

Notes: Sample includes all cohort members excluding second and third children in families with twins and triplets. Means and standard errors are weighted using dovweight2.

Figure 8.1 shows the proportions classified as 'normal', 'borderline' and showing 'serious behaviour problems'. In total 8 per cent of 7-year-olds were classified as having serious behaviour problems with a further 6 per cent being classified as having borderline behaviour problems. The proportion of boys classified as showing

serious behaviour problems was around twice that of girls (10% compared with 5%). The proportion of children classified with serious behaviour problems did not vary greatly between countries but the proportion of children in England classified as having borderline behaviour problems was significantly larger than in any of the other countries (7.2% compared with 5.4% in Wales, 4.8% in Northern Ireland and 4.2% in Scotland).





Notes: Sample includes all cohort members excluding second and third children in families with twins and triplets. Means and standard errors for sex are weighted using dovweight2; means and standard errors for country are weighted using dovweight1.

Unweighted sample sizes: All (n=13,363), Males (n=6793), Females (n=6570), England (n=8503), Wales (n=1939), Scotland (n=1586), Northern Ireland (n=1335).

Tables 8.2 to 8.5 show the mean scores, across the whole range 0–10, for each subscale and 'total difficulties' broken down by various demographic and socioeconomic factors. Boys showed significantly more evidence of behavioural problems than girls with a mean total difficulties score of 8.2 compared with 6.8, and were significantly more likely to exhibit conduct problems, hyperactivity and peer problems. There was no difference between boys and girls in terms of emotional symptoms.

As was found at ages 3 and 5, there was some variation by country, with children from Scotland and Northern Ireland having significantly lower mean scores of 6.9 and 7.1 than children from England and Wales (whose mean scores were 7.7 and 7.5).

The mothers of black African children reported the least amount of problematic behaviour on average with a mean total difficulties score of 6.3, considerably lower than the overall mean (a similar pattern was observed at age 3). White children had a

mean total difficulties score of 7.4, just fractionally less than the overall mean. The estimated means for each other ethnic group were considerably above the mean, with Pakistani and Bangladeshi children having the highest average total difficulties scores. The greatest proportion with particularly high scores was found amongst Black Caribbean children; 13 per cent were classified as having serious behavioural problems (Figure 8.2), although this group only differed significantly from Black African children. Children from homes in which English was the only language spoken showed significantly fewer behavioural problems than those in which other languages (in addition to English) are spoken (mean total difficulties score of 7.4 compared with 8.2). Children from homes in which English is not spoken at all were in between but because there are so few of these cases they were not found to differ significantly from either of the other groups.



#### Figure 8.2: SDQ summary classifications by ethnic group

Notes: Sample includes all cohort members excluding second and third children in families with twins and triplets. Means and standard errors for sex are weighted using dovweight2; means and standard errors for country are weighted using dovweight1.

Unweighted sample sizes: White (n=11,317), Mixed (n=363), Indian (n=313), Pakistani (n=523), Bangladeshi (n=192), Black Caribbean (n=150), Black African (n=226), Other (n=188).

As was found at age 3 and age 5, children from families with two natural parents showed significantly fewer behavioural problems than those from lone-parent or stepfamilies (mean total difficulties score of 6.9 compared with 9.1 and 9.6 respectively). Amongst children from stepfamilies, 15 per cent were classified as showing serious behaviour problems, compared with 12 per cent of children with lone parents and 6 per cent living with both natural parents.

Children from families where parents had higher qualifications showed fewer behavioural problems than those whose parent(s) had no qualifications. Children

from families where the highest parental qualification was NVQ Level 4 or the academic equivalent (a first degree) had a mean total difficulties score of 6.1 and where the highest qualification was NVQ Level 5 (equivalent to a higher degree) the mean score was 6.4, whereas the children of parents with no qualifications had a mean total difficulties score of 10.6. Children from families with two working parents also showed fewer behavioural problems (mean total difficulties score of 6.4 compared with 10.2 amongst children with no working parent), as did those from households not classified as living in poverty (mean total difficulties score of 6.7 compared with 9.4 amongst children classified as living in poverty).

The overall mean pro-social score was 8.6 (out of a possible 10), suggesting that on the whole children are considerate, helpful and happy to share with others. Girls continue to show greater levels of pro-social behaviour than boys (8.9 compared with 8.3) and there are some other minor variations between the various groups but on the whole scores do not differ greatly.

In order to investigate the longitudinal consistency of child behaviour the total difficulties score at age 7 was correlated with scores from previous sweeps. There are strong associations between indicators of problematic behaviour at age 7 and the equivalent measures at age 5 (r=0.70) and age 3 (r=0.55) suggesting that behavioural problems are relatively stable over time.

Strong associations were also found between pro-social behaviour at age 7 and prosocial behaviour at age 5 (0.52) and age 3 (0.37), although the associations were not as marked as for problem behaviours.

Table 8.2:	SDQ scores by	y sex, country	and ethnicity	, MCS4			
		Emotional symptoms	Conduct problems	Hyper- activity	Peer problems	Pro-social	Total difficulties (sum of four problem behaviours)
Sex							
Male	Mean Score	1.5	1.6	3.8	1.3	8.3	8.2
	SE	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)
	Obs.	6833	6847	6826	6839	6851	6793
Female	Mean Score	1.6	1.2	2.9	1.1	8.9	6.8
	SE	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)
	Obs.	6610	6625	6596	6613	6625	6570
Country							•
England	Mean Score	1.6	1.4	3.4	1.3	8.6	7.7
	SE	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)
	Obs.	8561	8586	8543	8572	8590	8503
Wales	Mean Score	1.5	1.4	3.4	1.2	8.7	7.5
	SE	(0.0)	(0.0)	(0.1)	(0.0)	(0.0)	(0.1)
	Obs.	1950	1952	1949	1945	1950	1939
Scotland	Mean Score	1.4	1.3	3.2	1.1	8.5	6.9
	SE	(0.0)	(0.0)	(0.1)	(0.0)	(0.0)	(0.1)
	Obs.	1591	1593	1591	1592	1593	1586

Table 8.2: \$	SDQ scores by	y sex, country	and ethnicity	, MCS4			
		Emotional symptoms	Conduct problems	Hyper- activity	Peer problems	Pro-social	Total difficulties (sum of four problem behaviours)
Continued							
Northern Ireland	Mean Score SE Obs.	1.5 (0.0) 1341	1.3 (0.0) 1341	3.2 (0.1) 1339	1.1 (0.0) 1343	8.5 (0.0) 1343	7.1 (0.1) 1335
Ethnicity							
White	Mean Score SE Obs.	1.5 (0.0) 11359	1.4 (0.0) 11377	3.4 (0.0) 11355	1.1 (0.0) 11362	8.6 (0.0) 11377	7.4 (0.1) 11317
Mixed	Mean Score	1.6	1.5	3.5	1.5	8.5	8.0
	SE Obs.	(0.1) 363	(0.1) 365	(0.1) 364	(0.1) 365	(0.1) 365	(0.3) 363
Indian	Mean Score	1.6	1.4	3.4	1.6	8.6	8.0
	SE Obs.	(0.1) 317	(0.1) 317	(0.1) 316	(0.1) 315	(0.1) 318	(0.3) 313
Pakistani	Mean Score SE Obs.	2.1 (0.1) 543	1.6 (0.1) 550	3.9 (0.1) 534	2.0 (0.1) 547	8.3 (0.1) 553	9.4 (0.2) 523
Bangladesh i	Mean Score SE Obs.	2.2 (0.1) 200	1.3 (0.1) 201	3.6 (0.2) 195	2.0 (0.1) 200	8.3 (0.1) 202	9.1 (0.4) 192
Black	Mean Score	1.7	1.5	3.8	1.6	8.8	8.5
Caribbean	SE Obs.	(0.2) 151	(0.1) 151	(0.2) 150	(0.1) 152	(0.1) 152	(0.5) 150
Black	Mean Score	1.3	1.1	2.6	1.4	8.7	6.3
African	SE Obs.	(0.1) 229	(0.1) 229	(0.1) 227	(0.1) 228	(0.1) 227	(0.3) 226
Other	Mean Score SE	1.9 (0.1)	1.4 (0.1)	3.5 (0.2)	1.7 (0.1)	8.7 (0.1)	8.5 (0.4)
	Obs.	188	189	189	189	188	188

Notes: Sample includes all cohort members excluding second and third children in families with twins and triplets. For country-specific analyses means and standard errors are weighted by dovweight1, for all other analyses dovweight2 is used.

Table 8.3: \$	SDQ scores by	ethnicity witl	nin gender,	MCS4			
		Emotional symptoms	Conduct problems	Hyper- activity	Peer problems	Pro- social	Total difficulties (sum of four problematic behaviours)
White male	Mean score	1.5	1.5	3.8	1.2	8.3	8.0
	SE	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)
	Obs.	5785	5794	5785	5786	5796	5766
Mixed male	Mean score	1.5	1.6	4.0	1.6	8.1	8.8
	SE	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)	(0.4)
	Obs.	173	174	174	174	174	173
Indian male	Mean score	1.8	1.6	3.9	1.7	8.5	9.0
	SE	(0.2)	(0.1)	(0.2)	(0.1)	(0.1)	(0.4)
	Obs.	167	166	166	166	167	165
Pakistani	Mean score	2.1	1.8	4.3	2.1	8.0	10.2)
male	SE	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.3)
	Obs.	265	270	261	268	271	253
Bangla-	Mean score	21	1.6	4.0	22	7.8	9.9
deshi male	SE	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.6)
	Obs	92	92	90	93	93	89
Black	Mean score	1.6	17	43	1.5	87	9.1
Carib	SE	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.7)
male	Obs	84	83	(0.5)	84	84	83
Black	Mean score	1 /	1.2	29	1.6	84	7.0
African	SE	(0.2)	(0.1)	(0.2)	(0.2)	(0,1)	(0.5)
male	Obs	(0.2)	120	(0.2)	(0.2)	118	(0.3)
Other male	Mean score	2.0	1.5	37	1.8	85	0.1
Other male	SE	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.6)
	Obs	97	98	98	0.2)	97	(0:0)
White	Mean score	15	1.2	29	1.0	89	67
female	SE	(0,0)	(0,0)	(0,0)	(0,0)	(0,0)	(0.1)
Ternale	Obs	5574	5583	5570	5576	5581	5551
Mixed	Mean score	1 7	13	3.0	1 4	89	73
female	SE	(0,1)	(0,1)	(0.2)	(0,1)	(0,1)	(0.4)
Tornalo	Obs	190	191	190	191	191	190
Indian	Mean score	1 4	11	29	1.5	87	69
female	SE	(0,1)	(0,1)	(0.2)	(0,1)	(0,1)	(0.4)
Torrialo	Obs.	150	151	150	149	151	148
Pakistani	Mean score	2.0	1.4	3.5	1.9	8.5	8.7
female	SE	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.3)
	Obs.	278	280	273	279	282	270
Bangla-	Mean score	22	11	3.3	19	87	83
deshi	SE	(0.2)	(0.1)	(0.2)	(0.2)	(0.2)	(0.5)
female	Obs.	108	109	105	107	109	105
Black	Mean score	1.9	1.2	3.1	1.7	8.9	7.8
Carib.	SE	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.6)
female	Obs.	67	68	67	68	68	67
Black	Mean score	1.2	1.0	2.3	1.2	9.1	5,7
African	SE	(0.2)	(0.1)	(0.2)	(0.1)	(0.1)	(0,4)
female	Obs.	109	109	109	109	109	109
Other	Mean score	1.9	1.3	3.2	1.6	8.9	8.0
female	SE	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0,6)
-	Obs.	91 <sup>′</sup>	<b>.</b> 91	<b>9</b> 1	91	<b>.</b> 91	91

Notes: Sample includes all cohort members excluding second and third children in families with twins and triplets. Means and standard errors are weighted using dovweight2

Table 8.4: SDQ scores by languages spoken in home, family structure and parental qualifications,MCS4

		Emotional symptoms	Conduct problems	Hyper- activity	Peer problems	Pro- social	Total difficulties (sum of four problematic behaviours)
Languages spo	oken in home						
English only	Mean score	1.5	1.4	3.4	1.2	8.6	7.4
	SE	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)
	Obs.	11764	11783	11759	11768	11786	11718
English and	Mean score	1.8	1.4	3.5	1.6	8.5	8.2
other	SE	(0.0)	(0.0)	(0.1)	(0.0)	(0.0)	(0.1)
language	Obs.	1606	1616	1591	1611	1617	1573
Other language only	Mean score SE Obs.	1.4 (0.2) 73	1.5 (0.2) 73	3.4 (0.3) 72	1.4 (0.2) 73	8.3 (0.2) 73	7.7 (0.6) 72
Family structur	re						
Two natural parents	Mean score SE Obs.	1.4 (0.0) 9687	1.2 (0.0) 9705	3.1 (0.0) 9669	1.1 (0.0) 9687	8.6 (0.0) 9704	6.9 (0.1) 9628
Lone parent	Mean score	1.8	1.8	3.9	1.6	8.4	9.1
	SE	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)
	Obs.	2814	2825	2811	2824	2829	2795
Stepfamily	Mean score	1.8	1.9	4.3	1.6	8.4	9.6
	SE	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)
	Obs.	883	883	883	882	884	881
Other	Mean score	1.9	2.0	4.5	1.9	8.3	10.4)
	SE	(0.3)	(0.2)	(0.3)	(0.2)	(0.2)	(0.8)
	Obs.	59	59	59	59	59	59
Highest parent	al qualification						
NVQ Level 1	Mean score	1.8	1.7	3.9	1.5	8.5	8.8
	SE	(0.1)	(0.0)	(0.1)	(0.0)	(0.0)	(0.2)
	Obs.	1470	1470	1466	1469	1474	1456
NVQ Level 2	Mean score	1.5	1.4	3.5	1.2	8.6	7.7
	SE	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)
	Obs.	4824	4832	4817	4829	4834	4804
NVQ Level 3	Mean score	1.4	1.3	3.3	1.2	8.6	7.2
	SE	(0.0)	(0.0)	(0.1)	(0.0)	(0.0)	(0.1)
	Obs.	2188	2192	2187	2188	2191	2179
NVQ Level 4	Mean score	1.3	1.1	2.8	1.0	8.7	6.1
	SE	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)
	Obs.	3349	3358	3349	3350	3357	3335
NVQ Level 5	Mean score	1.3	1.1	2.9	1.0	8.5	6.4
	SE	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)
	Obs.	467	467	465	466	465	464
Overseas or	Mean score	2.2	2.0	4.4	2.0	8.0	10.5
other qual.	SE	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)	(0.4)
only	Obs.	263	263	259	262	265	254
No qualifications	Mean score SE Obs.	2.2 (0.1) 881	2.2 (0.1) 889	4.3 (0.1) 878	1.9 (0.1) 887	8.2 (0.1) 889	10.6) (0.2) 870

Notes: Sample includes all cohort members excluding second and third children in families with twins and triplets. Means and standard errors are weighted using dovweight2.

NVQ = National Vocational Qualification. Levels range from 1 (basic work activities that are routine and predictable) to 5 (senior management). Also includes academic qualifications (and Scottish equivalents), with NVQ1 being equivalent to some basic school-leaving qualifications and NVQ5 being equivalent to a postgraduate qualification or higher degree. Variable is qualification level of whichever parent has the higher qualification.

Table 8.5: SD	Q scores by pa	rental employ	ment and po	verty statu	ıs, MCS4		
		Emotional symptoms	Conduct problems	Hyper activity	Peer problems	Pro-social	Total difficulties (sum of four problematic behaviours)
Parental emplo	oyment						
Two parents	Mean score	1.3	1.1	3.0	(0.9)	8.7	6.4
employed	SE	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)
	Obs.	6550	6555	6549	6544	6554	6531
One parent	Mean score	1.6	1.5	3.5	1.4	8.6	7.9
employed	SE	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)
	Obs.	4680	4690	4669	4685	4689	4649
No parent	Mean score	2.1	2.1	4.2	1.8	8.2	10.2)
employed	SE	(0.0)	(0.0)	(0.1)	(0.0)	(0.0)	(0.1)
	Obs.	2213	2227	2204	2223	2233	2183
Poverty status							
Above 60%	Mean score	1.4	1.2	3.1	1.0	8.7	6.7
Median	SE	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)
	Obs.	9516	9529	9511	9514	9525	9484
Below 60%	Mean score	2.0	1.8	4.0	1.7	8.3	9.4
Median	SE	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)
	Obs.	3922	3938	3906	3933	3946	3874

Notes: Sample includes all cohort members excluding second and third children in families with twins and triplets. Means and standard errors are weighted using dovweight2.

## **Overall behavioural difficulties**

In addition to the above, parents were also asked to report whether overall, they thought that their child had difficulties in one or more of the following areas: emotions, concentration, behaviour or being able to get on with people.

Table 8.6 shows that in total just over a quarter felt that their child had minor difficulties, 5 per cent felt their child had definite difficulties and 2 per cent felt their child had severe difficulties. In almost six in ten cases (57%) where the parent indicated that their child had some form of difficulty this problem had been present for over a year. Difficulties which had arisen only recently were relatively rare (Table 8.7).

SDQ scores were very much related to responses to this overall question (Table 8.8). Children whose parents suggested they had severe difficulties in at least one of the areas listed in the general question had a mean SDQ score of 21.4 compared with a mean score of 5.3 amongst children whose parents suggested they had no difficulties.

Table 8.6: Parental assessment of whether child has difficulties in one or more of the following areas – emotions, concentration, behaviour or being able to get on with people, MCS4

	Obs	(%)
No	8992	(66.0)
Yes, minor difficulties	3476	(26.1)
Yes, definite difficulties	681	(5.4)
Yes, severe difficulties	182	(1.5)
Can't say	156	(1.1)
Unweighted sample size Weighted observations	13487 13536	(100.0)

Notes: Sample includes all cohort members excluding second and third children in families with twins and triplets. Means and standard errors are weighted using dovweight2.

Table 8.7: Parental assessment of how long difficulties have been present, MCS4					
	Obs	(%)			
Less than a month	216	(5.1)			
1–5 months	329	(7.3)			
6–12 months	565	(13.9)			
Over a year	2459	(57.0)			
Can't say	770	(16.7)			
Unweighted sample size	4339				
Weighted observations	4462				

Notes: Sample includes all cohort members whose mothers report some difficulty (excluding second and third children in families with twins and triplets). Means and standard errors are weighted using dovweight2.

Table 8.8: SDQ Total Diffi difficulties, MCS4	culty Score by parental asses	ssment of whether child has
		SDQ Total Difficulty Score
No difficulties	Mean score	5.3
	SE	(0.0)
	Obs.	8955
Minor difficulties	Mean score	10.7
	SE	(0.1)
	Obs.	3440
Definite difficulties	Mean score	17.0
	SE	(0.2)
	Obs.	675
Severe difficulties	Mean score	21.4
	SE	(0.4)
	Obs.	175

Notes: Sample includes all cohort members excluding second and third children in families with twins and triplets. Means and standard errors are weighted using dovweight2.

# Conclusions

This chapter has provided a summary of child behaviour at age 7 as measured by the Strengths and Difficulties Questionnaire (SDQ). As was observed at both age 3 and age 5 there are some striking differences between children from advantaged and disadvantaged backgrounds. Significantly fewer behavioural problems are reported for children living in families with higher levels of parental gualifications or in families with two working parents. There is also a significant difference between boys and girls, as also seen in the previous sweeps of the study. Boys were twice as likely as girls to display serious behaviour problems. Boys were significantly more likely to exhibit conduct problems, peer problems and hyperactivity. Children in England showed higher rates of borderline problems than children growing up in Scotland, Northern Ireland or Wales. There were also differences between ethnic groups, with mothers of black African children reporting the lowest rates of problematic behaviour and black Caribbean mothers the highest. Children living in two-parent families showed fewer behaviour problems than those in other family arrangements, whereby children in stepfamilies appear to be most at risk for serious behaviour problems (see also Parry-Langdon, 2008).

The findings suggest that there are multiple influences on behavioural adjustment among school-aged children, and future studies might examine in more detail the role of parental characteristics and parent–child interactions, as well as characteristics of the school environment and the neighbourhood (Ford et al., 2003).

Behavioural problems at age 7 were also found to be strongly associated with earlier problems (at age 3 and age 5) indicating that these problems are fairly consistent over time (Parry-Langdon, 2008), although turning points and reversal of behaviour trends might also be possible.

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### **Chapter 9**

# **CHILD HEALTH**

#### Dylan Kneale

#### **Chapter overview**

This chapter examines the health of MCS children at age 7 and the patterns that emerge in relation to country at birth, gender, ethnicity, mother's age, family type, family work status, parental education and socioeconomic status. The chapter is divided into two parts:

- Part 1 is about health, illness and disability and looks at general health, longstanding conditions, allergies and accidents.
- Part 2 is about fitness, lifestyle and health and looks at physical activity and sport, diet, body mass and sleeping habits, and how these may interrelate.

#### Introduction

The Millennium Cohort Study (MCS) provides a resource for examining children's health, illnesses and development in the context of their family and environs. This chapter examines the health of MCS children at age 7 in 2008. Previous sweeps at ages 9 months, 3 and 5 years have found the majority of parents happy with their child's health and development. At 9 months, over 90 per cent of mothers were untroubled by their child's development (Dezateux et al., 2004). At 3 years almost 85 per cent of mothers reported no longstanding illness (Dezateux et al., 2007); dropping at age 5 to 81 per cent (Sullivan and Joshi, 2008). However, these reports also showed that illness was patterned by ethnic and socioeconomic characteristics, with children from more disadvantaged families having more longer-standing illness and lower levels of general health. This chapter examines the extent to which these inequalities have persisted, as well as looking at the overall picture of child health at age 7. The MCS is ideally placed to do this, as it provides the largest sample of children of this particular age group in the UK as well as a sample structure that allows for analysis within subgroups.

This chapter will report on general and longstanding health, longstanding conditions and disability, and infectious diseases by country at birth, gender, ethnicity, mother's age, family type and socioeconomic status. However, the chapter also covers several topics of current concern to policy-makers: children's diet, measures of obesity, activity levels, sleeping habits and allergies. The analysis is descriptive and offers mainly two-way cross-sectional comparisons that do not constitute evidence of causal relationships. A further caveat is that most of the information presented in this chapter is based on reports from cohort members' parents (97% of whom are mothers) and may not necessarily represent confirmed medical diagnosis. This chapter analyses information for the first child only in multiple births, and uses data from all main respondents, unless otherwise specified. The chapter has two parts. The first examines childhood health, accidents, illness and disability, and the second behavioural and lifestyle health factors and the relationship with body mass.

### Part 1: Health, illness and disability

#### General health

Most children aged 7 were reported to be in excellent or very good health (87%), a slight improvement compared with health status at age 5 (84%) (Sullivan and Joshi, 2008). Less than half of 1 per cent of children were reported to be in poor health, and in total 3 per cent were described as being in fair or poor health (poor and fair are collapsed into a single category from now on). These figures represent the main respondents' (usually the mother's) perception of child health. In a Scottish study of 11-year-olds, 47 per cent of boys and girls described their health as 'good' (the highest rating in this particular survey; 'excellent' is the highest in the MCS) while their parents rated 77 per cent of boys' and 79 per cent of girls' health as good (Sweeting and West, 1998). Parental assessment therefore may not necessarily reflect the child's perception of their own health, although this may not necessarily be directly applicable to the 7-year-olds studied here. General health varied by most background characteristics with the exception of country (Table 9.4) - this differs from age 5 where children outside England were reported to have higher levels of excellent health. Boys were less likely to have excellent or very good health as were children of younger mothers, and children from reconstituted or lone-parent families (Tables 9.2 and 9.5). Non-white children (with the exception of black African children, whose health does not differ significantly from that of white children (Figure 9.1)) and children from families with low qualifications were also more often reported in poorer health (Table 9.1). There was a strong socioeconomic gradient to children's health children whose family income was under 60 per cent of the median income were twice as likely to have only good or fair/poor health compared to children from better off families (Table 9.6) - similar differentials were observed with family social class (Table 9.7), and family work status (Table 9.3). Children of younger mothers were most likely to be in poor health (Table 9.5), although there was little difference between teenage mothers and mothers who gave birth in their twenties. The benefit to child health associated with older motherhood peaks at the mid thirties.

Table 9.1: Child's general health by Highest Parental Qualification (both parents combined) MCS4 <sup>1</sup>								
	No	Overseas/ other	NVQ L1 (< 5 GCSE A-	NVQ L2 (5 GCSE A-C/	NVQ L3 (2+ A-	NVQ L4 (Degree	NVQ L5 (Higher Degree	Total
	Quais	Quais	C)	I A-Level)	Level)	Level)	Level)	Total
	452	132	309	1649	1310	3121	1191	8164
Excellent	(46.8)	(46.0)	(48.8)	(54.8)	(59.9)	(65.2)	(68.8)	(59.8)
	328	82	235	885	617	1254	412	3813
Very Good	(32.9)	(27.1)	(34.4)	(28.9)	(27.5)	(25.7)	(23.4)	(27.5)
	145	57	84	375	211	378	116	1366
Good	(14.1)	(19.8)	(11.8)	(12.1)	(9.6)	(7.6)	(6.4)	(9.8)
	75	21	33	122	80	82	24	437
Fair/Poor	(6.2)	(7.1)	(4.9)	(4.2)	(3.0)	(1.5)	(1.3)	(3.0)
Total Per Cent	100	100	100	100	100	100	100	100
Observed Number Weighted Number	1000 (1016)	292 (270)	661 (728)	3031 (3216)	2218 (2185)	4835 (4745)	1743 (1623)	13780 (13783)
								p=0.17

*Note:* Cells display unweighted cell size and weighted percentage in parentheses. Weighted cell counts are shown in the bottom row. The weights are dovwt2 to allow for sample design in a UK sample and attrition to Sweep 4. Sample includes first child only (excluding second or third twin/triplet).

<sup>1</sup>Highest Parental Qualification is the highest qualification between the two parents in couples, and the highest qualification of either the lone mother or the lone father in one-parent families. Because of difficulty in reconciling overseas qualifications with UK equivalents, any UK qualification is taken as the highest. This assumption is made throughout the chapter and affects 650 families.

	Two Natural Parents	Reconstituted and other Families	Lone-parent Families	Total
<b>– – – –</b>	6049	534	1581	8164
Excellent	(62.2)	(56.3)	(55.6)	(60.2)
	2696	269	849	3814
Very Good	(26.7)	(27.9)	(28.9)	(27.3)
	936	108	322	1366
Good	(8.7)	(11.8)	(11.0)	(9.5)
	265	39	133	437
Fair/Poor	(2.4)	(4.0)	(4.5)	(3.0)
Total Percentage	100	100	100	100
Observed Number	9946	950	2885	13781
Weighted Number	(9570)	(1108)	(3099)	(13777)

Notes: As Table 9.1.

Table 9.3: Child's general health by Family Work Status MCS4							
	No Parent Working – 2 Parent/ Other Family	No Parent Working – Lone-parent Family	One Parent Working – 2 Parent/ Other Family	One Parent Working – Lone-parent Family	Two Parents Working	Total	
Excellent	304	713	1824	868	4361	8070	
	(46.4)	(50.4)	(56.9)	(61.2)	(65.5)	(60.3)	
Very Good	224	465	948	384	1754	3775	
	(31.2)	(31.2)	(27.8)	(26.4)	(25.9)	(27.3)	
Good	128	203	407	119	493	1350	
	(17.3)	(12.8)	(11.5)	(9.1)	(7.0)	(9.5)	
Fair/Poor	41	90	140	43	115	429	
	(5.1)	(5.6)	(3.8)	(3.3)	(1.6)	(3.0)	
Total Percentage	100	100	100	100	100	100	
Observed Number	697	1471	3319	1414	6723	13624	
Weighted Number	(693)	(1591)	(3258)	(1501)	(6582)	(13625)	
						p<0.01	

Notes: As Table 9.1.

Table 9.4: Child's general health by Country MCS4							
	England	Wales	Scotland	Northern Ireland	Total		
	5078	1259	1024	803	8164		
Excellent	(59.3)	(63.2)	(62.3)	(59.3)	(60.2)		
	2471	525	430	388	3814		
Very Good	(27.6)	(26.0)	(26.8)	(28.1)	(27.3)		
	952	165	123	126	1366		
Good	(10.0)	(8.0)	(8.4)	(9.7)	(9.5)		
	299	60	36	42	437		
Fair/Poor	(3.1)	(2.9)	(2.5)	(2.9)	(3.0)		
Total Percentage	100	100	100	100	100		
Observed Number	8800	2009	1613	1359	13781		
Weighted Number	(8797)	(2009)	(1613)	(1358)	(13777)		
					p=0.09		

Notes: As Table 9.1.

Table 9.5: Child's general health by Mother's Age at Birth of Cohort Member Child MCS4						
	Teenage at Birth of CM	20-24 yrs at Birth of CM	25-29 yrs at Birth of CM	30-34 yrs at Birth of CM	Over 35 yrs at Birth of CM	Total
Excellent	485 (54.1)	1228 (53.6)	2211 (60.6)	2609 (63.6)	1549 (64.1)	8082 (60.3)
Very Good	277 (30.1)	680 (28.9)	1012 (27.2)	1150 (26.7)	645 (25.2)	3764 (27.2)
Good	116 (11.8)	337 (13.5)	358 (9.2)	343 (7.6)	203 (8.1)	1357 (9.5)
Fair/Poor	40 (4.1)	106 (4.0)	119 (3.0)	95 (2.2)	70 (2.6)	430 (2.9)
Total Per Cent	100	100	100	100	100	100
Observed Number Weighted Number	918 (1069)	2351 (2420)	3700 (3732)	4197 (3999)	2467 (2373)	13633 (13593)
						p<0.01

Notes: Notes: As Table 9.1.Includes all mothers, regardless of whether main or partner respondent.
Table 9.6: Child's general health by Poverty Status MCS4								
		Below 60% of median						
	Above 60% of median income	income	Total					
Excellent	6120	2040	8160					
	(64.1)	(51.0)	(60.2)					
Very Good	2549	1261	3810					
	(26.0)	(30.3)	(27.3)					
Good	757	608	1365					
	(7.7)	(13.7)	(9.5)					
Fair/Poor	202	235	437					
	(2.1)	(5.0)	(3.0)					
Total Per Cent	100	100	100					
Observed Number	9628	4144	13772					
Weighted Number	(9755)	(4022)	(13777)					
			p<0.01					

Notes: As Table 9.1.

Table 9.7: Child's general health by Highest Parental Social Class MCS4									
	Professional/ Managerial	Lower than Professional/	No Job or Unclassified	Total					
<b>F H</b> (	Occupation		40.40	10101					
Excellent	3696	3107	1343	8146					
	(68.3)	(57.8)	(50.3)	(60.3)					
Very Good	1319	1604	870	3793					
	(24.0)	(28.5)	(30.7)	(27.2)					
Good	365	567	431	1363					
	(6.3)	(10.2)	(14.0)	(9.5)					
Fair/Poor	77	197	160	434					
	(1.3)	(3.5)	(5.0)	(3.0)					
Total Per Cent	100	100	100	100					
Observed Number	5457	5475	2804	13736					
Weighted Number	(5418)	(5417)	(2888)	(13724)					
				p<0.01					



Figure 9.1: Child's general health by ethnicity and by gender MCS4

Overall, the picture was of improved general health status between age 5 and age 7 with some children experiencing rapid gain; for example 16 per cent of those described as being in fair or poor health at age 5 were said to be in excellent health at age 7 (Table 9.8). Health among more disadvantaged children was the most changeable. Children who were Pakistani, Bangladeshi; with young mothers; or poorly qualified parents were most likely to have falling parental-rated health. These groups were also most likely to experience improved health status between sweeps (no table shown).

Table 9.8: Child's general health from Age 5 to Age 7 (MCS3 and 4)									
		Age 5							
		Excellent	Very Good	Good	Fair/Poor	Total			
Age 7		5336	1925	450	91	7802			
-	Excellent	(80.2)	(49.9)	(28.3)	(16.4)	(62.1)			
		1147	1630	678	162	3617			
	Very Good	(16.0)	(38.8)	(40.6)	(27.0)	(26.5)			
		266	431	432	161	1290			
	Good	(3.3)	(9.4)	(25.1)	(30.6)	(8.9)			
		49	87	109	162	407			
	Fair/Poor	(0.6)	(1.9)	(6.0)	(26.0)	(2.6)			
	Total Per Cent	100	100	100	100	100			
	Observed Number	6798	4073	1669	576	13116			
	Weighted Number	(7238)	(4235)	(1668)	(508)	(13650)			
						p<0.01			

Notes: As Table 9.1. Sample includes only those with valid responses at both sweeps. Analysis that uses information from different sweeps in this chapter uses original sample weight (weight2); results were cross-checked using latest attrition weights with the overall trends remaining.

Notes: As Table 9.1. Numbers on the horizontal axis are unweighted sample sizes

#### III-health

Main respondents were asked about longstanding conditions (illness, disability or infirmity) that affected the cohort child. These conditions were subjective in nature and defined by the parents; no parameters were set on the severity of the condition except that longstanding was defined as having affected the cohort child for some time, or was likely to do so. These conditions are grouped in Table 9.13. In total, 21 per cent of boys and 17 per cent of girls were reported to be suffering from such a condition. This is lower than has been found for other surveys of similar age groups. Data from the General Household Survey and Family Fund Trust's register of applicants combined, suggest that, among children aged 5-9 years, 25 per cent of boys and 18 per cent of girls had a longstanding illness or disability in 2000 (parental reports; parents were asked identical questions). However, the rates of longstanding serious conditions were lower among these 5-9 year olds (12 per cent of boys and 5 per cent of girls) (Nessa, 2004) compared to the rates of *limiting* conditions among the MCS. The disparity in these MCS data between the proportion of children who had fair or poor health (3%) and the proportion with at least one longstanding condition (19%) suggests that many of the longstanding conditions are not necessarily limiting activity. Here, we are interested in the number of long-term conditions as well as the nature of those conditions. Approximately 15 per cent of children had one long-term condition and 4 per cent had two or more. Longstanding conditions are socially patterned in much the same way as general health. However, the strength of the relationships is noticeably weaker, and in some cases changes direction. There were no significant country differentials in the prevalence of longterm conditions (not shown).

Qualification (	Qualification (both parents combined) MCS4										
	No Quals	Overseas Quals	NVQ L1 (< 5 GCSE A– C)	NVQ L2 (5 GCSE A–C/1 A- Level)	NVQ L3 (2+ A- Level)	NVQ L4 (Degree Level)	NVQ L5 (Higher Degree Level)	Total			
No condition	780 (77.0)	231 (77.4)	525 (79.4)	2431 (79.7)	1804 (81.4)	3971 (81.8)	1452 (83.4)	11194 (80.9)			
One condition	163 (17.7)	43 (16.2)	107 (16.8)	462 (15.8)	311 (13.8)	684 (14.3)	228 (12.9)	1998 (14.8)			
Two or more conditions	56 (5.3)	18 (6.4)	29 (3.8)	136 (4.5)	102 (4.8)	180 (4.0)	62 (3.8)	583 (4.3)			
Total Per Cent	100	100	100	100	100	100	100	100			
Observed Number Weighted Number	999 (1015)	292 (270)	661 (728)	3029 (3213)	2217 (2184)	4835 (4745)	1742 (1622)	13775 (13778)			
								n-0.03			

 Table 9.9: Longstanding Conditions among Cohort Member Children by Highest Parental

 Qualification (both parents combined) MCS4

Notes: As Table 9.1.

A trend corresponding to decreasing rates of longstanding conditions among children whose parents had higher qualifications was observed (Table 9.9). Children whose parents had no qualifications were most likely to have one longstanding condition (18%), or more than one (5%), while those whose parents had higher degrees or equivalent (NVQ5) had the lowest rates (13% and 4% respectively). Children from lone-parent families were more likely than others to be reported as having more than

one longstanding condition (6%, Figure 9.2), particularly where the parent was not working (7%). Socioeconomic differentials were also observed when examining poverty indicators and highest parental social class (Table 9.10). Mother's age played only a weak and statistically insignificant role in patterning rates of longstanding conditions (not shown). The child's ethnicity was significantly associated with longstanding conditions, although did not correspond directly with previous results (Table 9.11). A higher proportion of black Caribbean children had at least one longstanding condition than any other ethnic group (26%). Despite lower levels of reported good general health, Bangladeshi and Pakistani children had noticeably low levels of longstanding conditions (under 15%). Black African children had the lowest levels of longstanding condition of any group (11%).

Table 9.10: C	able 9.10: Child's general health by Poverty Status and Highest Parental Social Class MCS4									
	Po	verty Status		Highest Parental Social Class						
	Above 60% of median income	Below 60% of median income	Total	Professional/ Managerial Occupation	Lower than Professional/ Managerial Occupation	No Job or Unclass- ified	Total			
No condition	7949 (82.4)	3237 (77.0)	11186 (80.9)	4533 (82.8)	4503 (81.7)	2126 (75.7)	11162 (80.9)			
One condition	1314 (13.7)	683 (17.5)	1997 (14.8)	739 (13.7)	754 (14.2)	494 (17.8)	1987 (14.8)			
Two or more conditions	362 (3.9)	222 (5.5)	584 (4.3)	183 (3.5)	217 (4.0)	182 (6.6)	582 (4.3)			
Total Per Cent	100	100	100	100	100	100	100			
Observed Number										
Weighted Number	9625 (9753)	4142 (4019)	13767 (13772)	5455 (5418)	5474 (5416)	2802 (2885)	13731 (13719)			
			p<0.01				p<0.01			

Notes: As Table 9.1.

Table 9.11: Longstanding Conditions among Cohort Members by Child's Ethnicity MCS4									
	White	Mixed	Indian	Pakistani	Bangladeshi	Black Caribbean	Black African	Other Ethnicity	Total
	9279	293	287	518	207	116	232	180	11112
No condition	(80.6)	(77.0)	(82.7)	(85.8)	(85.1)	(74.5)	(89.6)	(81.6)	(80.9)
	1695	63	39	77	33	30	20	29	1986
One condition	(15.0)	(19.6)	(13.1)	(9.9)	(12.7)	(19.2)	(8.1)	(13.6)	(14.8)
Two or more	494	14	13	25	5	8	5	13	577
conditions	(4.4)	(3.4)	(4.2)	(4.3)	(2.1)	(6.3)	(2.3)	(4.7)	(4.3)
Total Per Cent	100	100	100	100	100	100	100	100	100
Observed Number	11468	370	339	620	245	154	257	222	13675
Weighted Number	(11675)	(447)	(263)	(476)	(160)	(163)	(249)	(216)	(13649)
	p=0.03								

## Figure 9.2: Longstanding Conditions among Cohort Member Children by Family Type and Family Work Status MCS4



A substantial number of children developed longstanding conditions between age 5 and age 7 although even more were no longer suffering from these conditions (Table 9.12). In terms of seeking treatment (for long-standing conditions), of those reporting longstanding conditions, under half (45%) were taking regular medication. This suggests that either the longstanding conditions are not severe, or that many of the longstanding conditions are undiagnosed medically reflecting the subjectivity of the question. Respondents were asked to describe the nature of the longstanding condition, which was coded and then grouped according to World Health Organization ICD-10 categories (World Health Organization 2004). We examine the first condition stated here; most longstanding illnesses were respiratory conditions, with skin and ear/eye conditions also being relatively common (Table 9.13). These nevertheless occurred too rarely for further analyses. However, there were indications that black Caribbean and mixed ethnicity children were more heavily burdened by respiratory conditions, which may account for elevated rates of longstanding conditions among both groups.

(1103 3 anu4 )			
	4	Age 5	
	One or more condition	No condition	Total
	1090	9571	10661
No condition	(41.7)	(90.9)	(81.4)
	1475	969	2444
One or more conditions	(58.3)	(9.1)	(18.6)
Total per cent	100	100	100
Observed number	2565	10540	13105
Weighted number	(2654)	(10984)	(13638)
			p<0.01

Table 9.12: Longstanding Conditions among Cohort Member Children Age 5 to Age 7 (MCS 3 and4)

Notes: As Table 9.8. Sample includes only those with valid responses at both sweeps.

Table 9.13: Longstanding Illness by type MCS4							
	Unweighted Number	Weighted Percentage					
No illness	11194	80.9%					
Respiratory conditions	976	7.0%					
Skin disease	330	2.4%					
Eye and ear conditions	272	2.0%					
Mental and behavioural disorders	162	1.3%					
Unclassified	156	1.2%					
Digestive diseases	107	0.8%					
Congenital defects	94	0.8%					
Nervous system diseases	83	0.7%					
Injuries, poisoning etc	87	0.6%					
Musculo-skeletal system diseases	83	0.6%					
Genito-urinary diseases	60	0.5%					
Endocrinal diseases	46	0.4%					
Blood disorders	31	0.2%					
Other less common	30	0.2%					
Undiagnosed conditions	21	0.2%					

Table 9.13: Longstanding Illness by type MCS4							
Continued							
Circulatory diseases	23	0.2%					
Infectious diseases	12	0.1%					
Neoplasms	7	0.0%					
Total	13774						

*Notes:* As Table 9.1. Sample and includes only those with valid responses at both sweeps. This table displays first reported condition – it does not show how many suffer from two or more conditions

We now turn to data collected at age 7 on the lifetime incidence of a number of conditions, both longstanding and acute, that could have occurred at any time so far. Most conditions showed the familiar social gradient seen in longstanding illness and general health. However, some conditions showed elevated rates among more advantaged children – eczema and hay fever for example.<sup>19</sup>

Hay fever, asthma and allergies are usually linked with each other in the literature (Kaila et al., 2009; Pujades-Rodríguez et al., 2009; Victorino and Gauthier, 2009). In a Finnish cohort of children, children with allergies at age 5 were eight times more likely to have an allergy at age 18 and seven times more likely to have asthma (Kaila et al., 2009). In other child data (5–9 years), asthma was identified as the most common longstanding illness (Nessa, 2004). MCS shows a similar profile with 16 per cent of children having suffered from asthma at some point, although more children had experience of acute conditions such as wheezing and measles. Despite their links in the literature, asthma and eczema have different social profiles in these data. Suffering from eczema at any point is more likely to be reported by children from advantaged homes. The reverse is true for asthma. For example, children of parents who held degrees had high levels of eczema (38%) compared to those whose parents had no or low qualifications (26%). In the case of asthma, the contrast was reversed – 14 per cent of children with parents who were graduates had experienced asthma compared to 19 per cent of children whose parents had no or low qualifications (Table 9.16). In fact, asthma appears to have a complex social profile in bivariate analysis. Having an older mother, usually an indicator of social advantage, was associated with higher levels of asthma (Table 9.15). Black Caribbean and mixed ethnicity were also associated with higher levels of asthma (Table 9.14), corroborating earlier results (Dezateux et al., 2007 for age 3). Being black Caribbean, black African or of mixed ethnicity was associated with particularly high rates of hay fever, almost twice the rates of white children. Boys were more likely to suffer from asthma, eczema and hay fever (Table 9.15) as has been found elsewhere (Nessa, 2004). Children in Northern Ireland were the least likely to suffer from eczema (26%) and hay fever (13%), while children in England were the most likely (35% and 16% respectively) – (not shown).

In the previous sweep, just 0.8 per cent of children had ever been diagnosed with Attention Deficit and Hyperactivity Disorder (ADHD) (Sullivan and Joshi, 2008). By age 7 this had almost doubled to 1.4 per cent representing 180 cases (unweighted).

<sup>&</sup>lt;sup>19</sup> We do not present analyses for tuberculosis, where just six children were reported as ever suffering from the disease, though there were 16 such reports at age 5 (Sullivan and Joshi, 2008). We also do not present statistics on chicken pox due to the high levels of missing data.

ADHD was associated with disadvantaged children. Children from families where parents had no qualifications were twice as likely to have been diagnosed with ADHD as those from families where a parent had a degree level qualification (2.1% compared to 1.0%) - similar differentials were observed with social class and poverty. ADHD is said to begin during pre-school years and continue throughout the lifecourse, although the symptoms may vary with age (Schmidt and Petermann, 2009). As all MCS children would have started school, the symptoms should now be apparent outside the family. However, given that the prevalence among the MCS is much lower than in other comparison populations - for example Schmidt and Petermann report a prevalence of 5–7 per cent amongst a cohort of German school age children – this total could be expected to rise. Despite ADHD having a strong genetic component, there were no significant ethnic differences in its prevalence among MCS children; however there were indications of country differences which achieved borderline statistical significance. Northern Irish children were twice as likely to have been diagnosed as Welsh children (2.4% vs 1.2%). As elsewhere in the literature, boys suffered a heavier burden of ADHD than girls.

Tables 10.14 to 10.16 include the proportion of cohort members whose schools have told parents that they have Special Education Needs (SEN). As set out by the 1996 Education Act, 'children have special educational needs if they have a learning difficulty which calls for special educational provision to be made for them. Children have a learning difficulty if they:

- a) Have more significant delay in learning than children of the same age.
- b) Have a disability which prevents or hinders them from making use of educational facilities generally provided for children of the same age in schools within the area of the local education authority.
- c) Are under compulsory school age and fall within the definitions a) or b) above, or would do so if special educational provision was not made for them. (Lindsay et al., 2006)

Under this definition, besides being a measure of child development and educational adjustment, SEN can be informative about physical health. We see many of the patterns for general health and ill-health repeated in SEN. More advantaged children – those from homes where parents hold higher qualifications and from homes where both biological parents are present – are those least likely to have SEN. For example children whose lone parent is not working are almost twice as likely to have SEN as those whose parents are a dual-earner couple (14% compared to 7%). Unlike other studies (for example Lindsay et al., 2006), no significant ethnic differences were found. However, these bivariate analyses group SEN into a single category – many of the specific ethnic differences that have been found relate to specific domains of SEN.

## Table 9.14: Experience of Illnesses and other conditions among Cohort Member Children by Ethnicity MCS4

Ethnicity MCS4									
	White	Mixed	Indian	Pakistani	Bangladeshi	Black Caribbean	Black African	Other Ethnicity	Total
Ever had wheezing (%)	27.3	30.2	23.2	23.2	16.3	39.2	18.5	18.9	26.9
Observed Number	11473	369	338	620	245	154	257	222	13678
Weighted Number	11681	445	262	476	160	163	249	216	13652
Ever had Asthma (%)	16.2	21.4	15.7	16.8	15.3	22.8	10.0	14 1	μ<0.01 16.3
Observed Number	11448	366	339	620	244	154	257	222	13650
Weighted Number	11652	439	263	476	159	163	249	216	13617
									p=0.05
Ever had Eczema (%)	35.3	38.0	32.4	22.2	19.9	39.1	37.1	29.7	34.7
Observed Number	11467	370	339	620	245	154	257	222	13674
	11075	447	203	470	100	105	249	210	p<0.01
Ever had Hay fever (%)	14.7	26.1	23.0	13.5	13.9	28.0	29.3	18.2	15.6
Observed Number	11419	368	338	620	245	153	257	221	13621
Weighted Number	11621	444	262	476	160	162	249	215	13590
Ever had Measles (%)	27	37	2.0	53	3.0	2.8	3.0	3.8	p<0.01
Observed Number	10968	347	324	579	234	2.0 146	244	213	13055
Weighted Number	11186	413	250	444	154	153	235	210	13044
						•			p=0.21
Ever had Whooping Cough (%)	1.1	1.0	0.2	1.3	1.8	0.0	0.0	0.5	1.0
Observed Number	11248	363	337	601	240	153	256	220	13418
Weighted Number	11456	441	262	459	158	162	247	215	n=0.62
Ever had ADHD (%)	1.5	1.1	0.7	1.2	0.2	0.8	0.4	0.2	<u>p=0.02</u> 1.4
Observed Number	11444	367	338	620	245	154	257	222	13647
Weighted Number	11653	444	262	476	160	163	249	216	13623
	,								p=0.21
Ever had Autism/Behavioural	1 0	2.2	0.2	1 1	0.0	0.0	2 5	17	17
(%) Observed Number	1.0 11454	369	339	620	0.9 245	0.0 154	257	222	13660
Weighted Number	11658	447	263	476	160	163	249	216	13631
									n=0.52
Ever had Eye Condition (%)	17.4	18.3	15.2	17.5	13.9	16.3	9.1	11.9	17.1
Observed Number	11469	370	339	620	245	154	257	222	13676
Weighted Number	11676	447	263	476	160	163	249	216	13650
									p=0.03
Ever had Ear Condition (%)	13.1	8.9	11.3	9.5	4.1	3.3	5.9	3.1	. 12.3
Observed Number	11468	370	339	620	245	154	257	222	13675
Weighted Number	11673	447	263	476	160	163	249	216	13646
Night Bedwetting (%)	15.0	15.0	70	90	55	20.1	21.2	11.0	p<0.01
Observed Number	11473	370	330	0.0 618	5.5 244	29.1 154	∠1.3 257	222	14.9
Weighted Number	11681	447	263	474	160	163	237	216	13652
			00	.,,	100	100	210		p<0.01
Special Education Needs (%)	9.2	7.5	4.6	5.3	4.5	8.2	6.2	10.2	8.8
Observed Number	11455	366	339	620	245	153	256	222	13656
Weighted Number	11658	442	263	476	160	162	248	216	13624
									p=0.13

## Table 9.15 Experience of Illnesses and other conditions among children by Family Type, Gender and Mother's Age MCS4

		Family Type		Child's	s Gender	Moth	er's Age	
	Two		Lone-			Teenage	Not	
	Natural	Reconstituted	parent			at Birth of	Teenage at	Total
	Parents	Family/Other	Family	Male	Female	СМ	Birth of CM	Freq
Ever had wheezing (%)	25.6	29.8	29.9	31.2	22.5	29.0	26.9	27.0
Observed Number	9945	950	2884	6995	6784	917	12714	13631
Weighted Number	9569	1122	3091	7088	6693	1068	12524	13591
	•		p<0.01		p<0.01		p=0.19	
Ever had Asthma (%)	14.7	21.1	19.7	19.2	13.4	20.3	16.0	16.4
Observed Number	9920	949	2882	6981	6770	916	12687	13603
Weighted Number	9538	1121	3087	7071	6675	1067	12490	13556
			p<0.01		p<0.01		p<0.01	
Ever had Eczema (%)	35.3	32.4	33.3	35.4	33.8	30.7	35.0	34.7
Observed Number	9942	950	2883	6995	6780	918	12709	13627
Weighted Number	9565	1122	3091	7088	6689	1069	12518	13588
			p=0.11		p=0.08		p=0.02	
Ever had Hay fever (%)	15.2	13.7	17.3	18.0	13.0	15.5	15.7	15.7
Observed Number	9901	945	2875	6967	6754	911	12662	13573
Weighted Number	9524	1114	3078	7056	6660	1062	12465	13527
	I		p=0.01		p<0.01		p=0.86	
Ever had Measles (%)	2.6	4.3	3.5	2.9	2.9	4.0	2.8	2.8
Observed Number	9552	893	2704	6658	6491	873	12145	13018
Weighted Number	9202	1052	2911	6754	6411	1021	11976	12997
			p<0.01		p=1.00		p=0.06	
Ever had Whooping	1.0						1.0	4.0
Cougn (%)	1.0	1.1	1.1	1.1	0.9	1.2	1.0	1.0
Observed Number	9790	925	2802	6851	6666	885	12487	13372
weighted Number	9423	1092	3013	0949	0079	1033	12311 n 0.61	13344
	1.0	24	p=0.64	2.2	p=0.36	2.4	p=0.61	1 /
Observed Number	0028	2.4	2.4	2.3 6071	6777	2.4	1.4	13600
Weighted Number	9920	947 1118	2073	7067	6685	1062	12000	13562
Weighted Number	3001	1110	n<0.01	1001	n<0.01	1002	n=0.03	10002
Ever had Autism/			p<0.01		p<0.01		p=0.00	
Behavioural (%)	1.3	2.4	2.6	2.7	0.6	1.5	1.7	1.7
Observed Number	9932	949	2880	6979	6782	918	12695	13613
Weighted Number	9555	1122	3084	7067	6693	1069	12501	13570
			p<0.01		p<0.01		p=0.52	
Ever had Eye Condition								
(%)	15.8	21.8	19.2	17.5	16.7	18.4	17.0	17.1
Observed Number	9942	950	2885	6995	6782	918	12711	13629
Weighted Number	9565	1122	3092	7088	6691	1069	12520	13589
			p<0.01		0.32		p=0.37	
Ever had Ear Condition								
(%)	12.1	13.1	12.5	13.2	11.3	11.8	12.4	12.3
Observed Number	9943	949	2884	6992	6784	918	12710	13628
Weighted Number	9566	1119	3091	7082	6693	1069	12516	13586
			p=0.69		0.01		0.61	
Night Bedwetting (%)	14.6	13.7	16.5	19.0	10.6	11.9	15.2	14.9
Observed Number	9943	950	2885	6994	6784	917	12713	13630
Weighted Number	9567	1122	3092	7088	6693	1069	12522	13591
On a sight Education			p=0.04		p<0.01		p=0.03	
Special Education	7.0	10.4	44.4	10.0	FO	107	0.0	0.0
Needs (%)	0.20	10.4	11.4	12.3	5.2	10.7	8.6 10004	8.8
Weighted Number	9930	949	2018	7067	0///	915	12094	13009
	9001	1119	3083	1001	1000	1064	12500	13004
			p<0.01		p<0.01		p=0.10	

## Table 9.16 Experience of Illnesses and other conditions among Children by Parental Education, Poverty and Social Class MCS4

	r							
	Highes	st Parental I	Education	Povert	y Status	Highest So	cial Class	
	No UK							
	Quals/							
	NVQ 1	NVQ	NVQ	Above	Below			
	(< 5 A-	Level 2/3	Level 4/5	60% of	60% of		Other or	Total
	C	(5 A - C +	(Degree /	median	median	Professional/	No Social	Frea
	GCSE)	A-Level)	Higher)	income	income	Managerial	Class	-
Ever bad wheezing (%)	28.1	27.8	25.0	26.1	20.0	25.7	27.8	27.0
Observed Number	20.1	£27.0	25.9	20.1	29.0	23.7	27.0	12724
	1952	5249	0077	9020	4142	5457	02/1	13734
weighted Number	2013	5401	6367	9755	4020	5418	8304	13722
	1		p=0.09		p<0.01		p=0.03	
Ever had Asthma (%)	18.5	17.8	14.5	14.9	19.8	13.8	18.0	16.3
Observed Number	1952	5232	6566	9605	4137	5446	8260	13706
Weighted Number	2013	5378	6355	9727	4013	5407	8280	13687
			n~0.01		n~0.01		n~0.01	
Ever had Eazoma (%)	26.4	22 F	20.01	26.2	20.5	27.6	p<0.01	24.6
Observed Number	20.4	53.0	30.1	30.3	30.5	57.0	32.0	12720
Observed Number	1952	5245	0377	9025	4141	5450	02/4	13730
Weighted Number	2014	5396	6367	9751	4020	5417	8301	13718
			p<0.01		p<0.01		p<0.01	
Ever had Hav fever (%)	14.7	15.2	16.2	15.8	15.1	16.1	15.3	15.6
Observed Number	1946	5219	6555	9584	4128	5436	8240	13676
Weighted Number	2009	5367	6340	9705	4005	5392	8266	13657
			0.27	0.00	0.40		n=0.28	
Ever had Measles (%)	13	2.8	2.6	2.5	4.0	23	p=0.20	2.8
Observed Number	4.3	2.0	6241	2.0	4.0	2.3	7021	12100
Weighted Number	1000	4900	6152	9200	2771	5270	7031	13109
weighted Number	1903	5106	0153	9300	3771	5251	7001	13111
	1		p<0.01		p<0.01		p<0.01	
Ever had Whooping								
Cough (%)	1.6	1.0	0.8	1.0	1.1	1.0	1.0	1.0
Observed Number	1901	5140	6475	9475	4033	5373	8100	13473
Weighted Number	1965	5296	6266	9601	3920	5338	8133	13471
			p=0.04		p=0.53		p=0.68	
Ever had ADHD (%)	2.1	1.7	1.0	1.2	2.0	1.1	1.7	1.5
Observed Number	1945	5231	6571	9612	4127	5451	8252	13703
Weighted Number	2009	5381	6361	9738	4008	5411	8282	13693
			p<0.01		n=0.01		p=0.01	
Ever had Autism/			p <0.01		p=0.01		p=0.01	
Bebayioural (%)	2.0	1.8	15	16	2.0	13	10	17
Observed Number	1047	F241	6570	0614	2.0	F.5	9265	12716
	1947	5241	0072	9014	4130	5451	0200	13710
weighted Number	2007	5393	6360	9739	4014	5411	8290	13701
	1		p=0.31		p=0.16		p=0.03	
Ever had Eye Condition								
(%)	19.8	18.1	15.3	16.0	19.7	15.2	18.3	17.1
Observed Number	1953	5249	6574	9627	4141	5456	8276	13732
Weighted Number	2014	5401	6363	9754	4019	5417	8303	13720
			p<0.01		p<0.01		p<0.01	
Ever had Ear Condition								
(%)	11.4	12.6	12.3	12.3	12.2	12.4	12.2	12.3
Observed Number	1953	5244	6578	9625	4142	5456	8275	13731
Weighted Number	2014	5393	6368	9751	4018	5418	8299	13717
Troighted Humbol	2011	0000	n=0.52	0.01	n=0.92	0110	n=0.75	10/11
Night Bedwetting (%)	15 /	14.0	15 /	147	15 /	1/7	15.0	1/ 0
Observed Number	10.4	14.Z	10.4	14.7	10.4	14.7	10.0	10700
	1951	5248	8160	9020	4141	0407	02/0	10700
	2013	5400	0308	9/00	4020	3418	0304	13/22
	1	[	p=0.31		p=0.47		p=0.66	
Special Education Needs			_			_		
(%)	12.2	9.3	7.4	7.9	11.1	6.8	10.1	8.8
Observed Number	1948	5246	6562	9613	4134	5446	8266	13712
Weighted Number	2004	5398	6351	9738	4009	5407	8288	13695
			p<0.01		p<0.01		p<0.01	

Childhood asthma and other respiratory conditions can be linked with maternal smoking during pregnancy and also parental smoking at any subsequent point during childhood (Pattenden et al., 2006). Table 9.17 shows an association between mothers' current smoking and children's asthma. Almost 20 per cent of children whose mothers smoked had experienced asthma, compared to 15 per cent where mothers did not smoke. The association between paternal smoking and asthma was weaker but also significant, as was that between any person smoking close to the cohort member. While these factors suggest a link, bivariate analyses such as these do not adjust for the role of socioeconomic factors, which predict both childhood asthma (Table 9.17) and parental smoking (Chapter 10).

	Does An Coh	yone Smol ort Membe	ke Near er?	Does	Mother C Smoke?	urrently	Does Father Currently Smoke?						
	No	Yes	Total	No Yes Total				Yes	Total				
Never experienced													
asthma	10019	1454	11473	8431	2869	11300	5624	2103	7727				
	84.0	81.2	83.7	85.0	80.3	83.6	85.3	83.1	84.7				
Has experienced													
Asthma	1946	323	2269	1523	719	2242	991	429	1420				
	16.0	18.8	16.4	15.0	19.8	16.4	14.7	17.0	15.3				
Total per cent	100	100	100	100	100	100	100	100	100				
Observed number	11965	1777	13742	9954	3588	13542	6615	2532	9147				
Weighted number	11871	1865	13736	9697	3787	13484	6395	2612	9007				
			p=0.01			p<0.01			p=0.020				

### Table 9.17: Experience of asthma among Cohort Member Children by Adult Smoking MCS4

Notes: As Table 9.1. Sample includes only those with valid responses at both sweeps.

#### Accidents

Main respondents were asked about the number of accidents the child had suffered since the last interview that required hospital or local surgical treatment. The average number for the whole cohort stood at 0.317, or just over three accidents per 10 children and varied significantly according to the characteristics plotted in Figure 9.3. As may be expected, boys had higher levels of accidents (3.6 out 10) than girls (2.7). Children in Wales had the highest number of accidents (3.5 per 10 children) and Northern Ireland the lowest (2.5). Children whose parents had medium, low or no qualifications experienced more accidents, as did other less advantaged groups presented in Figure 9.3. The highest rate in Figure 9.3 is 4.2 accidents per 10 children with 1.6 accidents per 10 children. These relationships are also found elsewhere in the literature, although with some variation. In particular, the higher levels of accidents among white children in MCS directly contrast with the findings from another UK-based study of children at a similar age (ALSPAC, age 5: Reading et al., 2008), although this source is not nationally representative.





*Notes:* As Table 9.1. Weight dovwt1 is used for country.

### Part 2: Fitness, lifestyle and health

This second part of the chapter takes an initial look at physical activity and diet. Exercise and diet have become the focus for interventions aimed at preventing children becoming overweight and obese. These campaigns include Change4Life, launched as a grass-roots social marketing movement to support families to eat better, live better and be more active (Johnson, 2009). This campaign operates in England only, although similar interventions were launched or were already in place in Wales (Healthy Challenge Wales), Scotland (Take Life On and Healthy Weight Communities) and Northern Ireland (Get a Life, Get Active) (Department of Health, 2009). By December 2009, over 410,000 families had joined the Change4Life campaign, which focuses on 'fat in the body' rather than 'fat bodies' and makes clear the link between fat and preventable illnesses. It also pins the blame on modern life rather than parenting practices. It encourages parents to give smaller portions of food to children, to limit between-meals snacking and to keep to regular meal times. It also suggests parents encourage children to have up to 60 active minutes per day and to avoid sedentary lifestyles (Department of Health, 2009). Its initial focus has been on young families - we could therefore expect to see more pronounced differences in physical and lifestyle behaviours and diet by mother's age in the future if the campaign is successful. The consequences of taking no action are said to be grave, with up to 90 per cent of today's children being at risk of obesity by 2050 (Donaldson and Beasley, 2008). In this chapter, we present some results on the proportion of MCS 7-year-old children who are already obese. We turn first to physical activity and lifestyle behaviour, and then to diet.

#### Physical activity and sport

Main respondents were asked about how often their children did organised sport or exercise outside school classroom hours (whether the child went to a club or class to do sport); questions elsewhere examined outdoor play. Around two-thirds of children did engage in organised sport or physical activity at least once a week. However, of the remaining third, the vast majority (95%) were reported as doing no sport at all. This varied significantly by social background. Beginning with country differences, Table 9.18 shows English children had the most doing little sport or physical activity (34% doing either never or less than once a week) and the lowest proportion who partook in sport very frequently (four times a week and more, 7%). Scottish children were reported as the most active, with just 27 per cent who did sport or physical activity less than once a week and almost 10 per cent who partook in sport very frequently. There was a strong disadvantage gradient in frequency of physical activity (Tables 9.19 and 9.20). Children from disadvantaged homes had the lowest reported rates of frequent after-school physical activity and sport (Figure 9.4). For example, compared to children in families with both natural parents present, children from loneparent families and from reconstituted and other families took part in after-school sport less than once a week (in 45% and 48% of cases respectively compared to 28% among families with two biological parents present). They also had the lowest level of partaking in sport very frequently (5% and 4% respectively compared to 9%). Similar results were observed with family social class and poverty status. Children from families with an income above 60 per cent of the poverty line were over twice as likely to be partaking in sport two or more times a week compared to children from families with an income below this level (49% compared to 20%). There were also significant differences with parental education and child's gender.

Cohort Member Ch	ildren by Cou	ntry MCS4			
	England	Wales	Scotland	Northern Ireland	Total
	604	162	170	90	1026
4–5+ times a week	(7.2)	(8.5)	(9.6)	(6.1)	(7.6)
	2808	678	653	450	4589
2–3 times a week	(33.0)	(33.7)	(38.5)	(32.0)	(33.6)
	2261	577	392	402	3632
1 day a week	(25.8)	(28.6)	(24.4)	(30.3)	(26.5)
Less than one day a	3130	594	399	417	4540
week/never	(34.0)	(29.2)	(27.4)	(31.5)	(32.3)
Total per cent	100	100	100	100	100
Observed number	8803	2011	1614	1359	13787
Weighted number	(8801)	(2011)	(1614)	(1358)	(13785)
					p<0.01

 Table 9.18: Frequency of Organised After-School and Weekend Physical Activity/Sport among

 Cohort Member Children by Country MCS4

Notes: As Table 9.1.

Table 9.19: Frequency of Organised After-School and Weekend Physical Activity/Sport among           Cohort Member Children by Highest Parental Qualification (both parents combined) MCS4												
	No Quals	Overseas Quals	NVQ L1 (< 5 GCSE A-C)	NVQ L2 (5 GCSE A-C/ 1 A- Level)	NVQ L3 (2+ A- Level)	NVQ L4 (Degree Level)	NVQ L5 (Higher Degree Level)	Total				
4–5+ times a week	23	12	17	145	147	475	206	1025				
	(1.9)	(5.5)	(3.1)	(5.0)	(6.5)	(9.9)	(11.9)	(7.4)				
2–3 times a week	100	32	108	788	719	2022	820	4589				
	(8.9)	(13.2)	(15.3)	(26.0)	(33.2)	(42.6)	(48.3)	(33.4)				
1 day a week	201	59	171	836	635	1287	443	3632				
	(19.5)	(21.6)	(23.6)	(27.2)	(28.2)	(26.6)	(24.7)	(26.0)				
Less than one day a week/never	678	189	365	1262	720	1052	274	4540				
	(69.8)	(59.7)	(58.1)	(41.7)	(32.2)	(20.9)	(15.0)	(33.2)				
Total percentage	100	100	100	100	100	100	100	100				
Observed number	1002	292	661	3031	2221	4836	1743	13786				
Weighted number	(1017)	(270)	(728)	(3216)	(2189)	(4747)	(1623)	(13790)				
								p<0.01				

Notes: As Table 9.1.

Table 9.20: Frequency of Organised After-School and Weekend Physical Activity/Sport among           Cohort Member Children by Mother's Age at Survey MCS4											
	Teenage at CM Birth	20-24 yrs at CM Birth	25-29 yrs at CM Birth	30-34 yrs at CM Birth	Over 35 yrs at CM Birth	Total					
	34	132	260	371	225	1022					
4-5+ times a week	(5.3)	(5.3)	(7.0)	(8.8)	(9.4)	(7.5)					
	192	539	1203	1669	965	4568					
2–3 times a week	(19.2)	(22.2)	(33.0)	(40.7)	(41.1)	(33.7)					
	247	626	1011	1098	620	3602					
1 day a week	(26.6)	(25.6)	(27.5)	(26.2)	(24.0)	(26.1)					
Less than one day	445	1059	1226	1060	657	4447					
a week/never	(49.0)	(46.9)	(32.5)	(24.3)	(25.5)	(32.7)					
Total percentage	100	100	100	100	100	100					
Observed number	918	2356	3700	4198	2467	13639					
Weighted number	(1069)	(2426)	(3732)	(3999)	(2373)	(13600)					
						p<0.01					

### Figure 9.4: Frequency of After-School and Weekend Physical Activity/Sport among Cohort Member Children by Family Type and Family Social Class and Family Poverty MCS4



Perhaps some of the starkest differences in comparing frequency of organised physical exercise are by ethnicity. Some of the contrasts were not evident until we split the sample by gender (Table 9.21). Pakistani and Bangladeshi parents reported the lowest rates of physical activity/sport for their children. Over three-quarters of Bangladeshi boys and girls alike rarely or never did any after-school sport or physical activity (79–78%); among Pakistanis, 66 per cent of boys and 72 per cent of girls rarely or never did any after-school sport or physical activity. Black Caribbean boys were the most active group in the sample. Only a quarter were reported as rarely partaking in sport/physical activity while one in six was reported as doing such activity as frequently as 4–5 times a week. Black Caribbean girls showed a very different profile from boys, with very few partaking very frequently in sport and over half never or very infrequently/rarely doing so. In the MCS as a whole, there was little difference in frequency of partaking in sport by gender.

Ch		634								
		White	Mixed	Indian	Pakistani	Banglades hi	Black Caribbean	Black African	Other Ethnicity	Total
		515	13	11	3	3	13	4	5	567
	4–5+ times a week	(8.9)	(6.7)	(5.3)	(0.8)	(1.9)	(16.3)	(2.2)	(4.0)	(8.3)
		2147	52	50	32	8	25	23	26	2363
	2–3 times a week	(35.5)	(30.6)	(30.8)	(13.3)	(5.2)	(32.1)	(18.0)	(20.1)	(33.6)
ŝ		1501	49	49	64	14	22	45	27	1771
o	1 day a week	(25.3)	(27.5)	(28.1)	(20.3)	(14.2)	(27.4)	(32.1)	(18.8)	(25.2)
В	Less than one day a	1678	62	68	205	85	24	60	61	2243
	week/never	(30.3)	(35.2)	(35.8)	(65.6)	(78.7)	(24.3)	(47.7)	(57.2)	(32.9)
	Total percentage	100	100	100	100	100	100	100	100	100
		5841	176	178	304	110	84	132	119	6944
	Observed number	(6016)	(219)	(144)	(234)	(73)	(92)	(125)	(111)	(7013)
										p<0.01
		424	8	7	3	3	1	5	3	454
	4–5+ times a week	(7.1)	(3.4)	(6.8)	(0.5)	(4.1)	(1.0)	(8.9)	(5.7)	(6.6)
		2021	62	36	21	7	15	21	17	2200
	2–3 times a week	(36.0)	(31.3)	(24.2)	(7.7)	(4.1)	(19.1)	(15.1)	(16.3)	(33.3)
ŝ		1566	55	54	60	17	19	36	30	1837
irls	1 day a week	(27.2)	(29.9)	(35.5)	(19.5)	(14.2)	(24.4)	(27.5)	(25.5)	(26.9)
Ö	Less than one day a	1626	69	64	233	108	35	63	53	2251
	week/never	(29.7)	(35.4)	(33.5)	(72.3)	(77.7)	(55.5)	(48.6)	(52.5)	(33.1)
	Total percentage	100	100	100	100	100	100	100	100	100
	Observed number	5637	194	161	317	135	70	125	103	6742
	Weighted number	(5671)	(228)	(119)	(243)	(87)	(71)	(124)	(105)	(6648)
										p<0.01

## Table 9.21: Frequency of Organised After-School and Weekend Physical Activity/Sport among Children by Ethnicity MCS4

Notes: As Table 9.1.

One aim of the Change4Life campaign was to encourage parents and children to engage in physical activity/sport together with the hope of encouraging children to go on to exercise independently (Department of Health, 2009). Among MCS families, these data corroborate a strong link between the activity levels of families and children, particularly among families who either jointly take part in physical exercise or sport frequently and those who do so seldom if at all (Table 9.22). There was also a significant relationship between physical activity and television viewing (Table 9.23). Those who watched television most frequently reported less physical activity or sport. Two-thirds of children with a television in their own bedroom partook in afterschool sports less than two times a week compared to half of those without a television in the bedroom. The results presented so far indicate a socioeconomic gradient in doing after-school sports and physical activities, with lack of money possibly serving as a barrier. However it should also be noted that disadvantaged children were also more likely to have a television in the bedroom - for example twothirds of those from families with income 60 per cent below the median had a television in the bedroom (66%), compared to just under half (49%) of those with family income above this level (not shown). Similar social gradients were observed with parental qualifications, social class and family work status. The children's own

Table 9.2	2: Frequency of Orgar	nised After-Sch	ool and We	ekend Phys	sical Activity/Spo	ort among						
Children	Children by Frequency of Physical Activity/Sport as a family MCS4											
		Frequency of Physical Activity/Sport as a family										
		Everyday/ several times a week	Once a week	Once a month	Less than once a month/never	Total						
- Le	4–5+ times a week	496 (8.8)	372 (7.4)	98 (6.4)	60 (3.6)	1026 (7.4)						
r's Aft sical oort	2–3 times a week	2020 (35.1)	1770 (37.1)	482 (31.8)	316 (19.1)	4588 (33.4)						
embel ol Phy /ity/Sp	Once a week	1454 (25.1)	1363 (27.7)	439 (27.7)	375 (23.0)	3631 (26.0)						
oort M Schoo Activ	Less than one day a week/never	1742 (31.0)	1354 (27.8)	533 (34.1)	909 (54.3)	4538 (33.2)						
Cot	Total percentage (col)	100	100	100	100	100						
	Total percentage (row)	(42.2)	(34.3)	(11.1)	(12.4)	(100.0)						
	Observed number	5712	4859	1552	1660	13783						
	Weighted number	(5814)	(4734)	(1531)	(1709)	(13787)						
						p<0.01						

account of their activities reported in Chapter 5 puts another perspective on a similar picture.

Notes: As Table 9.1.

Table 9.23: Frequency of Daily Television Viewing among Cohort Member Children by After-School and Weekend Physical Activity/Sport among Cohort Member Children and Having a Television in the Bedroom MCS4

								Presen Coł	ce of Tele nort Memi	vision in per's
		Cohor	t Member D	aily Telev	luency		Bedroom	1		
			Less than			5+				
			1 hr a	1-3 hrs	3-5 hrs	hrs a				
		None	day	a day	a day	day	Total	No	Yes	Total
	4–5+ times a	29	244	636	67	50	1026	545	481	1026
-	week	(10.1)	(10.3)	(7.0)	(5.1)	(6.5)	(7.4)	(8.5)	(6.5)	(7.4)
		97	958	2933	384	216	4588	2522	2067	4589
Ŋ	2–3 times a week	(41.5)	(40.2)	(33.3)	(24.5)	(28.2)	(33.4)	(39.9)	(27.8)	(33.4)
P		65	606	2456	353	150	3630	1672	1958	3630
8	1 day a week	(26.8)	(24.0)	(27.2)	(25.1)	(19.2)	(26.0)	(25.4)	(26.5)	(26.0)
sc t	Less than one	64	659	2835	676	302	4536	1823	2716	4539
Spe	day a week/	(21.6)	(25.5)	(32.5)	(45.2)	(46.1)	(33.1)	(26.2)	(39.2)	(33.2)
Afte ty/	never									
's / tivi	Total percentage									
Jer Ac	(col)	100	100	100	100	100	100	100	100	100
l me	Total percentage									
Ň	(row)	(1.8)	(17.5)	(64.8)	(11.1)	(4.8)	(100.0)	(36.8)	(63.2)	(100.0)
ort	Observed	255	2467	8860	1480	718	13780	6562	7222	13784
Ч,	Number	(251)	(2407)	(8932)	(1532)	(662)	(13783	(6415)	(7373)	(13788)
ပ	Weighted						)			
	Number									
							p<0.01			p<0.01

#### Figure 9.5: Percentage of Cohort Member Children Consuming Three or More Portions of Fruit per day by selected background characteristics MCS4



Notes: As Table 9.1. Weight dovwt1 was used for country analyses.

#### Diet

It was not practicable to collect comprehensive data on nutrition at MCS4. There were several questions put to parents on the children's eating habits, to which we will return in the section on body mass below. Here we look at the number of portions of fruit consumed by children per day. This is a key indicator of healthy eating as having five portions of fruit or vegetables a day has been shown to be associated with lower rates of cancer and cardiovascular diseases in later life as well as being important sources of vitamins for development and wellbeing (Ransley et al., 2006). In a sample of UK children of similar age (4-6 years) an average of 1.8 pieces of fruit were consumed daily (Ransley et al., 2006). In another study, less than 4 per cent of 4 to 6-year-olds ate the recommended portions of five fruit and vegetables per day (Nessa and Gallagher, 2004). Among MCS children, the highest consumption recorded on the questionnaire was 'three or more' pieces a day. Even without knowing how many had over three portions, average consumption appears relatively high at 2.2 pieces. Given that both the aforementioned studies were carried out some time ago, the high levels could reflect recent interventions. However, consumption still varied significantly by each social background characteristic. Here, we present in Figure 9.5 the proportion of children who were reported to consume three or more pieces daily. Children who were in England, female, who were white or of mixed ethnicity, who lived with two natural parent families or who had older mothers were associated with more fruit consumption. The starkest group difference was found by parental qualifications. Those whose parents had higher degrees were twice as likely to consume three or more pieces of fruit as those whose parents had no gualifications (61% compared to 33%). Diet is one risk factor for children being overweight or obese. Other risk factors include a lack of sleep, a lack of physical exercise and a sedentary lifestyle as well as genetic factors (Wardle et al., 2008; Forshee et al., 2009; Kleiser et al., 2009). We present the prevalence of obese and overweight children next against a range of background socioeconomic and demographic characteristics.

### **Body mass**

Children's weight, and particularly obesity, has become a focus for policy-makers in recent years. The extent of current childhood obesity varies. One other UK study (Nessa and Gallagher, 2004) found 26 per cent of boys and 40 per cent of girls aged 7 were classified as overweight or obese in 2000. In another study in 2006, 19 per cent of boys and 25 per cent of girls were classed as being overweight or obese (Nessa and Gallagher, 2004; Scholes and Heeks, 2008). Other recent estimates for children aged 2–11 years in 2000–07 placed around 14 per cent of boys and 10 per cent of girls in the obese category, and a further 17 per cent of boys and girls in the overweight category (McPherson et al., 2009). As with previous MCS reports, in this chapter we use the Obesity Task Force (OTF) definitions of overweight and obese (for 7-year-olds).<sup>20</sup> These definitions are based on cut-off points of body mass index

<sup>&</sup>lt;sup>20</sup> We find little difference here between the UK90 and Obesity Task Force definitions. Differences between MCS data and from the Health Survey for England (such as used by Nessa and Gallagher

(BMI: weight in kilograms divided by height in metres squared). Among 7-year-olds a BMI value exceeding 17.9 for boys and 17.7 for girls is equivalent to being overweight, while values above 20.6 for boys and 20.5 for girls denote obesity (Cole et al., 2000; Brown et al., 2009).

At age 7, 6 per cent of MCS boys were classed as obese and 7 per cent of MCS girls; a further 16 per cent of boys and 14 per cent of girls were classed as overweight. We can informally class 7.5 per cent of MCS boys and 9.3 per cent of girls as underweight.<sup>21</sup> However, because there is no standard definition for this age group, we do not distinguish underweight children in the remainder of this report.

As may be expected, given the social differentials found for the risk factors of being overweight/obese (physical activity, sleep and diet), there were socioeconomic gradients in the proportions of children classified as obese or overweight (Table 9.24). A strong example is that those whose parents had no qualifications were almost twice as likely to be classed as obese compared to those whose parents had degree level qualifications. However, the socioeconomic gradient appeared weaker against other socioeconomic indicators, such as family poverty status and family social class, where differences were significant but not substantial. Additionally, while the Change4Life programme initially targeted families headed by young parents, these data do not provide a basis for this strategy, as obesity rates varied little by mother's age (not statistically significant and not shown).

There were significant, although not necessarily substantial, country differences in BMI, with slightly higher frequencies of Welsh and Northern Irish children being classed as overweight or obese compared to English and Scottish children. There were also strong ethnic differences (Figure 9.6). Those from 'Other' ethnic groups, which includes a few Chinese and other Far Eastern ethnicities, had the lowest rates of being obese or overweight (17%), followed by white (20%) and Pakistani children (21%). There were high frequencies of obesity alone among black African (17%), Bangladeshi (16%) and black Caribbean (13%) children, although Bangladeshi children were the only group where there were higher frequencies of obese children than overweight children. Mixed ethnicity boys had high levels of being overweight although not necessarily of being obese. While there were no gender differences for the cohort as a whole, examining ethnicity and gender groups simultaneously revealed that black African girls in particular suffered from problems with weight almost half had BMI over the problematic threshold and almost a quarter were obese. While these results do suggest that some minority ethnic groups are at higher risk of problems with weight, it should also be noted that BMI is not an equivalent measure of the percentage body fat for each race-sex group, and maturation stage and distribution of body fat will vary significantly, which may contribute to some of the observed differences (Daniels et al., 1997).

<sup>(2004)</sup> and Scholes and Heeks (2008)) may arise from various differences between sources as well as different cut-off points.

<sup>&</sup>lt;sup>21</sup> Assuming anything under the 5<sup>th</sup> percentile of BMI can be considered as being underweight. We used the 5<sup>th</sup> percentile from the Health Survey for England for children aged 7 and apply this cut point to MCS data (Scholes and Heeks, 2008).

Table 9.24: Body Mass of	Table 9.24: Body Mass of Cohort Children by selected background characteristics MCS4												
	Not Overweight	Overweight	Obese	Total									
Professional/Managerial	4411	761	251	5423									
Tolessional/Managenai	(82.2)	(13.7)	(4.1)	(100.0)									
Lower/Linclassified	6366	1223	576	8165									
Lowen oneidassined	(78.3)	(14.9)	(6.8)	(100.0)									
Observed Number Weighted	10777	1984	827	13588									
Number	(79.8)	(14.5)	(5.7)	(100.0)									
Above 60% Median Income	7654	1380	524	9558									
	(80.5)	(14.4)	(5.1)	(100.0)									
Below 60% Median Income	3146	609	305	4060									
	(78.2)	(14.5)	(7.3)	(100.0)									
Observed Number Weighted	10800	(1072)	829	(13618									
	(10877)	(1972)	(777)	(13626)									
	4.404	044	404	p<0.01									
No UK Quals/ NVQ L1	1431	314	164	1909									
	(75.8)	(16.1)	(8.0)	(100.0)									
NVQ L2/3 (5 GCSE – 2 A-	4044	(15.2)	350	5184									
	(70.3)	(15.2)	(0.3)	(100.0)									
NVQ 4/5+ (Degree and Higher)	(82.3)	(13.3)	(13)	(100.0)									
Observed Number Weighted	10810	(13.3)	(4.3)	(100.0)									
Number	(10885)	(1074)	(780)	(13638)									
	(10003)	(1374)	(700)	n<0.01									
	7070	1406	576	0860									
2 biological parents	(80.4)	(14.1)	(5.4)	(100.0)									
	(00.4)	134	(3.4)	943									
Reconstituted Family	(81.9)	(13.1)	(5.0)	(100.0)									
	2179	452	200	2831									
Lone-parent Family	(77.1)	(16.0)	(6.9)	(100.0)									
Observed Number Weighted	10811	1992	831	13634									
Number	(10885)	(1974)	(780)	(13639)									
	· · · ·	· , , , , , , , , , , , , , , , , , , ,	· · · ·	p=0.01									
Mala	5650	870	374	6894									
Male	(82.3)	(12.7)	(5.0)	(100.0)									
Fomala	5161	1122	457	6740									
Feinale	(77.2)	(16.3)	(6.5)	(100.0)									
Total Percentage	(79.8)	(14.5)	(5.7)	(100.0)									
Observed Number Weighted	10811	1992	831	13634									
Number	(10885)	(1974)	(780)	(13639)									
				p<0.01									
	6960	1230	525	8715									
England	(80.1)	(14.2)	(5.7)	(100.0)									
	1532	316	138	1986									
wales	(77.1)	(15.9)	(7.0)	(100.0)									
Scotland	1289	228	70	1587									
	(80.7)	(15.0)	(4.4)	(100.0)									
	1030	218	98	1346									
	(75.6)	(16.8)	(7.5)	(100.0)									
Total Percentage	(79.3)	(14.8)	(5.9)	(100.0)									
Observed Number	10811	1992	831	13634									
Weighted Number	(10802)	(2018)	(806)	(13626)									
				p=0.01									

Notes: As Table 9.1. Weight dovwt1 was used for country analyses .

The BMI cutoffs in Tables 9.24 to 9.29, and Figures 9.6 and 9.7 have been corrected in this edition.



#### Figure 9.6: Body Mass of Cohort Children by Gender and Ethnicity MCS4

Notes: As Table 9.1. Numbers on left hand labels represent unweighted sample size of boys and girls respectively

#### Physical activity, sleep and diet: bivariate relationships with body mass

We now move to examine the associations between these and other risk factors with being obese or overweight.

#### **Dietary factors**

When we compare daily fruit consumption and between-meal snacks we see little relationship between these factors and children's body mass. There was also very little correlation between children's weight category and consumption of between-meals drinks (not shown). However, there were strong associations with weight category of children being on specific types of diets as well as fussy eating. Children who were reported to eat most things (not fussy eaters) were those most likely to have problematic weight (not shown). The small numbers of children on meat free diets were those least likely to be overweight or obese (8%). Table 9.25 also shows that those who were on diets for religious reasons had relatively high rates of being overweight or obese (25%). Unsurprisingly, those on diets for weight loss purposes had high rates of obesity and being overweight. However, almost one-quarter (23%) of the 144 cases said to be on diets for the purposes of putting on weight were also obese or overweight.

Table 9.25: BMI of cohort child by whether child is on a diet at age 7: MCS4												
BMI at 7	No Diet	For various health reasons	Weight Gain	Weight Loss	Behavioural reasons	Meat Free	Digestive and Dental	Allergy	Religious	Other misc	Total	
Normal	4587 (84.2)	1797 (81.2)	112 (78.0)	12 (6.2)	409 (82.2)	45 (89.1)	846 (84.8)	99 (86.8)	105 (76.4)	2754 (74.9)	10766 (79.8)	
Overweight	731 (12.7)	329 (15.1)	14 (9.8)	69 (34.2)	74 (15.9)	4 (7.3)	127 (12.7)	14 (8.9)	21 (20.7)	602 (16.2)	1985 (14.5)	
Obese	195 (3.2)	102 (3.8)	18 (12.2)	125 (59.6)	10 (1.9)	2 (3.6)	20 (2.5)	5 (4.2)	4 (2.9)	347 (8.8)	828 (5.7)	
Total Percentage (col)	100	100	100	100	100	100	100	100	100	100	100	
Total Percentage (row)	(40.5)	(16.0)	(1.1)	(1.6)	(4.0)	(0.4)	(7.1)	(0.9)	(0.9)	(27.6)	(100.0)	
Observed Number Weighted Number	5513 (5502)	2228 (2169)	144 (147)	206 (211)	493 (540)	51 (56)	993 (969)	118 (124)	130 (125)	3703 (3752)	13579 (13595)	

Notes: As Table 9.1.

One of the most consistent associations between dietary factors and weight was seen with children eating breakfast regularly (Table 9.26). Those who ate breakfast regularly were more likely to be in the 'normal' weight category than those who did not (79% to 72%). However, this association was even stronger when looking at eating breakfast at age 5 and body mass at age 7. Eighty one per cent of those who ate breakfast regularly at age 5 had no weight problems at age 7, compared to 70 per cent of those who did not. Furthermore, the proportion of obese children who did not eat breakfast regularly at the age 5 survey was double that of those who did eat breakfast regularly (9% compared to 5%).

Table 9.26: Weight of Cohort Child at age 7 by Eating Breakfast at Age 5 and at Age 7										
	Does Co	hort Member E Every Day? (Ag	at Breakfast je 5)	Does Cohort Member Eat Breakfast Every Day? (Age 7)						
BMI at age 7	No	Yes	Total	No	Yes	Total				
Normal	752 (69.6)	9559 (81.4)	10311 (80.6)	645 (71.6)	10114 (80.3)	10759 (79.8)				
Overweight	216 (21.6)	1666 (13.6)	1882 (14.1)	180 (19.1)	1804 (14.2)	1984 (14.5)				
Obese	100 (8.9)	683 (5.0)	783 (5.3)	86 (9.4)	742 (5.5)	828 (5.7)				
Total Percentage (col)	100	100	100	100	100	100				
Total Percentage (row)	(6.2)	(93.8)	(100.0)	(6.2)	(93.8)	(100.0)				
Observed Number Weighted Number	1068 (951)	11908 (12587)	12976 (13538)	911 (844)	12660 (12743)	13571 (13587)				
				p<0.01 F=15.5						

*Notes:* As Table 9.1 for Age 7 panel and 9.8 for Age 5 panel. Age 5 data is weighted by weight weight2 (original sampling weight) and includes only children present at age 5 and 7 yrs.

#### **Exercise and sleep**

Statistically, there was a significant association between children's frequency of afterschool physical exercise and weight category. However, this link was not necessarily substantial, consistent or clear. Children who never exercised or did so less than once a week were the most likely to be obese or overweight (Table 9.27), although the difference was not of the same magnitude as with background social factors, examined earlier. We investigated longitudinal evidence on the frequency of doing an after-school sport or physical activity at age 5 and weight category at both age 5 and age 7 years (Table 9.28). This suggests a complex relationship between sport and weight that cannot be isolated necessarily from bivariate analyses alone.

Correspondingly, we also observed a relationship with television viewing and having a television in the bedroom and BMI (not shown in tables). For example, 23 per cent of those who had a television in the bedroom were overweight or obese compared to 17 per cent of those who did not. Once again, however, while the relationships were statistically significant, the sizes of the effects were relatively moderate. However, one factor which did have a significant and relatively sizeable association with BMI category was the sleeping patterns of children. Normal sleep is crucial for brain function, behaviour and metabolism. Sleep loss has been linked to behavioural and attention problems, impaired learning and memory, psychiatric disorders and child obesity (Lipton et al., 2008; Forshee et al., 2009; Smaldone et al., 2009). Here, among children who went to bed early (before 7.30 pm), fewer were overweight or obese compared to children who went to bed at or after 8.30pm (16% compared to 27%): the later the bedtime, the greater the frequency of obese children (not shown). The relationship between bedtime and obesity may reflect a more general pattern of well-organised family life and meals. Parents who send their children to bed at an earlier time may also feed their children better (full analyses of sleep are included in Chapter 4).

MCS4	T by Alter-School and	i weekend Physica	a Activity/Spor	t at age 7
Activity at Age 7	Not Overweight	Overweight	Obese	Total
4–5 times a week	849	131	38	1018
	(7.7)	(7.3)	(5.1)	(7.5)
2–3 times a week	3644	657	236	4537
	(34.1)	(32.5)	(27.7)	(33.5)
Once a week	2832	502	252	3586
	(25.9)	(25.3)	(30.2)	(26.1)
Less than once a week/never	3445	695	302	4442
	(32.3)	(34.9)	(37.0)	(32.9)
Total Percentage (col)	100	100	100	100
Total Percentage (row)	(79.8)	(14.5)	(5.7)	(100.0)
Observed Number	10770	1985	828	13583
Weighted Number	(10854)	(1969)	(776)	(13599)
				p<0.01

Table 9.27: RMI of child at age 7 by After-School and Weekend Physical Activity/Sport at age 7

Notes: As Table 9.1.

Table 9.28: BMI category at age 5 and age 7 by frequency of exercise at age 5 (MCS 3 & MCS4)												
Activity at Age 5	Normal At Both Surveys	Overweight at Both Surveys	Obese at Both Surveys	Negative: Normal (MCS 3) to Overweight (MCS4)	Negative: Normal (MCS 3) to Obese (MCS4)	Negative: Overweight (MCS 3) to Obese (MCS4)	Positive: Overweight (MCS 3) to Normal (MCS4)	Positive: Obese (MCS 3) to Normal (MCS4)	Positive: Obese (MCS 3) to Overweight (MCS4)	Total		
Partake in sport once a week or more	5029 (58.0)	537 (59.1)	216 (46.0)	372 (54.5)	27 (53.0)	117 (55.9)	417 (58.6)	33 (46.6)	81 (53.7)	6829 (57.3)		
Partake in sport less once a week or never	4426 (42.0)	440 (40.9)	267 (54.0)	373 (45.5)	43 (47.0)	114 (44.1)	378 (41.4)	34 (53.4)	80 (46.3)	6155 (42.7)		
Total Percentage (col)	100	100	100	100	100	100	100	100	100	100		
Total Percentage (row)	(74.0)	(7.4)	(3.3)	(5.6)	(0.5)	(1.5)	(6.1)	(0.5)	(1.2)	(100.0)		
Observed Number Weighted Number	9455 (1002 0)	977 (997)	483 (450)	745 (753)	70 (62)	231 (203)	795 (832)	67 (63)	161 (163)	12984 (13542)		
p<0.01												

Notes: As Table 9.8.

In these data, we see mixed results in terms of the association of body mass with diet and physical activity. Several of the hypothesised relationships in the literature which have become the foci for recent interventions have not been confirmed in the tables presented in this chapter. However, the method bivariate analysis - two-way tables has its limitations. It may be necessary to take a number of other factors, including evidence from earlier surveys into account. This is particularly true of conditions such as obesity, which result from a complex interplay between genetics, lifestyle factors and resources. While we are unable to measure a genetic component here, we do see that there is strong intergenerational component to body mass, even during childhood. Children of obese mothers are nearly three times more likely to be obese themselves than children whose mothers are not overweight or obese (Table 9.29). More generally, we see that most children remained within the same weight category

longitudinally (85%), with 11% remaining in overweight or obese categories (Figure 9.7). Around as many children made a positive movement to a healthier category (7.8%) as made a negative movement 7.5%.

		Mother's Weight Category						
		Normal	Overweight	Obese	Total			
		5261	638	189	608			
	Normal	(60.2)	(40.7)	(29.2)	(55.9			
ight y		2391	533	215	313			
	Overweight	(26.2)	(34.9)	(34.1)	(27.8			
ð Ze		1225	382	232	183			
s lec	Obese	(13.6)	(24.4)	(36.7)	(16.3			
Child' Cai	Total Percentage	100	100	100	10			
	Observed Number	8877	1553	636	1106			
	Weighted Number	(8977)	(1525)	(582)	(11083			

Notes: As Table 9.1.

# Figure 9.7: Stability and Change in Body Mass of Cohort Children between Age 5 and 7 years



## Conclusions

This chapter has presented a number of two-way tabulations between indicators of children's health and factors by which they vary. Across almost all indicators, children from more disadvantaged backgrounds are less healthy than those from advantaged backgrounds. This applies to health indicators of varying degrees of objectivity, and across a range of socio-demographic circumstances including parents' gualifications, family type and family work status. The only ailments that more advantaged children were more likely to suffer from were hay fever and eczema (conditions equally prevalent among children from advantaged and less disadvantaged backgrounds). The age of the mother, usually an indicator of socioeconomic advantage, did not necessarily show the expected effect across all domains. In fact, in some cases of lifestyle behaviours, the health of children of the youngest mothers matched or even exceeded that of the oldest group of mothers. There were also strong ethnic differences. Bangladeshi and Pakistani children were those least likely to be classed as being in excellent or very good health. However, they were also among the least likely to be suffering from longstanding condition. There was a substantial difference in the health of black African children compared to black Caribbean children. Black Caribbean children were among those most likely to be suffering from a longstanding condition while black African children were among the least likely. Furthermore, black Caribbean children were among those most likely of any ethnic group to receive medication for longstanding conditions, which may point to the severity of the conditions. They were also especially prone to respiratory conditions. However, there were some positive indicators for black Caribbean children in terms of lifestyle (sleeping patterns, not shown) and physical activity factors.

Girls were significantly more likely than boys to have problematic weights, but there was only moderate evidence of a socioeconomic gradient. However, there was greater evidence of socioeconomic differentials in risk factors for being obese or overweight. Disadvantaged children were far less likely to engage in physical or sporting activities, were less likely to consume fruit and were more likely to go to bed late. While there was only mixed evidence as to the link between these indicators and obesity, these may be important for other aspects of physical and cognitive development and socialisation. Furthermore, given the relatively young age of the MCS children, sleep and exercise may become important predictors of excess weight and other aspects of development later in childhood and through to adolescence. We can already see some of this evidence forming in this sweep – skipping breakfast at age 7 was significantly associated with being overweight or obese at age 7. However, when taking a longitudinal approach, eating breakfast at age 5 (the previous sweep) held greater predictive power and represented a significant and substantial predictor of obesity at age 7. We may expect to see similar relationships based on current health and lifestyle indicators in the future, and need to investigate further the early years precursors of the health outcomes described here.

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## Chapter 10

## PARENTAL HEALTH

Dylan Kneale

#### Introduction

#### **Chapter overview**

This chapter looks at the health of the Millennium Cohort Study parents when their children were aged 7, and the patterns that emerge in relation to ethnicity, mother's age when the child was born, family type, family work status, parental education and socioeconomic status. The chapter is divided into three main parts:

- Health, illness and disability: self-rated health and longstanding conditions (illness, infirmity, disability).
- Mental health: limiting emotional problems, psychological distress and life satisfaction.
- Lifestyle factors: alcohol consumption, smoking and BMI (parents' weight).

Parental health is key to understanding patterns of child health. Several studies have highlighted that health has a strong intergenerational component, through environmental, genetic and lifestyle factors (Kahn et al., 2005; Wickrama et al., 1999). Independently, the parents of Millennium Cohort Study (MCS) cohort members provide an unparalleled snapshot of the health of working age adults (parents) in the UK, particularly disadvantaged adults and those from ethnic minority groups. In this chapter, we describe the health of parents when their children were aged seven. These parents are from a variety of backgrounds, the binding commonality being the cohort child.

Previous reports have shown that the majority of MCS mothers and fathers regarded their health as either very good or excellent (Calderwood et al., 2007; Roberts and Ketende, 2008). However, there were also clear indications that the parents were afflicted by certain health conditions. In particular, many fathers were overweight – just 35 per cent were in the normal weight range in 2006. Mothers fared slightly better, but nevertheless over 40 per cent were over normal weight (Roberts and Ketende, 2008). A healthy body mass has become a recent focus for policy-makers. The Change4Life campaign launched in early 2009 was focused on children's health and in particular on the adoption of healthy eating and exercise patterns early in life as a precursor for a lifetime of healthy behaviours (Department of Health, 2009a)<sup>22</sup>. This initiative centred on activities around the family, as opposed to solely the child,

<sup>&</sup>lt;sup>22</sup> This campaign was launched in England. Other countries launched similar initiatives including Healthy Challenge Wales (Wales), Take-Life-On and Healthy Weight Communities (Scotland) and Get a Life, Get Active (Northern Ireland).

viewing the adoption of healthy lifestyles by parents as key to improving child health (Department of Health, 2009a). As such, parental obesity and its risk factors are salient topics for this chapter. Other recent changes include the implementation of the smoking ban in enclosed public places (which came into force in England, Wales and Northern Ireland during 2007 and in Scotland a year earlier) and increased taxes on alcohol. Other government initiatives have been launched to protect and improve the health and wellbeing of working-age people, aimed particularly at getting those who had been on long-term sickness benefits back into the labour market (Department for Work and Pensions, 2008). Special emphasis was placed on improving mental health services.

This chapter has three main parts that reflect recent government policies. The first part examines health, illness and disability. The second part looks at indicators of mental wellbeing, and the third, lifestyle factors. We examine the health of mothers and fathers, defined as natural, adoptive, foster or step-parents,<sup>23</sup> irrespective of whether they answered the main or partner questionnaires (unless otherwise stated). This excludes the small number of grandparents and others (49 main and 188 partner respondents). The maximum numbers used in the tables are 13,707 mothers and 10,841 fathers before cases are dropped because of missing data. The analysis in this chapter is descriptive and mainly bivariate and cross-sectional and does not imply evidence of causal relationships. Covariates are as measured at MCS4. Analyses are weighted by combined sample and non-response weights, except where stated.

### Part 1: Health, illness and disability

#### Self-rated health

The majority of parents rated their own health as excellent or very good (58% of mothers and 60% of fathers). Conversely, 13 per cent of mothers and fathers rated their health as fair or poor. Comparison with external data sources suggests MCS parents have poorer health than respondents to the Health Survey for England (National Centre for Social Research, 2008), but better health than respondents to the British Household Panel Survey (BHPS) (Snelgrove et al., 2009). This may reflect that each source uses different scales. Self-rated health varies by a number of background characteristics. In BHPS, for example, self-rated health deteriorates linearly with age (Snelgrove et al., 2009). Among MCS respondents, it is the younger parents who are more likely to rate their health as fair or poor – those who would have been under 30 at the time the of the cohort birth (Figure 10.1). This is likely to be a reflection of the social selectivity of early parenthood. Teenage parents are associated with a number of negative outcomes, although poorer physical health isn't usually one. Unexpectedly, this trend is observed for both young fathers as well as young mothers.

Mothers with no qualifications were around three times as likely to describe their health as 'poor' compared to those with degree level qualifications. Similar

<sup>&</sup>lt;sup>23</sup> Taking no more than one mother and one father per family.

relationships were observed with other socio-economic indicators including poverty status (Table 10.1). Over a fifth of mothers (22%) in families with income below 60 per cent of the UK median rated their health as fair or poor compared to 10 per cent of mothers in families with income over this threshold. There were also significant country differences<sup>24</sup> – English mothers were most likely to cite poor health and Northern Irish least. White and black African mothers were most likely to report excellent or very good health, while Bangladeshi mothers were only half as likely as white mothers to rate their health as excellent. Despite this, it was black Caribbean mothers who were more likely than mothers of any other ethnicity to rate their health as fair or poor. Many of the self-rated health differences among mothers were repeated among fathers (Table 10.2). For example, the proportion of fathers reporting fair or poor health was almost three times as high among fathers who were out of work or in unclassified roles compared to fathers in professional or managerial roles (9% versus 33%). This would suggest that some fathers were not working because of health reasons. Some of the ethnic group differences observed among mothers were amplified among fathers. In particular, black African fathers were much more likely than any other group to report excellent health (34%), and in particular much more likely than those from 'Other' ethnic groups which includes Chinese and Far East Asian (18%). Bangladeshi and Pakistani fathers were most likely to report fair or poor health. Northern Irish, Welsh and Scottish fathers were more likely to report good health, a possible reflection of the relative absence of ethnic minority groups in these countries. Table 10.3 shows mothers' and fathers' ratings of their health were significantly related to one another. Despite this, Tables 10.4 and 10.5 show a difference longitudinally, in that more mothers reported positive than negative movement in health between 2006 and 2008; among fathers, the opposite effect was seen.

<sup>&</sup>lt;sup>24</sup> Throughout this chapter, country refers to the country at the child's birth. Chapter 2 in this volume contains information on changes between country of residence when the child was aged 7 and the country at birth of the child.

Table 10.13: Mother's G						
	Excellent	Very Good	Good	Fair	Poor	Total
N 1116 O 117 11 25	336	513	662	320	104	1935
No UK Qualifications	(17.5)	(26.3)	(32.9)	(17.4)	(5.9)	(100.0)
NVQ L1 (< 5 GCSE A–C)	(17.0)	(32.0)	(34.7)	(12.5)	(3.8)	(100.0)
NVQ L2 (5 GCSE A–C/ 1	691	1201	1174	401	100	3567
A-Level)	(18.6)	(34.0)	(33.0)	(11.6)	(2.8)	(100.0)
	457	807	578	180	44	2066
NVQ L3 (2+ A-Level)	(21.2)	(39.1)	(28.5)	(8.8)	(2.4)	(100.0)
NI/O L 4 (Degree Level)	(27.7)	(38.2)	(25.8)	265	(1 8)	4153
NVQ L4 (Degree Lever)	300	(30.2)	(23.0)	(0.0)	(1.0)	921
Level)	(33.0)	(41.0)	(19.9)	(4.9)	(1.3)	(100.0)
Total Percentage	(23.2)	(35.3)	(28.8)	(10.0)	(2.8)	(100.0)
Observed Number	3096	4799	3980	1328	368	13571
Weighted Number	(3010)	(4753)	(3989)	(1375)	(390)	(13516)
~	• • •	• • • •				p<0.001
	1828	3014	2661	886	253	8642
England	(21.5)	(35.2)	(30.0)	(10.3)	(3.0)	(100.0)
	473	748	536	185	50	1992
Wales	(24.6)	(37.7)	(25.9)	(9.2)	(2.6)	(100.0)
Sectland	(24.7)	(34.8)	(28.5)	136 (q.4)	(27)	(100.0)
Scollariu	384	472	341	(3.4)	26	1344
Northern Ireland	(29.7)	(33.9)	(25.1)	(9.2)	(2.1)	(100.0)
	(23.2)	(35.4)	(28.7)	(10.0)	(2.8)	(100.0)
Total Percentage						
Observed Number	3097	4801	3980	1328	368	13574
Weighted Number	(3137)	(4787)	(3892)	(1348)	(376)	(13540)
2427 2626 2797 044 2						p<0.001
Two Natural Parents	2427	3626	(28.5)	841 (8.5)	(2.2)	9895
	(24.1)	(30.7)	(20.3)	(0.5)	(2.3)	(100.0)
Reconstituted Family	(17.7)	(31.5)	(32.1)	(12.5)	(6.2)	(100.0)
Lone-parent Family	506	890	902	386	102	2786
Lone-parent r anniy	(18.0)	(31.7)	(32.0)	(14.7)	(3.7)	(100.0)
Total Percentage	(22.3)	(35.2)	(29.5)	(10.2)	(2.9)	(100.0)
Observed Number	3097	4801	3980	1328	368	13574
Weighted Number	(3011)	(4756)	(3989)	(1375)	(390)	(13521)
	0744	44.05	0005	4004	005	p<0.001
\//bito	(22.0)	4185	3265	1081	305	(100.0)
White	(22.9)	(33.7)	(20.0)	(9.9)	(2.0)	(100.0)
Mixed	(14.2)	(44.2)	(31.3)	(9.7)	(0.6)	(100.0)
	57	110	130	39	10	346
Indian	(15.6)	(33.0)	(37.5)	(11.0)	(2.9)	(100.0)
Dekistoni	95	163	(229	91 (14-2)	(2.9)	602
Fakistani	(10.8)	(27.2)	(37.9)	(14.3)	(3.0)	(100.0)
Bangladeshi	(12.0)	(32.9)	(38.9)	(12.3)	(4.0)	(100.0)
	38	40	57	30	7	172
Black Caribbean	(19.1)	(22.9)	(34.0)	(20.7)	(3.3)	(100.0)
Diack African	67	98	75	19	6	265
BIACK ATRICAN	(24.1)	(35.5)	(32.3)	(5.0)	(3.0)	(100.0)
Continued						

#### Table 10 13: Mother's G morel Health by colocted background characteristics MCSA

<sup>25</sup> Includes overseas or unclassifiable qualifications.

	Excellent	Very Good	Good	Fair	Poor	Total	
	52	77	80	26	6	241	
Other	(18.3)	(32.7)	(33.3)	(12.7)	(3.0)	(100.0)	
Total Percentage	(22.3)	(35.2)	(29.5)	(10.2)	(2.9)	(100.0)	
Observed Number	3096	4800	3980	1328	368	13572	
Weighted Number	(3010)	(4755)	(3989)	(1375)	(390)	(13519)	
	p<0						
Income Above 60% Median	2421	3635	2583	691	186	9516	
Value	(24.5)	(38.4)	(27.6)	(7.5)	(2.0)	(100.0)	
Income Below 60% Median	676	1162	1392	636	182	4048	
Value	(16.8)	(27.3)	(34.2)	(16.8)	(4.9)	(100.0)	
Total Percent	(22.3)	(35.2)	(29.5)	(10.2)	(2.9)	(100.0)	
Observed Number	3097	4797	3975	1327	368	13564	
Weighted Number	(3011)	(4752)	(3986)	(1375)	(390)	(13514)	
p							
Professional/	995	1263	718	178	33	3187	
Managerial Job <sup>26</sup>	(30.4)	(39.2)	(23.4)	(5.8)	(1.2)	(100.0)	
Job Lower than	1166	1922	1571	422	66	5147	
Professional/	(21.7)	(37.5)	(30.9)	(8.7)	(1.2)	(100.0)	
Managerial							
	936	1616	1691	728	269	5240	
No Job or Unclassified Job	(18.1)	(30.6)	(31.7)	(14.2)	(5.5)	(100.0)	
Total Percentage	(22.3)	(35.2)	(29.5)	(10.2)	(2.9)	(100.0)	
Observed Number	3097	4801	3980	1328	368	13574	
Weighted Number	(3011)	(4756)	(3989)	(1375)	(390)	(13521)	
						p<0.001	

## Table 10.13: Mother's General Health by selected background characteristics MCS4

*Notes:* Using weight dovwt2 (except dovwt1 for country panel) and displaying unweighted cell size, weighted percentage in parentheses, followed by weighted cell size. Sample includes natural/step/adoptive/foster mothers only (either main or partner respondents).

<sup>&</sup>lt;sup>26</sup> Refers to current occupational class

Table 10.14: Father's General Health by selected background characteristics MCS4							
	Excellent	Very Good	Good	Fair	Poor	Total	
07	254	354	378	189	76	1251	
No UK Qualifications <sup>27</sup>	(19.0)	(27.3)	(30.4)	(16.8)	(6.6)	(100.0)	
	98	170	174	79	21	542	
NVQ L1 (< 5 GCSE A–C)	(16.9)	(30.9)	(33.2)	(14.3)	(4.8)	(100.0)	
	472	856	649	228	62	2267	
NVQ L2 (5 GCSE A–C/ 1 A-Level)	(20.2)	(36.7)	(29.9)	(10.6)	(2.7)	(100.0)	
	324	534	381	119	28	1386	
NVQ L3 (2+ A-Level)	(22.5)	(37.6)	(29.0)	(8.9)	(2.0)	(100.0)	
	(07.6)	1055	(24.4)	201	39 (1 E)	(100.0)	
NVQ L4 (Degree Lever)	(27.6)	(39.1)	(24.1)	(7.7)	(1.5)	(100.0)	
NV/OLE (Higher Degree Level)	(20.6)	(29.4)	(22.0)	00	(1 1)	(100.0)	
NVQ L3 (Higher Degree Lever)	(30.0)	(30.4)	(23.0)	(0.9)	(1.1)	(100.0)	
Total Percentage	(23.5)	(36.2)	(27.5)	(10.1)	(2.7)	(100.0)	
Observed Number	2228	3358	2480	882	235	9183	
Weighted Number	(2125)	(3271)	(2490)	(913)	(242)	(9040)	
						p<0.001	
	1335	2123	1687	614	168	5927	
England	(22.7)	(35.8)	(28.4)	(10.4)	(2.8)	(100.0)	
	337	505	329	121	30	1322	
Wales	(26.1)	(38.4)	(24.4)	(8.8)	(2.3)	(100.0)	
	303	434	253	87	19	1096	
Scotland	(26.9)	(39.5)	(23.0)	(8.6)	(2.0)	(100.0)	
	253	299	216	61	18	847	
Northern Ireland	(30.6)	(34.8)	(24.7)	(7.8)	(2.1)	(100.0)	
Total Percentage	(24.4)	(36.5)	(26.8)	(9.7)	(2.6)	(100.0)	
Observed Number Weighted	2228	3361	2485	883	235	9192	
Number	(2183)	(3269)	(2405)	(873)	(229)	(8960)	
						p<0.001	
	2091	3131	2295	792	205	8514	
I wo Natural Parents	(24.8)	(36.7)	(26.8)	(9.4)	(2.3)	(100.0)	
De seu stitute d'Esurcitu	123	198	156	74	25	576	
Reconstituted Family	(20.4)	(35.0)	(26.7)	(13.2)	(4.8)	(100.0)	
Long parent Family	14	32	34	17	5	102	
Lone-parent Family	(18.1)	(30.9)	(32.9)	(12.8)	(5.3)	(100.0)	
Total Percentage	(24.4)	(36.5)	(26.8)	(9.7)	(2.6)	(100.0)	
Observed Number	2228	3361	2485	883	235	9192	
Weighted Number	(2183)	(3269)	(2405)	(873)	(229)	(8960)	
						p=0.001	
	1933	2948	2099	741	188	7909	
White	(23.6)	(36.8)	(27.1)	(10.0)	(2.6)	(100.0)	
	15	26	10	8	4	63	
Mixed	(24.3)	(41.2)	(18.2)	(9.5)	(6.8)	(100.0)	
	52	96	86	21	9	264	
Indian	(19.1)	(38.0)	(30.8)	(9.0)	(3.1)	(100.0)	
	85	135	119	56	20	415	
Pakistani	(22.6)	(30.5)	(28.6)	(13.2)	(5.1)	(100.0)	
	35	37	58	23	6	159	
Bangladeshi	(23.2)	(21.7)	(36.3)	(15.6)	(3.2)	(100.0)	
Continued							

Table 10.14: Eather's General Health by selected background characteristics MCS4

<sup>27</sup> Includes overseas qualifications or unclassifiable qualifications.
	Excellent	Very Good	Good	Fair	Poor	Total
	19	26	28	10	1	84
Black Caribbean	(21.4)	(25.6)	(37.3)	(15.2)	(0.5)	(100.0)
	47	42	30	5	3	127
Black African	(33.6)	(33.0)	(29.0)	(2.2)	(2.2)	(100.0)
	41	49	55	19	4	168
Other	(18.3)	(31.1)	(38.4)	(10.4)	(1.9)	(100.0)
Total Percentage	(23.6)	(36.8)	(27.1)	(10.0)	(2.6)	(100.0)
Observed Number Weighted	2227	3359	2485	883	235	9189
Number	(2124)	(3271)	(2495)	(915)	(242)	(9045)
						p=0.001
	1867	2879	1959	594	108	7407
Income Above 60% Median Value	(24.4)	(38.4)	(27.2)	(8.5)	(1.6)	(100.0)
	361	480	523	287	127	1778
Income Below 60% Median Value	(19.5)	(25.9)	(29.4)	(17.3)	(7.8)	(100.0)
Total Percentage	(23.5)	(36.2)	(27.6)	(10.1)	(2.7)	(100.0)
Observed Number	2228	3359	2482	881	235	9185
Weighted Number	(2125)	(3272)	(2492)	(913)	(241)	(9044)
						p<0.001
Professional/ <sup>28</sup>	1038	1468	881	257	31	3675
Managerial Job	(27.0)	(40.3)	(24.4)	(7.4)	(0.9)	(100.0)
Job Lower than Professional/	1020	1648	1338	434	73	4513
Managerial	(21.8)	(35.6)	(30.6)	(10.3)	(1.7)	(100.0)
	170	245	266	192	131	1004
No Job or Unclassified Job	(17.6)	(23.1)	(26.2)	(19.4)	(13.8)	(100.0)
Total Percentage	(23.5)	(36.2)	(27.6)	(10.1)	(2.7)	(100.0)
Observed Number	2228	3361	2485	883	235	9192
Weighted Number	(2125)	(3274)	(2495)	(915)	(241)	(9049)
						p<0.001

 Table 10.14: Father's General Health by selected background characteristics MCS4

Notes: Using weight dovwt2 (except dovwt1 for country table) and displaying unweighted cell size, weighted percentage in parentheses, followed by weighted cell size. Sample includes natural/step/adoptive/foster fathers only including those lone fathers who were main respondent (either main or partner, one per family).

<sup>&</sup>lt;sup>28</sup> <sup>28</sup> Refers to current occupational class



# Figure 10.8: Percentage of Mothers and Fathers in Fair or Poor Health by Age Group at MCS4 in 2008

Notes: See Tables 10.1 and 10.2.

Table 1	Table 10.15: Mother's General Health by Father's General Health MCS4										
			Mother's General Health								
		Excellent	Very Good	Good	Fair	Poor	Total				
lith	Excellent	787 (33.8)	801 (36.9)	447 (20.9)	136 (6.4)	39 (2.0)	2210 (100.0)				
al Hea	Very Good	772 (22.8)	1325 (39.3)	855 (26.8)	281 (9.1)	70 (2.0)	3303 (100.0)				
Gener	Good	466 (18.5)	886 (35.5)	832 (32.9)	257 (10.2)	66 (2.8)	2507 (100.0)				
ler's (	Fair	132 (16.2)	216 (26.3)	244 (31.9)	142 (21.0)	33 (4.5)	767 (100.0)				
Fatl	Poor	40 (18.3)	71 (28.7)	54 (24.8)	41 (19.5)	19 (8.7)	225 (100.0)				
	Total Percent	2197 (23.6)	3299 (36.2)	2432 (27.5)	857 (10.1)	227 (2.6)	9012 (100.0)				
	Observed Number Weighted Number	2197 (2084)	3299 (3201)	2432 (2428)	857 (890)	227 (233)	9012 (8834)				
							p<0.001				

Notes: See Tables 10.1 and 10.2.

Table <sup>•</sup>	able 10.16: Mother's General Health over two surveys (2008 by 2006)									
			Mother's Gen	eral Health Ag	e 2008					
		Excellent	Very Good	Good	Fair	Poor	Total			
	Excellent	1533	768	290	55	12	2658			
Age		(60.1)	(28.3)	(9.43)	(1.65)	(0.501)	(100)			
Ith /	Very Good	1053	2349	1140	182	37	4761			
Неа		(21.9)	(50.7)	(22.9)	(3.79)	(0.753)	(100)			
eral   06	Good	318	1186	1731	411	60	3706			
iene 20		(8.18)	(32.4)	(47.3)	(10.7)	(1.43)	(100)			
ပို	Fair	58	224	541	472	113	1408			
ther		(3.22)	(15)	(39.6)	(34.2)	(7.95)	(100)			
Ň	Poor	8	37	65	127	124	361			
		(1.95)	(10.1)	(17.6)	(33.1)	(37.2)	(100)			
	Total Percentage	2970	4564	3767	1247	346	12894			
		(23.7)	(36.2)	(28.5)	(9.12)	(2.57)	(100)			
	Observed Number	2970	4564	3767	1247	346	12894			
	Weighted Number	3180	4861	3828	1226	345	13440			
							p<0.001			

*Notes:* Displaying unweighted cell size, weighted percentage in parentheses, followed by weighted cell size. Sample includes natural/step/adoptive/foster mothers only (either main or partner respondents). Sample confined to mothers present at both age 5 and age 7 sweeps. Analysis that uses information from different sweeps in this chapter uses original sample weight (weight2); results were cross checked using latest attrition weights with the overall trends remaining.

Table <sup>2</sup>	able 10.17: Father's General Health over two surveys (2008 by 2006)										
			Father's Gene	eral Health Ag	e 2008	-					
		Excellent	Very Good	Good	Fair	Poor	Total				
90	Excellent	1154	570	167	27	6	1924				
200		(60.2)	(29.6)	(8.55)	(1.21)	(0.37)	(100)				
Age	Very Good	618	1677	741	118	22	3176				
alth		(19.5)	(53.8)	(22.7)	(3.43)	(0.543)	(100)				
Hea	Good	174	651	1036	312	37	2210				
eral		(6.98)	(29)	(47.8)	(14.8)	(1.46)	(100)				
Gen	Fair	31	98	229	251	62	671				
ľs (		(3.93)	(13.2)	(34.9)	(38.2)	(9.73)	(100)				
the	Poor	8	10	29	50	80	177				
Fa		(3.55)	(7.36)	(18)	(26.7)	(44.3)	(100)				
	Total Percent	1985	3006	2202	758	207	8158				
		(24.1)	(37.3)	(27)	(9.25)	(2.36)	(100)				
	Observed Number	1985	3006	2202	758	207	8158				
	Weighted Number	2179	3363	2435	834	213	9024				
							p<0.001				

Notes: see Table 10.2. Sample confined to fathers present at both age 5 and age 7 sweeps).

#### Longstanding conditions (Illness, infirmity, disability)

Longstanding illness, and particularly limiting longstanding illness that prevents labour market participation, became a focus for the previous government in a range of early intervention initiatives (Campbell et al., 2007). The motivation for these initiatives includes a government report that showed around a quarter of the working age population are not in employment, and of these, around 28 per cent are not in work because of longstanding illness (Black, 2008). In MCS4, 29 per cent of mothers not in work reported a longstanding condition (although not necessarily limiting, referred to as longstanding illness from this point onwards) as did 47 per cent of fathers not in employment<sup>29</sup>. More generally, approximately a quarter of mothers and fathers reported a longstanding illness of some kind and 15 per cent of mothers and 13 per cent of fathers reported that this limited their work and/or study capabilities. As with self-rated health, the prevalence of illness and limiting illness varied significantly by social background characteristics (Table 10.6).

Again there was a strong socioeconomic gradient. For example, 19 per cent of mothers with no NVQ qualifications reported a limiting longstanding illness while only 11 per cent of mothers with higher degree-level qualifications did. Among fathers in the poverty income group, almost a quarter reported a limiting long-term illness compared to only one in ten of fathers in families above this threshold. Among family types, the small number of lone fathers was most likely to report illness. There were no significant country differences in the prevalence of illness. While Bangladeshi mothers were least likely to report good health (Table 10.1) they were among the least likely ethnic groups to report a longstanding illness. Black African mothers reported high levels of self-rated health as well as low levels of illness. This may indicate cultural differences in the interpretation of health and illness. Similar results were observed in Bangladeshi mothers' reports of child health (Chapter 9).

Tables 10.7 and 10.8 show that illness is related to the amount of body pain experienced on a daily basis. However, it should also be noted that a substantial amount of those who experienced moderate, severe or very severe daily body pain did not consider themselves to have a longstanding illness (not shown).

Table 10.9 shows the relationship between illness among mothers and fathers in couples. Overall, among children growing up in two parent households, 59 per cent are in households where neither parent had a longstanding illness of any sort. However, 6 percent are in households where both parents had longstanding illnesses and 3 per cent in households where both parents had limiting illnesses. This could suggest a substantial proportion of MCS children may enter caring roles within their families in the future, if not currently.

<sup>&</sup>lt;sup>29</sup>. 'Longstanding was defined as ' anything that has troubled you over a period of time or that is likely to affect you over a period of time'

Table 10.18: Mother's and Father's Illness by selected background characteristics MCS4										
		Мо	ther			Fa	ther			
	No Illness	Illness: Not Limiting	Limiting Illness	Total	No Illness	Illness: Not Limiting	Limiting Illness	Total		
No UK Qualifications <sup>30</sup>	1410 (72 0)	152	372 (19.2)	1934 (100 0)	634 (67.9)	90 (10-3)	185 (21.8)	909		
NVQ L1 (< 5 GCSE	689	81	158	928	260	27	56	343		
A-C)	(75.4)	(8.2)	(16.4)	(100.0)	(77.2)	(7.6)	(15.2)	(100.0)		
NVQ L2 (5 GCSE	2604 (73.0)	(11.2)	568 (15.8)	3564	411 (74 9)	(11.2)	76 (13.9)	(100.0)		
NVQ L3 (2+ A-	1600	192	270	2062	1688	264	315	2267		
Level)	(77.4)	(8.8)	(13.8)	(100.0)	(73.4)	(12.1)	(14.5)	(100.0)		
NVQ L4 (Degree	3215	434 (11.0)	503 (11-8)	4152 (100 0)	1063 (76.5)	156 (11-1)	166 (12-4)	1385		
NVQ L5 (Higher	722	98	102	922	2076	348	294	2718		
Degree Level)	(78.9)	(10.4)	(10.7)	(100.0)	(76.1)	(13.5)	(10.5)	(100.0)		
Total Percentage	(75.3)	(10.1)	(14.5)	(100.0)	(77.4)	(12.7)	(9.9)	(100.0)		
Observed Number	10240	(1349	(1062)	13562	6929 (6762)	1064	(1187	9180		
Weighted Number	(10175)	(1309)	(1903)	(13506)	(0703)	(1069)	(1169)	(9041)		
	6528	867	12/1	p<0.001	4409	724	70/	p<0.001		
England	(75.1)	(10.3)	(14.6)	(100.0)	(74.3)	(12.4)	(13.3)	(100.0)		
	1460	210	319	1989	1018	138	164	1320		
Vvales	(74.2)	(10.3)	(15.5)	(100.0)	(77.6)	(9.5)	(12.9)	(100.0)		
Scotland	(77.1)	(9.8)	(13.2)	(100.0)	(76.8)	(11.4)	(11.8)	(100.0)		
	1028	113	203	1344	661	81	105	847		
Northern Ireland	(76.6)	(8.3)	(15.1)	(100.0)	(78.0)	(10.0)	(12.0)	(100.0)		
Total Percentage	(75.4)	(10.0)	(14.0)	(100.0)	(75.4)	(11.0)	(13.0)	(100.0)		
Weighted Number	(10198)	(1356)	(1976)	(13531)	(6753)	(1043)	(1163)	(8959)		
	()	(1000)	()	p=0.240	(0.00)	(1010)	(*****)	p=0.046		
2 Natural Parents	7629	992	1268	9889	6457	997	1057	8511		
Reconstituted	(77.0)	(10.2)	(12.8)	(100.0)	(75.3)	(12.3)	(12.4)	(100.0)		
Family	(68.7)	(12.0)	(19.4)	(100.0)	(70.8)	(8.9)	(20.3)	(100.0)		
Lone-parent Family	1986	263	534	2783	61	13	28	102		
Total Daraantara	(72.3)	(9.2)	(18.5)	(100.0)	(64.0)	(13.1)	(22.9)	(100.0)		
	10242	1350	(11.0)	13565	6036	1065	1188	0180		
Weighted Number	(10178)	(1370)	(1963)	(13511)	(6768)	(1091)	(1190)	(9049)		
	· · ·	· · ·	 Т	p<0.001		· · ·	 I	p<0.001		
\M/bito	8638	1214	1719	(100.0)	5950	944	(12.2)	7907		
vvnite	(74.4)	(10.7)	(14.9)	(100.0)	(74.4)	(12.4)	(13.2)	(100.0)		
Mixed	(74.3)	(13.3)	(12.4)	(100.0)	(84.2)	(8.6)	(7.2)	(100.0)		
Indian	282	23	41	346	201	28	35	264		
Indian	(83.1)	(5.3)	(11.6)	(100.0)	(74.4)	(13.6)	(12.1)	(100.0)		
Pakistani	(79.9)	(5.8)	(14.4)	(100.0)	(78.4)	(7.3)	(14.3)	(100.0)		
Develo de els	207	9	30	246	119	16	23	158		
Bangladeshi	(85.2)	(3.0)	(11.9)	(100.0)	(77.0)	(9.0)	(13.9)	(100.0)		
Black Caribbean	(78.3)	(11.8)	(9.9)	(100.0)	(72.1)	(11.0)	(16.9)	(100.0)		
	218	17	30	265	98	15	14	127		
Black African	(85.3)	(4.3)	(10.3)	(100.0)	(81.2)	(10.3)	(8.5)	(100.0)		
Other	(84.2)	(5.7)	(10.1)	(100.0)	(80.7)	(7.6)	(11.7)	(100.0)		

<sup>&</sup>lt;sup>30</sup> Includes overseas qualifications or unclassifiable qualifications.

Table 10.18: Mothe	Table 10.18: Mother's and Father's Illness by selected background characteristics MCS4										
		Мо	ther			Fa	ther				
	No Illness	Illness: Not Limiting	Limiting Illness	Total	No Illness	Illness: Not Limiting	Limiting Illness	Total			
Continued											
Total Percentage	(75.3)	(10.1)	(14.5)	(100.0)	(74.8)	(12.1)	(13.2)	(100.0)			
Observed Number	10242	1348	1973	13563	6933	1065	1188	9186			
Weighted Number	(10178)	(1368)	(1963)	(13509)	(6764)	(1091)	(1190)	(9045)			
				p<0.001	p=0.260						
Income Above 60%	7355	979	1176	9510	5737	894	772	7403			
Median Value	(76.9)	(10.6)	(12.5)	(100.0)	(76.9)	(12.5)	(10.6)	(100.0)			
Income Below 60%	2879	371	795	4045	1193	170	416	1779			
Median Value	(71.3)	(9.1)	(19.6)	(100.0)	(64.8)	(9.9)	(25.3)	(100.0)			
Total Percentage	(75.3)	(10.1)	(14.5)	(100.0)	(74.8)	(12.1)	(13.2)	(100.0)			
Observed Number	10234	1350	1971	13555	6930	1064	1188	9182			
Weighted Number	(10172)	(1370)	(1962)	(13504)	(6763)	(1091)	(1190)	(9044)			
		L		p<0.001				p<0.001			
Professional/	2514	354	318	3186	2864	467	342	3673			
Managerial Job	(78.6)	(11.4)	(10.0)	(100.0)	(77.2)	(13.2)	(9.6)	(100.0)			
Job Lower than Professional/ Managerial	4024 (77.7)	544 (10.9)	576 (11.4)	5144 (100.0)	3500 (76.9)	511 (11.8)	501 (11.3)	4512 (100.0)			
No Job or	3704	452	1079	5235	572	87	345	1004			
Unclassified Job	(71.1)	(8.7)	(20.2)	(100.0)	(56.0)	(9.0)	(35.0)	(100.0)			
Total Percentage	(75.3)	(10.1)	(14.5)	(100.0)	(74.8)	(12.1)	(13.2)	(100.0)			
Observed Number	10242	1350	1973	13565	6936	1065	1188	9189			
Weighted Number	(10178)	(1370)	(1963)	(13511)	(6768)	(1091)	(1190)	(9049)			
				p<0.001				p<0.001			
Teenage at birth of	720	65	127	912	131	13	22	166			
CM	(77.0)	(8.1)	(14.9)	(100.0)	(74.5)	(9.1)	(16.4)	(100.0)			
20–24 yrs at birth of	1782	185	368	2335	628	73	89	790			
CM	(75.7)	(8.2)	(16.1)	(100.0)	(77.9)	(9.8)	(12.3)	(100.0)			
25–29 yrs at birth of	2787	371	523	3681	1510	181	231	1922			
CM	(75.7)	(10.3)	(14.0)	(100.0)	(77.7)	(10.1)	(12.2)	(100.0)			
30–34 yrs at birth of	3190	439	553	4182	2445	348	343	3136			
CM	(76.4)	(10.5)	(13.0)	(100.0)	(77.3)	(11.7)	(11.0)	(100.0)			
Over 34 yrs at birth	1763	290	402	2455	2222	450	503	3175			
of CM	(71.8)	(12.1)	(16.1)	(100.0)	(69.8)	(14.4)	(15.8)	(100.0)			
Total Percentage	(75.3)	(10.1)	(14.5)	(100.0)	(74.8)	(12.1)	(13.2)	(100.0)			
Observed Number	10242	1350	1973	13565	6936	1065	1188	9189			
Weighted Number	(10178)	(1370)	(1963)	(13511)	(6768)	(1091)	(1190)	(9049)			
				p<0.001				p<0.001			

Notes: Using weight dovwt2 (except dovwt1 for country table) and displaying unweighted cell size, weighted percentage in parentheses, followed by weighted cell size. Sample includes natural/step/adoptive/foster mothers and fathers only.

Table 10.19: Mothers	Table 10.19: Mothers reporting Longstanding Illness by amount of body pain MCS4									
		Very			Severe or					
	None	Mild	Mild	Moderate	Very Severe	Total				
	576	275	209	211	79	1350				
Illness: Not Limiting	(42.2)	(20.2)	(16.2)	(15.6)	(5.9)	(100.0)				
	330	265	338	592	448	1973				
Limiting Illness	(16.9)	(14.0)	(17.3)	(28.5)	(23.4)	(100.0)				
Total Percentage	(27.3)	(16.5)	(16.8)	(23.2)	(16.2)	(100.0)				
Observed Number	906	540	547	803	527	3323				
Weighted Number	(909)	(550)	(561)	(773)	(540)	(3333)				
						p<0.001				

Notes: See Table 10.1 Sample is restricted to those who reported a longstanding illness.

Table 10.20: Fathers r	Table 10.20: Fathers reporting Longstanding Illness by amount of body pain MCS4									
		Very			Severe or					
	None	Mild	Mild	Moderate	Very Severe	Total				
	425	238	180	155	67	1065				
Illness: Not Limiting	(39.0)	(22.2)	(16.6)	(15.2)	(7.0)	(100.0)				
	204	166	224	333	261	1188				
Limiting Illness	(18.2)	(14.5)	(19.3)	(26.9)	(21.2)	(100.0)				
Total Percentage	(28.2)	(18.2)	(18.0)	(21.3)	(14.4)	(100.0)				
Observed Number	629	404	404	488	328	2253				
Weighted Number	(642)	(414)	(411)	(486)	(328)	(2281)				
						p<0.001				

Notes: See Table 10.2. Sample is restricted to those who reported a longstanding or limiting longstanding illness.

Table 10.21: Mother's Longstanding Illness by Father's Longstanding Illness MCS4									
		Mother's longstanding health							
			Illness: Not	Illness:					
		No Illness	Limiting	Limiting	Total	Col Total			
, ing	No Illnoss	5283	695	829	6807	(75.2)			
		(77.6)	(10.9)	(11.6)	(100.0)	(75.2)			
er's ind es		791	106	146	1043	(12.4)			
sta	Illness: Not Limiting	(76.6)	(10.5)	(12.9)	(100.0)	(12.4)			
ong		786	141	227	1154				
-	Illness: Limiting	(66.8)	(13.3)	(19.9)	(100.0)	(12.5)			
	Total Percentage	(76.1)	(11.1)	(12.8)	(100.0)	(100)			
	Observed Number	6860	942	1202	9004				
	Weighted Number	(7460)	(1091)	(1251)	(9803)				
						p=0.001			

Notes: See Table 10.1 and 10.2. Sample is restricted to couples.

#### Part 2: Mental health

Ensuring adequate diagnosis and treatment for mental health issues has become a tenet of public policy response to mental health problems in the workforce (Department for Work and Pensions, 2008). Mental health problems are more common than many people realise. At any point in time, one in six people in the UK

experiences symptoms that are indicative of problematic mental health – symptoms such as sleep problems, fatigue, anxiety and irritability do not necessarily meet criteria for a medical diagnosis but can still impede quality of life. A further one-sixth of the working age population have symptoms that could indicate a mental health disorder, and 0.5 per cent have symptoms of a psychotic illness (Lelliott et al., 2008). We would therefore expect to see a relatively high proportion of MCS parents with a mental health issue, which is the case.

#### Limiting emotional problems

Looking first at the extent to which self-reported emotional problems limit work or study activities, we find that this is relatively common, particularly among women. Thirteen per cent of mothers reported that emotional problems limited work (or study) somewhat, quite a lot, or to the extent that they could not carry out activities (referred to as moderate-severe from this point on, Table 10.10). This compared to 7 per cent of fathers who reported the same difficulties (Table 10.11). Such a gender imbalance is not unexpected, and is found in the literature. Women aged 35–54, who are economically disadvantaged, who are lone parents and who have low qualifications are most likely to be suffering a mental illness (Lelliott et al., 2008). Among MCS mothers, these patterns were repeated.

The highest qualified women had rates of moderate-severe emotional problems that were almost half those of women with no qualifications (20% compared to 10%). Similar patterns were found among MCS mothers as within the literature in terms of being a lone parent and disadvantaged, where experience of either increased the propensity of emotional problems. Additionally, being from Pakistani or black Caribbean heritage also increased the prevalence of emotional problems which limited activities severely (Figure 10.2). Among fathers, many of these patterns were repeated, although it was black Caribbean and Indian men who were most likely to find that emotional problems limited their work. Among MCS mothers and fathers, there were significant differences by country and those in Northern Ireland were least likely to report suffering from emotional problems and those in England most likely. We also observe a slight age gradient in terms of limiting emotional problems, with younger parents more likely to be afflicted by limiting emotional problems, although there is little difference in the mental health of the parents in the two oldest age groups, and the relationship is not statistically significant in the case of the emotional problems of fathers. While patterns of emotional problems by maternal age and country were statistically significant, they were not necessarily of a large magnitude.

characteristics MCS4	1	1	1		1				
	Not at all	Very Little	Somewhat	Quite a Lot	Total				
No UK Qualifications <sup>31</sup>	1251 (64.5)	307 (15.6)	200 (10.8)	172 (9.1)	1930 (100.0)				
	650	142	79	56	927				
NVQ L1 (< 5 GCSE A–C)	(70.1)	(15.8)	(8.2)	(6.0)	(100.0)				
NVQ L2 (5 GCSE A-C/ 1 A-	2530	546	288	202	3566				
Level)	(70.2)	(15.9)	(8.3)	(5.7)	(100.0)				
	1526	303	141	95	2065				
NVQ L3 (2+ A-Level)	(73.0)	(15.1)	(7.0)	(4.9)	(100.0)				
	(76.1)	565 (15 0)	(5 A)	(3.4)	(100.0)				
	695	131	71	25	922				
NVQ L5 (Higher Degree Level)	(74.4)	(15.1)	(7.6)	(2.8)	(100.0)				
	9842	2014	1013	694	13563				
Total Percentage	(71.8)	(15.4)	(7.6)	(5.2)	(100.0)				
Observed Number	9842	2014	1013	694	13563				
Weighted Number	(9700)	(2080)	(1022)	(707)	(13509)				
					p<0.001				
	6126	1364	676	468	8634				
England	(71.1)	(15.8)	(7.7)	(5.4)	(100.0)				
	1494	256	144	97	1991				
Wales	(75.1)	(12.9)	(7.2)	(4.7)	(100.0)				
Scotland	(74.6)	(14.8)	98 (63)		(100.0)				
Scotland	1025	(14.8)	(0.3)	(4.4)	(100.0)				
Northern Ireland	(76.9)	(11.5)	(6.9)	(4.8)	(100.0)				
	9844	2015	1013	694	13566				
Total Percentage	(72.7)	(14.8)	(7.4)	(5.1)	(100.0)				
Observed Number	9844	2015	1013	694	13566				
Weighted Number	(9835)	(2007)	(1003)	(690)	(13535)				
	T				p<0.001				
Two Network Devents	7541	1379	609	359	9888				
Two Natural Parents	(70.1)	(14.2)	(0.3)	(3.4)	(100.0)				
Reconstituted Family	(66.5)	(14.7)	(9.8)	(9.0)	(100.0)				
	1707	502	315	261	2785				
Lone-parent Family	(60.0)	(19.3)	(11.0)	(9.6)	(100.0)				
	9844	2015	1013	694	13566				
Total Percentage	(71.8)	(15.4)	(7.6)	(5.2)	(100.0)				
Observed Number	9844	2015	1013	694	13566				
Weighted Number	(9705)	(2080)	(1022)	(707)	(13514)				
	626	122	75	70	p<0.001				
Teenage at birth of CM	(69.1)	(14.9)	(7.4)	(8.6)	(100.0)				
	1594	360	226	(0.0)	2335				
20–24 yrs at birth of CM	(66.8)	(15.9)	(10.3)	(6.9)	(100.0)				
	2688	531	274	183	3676				
25–29 yrs at birth of CM	(72.8)	(15.0)	(7.2)	(5.0)	(100.0)				
	3121	615	275	173	4184				
30–34 yrs at birth of CM	(73.9)	(15.4)	(6.7)	(4.0)	(100.0)				
	1805	377	163	113	2458				
Over 34 yrs at birth of CM	(73.1)	(15.7)	(6.8)	(4.4)	(100.0)				
Total Percentage	(71.8)	(15.4)	(7.6)	(5.2)	(100.0)				
Observed Number	9844	2015	1013	694	13566				
VVeighted Number	(9705)	(2080)	(1022)	(707)	(13514)				
p<0.001									
Continued	1	0	1						
Income Above 60% Median	7282	1327	564	340	9513				
		•	•	•	•				

### Table 10.22: Mothers' Emotional Problems limiting work or study by selected background characteristics MCS4

<sup>31</sup> Includes overseas qualifications or unclassifiable qualifications.

characteristics MCS4								
	Not at all	Very Little	Somewhat	Quite a Lot	Total			
Value	(76.1)	(14.4)	(5.9)	(3.7)	(100.0)			
Income Below 60% Median	2556	686	449	352	4043			
Value	(61.3)	(17.9)	(11.8)	(9.0)	(100.0)			
Total Percentage	(71.8)	(15.4)	(7.6)	(5.2)	(100.0)			
Observed Number	9838	2013	1013	692	13556			
Weighted Number	(9700)	(2079)	(1022)	(706)	(13508)			
p<0.001								
Professional/	2490	429	170	97	3186			
Managerial Job	(77.4)	(14.3)	(5.3)	(3.0)	(100.0)			
Job Lower than Professional/	3947	718	312	170	5147			
Managerial	(75.6)	(14.8)	(6.2)	(3.4)	(100.0)			
	3407	868	531	427	5233			
No Job or Unclassified Job	(64.8)	(16.6)	(10.2)	(8.3)	(100.0)			
Total Percentage	(71.8)	(15.4)	(7.6)	(5.2)	(100.0)			
Observed Number	9844	2015	1013	694	13566			
Weighted Number	(9705)	(2080)	(1022)	(707)	(13514)			
					p<0.001			

### Table 10.22: Mothers' Emotional Problems limiting work or study by selected background characteristics MCS4

Notes: See Table 10.1

### Table 10.23: Fathers' Emotional Problems limiting work or study by selected background characteristics MCS4

	Not at all	Very Little	Somewhat	Quite a Lot	Total
	919	182	70	79	1250
No UK Qualifications <sup>32</sup>	(71.3)	(16.3)	(6.1)	(6.4)	(100.0)
	411	73	29	29	542
NVQ L1 (< 5 GCSE A–C)	(76.5)	(14.1)	(5.2)	(4.2)	(100.0)
NVQ L2 (5 GCSE A-C/ 1 A-	1859	253	81	74	2267
Level)	(80.5)	(12.2)	(3.9)	(3.4)	(100.0)
	1134	162	56	34	1386
NVQ L3 (2+ A-Level)	(81.7)	(12.2)	(4.0)	(2.1)	(100.0)
	2208	356	102	55	2721
NVQ L4 (Degree Level)	(81.1)	(12.9)	(4.0)	(2.0)	(100.0)
	832	125	37	22	1016
NVQ L5 (Higher Degree Level)	(81.2)	(12.6)	(3.8)	(2.4)	(100.0)
	7363	1151	375	293	9182
Total Percentage	(79.5)	(13.1)	(4.3)	(3.1)	(100.0)
Observed Number	7363	1151	375	293	9182
Weighted Number	(7188)	(1182)	(390)	(280)	(9041)
					p<0.001
	4617	818	293	198	5926
England	(78.5)	(13.6)	(4.7)	(3.2)	(100.0)
	1104	123	40	55	1322
Wales	(83.5)	(9.4)	(3.1)	(4.0)	(100.0)
	934	120	28	14	1096
Scotland	(84.5)	(11.4)	(2.6)	(1.5)	(100.0)
	715	90	15	27	847
Northern Ireland	(85.1)	(10.5)	(1.4)	(3.0)	(100.0)
Total Percentage	(80.5)	(12.4)	(3.9)	(3.1)	(100.0)
Observed Number	7370	1151	376	294	9191
Weighted Number	(7214)	(1114)	(352)	(279)	(8961)
Continued					

<sup>32</sup> Includes overseas qualifications or unclassifiable qualifications.

	Not at all	Very Little	Somewhat	Quite a Lot	Total
					p<0.001
Two Natural Parents	6859	1069	329	256	8513
I wo Natural Parents	(79.9)	(13.2)	(4.0)	(2.9)	(100.0)
Reconstituted Family	448	68	37	23	576
	(77.7)	(10.8)	(7.2)	(4.3)	(100.0)
Lone-parent Family	63	14	10	15	102
1 ,	(61.5)	(17.4)	(10.7)	(10.3)	(100.0)
Total Percentage	(79.5)	(13.1)	3/6	(3.1)	(100.0)
Observed Number	7370	(13.1)	376	29/	(100.0)
Weighted Number	(7196)	(1182)	(391)	(281)	(9050)
	(1100)	(1102)	(001)	(201)	p<0.001
	127	25	8	6	166
Teenage at birth of CM	(75.3)	(15.8)	(5.4)	(3.5)	(100.0)
	646	80	32	32	790
20–24 yrs at birth of CM	(81.1)	(11.0)	(3.9)	(4.0)	(100.0)
	1526	239	90	65	1920
25–29 yrs at birth of CM	(79.4)	(12.5)	(5.1)	(2.9)	(100.0)
	2542	397	119	80	3138
30–34 yrs at birth of CM	(80.2)	(13.2)	(4.2)	(2.4)	(100.0)
	2529	410	127	111	3177
Over 34 yrs at birth of CM	(78.7)	(13.6)	(4.0)	(3.7)	(100.0)
Total Percentage	(79.5)	(13.1)	(4.3)	(3.1)	(100.0)
Observed Number	7370	1151	376	294	9191
Weighted Number	(7196)	(1182)	(391)	(281)	(9050)
					p=0.368
Income Above 60% Median	6147	860	248	152	7407
Value	(82.3)	(12.1)	(3.6)	(2.0)	(100.0)
Income Below 60% Median	1218	290	127	142	1777
Value	(66.4)	(17.7)	(7.7)	(8.2)	(100.0)
Total Percentage	(79.5)	(13.1)	(4.3)	(3.1)	(100.0)
Observed Number	7365	1150	375	294	9184
Weighted Number	(7191)	(1182)	(390)	(281)	(9044)
		1			p<0.001
Professional/	3016	461	134	65	3676
Managerial Job	(81.4)	(13.1)	(3.8)	(1.8)	(100.0)
Job Lower than Professional/	3/31	517	148	116	4512
Manageriai	(82.1)	(11.8)	(3.6)	(2.5)	(100.0)
No. Job or Upplassified Job	623 (60 R)	(19.4)	(0.8)	(11.0)	(1003
	(00.0)	(10.4)	(9.6)	(11.0)	(100.0)
Total Percentage	(79.5)	(13.1)	(4.3)	(3.1)	(100.0)
Observed Number	7370	1151	376	294	9191
Weighted Number	(7196)	(1182)	(391)	(281)	(9050)
					n<0.001

# Table 10.23: Fathers' Emotional Problems limiting work or study by selected background characteristics MCS4

Notes: See Table 10.2

# Figure 10.9: Percentage of Mothers' and Fathers' Emotional Problems limiting work or study by Ethnic Group (% being affected somewhat, quite a lot or couldn't perform activities) MCS4



See Notes to Table 10.1 and 10.2.

#### **Psychological Distress (Kessler)**

Psychological distress was measured using the Kessler 6 scale, widely used in general purpose health surveys for the measurement of non-specific psychological disorders (Kessler et al., 2003). Unlike previous sweeps, only main respondents completed the relevant set of items, and we present information for mothers only given that the majority of main respondents are mothers. The six questions asked how often in the past 30 days the respondent had felt: i) so depressed that nothing could cheer you up ii) hopeless iii) restless or fidgety iv) that everything you did was an effort v) worthless vi) nervous. For each question respondents score four points if they answer 'all of the time', three points for most of the time, two points for some of the time, one point for a little of the time and zero for none of the time. The questions form a 24-point scale and the following cut-offs were used: 0-3 'no or low distress', 4-12 'medium distress', and 13 or over 'high distress'. The majority of mothers reported in the range for low or no distress (68%), over a guarter were in the medium distress range (28%), while the remainder (4%) had responses classified as high distress. Psychological distress was patterned in much the same way as indicators of emotional problems presented earlier (Table 10.12), although some of these patterns were amplified. For example, almost half of mothers from Bangladeshi and other ethnic groups reported in the medium to high distress range; mothers who were not working or were in occupations that could not be classified were five times more

likely to be classed as highly distressed than those in professional or managerial occupations. Similar numbers of mothers reported either increased psychological distress, or reported decreased stress between 2006 and 2008. Overall, 11 per cent of those who reported high psychological distress in 2006 reported a score corresponding to low or no psychological distress in 2008 (Table 10.13).

background characteristics MC	S4			
	No or Low Distress	Medium Distress	High Distress	Total
	719	457	121	1297
No UK Qualifications <sup>33</sup>	(55.0)	(35.1)	(9.9)	(100.0)
	530	253	52	835
NVQ L1 (< 5 GCSE A–C)	(63.8)	(30.1)	(6.1)	(100.0)
	2186	1003	136	3325
NVQ L2 (5 GCSE A–C/ 1 A-Level)	(65.5)	(30.3)	(4.2)	(100.0)
	1352	528	63	1943
NVQ L3 (2+ A-Level)	(69.1)	(27.8)	(3.1)	(100.0)
	2968	951	69	3988
NVQ L4 (Degree Level)	(74.2)	(24.1)	(1.7)	(100.0)
	616	245	17	878
NVQ L5 (Higher Degree Level)	(70.1)	(27.2)	(2.7)	(100.0)
Total Percentage	(67.7)	(28.3)	(3.9)	(100.0)
Observed Number	8371	3437	458	12266
vveighted Number	(8365)	(3496)	(486)	(12347)
	5004	0000	000	p<0.001
England	5091	(22,00)	300	(100.0)
England	(07.3)	(28.7)	(4.0)	(100.0)
Wales	1200 (67.9)	040 (28.5)	(27)	(100.0)
Wales	(07.0)	(20.3)	(3.7)	(100.0)
Scotland	(69.6)	(27.0)	(3.4)	(100.0)
Scotland	(03.0)	208	(3.4)	(100.0)
Northern Ireland	(73.3)	(23.0)	(37)	(100.0)
Total Deveentere	(68.3)	(27.9)	(3.9)	(100.0)
Observed Number	(00.0)	2427	(0:0)	(100:0)
Weighted Number	(8516)	(3437	(482)	(12/73)
Weighted Number	(0310)	(3473)	(402)	(12+73)
	6439	2261	225	<u>p=0:005</u> 8925
Two Natural Parents	(72.1)	(25.4)	(2.5)	(100.0)
	507	264	48	819
Reconstituted Family	(62.9)	(31.2)	(5.9)	(100.0)
Long parent Family	1428	912	185	2525
Lone-parent Family	(55.6)	(36.6)	(7.8)	(100.0)
Total Percentage	(68.3)	(27.9)	(3.9)	(100.0)
Observed Number	8374	3437	458	12269
Weighted Number	(8370)	(3496)	(486)	(12352)
				p<0.001
	7616	3003	384	11003
White	(68.4)	(27.8)	(3.8)	(100.0)
	58	39	5	102
Mixed	(57.9)	(38.2)	(3.9)	(100.0)
	166	78	11	255
Indian	(65.4)	(30.0)	(4.6)	(100.0)
	172	112	21	305
Pakistani	(58.8)	(33.9)	(7.2)	(100.0)
Devide de chi	58	48	5	111
Bangladeshi	(54.9)	(39.0)	(6.0)	(100.0)
Continued				

### Table 10.24: Mother's psychological distress score (Kessler Scale) by selected

<sup>&</sup>lt;sup>33</sup> Includes overseas qualifications or unclassifiable qualifications.

	No or Low	Medium	High	
	Distress	Distress	Distress	Total
	90	51	12	153
Black Caribbean	(58.5)	(34.6)	(6.9)	(100.0)
	124	43	11	178
Black African	(70.6)	(23.8)	(5.6)	(100.0)
Other	(55,6)	62 (39.3)	9 (5.1)	(100.0)
Total Percentage	(68.3)	(27.9)	(3.9)	(100.0)
Observed Number	8373	3436	458	12267
Weighted Number	(8369)	(3495)	(486)	(12350)
		· · · / · I		p=0.090
	6568	2220	194	8982
Income Above 60% Median Value	(72.5)	(25.2)	(2.3)	(100.0)
	1805	1216	264	3285
Income Below 60% Median Value	(54.7)	(36.9)	(8.4)	(100.0)
Total Percentage	(68.3)	(27.9)	(3.9)	(100.0)
Observed Number	8373	3436	458	12267
Weighted Number	(8369)	(3495)	(486)	(12351)
				p<0.001
Professional/	2312	709	42	3063
Managerial Job	(75.0)	(23.6)	(1.4)	(100.0)
Job Lower than Professional/ Managerial	3458	(27.0)	(2.2)	4840 (100 0)
Managenai	2604	(27.0)	(2.2)	(100.0)
No Job or Unclassified Job	(59.9)	(32.7)	(7.4)	(100.0)
Total Percentage	(68.3)	(27.9)	(3.9)	(100.0)
Observed Number	8374	3437	458	12269
Weighted Number	(8370)	(3496)	(486)	(12352)
				p<0.001
	493	274	54	821
Teenage at birth of CM	(59.4)	(33.0)	(7.6)	(100.0)
	1252	665	121	2038
20-24 yrs at birth of CM	(60.1)	(33.3)	(6.6)	(100.0)
25, 20 yrs at hirth of CM	2259	(28.0)	122	3300
	(00.0)	(20.0)	(3.4)	(100.0)
30–34 vrs at birth of CM	(71.6)	(25.8)	(2.6)	(100.0)
	1598	588	62	2248
Over 34 yrs at birth of CM	(71.1)	(26.1)	(2.8)	(100.0)
Total Percentage	(67.8)	(28.3)	(3.9)	(100.0)
Observed Number	8374	3437	458	12269
Weighted Number	(8370)	(3496)	(486)	(12352)
				p<0.001

### Table 10.24: Mother's psychological distress score (Kessler Scale) by selected background characteristics MCS4

Notes: See Table 10.1

and MCS4)										
			Mother's Psychological Distress Score 2008							
		No or Low	Medium			Col Total				
		Distress	Distress	High Distress	Total					
le le	No or Low	6442	1186	52	7680	(70.2)				
s s s 06	Distress	(84.2)	(15.2)	(0.6)	(100.0)	(70.2)				
loc loc res		1230	1663	184	3077	(27.0)				
oth cho isti	Medium Distress	(40.8)	(53.6)	(5.5)	(100.0)	(27.0)				
Sc D S M		45	189	133	367	(2.9)				
<u>م</u>	High Distress	(11.2)	(52.4)	(36.3)	(100.0)	(2.0)				
		7717	3038	369	11124	(100.0)				
	Total Percentage	(70.4)	(26.6)	(3.0)	(100.0)	(100.0)				
	Observed Number	7717	3038	369	11124					
	Weighted Number	(8513)	(3214)	(358)	(12085)					
					p<0.001					

Notes: See Table 10.1Sample of mothers who were present at both 2006 and 2008 sweeps.

#### Life satisfaction

Questions about life satisfaction had been put to both main and partner respondents in 2006, although only to main respondents in 2008. Satisfaction with 'life so far' was recorded on an 11-point scale. We have collapsed this into a binary variable where a score of seven or above is treated as being reasonably satisfied (and anything less is considered not satisfied). We find three groups who stand out as having two-fifths or more who are not satisfied with their lives so far. These are: lone parents, mothers in families with poverty level income, and black Caribbean mothers (Figure 10.3). These are also the groups with most dissatisfaction in the 2006 survey (Roberts and Ketende, 2008; Table 10.14). As has been the case in the majority of the chapter, black African mothers, graduate mothers and those who are in dual earner partnerships appear to be in the best health, shown here through having the highest rates of life satisfaction. Longitudinally, the 'not satisfied category' was not as stable as the 'satisfied', with just over half remaining in the category between 2006 and 2008, compared to almost 90 per cent of those in the satisfied category. Physical health was also significantly related to life satisfaction (Table 10.15) - 86 per cent of those who described their health as excellent were highly satisfied with life. This dropped to 50 per cent among those with poor physical health.

# Figure 10.10: Percentage of Mothers not satisfied with life so far by selected MCS4 characteristics



Notes See Table 10.1.

Table 10.26: Mother's Life Satisfaction over time – MCS3 and MCS4								
		Mother's Life Satisfaction at 2008						
		Not Satisfied	Satisfied	Total	Col Total			
		1578	1318	2896				
o	Not Satisfied	(54.9)	(45.1)	(100.0)	(23.2)			
° r's		1185	7753	8938				
be sfa	Satisfied	(12.8)	(87.2)	(100.0)	(76.8)			
lot ati t 2(		2763	9071	11834				
aνrz	Total Percentage	(22.6)	(77.4)	(100.0)	(100.0)			
	Observed Number	2763	9071	11834				
	Weighted Number	(2868)	(9848)	(12716)				
		· · ·		p<0.001				

Notes: See Table 10.1 Sample those who were present at both 2006 and 2008 sweeps.

Table 10.27: Mother's Life Satisfaction by Mother's General Health MCS4							
	Not Satisfied	Satisfied	Total				
	373	2575	2948				
Excellent	(13.8)	(86.2)	(100.0)				
	864	3715	4579				
Very Good	(19.6)	(80.4)	(100.0)				
	1125	2585	3710				
Good	(31.1)	(68.9)	(100.0)				
	511	714	1225				
Fair	(44.8)	(55.2)	(100.0)				
	166	172	338				
Poor	(50.2)	(49.8)	(100.0)				
	3039	9761	12800				
Total Percentage	(25.0)	(75.0)	(100.0)				
Observed Number	3039	9761	12800				
Weighted Number	(3223)	(9650)	(12873)				
			p<0.001				

Notes: See Table 10.1

#### Part 3: Health and lifestyle

#### **Alcohol consumption**

Alcohol consumption in the UK is of concern to health professionals and policymakers alike. Excessive consumption of alcohol has been linked to a range of physical and psychological problems including increased risks of cardiovascular diseases, liver diseases and forms of cancer. Rates of alcohol consumption have changed only slightly in recent years, remaining high with one in three men (34%) and one in five women (19%) drinking at least every other day according to recent estimates (Lader, 2009). UK alcohol consumption remains lower per capita than in several European countries, ranking 14<sup>th</sup> out of 25 in litres consumed per capita (Department of Health, 2006). Nevertheless, the patterns of drinking are a cause of concern. Firstly, the unequal distribution of alcohol consumption by social characteristics means that some groups tend to be disproportionately burdened by the ill effects of excessive consumption. Secondly, consumption patterns as measured by frequency of drinking alcohol may mask some heavy drinking. For example, almost two-fifths of men (38%) and a quarter of women (25%) exceeded their recommended daily allowance of alcohol in a single session in a typical week (Department of Health, 2009b; Lader, 2009). This section examines the social background characteristics of alcohol consumption of MCS parents in terms of frequency of consumption, but it should be recognised that this measurement may not give the full picture.

Alcohol consumption has a very different social profile from that of physical and mental illness reported above. Among MCS mothers, alcohol consumption was higher among the socially advantaged (Table 10.16). For example, almost twice as many mothers with higher tertiary qualifications drank alcohol every day as those with no qualifications (4.7% compared to 2.5%). Twenty-three per cent of mothers in families with income above the poverty threshold drank alcohol every day or several days a week (referred to as frequently from this point), compared to 10 per cent of those in 'poor' families. Older mothers were also substantially more likely to drink frequently than younger mothers, possibly a reflection of other socioeconomic characteristics. Mothers in Northern Ireland were substantially less likely than mothers in any of the other countries to drink frequently – 8 per cent of Northern Irish mothers drank several days a week or every day compared to 15 per cent of mothers in Scotland, 19 per cent in Wales and 20 per cent in England. White mothers were much more likely than mothers of any other ethnicity to be frequent drinkers. In fact, with the exception of black Caribbean and mixed ethnicity mothers, very few mothers of non-white ethnicity drank frequently (less than 5%), and almost all Bangladeshi and Pakistani mothers reported not drinking at all. Among fathers, many of the patterns of alcohol consumption observed for mothers were repeated (Table 10.17). Those from workless families, with low qualifications, and who were non-white were the least likely to drink or to drink frequently. Again, it should be emphasised that despite alcohol being a risk factor for several longstanding health conditions, this social patterning represents a direct reversal of those observed for health conditions earlier in the chapter. The patterns by country were also repeated – fathers in England were 11 times more likely to drink every day than those in Northern Ireland (6.8% compared to 0.6%). As among mothers, there was also a strong age gradient of alcohol consumption. Among fathers under 26, 10 per cent drank frequently compared to 41 per cent of those 42 and above.

Table 10.18 compares drinking among mothers to that of fathers. Although many couples were matched in the frequency of alcohol consumption, 58 per cent of couples drank alcohol at different frequencies. Of those with different frequencies, it was much rarer for mothers to drink more often than fathers than the other way around (27% compared to 73%).

### Table 10.28: Mother's frequency of Alcohol consumption by selected background characteristicsMCS4

		Several			Less than		
	Every	days a	1–2 days	1–2 days a	once a		
	day	week	a week	month	month	Never	Total
	44	94	310	213	301	972	1934
No UK Qualifications <sup>34</sup>	(2.5)	(5.1)	(16.0)	(12.2)	(17.7)	(46.5)	(100.0)
NVQ L1 (< 5 GCSE A-	17	73	240	160	217	221	928
C)	(1.9)	(8.7)	(26.4)	(17.3)	(24.8)	(20.9)	(100.0)
NVQ L2 (5 GCSE A–C/	104	428	981	693	700	661	3567
1 A-Level)	(3.4)	(13.3)	(27.8)	(19.2)	(19.8)	(16.6)	(100.0)
	(2.2)	2/4	595 (28 5)	401	389	365	2066
	(2.3)	(14.7)	(20.3)	(20.2)	(19.0)	(15.3)	(100.0)
	(3.6)	(23.8)	(20.3)	(15.6)	(15.6)	(12,1)	(100.0)
NVO15 (Higher	(3.0)	(23.0)	(29.3)	(13.0)	(13.0)	(12.1)	(100.0)
Degree Level)	(47)	(28.4)	(26.3)	(14.2)	(13.0)	(13.3)	(100.0)
Dogioo Lovoiy	(1.7)	(20.1)	(20.0)	(11.2)	(10.0)	(10.0)	(100.0)
Total Percentage	(3.1)	(16.0)	(26.5)	(16.8)	(18.1)	(19.5)	(100.0)
Observed Number	373	2012	3634	2253	2389	2908	13569
Weighted Number	(423)	(2164)	(3575)	(2276)	(2446)	(2631)	(13515)
	-					-	p<0.001
	284	1361	2041	1276	1426	2253	8641
England	(3.5)	(16.7)	(25.4)	(16.0)	(17.7)	(20.8)	(100.0)
	50	307	600	391	376	266	1990
Wales	(2.7)	(16.6)	(30.0)	(19.7)	(17.7)	(13.3)	(100.0)
Sectland	26	(14.2)	(20.2)	312	323	167	(100.0)
Scollanu	(1.3)	(14.2)	(30.3)	(21.1)	(21.3)	(11.0)	(100.0)
Northern Ireland	(1.0)	92 (6 7)	(35.0)	(21.0)	(19.1)	(17 1)	(100.0)
	(1.0)	(15.4)	(00.0)	(21.0)	(19.1)	(10.2)	(100.0)
Total Percent	(2.9)	(15.4)	27.0)	(17.6)	(18.3)	(10.2)	(100.0)
Observed Number	(207)	(2012	3634	(2254	2390	(2460)	13572
	(307)	(2003)	(3736)	(2300)	(2474)	(2409)	(13539)
	000	4007	0000	4505	4045	0450	p<0.001
Two Natural Parents	296	(10.0)	2623	1565	1645	(10.2)	9895
	(3.4)	(10.0)	(20.4)	(10.4)	(10.0)	(19.3)	(100.0)
Reconstituted Family	(2.5)	(10.5)	(26.5)	(17.2)	(23.6)	(10.8)	(100.0)
	(2.3)	305	(20.3)	521	(25:0)	588	2784
Lone-parent Family	(2.5)	(11.7)	(26.6)	(18.0)	(21.1)	(20,1)	(100.0)
Total Percentage	(3.1)	(16.0)	(26.5)	(16.8)	(18.1)	(19.5)	(100.0)
Observed Number	373	2012	3634	2254	2390	2909	13572
Weighted Number	(423)	(2164)	(3575)	(2277)	(2447)	(2634)	(13520)
	()	(= • • • •)	(0000)	(,	(,	()	p<0.001
	356	1966	3507	2156	2178	1415	11578
White	(3.4)	(17.9)	(29.1)	(18.4)	(18.8)	(12.3)	(100.0)
	3	10	25	9	27	46	120
Mixed	(0.9)	(8.5)	(19.4)	(8.7)	(28.9)	(33.5)	(100.0)
	1	5	29	26	56	229	346
Indian	(0.5)	(1.7)	(10.6)	(7.2)	(16.7)	(63.3)	(100.0)
	2	1	3	1	6	589	602
Pakistani	(0.2)	(0.2)	(0.5)	(0.2)	(1.4)	(97.5)	(100.0)

<sup>&</sup>lt;sup>34</sup> Includes overseas qualifications or unclassifiable qualifications.

## Table 10.28: Mother's frequency of Alcohol consumption by selected background characteristicsMCS4

		Several		Less than			
	Every	days a	1–2 days	1–2 days a	once a		
	day	week	a week	month	month	Never	Total
Continued							
	0	1	2	0	0	243	246
Bangladeshi	(0.0)	(0.2)	(0.4)	(0.0)	(0.0)	(99.5)	(100.0)
	5	18	32	24	43	50	172
Black Caribbean	(3.8)	(9.3)	(18.5)	(13.7)	(27.9)	(26.7)	(100.0)
	0	4	17	16	46	182	265
Black African	(0.0)	(2.8)	(6.6)	(8.6)	(15.8)	(66.2)	(100.0)
Other	6	6	19	21	34	155	241
Other	(1.9)	(2.7)	(8.9)	(7.6)	(17.6)	(61.3)	(100.0)
Total Percentage	(3.1)	(16.0)	(26.5)	(16.8)	(18.1)	(19.5)	(100.0)
Observed Number	373	2011	3634	2253	2390	2909	13570
Weighted Number	(423)	(2163)	(3575)	(2276)	(2447)	(2634)	(13518)
	1				1		p<0.001
Income Above 60%	301	1760	2798	1666	1642	1349	9516
Median Value	(3.6)	(19.8)	(28.5)	(17.6)	(17.4)	(13.2)	(100.0)
Income Below 60%	71	252	835	587	747	1555	4047
Median Value	(2.0)	(6.7)	(21.5)	(14.9)	(20.0)	(34.9)	(100.0)
Total Percentage	(3.1)	(16.0)	(26.5)	(16.8)	(18.1)	(19.5)	(100.0)
Observed Number	372	2012	3633	2253	2389	2904	13563
Weighted Number	(422)	(2164)	(3575)	(2276)	(2447)	(2630)	(13513)
							p<0.001
Professional/	120	801	1002	509	463	292	3187
Managerial Job	(4.3)	(26.6)	(30.4)	(15.6)	(14.7)	(8.5)	(100.0)
Job Lower than	143	733	1521	1001	998	751	5147
Professional/	(3.2)	(15.5)	(28.9)	(19.6)	(19.7)	(13.1)	(100.0)
Managerial	140	470		744		4000	5000
INO JOD OF UNCLASSIFIED	(2.2)	478	(21 Z)	(14)	(18.5)	1866	5238
	(2.3)	(10.4)	(21.7)	(14.0)	(10.3)	(32.2)	(100.0)
Total Percentage	(3.1)	(16.0)	(26.5)	(16.8)	(18.1)	(19.5)	(100.0)
Observed Number	373	2012	3634	2254	2390	2909	13572
weighted Number	(423)	(2164)	(3575)	(2277)	(2447)	(2634)	(13520)
							p<0.001
Tanana at hinth of OM	6	38	250	215	198	207	914
Teenage at birth of CIVI	(0.7)	(4.8)	(26.7)	(22.5)	(23.4)	(21.8)	(100.0)
20–24 yis at birth of	(1 7)	(7.5)	040 (23.5)	425 (18.8)	(21.2)	(27.3)	(100.0)
25-29 vrs at birth of	(1.7)	(7.5)	(23.3)	(10.0)	(21.2)	(27.3)	(100.0)
CM	(2.6)	(13.4)	(26.3)	(17.6)	(18.6)	(21.5)	(100.0)
30–34 vrs at birth of	140	827	1184	637	674	722	4184
CM	(3.9)	(21.8)	(27.6)	(15.4)	(16.2)	(15.1)	(100.0)
Over 34 yrs at birth of	118	546	683	329	378	404	2458
CM	(5.1)	(23.9)	(27.6)	(13.6)	(15.0)	(14.8)	(100.0)
	373	2012	3634	2254	2390	2909	13572
Total Percentage	(3.1)	(16.0)	(26.4)	(16.8)	(18.1)	(19.5)	(100.0)
Observed Number	373	2012	3634	2254	2390	2909	13572
Weighted Number	(423)	(2164)	(3575)	(2277)	(2447)	(2634)	(13520)
							p<0.001

Notes: See Note to Table 10.1

## Table 10.29: Father's frequency of Alcohol consumption by selected background characteristics MCS4

		Several			Less than		
	Everv	davs a	1–2 davs	1–2 davs a	once a		
	day	week	a week	month	month	Never	Total
	67	156	278	149	141	461	1252
No LIK Qualifications <sup>35</sup>	(6.3)	(14.8)	(23.4)	(12.7)	(11.0)	(31.8)	(100.0)
NVQ I 1 (< 5 GCSE A-	36	99	162	66	83	96	542
C)	(6.4)	(21.4)	(27.9)	(12.9)	(14.6)	(16.8)	(100.0)
NVO 12 (5 GCSE A-C/	120	506	772	362	260	246	2266
1 A-Level)	(5.7)	(24 4)	(33.5)	(16.4)	(11.0)	(9.1)	(100.0)
	93	374	440	199	136	144	1386
NVQ L3 (2+ A-Level)	(8.2)	(28.0)	(31.1)	(14.4)	(9.4)	(9.0)	(100.0)
NVQ I 4 (Degree	141	884	861	364	205	267	2722
Level)	(6.0)	(33.5)	(31.7)	(13.2)	(7.8)	(7.8)	(100.0)
NVQ L5 (Higher	52	369	304	109	57	124	1015
Degree Level)	(5.6)	(39.8)	(29.2)	(10.0)	(4.9)	(10.6)	(100.0)
Total Percentage	(6.2)	(27.9)	(30.5)	(13.7)	(9.4)	(12.2)	(100.0)
Observed Number	509	2388	2817	1249	882	1338	9183
Weighted Number	(565)	(2522)	(2758)	(1242)	(847)	(1107)	(9041)
	(000)	()	(,	()	(0.1.)	()	p<0.001
	399	1613	1612	737	494	1072	5927
England	(6.8)	(28.8)	(29.1)	(13.3)	(8.9)	(13.0)	(100.0)
	70	362	447	191	145	107	1322
Wales	(5.6)	(28.7)	(33.8)	(13.7)	(10.1)	(8.1)	(100.0)
	33	282	395	177	127	82	1096
Scotland	(3.4)	(24.2)	(35.9)	(16.3)	(12.1)	(8.0)	(100.0)
	7	132	365	145	117	81	847
Northern Ireland	(0.6)	(15.0)	(43.9)	(16.6)	(13.7)	(10.2)	(100.0)
Total Percentage	(5.7)	(27.1)	(31.9)	(14.0)	(9.8)	(11.4)	(100.0)
Observed Number	509	2389	2819	1250	883	1342	9192
Weighted Number	(511)	(2425)	(2860)	(1257)	(882)	(1025)	(8961)
							p<0.001
Two Natural Parents	472	2258	2607	1127	786	1264	8514
Two Natural T arents	(6.3)	(28.8)	(30.3)	(13.3)	(8.9)	(12.5)	(100.0)
Reconstituted Family	32	110	190	104	83	57	576
	(6.0)	(18.3)	(34.6)	(17.1)	(14.5)	(9.4)	(100.0)
Lone-parent Family	5	21	22	19	14	21	102
	(5.8)	(19.1)	(23.6)	(22.8)	(13.6)	(15.0)	(100.0)
Total Percentage	(6.2)	(27.9)	(30.5)	(13.7)	(9.4)	(12.3)	(100.0)
Observed Number	509	2389	2819	1250	883	1342	9192
Weighted Number	(565)	(2524)	(2760)	(1243)	(848)	(1110)	(9050)
					•		p<0.001
	476	2285	2672	1153	789	534	7909
White	(6.7)	(30.3)	(32.8)	(14.4)	(9.5)	(6.3)	(100.0)
	4	9	10	9	13	18	63
Mixed	(7.2)	(13.7)	(15.2)	(15.1)	(22.4)	(26.4)	(100.0)
	13	43	54	30	27	97	264
Indian	(6.2)	(18.5)	(19.7)	(13.5)	(9.6)	(32.4)	(100.0)
	2	4	11	7	5	386	415
Pakistani	(0.4)	(1.0)	(3.3)	(2.0)	(1.2)	(92.1)	(100.0)
	1	0	4	0	3	151	159
Bangladeshi	(0.5)	(0.0)	(2.3)	(0.0)	(1.5)	(95.6)	(100.0)

<sup>35</sup> Includes overseas qualifications or unclassifiable qualifications.

## Table 10.29: Father's frequency of Alcohol consumption by selected background characteristics MCS4

		Several			Less than		
	Fverv	days a	1–2 days	1–2 days a	once a		
	day	week	a week	month	month	Never	Total
Continued				I			
	3	17	26	14	10	14	84
Black Caribbean	(2.9)	(18.8)	(34.1)	(15.2)	(15.6)	(13.3)	(100.0)
	0	12	18	14	17	66	127
Black African	(0.0)	(8.2)	(19.1)	(10.1)	(13.7)	(48.9)	(100.0)
	9	17	24	23	19	76	168
Other	(4.4)	(12.5)	(12.6)	(16.1)	(14.2)	(40.3)	(100.0)
Total Percentage	(6.2)	(27.9)	(30.5)	(13.7)	(9.4)	(12.3)	(100.0)
Observed Number	508	2387	2819	1250	883	1342	9189
Weighted Number	(564)	(2521)	(2760)	(1243)	(848)	(1110)	(9046)
							p<0.001
	3	16	64	36	32	15	166
Teenage at birth of CM	(2.4)	(7.2)	(44.4)	(19.1)	(18.5)	(8.4)	(100.0)
20-24 yrs at birth of	28	132	244	107	106	173	790
СМ	(3.4)	(19.5)	(29.5)	(14.4)	(13.7)	(19.5)	(100.0)
25–29 yrs at birth of	85	410	615	298	178	335	1921
СМ	(5.0)	(22.9)	(33.0)	(15.7)	(9.0)	(14.5)	(100.0)
30–34 yrs at birth of	159	880	970	431	291	407	3138
СМ	(5.7)	(30.3)	(30.9)	(13.7)	(8.8)	(10.6)	(100.0)
Over 34 vrs at birth of	234	951	926	378	276	412	3177
СМ	(8.6)	(32.1)	(27.9)	(12.0)	(8.5)	(10.9)	(100.0)
Total Percentage	(6.2)	(27.9)	(30.5)	(13.7)	(9.4)	(12.3)	(100.0)
Observed Number	509	2389	2819	1250	883	1342	9192
Weighted Number	(565)	(2524)	(2760)	(1243)	(848)	(1110)	(9050)
							p<0.001
Income Above 60%	425	2176	2435	1052	652	666	7406
Median Value	(6.5)	(31.0)	(32.3)	(13.9)	(8.4)	(7.9)	(100.0)
Income Below 60%	83	212	383	197	231	673	1779
Median Value	(4.9)	(13.3)	(22.1)	(13.1)	(14.0)	(32.6)	(100.0)
Total Percentage	(6.2)	(27.9)	(30.5)	(13.7)	(9.4)	(12.2)	(100.0)
Observed Number	508	2388	2818	1249	883	1339	9185
Weighted Number	(564)	(2523)	(2759)	(1243)	(848)	(1107)	(9044)
							p<0.001
Professional/	208	1287	1168	471	240	300	3674
Managerial Job	(6.4)	(36.6)	(31.3)	(12.6)	(6.4)	(6.6)	(100.0)
Job Lower than	250	949	1437	645	489	744	4514
Professional/	(6.4)	(23.0)	(31.5)	(14.6)	(10.3)	(14.2)	(100.0)
Managerial	(01.)	(_0.0)	(0.1.0)	(1.1.0)	(1010)	(=)	(10010)
No Job or Unclassified	51	153	214	134	154	298	1004
Job	(4.8)	(16.3)	(22.9)	(14.2)	(16.8)	(25.1)	(100.0)
Total Percentage	(6.2)	(27.9)	(30.5)	(13.7)	(9.4)	(12.3)	(100.0)
Observed Number	509	2389	2819	1250	883	1342	9192
vveighted Number	(565)	(2524)	(2760)	(1243)	(848)	(1110)	(9050)
1							n<() ()()1

See note to Table 10.2

consumption MCS4										
		Father's frequency of alcohol consumption								
		Several	1–2	1–2	Less than					
	Every	Days a	days a	days a	once a			Col		
	day	week	week	month	month	Never	Total	Total		
	104	110	41	12	3	8	278	(2.5)		
Every day	(37.0)	(40.7)	(14.7)	(4.5)	(1.5)	(1.5)	(100.0)	(3.5)		
	159	890	338	64	33	23	1507	(10.1)		
Several days a week	(11.6)	(60.2)	(20.4)	(4.4)	(2.0)	(1.5)	(100.0)	(10.1)		
	101	721	1194	266	89	56	2427	(26.9)		
1–2 days a week	(4.6)	(31.3)	(47.8)	(10.7)	(3.4)	(2.1)	(100.0)	(20.0)		
	43	255	557	392	158	78	1483	(16.9)		
1–2 days a month	(3.4)	(17.9)	(38.1)	(25.4)	(10.3)	(4.9)	(100.0)	(10.0)		
Less than once a	47	226	392	314	366	164	1509	(16.1)		
month	(3.1)	(16.0)	(25.9)	(21.5)	(23.7)	(9.8)	(100.0)	(10.1)		
	46	158	256	177	215	956	1808	(10.1)		
Never	(3.1)	(10.3)	(16.0)	(11.0)	(12.5)	(47.1)	(100.0)	(10.1)		
	500	2360	2778	1225	864	1285	9012			
Total Percentage	(6.3)	(28.2)	(30.6)	(13.7)	(9.3)	(11.9)	(100.0)			
Observed Number	500	2360	2778	1225	864	1285	9012			
Weighted Number	(553)	(2490)	(2706)	(1209)	(823)	(1054)	(8835)			
							n<0.001			

Table 10.30: Mother's frequency of Alcohol consumption by Father's frequency of Alcohol

See Notes to Tables 10.1 and 10.2. Sample here is restricted to couples.

#### Smoking

While alcohol consumption was associated with relatively advantaged social backgrounds, smoking was associated with disadvantage, as also found in the literature (Davy, 2007). For example, among MCS mothers, less than 10 per cent of the most gualified mothers smoked, while among women with no gualifications almost half did (43%) (Table 10.19). While mothers in England were most likely to drink alcohol, they were the least likely to smoke. Lone mothers had particularly high rates of smoking, as did mothers who gave birth as teenagers. In the latter group non-smokers were the minority (56% smoking). The majority of lone mothers who did not work smoked (54%), although only 40 per cent of lone mothers with jobs smoked, suggesting interplay between age, disadvantage and partnership status in predicting smoking. This conforms to the idea of smoking being part of a coping strategy among young mothers (Graham et al., 2006). Less than 10 per cent of Indian, Bangladeshi, Pakistani and black African mothers smoked. One significant trend was the rarity of those who smoke less than one cigarette per day - these might be described as social smokers - who accounted for 1 per cent of mothers. Very heavy smokers, who smoked more than a 20 cigarettes per day, were also rare – 1 per cent of mothers.

The proportion of fathers who smoked at all matched that of mothers (29% compared to 28%) (Table 10.20). However, among fathers there were slightly higher rates of social smoking (2%) and heavy smoking (2%). Fathers were twice as likely as mothers to smoke more than 10 cigarettes a day. There was also evidence that social background characteristics played an even stronger role in predicting which fathers smoked. The majority of fathers with no qualifications and those who were part of reconstituted families (as well as the small number of lone fathers) were smokers. Unlike mothers, there was no perceptible difference between smoking rates in the two youngest age groups for fathers. Another contrast to the smoking patterns of mothers was the reversal of country differences so that fathers in Northern Ireland were the least likely to smoke and fathers in Scotland and England the most. There were also different patterns between mothers' and fathers' smoking by ethnicity. While Bangladeshi and Pakistani mothers had the lowest rates of smoking, fathers from these groups had the highest rates of smoking (around 40% each). Black Caribbean mothers and fathers shared relatively high rates of smoking. However, white fathers were the heaviest smokers – Pakistani, Bangladeshi and black Caribbean fathers showed a distinctive pattern of high levels of moderate smoking but lower levels of heavy smoking.

There was more agreement between couples' smoking patterns than alcohol consumption. Around 71 per cent of couples smoked the same amount (including those who didn't smoke at all), while 19 per cent were couples where the father smoked more than the mother, and the remaining 10 per cent were couples where the mother smoked more than the father (Table 10.21).

Tables 10.22 and 10.23 show the relationships between alcohol consumption and smoking habits. While there was a significant relationship between these for both mothers and fathers, these relationships were difficult to interpret which again shows the limitations of bivariate analyses. However, for both mothers and fathers, it appeared that both those who drank every day and those who drank very infrequently or never had the highest rates of smoking. Mothers and fathers who drank several days a week or who drank moderately were those least likely to smoke.

The smoking patterns of MCS mothers and fathers have implications for their own health and that of their children. Smoking has been undoubtedly linked with the incidence of lung cancer for quite some time (see Hennekens and Buring, 1987: 10–11), and smoking in pregnancy is associated with low birthweight (see Power and Elliott (2006) for examples from earlier cohort studies). Other evidence shows that parental smoking damages the respiratory health of children during childhood (Pattenden, et al., 2006). In Chapter 9 of this report, we also show a link between experience of asthma and parental smoking.

Table 10.31: Mother's Frequenc	y of Smoking by	v selected ba	ckground	characteristics	6 MCS4
		Less than	6–10 a	More than a	
36	None	5 a day	day	10 pack	Total
No UK Qualifications <sup>30</sup>	1188	109	226	411	1934
	(57.0)	(6.5)	(13.5)	(23.0)	(100.0)
NVQ L1 (< 5 GCSE A–C)	529	57	139	203	928
	(55.7)	(6.1)	(15.7)	(22.5)	(100.0)
NVQ L2 (5 GCSE A–C/ 1 A-Level)	2350	246	410	562	3568
	(64.8)	(7.4)	(11.9)	(15.9)	(100.0)
NVQ L3 (2+ A-Level)	1538	129	1/8	221	2066
	(74.4)	(6.3)	(9.1)	(10.2)	(100.0)
NVQ L4 (Degree Level)	3539	Z15 (5.2)	(4.6)	(5.2)	4152
	(64.9)	(5.3)	(4.0)	(5.3)	(100.0)
NVQ L5 (Higher Degree Level)	(00.4)	37	(2.5)	20 (2.8)	922
Total Darcontago	(30.4)	(4.3)	(2.3)	(2.0)	(100.0)
Observed Number	(72.0)	(0.2)	(9.3)	(12.0)	(100.0)
Weighted Number	(0726)	(93)	(1251)	(1702)	(12516)
	(9720)	(037)	(1251)	(1703)	(13510)
	7004	464	500	0/7	p<0.001
Two Natural Parents	(79.7)	404 (5 0)	090 (6 3)	047 (0,0)	9895
	(73.7)	(3.0)	(0.3)	(9.0)	(100.0)
Reconstituted Family	(54.7)	(8.4)	(12.8)	(24.1)	(100.0)
	(34.7)	(0.4)	(12.0)	(24.1)	(100.0)
I one-parent Family	(53.2)	(9.2)	(17 /)	(20.2)	(100.0)
	(33.2)	(5.2)	(TT) (D 2)	(20.2)	(100.0)
lotal Percentage	(71.9)	(0.2)	(9.2)	(12.6)	(100.0)
Observed Number	9978	794	(1054)	1640	13573
vveighted Number	(9726)	(840)	(1251)	(1704)	(13521)
	0405		4404	4004	p<0.001
	8185	689	1101	1604	11579
vvnite	(69.7)	(6.2)	(10.1)	(14.1)	(100.0)
Mixed	(64 5)	(17.5)	(11.7)	9	(100.0)
Mixed	(04.5)	(17.5)	(11.7)	(0.4)	(100.0)
Indian	325	(4.2)	4	(0,0)	(100.0)
	(94.9)	(4.2)	(0.9)	(0.0)	(100.0)
Pakistani	(03.3)	(3.8)	(2 0)	4 (0.8)	(100.0)
	(33.3)	(0.0)	(2.0)	(0.0)	(100.0)
Bangladeshi	(95.2)	(3.5)	(13)	(0,0)	(100.0)
Dangladesin	(33:2)	(0:0)	(1.5)	(0.0)	(100:0)
Black Caribbean	(65.2)	(14.5)	(11.4)	(8.9)	(100.0)
	250	10	2	(0.0)	265
Black African	(92.4)	(4.7)	(1.2)	(1.7)	(100.0)
	223	()	5	5	241
Other	(89.7)	(4.9)	(1.8)	(3.7)	(100.0)
Total Percentage	(71.9)	(6.2)	(9.2)	(12.6)	(100.0)
Observed Number	9976	794	1161	1640	13571
Weighted Number	(9724)	(840)	(1251)	(1704)	(13519)
	(- · · /	()	· - /	( - ·/	p<0.001
	7594	514	598	810	9516
Income Above 60% Median Value	(78.5)	(5.7)	(6.9)	(8.8)	(100.0)
Continued		,		•	· /
Continueu					

<sup>&</sup>lt;sup>36</sup> Includes overseas qualifications or unclassifiable qualifications.

Table 10.31: Mother's Frequency of Smoking by selected background characteristics MCS4								
		Less than	6–10 a	More than a				
	None	5 a day	day	10 pack	Total			
	2378	279	563	828	4048			
Income Below 60% Median Value	(55.7)	(7.4)	(15.0)	(21.9)	(100.0)			
Total Percentage	(71.9)	(6.2)	(9.2)	(12.6)	(100.0)			
Observed Number	9972	793	1161	1638	13564			
Weighted Number	(9721)	(840)	(1251)	(1703)	(13515)			
					p<0.001			
Professional/	2723	149	140	175	3187			
Managerial Job	(84.5)	(5.0)	(4.5)	(6.0)	(100.0)			
Job Lower than Professional/	3804	335	436	573	5148			
Manageriai	(73.3)	(7.0)	(9.0)	(10.8)	(100.0)			
No. Job or Upglassified Job	3451	310	585 (12-2)	(18.2)	5238			
	(03.4)	(0.2)	(12.3)	(10.2)	(100.0)			
Total Percentage	(71.9)	(6.2)	(9.2)	(12.6)	(100.0)			
Observed Number	9978	794	1161	1640	13573			
vveighted Number	(9726)	(840)	(1251)	(1704)	(13521)			
		00	010	000	p<0.001			
Toopogo at hirth of CM	411	90	(22.2)	203	(100.0)			
	(43.6)	(10.4)	(23.2)	(22.7)	(100.0)			
20-24 yrs at birth of CM	(59.0)	(7.8)	(14 1)	(19.2)	(100.0)			
	2701	229	305	446	3681			
25–29 vrs at birth of CM	(71.8)	(7.1)	(8.9)	(12.3)	(100.0)			
	3393	189	233	369	4184			
30–34 yrs at birth of CM	(80.6)	(4.5)	(6.0)	(8.9)	(100.0)			
	2031	107	101	219	2458			
Over 34 yrs at birth of CM	(83.3)	(4.3)	(4.3)	(8.2)	(100.0)			
	9978	794	1161	1640	13573			
Total Percentage	(71.9)	(6.2)	(9.2)	(12.6)	(100.0)			
Observed Number	9978	794	1161	1640	13573			
Weighted Number	(9726)	(840)	(1251)	(1704)	(13521)			
					p<0.001			
	6569	518	669	886	8642			
England	(73.0)	(6.4)	(8.9)	(11.7)	(100.0)			
Wales	1344	120	(11.7)	309	(100.0)			
Wales	(00.9)	(0.0)	(11.7)	(10.0)	(100.0)			
Scotland	(67.9)	03 (5-5)	(10.3)	(16.3)	(100.0)			
	915	(0:0)	(10.0)	(10:0)	1344			
Northern Ireland	(66.0)	(5.3)	(10.9)	(17.8)	(100.0)			
	9978	794	1161	1640	13573			
Total Percentage	(70.8)	(6.1)	(9.7)	(13.4)	(100.0)			
Observed Number	9978	794	1161	1640	13573			
Weighted Number	(9592)	(822)	(1309)	(1818)	(13540)			
					p<0.001			

Notes See Table 10.1

			g		
	None	Less than 5 a day	6–10 a day	More than a 10 pack	Total
No UK Qualifications <sup>37</sup>	694 (51.2)	100	159	299	1252
$NVQ \downarrow 1 (< 5 GCSE A-C)$	(51.2)	(7.8)	(14.5)	(26.5)	(100.0)
	(57.3)	(6.9)	(10.1)	(25.6)	(100.0)
NVQ L2 (5 GCSE A–C/ 1 A-Level)	1504	147	201	415	2267
	(64.9)	(7.1)	(9.1)	(18.9)	(100.0)
	(71.9)	(5.3)	(8.0)	(14.9)	(100.0)
NVQ L4 (Degree Level)	2237	171	124	190	2722
	(81.6)	(6.1)	(4.5)	(7.9)	(100.0)
NVQ L5 (Higher Degree Level)	(86.4)	(5.8)	(2.9)	(4.9)	(100.0)
Total Percentage	(71.0)	(6.5)	(7.6)	(14.9)	(100.0)
Observed Number	6640	576	694	1274	9184
Weighted Number	(6422)	(584)	(690)	(1348)	(9043)
	1 1011	107		705	p<0.001
England	4244 (70 9)	437	462	(14.6)	(100.0)
	957	61	109	195	1322
Wales	(73.1)	(4.4)	(7.5)	(15.0)	(100.0)
O se the se d	805	46	72	173	1096
Scotland	(70.2)	(4.1)	(7.8)	(17.9)	(100.0)
Northern Ireland	(75.1)	(3.4)	(6.5)	(15.0)	(100.0)
Total Percentage	(71.5)	(5.9)	(7.5)	(15.1)	(100.0)
Observed Number	6646	576	694	1277	9193
Weighted Number	(6407)	(532)	(674)	(1349)	(8962)
	6305	538	503	1070	p<0.001 8515
Two Natural Parents	(73.3)	(6.5)	(6.8)	(13.4)	(100.0)
	289	29	85	173	576
Reconstituted Family	(48.0)	(5.2)	(14.8)	(32.1)	(100.0)
Lone Parent Family	52 (46.9)	(9.8)	(20.2)	(23.1)	(100.0)
Total Percentage	(71.0)	(6.5)	(7.6)	(14.9)	(100.0)
Observed Number	6646	576	694	1277	9193
Weighted Number	(6428)	(584)	(690)	(1350)	(9052)
					p<0.001
White	5755 (71.2)	427	548 (7.2)	(15.8)	7911
- Wine	41	11	4	(10.0)	63
Mixed	(67.2)	(15.7)	(6.4)	(10.7)	(100.0)
Indian	(77.8)	24	23	18 (8 9)	264
	263	45	(0.4)	(0.9)	(100.0)
Pakistani	(60.8)	(10.6)	(18.0)	(10.6)	(100.0)
Bangladeshi	95 (60.0)	26 (21.5)	27 (12.8)	11 (5.7)	159 (100.0)
Black Caribbean	55 (66 0)	16 (20.1)	13 (13.8)	0 (0 0)	84 (100.0)
	113	7	5	2	127
Diack Airican	(89.0)	(5.9)	(3.6)	(1.5)	(100.0) 168
Other	(74.1)	(10.4)	(3.7)	(11.8)	(100.0)
Continued					

#### Table 10.32: Father's Frequency of Smoking by selected background characteristics MCS4

<sup>37</sup> Includes overseas qualifications or unclassifiable qualifications.

		Less than 5	6–10 a	More than a	
	None	a day	day	10 pack	Total
Total Percentage	(71.0)	(6.5)	(7.6)	(14.9)	(100.0)
Observed Number	6644	576	693	1277	9190
Weighted Number	(6425)	(584)	(689)	(1350)	(9048)
					p<0.001
	5696	415	451	846	7408
Income Above 60% Median Value	(75.9)	(5.8)	(6.2)	(12.1)	(100.0)
	944	161	243	430	1778
Income Below 60% Median Value	(48.2)	(9.7)	(14.3)	(27.8)	(100.0)
Total Percentage	(71.0)	(6.5)	(7.6)	(14.9)	(100.0)
Observed Number	6640	576	694	1276	9186
Weighted Number	(6423)	(584)	(690)	(1349)	(9046)
					p<0.001
Professional/	3062	214	151	248	3675
Managerial Job	(83.1)	(5.9)	(3.9)	(7.1)	(100.0)
Job Lower than Professional/	3079	278	393	764	4514
Managerial	(66.2)	(6.4)	(9.0)	(18.4)	(100.0)
	505	84	150	265	1004
No Job or Unclassified Job	(46.2)	(8.9)	(15.7)	(29.1)	(100.0)
Total Percentage	(71.0)	(6.5)	(7.6)	(14.9)	(100.0)
Observed Number	6646	576	694	1277	9193
Weighted Number	(6428)	(584)	(690)	(1350)	(9052)
	70		0.4	45	p<0.001
Teenage at birth of CM	(43 1)	(7.1)	34 (23.8)	45 (25 9)	(100.0)
	377	66	135	211	789
20–24 vrs at birth of CM	(43.4)	(8.8)	(17.9)	(29.9)	(100.0)
	1281	133	199	309	1922
25–29 yrs at birth of CM	(65.3)	(7.0)	(10.4)	(17.3)	(100.0)
,	2431	189	182	336	3138
30–34 yrs at birth of CM	(77.2)	(6.3)	(5.5)	(11.0)	(100.0)
	2481	177	144	376	3178
Over 34 yrs at birth of CM	(77.4)	(5.6)	(4.3)	(12.7)	(100.0)
	6646	576	694	1277	9193
Total Percentage	(71.0)	(6.5)	(7.6)	(14.9)	(100.0)
Observed Number	6646	576	69 <del>4</del>	1277	9193
Weighted Number	(6428)	(584)	(690)	(1350)	(9052)

#### Table 10.32: Father's Frequency of Smoking by selected background characteristics MCS4

Notes: See Table 10.2).

Table	Table 10.33: Mother's frequency of Smoking by Father's frequency of Smoking MCS4									
			Mother's frequency of smoking							
			Less than 5	6–10 a	More than					
		None	a day	day	a 10 pack	Total	Col Total			
f		5924	171	174	273	6542	(70.7)			
õ	None	(90.6)	(2.6)	(2.8)	(4.0)	(100.0)	(70.7)			
5		374	92	47	48	561	(5.0)			
nen 1g	Less than 5 a day	(64.2)	(17.7)	(8.6)	(9.4)	(100.0)	(5.0)			
kir		365	82	137	88	672	(6.6)			
no fr	6–10 a day	(49.2)	(14.1)	(22.2)	(14.6)	(100.0)	(0.0)			
รัว		550	77	189	422	1238	(0,7)			
he	More than a 10 pack	(42.8)	(6.4)	(15.7)	(35.1)	(100.0)	(9.7)			
at		7213	422	547	831	9013	(100.0)			
-	Total	(78.7)	(5.0)	(6.6)	(9.7)	(100.0)	(100.0)			
	Observed Number	7213	422	547	831	9013				
	Weighted Number	(6955)	(444)	(579)	(857)	(8836)				
						p<0.001				

Notes See Table 10.1 and 10.2. Sample includes natural/step/adoptive/foster mothers and fathers in couples only.

MCS4	io.o+. modier 5 freque			er s nequ	ency of Alcon		iption
		r	Nother's frequer	ncy of smo	king		
			Less than 5 a	6–10 a	More than a		Col
		None	day	day	10 pack	Total	Total
		254	36	29	54	373	(2.1)
* -	Every day	(67.3)	(10.0)	(8.6)	(14.1)	(100.0)	(3.1)
ior		1577	109	137	189	2012	(16.0)
pt	Several days a week	(77.6)	(5.4)	(7.2)	(9.7)	(100.0)	(10.0)
un		2591	278	327	438	3634	(26.4)
freq cons	1–2 days a week	(70.9)	(7.9)	(8.8)	(12.5)	(100.0)	(20.4)
		1605	136	223	290	2254	(16.8)
,	1–2 days a month	(70.9)	(6.2)	(10.5)	(12.4)	(100.0)	(10.0)
oh oh	Less than once a	1661	113	245	371	2390	(18.1)
alc	month	(66.6)	(5.5)	(11.7)	(16.2)	(100.0)	(10.1)
2 "		2290	121	200	298	2909	(10.5)
	Never	(75.3)	(4.6)	(8.4)	(11.7)	(100.0)	(19.5)
		9978	793	1161	1640	13572	(100.0)
	Total Percentage	(71.9)	(6.2)	(9.2)	(12.6)	(100.0)	(100.0)
	Observed Number	9978	793	1161	1640	13572	
	Weighted Number	(9726)	(839)	(1251)	(1704)	(13520)	
						p<0.001	

Table 10.34: Mother's frequency of Smoking by Mother's frequency of Alcohol Consumption

Notes: See Table 10.1.

Table MCS4	Γable 10.35: Father's frequency of Smoking by Father's frequency of Alcohol Consumption MCS4									
			Father's frequen	cy of smol	king					
			Less than 5	6–10 a	More than a					
		None	a day	day	10 pack	Total	Col Total			
		327	39	34	109	509	(6.2)			
ے <u>ب</u>	Every day	(64.9)	(8.3)	(5.4)	(21.4)	(100.0)	(0.2)			
o io		1821	157	144	267	2389	(27.0)			
b S	Several days a week	(76.1)	(6.7)	(6.2)	(11.1)	(100.0)	(27.3)			
nei		2121	161	200	337	2819	(30.5)			
ıbə	1–2 days a week	(73.5)	(6.0)	(7.7)	(12.8)	(100.0)	.0) (30.5)			
5 F		886	77	93	194	1250	(13.7)			
o ľ,	1–2 days a month	(69.4)	(6.2)	(7.0)	(17.3)	(100.0)	(13.7)			
he	Less than once a	590	37	83	173	883	(0,4)			
alc	month	(64.4)	(4.7)	(9.0)	(21.9)	(100.0)	(9.4)			
ш. «		899	105	140	197	1341	(12.2)			
	Never	(63.3)	(7.7)	(11.4)	(17.6)	(100.0)	(12.3)			
		6644	576	694	1277	9191	(100.0)			
	Total Percentage	(71.0)	(6.5)	(7.6)	(14.9)	(100.0)	(100.0)			
	Observed Number	6644	576	694	1277	9191				
	Weighted Number	(6425)	(584)	(690)	(1350)	(9049)				
						p<0.001				

Notes: See Tables 10.1 and 10.2 Sample includes couples only.

#### BMI: Parents' weight<sup>38</sup>

As mentioned in the introduction, several initiatives have been launched by the government to tackle rising rates of obesity. Nationally, based on 2007 estimates, only 40 per cent of adults fell in the 'normal' or underweight range of Body Mass Index (BMI), leaving 37 per cent as overweight (but not obese) and 24 per cent

<sup>&</sup>lt;sup>38</sup> The Body Mass Index adjusts weight for a person's height. It is defined as weight in kilograms divided by the square of height in metres. For adults a BMI above 25 is 'overweight'; the threshold for obesity is 30, for severe obesity, 35, morbidly obese 40, and super obese, 45.

obese (Department of Health, 2008). This varied significantly by age and gender. Higher rates of being overweight and obese were recorded among women and older people. Among men in England, 63 per cent were in the normal range at age 16–24 dropping to 44 per cent among those aged 25–34 years. Among women the difference is less stark, dropping from 61 per cent to 54 per cent between 16–24 years and 25–34 years (Department of Health, 2008). BMI is also known to vary significantly by a number of social background factors, with high BMI being associated with disadvantage (Scharoun-Lee et al., 2009; Wang and Beydoun, 2007). In this chapter, we use cut-off points derived from the World Health Organization to determine categories of being underweight (BMI<18.49), normal (BMI:18.5–24.99), overweight (BMI:25–29.99), obese (BMI:30–34.99) and severe/morbid/super obese (BMI>35.0) (World Health Organization, 2000).

Among MCS parents, we find very high rates of obesity and overweight, with 44 per cent of mothers and over two-thirds of fathers having BMI above normal (Tables 10.24 and 10.25). As with the literature, we find a strong social pattern. Mothers with higher degree-level qualifications were more likely than mothers with no qualifications to be of normal weight (66% compared to 48%). Mothers in workless couples were the least likely to fall into this weight category (38%). Among ethnic groups, black mothers were most likely to be in the high BMI categories. Otherwise, black African mothers are among the healthiest of any ethnic group on all indicators reviewed so far in this chapter. This may point to either the inadequacies of measuring adiposity through BMI for some ethnic groups (a measurement issue) or to a real difference in adiposity. Age was significantly associated with body mass; unlike most other health indicators, there were no significant country differences in patterns of being overweight and obese among mothers.

Among fathers, BMI patterns were similar to mothers, though not identical (Table 10.26). Among the highly educated, fathers as well as mothers were the most likely to have normal BMI. However, fathers with medium level qualifications were the least likely to be in the 'normal' weight category, deviating from the linear trend clear among mothers. Welsh fathers had the highest levels of obesity. In another deviation from a linear trend, fathers in two-earner couples were more likely to be overweight but not obese. Less than a quarter of black Caribbean fathers were in the normal category, while over half of Bangladeshi fathers were. Yet despite this contrast, ethnic differences were only of borderline significance (p=0.09). There was an association of age with BMI, where older fathers were significantly more likely to exceed the normal range.

When comparing mothers' and fathers' BMI category, fathers were generally heavier than mothers, though there was clear evidence of a correlation between the weight of parents. Of children who were growing up in two-parent households, very few had both mother and father in the normal weight range – just 19 per cent. Finally, Figure 10.4 shows the distribution of weight category by self-rated health. Parents with higher BMI are clearly seen more likely to report poorer current health. For example, those in poor health are 10 times more likely to be severe/morbid/super obese than those reporting excellent health – observed for both mothers and fathers. This is one initial indicator of the wider adverse health effects of obesity. As these parents age, in

the absence of weight loss, we may begin to see the adverse effects of being severely overweight including elevated risks of chronic diseases and eventually, lower life expectancy.

Table 10.36: Mother's Body Mass category by selected background characteristics MCS4								
	Underweight	Normal	Overweight	Obese	Severe/Super/ Morbidly Obese	Total		
	46	652	437	182	97	1414		
No UK Qualifications <sup>39</sup>	(2.9)	(47.8)	(30.1)	(12.2)	(7.0)	(100.0)		
NVQ L1 (< 5 GCSE A-	28	365	208	99	51	751		
C)	(3.9)	(49.6)	(26.2)	(13.2)	(7.1)	(100.0)		
NVQ L2 (5 GCSE A–C/	76	1456	904	355	183	(100.0)		
1 A-Level)	(2.7)	(49.6)	(29.9)	(11.5)	(0.1)	(100.0)		
NVQ I 3 (2+ A-Level)	(2.0)	(52.3)	(28.5)	(11.8)	(5.4)	(100.0)		
	72	2036	955	353	148	3564		
NVQ L4 (Degree Level)	(2.0)	(57.9)	(26.4)	(9.9)	(3.9)	(100.0)		
NVQ L5 (Higher Degree	17	509	188	66	20	800		
Level)	(2.3)	(65.9)	(21.9)	(7.3)	(2.5)	(100.0)		
Total Percentage	(2.5)	(53.4)	(27.9)	(11.0)	(5.3)	(100.0)		
Observed Number	269	5907	3194	1265	597	11232		
Weighted Number	(280)	(6002)	(3127)	(1234)	(592)	(11235)		
	404	4202	0005	042	400	p<0.001		
Two Natural Parents	(2.0)	4362	(28.4)	943	420 (4.9)	8281 (100.0)		
	(2.0)	352	(20.4)	73	(4.3)	669		
Reconstituted Family	(2.8)	(51.4)	(27.3)	(11.4)	(7.3)	(100.0)		
Long parent Family	89	1193	619	249	133	2283		
Lone-parent Family	(4.1)	(53.3)	(26.1)	(10.8)	(5.7)	(100.0)		
Total Percentage	(2.5)	(53.4)	(27.9)	(11.0)	(5.3)	(100.0)		
Observed Number	269	5907	3195	1265	597	11233		
Weighted Number	(280)	(6002)	(3131)	(1234)	(592)	(11239)		
	220	5040	0700	1001	<b>E44</b>	p<0.001		
\//hite	(2.4)	5218 (54 3)	(27.5)	1064	511 (5.2)	9752 (100.0)		
WING	(2.+)	52	24	(10.3)	(3.2)	93		
Mixed	(4.3)	(59.4)	(25.4)	(5.7)	(5.2)	(100.0)		
	12	166	79	26	8	291		
Indian	(2.8)	(57.8)	(25.5)	(11.8)	(2.1)	(100.0)		
Dekistoni	(2 7)	1/7	(20.2)	64 (16 0)	36	420		
Fakisialii	(3.7)	(42.4)	(29.2)	(10.0)	(0.7)	(100.0)		
Bangladeshi	(1.4)	(44.2)	(35.6)	(15.5)	(3.3)	(100.0)		
	2	49	47	26	11	135		
Black Caribbean	(4.9)	(34.0)	(30.3)	(21.5)	(9.2)	(100.0)		
	2	56	74	42	12	186		
Black African	(0.5)	(33.8)	(41.4)	(19.3)	(4.9)	(100.0)		
Other	(5.1)	(56.5)	(26.6)	(8.4)	(3.3)	(100.0)		
Total Percentage	(2.5)	(53.4)	(27.9)	(11.0)	(5.3)	(100.0)		
Observed Number	269	5907	3195	1265	597	11233		
Weighted Number	(280)	(6002)	(3131)	(1234)	(592)	(11239)		
						p<0.001		
Income Above 60%	156	4434	2300	847	372	8109		
Median Value	(2.0)	(55.5)	(28.0)	(10.0)	(4.6)	(100.0)		

<sup>39</sup> Includes overseas qualifications or unclassifiable qualifications.

Table 10.36: Mother's Body Mass category by selected background characteristics MCS4								
	Underweight	Normal	Overweight	Obese	Severe/Super/ Morbidly Obese	Total		
Continued								
Income Below 60%	113	1473	889	418	225	3118		
Median Value	(3.9)	(47.9)	(27.3)	(13.8)	(7.1)	(100.0)		
Total Percentage	(2.5)	(53.4)	(27.9)	(11.0)	(5.3)	(100.0)		
Observed Number	269	5907	3189	1265	597	11227		
Weighted Number	(280)	(6002)	(3126)	(1234)	(592)	(11234)		
		1				p<0.001		
Professional/	42	1604	747	257	95	2745		
Managerial Job	(1.3)	(59.1)	(27.4)	(8.9)	(3.3)	(100.0)		
Job Lower than	83	2299	1276	532	228	4418		
Professional/	(2.1)	(52.8)	(28.0)	(12.0)	(5.0)	(100.0)		
	, ,	, ,	1170	470	074	( )		
No Job or Unclassified	144	2004	(20.0)	4/6	274	4070		
JOD	(3.6)	(50.4)	(28.0)	(11.2)	(6.8)	(100.0)		
Total Percentage	(2.5)	(53.4)	(27.9)	(11.0)	(5.3)	(100.0)		
Observed Number	269	5907	3195	1265	597	11233		
vveighted Number	(280)	(6002)	(3131)	(1234)	(592)	(11239)		
	07	070	470			p<0.001		
Teenege at hirth of CM	(4.0)	3/6	1/8	(0,7)	(2.9)	672		
Teenage at birth of CM	(4.0)	(30.2)	(20.3)	(0.7)	(3.0)	(100.0)		
20-24 yrs at hirth of CM	(3.6)	(51.6)	(26.7)	(11.3)	(6.9)	(100.0)		
	(3.0)	1596	856	386	180	3091		
25–29 vrs at birth of CM	(2.4)	(51.5)	(27.8)	(12.6)	(5.7)	(100.0)		
	69	1937	1057	376	172	3611		
30–34 yrs at birth of CM	(1.9)	(54.7)	(28.5)	(9.9)	(5.0)	(100.0)		
Over 34 yrs at birth of	37	1107	607	239	94	2084		
СМ	(1.8)	(54.7)	(28.5)	(10.9)	(4.2)	(100.0)		
Total Percentage	(2.5)	(53.4)	(27.9)	(11.0)	(5.3)	(100.0)		
Observed Number	269	5907	3195	1265	597	11233		
Weighted Number	(280)	(6002)	(3131)	(1234)	(592)	(11239)		
	1	1	1	n	1	p<0.001		
England	180	3740	2006	808	379	7113		
5	(2.5)	(53.5)	(27.7)	(11.0)	(5.3)	(100.0)		
Wales	35	(52.6)	469	(10.9)	(5.2)	(100.0)		
	(2.0)	(00.0)	(20.3)	(10.8)	(0.3)	(100.0)		
Scotland	(2.2)	(52.7)	(27.5)	(11-1)	(5.5)	(100.0)		
	(2.3) 26	(33.7) 581	(27.3) 252	(11.1)	(0.0)	(100.0)		
Northern Ireland	20 (2 /)	(52.0)	203 (20 7)	(10.2)	55 (/ 7)	(100 0)		
Total Percentage	(2.4)	(52.0)	(30.7)	(10.2)	(4.7)	(100.0)		
Observed Name	(2.4)	(33.4)	(20.1)	(10.3)	(5.2)	(100.0)		
Ubserved Number	269	5907	3195	1265	597	11233		
	(272)	(2003)	(3160)	(1228)	(589)	<u>(11254)</u>		
						p=0.916		

Notes: See Table 10.1

	Under-		Over-		Severe/ Super/	
	weight	Normal	weight	Obese	Morbidly Obese	Total
No UK	10	365	496	164	61	1096
Qualifications <sup>40</sup>	(1.0)	(34.9)	(43.7)	(15.2)	(5.2)	(100.0
NVQ L1 (< 5 GCSE	5	150	209	85	39	488
A-C)	(1.3)	(31.2)	(42.1)	(17.0)	(8.4)	(100.0)
NVQ L2 (5 GCSE A–	10	582	1006	367	108	2073
C/1 A-Level)	(0.5)	(29.4)	(48.2)	(17.1)	(4.8)	(100.0
	7	382	629	215	58	1291
NVQ L3 (2+ A-Level)	(0.5)	(28.6)	(49.7)	(17.0)	(4.2)	(100.0
NVQ L4 (Degree	6	819	1227	387	88	2527
Level)	(0.1)	(32.8)	(48.1)	(15.5)	(3.4)	(100.0)
NVQ L5 (Higher	7	361	446	107	27	948
Degree Level)	(0.7)	(38.5)	(46.9)	(11.2)	(2.8)	(100.0
<b>T</b> ( ) <b>D</b>	45	2659	4013	1325	381	8423
Total Percentage	(0.5)	(32.1)	(47.3)	(15.7)	(4.3)	(100.0)
Observed Number	45	2659	4013	1325	381	8423
weighted Number	(43)	(2671)	(3937)	(1308)	(361)	(8321)
		4775	0.407	0.40		p<0.001
Freedord	28	1775	2487	846	238	(100.0)
England	(0.4)	(32.5)	(46.7)	(16.0)	(4.3)	(100.0)
Walaa	8	330	607 (F0.6)	(17.1)	65	1235
wales	(0.7)	(20.7)	(50.6)	(17.1)	(4.8)	(100.0)
Soctland	5 (1 0)	(22.0)	504 (40.0)	(12.7)	30 (2.4)	(100.0)
Scollariu	(1.0)	(32.0)	(49.0)	(13.7)	(3.4)	(100.0)
Northern Ireland	(0.5)	(28.4)	(51.8)	(13.5)	(5.8)	(100.0)
Northern heidild	(0.3)	2661	(31.0)	(13.3)	(3.0)	8/30
Total Percentage	(0.6)	(31.3)	(48.0)	(15.7)	(4.4)	(100.0)
Observed Number	(0.0)	2661	4016	(13.7)	381	8430
Weighted number	(47)	(2591)	(3977)	(1297)	(368)	(8279)
i e.g. i e a i e a i e a	()	(2001)	(0011)	(-=0-)	(000)	n=0.010
						p=0.018
Two Natural Parents	42	2451	3782	1227	356	/858
	(0.5)	(31.4)	(48.2)	(15.5)	(4.4)	(100.0)
Reconstituted Family	(1 0)	(20.2)	(26.9)	(10.0)	(2.9)	528
	(1.0)	(39.3)	(30.8)	(19.0)	(3.8)	(100.0)
Lone-parent Family		01	(40.9)	(10.2)	(6.1)	(100.0)
	(0.0)	(42.0)	(40.6)	(10.2)	(0.1)	(100.0)
Total Percentage	40 (0.5)	(32.1)	4010	(15.7)	(4.3)	(100.0)
Observed Number	(0.3)	2661	(47.3)	(13.7)	(4.3)	(100.0)
Weighted Number	43 ( <u>4</u> 3)	(2672)	(3040)	(1311)	(361)	(8328)
	(57)	(2012)	(00+0)	(1011)	(001)	n=0.010
		0000	0550	4007	0.40	p=0.018
\//bito	32	(24.0)	3553	1207	340	(100.0)
writte	(0.5)	(31.6)	(47.4)	(10.1)	(4.3)	(100.0)
Mixed	() () () ()	18	26 (50 A)	8	3	
WIXEU	(0.0)	(20.0)	(50.4)	(14.1)	(0.0)	(100.0)
Indian			106	30	10	238
indian	(1.5)	(35.5)	(44.7)	(13.5)	(4.8)	(100.0
Continued			1	1	1	1
	-	100	440		1 44	

<sup>40</sup> Includes overseas qualifications or unclassifiable qualifications.

		uss categor	y sy selected	Sackground		007
	Under-		Over-		Severe/ Super/	
	weight	Normal	weight	Obese	Morbidly Obese	Total
	(1.8)	(35.3)	(48.6)	(8.9)	(5.5)	(100.0)
	1	59	41	5	2	108
Bangladeshi	(0.5)	(54.0)	(37.9)	(5.3)	(2.3)	(100.0)
	0	21	40	10	1	72
Black Caribbean	(0.0)	(24.4)	(57.4)	(15.1)	(3.2)	(100.0)
<b>_</b>	0	29	48	16	6	99
Black African	(0.0)	(25.5)	(46.9)	(21.5)	(6.1)	(100.0)
Other	2	58	58	19	5	142
Other	(0.7)	(39.2)	(42.6)	(14.2)	(3.3)	(100.0)
Total Percentage	(0.5)	(32.1)	(47.3)	(15.7)	(4.3)	(100.0)
Observed Number	45	2661	4015	1327	381	8429
Vveighted Number	(43)	(2672)	(3938)	(1311)	(361)	(8326)
	•		1			p=0.089
Income Above 60%	24	2114	3393	1108	287	6926
Median Value	(0.3)	(30.8)	(49.0)	(16.0)	(3.9)	(100.0)
Income Below 60%	21	542	623	218	94	1498
Median Value	(1.6)	(38.3)	(39.0)	(14.4)	(6.9)	(100.0)
Total Percentage	(0.5)	(32.1)	(47.3)	(15.7)	(4.3)	(100.0)
Observed Number	45	2656	4016	1326	381	8424
Weighted Number	(43)	(2668)	(3940)	(1310)	(361)	(8323)
						p<0.001
Professional/	15	1081	1716	504	122	3438
Managerial Job	(0.4)	(31.6)	(49.8)	(14.7)	(3.5)	(100.0)
Job Lower than	14	1281	2005	664	197	4161
Professional/	(0.3)	(31.4)	(47.9)	(16.0)	(4.4)	(100.0)
Managerial	40		005	450		004
NO JOD OF	16	(27.2)	(22.6)	(10.2)	62 (7.9)	(100.0)
	(2.1)	(37.3)	(33.0)	(19.2)	(1.0)	(100.0)
Total Percentage	(0.5)	(32.1)	(47.3)	(15.7)	(4.3)	(100.0)
Observed Number	45	2661	4016	1327	381	8430
vveighted Number	(43)	(2672)	(3940)	(1311)	(361)	(8328)
		1	1	I		p<0.001
Teenage at birth of	5	68	54	19	4	150
CM	(4.0)	(49.5)	(32.8)	(10.2)	(3.5)	(100.0)
20–24 yrs at birth of	6	287	281	98	38	710
	(1.0)	(40.5)	(38.1)	(15.2)	(5.2)	(100.0)
25–29 yrs at birth of	9 (0.5)	(21.0)	829 (47.0)	(16.0)	90 (4.5)	(100.0)
30_34 vrs at hirth of	(0.3)	(31.9)	(47.0)	(10.0)	(4.3)	(100.0)
CM	(0 2)	(30.9)	(48.9)	(16.0)	(4 1)	(100.0)
Over 34 vrs at birth	15	893	1429	465	124	2926
of CM	(0.6)	(30.1)	(49.2)	(15.8)	(4.3)	(100.0)
Total Percentage	(0.5)	(32.1)	(47.3)	(15.7)	(4.3)	(100.0)
	(0.0)	2661	4016	1327	381	(100.0) 8430
Weighted Number	(43)	(2672)	(3940)	(1311)	(361)	(8328)
	()	(==-=)	(00.0)	()	(001)	n=0.005
						c00.0=q

### Table 10.37: Father's Body Mass category by selected background characteristics MCS4

Notes: See Table 10.2

Tab	le 10.38: Mother's I	BMI categor	y by Father'	s BMI categ	ory MCS4		
				Mother's	weight category	,	
		Under-		Over-		Severe/ Super/	
		weight	Normal	weight	Obese	Morbidly Obese	Total
		1	17	9	5	2	34
Ž	Underweight	(0.9)	(49.7)	(32.7)	(8.6)	(8.2)	(100.0)
obe		62	1327	586	190	85	2250
cate	Normal	(3.2)	(58.9)	(26.0)	(8.0)	(3.9)	(100.0)
ht		51	1891	1027	386	156	3511
eig	Overweight	(1.6)	(55.2)	(28.6)	(10.5)	(4.0)	(100.0)
Ň		14	493	364	180	91	1142
sr's	Obese	(0.7)	(43.3)	(32.4)	(14.7)	(9.0)	(100.0)
athe	Severe/	3	97	100	60	44	304
ц	Super/Morbidly Obese	(0.9)	(30.4)	(33.4)	(21.4)	(13.9)	(100.0)
		131	3825	2086	821	378	7241
	Total Percentage	(1.9)	(53.5)	(28.6)	(10.8)	(5.2)	(100.0)
	Observed Number	131	3825	2086	821	378	7241
	Weighted Number	(138)	(3827)	(2045)	(773)	(369)	(7152)
							p<0.001

#### Figure 10.11: Distribution of BMI category by General Health Status MCS4



Notes: See Tables 10.1 and 10.2 Conclusions

In this chapter we have shown that across almost all indicators, parents with less socioeconomically advantaged characteristics are less healthy than those with more advantaged socioeconomic characteristics. This applies across a number of domains that reflect socioeconomic status including qualifications, family type and family work status and the relationship holds for both physical and mental health. We also show some interesting patterns of physical and mental health by ethnicity, showing the relative good health of black African mothers and fathers compared to all other ethnic groups, together with the relative poor health of black Caribbean parents. We also report how Bangladeshi mothers were more likely to rate their own health as poor, although also more likely not to report any longstanding illness. Such a pattern was also found in Bangladeshi parents' reports of their children and may reflect cultural differences in the interpretation of good health. We also found that younger parents, and particularly those who were teenagers at the birth of the cohort child, were most likely to report poorer health, although the trend did not extend to reporting longstanding illness. We also saw that smoking and obesity posed a particular threat to the health of disadvantaged parents, although high frequency of alcohol consumption had a very different social profile, being associated with advantaged parents. Being overweight or obese was seen to be a growing problem as the MCS parents get older. Less than a third of fathers were of normal weight. By comparing BMI weight category with self-rated health, we speculated that many of the adverse health effects of being overweight and obese may manifest themselves more clearly in the future. Additionally, Chapter 9 also showed a strong association between child BMI and maternal BMI (Table 9.29), which gives further cause for concern. While this may paint a fairly bleak picture, it should also be remembered that most parents did report good health, were satisfied with their lives and were free of illness. In this chapter, our analyses have presented only bivariate and cross-sectional relationships and therefore do not control for a number of confounding factors that could account for the observed trends. Nevertheless, these relationships could indicate some areas on which to build future investigations and policy development.

Although this chapter has focused on the health of adults, that of parents and children is clearly interrelated through lifestyle, diet, exercise and mental health. Chapter 9 showed that children whose parents smoked more had higher levels of asthma, and children whose families engaged in physical activities with them were also more likely to be those who partook in sports independently. In the literature, links are also made between the alcohol consumption of parents of young children with their children's own subsequent substance abuse as teenagers (Hayatbakhsh et al., 2007). We are yet to analyse such associations in these data, although from this base, we are perfectly placed to understand the long-term impact of parents' lifestyle choices on their children's health. Families are the first line of care for all generations. Some MCS children may find themselves acting as carers before long. These findings on patterns of health disadvantage indicate the situations where the support of health services may be most needed and – given the correlation between the health of mothers and fathers – show that interventions should take into account the health of the whole family to be effective.

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#### Chapter 11

# PARENTS' EMPLOYMENT AND EDUCATION

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#### Chapter overview

This chapter looks at the employment and education of the parents of the Millennium Cohort children. It summarises findings about:

- Mothers' and fathers' employment (full or part-time, in education, unemployed, etc)
- Earners in families
- Mothers not in employment
- Changes in employment since the previous survey
- Educational qualifications gained by parents since the previous survey

#### Introduction

The employment, occupational class and education of the cohort child's parents are important aspects of the family in which the child is growing up. They influence the resources available to the home and the time and skills the parents bring to the family as well as the labour market, and have already been shown to be strong correlates of the child's progress (e.g. Blanden and Machin, 2010; Hansen, 2010).

The employment patterns of the parents of Millennium Cohort Study (MCS) children are recorded at a time when a long upward trend in women's employment and a period of stability in men's employment was, at least temporarily, interrupted. The overall level of men's employment turned down in the middle of 2008, and women's employment followed with a drop in the last quarter (Kent, 2009; ONS, 2009). In the second quarter of 2008, 91 per cent of fathers in two-parent families, 72 per cent of mothers in two-parent families and 56 per cent of lone parents had paid work. A year later these percentages were 89, 71 and still 56 respectively. By April to June 2008, 6.7 million dependent children in the UK were living in households with at least one earner, and 1.8 million were in a 'workless household' with no adult earners. Over the following 12 months the number of children in workless families changed little, but the effect of the recession could be seen in the increase of over 145,000 children in households with at least one adult who was not employed. Looking back over the previous decade, the numbers of children in families with a paid worker were almost exactly the same in 1998, although the number in workless households had fallen by 2008. As percentages of all children, those in workless households had gone down 3 points to 15 per cent since 1998, while those in employed households had risen by the same amount to 85 per cent (ONS, 2010).

Fieldwork for MCS4 was spread over the calendar year of 2008. Most of the interviews with parents, and hence the reports of their employment, were in the first two-quarters of that year in England and Wales, before the downturn in employment trends. But more of the fieldwork in Scotland and Northern Ireland took place in the last two-quarters of 2008, which should be borne in mind when comparing MCS results across countries, or MCS with the Labour Force Survey for the Second Quarter.

The tabulations in this chapter on parents are generally drawn from respondents to the MCS4 main instrument who were female, but not necessarily natural mothers. This excludes 404 male main respondents. The 98 lone fathers among them are, however, included in tables on lone parenthood. Sixty-eight of the lone fathers were in employment (unweighted numbers). Tables on fathers are taken from the partner questionnaire, excluding any women who answered that questionnaire (n =316 of whom 181 employed). The tabulations on fathers also exclude 1,760 cases where there was a partner in the household but no data on partner characteristics, or only proxy data (249 observations).

In this chapter we first examine the employment and economic activity of mothers and fathers when the cohort child was aged 7. We consider each parent in turn and then in combination. Comparisons are also made with the employment rates of mothers and fathers who responded at earlier sweeps. Among mothers employed at MCS4 we report the type of occupation and the use of employers' flexible employment arrangements, as these may make it easier or possible to balance work and family responsibilities. Reasons for not being employed are reported by those who were not employed. Changes in families' combined employment status from earlier sweeps are described, which also show up changes in partnership status. Finally, we document the extent to which parents acquired new educational or vocational qualifications since MCS3.

# Mothers' employment at MCS4

The Labour Force Survey for the second quarter of 2008 shows 71 per cent as the employment rate of mothers whose youngest child was aged 5–10, and 57 per cent for those with a child under 5 (ONS, 2008). The MCS4 estimate for mothers whose cohort children were about 7 years old (shown in Table 11.1) is that 61 per cent of the mothers were in paid work at the time of the survey (including those on leave).

Table 11.1: Mothers' economic activity status by country at sweep 4									
	England	Wales	Scotland	Northern Ireland	Total				
Whole sample				•					
	15.6	18.7	17.7	19.8	16.1				
Currently employed full-time	(1369)	(384)	(320)	(290)	(2363)				
	45.4	44.4	48.2	41.6	45.4				
Currently employed part-time	(3747)	(847)	(780)	(566)	(5940)				
	34.5	31.1	27.9	34.9	33.8				
Looking after family and home	(3021)	(577)	(391)	(437)	(4426)				
	3.0	3.7	3.3	2.5	3.1				
Out of work	(249)	(81)	(51)	(32)	(413)				
	1.5	2.2	2.8	1.3	1.6				
In education or government training scheme	(137)	(43)	(39)	(14)	(233)				
Total per cent	100.0	100.0	100.0	100.0	100.0				
Total unweighted sample	(8523)	(1932)	(1581)	(1339)	(13375)				
Total weighted sample	8562	1931	1575	1345	13374				
P-value	<0.001								
Currently employed only									
Currently employed full-time	25.6	29.6	26.9	32.2	26.2				
	(1369)	(384)	(320)	(290)	(2363)				
Currently employed part-time	74.4	70.4	73.1	67.8	73.8				
	(3747)	(847)	(780)	(566)	(5940)				
Total per cent	100.0	100.0	100.0	100.0	100.0				
Total unweighted sample	(5116)	(1231)	(1100)	(856)	(8303)				
Total weighted sample	5225	1217	1038	825	8224				
P value	0.002								

Notes: Column percentages weighted; number of observations (unweighted) in parentheses. Weighting allows for sample design and attrition to MCS4. (dovwt1 for the separate countries and dovwt2 for UK analysis.) Sample includes all main respondents at MCS4 who were female, including adoptive, step and grandmothers.

It makes sense that the MCS estimate should be between the two rates quoted for the two groups in the Labour Force Survey as many of the MCS families would fall into the category of having a child under 5, a younger sibling of the cohort member. The two sources would also be expected to differ in respect of the month of data collection, as noted above. Nearly 34 per cent of mothers were looking after family and home, 3 per cent were out of work but looking for work, and just under 2 per cent were in education or on a training scheme. Variations across the UK shown in Table 11.1 were statistically significant: Scotland had the lowest proportion of mothers looking after the family and home (28%) compared with 35 per cent each in England and Northern Ireland. Scotland also had the highest proportions out of work or in training/education and the highest proportion in part-time work (44%). Northern Ireland and Wales had higher proportions of all mothers in full-time work. Of those currently employed, 27 per cent worked full-time and 73 per cent part-time. The fulltime proportion is highest in Northern Ireland (32%) and Wales (30%). These intercountry differences have not been adjusted to allow for the different (though overlapping) months of interviewing noted above, but a similar pattern of differences was observed at MCS3 across countries. This was, however, a 4-point upward shift in the employment rate and corresponding decline in the proportion looking after home and family.

The differences in mother's employment participation by the level of her qualification remain marked (Table 11.2). Graduates at degree or postgraduate (NVQ 4 or 5) level had a 78 per cent employment rate, compared to 23 per cent for mothers with no qualifications. The proportion of the employed who were employed full-time was also highest for the graduates (32%), falling to 14 per cent for the least qualified (with the exception of a high full-time proportion among the small number of workers with overseas or other qualifications). These patterns are very similar to the crosssectional rate recorded at MCS3 with a slight widening of differentials between the three most qualified groups and the least. Figure 11.1 shows that just over one-third (36%) of all mothers had NVQ levels 4 and 5, but their over-representation in employment means that they make up over half (55%) of the full-timers, and 42 per cent of the part-timers. By contrast, mothers with no qualifications are 11 per cent of the whole sample, but only 2 per cent of the full-timers and 5 per cent of the part-timers.

choop 4						
	NVQ	NVQ	NVQ	Overseas	None of	Total
	4/5	3	1/2	and other	these	
				qualifications		
Whole Sample				·	•	
	24.8	18.6	10.7	10.4	3.3	16.1
Currently employed full-time	(1338)	(411)	(523)	(30)	(59)	(2361)
	53.1	49.6	45.6	22.9	20.1	45.4
Currently employed part-time	(2578)	(1001)	(1995)	(84)	(282)	(5940)
	18.2	26.6	38.4	61.2	71.8	33.8
Looking after family and home	(892)	(533)	(1703)	(233)	(1064)	(4425)
	2.2	2.3	3.8	4.0	4.2	3.1
Out of work	(111)	(48)	(177)	(15)	(62)	(413)
In education or government	1.6	2.9	1.4	1.4	0.7	1.6
training scheme	(91)	(56)	(69)	(5)	(12)	(233)
Total per cent	100.0	100.0	100.0	100.0	100.0	100.0
Total unweighted sample	(5010)	(2049)	(4467)	(367)	(1479)	(13372)
Total weighted sample	4751	2021	4723	372	1502	13369
Р	<0.001					
Currently employed only				·		
Currently employed full-time	31.9	27.3	19.0	31.2	14.3	26.2
	(1338)	(411)	(523)	(30)	(59)	(2361)
Currently employed part-time	68.1	72.7	81.0	68.8	85.7	73.8
	(2578)	(1001)	(1995)	(84)	(282)	(5940)
Total per cent	100.0	100.0	100.0	100.0	100.0	100.0
Total unweighted sample	3916	(1412)	(2518)	(114)	(341)	(8301)
Total weighted sample	3705	1380	2662	124	351	8222
P value	<0.001					

Table 11.2: Mothers' current econe	omic activity by highest educational achievement at
sweep 4	

Column percentages weighted; unweighted observations in parentheses. Sample as in Table 11.1, with valid data on gualifications.



Figure 11.1: Educational profile of mothers by employment status

Mothers' employment by ethnic group is shown in Table 11.3. The Pakistani and Bangladeshi group have by far the lowest employment rate (17%). White and Indian mothers each have employment rates around 64 per cent, while black mothers and other ethnic groups have rates close to 50 per cent. Black mothers have the highest rate of full-time work among those employed (50%). All ethnic groups showed some increase in both types of employment since the MCS3 survey, but the overall pattern of mothers' economic activity by ethnicity remained.

11.3: Mothers' economic activity status at sweep 4 by ethnicity								
	White	Indian	Pakistani and Bangladeshi	Black or Black British	Other (inc. Mixed)	Total		
Whole sample								
Currently employed full-time	16.1 (2080)	24.7 (74)	3.6 (25)	26.0 (123)	18.5 (60)	16.1 (2362)		
Currently employed part-time	48.2 (5491)	39.2 (135)	13.5 (110)	26.3 (112)	30.7 (90)	45.4 (5938)		
Looking after family and home	31.1 (3385)	33.4 (113)	78.8 (597)	39.9 (178)	45.3 (152)	33.8 (4425)		
Out of work	3.1 (364)	2.0 (6)	3.0 (19)	2.3 (13)	3.1 (11)	3.1 (413)		
In education or government training scheme	1.5 (186)	0.6 (4)	1.1 (8)	5.4 (29)	2.4 (6)	1.6 (233)		
Total per cent	100.0	100.0	100.0	100.0	100.0	100.0		
Total unweighted n Total weighted n	(11506) <i>11778</i>	(332) 263	(759) 561	(455) <i>4</i> 53	(319) 315	(13371) <i>13</i> 370		
P-value	<0.001							

11.3: Mothers' economic activity status at sweep 4 by ethnicity							
	White	Indian	Pakistani and Bangladeshi	Black or Black British	Other (inc. Mixed)	Total	
Continued							
Currently employed only							
Currently employed full-time	25.0 (2080)	38.7 (74)	21.0 (25)	49.8 (123)	37.6 (60)	26.2 (2362)	
Currently employed part-time	75.0 (5491)	61.3 (135)	79.0 (110)	50.2 (112)	62.4 (90)	73.8 (5938)	
Total per cent	100.0	100.0	100.0	100.0	100.0	100.0	
Total unweighted n Total weighted n	(7571) 7564	(209) 168	(135) <i>9</i> 6	(235) 237	(150) <i>15</i> 5	(8300) 822 <i>1</i>	
P-value	< 0.001						

Sample as in Table 11.1 with valid data on ethnic group.

Over 4 in 10 mothers had three or more children in the home by the time the cohort child was 7 (Table 11.4). These mothers had distinctly lower employment rates than those with only one or two children – 10 per cent employed full-time and 37 per cent accounting for 46 per cent of families) had an overall employment rate (71%) close to the 73 per cent reported by mothers with only one child, but their chances of being employed full-time were distinctly lower.

Mothers with three or more children show less change in participation over time, likely reflecting the arrival of younger siblings which raised their proportion among all mothers from 36 to 41 per cent since MCS3. Longitudinal analysis is needed to check whether the arrival of a new child prompted the mothers to give up work (rather than take maternity leave).

	One child	Two children	Three children or more	Total
Whole sample		1		
Currently employed full-time	28.7	18.1	9.8	16.1
	(515)	(1230)	(618)	(2363)
Currently employed part-time	44.4	52.8	37.3	45.4
	(749)	(3164)	(2027)	(5940)
Looking after family and home	18.1	24.8	49.1	33.8
	(298)	(1397)	(2731)	(4426)
Out of work	5.6	3.0	2.4	3.1
	(99)	(189)	(125)	(413)
In education or government training scheme	3.2	1.4	1.4	1.6
	(50)	(91)	(92)	(233)
Total per cent	100.0	100.0	100.0	100.0
Total unweighted sample	(1711)	(6071)	(5593)	(13375)
Total weighted sample	<i>173</i> 9	<i>6187</i>	5448	<i>13374</i>
P-values	<0.001			
Currently employed only				
Currently employed full-time	39.3	25.5	20.9	26.2
	(515)	(1230)	(618)	(2363)
Currently employed part-time	60.7	74.5	79.1	73.8
	(749)	(3164)	(2027)	(5940)
Total per cent	100.0	100.0	100.0	100.0
Total unweighted sample	(1264)	(4394)	(2645)	(8303)
Total weighted sample	1271	4387	2566	8224
Р	<0.001			

Table 11.4: Mothers' economic activity status by number of children living in household at
MCS4

Column percentages weighted; unweighted obs in parentheses. Sample of mothers as Table 11.1.

Looking over the four sweeps of the survey, from 2001–2 to 2008, in Table 11.5, one can see a slow aggregate rise in maternal employment rates. These rose from 49 per cent when the child was 9 months old to 61 per cent at age 7. These figures resemble the trajectory of maternal employment rates produced from longitudinal data in the British Household Panel Survey (BHPS) by Brewer and Paull (2006). Averaging the employment rates observed after a first birth, these authors found around 40 per cent of mothers in employment during the child's first year, percentages in the mid-50s at ages 1–5, approaching 60 per cent at ages 6 and 7, rising to 70 per cent at ages 12–13. One reason this profile is somewhat lower than the MCS one reflected in Table 11.5 is that the BHPS births concerned were earlier, right across the 1990s, when maternal employment rates were still rising rapidly. Another is that the cross-MCS table is for cohort members of all birth orders not just first births.

Table 11.5: Mothers' economic activity status at MCS sweeps1–4: UK							
	Sweep of MCS						
Mothers' economic activity status	MCS1	MCS2	MCS3	MCS4			
	9mth	Зуr	5yr	7yr			
All currently in employment	48.0	53.3	57.8	61.3			
Currently employed full-time	13.0	13.2	14.3	16.1			
	(2440)	(2058)	(2175)	(2363)			
Currently employed part time	35.0	41.1	43.5	45.4			
Currentiy employed part-time	(5815)	(5747)	(5990)	(5940)			
Looking after family and home	51.1	42.0	37.9	33.8			
	(9890)	(6799)	(5600)	(4426)			
Not employed and seeking work	0.4	1.2	3.0	3.1			
	(101)	(401)	(410)	(413)			
In education or government training scheme	0.7	1.2	1.4	1.6			
	(146)	(225)	(221)	(233)			
Total per cent	100	100	100	100			
Unweighted sample size	(18392)	(15230)	(14396)	(13375)			
Weighted observations	18398	15013	14451	13374			

Sample: All MCS1 mothers (natural, adoptive, foster and step). All MCS2 mothers (natural, adoptive, foster and step). All MCS3 mothers (natural, adoptive, foster and step) who completed the main or partner interview (excluding any others who completed these interviews). Unit non-response weight also used. MCS4 as Table 11.1 Note: At MCS1 the questions on which these codes are based were in a different section of the questionnaire (childcare section) which we know to have produced slightly different responses from those in the MCS1 employment section. The main variable used here is NWRK (if not in paid work last week) – at MCS1.

Over the four sweeps of MCS, the cross-sectional proportion of mothers describing themselves as looking after the home and family fell from just over one-half (51%) at MCS1 to just over one-third (34%) at MCS4. The small proportion in education or training rose steadily from 0.7 per cent to 1.6 per cent at MCS4. The proportion of all mothers not employed and seeking paid work rose from 0.4 per cent at MCS1 to 3.0 per cent at both MCS3 and MCS4. The biggest change was in the percentage of mothers employed part-time, from 35 per cent at MCS1 to 45 per cent at MCS4, having already become the largest category at MCS3. The rate of full-time employment stayed around 13 per cent for the first two sweeps, and then started to rise to 16 per cent at MCS4. These cross-sections do not, however, reveal the full extent of individual women's movements in and out of employment, for which longitudinal analysis is required (see Figure 11.2).

Table 11.6: Mothers' economic activity by sweep and partnership status: UK							
Mathemal according a stimity status	Sweep of MCS – UK per cent						
Mothers' economic activity status	MCS1	MCS2	MCS3	MCS4			
	9mth	Зуr	5yr	7yr			
Mothers in couples Total currently in employment	52.2	56.8	61.8	68.9			
Currently employed full-time	14.0 (2257)	13.6 (1818)	14.9 (1846)	15.4 (1504)			
Currently employed part-time	38.2 (5350)	43.2 (5131)	46.9 (5217)	46.2 (3959)			
Unweighted sample size for 100%*	(7607)	(6949)	(7063)	(8867)			
Weighted observations	8226	7065	6898	8743			
Lone mothers Total currently in employment	21.3	34.7	41.1	48.5			
Currently employed full-time	6.1 (183)	9.0 (250)	12.0 (329)	14.6 (420)			
Currently employed part-time	15.2 (465)	25.7 (632)	29.1 (773)	33.9 (951)			
Unweighted sample size for 100%*	(648)	(882)	(1102)	(2798)			
Weighted observations	566	887	1151	2982			

Sample: as Table 11.5 less couples where the partner did not respond. \* The other categories of not employed are missed from the table but cell per cents are based on total sample.

F statistics on within sweep differences by partnership status are all significant at <0.05.

The employment rate of lone mothers at MCS4, 49 per cent (Table 11.6), remains below that of mothers with partners (69%), as it had been at previous sweeps, and it has been for lone parents with dependent children of all ages over the previous 10 years (Kent, 2009). However, both MCS and the Labour Force Survey show the gap between mothers has narrowed. It is particularly part-time employment which is more common, and feasible, for mothers with a partner who may contribute to both earning cash and caring for children. Mothers with partners are also more likely than lone mothers to work full-time. Note that the absolute numbers of lone mothers in the sample increased more than two-and-a-half fold between MCS3 and MCS4, despite sample attrition. This reflects the net outcome of family break-up and re-partnering, as time goes by and the children get older. Despite the considerable movements in and out of lone motherhood, the employment profile of lone and partnered mothers remains similar across MCS3 and 4, each gaining 7 points on the employment rate, 20 points apart.

#### Fathers' employment at MCS4

Of the 8,878 resident fathers who provided information, the majority were in full-time work (85% overall), while 6 per cent each were employed part-time or out of work and seeking work (Table 11.7). Two per cent said they were looking after the family at home, and 0.5 per cent were in education or training. More than 9 out of 10 workers were full-time. There was very little variation in this pattern across the four countries of the UK. Rates of unemployment were slightly higher in Scotland and Wales, but this does not reach a conventional level of statistical significance. In the case of Scotland this could reflect the later fieldwork period. The overall employment rate for fathers had also been 91 per cent at MCS3. The employment rate in BHPS for fathers reported by Brewer and Paull (2006) was similar.

Table 11.7: Fathers' economic activity status by country at sweep 4								
	England	Wales	Scotland	Northern Ireland	Total			
Whole sample of fathers								
Currently employed full-time	85.1	84.8	85.6	86.8	85.2			
	(4772)	(1083)	(946)	(712)	(7513)			
Currently employed part-time	6.2	6.5	5.6	5.7	6.1			
	(408)	(84)	(51)	(51)	(594)			
Looking after family and home	2.2	1.9	1.4	1.7	2.1			
	(124)	(27)	(15)	(14)	(180)			
Out of work	5.9	6.6	7.0	5.2	6.1			
	(363)	(88)	(52)	(41)	(544)			
In education or government training scheme	0.5	0.2	0.5	0.6	0.5			
	(35)	(3)	(5)	(4)	(47)			
Total per cent	100.0	100.0	100.0	100.0	100.0			
Total unweighted sample	(5702)	(1285)	(1069)	(822)	(8878)			
Total weighted sample	5667	1255	1006	782	8757			
P-value	0.072							
Currently employed only	-	-						
Currently employed full-time	93.2	92.9	93.9	93.9	93.3			
	(4772)	(1083)	(946)	(712)	(7513)			
Currently employed part-time	6.8	7.1	6.1	6.1	6.7			
	(408)	(84)	(51)	(51)	(594)			
Total per cent	100.0	100.0	100.0	100.0	100.0			
Total unweighted sample	(5180)	(1167)	(997)	(763)	(8107)			
Total weighted sample	<i>517</i> 7	<i>114</i> 5	917	723	7997			
P-value	0.734							

Column percentages weighted; unweighted obs in parentheses.

Sample: all male-partner respondents described as fathers including adoptive, step and grandfathers who responded to the partner questionnaire

Fathers' employment rates do vary significantly by ethnicity. Table 11.8 shows that the Pakistani/Bangladeshi group have an unemployment rate of 15 per cent, well above the 6 per cent average, as do black fathers at 11 per cent and the 'other ethnic group' (mainly mixed) at 9 per cent. Indians, on the other hand, have unemployment rates below those of whites. The Pakistani and Bangladeshi fathers are also distinct for their high rates of part-time employment, 32 per cent among those in employment.

Table 11.8: Fathers' economic activity status by ethnicity at sweep 4								
	White	Indian	Pakistani and Bangladeshi	Black /Black British	Other (inc. Chinese & Mixed)	Total		
Whole sample of fathers								
Currently employed full-time	86.9 (6696)	88.6 (212)	57.0 (251)	75.1 (147)	73.4 (144)	85.2 (7450)		
Currently employed part- time	5.1 (402)	6.7 (19)	26.4 (125)	7.5 (17)	12.6 (24)	6.1 (587)		
Looking after family and home	2.1 (148)	1.0 (3)	1.9 (10)	3.0 (8)	4.8 (9)	2.1 (178)		
Out of work	5.5 (406)	3.8 (13)	14.6 (67)	10.8 (21)	9.2 (24)	6.0 (531)		
In education or government training scheme	0.5 (36)	0.0 (0)	0.1 (1)	3.6 (10)	0.0 (0)	0.5 (47)		
Total per cent	100.0	100.0	100.0	100.0	100.0	100.0		
Total unweighted n Total weighted sample	(7688) 7814	(247) 194	(454) 32 <i>4</i>	203)	(201) 190	(8793) 8723		
P-values	<0.001							
Currently employed only	•							
Currently employed full-time	94.5 (6696)	93.0 (212)	68.4 (251)	90.9 (147)	85.3 (144)	93.3 (7450)		
Currently employed part- time	5.5 (402)	7.0 (19)	31.6 (125)	9.1 (17)	14.7 (24)	6.7 (587)		
Total per cent	100.0	100.0	100.0	100.0	100.0	100.0		
Total unweighted n	(7098)	(231)	(376)	(164)	(168)	(8037)		
Total weighted n	7183	185	270	166	164	7968		

Column percentages weighted; unweighted obs in parentheses.

Sample: all male-partner respondents described as fathers including adoptive, step and grandfathers, for whom relevant data known.

# **Earners in families**

Table 11.9 shows that just over 1 in 10 of the families was headed by a dual full-time earning couple, and just under 1 in 20 by a workless couple. Lone parents (including here lone fathers) were split almost equally between earners and workless (13% each), bringing the total of workless families to 18 per cent. The most common arrangement was still the 1.5 earner couple where the father is employed full-time and the mother part-time. This applies to one-third of families, well ahead of the traditional male breadwinner arrangement (19%). Cases where the mother is the major or sole earner are relatively rare, around 2.5 per cent each. Notable departures from this general pattern within ethnic groups include Indian families having almost double the rate of dual full-time earners. Pakistani and Bangladeshi families, given low female employment, have the highest proportion of male sole earning families, and also, given their high male unemployment rates, the highest incidence of noearner couples (Table 11.10). Black families have slightly higher than average dual full-time couples (14%), but markedly high rates of workless lone parenthood. The relatively high rate of Pakistani/Bangladeshi mothers being employed when their partners are not (9.6%) is a new feature since MCS3, but otherwise these patterns are similar to those observed at previous sweeps.

Table 11.9. Parents partnership and economic status by country at sweep 4								
	England	Wales	Scotland	N. Ireland	Total			
	11.1	14.6	13.1	14.8	11.5			
Both employed full-time	(880)	(263)	(216)	(183)	(1542)			
Both employed, father full-time	34.0	31.6	34.4	29.5	33.6			
and mother part-time	(2559)	(557)	(513)	(347)	(3976)			
Both employed, father part-time	2.6	3.6	2.6	2.9	2.6			
and mother full-time or part-time	(213)	(64)	(34)	(37)	(348)			
Mother employed, father not	2.4	1.6	2.4	2.1	2.4			
employed	(232)	(33)	(32)	(25)	(322)			
Father employed, mother not	19.6	16.8	18.2	18.4	19.3			
employed	(1601)	(297)	(245)	(203)	(2346)			
	4.8	4.9	4.2	3.3	4.7			
Both not employed	(407)	(89)	(42)	(36)	(574)			
	12.3	12.9	14.0	13.8	12.6			
Lone parent employed	(888)	(220)	(179)	(144)	(1431)			
	13.2	14.1	11.1	15.2	13.2			
Lone parent not employed	(956)	(239)	(122)	(148)	(1465)			
Total per cent	100.0	100.0	100.0	100.0	100.0			
Total unweighted sample	(7736))	(1762)	(122)	(1123)	(12004)			
Total weighted sample	7787	1737	1357	1111	12055			
P value	0.003							

# Table 11.9: Parents' partnership and economic status by country at sweep 4

Column percentages weighted; unweighted obs in parentheses. Sample: lone mothers and lone fathers who answered the main questionnaire and female main respondents with a response from the partner.

	White	Indian	Pakistani/	Black	Other/	Total
			Bangladeshi		Mixed	
	11.6	21.3	2.3	13.6	12.9	11.5
Both employed full-time	(1380)	(56)	(11)	(57)	(38)	(1542)
Both employed, father full-time and	36.1	30.5	6.7	10.7	20.6	33.6
mother part-time	(3735)	(94)	(48)	(40)	(57)	(3974)
Both employed, father part-time	2.7	4.6	2.9	1.0	2.4	2.6
and mother full-time or part-time	(305)	(11)	(19)	(5)	(8)	(348)
Mother employed, father not	2.0	3.7	9.6	3.9	3.3	2.4
employed	(213)	(14)	(67)	(16)	(12)	(322)
Father employed, mother not	18.3	22.8	47.4	9.2	22.9	19.3
employed	(1855)	(69)	(305)	(39)	(78)	(2346)
	4.3	2.9	13.1	5.7	7.7	4.7
Both not employed	(416)	(12)	(86)	(31)	(28)	(573)
	12.7	7.3	4.4	23.0	11.9	12.6
Lone parent employed	(1272)	(15)	(22)	(90)	(30)	(1429)
	12.4	6.9	13.5	32.8	18.3	13.2
Lone parent not employed	(1199)	(20)	(80)	(121)	(45)	(1465)
Total per cent	100.0	100.0	100.0	100.0	100.0	100.0
Total unweighted n	(10375)	291	(638)	(399)	(296)	(11999)
Total weighted n	10667	229	470	397	290	12052
P-value	<0.001					

Col percentages weighted; unweighted obs in parentheses. Sample as Table 11.10, subject to availability of ethnic goup data.

The occupations of employed mothers at MCS4 are tabulated against the National Statistics Socio-Economic Classification (NS-SEC) of the fathers in Table 11.1,

where this information is known. The table also includes information on the occupations of lone mothers, and of those whose partner has no job or gave no information about it. As there are various different bases for percentages of interest we show only weighted sample numbers in the body of the table. These enable us to say that there are roughly 5,700 cases (42.7% of cases out of 13,422) observations where there is information on two occupations. Their share in the total sample is reported in bold on the diagonal of the top left hand corner of Table 11.11. In just over one-third (37%) of these dual earning couples, mother's and the father's occupation is in the same NS-SEC (though not of course necessarily in exactly the same occupation). Following the rough ranking implicit in the ordering of the NS-SEC groups, 35 per cent of these pairs showed a higher rank for the father and 28 per cent for the mother. Thus, parents both doing the same kind of job is not 'the norm', although there is a tendency for each member of the couple to have jobs at the same general end of the occupational structure. Thirty-eight per cent of the dual earners each have jobs within the top two bands.

1 0.10		Mothers' NS-	SEC MCS4		ipiejea a			
		Managerial & professional	Inter- mediate	Small emp. & self-emp.	Lower- sup. & tech.	Semi- routine and routine	Not employed	Total
	Managerial & professional	10.5	4.1	1.9	0.5	3.7	7.3	27.9 3671
MCS4	Intermediate	1.0	0.7	0.2	0.1	0.7	0.7	3.3 467
-SEC	Small employer & self-employed	2.3	1.5	1.4	0.3	1.6	3.7	10.8 1453
s' NS	Lower supervisory & technical	1.4	1.4	0.4	0.2	2.0	2.3	7.7 1063
<sup>-</sup> ather	Semi-routine & routine	1.5	1.6	0.3	0.5	2.9	4.3	11.0 1590
	Not employed or non respondent	2.5	1.3	0.7	0.4	2.8	9.3	16.9 2380
	Lone mother	3.0	2.4	0.7	0.5	4.0	11.7	22.2 2798
	Total	22.2 3130	12.9 1753	5.4 698	2.5 318	17.7 2330	39.2 5193	100.0 13422

Cell contents are weighted total (weighted) percentages. Sample as Table 11.1 where mothers' NS-SEC known. Lone fathers not included.

The other cells in the table tell us that fathers with higher ranked occupations are more likely to have an employed partner than those with lower ranked occupations, or no occupation to report. Over half (53%) of lone mothers were not employed. Looking to the bottom row, we can see that the higher the level of the mother's occupation the more likely she is to be living with a partner. Thirty per cent of non-employed mothers were lone parents. Even among those mothers who had a partner, the availability of information on the partner's occupation falls broadly with the level of the mother's NS-SEC and is least where the woman is not employed. **Provisions for combining employment and motherhood** 

The new millennium can be contrasted with previous decades by the spread of family-friendly measures that make it easier to combine motherhood and paid work. Mothers were asked about their use of a set of family-friendly employer provisions. Some were statutory obligations on employers, while others might be negotiated and/or facilitated by legislation such as the right to request flexible arrangements. For a positive response, the mother would have had to have access to the provision and to be using it. We do not know how many mothers had access to such arrangements but were not using them.

Table 11.12 records the use of statutory arrangements for taking leave by a broad classification of the occupation of their job, as given by the National Statistics Socio-Economic Classification (NS-SEC). These statutory entitlements to leave were: time off for family emergencies, maternity leave, adoptive leave and parental leave (the right to unpaid time off work to attend to a child's needs). The latter two entitlements were used by very few mothers at this survey, though parental leave had been somewhat more popular at MCS3. The small size of the sample may account for the absence of significant differences between occupation groups. However, the mothers employed in the top two occupational categories - managerial/professional and intermediate (jointly accounting for 60% of all jobs) were significantly more likely to take time off for family emergencies (32%) than the average (27%). These two groups were also significantly more likely than others to take maternity leave.

using statutory a	using statutory arrangements at MCS4								
	Managerial & professional	Inter- mediate	Small employer, self-employed, low supervisory and technical	Semi-routine and routine	Total				
Time off for family	32.8	31.7	11.9	21.7	26.6	<0.001			
emergencies	(1080)	(565)	(110)	(502)	(2257)				
Maternity leave	9.8	7.5	4.0	6.3	7.6	<0.001			
	(338)	(150)	(38)	(162)	(688)				
Adoptive leave	0.2	0.4	0.2	0.1	0.2	0.270			
	(8)	(8)	(1)	(4)	(21)				
Parental leave	0.4	0.3	0.2	0.3	0.3	0.890			
	(15)	(8)	(3)	(10)	(36)				
Total									
unweighted n	(3134)	(1753)	(1016)	(2335)	(8238)				
weighted n	2986	1736	1062	2381	8166				

Table 11.12: Percentage of employed mothers in each NS-SEC group who reported they were

Sample: Employed mothers as in Table 11.1 with valid NS-SEC data.

The use of all these provisions has fallen since MCS3, presumably due to the children being older and arrangements for their education being more settled. Table 11.13 shows the use of these statutory rights in the four UK countries. There is no significant difference between countries apart from above average use of maternity leave in Northern Ireland.

Table 11.13: Percentage of statutory arrangements at the statutory at the stat the statutory at the statutory at the statutory at the	of employed MCS4	mothers	in each co	untry who	reported u	sing
	England	Wales	Scotland	Northern Ireland	Total	P-value

Time off for family	26.2	25.8	30.3	25.6	26.5	0.084
emergencies	(1364)	(324)	(356)	(227)	(2271)	
Maternity leave	7.2	10.0	8.0	12.1	7.6	0.001
	(375)	(118)	(85)	(117)	(695)	
Adoptive leave	0.2	0.0	0.5	0.4	0.2	0.160
	(10)	(0)	(7)	(4)	(21)	
Parental leave	0.2	0.6	1.0	0.5	0.3	0.110
	(14)	(5)	(12)	(6)	(37)	
Total unweighted sample	(5116)	(1231)	(1100)	(856)	(8303)	
Total weighted sample	5225	1217	1038	825	8224	

Obs coefficients; count in parentheses. Sample: employed mothers as in Table 11.1.

Non-statutory provisions which employers may offer the parents of young children are shown in Table 11.14, and their take-up by employed mothers at MCS4, crossclassified by their occupational status. The provision most frequently taken up was the use of a telephone for family reasons (17%), followed by being able to work from home occasionally (11%). Mothers with managerial jobs or intermediate white collar jobs were much more likely than others to use these facilities, though for the use of a telephone it was women in intermediate jobs who made the most use. The next most common arrangement reported was school-term working contracts (8%) where, unlike other provisions, take-up was most likely among mothers in semi-routine and routine jobs. Various forms of employer help with childcare were less common, but all were more likely to be received by mothers in the 'better' two categories of occupational status. To summarise: 62 per cent received none of these benefits, and hence 38 per cent had received at least one. The proportion receiving none among those in semi-routine and routine jobs was 72 per cent.

Table 11.14: Percenta	ge of employed	I mothers in	each NS-SEC grou	up who rep	oorted usi	ing non-
statutory flexible emp	oloyed arrangen	nents and pr	ovisions at sweep	4		
	Managerial & professional	Inter- mediate	Small employer, self-employed,	Semi- routine	Total	P-value
			low supervisory	and		
Einopoiol bolp with	0.0	67			6.1	-0.001
childooro/childooro	9.9	(114)	(20)	2.4	(492)	<0.001
vouchers	(292)	(114)	(20)	(50)	(402)	
Workplace nursery or	27	23	0.7	12	1.9	0.001
creche	(85)	(40)	(5)	(27)	(157)	0.001
Care for children after	9.1	7.3	3.1	4.1	6.5	<0.001
school hours or during	(282)	(129)	(33)	(98)	(542)	
school holidays						
Career breaks for	1.0	1.3	0.8	0.7	0.9	0.350
personal reasons	(42)	(26)	(7)	(19)	(94)	
Job-sharing	5.2	4.3	1.3	2.1	3.6	<0.001
	(169)	(81)	(11)	(44)	(305)	
Working at or from	23.3	9.5	3.7	1.1	11.3	<0.001
home occasionally	(704)	(156)	(37)	(23)	(920)	
School term-time	6.7	9.1	2.6	11.6	8.1	<0.001
contracts	(193)	(161)	(27)	(245)	(626)	
Continued						
A telephone to use for	21.4	23.4	5.7	11.4	16.9	<0.001
family reasons	(700)	(409)	(60)	(271)	(1440)	
None of the above	49.7	53.9	85.8	71.7	61.7	<0.001
	(1558)	(951)	(874)	(1704)	(5087)	

Table 11.14: Percentage of employed mothers in each NS-SEC group who reported using non-statutory flexible employed arrangements and provisions at sweep 4							
	Managerial & professional	Inter- mediate	Small employer, self-employed, low supervisory and technical	Semi- routine and routine	Total	P-value	
Total	(3134)	(1753)	(1016)	(2335)	(8238)		
	2986	1736	1062	2381	8166		

Obs coefficients; count in parentheses. Sample: employed mothers as in Table 11.1 with valid data.

There are some differences by country in the receipt of non-statutory benefits (Table 11.15). Northern Ireland and Wales are less likely to have mothers receiving financial help with childcare from employers. Northern Ireland has a bigger minority awarded career breaks for personal reasons. Job-sharing is nearly twice the national average, at 5.8 per cent, in Scotland. Occasional working from home is most common in England. School term contracts are relatively common in England and Northern Ireland whereas the use of a telephone for family reasons is more common in Wales and Scotland. On the whole there is no significant difference between countries on using at least one of these arrangements (P=0.229).

MCS4 hon-statutory nexible arrangements						
	England	Wales	Scotland	Northern	Total	
				Ireland		
Financial help with	6.2	4.1	7.2	4.5	6.1	0.02
childcare/childcare vouchers	(320)	(44)	(87)	(35)	(486)	0.02
Workplace nursery or creche	2.0	1.5	2.2	1.0	1.9	0 211
	(107)	(22)	(22)	(7)	(158)	0.311
Care for children after school	6.5	6.1	6.6	6.3	6.5	0.022
hours or during school holidays	(341)	(80)	(77)	(47)	(545)	0.925
Career breaks for personal	0.9	0.7	1.0	2.6	0.9	0.001
reasons	(48)	(11)	(13)	(22)	(94)	0.001
Job-sharing	3.4	3.2	5.8	3.3	3.6	0.008
	(175)	(38)	(67)	(28)	(308)	0.008
Working at or from home	11.9	10.7	9.5	6.8	11.4	0.001
occasionally	(622)	(125)	(118)	(65)	(930)	0.001
School term-time contracts	8.7	5.5	5.1	7.9	8.1	<0.001
	(431)	(69)	(57)	(71)	(628)	<0.001
A telephone to use for family	16.0	19.2	20.5	18.3	16.8	0.004
reasons	(815)	(233)	(236)	(162)	(1446)	0.004
None of the above	61.6	64.0	60.2	64.5	61.7	0 220
	(3153)	(788)	(644)	(545)	(5130)	0.229
Total unweighted sample	(5116)	(1231)	(1100)	(856)	(8303)	
Total weighted sample	5225	1217	1038	825	8224	

Table 11.15: Percentage of employed mothers in each country who reported using at
MCS4 non-statutory flexible arrangements

Obs coefficients; count in parentheses. Sample: employed mothers as in Table 11.1 with valid data.

# Mothers not in employment

As noted above, 38 per cent of MCS mothers at sweep 4 were not employed (including 3 per cent who were looking for work and classifiable as unemployed). A further 2 per cent were undertaking training or education. Mothers who were not employed were asked about their reasons for not working and had the option to give more than one reason (Table 11.16). The reasons most commonly cited were:

- Prefer to look after my children myself (48%);
- Prefer to be at home with the family rather than working (37%);
- Cannot earn enough to pay for childcare (8%);
- No jobs with the right hours for me (7%); and
- Have a new baby (7%).

Only 3.6 per cent of these non-employed MCS mothers said that they were unable to find suitable childcare.

Note that those with a new baby are not the same women as the employed mothers with recent births who were on maternity leave. Some of those who had given birth since the previous sweep gave other reasons for not being employed. Altogether 62 per cent of the non-employed mothers gave at least one of the 'preferring to be at home/look after my own children' responses.

MCS4 by country						
	England	Wales	Scotland	Northern Ireland	Total	P value
There are no jobs in the right place for me	1.8 (65)	3.1 (18)	2.1 (9)	2.9 (14)	2.0 (106)	0.331
There are no jobs with the right hours for me	7.9 (232)	5.8 (39)	6.4 (34)	5.8 (31)	7.6 (336)	0.075
There are no jobs available for me	0.6 (19)	1.3 (10)	0.9 (4)	1.1 (5)	0.7 (38)	0.410
I am in full-time education	2.8 (97)	4.3 (32)	6.6 (33)	1.4 (6)	3.1 (168)	0.005
I am on a training course	2.3 (80)	2.2 (15)	1.2 (5)	1.6 (7)	2.2 (107)	0.281
My family would lose benefits if I was earning	4.7 (147)	6.1 (41)	5.6 (22)	3.3 (17)	4.9 (227)	0.197
I am caring for an elderly or ill relative or friend	3.3 (118)	4.2 (37)	3.6 (18)	1.8 (9)	3.3 (182)	0.151
I cannot work because of poor health	5.2 (177)	6.9 (55)	6.9 (33)	6.9 (35)	5.7 (300)	0.266
I prefer not to work	5.5 (186)	3.9 (22)	6.0 (31)	3.9 (20)	5.4 (259)	
Prefer to be at home with the family rather than working	38.3 (1370)	30.2 (205)	28.9 (142)	46.3 (220)	36.8 (1937)	<0.001
I prefer to look after my children myself	48.8 (1706)	41.9 (294)	38.8 (187)	55.5 (268)	47.3 (2455)	<0.001
I cannot earn enough to pay for childcare	7.7 (232)	8.7 (52)	6.6 (32)	7.8 (36)	7.5 (352)	0.717
I cannot find suitable childcare	3.5 (106)	4.8 (29)	3.5 (15)	2.6 (14)	3.5 (164)	0.359
My husband/partner disapproves	1.3 (41)	0.3 (3)	0.1 (1)	0.5 (2)	1.0 (47)	<0.001
I have a new baby	7.3 (230)	7.5 (50)	6.1 (23)	5.1 (23)	7.0 (326)	0.407
Total unweighted sample Total weighted sample	(3407) 3337	(701) 713	(481) 536	(483) 519	(5072) 5281	

# Table 11.16: Non-employed mothers' reasons for not looking for paid employment at MCS4 by country

Notes: observed sample numbers in parentheses. Sample: non-employed mothers as in Table 11.1.

There are a few significant differences across UK countries in the frequency with which these replies were given. The non-employed mothers in Northern Ireland are the most emphatic that they prefer to be at home, and the non-employed mothers in Scotland are most likely to be in full-time education. The tiny minority giving the disapproval of their husband as a reason for not working are more numerous in England than elsewhere.

When the non-workers' reasons are classified by family income the distinction between not working from choice and having little choice becomes more apparent (Table 11.17). Where family income is under the poverty line, non-workers are more likely than those in better-off families to say that their family would lose benefits if they earned, that they have caring responsibilities for an adult, and that they are in poor health themselves. Women in 'poor' families constitute over half of the non-

working mothers. Although they are less likely to cite a preference for looking after their own family than the better-off non-workers, such preferences are still dominant in their responses; 62 per cent gave at least one of the 'I prefer' responses.

	Above 60%	Below 60%	Total	P-value
	median	median		
There are no jobs in the right place for me	1.7	2.2	2.0	0.205
	(36)	(70)	(106)	
There are no jobs with the right hours for	8.3	6.7	7.5	0.0721
me	(166)	(170)	(336)	
There are no jobs available for me	0.7	0.7	0.7	0.951
	(13)	(25)	(38)	
I am in full-time education	3.1	3.1	3.1	0.947
	(79)	(89)	(168)	
I am on a training course	2.1	2.3	2.2	0.750
	(43)	(64)	(107)	
My family would lose benefits if I was	2.7	6.5	4.8	<0.001
earning	(58)	(169)	(227)	
I am caring for an elderly or ill relative or	2.7	3.8	3.3	0.043
friend	(67)	(115)	(182)	
I cannot work because of poor health	4.8	6.3	5.6	0.057
	(111)	(189)	(300)	
I prefer not to work	7.3	3.8	5.4	<0.001
	(148)	(110)	(258)	
Prefer to be at home with the family rather	44.8	31.1	37.4	<0.001
than working	(978)	(955)	(1933)	
I prefer to look after my children myself	53.5	43.1	47.8	<0.001
	(1176)	(1277)	(2453)	
I cannot earn enough to pay for childcare	8.7	6.7	7.6	0.033
	(169)	(183)	(352)	
I cannot find suitable childcare	3.1	3.8	3.5	0.243
	(71)	(92)	(163)	
My husband/partner disapproves	1.6	0.7	1.1	0.0116
	(29)	(17)	(46)	
I have a new baby	6.9	7.3	7.1	0.650
	(136)	(190)	(326)	
Total unweighted sample	(2227)	(2840)	(5067)	
Total weighted sample	2359	2788	5147	

Table 11.17: Non-employed mothers' reasons for not looking for paid employment at
MCS4 by income poverty status

Notes: observed sample numbers in parentheses. This table is based on a later question which, unlike the one on which Table 11.1 is based, allowed for more than one response to be given. A few cases identified as looking after the family in Table 11.1 mentioned education or training at this point.

# Change in employment since MCS3

To illustrate one of the many possibilities for looking longitudinally at the parents' employment histories, Figure 11.2 shows how many families stayed in the same situation in terms of the number of earners and number of parents between the age 5 and age 7 surveys.





Based on cases present at both surveys, less those where, at either survey, a partner is present but not responding.

The majority of all family types stayed in their original positions. Dual earner couples and earning lone parents were most likely to stay in work (86% and 75% respectively. Among lone parents who at MCS3 had not been employed, the proportion staying the same was 68 per cent. Those initially in couples with one or no earner were also more likely than not to remain in the same position, but the changes they did make were somewhat more likely to be towards more work than less work. The chances of non-earning lone parents moving into work (with or without acquiring a partner) are greater than the chances of employed lone parents moving out of employment. In order to compare entries to and exits from employment across groups it is necessary to take account of the size of the base groups at MCS3. There were twice as many entries to employment by mothers originally in couples as exits (989 weighted cases versus 488). Among the lone parents at MCS3, there was a net increase in earners of 180 (310 versus 130). Among partners, there were 270 entries to employment and 214 exits,

Some mothers who changed employment status also changed partnership status. In total 116 of those originally in a couple changed work as well as partnership status, as did 63 of those lone mothers gaining a partner. The total net increase of employed parents represents 6 per cent of the longitudinal sample

# Adult education

**T** I I 44 40 B

At each survey, respondents have been asked if they have gained any qualifications since the last survey. Around one in six of the main respondents had done so, and around one in seven of the partners (Tables 11.19 and 11.20). There were small but statistically significant variations across the UK countries (Table 11.19). Parents in Wales were slightly more likely than average to have obtained new qualifications, while those in Northern Ireland were less likely to do so.

country	aining new qualifications	s since last interview, by
	Main	Partner
England	17.7 (1534)	14.2 (693)
Wales	20.5 (417)	15.1 (172)
Scotland	15.0 (230)	14.6 (130)
Northern Ireland	15.0 (211)	9.6 (74)
Total per cent	17.5 (2392)	13.9 (1069)
Unweighted sample	(13429)	(7783)
P value	< 0.001	0.0167

Observed sample numbers in parentheses. Sample: all respondents with valid data, irrespective of sex of the informant.

Those gaining qualifications were almost all adding to qualifications they already held at the previous survey. Only 6 per cent of the main respondents and 4 per cent of the partners with new qualifications previously had none. Indeed 39 per cent of the main respondents with new qualifications already had a degree-level qualification, as did 48 per cent of the partners. Whether the new qualification served to raise the NVQ level remains to be investigated.

Table 11.20: Percentage of those gaining qualifications between MCS3 and MCS4 by level attained at MCS3

	Main	Partners
NVQ level 5 (post graduate)	10.1 (250)	16.3 (187)
NVQ level 4 (graduate)	28.6 (669)	31.8 (328)
NVQ level 3 (A levels)	17.5 (379)	16.3 (163)
NVQ level 2 (GCSE A–C)	28.5 (609)	24.9 (252
NVQ level 1 (GCSE below C)	6.8 (154)	3.9 (40)
Overseas or other	2.6 (65)	2.6 (30)
None of these qualifications	6.0 (125)	4.1 (37)
Total per cent	100.0 (2251)	100.0 (1037)

Notes: Sample – all main respondents who acquired new qualifications and were respondents at MCS3. Weighted column percentage and unweighted observations in parenthesis.

# Conclusions

As the cohort child passed into the primary school years we saw a continuing high level of employment amongst fathers and a continuing net increase in mothers with paid work. Employment was still more frequent for mothers in two-parent families but the participation of lone mothers continues to increase in parallel. However, there was still rotation in and out of employment. The outflows may become more substantial in the period after 2008. Part-time jobs continued to dominate mothers' employment. Some groups of mothers still had little involvement in the labour force: those with low or no qualifications, or partners with lower level occupations, Pakistanis and Bangladeshis, or lone mothers. Employer provisions to help combine motherhood and work continue to be more favourable for mothers with intermediate, managerial/professional jobs. These mothers are in turn more likely, though not exclusively, to have partners in similar jobs than other mothers. The cohort children's experience of parental employment ranges from worklessness to dual full-time high-flying careers. These contrasts will clearly be reflected in the inequality of family income at the time of this survey – examined in the next chapter – and are likely to have longer-term consequences for the family and the cohort child.

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# Chapter 12

# **INCOME AND POVERTY**

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#### Chapter overview

This chapter looks at the income data on the families in MCS4 and is divided into four sections:

- Quintiles of equivalised net family income
- Families below official poverty line
- Subjective and qualitative indicators of poverty
- Dynamics of poverty: MCS3 to MCS4

# Introduction

This chapter reports the income data on the families in MCS4. It does so in a manner that facilitates comparison with the reports on previous MCS sweeps, and estimates the extent of income-based poverty affecting the cohort families. Eliminating child poverty by the year 2020 has been a major objective of government policy for the past decade. This was reaffirmed in the Child Poverty Act of March 2010, which established an independent Child Poverty Commission to advise on strategies to tackle child poverty, now embodied in the independent review of Poverty and Life Chances announced by the Conservative-Liberal Democrat coalition government in June 2010. It also established the setting of new Child Poverty Strategies in all four countries of the UK.

There are several official criteria for measuring child poverty which are used to monitor progress towards its goal. One measure uses a notion of relative income poverty, defined as living in households with net equivalent income below 60 per cent of the national median income of all households. This indicator put 26 per cent of UK children below the poverty line in 1998/99. This fell to around 23 per cent between 2000 and 2002, and reached a low of 21 per cent in 2004/5. It then fluctuated to 22 per cent in 2008/9, the latest estimate available. These figures cover dependent children of all ages and are published in the annual series on Households Below Average Income (HBAI) (DWP, 2010). Between 2001 and 2008 the MCS children, part of the generation for whom the anti-poverty campaign is intended, grew from infancy to age 7. It is therefore of considerable interest to measure relative income poverty among these children, both to compare with the official annual series and to then use the depth of information about them and their families to understand the determinants of poverty status. The behavioural correlates of poverty can also be documented.

The data collected on income in a multi-purpose survey can never be as detailed or accurate as those gathered in a survey with that specific purpose. As noted in the reports on MCS2 and 3, there are several other reasons why estimates of poverty rates from MCS are not completely comparable with those in the government publication (DWP, 2010). In this chapter we adopt the threshold of income poverty used in the Households Below Average Income Statistics (HBAI), as a line representing 60 per cent of median income, nationally.<sup>41</sup> We construct an income variable which reduces the bias there may be from relying on the mid-point of grouped data when assigning cases to the poverty group, as well as the potential bias from incomplete response to the income question and from sample attrition. These efforts are detailed in the Methods section of the chapter on income and poverty in the report on MCS3 (Ketende and Joshi, 2008).

There are four sections in this chapter. Section 1 describes characteristics of families in different parts of the income distribution, reported by quintiles – equal-sized fifths of the distribution. Section 2 reports the findings on the proportion of families in poverty, using the standard definition of the poverty line described earlier. Section 3 discusses subjective and qualitative indicators of economic deprivation and compares these to the measures of poverty. Section 4 begins the discussion of the transitions into and from poverty between the MCS3 and MCS4 surveys.

#### Quintiles of equivalised net family income

The survey asked main respondents to place the net income of themselves and their partner within a set of bands. Responses to the banded income question on net family income have been converted to a continuous variable (Ketende and Joshi, 2008). The spread of income within bands is estimated. Imputations were made for the open-ended classes and for those cases where a response was not given. It was also possible on this exercise to 'fill in' missing data for all but a few cases where the predictor variables used in the imputation were also missing. Twenty cases are thus excluded altogether, 1,559 are included although they gave no income data and 248 had open-ended responses which were imputed. Once we have an estimate for net family income, i.e. the combination of income to the main respondent and the partner, as reported by the main respondent, the variable is adjusted to allow for the different size and composition of families by dividing through by the number of 'equivalent adults' according to the modified OECD scale, where relative to a childless couple, the first adult has a weight of 0.67, the second adult, or a child over 14, has a weight of 0.33, and any child under 14 has a weight of 0.20. Each observation is then weighted to reflect the original sampling probability and differential sample attrition. The resulting distribution of equivalised income is divided into five equal, ascending groups, or quintiles, as shown in Table 12.1.

<sup>&</sup>lt;sup>41</sup> Before housing costs and adjusted for household composition.

Table 12.1	Quintile distrib	oution of equivation	alised weekly net	family incom	e at MCS4	4
Quintiles	Weighted percentages [95% Cl]	Weekly Mean OECD equivalised income [95% Cl]	Weekly Mean income [95% Cl]	Weekly Median OECD equivalised income	Weekly Median income	(Unweighted sample) Weighted sample
Bottom	20.0 [18.5–21.5]	135.0 [133.3–136.6]	188.6 [185.0–192.3]	142.1	188.2	(2856) 2768
Second	20.0 [18.9–21.1]	238.6 [237.2–240.1]	334.2 [329.8–338.7]	240.0	337.6	(2862) 2767
Middle	20.0 [18.9–21.0]	348.0 [346.5–349.5]	489.1 [484.5–493.7]	341.7	478.2	(2797) 2767
Fourth	20.0 [18.9–21.1]	480.4 [478.1–482.7]	677.4 [671.6–683.1]	471.2	661.7	(2699) 2768
Тор	20.0 [18.2–21.8]	813.9 [793.6–834.2]	1134.5 [1102.2–1166.8]	742.5	1049	(2623) 2766
Total	100.0 [100.0–100.0]	403.1 [389.1–417.1]	564.7 [544.7–584.7]	335.7	472.9	(13837) 13835

*Notes*: 95% confidence intervals [in brackets], show the range within which the true value is likely to fall, allowing for sampling error. Sample = all productive respondents to MCS4 where there was sufficient information to impute income, regardless of sex of respondent. Percentages weighted by weight2 adjusted for attrition to Wave 4 (dovwt2).

Note, however, that the modified OECD equivalence scale (OECD, 2010) is designed to adjust incomes at the household, rather than the family unit, level. Over 93 per cent of the sample live in households with just one family unit, but for those who live in households with multiple family units the use of this equivalence scale is an approximation. The average equivalised net family income per week is estimated to be £403 at 2008 prices. Within the five income guintiles, the average rises from £135 per week in the bottom fifth to £814 per week in the top fifth. Before equivalisation, these would represent actual take-home income for a family of two parents and two children of between £189 and £1,139 (or roughly £10,000 to £60,000 in annual terms). The actual unequivalised average incomes in each income group are shown in the third column. The fourth confirms that the weighted sample sizes are identical in each quintile, by design, and the slight excess of unweighted cases in the bottom two groups reflects a relatively small impact of the sample design combined with differential attrition. The spread of incomes between the top and bottom guintile was in virtually the same ratio (6:1) at MCS3, when the overall average net equivalised income had been £368 per week. This means there was a nominal increase of 10 per cent between 2006 and 2008. Allowing for 6 per cent inflation over the two-year period, there was some real growth in incomes at all five guintiles (6% at the lowest, 4% at the second, 3% at the middle, 2% in the fourth and 4% in the top quintile). These changes seem guite modest for the sorts of earnings growth one would expect over two years for people in their mid-twenties to early forties, but we note that these are not the rates of growth experienced by the same individuals over time. Earnings growth may to some extent be offset in the average by entry to employment of relatively low earners. Income may also be affected by the loss or arrival of partners.

The next seven tables, 13.2 to 13.8, all have the same structure. They address the question of different subsets of families fit into the overall the distribution of income in the UK in similar positions; for example, Table 12.2 considers England, Wales, Scotland and Northern Ireland. If precisely the same proportion of each UK quintile – the poorest 20 per cent, the next poorest 20 per cent, all the way up to the richest 20 per cent – resided in each of the four countries, the entries in Table 12.2 would all be

'20'. The table, however, shows the distribution within each country of the overall UK poorest 20 per cent, next-poorest 20 per cent, etc. England's distribution does not differ much from the overall UK distribution, which is not surprising since England constitutes the greatest part of this distribution. Scotland has a noticeably higher proportion of families in the upper quintiles while Wales has relatively more in the lower quintiles. Northern Ireland exhibits a different pattern -it has dramatically fewer families in the upper two quintiles. This same pattern was observed at MCS3. Northern Ireland was least likely to have families in the top income quintile (12%), which was significantly below Scotland and England (the confidence limits for Northern Ireland and Wales just overlapped at 15 %).

Table 12.2 Quintile of interview per cent [	of equival row perce	lised net f entages]	family inco	me at MCS4	4 by country	y of
	Bottom	Second	Middle	Fourth	Тор	Total
England	19.7 (1878)	18.7 (1725)	19.6 (1699)	20.3 (1726)	21.6 (1845)	100.0 (8873)
Wales	22.8 (443)	21.5 (424)	20.5 (424)	18.1 (355)	17.1 (325)	100.0 (1971)
Scotland	17.3 (235)	19.2 (271)	20.1 (324)	22.3 (395)	21.0 (393)	100.0 (1618)
Northern Ireland	20.8 (270)	27.0 (358)	21.7 (301)	18.1 (270)	12.4 (176)	100.0 (1375)
Weighted per cent	20.0	20.0	20.0	20.0	20.0	100.0
Unweighted numbers	(2826)	(2778)	(2748)	(2746)	(2739)	(13837)
Weighted numbers	2768	2767	2766	2767	2767	13836
P value	<0.001					

Notes: Sample: MCS4 main respondents.

Percentage weighted by weight1 adjusted for attrition to Wave 4 (dovwt1). Unweighted observed sample in brackets.

Table 12.3 shows the percentage of families from a given country-and-samplestratum that falls into each of the five overall UK income guintiles. Those in each country that were selected from the economically disadvantaged strata are still disproportionately in the poorer quintiles. This table, like the previous one, displays disproportionately more of the poor families in Northern Ireland. The top two guintiles are over-represented in the economically 'advantaged' strata. The one stratum for which one might not expect a mechanical link to the distribution is the minority ethnic wards in England, but they display an even greater degree of economic disadvantage than the other disadvantaged English wards, as was the case when the wards were selected. We note, however, that these strata were defined in 1998/9, before the MCS started, and the present income figures reflect the families' circumstances in 2008, so the fact that these patterns are still so strong suggests there was very little overall redistribution of family income over that decade. Families sampled in the nondisadvantaged strata have only around a one-in-ten chance of being observed in the bottom fifth income class at MCS4, whereas the families sampled in ethnic minority wards of England had a just over four-in-ten (42%) chance and those sampled in the other disadvantaged wards around a one-in-four chance. The respondents in the disadvantaged wards of Northern Ireland and in wards of England with high minority ethnic populations had the lowest chance of top-quintile income (5% and 7% respectively). Of families in 'advantaged' wards, England had the highest proportion

Table 12.3 Quintile of equivalised income by sampling stratum [row percentages]						
	Bottom	Second	Middle	Fourth	Тор	Total
	8.9	13.0	18.9	26.7	32.4	100.0
England – non- disadvantaged	(337)	(493)	(717)	(1012)	(1228)	(3787)
England - disadvantaged	25.1	24.1	22.9	16.0	11.9	100.0
	(846)	(812)	(771)	(541)	(402)	(3372)
England - ethnic	42.4	28.3	13.8	8.6	6.9	100.0
	(706)	(472)	(230)	(143)	(115)	(1666)
Wales - non- disadvantaged	12.4	15.4	19.1	25.1	28.0	100.0
	(77)	(96)	(119)	(156)	(174)	(622)
Wales - disadvantaged	27.7	24.7	22.6	13.4	11.5	100.0
	(387)	(345)	(315)	(187)	(161)	(1395)
Scotland non-disadvantaged	8.0	14.0	17.5	29.0	31.5	100.0
	(66)	(116)	(145)	(240)	(261)	(828)
Scotland - disadvantaged	20.6	20.6	24.0	19.6	15.2	100.0
	(164)	(164)	(191)	(156)	(121)	(796)
	9.9	19.5	23.5	25.3	21.8	100.0
Northern Ireland - non-disadvantaged	(53)	(104)	(125)	(135)	(116)	(533)
	26.3	31.0	22.0	15.4	5.4	100.0
Northern Ireland - disadvantaged	(220)	(260)	(184)	(129)	(45)	(838)
Total	20.6	20.7	20.2	19.5	19.0	100.0
	(2856)	(2862)	(2797)	(2699)	(2623)	(13837)
P value	<0.001					

in the top income quintile (32%), followed by Scotland (31%), Wales (28%) and Northern Ireland (22%).

Notes: Sample: MCS4 main respondents.

Percentage weighted by weight2 adjusted for attrition to Wave 4 (dovwt2). Unweighted observed sample in brackets.

In Table 12.4 one sees a consistent pattern of improvement in family income as the age of the mother rises. For those families with a mother younger than 26 (who would have been a teenager at the cohort child's birth) nearly half – 47 per cent – are in the lowest quintile of the UK income distribution and only 2 per cent are in the highest quintile. By contrast, for the families in which the mother is over age 40, only 11 per cent are in that lowest quintile while 32 per cent are in the highest quintile.

Table 12.4 Quintile of equivalised net family income at MCS4 by mother's age [row						
percentages]						
Mothers' age at sweep 4	Bottom	Second	Middle	Fourth	Тор	Total
<26	47.2	27.6	18.9	4.3	2.0	100.0
	(243)	(144)	(88)	(22)	(10)	(507)
26–30	34.3	30.1	20.4	10.7	4.5	100.0
	(765)	(685)	(451)	(218)	(94)	(2213)
31–35	20.1	22.9	22.6	19.1	15.3	100.0
	(687)	(762)	(721)	(558)	(461)	(3189)
36–40	13.5	15.0	19.9	24.7	26.9	100.0
	(632)	(705)	(908)	(1044)	(1070)	(4359)
41 and above	11.1	13.7	17.8	25.2	32.2	100.0
	(389)	(473)	(564)	(798)	(945)	(3169)
Weighted per cent	19.7	19.9	20.1	20.1	20.2	100.0
Unweighted numbers	(2716)	(2769)	(2732)	(2640)	(2580)	(13437)
Weighted numbers	2642	2667	2702	2700	2718	13430
P value	<0.001					

Notes: Sample: MCS4 main respondents.

Percentage weighted by weight2 adjusted for attrition to Wave 4 (dovwt2).

Unweighted observed sample in brackets.

In Table 12.5 we see the key driving force underlying the distribution of family income, the labour-market status of the parents. In families in which both are employed (5,801 of almost 14,000 families) very few are in the lowest quintile of the income distribution while nearly two-thirds (63%) are in the top two quintiles. In the two-adult families with neither employed the position is reversed with 94 per cent in the lowest two quintiles and a tiny percentage -2 per cent - in the top two quintiles. The only families in even more impoverished circumstances are those headed by a lone parent who is not employed. Ninety-five per cent of them are in the lowest two quintiles and only 2 per cent are in the upper two quintiles. This pattern reflects the one observed from the age 5 survey. For completeness, Table 12.5 shows those two-parent cases where the earning status of the partner is not known. The incomes reported or imputed for these families are fairly evenly spread across the distribution.

		·····				
status [row percentages]						
Combined labour-market	Bottom	Second	Middle	Fourth	Тор	Total
status						
Both in work	2.6	10.5	23.5	31.0	32.4	100.0
	(179)	(675)	(1444)	(1773)	(1837)	(5908)
Main in work, partner not	27.7	38.7	15.6	11.5	6.6	100.0
	(95)	(125)	(56)	(32)	(15)	(323)
Partner in work, main not	13.9	26.6	23.6	16.3	19.7	100.0
	(386)	(687)	(521)	(371)	(396)	(2361)
Both not in work	65.8	27.7	4.2	2.1	0.3	100.0
	(405)	(144)	(18)	(10)	(2)	(579)
Lone parent in work	20.8	35.2	24.3	13.9	5.9	100.0
	(309)	(495)	(343)	(195)	(79)	(1421)
Lone parent not in work	73.5	21.4	3.1	1.2	0.8	100.0
	(1121)	(300)	(42)	(19)	(8)	(1490)
Partner non-response	19.4	22.8	21.7	18.5	17.6	100.0
	(361)	(436)	(373)	(299)	(286)	(1755)
Weighted per cent	20.0	20.0	20.0	20.0	20.0	100.0
Unweighted numbers	(2856)	(2862)	(2797)	(2699)	(2623)	(13837)
Weighted numbers	2768	2767	2767	2768	2766	13835
P value	<0.001					

Table 12.5 Quintile of equivalised net family income at MCS4 by parents' labour market

Notes: Sample: MCS4 main respondents and partners. Lone fathers are also included. Percentage weighted by weight2 adjusted for attrition to Wave 4 (dovwt2). Unweighted observed sample in brackets.

The guintiles of equivalised income are tabulated against the highest educational gualification by MCS4 of each parent in turn in Table 12.6. Education levels are associated with income through affecting the chances of being employed (see Chapter 11) and earning power when employed. As one would expect, the level of education, or the labour-market skills as reflected by these qualifications, is dramatically influential in the location of the family in the distribution of income around half (53% of mothers) of those without any gualifications, academic or vocational, are in the lowest quintile, as are 32 per cent of fathers. In the top income group we find over half of the mothers and fathers with postgraduate gualifications, 40 and 36 per cent respectively of the fathers and mothers with first degree-level qualifications and only 5 per cent and 1 per cent of fathers and mothers with no formal qualifications, either academic or vocational. The two graduate groups of parents are correspondingly absent from the lowest quintile (around 3 per cent of

graduate fathers and around 6 per cent of graduate mothers). 7	The pattern has
changed little since sweep 3.	

		Bottom	Second	Middle	Fourth	Тор	Total
	NVQ level 5	5.1	4.1	9.0	28.7	53.1	100.0
		(39)	(52)	(95)	(274)	(445)	(905)
	NVQ level 4	6.5	11.0	17.0	29.7	35.7	100.0
		(295)	(489)	(758)	(1199)	(1375)	(4116)
c	NVQ level 3	13.8	21.0	26.2	21.6	17.4	100.0
tio		(314)	(450)	(566)	(413)	(315)	(2058)
cat	NVQ level 2	20.9	25.5	24.9	17.6	11.1	100.0
qu		(790)	(954)	(882)	(576)	(355)	(3557)
ě	NVQ level 1	34.1	28.2	21.5	10.0	6.2	100.0
Ľ,		(325)	(277)	(187)	(91)	(49)	(929)
ţ	Overseas or other qual.	35.0	30.6	20.5	6.8	7.1	100.0
Νġ		(141)	(123)	(68)	(22)	(18)	(372)
~	None of these	52.9	27.7	13.5	4.4	1.4	100.0
		(812)	(424)	(176)	(63)	(23)	(1498)
	Weighted per cent	19.7	19.9	20.1	20.1	20.2	100.0
	Unweighted numbers	(2716)	(2769)	(2732)	(2638)	(2580)	(13435)
	Weighted numbers	2640	2667	2702	2698	2718	13426
P val	ue	<0.001		-			
	NVQ level 5	2.7	5.5	12.2	22.9	56.7	100.0
		(30)	(68)	(140)	(257)	(565)	(1060)
	NVQ level 4	3.8	9.9	17.0	29.5	39.7	100.0
		(134)	(307)	(535)	(876)	(1103)	(2955)
_	NVQ level 3	8.9	16.9	25.4	29.0	19.8	100.0
o		(149)	(279)	(390)	(416)	(283)	(1517)
äti	NVQ level 2	10.5	21.1	29.3	23.1	15.9	100.0
ň		(289)	(581)	(740)	(547)	(377)	(2534)
ec	NVQ level 1	17.9	27.7	28.9	17.1	8.4	100.0
Ľ'S		(111)	(177)	(170)	(96)	(46)	(600)
he	Overseas or other qual.	23.9	27.3	21.5	16.9	10.4	100.0
at		(111)	(119)	(75)	(57)	(30)	(392)
	None of these	32.2	29.6	20.5	13.0	4.7	100.0
		(384)	(334)	(218)	(125)	(47)	(1108)
	Weighted per cent	10.7	17.1	22.2	24.2	25.8	100.0
	Unweighted numbers	(1208)	(1865)	(2268)	(2374)	(2451)	(10166)

Notes: Sample: MCS4 mothers who are main respondents and partners who are fathers' of the cohort member. Percentage weighted by weight2 adjusted for attrition to Wave 4 (dovwt2). Unweighted observed sample in brackets.

Table 12.7 shows the income distribution by some of the sources of state benefit income received by MCS families. All families in the study, by virtue of the way they were recruited, are recipients of Child Benefit, so this benefit is not shown in the table. Virtually all (98%) reported receiving it. The other benefits, in some sense conditional on low income or incapacity to earn, were received by a smaller number of families, sometimes in combination, and in slightly smaller proportion than at MCS3. For example, Income Support, for those not expected to earn, was reported by 4 per cent of families, compared with 5 per cent at MCS3. This could reflect the net increase in employment, particularly of mothers over the two-year period (see Chapter 11). Receipt of Tax Credits, which provide in-work income supplementation, was reported in all income quintiles, but particularly the middle three. High-income families might not qualify for Working Tax Credits, nor would families with no earner.

The latter would often be eligible for Income Support. Ninety-one per cent of Income Support recipients were in the bottom two net income groups. There is a similar pattern for Housing Benefit, an income-tested subsidy of housing expenditure, often combined with other benefits (89 per cent in the bottom two income groups).

[row percentages]		-	-	•		-	
	Bottom	Second	Middle	Fourth	Тор	Total	Weighted N
Child Tax Credit	16.0 (1025)	24.0 (1521)	26.3 (1551)	23.1 (1292)	10.5 (583)	100.0 (5972)	5804
Working Tax Credit	18.4 (509)	34.3 (881)	24.9 (560)	16.3 (366)	6.1 (151)	100.0 (2467)	2288
Income Support	64.0 (366)	26.9 (150)	6.4 (27)	2.1 (9)	0.5 (2)	100.0 (554)	552
Housing Benefit	58.6 (497)	30.8 (246)	7.0 (48)	3.2 (18)	0.4 (3)	100.0 (812)	837
Disability Living Allowance or Attendance Allowance	22.3 (174)	29.9 (219)	23.4 (161)	14.8 (108)	9.6 (65)	100.0 (727)	719
Incapacity Benefit	36.4 (112)	35.5 (102)	19.8 (64)	5.7 (21)	2.5 (6)	100.0 (305)	280
None of these	23.4 (1528)	16.4 (1041)	14.0 (952)	16.8 (1117)	29.3 (1878)	100.0 (6516)	6795
Obs	2839	2838	2770	2682	2620	13749	
Weighted sample	2749	2748	2745	2755	2762	13759	13759
	1	1	1	1	1	1	1

Table 12.7 Selected sources of income by guintile of equivalised net family income at MCS4

Notes: Sample: MCS4 main respondents. Unweighted observed sample in brackets. Percentages weighted by weight2 adjusted for attrition to Wave 4 (dovwt2).

Relatively few of the 5 per cent of families which reported receiving Disability Living Allowance or Attendance Allowance were in the top 40 per cent income group (25%) and 52 per cent were in the bottom 40 per cent. Seventy-two per cent of the smaller group claiming Incapacity Benefit had incomes in the bottom 40 per cent. This illustrates the association of poor health as well as poor education with low income. The last row attempts to account for the overlap of different benefits by counting those families who receive none of them. It is not surprising that the top income group has the largest number of families not receiving any of these state benefits, but it is surprising that the bottom income group are the next least likely to report any of them. This could reflect failure to report some sources of income, and possibly the total level of income, or it could reflect the limited scope of benefits included in the table or failure to claim benefits for which they are entitled and merits further investigation.

# Families below official poverty line

The level of income that defines whether an MCS family is in poverty approximates the threshold level most commonly used in the official 2007–08 HBAI tables measuring poverty – a level of £236 net income per week for a childless couple and its equivalent level for families with children. That level corresponds to 60 per cent of the national median equivalised household income. Based on that income level, or its equivalent for families with children, 29.6 per cent of the MCS4 families were in poverty, see Table 12.8.

Table 12.8 Prevalence of income poverty at MCS4, UK [row per cent]						
	Above 60% median	Below 60% median	Total			
UK	70.4	29.6	100.0			
Unweighted sample	(9675)	(4162)	(13837)			
Weighted sample	9742	4094	13836			

Notes: Sample: MCS4 main respondents as in Table 12.1.

Percentage weighted by weight1 adjusted for attrition to Wave 4 (dovwt1). Unweighted observed sample in brackets.

Since the MCS is a nationally representative sample, that poverty level can be taken as an estimate of the extent of poverty in UK families who had a child close to age 7 during the time period of this survey – the 13 months beginning January 2008. However, this estimate of the poverty rate for these families is substantially above the official HBAI estimate, for the period April 2008 to March 2009: 22 per cent for children of all ages, 24 per cent for families where the youngest was under 5, and 21 per cent for families where the youngest was aged 5 to 10. A similarly higher poverty rate from the MCS surveys has been consistently noted at previous sweeps. The MCS and the Family Resource Survey (FRS) on which the HBAI estimates are based, are not comparable for several reasons. The FRS is a survey dedicated to the collection of very detailed economic data. It reports income on a household basis rather than collecting income band from only up to two adults/parents in the family unit. Moreover, the FRS reports on a somewhat different time period and collects supplementary income data, for example on rent paid directly to a landlord. In unpublished FRS data for families with a 7-year-old child, the poverty rate was 20 per cent in 2008–9, and 22 per cent in 2007–8. In the comparisons which follow we use the published HBAI figures for all children for the period 2008–9, as 83 per cent of the MCS observations came from April 2008 onwards.

The MCS4 estimate of family poverty for these families is guite consistent with the estimates from earlier rounds of this survey. These showed that when the children were 9 months old (2001–2) the MCS-estimated rate of poverty was 29.4 per cent; when they were 3 years old (2003-4) the MCS2 estimate was 28.9 per cent; when they were age 5 (2006) it was 30.7 per cent; and, most recently, in MCS4 when they were age 7 (2008), the poverty rate is 29.6 per cent. All the last three estimates are corrected for non-response and are based on imputations of a continuous variable based on responses to the question where informants reported their income as falling into one of a set of bands (as mentioned in Section 1). All are also based on the maximum sample size with available data. All these estimates are within each other's sampling error, so we could say that, on our best estimates to date, the actual incidence of income poverty for the cohort families has not changed appreciably over the seven years of these four surveys. Given the flat time trend in the national estimate of childhood poverty reported above, it is not surprising that the MCS also finds no discernible trend in childhood poverty for these children as well. Table 12.9 compares the estimates of poverty rates for families in the MCS4 using two alternative ways of measuring family income. The 'imputed' values are created through interval regression (Ketende and Joshi, 2008), the method used in all the

previous tables in this chapter, while the 'band midpoint' method approximates the income by using the midpoint of each income category offered in the questionnaire. The table indicates that the imputed method puts an additional 2.3 per cent of all these families below the poverty line. While we consider the 'imputed' method superior, as it adds variation to the dataset and makes it possible to use otherwise missing cases, neither method necessarily yields an accurate measure. This should remind readers of a source of uncertainty in our calculation of poverty beyond sampling error in these data but does not suggest that the use of midpoints necessarily overstates the extent of poverty.

Table 12.9 UK poverty estimates at MCS4: Band midpoint versus imputed continuous
income

	MCS4 band midpoint			
	MCS4 imputed	Above 60%	Below 60%	Total
	-	median	median	
Weighted cell percentages and (unweighted sample numbers)	Above 60% median	71.0	0.0	71.0
		(8625)	(0)	(8625)
	Below 60% median	2.3	26.7	29.0
		(307)	(3346)	(3653)
	Total	73.3	26.7	100.0
Weighted row and (column) percentage	Above 60% median	100.0	0.0	100.0
		(96.8)	(0.0)	(71.0)
	Below 60% median	8.1	91.9	100.0
		(3.2)	(100.0)	(29.0)
	Row total per cent	73.3	26.7	100.0
	Column total per cent	(100.0)	(100.0)	(100.0)
Unweighted sample		(8932)	(3346)	(12278)
Weighted sample		9064	3298	12362
P value		< 0.001		

*Notes*: Sample: MCS4 main respondents excluding cases with missing data on the banded income variable. Percentage weighted by weight2 adjusted for attrition to Wave 4 (dovwt2).

The analysis by country in Table 12.10 shows that the prevalence of poverty is highest in Wales and Northern Ireland (33% and 32% respectively) and lowest in Scotland (26%). Within English regions, the poverty rate is highest in the North East (40%), London (36%) and the two other northern regions (35%). Poverty is well below average in the South East outside London (20%), in the South West (22%) and in the East of England (24%). This geographical pattern is similar to that reported at sweep 3, except that Northern Ireland had a higher poverty rate than Wales, and the poverty rate in London was below all the northern English regions, and regional differences generally were slightly lower. The HBAI estimates for all child-age poverty in 2008–9 also show a similar pattern between UK countries. Around HBAI's lower average of 22 per cent, the highest child poverty rate was in Wales (26 % and the lowest in Scotland (21%). Within England, the HBAI figures, like MCS showed generally higher child poverty rates in Northern and Midland regions, although the North East (28%) came second to West Midlands (29%). The HBAI estimates show that Inner London had a child poverty rate above the national average (27%) but that Outer London's rate (20%) was below the national average but above that of the South West and South East.

	Above 60% median	Below 60% median	Total
England	71.0	29.0	100.0
-	(6134)	(2739)	(8873)
Wales	66.9	33.1	100.0
	(1329)	(642)	(1971)
Scotland	73.7	26.3	100.0
	(1267)	(351)	(1618)
Northern Ireland	67.6	32.4	100.0
	(945)	(430)	(1375)
Regions of England			
North East	60.5	39.5	100.0
	(251)	(151)	(402)
North West	64.9	35.1	100.0
	(727)	(404)	(1131)
Yorkshire and the Humber	64.8	35.2	100.0
	(617)	(399)	(1016)
East Midlands	74.1	25.9	100.0
	(549)	(192)	(741)
West Midlands	67.1	32.9	100.0
	(618)	(402)	(1020)
East of England	76.4	23.6	100.0
_	(741)	(257)	(998)
London	64.0	36.0	100.0
	(910)	(503)	(1413)
South East	80.3	19.7	100.0
	(1111)	(268)	(1379)
South West	78.0	22.0	100.0
	(609)	(163)	(772)
Total per cent UK	70.4	29.6	100.0
Unweighted sample	(9674)	(4162)	(13836)
Weighted sample	9741	4094	13835

Table 12.10 Prevalence of income poverty at MCS4 by country and English region [row per cent]

Notes: Sample: MCS4 main respondents, as in Table 12.1.

Percentage weighted by weight1 adjusted for attrition to Wave 4 (dovwt1). Unweighted observed sample in brackets.

The prevalence of income poverty by family size and partnership status is shown in Table 12.11. As at MCS3 and in HBAI, families with large numbers of children (for whom the equivalence scale recognised more need) are more likely to be below the poverty line. Among those with four or more children, according to MCS4, 59 per cent had net equivalised income below the poverty line. The families least likely to be below the line were those with two children, for whom the poverty rate was 24 per cent. In other words, poor families are likely to have either many children or only one. Note from Table 3.13 in Chapter 3 that families with one child are also more likely to have only one parent, the high poverty rates of one-child families are likely to reflect the high poverty risk of lone parents, shown in the bottom part of Table 12.11. There is also a slightly higher child poverty rate in HBAI statistics for families with one compared to two children. Both sources show markedly higher rates for families with three or more children.

and the marital status	and the marital status of couples					
		Above 60%	Below 60%	Total		
		median	median			
	One child	71.9	28.1	100.0		
		(2402)	(932)	(3334)		
	Two children	76.5	23.5	100.0		
Number of children		(5243)	(1630)	(6873)		
under 14 years old	Three children	64.0	36.0	100.0		
		(1679)	(1055)	(2734)		
	Four or more	41.4	58.6	100.0		
	children	(351)	(545)	(896)		
Total per cent		70.8	29.2	100.0		
Unweighted sample		(9675)	(4162)	(13837)		
Weighted sample	9796 4039		13835			
	Married	84.5	15.5	100.0		
		(6695)	(1497)	(8192)		
Partnership status at	Cohabiting	70.5	29.5	100.0		
MCS4		(1890)	(814)	(2704)		
	Lone parent	37.2	62.8	100.0		
		(1067)	(1844)	(2911)		
Total per cent		70.8	29.2	100.0		
Unweighted sample		(9652)	(4155)	(13807)		
Weighted sample		9766	4032	13798		

Table 12.11: Incidence of income poverty by number of children, number of parents and the marital status of couples

Notes: Sample: MCS4 main respondents.

Percentage weighted by weight2 adjusted for attrition to Wave 4 (dovwt2). Unweighted observed sample in brackets.

Families in which only one parent resides with the child are much more likely to be in poverty (63%) compared to married couples (16%) or cohabiting couples (30%). The lone-parent figure is lower than the estimate at MCS3 – 70 per cent – but still exceeds the HBAI rate of poverty for lone parents with children of all ages (34%). The presence of other adults in some lone parents' households may help to explain this discrepancy (their income would be counted in HBAI but not MCS), as could under-reporting of income sources (such as rent paid direct) in MCS. Poverty rates among couples are lower and closer to HBAI, where the rate for all couples with children is 18 per cent. The much lower rate of poverty among married couples probably reflects a number of differences, such as age and education, between them and cohabiting couples, rather than any income-enhancing properties of marriage itself.

The sample design of the MCS purposely over-represented poor families by selecting areas with high child poverty rates (that is, by sampling heavily in 'disadvantaged' wards, although these results are re-weighted to represent proportions in the population at large). To what extent did that strategy result in pinpointing families who would still be classified as poor when the child was aged 7? Table 12.12 shows that poor families made up 42 per cent of those originally sampled in disadvantaged wards. Nevertheless, the majority of families from disadvantaged wards had income above the poverty threshold.
Table 12.12: Incidence of income below the 'poverty line' by type of ward originally sampled at MCS4 [row per cent]					
	Above 60% median	Below 60% median	Total		
Non-disadvantaged	82.8 (4929)	17.2 (841)	100.0 (5770)		
Disadvantaged	58.3 (4063)	41.7 (2338)	100.0 (6401)		
Ethnic	36.0 (683)	64.0 (983)	100.0 (1666)		
Total per cent	70.8	29.2	100.0		
Unweighted sample	(9675)	(4162)	(13837)		
Weighted sample	9796	4039	13835		

Notes: Sample: MCS4 main respondents.

Percentage weighted by weight2 adjusted for attrition to Wave 4 (dovwt2). Unweighted observed sample in brackets.

Poor families were much more prevalent in the ethnic minority stratum (64%) where child poverty had also been high originally. Table 12.13 shows that all minority groups except Indians experience higher rates of poverty than whites. The highest rates of poverty were reported by families in the Pakistani and Bangladeshi combined group - 73 per cent. Black families have the next highest rate, at around 51 per cent. For comparison, the HBAI estimate of poverty for all children in 2008–9 was 58 per cent for Pakistani and Bangladeshi groups combined, 34 per cent for black children and 20 per cent for whites. The estimates of poverty rates by ethnic group from the two most recent sweeps of the MCS have not changed significantly.

Main respondent's ethnic group	Above 60% median	Below 60% median	Total
White	74.4	25.6	100.0
	(8776)	(3002)	(11778)
Mixed	50.3 (59)	49.7 (63)	100.0 (122)
Indian	74.6	25.4	100.0
	(250)	(101)	(351)
Pakistani and Bangladeshi	27.1	72.9	100.0
	(225)	(658)	(883)
Black or black British	48.7	51.3	100.0
	(230)	(247)	(477)
Other ethnic group (inc. Chinese, other)	56.2	43.8	100.0
	(132)	(88)	(220)
Total per cent	70.8	29.2	100.0
Unweighted sample	(9672)	(4159)	(13831)
Weighted sample	9793	4038	13830

Sample: MCS4 main respondents.

Percentage weighted by weight1 adjusted for attrition to Wave 4 (dovwt1). Unweighted observed sample in brackets.

Table 12.14 lists poverty rates by parents' labour-market and partnership status combined. (Further covariates are reported in the Appendix Table 12.A1.) As with the broader income distribution shown in Table 12.5, dual-earner couples are at low risk of poverty (6%) and 'workless couples' at high risk (87%). This compares with a poverty rate for workless couples in HBAI of 64 per cent. The other type of no-earner family is 'lone parents not in work'. In MCS4, their poverty rates reached 88 per cent, considerably above the 54 per cent for 'non-working lone parents' of children of all

ages in HBAI. Employed lone parents in MCS4 have a poverty rate of 35 per cent, also considerably above HBAI (12% for lone parents with full-time jobs and 19% with part-time employment). As noted above, the cash income of lone parents may be less completely covered by MCS questions. Despite the strong association of poverty with not earning, half of the families below the poverty line had at least one earner. This means that it is not just the absence of jobs but also the low pay of some parents which contributes to child poverty.

The right hand columns of Table 12.14 show a more fine-grained calibration of income level compared to that same poverty threshold. There are five gradations: the lowest, which might, taking the estimates at face value, be called 'deep poverty', shows the families whose income is less than 0.75 of their poverty threshold; the second, 'shallow poverty', shows those whose income is between 0.75 and the poverty threshold, thus just slightly below the poverty line; the third, which might loosely be labelled 'near poverty', shows those whose income is between 1.0 and 1.50 of the poverty threshold (i.e. in a band above the threshold going up to 90 per cent of the median); the fourth includes those with income between 1.50 and 4.0 of the poverty threshold; and the highest group includes those whose income is more than four times higher than the poverty threshold. (As that threshold is £236 net weekly income, this highest group includes the families who enjoy an equivalised family income in excess of £944 weekly or an annual income exceeding £49,000). By contrast the 'deep poverty' line is below equivalent income of £177 per week, or £154 for a single parent with one child or £254 for a couple with two children. This is close to the line which demarcates the bottom 20 per cent, as 18 per cent of families are below this, equally arbitrary, 'deep poverty' line. The uncertainties about the stability of income, and the accuracy of its measurement in MCS and other surveys, mean that these income thresholds should be treated with caution. Reported income does not always predict other indicators of living standards within low income groups, as shown by Brewer et al. (2009) using other datasets, and in our comparison of income and subjective indicators below.

Over 71 per cent of the children living with a lone parent who is not employed are in 'deep poverty'. The only other group where more than half are in this lowest income band are the two-parent families in which neither is employed (61 per cent).

Families with at least one earner who are nevertheless below the poverty line are more likely to be in the 'shallow' poverty income band, and one-earner couples are more likely to be in 'near poverty' range than are dual earners.

The top income group in Table 12.14 corresponds approximately to the top 5 per cent, and, as shown in the Appendix, is most markedly over-represented among parents with postgraduate degrees (19% of fathers and 16% of mothers). Northern Ireland has a particularly low proportion (2%) of families in this top bracket.

The education and age differences also shown in the Appendix confirm the gradients seen in Section 1 of this chapter for the wider income distribution. The young and the least educated parents, who tend to be the same people, have high poverty rates. For example, mothers under age 26 at the MCS4 interview (whose child is age 7)

have a poverty rate of 62 per cent, double the average rate. Housing tenure also shows the expected social polarisation, with tenants of social housing nearly six times as likely to be below the poverty line (64%) as owner-occupiers with mortgages who have a poverty rate of only 11 per cent. HBAI shows a similar ranking of child poverty rates by housing tenure: 12 per cent for owner-occupiers with a mortgage, and 46 per cent for social tenants. This strengthens the notion that MCS understates the income of social tenants in some way, such as by not including direct payments of rent. Lone parents not in work have by far the worst circumstances of all the categories considered in the Appendix – neither the parent's education, nor mother's age, nor housing tenure nor geography so partitions these families into those in 'deep poverty'. For example, of those who rent from the housing authority the proportion in 'deep poverty' is about 44 per cent.

partnership status						
	All Below		Ratio to	'poverty' t	hreshold	
	threshold	<0.75	0.75-1.0	1-1.5	1.5-4	4 and
						above
Both in work	5.7	2.3	3.4	20.5	67.7	6.1
	(380)	(153)	(227)	(1259)	(3937)	(332)
Main in work, partner not	46.0	25.2	20.8	31.6	20.7	1.7
	(161)	(85)	(76)	(98)	(61)	(3)
Partner in work, main not	24.7	12.1	12.7	29.9	38.4	6.9
	(673)	(331)	(342)	(727)	(827)	(134)
Both not in work	86.6	61.3	25.3	9.9	3.5	0.0
	(516)	(379)	(137)	(47)	(16)	(0)
Lone parent in work	35.3	16.5	18.7	37.6	26.3	0.9
	(511)	(251)	(260)	(536)	(362)	(12)
Lone parent not in work	88.3	71.2	17.1	9.1	2.3	0.3
	(1333)	(1084)	(249	(122)	(32)	(3)
Partner non-response	31.5	17.3	14.2	24.2	39.9	4.4
	(588)	(326)	(262)	(447)	(654)	(66)
Total per cent	29.2	18.3	10.9	22.9	43.5	4.4
Unweighted sample	(4162)	(2609)	(1553)	(3236)	(5889)	(550)
Weighted sample	4039	2536	(1503)	3164	6020	611

Table 12.14: Incidence of income poverty at MCS4 by parent's labour-market and	d
partnership status	

Notes: 'Poverty' threshold is MCS approximation to 60% of national median equivalised net income. Sample: MCS4 main respondents.

Percentage weighted by weight1 adjusted for attrition to Wave 4 (dovwt1). Unweighted observed sample in brackets.

Table 12.15 shows that families in which either parent has a longstanding illness are over-represented in the poverty income group, particularly if the condition limits their activity. This also applies where the child has a longstanding illness. The nearest we can get to identifying children who would be officially classified as 'disabled' is to look at families where the child has a longstanding condition which limits his or her activity. In these cases, 39.5 per cent of families are below the poverty threshold. Any additional needs occasioned by disability are not allowed for in this broad-brush approach.

Table 12.15 Poverty rates for families with health problems [column percentages]						
Whether m	ain or partner respondent or cohort child has	Above	Below	Total		
longstandi	ng illness and whether illness limits activity	60%	60%			
		median	median			
	Has longstanding illness	23.5	28.7	25.0		
		(2213)	(1195)	(3408)		
ant	Total per cent	100.0	100.0	100.0		
pude	Unweighted sample	(9623)	(4140)	(13763)		
od	Weighted sample	9751	4018	13769		
res	Illness limits activity*	54.0	68.3	58.8		
_ 		(1205)	(816)	(2021)		
Ма	Total per cent	100.0	100.0	100.0		
	Unweighted sample	(2211)	(1195)	(3406)		
	Weighted sample	2285	1152	3438		
	Has longstanding illness	22.7	35.9	24.9		
t.		(1650)	(574)	(2224)		
len	Total per cent	100.0	100.0	100.0		
ouc	Unweighted sample	(7432)	(1730)	(9162)		
spe	Weighted sample	7462	1545	9007		
. re	Illness limits activity*	45.8	71.7	52.2		
nei		(762)	(406)	(1168)		
art	Total per cent	100.0	100.0	100.0		
<b>e</b>	Unweighted sample	(1648)	(574)	(2222)		
	Weighted sample	1692	554	2246		
	Has longstanding illness	17.6	23.0	19.1		
		(1676)	(905)	(2581)		
<b>۲</b> **	Total per cent	100.0	100.0	100.0		
nbe	Unweighted sample	(9625)	(4142)	(13767)		
Jen	Weighted sample	9753	4019	13772		
t n	Illness limits activity*	33.2	40.3	35.7		
loh		(537)	(372)	(909)		
ပိ	Total per cent	100.0	100.0	100.0		
	Unweighted sample	(1675)	(904)	(2579)		
	Weighted sample	1713	923	2636		

Notes: \*Among those with longstanding illness. \*\*First cohort child in a family with multiple cohort children. Column weighted percentages. Unweighted observed samples in brackets.

### Subjective and qualitative indicators of poverty

In this section we show the relationship of family income, measured objectively, to the answers given by the mother to questions that are more subjective. One is about the experience of financial stress, and the other asks about a small list of items with which the family may be doing without because they cannot afford them.

Regarding stress, the mother was asked about how 'you (and your partner) are managing financially these days?'. The choices were: 'living comfortably', 'doing all right', 'just about getting by', 'finding it quite difficult' or 'finding it very difficult'. A family at any location in the income distribution might assess its circumstances to be any one of these five choices.

There is, however, much internal consistency in these MCS4 data as nearly all the families in the top income quintile said they were either living comfortably (52%) or 'doing all right' (34%). The proportion claiming to be living comfortably falls to 6 per

cent of those in the bottom quintile, where the most common response is 'just about getting by' (42%), though 18 per cent of this group were 'finding it quite difficult' and 10 per cent 'very difficult'. Looking at the families giving some indication of income inadequacy (i.e. those who are 'just about getting by' or 'finding it quite/very difficult'), the row percentages show that well over half of such families are in the bottom two income groups. So although these subjective and objective measures do not completely coincide, there is a strong association between the two.

Looking at Panel A, Table 12.16, 57 per cent of the respondents in MCS4 said they were either doing all right or living comfortably. This same question was asked in MCS2 and in MCS3 and the comparable percentages in those sweeps were 66 and 62 respectively. Thus the percentage reporting these highest levels has declined somewhat, despite the modest rise in overall average real incomes and the drop in the proportion claiming income-tested benefits. We caution, however, that the subsamples are not identical across these sweeps because of attrition, and of course the respondents are a few years older in MCS4. But another explanation for this downward trend is that the children are older. It could be that our approach to adjusting for family size and the number of children – using those OECD scales – may not adequately allow for the needs of children of different ages in overall average real income. Their lack of sensitivity to the ages of children under 14 was also noted by Brewer el al. (2010).

(Column percentages) in	Column percentages) in parentheses						
		Bottom	Second	Middle	Fourth	Тор	Total
	Living	5.1	8.8	14.1	23.5	48.5	100.0
	comfortably	(5.5)	(9.4)	(15.2)	(25.2)	(51.9)	(21.5)
A:	Doing all right	13.9	18.7	23.4	25.0	19.1	100.0
		(24.5)	(33.0)	(41.5)	(44.0)	(33.6)	(35.3)
How well would you say	Just about	28.1	26.7	21.9	15.7	7.7	100.0
you (and your partner) are	getting by	(42.0)	(39.9)	(32.7)	(23.4)	(11.4)	(29.9)
managing financially these	Finding it	38.3	26.3	16.7	12.8	5.9	100.0
days?	quite difficult	(18.1)	(12.4)	(7.9)	(6.0)	(2.8)	(9.4)
	Finding it very	50.6	27.1	14.0	6.5	1.6	100.0
	difficult	(9.9)	(5.3)	(2.7)	(1.3)	(0.3)	(3.9)
Weighted per cent		20.0	20.0	20.0	20.0	20.1	100.0
		(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)
Unweighted numbers		2838	2840	2772	2683	2617	13750
Weighted numbers		2747	2748	2744	2754	2758	13751
	High 9–10	13.0	15.7	19.0	22.4	29.8	100.0
В:		(21.3)	(24.5)	(28.3)	(33.1)	(43.3)	(30.4)
	Medium 7–8	15.0	19.1	21.3	23.4	21.3	100.0
Satisfaction with own life		(35.5)	(43.1)	(46.0)	(49.9)	(44.7)	(44.0)
so far	Lowest up to	31.4	24.7	20.5	13.7	9.8	100.0
	6	(43.2)	(32.3)	(25.7)	(17.0)	(11.9)	(25.6)
Weighted per cent		18.6	19.5	20.4	20.6	20.9	100.0
		(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)
Unweighted numbers		2470	2616	2697	2636	2602	13021
Weighted numbers		2437	2563	2677	2705	2744	13126

Table 12.16: Quintile of equivalised net family income at MCS4 by main respondent's
reports on A, managing financially and B, by life satisfaction [Row percentages with
(Column percentages) in parentheses]

Notes: Sample: MCS4 main respondents.

Percentage weighted by weight1 adjusted for attrition to Wave 4 (dovwt1). Weighted column percentages in brackets.

In Panel B of Table 12.16 the question is even broader, asking the respondent to reflect on the level of satisfaction with his or her own life. (The specific wording of this question is: 'Here is a scale from 1–10, where 1 means you are completely

dissatisfied and 10 means you are completely satisfied. Please enter the number which corresponds with how satisfied or dissatisfied you are about the way your life has turned out so far.') In Panel B one sees that income is certainly positively associated with one's sense of life satisfaction, but not overwhelmingly so. The gradients are not, however, as marked as seen in Panel A which more directly references income and emphasises the tails of the distributions. The relationship seen in Panel B is very similar to that reported for the MCS3 sweep.

The association of life satisfaction and family income, as strong or weak as it is, does not tell us anything about the causal direction between the two. Perhaps income brings satisfaction but just as plausibly, a sense of satisfaction and the associated personal attributes and behaviours may be a key reason for that person's level of income.

The official monitoring of child poverty also looks at indicators of living standards in terms of 'deprivation' of certain indicator items on the grounds that, combined with low income, they cannot be afforded. This conception of poverty reflects the judgement of Adam Smith (1776) who spoke of poverty as lacking 'not only the commodities which are indispensably necessary for the support of life, but whatever the custom of the country renders it indecent for creditable people, even of the lowest order, to be without'. Five of those indicator items are reflected in the MCS although not asked in exactly the same questions as the Family Resources Survey. These questions are, however, asked similarly in both MCS4 and MCS3 so they can be tracked across time. As shown in Table 12.17, the five items are whether the child has a weatherproof coat, and has two pairs of all-weather shoes, and whether the child's parent has 'a small amount of money to spend on her/himself weekly', can afford a yearly holiday (not staying with relatives), and can afford to hold celebrations on birthdays or religious festivals. From MCS3 we know that at age 5, some 38 per cent of families were lacking at least one of these five items (Bradshaw and Holmes, 2010). When the child was 7 (i.e. MCS4) Table 12.17 shows that, similarly, some 41 per cent of families reported at least one of these five 'deprivations'. The form of deprivation that affected the most families was not having enough money to take an annual holiday (other than visits to relatives). Thirty-two per cent of families were in that position (29 % at the age 5 survey). Significantly, 26 per cent of mothers said they did not have even 'a small amount of money to spend on themselves' (23% in MCS3). Very few at either survey said they could not afford a weatherproof coat or shoes for their child, or that they could not afford birthday or festival celebrations.

The degree of overlap between this item-based indicator of poverty with the more common measure of income relative to a poverty threshold, has increased since MCS3. In MCS3, Bradshaw and Holmes (2010) report that 54 per cent of the 'income poor' reported deprivation in terms of lacking at least one of these five items. Table 12.17 tells us that in MCS4, the comparable figure for these children is much higher: 73 per cent (= 32.9 + 39.8 of those below the 60% median threshold). Comparing families that are deprived of one or another of these five rather basic items by poverty status (columns 1 and 2 of Table 12.17), gives meaning to the notion of impoverishment. The likelihood of the deprivation for those in poverty is over nine times as high for lacking a weatherproof coat (= 2.8/0.3), nearly seven

times as high for lacking two pairs of all-weather shoes (= 6.9/1.0), over four times as high for being unable to afford to hold celebrations on birthdays or religious festivals.

		Above 60% median	Below 60% median	Total
	0	72.4	27.2	59.4
		(6795)	(1086)	(7881)
Number of items lacking	1 item	18.3	32.9	22.5
Number of items lacking		(1613)	(1280)	(2893)
	2–5 items	9.4	39.8	18.1
Total par cont		(798)	(1454)	(2252)
		100.0	100.0	100.0
Unweighted sample		(9206)	(3820)	(13026)
Weighted sample		9345	3749	13094
Child lacks a weatherproof coat		0.3	2.8	1.0
		(25)	(97)	(122)
Total per cent		100.0	100.0	100.0
Unweighted sample		(9170)	(3777)	(12947)
Neighted sample		9308	3709	13018
Child does not have 2 pairs of all-weather shoes		1.0	6.9	2.7
		(83)	(232)	(315)
Total per cent		100.0	100.0	100.0
Linuxianted comple		(9109)	(3775)	(12884)
		9241	3099	12940
maney to spend on self weekly		(1300)	49.2	25.9 (3105)
Total per cent		100.0	100.0	100.0
Linweighted sample		(8939)	(3646)	(12585)
Weighted sample		9056	3568	12624
Can't afford yearly holiday not staving with	1	20.1	62.5	32.2
relatives	I	(1757)	(2347)	(4104)
Total per cent		100.0	100.0	100.0
Unweighted sample		(9206)	(3820)	(13026)
Weighted sample		9345	3749	13094
Can't afford to hold celebrations on		0.9	4.1	1.8
birthdays/religious festivals		(68)	(159)	(227)
Total per cent		100.0	100.0	100.0
Unweighted sample		(9197)	(3799)	(12996)
Weighted sample		9335	3725	13061

Notes: Sample: MCS4 main respondents with valid data on deprivation items. Percentage weighted by weight2 adjusted for attrition to Wave 4 (dovwt2)

### Dynamics of poverty: MCS3 to MCS4

In this brief section we begin the investigation of the transition in poverty status between the two surveys, MCS3 and MCS4. We first document the direction of those transitions in Table 12.18, and then we probe the circumstances in which transitions took place by considering two specific family circumstances depicted in the charts below. Table 12.18 shows the dynamics of movements across the 'poverty line' between MCS3 and MCS4 for those 13,192 families where data are available from both surveys (because the sample size here is slightly restricted, the total poverty rates in this table are not exactly those quoted above). In this table, the small drop (of 2.8 %) in poverty between MCS3 and MCS4 resulted from a movement of about 32 per cent of families below the poverty line in MCS3 moving out of poverty while a different 10 per cent of families who were above the poverty line in MCS3 fell into poverty in MCS4. Expressed as percentages of the total sample, 9.9 per cent escaped poverty, while 7.1 per cent fell into poverty.

cell percentages [column percentages] (unweighted sample)					
	MC	MCS4			
MCS3	Above 60% median	Below 60% median	Total		
Above 60% median	61.5	7.1	68.6		
	[86.1]	[24.8]	[68.6])		
	(8026)	975)	(9001)		
Below 60% median	9.9	21.5	31.4		
	(13.9)	(75.2)	(31.4)		
	(1281)	(2910)	(4191)		
Total	71.4	28.6	100.0		
	[100.0]	[100.0]	[100.0		
	(9307)	(3885)	(13192)		
Weighted sample	9421	3774	13195		

Table 12.18: Estimates of families below 'poverty line' in Sweeps 3 and 4. Weighted

Sample: MCS4 main respondents with valid data on MCS3 and MCS4 poverty class. Notes: Percentage weighted by weight2 adjusted for attrition to Wave 4 (dovwt2).

Figures 12.1 and 12.2 each show one of two reasons for a transition into or out of poverty between MCS3 and MCS4 - a change in the number of earners and a change in the number of parents living with the cohort child. We do not attempt to allow for other things that may be different in the family such as the arrival of a new child or a change of address, nor at this stage do we consider whether a change in earners or in parents was simultaneously a change in both. Both charts show weighted sample numbers. The important indicators of change in these graphs are the proportions shown in near black - indicating the number of families in that column that fell into poverty between the two survey sweeps - and the proportions shown in white indicating the number of families that moved out of poverty between the two sweeps.

Figure 12.1 considers the number of earners in the family. The chart shows that those who gained an earner were disproportionately likely to have escaped poverty (i.e. column 3 in the figure shows that 22% of all who gained an earner escaped poverty status). Conversely, losing an earner was an important source of entry into poverty (about 24% of those who lost at least one earner dropped below the poverty line). In the families with the same number of earners in the two surveys, 782 families escaped poverty (white) while 483 fell into poverty (black).

Some of these changes would have involved changes in the number of partners too. If we look at changes in partnership in isolation from earning, Figure 12.2 shows that in the families that lost a parent some 30 per cent fell into poverty while only about 8 per cent escaped poverty. Among the families that acquired an additional adult, by contrast, some 30 per cent escaped poverty while only about 5 per cent fell under the poverty line.



Figure 12.1: Transition across poverty line by earner change MCS3 and MCS4 (showing per cent in each base category and weighted sample numbers)

These two charts suggest that poverty transitions were more strongly associated with employment than family status transitions. In terms of absolute numbers, there were 363 weighted sample cases entering poverty in association with losing an earner, compared with 223 losing a parent. In the opposite direction, 446 families that gained an earner escaped poverty, compared with 157 that escaped poverty among the families that gained a parent. Note also that poverty transitions are by no means only found among families that experienced one of these two socioeconomic transitions.

The phenomenon of rotation in and out of poverty has also been seen across previous surveys (Bradshaw and Holmes, 2010). Further analysis will be needed to see how far these transitions between MCS3 and MCS4 have brought 'entrants' in from never having been in poverty at any previous survey, and how far they have lifted out of poverty those whose previous experience of poverty was as at just one or more previous surveys. Information about persistent and transient poverty among the population at large is also reported, on the basis of the British Household Panel Survey by the DWP as part of the HBAI statistics (DWP 2009). This suggests that poverty persisting over four years was less common for families with children after 2000 than it had been in the 1990s.



# Figure 12.2: Transition across poverty line by change in number of parents between MCS3 and MCS4 (showing percentages in each base category and weighted sample numbers)

### Conclusion

This chapter has focused, like previous descriptive reports, on estimates of net income derived from the grouped income questions in MCS which are known to be less reliable than the data collected for official poverty statistics in a specialised survey. Neither this chapter nor the report on MCS3 made use of the answers to supplementary questions included in the questionnaire on the separate components of incomes.<sup>42</sup> Nevertheless, these results can be compared with income data in previous MCS sweeps and provide a useful account of income differentials within MCS families.

<sup>&</sup>lt;sup>42</sup> These questions include 'unfolding brackets' to help respondents estimate amounts within narrowing ranges. These data are available to users, but need to be treated with caution pending further work to evaluate them.

We have attempted to measure family income relative to needs in a way that is as close as possible to other data sources used to gauge poverty, and to describe the characteristics of families that fall toward both ends of this spectrum. Those whose family income falls below the poverty line account for about 30 per cent of this cohort. Those who fall in the bottom 20 per cent have incomes no more than 48 per cent of the national median. They have similar demographic characteristics to those classified in the broader band of poverty below 60 per cent of the national median: lone parents and couples without work, or where only the mother has a job; Pakistani, Bangladeshi, and black families; residents in areas of minority ethnic concentration, social tenants, young mothers and those with poor education and poor health. Many of these characteristics overlap, but that has not been explored here. Gaining or losing employment is a frequent, but not exclusive, feature of movements in and out of poverty. Despite their lower risk of poverty, working families are not immune from low income, and those where at least one parent is earning constitute half of those classified below the level of 60 per cent line here. The level of income in the bottom fifth is one sixth of the average level in the top fifth, which has an opposite demographic profile, characterised by dual earners, tertiary qualifications and home ownership, older mothers, and residence in the less disadvantaged areas of England and Scotland.

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### Appendix

Table 12.A threshold,	1: Per cent distribution by selected demograph	of families k lic variables	by the ratio and UK co	of their inc untry [row	come to the percentag	er poverty es]
			Ratio	to 'poverty	' threshold	
		<0.75	0.75–1.0	1–1.5	1.5–4	4 and above
	NVQ level 5	2.1	3.1	9.6	66.7	18.6
		(24)	(36)	(115)	(709)	(176)
		(121)	(126)	(504)	(1954)	9.0
	NVQ level 3	80	7.0	24.5	56.9	3.5
Ę		(131)	(115)	(401)	(825)	(45)
atic	NVQ level 2	9.2	9.1	29.5	50.6	1.6
inc		(253)	(253)	(780)	(1215)	(33)
eq	NVQ level 1	15.5	13.6	34.9	35.3	0.7
้ราย		(95)	(87	(216)	(199)	(3)
athe	Overseas and other	21.1	15.1	25.8	36.7	1.2
Ë	quals only	(99)	(68)	(100)	(120)	(5)
	None of these	29.4	19.4	27.4	23.1	0.7
		(347)	(226)	(285)	(243)	(7)
	Total per cent	9.5	8.3	22.9	53.5	5.8
	Unweighted sample	(1070)	(911)	(2401)	(5265)	(519)
	Weighted sample	1070	820	2273	5308	574
	NVQ level 5	4.5	2.5	7.6	69.0	16.4
		(33)	(27)	(92)	(631)	(122)
	NVQ level 4	5.4	4.9	17.7	63.9	8.1
		(246)	(220)	(779)	(2576)	(295)
	NVQ level 3	12.3	9.3	29.1	46.7	2.5
Ĵ,		(279)	(205)	(618)	(916)	(40)
tio	NVQ level 2	19.4	12.8	28.6	37.2	2.1
rca		(731)	(476)	(1045)	(1235)	(70)
edi		(202)	(167)	20.0	(200)	1.0
Ś	Overseas and other	(302)	(107)	27.0	(203)	(3)
the		(128)	(90)	(92)	(60)	(2)
Ŵ	None of these	49.5	21.0	18.3	11.1	0.2
		(761)	(309)	(277)	(147)	(4)
	Total per cent	18.0	10.8	22.8	43.9	4.5
	Unweighted sample	(2480)	(1494)	(3149)	(5774)	(538)
	Weighted sample	2420	1449	3065	5894	598
	<26	43.8	18.3	23.1	14.8	0.0
		(228)	(97)	(113)	(69)	(0)
	26–30	31.8	17.5	26.9	23.1	0.6
o	04.05	(705)	(380)	(629)	(489)	(10)
ag	31-35	18.2	(420)	20.8 (950)	40.5 (1005)	Z.1 (63)
s's	36-40	12 2	(420) 7 /	20.7	53.7	5 0
the		(576)	(346)	(950)	(2266)	(221)
о М	41 and above	10.0	7 0	18.3	55.8	8.8
		(349)	(251)	(598)	(1727)	(244)
	Total per cent	18.0	10.8	22.8	43.9	4.5
		(2490)	(1404)	(21.40)	(5776)	(520)
	Unweighted sample	(2400)	(1494)	(3149)	(0110)	(336)

the short, by selected demographic variables and on country [row percentages]						
			Ratio	to 'poverty	' threshold	
Continued						
	Weighted sample	2422	1449	3065	5896	598
	Own outright	12.6	9.5	20.0	47.6	10.6
		(111)	(92)	(198)	(374)	(67)
	Own - mortgage/loan	4.9	5.8	21.3	61.6	6.4
(h)		(491)	(547)	(1832)	(4750)	(452)
nre	Rent from LA or HA*	43.9	19.6	24.5	11.7	0.2
ter		(1379)	(628)	(709)	(322)	(7)
бu	Rent privately	29.6	19.2	27.3	22.8	1.0
usi		(385)	(239)	(305)	(221)	(10)
위	Other	33.3	8.6	28.1	29.0	0.8
		(102)	(35)	(79)	(81)	(2)
	Total per cent	18.1	10.8	22.8	44.0	4.5
	Unweighted sample	(2468)	(1541)	(3123)	(5748)	(538)
	Weighted sample	2412	1489	3041	5872	598
	England	18.3	10.7	22.2	44.0	4.8
4		(1738)	(1001)	(1968)	(3766)	(400)
eep	Wales	21.0	12.1	25.3	38.9	2.8
N s M		(410)	(232)	(506)	(771)	(52)
/ at rvie	Scotland	16.3	9.9	23.0	46.6	4.2
ntr		(218)	(133)	(359)	(837)	(71)
	Northern Ireland	18.6	13.8	30.3	35.7	1.7
ž		(243)	(187)	(403)	(515)	(27)
	Unweighted sample	(2609)	(1553)	(3236)	(5889)	(550)

Table 12.A1: Per cent distribution of families by the ratio of their income to their poverty threshold, by selected demographic variables and UK country [row percentages]

Notes: 'Poverty' threshold is MCS approximation to 60% on national median net equivalised LA = Local Authority, HA = Housing Association. Sample: MCS4 main respondents. Percentage weighted by weight2 adjusted for attrition to Wave 4 (dovwt2), except for last row panel which uses

weight 1 adjusted for attrition to Wave 4 (dovwt1). Unweighted observed sample numbers in brackets.

### Chapter 13

### HOUSING, NEIGHBOURHOOD AND RESIDENTIAL MOBILITY

Sosthenes C. Ketende and John W. McDonald

#### Chapter overview

This chapter focuses on residential mobility between MCS3 and MCS4, looking in particular at:

- Reasons for residential mobility
- Correlates of residential mobility
- Perceptions of area at sweep 3 and residential mobility at sweep 4
- Housing, neighbourhood and income poverty at sweep 4

### Introduction

Families move home for many reasons. Some moves are involuntary and can be due to eviction, a relationship breakdown or a job change (Boheim and Taylor, 2002). Most moves are voluntary and are prompted by the desire for a larger house or a better home area. This chapter focuses on residential mobility between MCS3 and MCS4. We look at reasons for moving residence and some socioeconomic and socio-demographic correlates of mobility such as type of housing and families' perception of their area at MCS3 in terms of whether it is a good one for raising children and how safe they feel it is.

Families with infants and young children have relatively high rates of residential mobility in the UK (Plewis et al., 2008). Residential mobility may occur in anticipation of family changes such as during a pregnancy or just after a birth when many families move to larger accommodation. The presence of school-aged children can be associated with less residential mobility (Michielin and Mulder, 2008). This may be because families relocate themselves close to 'good' or popular schools before the child is of school age (Gibbons and Machin, 2006). Does moving disrupt children's lives? Moving residence, as well as possibly simultaneously moving school and/or neighbourhood, may force children (and parents) to adapt to changes in friends, school and neighbourhood. This may have positive, negative or both positive and negative consequences for their health and wellbeing, with frequent movement early in the life course being potentially most stressful and disruptive. Tucker et al. (1998) investigated the impact of mobility on the school lives of elementary-aged schoolchildren in the USA. They found that 'children who have moved an average or above average number of times are not significantly harmed if they reside in families in which both biological parents are present; however, for children in other family structures, any move is associated with an adverse school life'. A systematic review by Jelleyman and Spencer (2008) concluded: 'Residential mobility interacts at neighbourhood, family and individual levels in cumulative and compounding ways with significance for the wellbeing of children'. Outcomes they identified in association with residential mobility included higher levels of behavioural and emotional problems. Verropoulou et al. (2002) examined the relationship between moving home, family

structure and children's wellbeing using the second generation of the National Child Development Study, where in 1991 information was collected on the children of one-third of the 1958 cohort members. Child wellbeing was measured using attainment in mathematics and reading, and on two behavioural assessments of aggression and anxiety. They found little to no association between moving home and children's wellbeing. So the effects of moving on behaviour are mixed and the effects of moving might be positive, negative or neutral depending on the outcome measures used.

Residential mobility poses a major challenge for the conduct of longitudinal studies, especially for birth cohort studies such as the MCS. The residentially mobile are more likely to be non-respondents, even after controlling for a range of background variables (Plewis et al., 2008). This mobility poses a major challenge for fieldwork and analysis. Analysts are concerned that those who are lost from the study, either temporarily or permanently, are systematically different from those that remain and any inferences made on the observed sample will differ from those that would have been made if there had been no non-response or sample loss.

#### **Residential mobility between MCS3 and MCS4**

Plewis et al. (2008) compared main respondents' self-report of mobility with the survey administration data on residential mobility and found that 9 per cent of all MCS2 productive families had moved home according to the survey administration tracing records, but did not mention it at the interview. Based on address records, residential mobility between sweeps 3 and 4 was lower than between sweeps 2 and 3 (20% versus 24%), see Table 13.2 in this chapter and the same numbered table in Ketende and McDonald (2008). Note that 15 per cent of movers mentioned children's schooling as a reason for moving.

#### **Reasons for residential mobility**

The most popular reason for moving given by interviewed movers at sweep 4 was wanting a larger home (37%), followed by wanting a better home (21%) and wanting to move to a better area (20%). See Table 13.1 for other reasons and percentages. The ordering of the reasons given and the percentage distribution are very similar to the ordering and percentage distribution at MCS3; see Table 13.1 in Ketende and McDonald (2008). This similarity partially explains the reduction in the percentage of movers between sweeps 2 and 4. If families had moved between sweeps 2 and 3 to seek more spacious accommodation, a better area or a better home, having found it they are less likely to move again in the near future.

Table 13.1: Reason for moving between MCS3 and MCS4 for self-reported movers						
Variable	Weighted per cent (Unweighted n)	(Unweighted base) Weighted Base				
Wanted larger home	36.5 (502)					
Wanted better home	20.8 (283)					
Wanted to move to better area	20.1 (276)					
To be nearer relative(s)	10.4 (140)					
Relationship breakdown	10.3 (143)					
Wanted to buy	5.8 (86)					
For children's education	9.9 (133)					
Wanted place of my own	5.8 (78)					
School catchment area	5.5 (72)	(1362) 1583				
Moving away from crime	5.3 (80)					
Job change/nearer work	4.8 (57)					
Could no longer afford last home	4.7 (60)					
Just wanted a change	4.7 (59)					
Problem with neighbours	4.7 (63)					
New relationship	4.5 (57)					
Spouse or partner job change	2.8 (39)					
Evicted/repossessed from last home	1.9 (28)					

Notes: Sample – self-reported movers, weighted percentages. Weighting allows for longitudinal unit non-response and attrition up to sweep 4. Percentages do not add to 100 per cent since more than one reason could be given by each respondent.

If we categorise the reasons given for moving into dwelling, area or household related, the most common reasons for moving were dwelling related (70%), followed by area related (46%) and household related (44%). Note that the percentages given in Table 14.1 do not add to 100 per cent since more than one reason for moving could be given by each respondent.

### Correlates of residential mobility

Residential mobility is related to many factors and, in this section, we describe some socioeconomic and socio-demographic correlates of mobility. The base number for Tables 13.1 to 13.11 is the 13,857 families productive at sweep 4, regardless of their participation status at previous sweeps. There were 101 families across all UK countries at interview, 70 in England, 10 in Wales, 13 in Scotland and 3 in Northern Ireland, whose change of residential address status could not be established. These families are therefore excluded from the denominator in all estimates using the residential mobility variable.

Table 13.2 shows residential mobility rates by UK country. The rates were lower in all UK countries except Wales at sweep 4 than at sweep 3. In Wales, the mobility rate at both sweeps was 19 per cent. The biggest drop in residential mobility among productive families was in Northern Ireland where it fell from 27 per cent at sweep 3 to 18 per cent at sweep 4.

at MCS4 (row percentages)				
	Mover	Non-mover	Total	
England	20.4 (1577)	79.6 (7235)	100.0 (8812)	
Wales	19.3 (345)	80.7 (1617)	100.0 (1962)	
Scotland	20.7 (277)	79.3 (1332)	100.0 (1609)	
Northern Ireland	18.0 (215)	82.0 (1158)	100.0 (1373)	
Total percentage	20.0	80.0	100.0	
Unweighted N	(2414)	(11342)	(13756)	
Weighted N	2751	10989	13740	
P-value	0.289			

Table 13.2: Residential mobility between MCS3 and MCS4 by UK country of interview

Notes: Weighted percentages, (unweighted sample numbers), weighted base numbers, 101 families were excluded because it could not be ascertained whether they moved or not. Weighting allows for longitudinal unit non-response and attrition up to sweep 4.

Residential mobility between MCS3 and MCS4 varied according to the ethnicity of the main respondent. Table 13.3 presents residential mobility by main respondent's ethnicity, using the six-category UK Census classification of ethnicity with the 'Mixed' group combined with the 'Other' category. The rates of change in residential address were lower at sweep 4 than at sweep 3 across all ethnic groups. Residential mobility rate ranges from 12 per cent among Indian families to 21 per cent among white families.

eminicity (six category or census classification) (row percentages)				
	Mover	Non-mover	Total	
White	20.7	79.3	100.0	
	(2119)	(9609)	(11728)	
	12.4	87.6	100.0	
Indian	(40)	(307)	(347)	
	16.6	83.4	100.0	
Pakistani and Bangladeshi	(127)	(743)	(870)	
	18.9	81.1	100.0	
Black or Black British	(77)	(390)	(467)	
	15.9	84.1	100.0	
Other ethnic group (inc. Chinese, mixed, other)	(48)	(288)	(336)	
Total percentage	20.2	79.8	100.0	
Unweighted N	(2411)	(11337)	(13748)	
Weighted N	2769	10956	13725	
P-value	0.0101			

Table 13.3: Residential mobility between MCS3 and MCS4 by main respondent's othnicity (six astagory LIK Consus classification) (row porcontagos)

Notes: Weighted percentages, (unweighted sample numbers), weighted base numbers, 101 families were excluded because it could not be ascertained whether they moved or not. Eight more families were excluded because the ethnic group of the main respondent could not be established. Weighting allows for longitudinal unit non-response and attrition up to sweep 4.

Homeowners were less likely to move (15%) between sweeps 3 and 4 than tenants; see Table 13.4. Just over half of those renting privately (53%) moved, with those in

social housing, i.e. renting from a local authority or housing association, much less likely to move (20%). Figure 13.1 shows results of Table 13.4 where weighted cell percentages are shown instead of row percentages.

(row percentages)				
	Mover	Non-mover	Total	
	14.8	85.2	100.0	
Own outright, mortgage or loan	(1193)	(7898)	(9091)	
	19.7	80.3	100.0	
Rent from LA or HA	(532)	(2556)	(3088)	
	52.9	47.1	100.0	
Rent privately	(580)	(584)	(1164)	
	31.4	68.6	100.0	
Living with parents or rent free	(68)	(206)	(274)	
Total percentage	20.0	80.0	100.0	
Unweighted N	(2373)	(11244)	(13617)	
Weighted N	2724	10874	13598	
P-value	<0.001			

Table 13.4: Residential mobility between MCS3 and MCS4 by family tenure at MCS4

Notes: Weighted percentages, (unweighted sample numbers), weighted base numbers, 101 families were excluded because it could not be ascertained whether they moved or not. An additional 139 families were excluded because of missing data in their housing tenure. Weighting allows for longitudinal unit non-response and attrition up to sweep 4.

Table 13.5 presents residential mobility between sweeps 3 and 4 by combined labour-market status of the main respondent and partner at sweep 4. Families where both the main respondent and their partner were in work or where one or other parent was in work were less likely to move home than families with no earner or where the main respondent (usually the mother) was a lone parent (either in work or not). When both parents were in work only 15 per cent moved compared with 29 per cent moving when both were not in work; see Table 13.5. When one member of the couple was in work, but the other not, the percentage mobile was about 20 per cent. Approximately one-quarter of lone parents moved between sweeps 3 and 4, with a two percentage point difference in the proportion mobile by whether the lone parent was in work (26%) or not (28%).

status of main respondent and partner at MCS4 (row percentages)						
	Mover	Non-mover	Total			
Both in work	15.4	84.6	100.0			
	(795)	(5110)	(5905)			
Main in work, partner not	20.1	79.9	100.0			
	(53)	(267)	(320)			
Partner in work, main not	20.9	79.1	100.0			
	(420)	(1923)	(2343)			
Both not in work	28.7	71.3	100.0			
	(130)	(448)	(578)			
Lone parent in work	25.5	74.5	100.0			
	(332)	(1079)	(1411)			
Lone parent not in work	28.2	71.8	100.0			
	(372)	(1090)	(1462)			
Continued						
Partner non-response	20.4	79.6	100.0			
	(312)	(1425)	(1737)			

Table 13.5: Residential mobility between MCS3 and MCS4 by combined labour-market

Table 13.5: Residential mobility between MCS3 and MCS4 by combined labour-marketstatus of main respondent and partner at MCS4 (row percentages)						
Mover Non-mover Total						
Total percentage	20.2	79.8	100.0			
Unweighted N	(2414)	(11342)	(13756)			
Weighted N         2771         10959         (13731)						
P-value	<0.001					

Notes: Weighted percentages, (unweighted sample numbers), weighted base numbers, 101 families were excluded because it could not be ascertained whether they moved or not. Eight more families were excluded because the ethnic group of the main respondent could not be established. Weighting allows for longitudinal unit non-response and attrition up to sweep 4.

### Area at sweep 3 and residential mobility at sweep 4

In this section, the main respondent's perceptions of their area of residence at sweep 3, in terms of whether it was a good area for raising children and how safe they felt it was, are related to residential mobility at sweep 4. The main respondent's perception of their residential area at sweep 4 in terms of how safe they feel it is and whether it is a good area for raising children is unknown because these questions were not asked at this sweep.

Nearly a fifth of main respondents who considered their residential area good or excellent at sweep 3 changed their addresses between MCS3 and MCS4. Residential mobility is much higher among families who considered their area at sweep 3 as poor or as very poor. About 30 per cent of such families moved home between sweeps 3 and 4, see Table 13.6. Figure 13.2 shows results of Table 13.6 where weighted cell percentages are given instead of row percentages.

Table 13.6: Residential mobility between MCS3 and MCS4 by 'Good area for raising children?' at MCS3 (row percentages)				
	Mover	Non-mover	Total	
Excellent	18.3	81.7	100.0	
	(642)	(3444)	(4086)	
Good	18.1	81.9	100.0	
	(849)	(4477)	(5326)	
Average	21.6	78.4	100.0	
	(529)	(2288)	(2817)	
Poor	28.2	71.8	100.0	
	(156)	(510)	(666)	
Very poor	31.4	68.6	100.0	
	(75)	(186)	(261)	
Total percentage	19.7	80.3	100.0	
Unweighted N	(2251)	(10905)	(13156)	
Weighted N	2591	10570	13161	
P-value	< 0.001			

Notes: Weighted percentages, (unweighted sample numbers), weighted base numbers, 101 families were excluded because it could not be ascertained whether they moved or not. An additional 600 families were excluded because of missing data on main respondent's view of whether area was good to raise children (including missing data due to unit non-response) at sweep 3. Weighting allows for longitudinal unit non-response and attrition up to sweep 4.

# Figure 13.2: Moving home between MCS3 and MCS4 by 'Good area for raising children?' at MCS3



Table 13.7 shows that nearly a fifth of main respondents who considered their residential area fairly or very safe at sweep 3 had changed address by sweep 4. A quarter of those who considered their area to be neither safe nor unsafe or fairly unsafe changed residential address between these sweeps, while 30 per cent of respondents who thought their residential area was very unsafe moved between MCS3 and MCS4. Figure 13.3 shows results of Table 13.7 where weighted cell percentages are presented instead of row percentages.

area is' at MCS3 (row percentages)				
	Mover	Non-mover	Total	
Very safe	18.7	81.3	100.0	
	(740)	(3848)	(4588)	
Fairly safe	18.8	81.2	100.0	
	(1122)	(5651)	(6773)	
Neither safe nor unsafe	24.8	75.2	100.0	
	(220)	(851)	(1071)	
Fairly unsafe	24.7	75.3	100.0	
	(126)	(440)	(566)	
Very unsafe	29.9	70.1	100.0	
	(44)	(118)	(162)	
Total percentage	19.7	80.3	100.0	
Continued				
Unweighted N	(2252)	(10908)	(13160)	
Weighted N	2592	10573	13165	

Table 13.7: Residential mobility between MCS3 and MCS4 by 'How safe you feel this

# Table 13.7: Residential mobility between MCS3 and MCS4 by 'How safe you feel this area is' at MCS3 (row percentages)

	Mover	Non-mover	Total
P-value	<0.001		

*Notes*: Weighted percentages, (unweighted sample numbers), weighted base numbers, 101 families were excluded because it could not be ascertained whether they moved or not. An additional 596 families were excluded because missing of data on main respondent's view of how safe they feel in the area (including missing data due to unit non-response) at sweep 3. Weighting allows for longitudinal unit non-response and attrition up to sweep 4.

# Figure 13.3: Moving home between MCS3 and MCS4, by rating of area as safe/unsafe at MCS3



### Housing, neighbourhood and income poverty at sweep 4

Tables 13.8 to 13.11 show the relationship between income poverty by housing and neighbourhood characteristics at sweep 4. A family is income poor when its OECD equivalised weekly net income is less than 60 per cent of the UK median.

Table 13.8 shows family income poverty and whether the family home is disorganised. Families whose equivalised income was below the 60 per cent level were more likely to agree or strongly agree that they had a disorganised home (20%) than those above the poverty line (14%).

	Above 60% median	Below 60% median	Total
Strongly agree	4.4	6.2	4.9
	(367)	(240)	(607)
Agree	9.6	14.2	11.0
-	(910)	(532)	(1442)
Neither agree nor disagree	15.3	18.7	16.3
	(1443)	(763)	(2206)
Disagree	46.1	44.0	45.5
	(4520)	(1852)	(6372)
Strongly disagree	24.6	16.9	22.4
	(2379)	(737)	(3116)
Total percentage	100.0	100.0	100.0
Unweighted N	(9619)	(4124)	(13743)
Weighted N	9748	3998	13747
P-value	< 0.001		

Table 13.8: Whether disorganised at home at MCS4 by family net income below

Notes: Weighted percentages, (unweighted sample numbers), weighted base numbers, 114 families were excluded because of missing data on main respondents response on whether family home was disorganised. Weighting allows for longitudinal unit non-response and attrition up to sweep 4.

Nearly 15 per cent of families whose family income was below the poverty line reported some problems or a great problem with dampness in their homes compared to only 6 per cent of families with family income above the line (see Table 13.9).

Table 13.9: Whether has damp problem in family accommodation at MCS4 byfamily net income below 60% median at MCS4			
	Above 60% median	Below 60% median	Total
No damp	88.3	77.3	85.1
	(8531)	(3222)	(11753)
Not much of a problem	5.5	7.9	6.2
	(525)	(324)	(849)
Some problems	4.8	9.6	6.2
	(453)	(413)	(866)
Great problem	1.3	5.2	2.5
	(110)	(176)	(286)
Total percentage	100.0	100.0	100.0
Unweighted N	(9619)	(4135)	(13754)
Weighted N	9748	4010	13758
P-value	<0.001		

Notes: Weighted percentages, (unweighted sample numbers), weighted base numbers, 132 families were excluded because of missing data on main respondents response on whether there is dampness problem in the family home. Weighting allows for longitudinal unit non-response and attrition up to sweep 4.

Seven per cent of main respondents, whose family income was below the poverty line, reported that they had no friends or family in their neighbourhood. For those with family income above this line, the rate was 4 per cent. Distinguishing friends from family shows that 4 per cent of those above the poverty line and 8 per cent of those below it had only family in the area (see Table 13.10).

# Table 13.10: Whether have friends or family in the area at MCS4 by family net income below 60% of median at MCS4

	Above 60% median	Below 60% median	Total
Yes, friends	23.9	19.0	22.5
	(2265)	(754)	(3019)
Yes, family	3.9	8.2	5.2
	(410)	(366)	(776)
Yes, both	67.8	65.5	67.1
	(6524)	(2706)	(9230)
No	4.4	7.3	5.3
	(422)	(313)	(735)
Total percentage	100.0	100.0	100.0
Unweighted N	(9621)	(4139)	(13760)
Weighted N	9749	4017	13767
P-value	< 0.001		

Notes: Weighted percentages, (unweighted sample numbers), weighted base numbers, 97 families were excluded because of missing data on main respondent's response on whether they have friends or family in the family home area. Weighting allows for longitudinal unit non-response and attrition up to sweep 4.

Families with income below 60 per cent of the national median income were more likely to live in an area without parks or playground areas (13% versus 8% for families above the poverty line), see Table 13.11.

Table 13.11: 'Are there any parks, playground areas where the cohort member can play?" at MCS4 by family net income below 60% median at MCS4				
	Above 60% median	Below 60% median	Total	
Yes	92.0 (8689)	86.9 (3553)	90.5 (12242)	
No	8.0 (931)	13.1 (580)	9.5 (1511)	
Total percentage	100.0	100.0	100.0	
Unweighted N	(9620)	(4133)	(13753)	
Weighted N	9749	4010	13759	
P-value	< 0.001			

*Notes*: Weighted percentages, (unweighted sample numbers), weighted base numbers, 104 families were excluded because of missing data on main respondent's response on whether there are any parks or playgrounds where the cohort child could play. Weighting allows for longitudinal unit non-response and attrition up to sweep 4.

### Conclusion

While residential mobility between sweeps 3 and 4 was lower than mobility between sweeps 2 and 3, it is still an important feature of the lives of families with young children. One-fifth of families who participated in MCS4 had changed address since the previous sweep two years or so earlier. The mobility rates were lower in all UK countries of interview, except Wales where the rate remained constant. The biggest drop in mobility among productive families was in Northern Ireland. The mobility rates by UK country of interview have now converged with only three percentage points difference between Northern Ireland with the lowest mobility and Scotland with the highest. If we categorise the reasons given for moving residence, seven out of ten reasons given were dwelling related, while less than half of the movers gave area related or household related reasons for moving. Residential mobility between sweeps 3 and 4 varied according to the ethnicity of the main respondent. Indian,

Pakistani, Bangladeshi and Other/Mixed families were less mobile than the other ethnic groups. Homeowners were less likely to move than those in other types of accommodation. Lone parents and couples where both partners were not in work were much more likely to move between sweeps than couples where one or both partners were in work. Mobility is much higher for respondents who considered their neighbourhood at sweep 3 a poor or very poor area for raising children than for those who considered their area good or excellent in this respect. It is also higher for respondents who considered their area at sweep 3 as very unsafe for raising children. Housing is poorer for families below the poverty line and they were much more likely to report some problems or a great problem with damp. Those with this level of income were also more likely to live in an area without parks or playground areas and were more likely to have no friends or family in their neighbourhood or only family.

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### Chapter 14

## CONCLUSIONS

### Heather Joshi

This report has presented a mass of detailed threads from which many patterns are yet to be woven, but we can begin to draw a few of them together. What does the fourth survey tell us about the topics on which the Study was particularly designed to throw light? These are the differences between the countries of the UK, and between ethnic groups, and the emergence or closing of gaps in the development of children growing up in advantaged and disadvantaged homes.

### The four countries of the UK

The study has confirmed that in many ways families in the four UK countries are rather similar. It is nevertheless interesting to point to the relatively few ways in which the countries differ. At the age 7 survey Scotland had the lowest child poverty rate of the four countries in the MCS estimate, as well as the official Households Below Average Income statistics around 2008. Northern Ireland stood out, at the age 5 survey, as having the highest poverty rate and the lowest incomes. However, Northern Ireland was also the country with the highest proportion of mothers expressing satisfaction with their life so far. It had the most confident parents, its children were most likely to have a regular bedtime, and its mothers and fathers were most satisfied with the amount of time they spent with their child. The MCS4 questionnaire that the children themselves completed also showed that 7-year-olds in Northern Ireland were more likely than their contemporaries in other countries to feel happy, laugh a lot, have lots of friends, feel safe in the playground and enjoy physical activity. These leads were not overwhelming, and though statistically significant, do not mean that child wellbeing is unambiguously higher in Northern Ireland. For example, children in England were the most likely to say they enjoyed school. Children in Wales were the most likely to be reported in excellent health. On cognitive tests, England and Scotland had higher average scores on a verbal assessment and a lower one on the non-verbal pattern construction. There were no significant inter-country differences in maths. Analysis of the data highlighted other small but significant differences between countries: children in Scotland were the most likely to walk to school and mothers in Wales were most likely to engage in musical activities with the cohort child. Less positively, children in Wales were most likely to have a lone mother or an obese father. Regional differences within England may be starker than those between countries, for example the poverty rate in England's North East and London was higher than in Northern Ireland and Wales.

The major finding of this study is that the variation of family circumstances and children's outcomes is far greater within countries, than between them. The socioeconomic gap in each outcome is likely to be of similar magnitude right across the UK. It will require more detailed analysis than is carried in this report to establish

whether the impact of the devolved governments' own health and education policies can be discerned behind the broad similarities between countries. There is also scope for much more geographical analysis within countries than has been included in this report, for example comparing different types of urban and rural settings.

### **Ethnic diversity**

Ethnic minorities were of interest in the context of cultural diversity, but also in that of economic disadvantage. It was not intended that the minority ethnic wards originally sampled should all be areas of high child poverty, but not a great surprise to find that they were. A high proportion (86%) of cohort members in these particular wards was from minority ethnic groups, but members of ethnic minorities were also sampled elsewhere, particularly in urban England. By the time of the fourth sweep the 'ethnic wards' still had the lowest incomes and the least outward movement. Regardless of where they lived, however, families in broad minority ethnic groups, apart from Indians, had considerably higher poverty rates than whites. Pakistanis and Bangladeshis taken together had a poverty rate of 73 per cent, and black groups 51 per cent, compared with 26 per cent for white families. This is a similar pattern to previous sweeps, with the exception of the Indian families drawing closer to whites.

Relative gains by Indian families are more dramatic when it comes to children's verbal cognitive assessments. At age 3 all the minority groups were behind white children on English vocabulary. By age 5 the gap had narrowed, and by age 7, when verbal skills were measured by Word Reading, Indian children had surpassed white children by a clear margin and the other minority children had also caught up with white children. On maths and non-verbal skills, there also seemed to be little ethnic differential, despite the economic disadvantages of all the groups except Indians.

In contrast, the measure of behavioural adjustment used in this survey (the mother's report on behaviour problems) still shows poorer adjustment in all minority groups except one. This time it is not the Indian children, but black Africans. All groups had fewer behaviour problems, on average, than at the age 3 survey, but Pakistani and Bangladeshi children still have the most reported difficulties.

There is plenty of other evidence in these pages of diversity between ethnic groups in areas from child and parental health, parenting practice, employment, family structure, and the children's own accounts of their lives. These should caution against crude white/non-white comparisons, and also encourage investigation of as fine a classification as possible when ethnic differences are under consideration.

### **Social gradients**

For many, the major issue on which the Millennium Cohort Study can be brought to bear is how far children's life chances are determined by the advantages and disadvantages facing the families into which they are born. To what extent can children flourish from inauspicious beginnings, to what extent can advantaged parents protect their offspring from failure? Now that the MCS children have been exposed to the school system for at least two years, are the schools redressing initial differences, offering compensation for early disadvantage, reinforcing them, or at least providing a 'level playing field'?

There is abundant evidence of the transmission of social and economic advantage in all the follow-up sweeps of the survey. A key question for this report is whether the differentials widen or narrow between age 5 and age 7. Although the following estimates will be refined by taking a consistent longitudinal sample, a preliminary overview is possible on the basis of this and previous cross-sectional reports. Note that these reports are not perfectly comparable in, among others, the treatment of attrition. The comparisons which follow are therefore indicative rather than definitive. Note also that they do not reveal the trajectories of individual families, for example by identifying families who have been in persistent poverty from those whose disadvantages have been more transient. While around 30 per cent of families had incomes below the poverty threshold at any one of the four surveys, they were not always the same families. There was considerable movement in and out of the poverty category, such that well under half of those currently below the line would have been there at all four surveys – around 1 in 8.

On the key criterion of the child's cognitive ability, the indicators are that the social gap, already evident in the pre-school years, remained roughly constant between ages 5 and 7, when verbal and non-verbal skills are considered together, whether the comparison is between the least and the highest educated parents or between families below and above the poverty line. The greater sensitivity of verbal skills to social background may reflect differences in parents' use of language and in the home learning environment in particular. If some least educated parents are less supportive (or effective) in practices such as reading to the child, they may themselves need support. However, the less educated parents were in general offering the child more help with homework.

Behavioural adjustment is another important indicator of the child's social and emotional development, and of capacity to benefit from schooling. Non-cognitive skills are also important for the prospects of a healthy and productive adult life. Findings at 7 suggest a fairly strong continuity of problems reported at age 3 and 5. The social gap seems to have held more or less constant between ages 5 and 7. This applies to the contrast between children with well-educated parents and those with no qualifications and to the advantage for children living with both their natural parents over lone parents and step families. However, comparing the cross-sectional tables, the social gap in problem behaviour was smaller at age 3. As for socioeconomic inequalities in health, the picture is of little variation at age 7, and, if anything, gaps for children are narrowing, except for indicators such as overweight where the small social gap appears to have remained about the same. One might want to put any improvements down to the success of the National Health and Early Years Services, or, more pessimistically, conclude that age 7 is too young for the cumulative impact of health disadvantages to emerge. The contrast in mothers' and fathers' general health by parental education level was much starker than the children's. The higher smoking rates of poorer parents and lower levels of family exercise may be reasons to fear that health disadvantages for children may accumulate as they get older. The gap on mothers' mental health and life satisfaction, which may also feed back into child wellbeing, widened slightly at sweep 4 compared to sweep 3.

Apart from the few attending fee-paying schools, there is little evidence from parents' reports that schools are reinforcing inequalities in the home background. The overarching impression from the parental interviews is of all families, right across the social spectrum, taking an interest in the Millennium Children's schooling and having high aspirations for them. Further evidence on this will become available from linkage to administrative records and from the teacher survey, but meanwhile, the picture from the children's own self-completed report is that the experience of school is generally positive. Children from poorer homes have more polarised views of school. They are both more likely to be enthusiastic but also to be in the minority reporting unhappiness, exclusion or bullying.

#### Envoi

The evidence from the fourth survey is building a picture of the continuing interdependence of parents' and children's lives, even as school provides another arena. The age 7 survey has offered the opportunity to listen to the children's own view of the world, and to assess their enjoyment of childhood. While their wellbeing is clearly an end in itself, it may also assist with their engagement in school and family life, and the future development which this Study seeks to follow. Whether or not trouble will cloud the cohort members' future, the conclusion from the age 7 survey must be that the children of the New Century are, on the whole, thriving, healthy and doing their best to learn. The report on the 'playing field' is that it still offers more of an obstacle race to the economically disadvantaged than for those with easier starting positions, though the hurdles seem to be getting lower for ethnic minorities.