

Department for Work and Pensions

Research Report No 460

Disability and caring among families with children

Family employment and poverty characteristics

Stephen McKay and Adele Atkinson

A report of research carried out by the Personal Finance Research Centre,
University of Bristol on behalf of the Department for Work and Pensions

Corporate Document Services

© Crown Copyright 2007. Published for the Department for Work and Pensions under licence from the Controller of Her Majesty's Stationery Office by Corporate Document Services, Leeds.

Application for reproduction should be made in writing to The Copyright Unit, Her Majesty's Stationery Office, St Clements House, 2-16 Colegate, Norwich NR3 1BQ.

First Published 2007.

ISBN 978 1 84712 277 3

Views expressed in this report are not necessarily those of the Department for Work and Pensions or any other Government Department.

Printed by Corporate Document Services.

Contents

Acknowledgements	vii
The Authors.....	viii
Summary	1
1 Introduction	7
1.1 Introduction to the project	7
1.2 Plan of analysis/report.....	8
1.3 Main sources of information	8
1.3.1 Census 2001 micro-data (SARs).....	9
1.3.2 Families and Children Study.....	10
1.4 Definitions: disability; caring; poverty.....	11
1.5 Methods.....	12
2 Extent of health problems, disabilities and caring responsibilities	13
2.1 Introduction.....	13
2.2 Disability	14
2.2.1 Age and children.....	14
2.2.2 Qualifications	15
2.2.3 Household size.....	16
2.2.4 Ethnic group	17
2.2.5 Region	18

2.3	Childhood disability and health.....	20
2.3.1	<i>Family type and disabled children</i>	21
2.3.2	<i>Clustering of disability or health problems within families</i>	24
2.3.3	<i>Child health and child care</i>	25
2.4	Caring responsibilities.....	26
2.4.1	<i>Gender</i>	26
2.4.2	<i>Gender and age</i>	27
2.4.3	<i>Ethnic group</i>	28
2.4.4	<i>Qualifications</i>	29
3	Links with employment patterns.....	31
3.1	Introduction.....	31
3.1.1	<i>Individuals and families</i>	32
3.2	Childhood disability and rates of paid work.....	32
3.2.1	<i>Dual earning among couples with children</i>	35
3.3	Adult disability and caring responsibilities.....	36
3.3.1	<i>Segmentation analysis of employment</i>	36
3.3.2	<i>Logistic regressions of rates of paid work</i>	37
3.3.3	<i>Carers who work</i>	39
3.4	Hours of work.....	40
4	Incomes, inequality, poverty and participation in society.....	43
4.1	Introduction.....	43
4.2	Incomes.....	43
4.2.1	<i>Modelling incomes</i>	46
4.2.2	<i>Child poverty and disability</i>	46
4.3	Material deprivation.....	48
4.4	Some effects experienced by children.....	51

5	Conclusions	53
5.1	Introduction.....	53
5.2	Effects of disability and caring responsibilities.....	53
5.2.1	<i>Employment</i>	53
5.2.2	<i>Family poverty</i>	54
5.3	Discussion.....	54
Appendix A	Questions and definitions	57
References	63

List of tables

Table 2.1	LLTI among those with qualifications of different levels	16
Table 2.2	LLTI among different ethnic groups, by gender.....	18
Table 2.3	LLTI by marital status.....	19
Table 2.4	Number of disabled children by family type.....	23
Table 2.5	Number of children needing extra help, owing to illness or disability, by family type	23
Table 2.6	Lone parents: number of disabled children by lone parent's disability status	24
Table 2.7	Couple mothers: number of disabled children by parental disability	24
Table 2.8	Provision of child care by child health status.....	26
Table 2.9	Provision of care (of different weekly hours) by men and women.....	27
Table 2.10	Provision of care (of different weekly hours) by different ethnic groups.....	29
Table 2.11	Provision of care (of different weekly hours) by different levels of qualifications.....	30
Table 3.1	Couples' joint work status by child disability	36
Table 3.2	Couples' joint work status by child health status.....	36
Table 3.3	Logistic regressions of being in any work – odds ratios from separate regressions for each group.....	38
Table 3.4	Logistic regressions of any work – odds ratios from separate regressions	39
Table 4.1	Low income and health status	47
Table 4.2	Poverty and long-term limiting illness (aged 16-64)	49
Table 4.3	Cannot afford particular items, and LLTI and work status among families with children	50
Table 4.4	Cannot afford particular items, and carer status, among families with children	51

List of figures

Figure 2.1	LLTI by age and whether any dependent children – men	14
Figure 2.2	LLTI by age and whether any dependent children – women.....	15
Figure 2.3	LLTI in households of different sizes (by number of usual residents in household).....	17
Figure 2.4	LLTI in different regions of the UK.....	19
Figure 2.5	Rates of childhood disability, using different disability definitions	20
Figure 2.6	Rates of childhood disability by age and sex	21
Figure 2.7	Rates of childhood disability by age of child and family type	22
Figure 2.8	Caring status by age group – men	27
Figure 2.9	Caring status by age group – women	28
Figure 3.1	Lone parents' employment: effects of child disability or health problem	33
Figure 3.2	Mothers in couples: effects of child disability or health problems on working hours	34
Figure 3.3	Fathers in couples: effects of child disability or health problems on working hours	35
Figure 3.4	Segmentation: whether in any paid work.....	37
Figure 4.1	Income, disability, health and caring among lone parents.....	45
Figure 4.2	Income, disability, health and caring among couples with children	45
Figure 4.3	Aspect of life – ratings chart	51
Figure 4.4	Children's opinions on health and appearance, by parent's description of their health status	52

Acknowledgements

Data from the Families and Children Study (FACS) was supplied by the Department for Work and Pensions (DWP). For results based on the Census 2001 data, we acknowledge that this work is based on the Samples of Anonymised Records (SARs) provided through the Centre for Census and Survey Research of the University of Manchester with the support of ESRC and JISC. The data remain Crown copyright. Grace Williams, John Stafford and Liz Rayner at DWP have been supportive research liaison officers. Participants at an early presentation made several helpful suggestions, for which we are grateful.

The Authors

Stephen McKay was previously deputy director at the Personal Finance Research Centre (PFRC), School of Geographical Sciences, University of Bristol, but now works at the University of Birmingham.

Adele Atkinson is a Research Fellow at PFRC.

Summary

Household characteristics of disabled people and carers

- Overall, disabled people are more likely to live alone and less likely to be a parent of dependent¹ children. Among adults of working age (16-59/64), 27 per cent of disabled people have dependent children, compared with 38 per cent of those without a similar health problem².
- Disabled people also tend to be older as a group than non-disabled people. Within given age groups there was little association between disability and having dependent children.
- As well as coming from small households, disabled people are also more likely to come from households with over six people.
- Analysis of FACS found that ten per cent of all families with children have a disabled child who they report needs extra help and support owing to their disability. About five per cent of families have more than one disabled child (longstanding illness definition).
- Children are least likely to be reported as disabled if they are living with a married couple, compared to those living with cohabiting couples or lone parents. Over 40 per cent of disabled lone parents report having a disabled child.
- There is no marked difference between the proportion of women and men with responsibility for caring. The incidence of caring rises with age until retirement then appears to drop.

¹ The definition of dependent child is a child aged under 16 years or aged 16-19 in full-time education.

² Source is Family Resources Survey (FRS) 2004/05.

Relationships between disability and caring characteristics among household members

- There does not appear to be a strong association between partners' disability status within couples – for example, one partner's disability status (e.g. whether an individual is disabled) does not help predict the disability status of the other partner. Five per cent of couples with dependent children contain partners who are both disabled. If two adults were drawn at random and did not cluster with those with similar characteristics, 3.4 per cent of couples would contain partners who were both disabled.
- There is a slightly stronger association between parent and child disability. If an adult and child were drawn from FACS at random, 4.5 per cent of 'families' would contain a disabled mother and child. In fact, 7.3 per cent of families contain both disabled mothers and children. There could be a number of explanations for this, including the hereditary nature of some impairments, shared environmental factors and consistent bias in reporting.

Family employment

- Child disability has a negative effect on paid work for both lone parents and couple mothers. Having a disabled child has the strongest negative effects on full-time work and it also slightly reduces part-time work.
- The effect of having a disabled child on a mother's work varies by definition of childhood disability. The strongest effects can be detected where the respondent reports that their child's disability affects her ability to work (as would be expected), however, all childhood definitions have some negative effect on rates of paid work for mothers – most notably, problems which are reported to affect the child's ability to attend school, and general health reported as 'not good'. This is a fairly subjective measure of health – but may indicate that recent changes and conditions can have an important effect on work.
- Most fathers work full-time hours and having a disabled child does not have much impact. However, there is a small impact on full-time working and unsurprisingly, it is the kind of child disability that is reported to affect the ability of parents to work is most likely to be associated with lower rates of employment among fathers.
- Couples with a disabled child are less likely to both work, compared to those with no disabled child. Furthermore, almost twice as many couples with a disabled child are workless, compared to those without. However, the effect on employment of having any child **needing extra help** is greater than that of having a disabled child – suggesting that parents are caring for this group of children.

- Single-earner couples slightly outnumber dual-earner couples amongst this group of parents who have a child who needs extra help and support because of their disability – which is the reverse of the trend for parents of non-disabled children. The proportion of workless couples is almost three times that of couples who do not have a disabled child (13 per cent compared to five per cent).
- The likelihood of work falls as caring responsibilities increase. Those with caring responsibilities under 20 hours a week are at least as likely to work as the population as a whole, and slightly more likely to work if they are also parents. Caring responsibilities between 20 and 49 hours a week halve the odds of work participation and caring for over 50 hours halves the odds yet again. In addition, male carers are less likely to work than female carers, which is at odds with the effect of childhood disability where the main effect is on mothers' employment.
- The effect of disability and caring on family employment depends on how many members of the family are disabled and/or caring. If the respondent **and** someone else in the household are disabled, the odds of working are much reduced. This is the case irrespective of whether respondent and child or respondent and partner are disabled. Conversely, if **just** someone else in the household has a disability but the respondent does not, then the odds of working were significantly increased. This is an 'added worker' effect, indicating that the disability status of one parent can perhaps encourage the other to stay in paid work (though with no such effect applying for having a disabled child). Where the respondent and another person in the household are both carers then individual rates of paid work are reduced.
- Carers who work differ from those who do not. Working carers tend to live with the person who they provide care for. They also often have someone for whom care is shared, either inside or outside the household. Working carers tend to have higher qualifications than those not working. They are more likely than all carers to be single, and more likely to be female. For those caring for longer, qualifications appear to become even more important and there is also evidence of regional variation, suggesting that availability of jobs could be a factor.
- Disability status has no clear effect on couple mothers and lone parent employment rates but there was a distinct effect of having disabled children. Where any child needed extra care, mothers in paid work tend to be working for six hours less than other mothers, controlling for all other factors. For fathers, the effect of their own disability status and children's disability status was more connected to the decision about whether to work at all, rather than the amount of work that was done.

Family poverty characteristics

- The effect of disability on total family income³ differs for couples and lone parents. In general lone parents' incomes do not tend to vary much – the effect of income-related benefits and tax credits. Disability has only a relatively small effect on this group, lowering median incomes only slightly. It is possible that the effect of additional disability benefits mitigates the size of any effects on income.
- Among couples with children, disability appears to have significant effects on the distribution of incomes. Where family members are disabled (either adults or children) average (median) incomes are reduced and in particular the chances of having a high income are much reduced. Among couples, the effect of being a carer appears to depress incomes more than disability.
- Disabled people who are inactive (e.g. neither working nor actively seeking work) are much less likely to be materially deprived⁴ than those without a disability who are inactive. The difference may reflect the range of additional help available to disabled people. However, **overall** (including those in work) disabled people are more than twice as likely to experience material hardship as those who are not disabled.
- Disabled people are more likely to report that they cannot afford most goods on the deprivation scale than non-disabled people⁵. Those not working are worst off in most areas – for example, around 50 per cent of those who are not in work and have a disability, could not afford to save for a rainy day, compared to around 35 per cent of those who are not disabled and not working.

³ These results do not factor in any increased costs in disability. These results are equalised for family size but not for costs associated with disability or caring. There are a number of reasons why families with disabled members may have lower incomes and higher costs, some of which are not directly related to disability or which are themselves associated with disability (such as low qualifications).

⁴ This is defined as lacking two or more necessities through an inability to afford such goods.

⁵ The data sources for analyses of deprivation for disabled people and carers are not the same and this is reflected in the quite different results. The source for disability analysis is PSE 1999, and the source for carers' analysis is FACS. Results are for families with dependent children in both cases. It is inevitable that a number of different datasets must be used to cover the range of different questions of interest. No one dataset contains all the information required. For instance the 2001 Census microdata has a large sample size but relatively little detail. FACS has several different measures of disability but many fewer respondents. The use of several different datasets does make for a more complex overall picture, however, and we indicate the source of information used for each analysis.

- Disabled people who are working are better off than those who aren't working, however, they are in a similar position to non-disabled people who are not working, in many areas. For example, almost 40 per cent of disabled people who are **not working** cannot afford fruit and vegetables, compared to around a quarter of working disabled people. However, the proportion of **working** disabled people who cannot afford fruit and vegetables (27 per cent) is comparable to the rate for **non-working** non-disabled people (26 per cent) and lower than the rate for working non-disabled people (19 per cent).
- Carers also experience higher rates of deprivation which varied according to their working status. Carers who are not working are amongst the worst off in some areas – for example, around one-third of non-working carers cannot afford two pairs of shoes for each adult in the family, compared to around a quarter of those not in work, who are not caring. Carers who are working are better-off than non-carers who are not working, for example, only seven per cent cannot afford two pairs of shoes for adults in the family. However, working carers are generally worse off than working adults without caring responsibilities.

1 Introduction

1.1 Introduction to the project

This report looks at a cross-section of families in relation to disability, caring and employment.

The main aims are to investigate the characteristics of families, including their employment propensities, where there is one or more:

- disabled adult; and/or
- disabled child or child with health problems, including families with both disabled adults and children; or
- member with caring responsibilities, inside or outside the household.

Families with children represent around 40 per cent of households that contain carers and a similar proportion of adults with health problems.

Questions posed by this research include, for instance, how do disability and caring responsibilities relate to families' ages, size, ethnic origins and so on? How far does disability cluster together within families, given that worklessness appears often related to ill health? Having analysed the characteristics of different families, what is the effect of these different elements on employment? Some families appear to remain in paid employment despite having, say, caring responsibilities whereas other families do not find it possible to combine work with caring – an area sometimes known as 'resilience'. What can we learn from the experiences of the former group?

As made clear in the recent Five Year Strategy, *Opportunity and security throughout life*, DWP has wide responsibilities for disabled people. It is concerned not only with employment, but also equality issues including the Disability Discrimination Act. The Department's aim to end child poverty is also highly relevant, as families with disabled adults tend to be more at risk of poverty than other families. This implies a wider focus than would have been typical in the past, when employment and income were the most important outcome measures.

The recent report by the Strategy Unit, *Improving the Life Chances of Disabled People*, shifted the focus to achieving equality and transforming outcomes for disabled people through policies across government. It highlighted four key areas which it recommended should be the focus of government. Two priorities are particularly relevant to this analysis – support for families with young disabled children and improving employment opportunities. Following the report a new Office for Disability Issues has been created to lead government action on disability. Its aim is to achieve substantive equality for disabled people by 2025.

The motivations behind this analysis are equally broad: First, there is a concern with levels of employment. Against a target of raising the overall employment rate to 80 per cent, those groups with lower than average employment rates include disabled people. DWP has a Public Service Agreement to narrow the employment gap between disabled and non-disabled people. This group also numbers among the largest group of benefit recipients among those of working age. Second, and related to this, is the area of equality and disability discrimination. The lower rate of employment may be reflecting a number of factors (including discrimination). Low rates of employment are often related to lower incomes and potentially poverty. Hence, in this analysis we also look at incomes and well-being.

1.2 Plan of analysis/report

Compared to previous research, we intend to look more closely at the links between caring responsibilities and disability within families with children, and the employment outcomes for the whole family (or household), and at links between disability and caring across generations (e.g. looking at both child and adult health problems). The focus will be families with children, in line with the aims of FACSAP⁶, but we will be comparing families with children against other kinds of households, too.

The remainder of this section sets out the main sources of information that are used, and the kinds of analytical methods applied. In **Chapter 2** we provide a detailed analysis of families who are carers, or who experience disability or health problems according to various definitions. **Chapter 3** analyses how far these characteristics impact on employment. **Chapter 4** examines the consequences for incomes and wider measures of well-being, including some measures asked directly of children within FACS.

1.3 Main sources of information

The analyses in this report come from two principal datasets, the 2001 Census and the FACS.

⁶ This is the analysis programme (AP) around the FACS research programme.

1.3.1 Census 2001 micro-data (SARs)

In early November 2004 access was granted to the 2001 Census SARs. This dataset may be less familiar to many readers, so we present a few more details of its coverage and potential use. It is a three per cent extract (or abstract) of individuals from the April 2001 Census. The information collected is based on a separate record for the overall household, plus information about each individual.

The information includes, most notably:

Household level – type of accommodation, housing tenure, cars available, number of carers in the households, number of employed adults, number in household with limiting long-term illness, number of household members with poor health and number of rooms.

Individual level – age, sex, ethnic group, general health, limiting long-term illness, marital status, whether carer and how many hours, qualifications, economic activity and hours worked.

In most cases the individual-level information extends to all age groups, including young children (questions about work and qualifications are restricted to those aged 16-74). The 2001 Census questions on disability, health and caring comprised:

- *Over the last 12 months would you say your health has on the whole been: good, fairly good, not good?*
- *Do you have any long-term illness, health problem or disability which limits your daily activities or the work you can do? [include problems which are due to old age]. Yes/No.*
- *Do you look after, or give any help or support to family members, neighbours or others because of: long-term physical or mental ill health or disability, or problems related to old age? No; Yes 1-19 hours a week; Yes 20-49 hours a week; Yes 50+ hours a week.*

This source of data brings two principal advantages: First, since it is based on a compulsory source the response rate was extremely high (not 100 per cent in 2001, but probably in the order of 98 per cent)⁷. Therefore, the problem of non-response, sometimes an issue with surveys of disability benefit recipients or health, is largely (though not entirely) removed. Second, the number of individuals to analyse is immense – over 1.8 million, a three per cent sample of individuals in

⁷ The response seems to have been lowest among those in their 20s (particularly young men) and for questions relating to children (see <http://www.statistics.gov.uk/census2001/annexb.asp>, accessed 1-3-2007). The response was also lower in inner city areas, especially inner London. This may be related to a higher incidence of households in multiple occupancy and a higher proportion of people unable to speak/read English. It is possible that some disabled people may have found the self-completion element difficult, so a higher level of non-response among disabled people cannot be ruled out.

the UK. This is far larger than any other source, over ten times larger than a single quarter from the Labour Force Survey (LFS) for instance. Therefore, results from this source carry a unique level of authority.

The main disadvantage is that the questions did not go into a lot of detail. This was partly, of course, for reasons of space, and partly because the census is self-completion rather than interviewer-administered. As a result, sample estimates do differ from those from other (survey) sources commonly used, though the size of the difference is relatively small (see Bejekal *et al.* 2004: Table 3.2). Some of the information is also 'banded' after collection (i.e. put into groups) in order to protect respondent confidentiality – for instance only five ethnic groups are identified, even though data was collected about a larger number, ages are banded for those of working age and some age groups remain quite wide (e.g. those aged 30-44 form a single group). In addition, the 2001 Census does not use question wording which is exactly comparable to the standardised government definition of disability used in the FRS.

1.3.2 Families and Children Study

The second main source is the FACS. This survey contains considerable detail about families with children, both in and out of paid work. Health and disability questions are asked about both parents and children. Many child-level questions are included (asked of the main respondent), and there are self-completion questions for 11-15 year-olds.

The FACS is able to provide detailed information about parents and their children. Since 1999, and up to a recent fifth wave that took place in 2003, a number of questions have covered health problems and caring responsibilities.

Children (asked of parent)

Health status, long-term illness, type of health problem/disability, likely duration, age of onset, caring required, effect on employment, A&E admissions.

Parent (and also asked of responding partners)

Health status, limiting long-term illness, type of health problem/disability, depression, age of onset, likely duration, effect on amount/kind of work, caring responsibilities and any benefits received.

FACS also contains a large range of questions that measure incomes, living standards and employment status. The survey is run by the DWP so questions naturally reflect its interests very closely. Disability definitions, however, are again not directly comparable to the standard definition used in FRS⁸.

⁸ The FRS uses a definition of people with a longstanding illness, disability or infirmity, and who have a significant difficulty with day-to-day activities.

Among the 14,000 (or so) children in the 2002 FACS survey, 2,200 had a longstanding illness or disability. Of these, in 850 cases parents said this caused them to spend longer caring for them, compared with other children in their age group. The proportion of children with longstanding illness is higher than those produced using the FRS – around 15 per cent compared to five per cent. This is likely to be, at least in part, because the definition does not attempt to ascertain whether the disability limits day-to-day activities and this should be kept in mind when interpreting the data.

1.4 Definitions: disability; caring; poverty

Defining disability is complex and contentious. Most analysis tends to use limiting longstanding illness as the core definition (Bakajal *et al.*, 2004). This definition is the most relevant to government because it attempts to reflect those who would be covered by the Disability Discrimination Act – that is those with a longstanding illness or disability which substantially impacts on their day-to-day activities. It attempts to exclude those with shorter term conditions or those where there is no impact on day-to-day activities. This definition is different from those who are claiming disability benefits – such as Disability Living Allowance (DLA) which is assessed at the point of claim and which only represents a sub-group of disabled people.

Definitions of health can be different from those of disability. They can include measurement of general health or health problems – whether or not they have any impact on day-to-day activities, or whether or not they are longstanding (e.g. last for 12 months or more). However defined, this population is also relevant to the DWP as Incapacity Benefit (IB) is available to those with shorter-term health problems.

Definitions of caring also vary between surveys. The Census 2001 asked about '*Do you look after, or give any help or support to family members, friends, neighbours or others because of: long-term physical or mental ill-health or disability, or problems related to old age?*'. This may tend to emphasise problems of old age rather than youth, and clearly longer-term over shorter-term health problems. In FACS, by contrast, the key emphasis was on asking about caring as an adjunct to questions about child health problems. Caring questions were generally asked of those who mentioned a child health problem. Questions about caring activities outside the home were asked in a somewhat different way, making it unfeasible to easily add up the hours spent caring.

Poverty is generally taken to mean having too low an income for normal participation in society. In practice it is generally measured as having a low income, typically below 60 per cent of the median. This has long been the most keenly observed statistic within the Households Below Average Income (HBAI) series. In forming a measure of child poverty, more recently, an additional element reflecting material deprivation has been included, in conjunction with a slightly higher income

threshold (70 per cent of median). This report uses a range of income and material deprivation concepts. Generally, we do not attempt to replicate the new child poverty measure used within Government.

1.5 Methods

The methods used in this study are relatively descriptive, reflecting the main issues being investigated in this phase of the overall research programme. This is justified, in part, because the data has not been much exploited in this area, and partly this is to increase the accessibility of the results.

However, we also use some slightly more complex methods of analysis. We use a variety of multivariate methods (such as regression and segmentation) to control for differences between families that may not be related to their disability, health problems or caring. If, for example, those with particular family types or those with particular qualifications are more likely to have health problems, and if those characteristics are linked to rates of economic activity, then a simpler analysis might overstate (or understate) the effect of health problems. A regression approach, using a range of information, helps to address this particular problem. It can never definitely prove a causal relationship, but it provides better insight into the variables that are significant, independent of other effects.

2 Extent of health problems, disabilities and caring responsibilities

2.1 Introduction

Different datasets use alternative definitions of health problems or disability. They also ask different questions about care. An important review of various definitions of disability, among adults but importantly not covering children, has recently been published by the DWP (Bejekal *et al.* 2004). There is no 'gold standard' of question, but surveys do tend to ask about **longstanding** illness or disability, and those which **limit** someone's daily activities – either at all or substantively.

In the datasets analysed here, the data allows us to look at limiting longstanding illness and also general self-reported measures of health. Analysis by benefit receipt is also possible, though this defines somewhat different groups (and to some extent acts as a measure of severity).

This report focuses on three measures of disability. Two of these relate to adults – Limiting Long-Term Illness (LLTI Census 2001), and Limiting, Longstanding Illness (LLSI). For children the main measure is longstanding illness, though a number of other measures are considered.

There are rather different issues around the definitions of caring. Higher estimates of the number of carers arise if people are prompted for particular types of action (checking on neighbours), and if it is clear that the caring may be provided either in or outside the household. Among carers, one of the key measures usually available is the number of hours spent caring. This is shown, later in this report, to have important consequences for employment.

The Appendix to this report lists the survey questions used to identify carers.

2.2 Disability

Among those aged 20-64 at the 2001 Census of population, 15 per cent reported having a long-term illness that limited their activities or work.

2.2.1 Age and children

Among both men and women, having an LLTI was associated with increasing age, and with not having dependent children (see Figure 2.1 for men and Figure 2.2 for results for women). Those without dependent children reported higher rates of LLTI, but most of this was due to differences in age. Within given age groups there was little association between LLTI and having dependent children.

Figure 2.1 LLTI by age and whether any dependent children – men

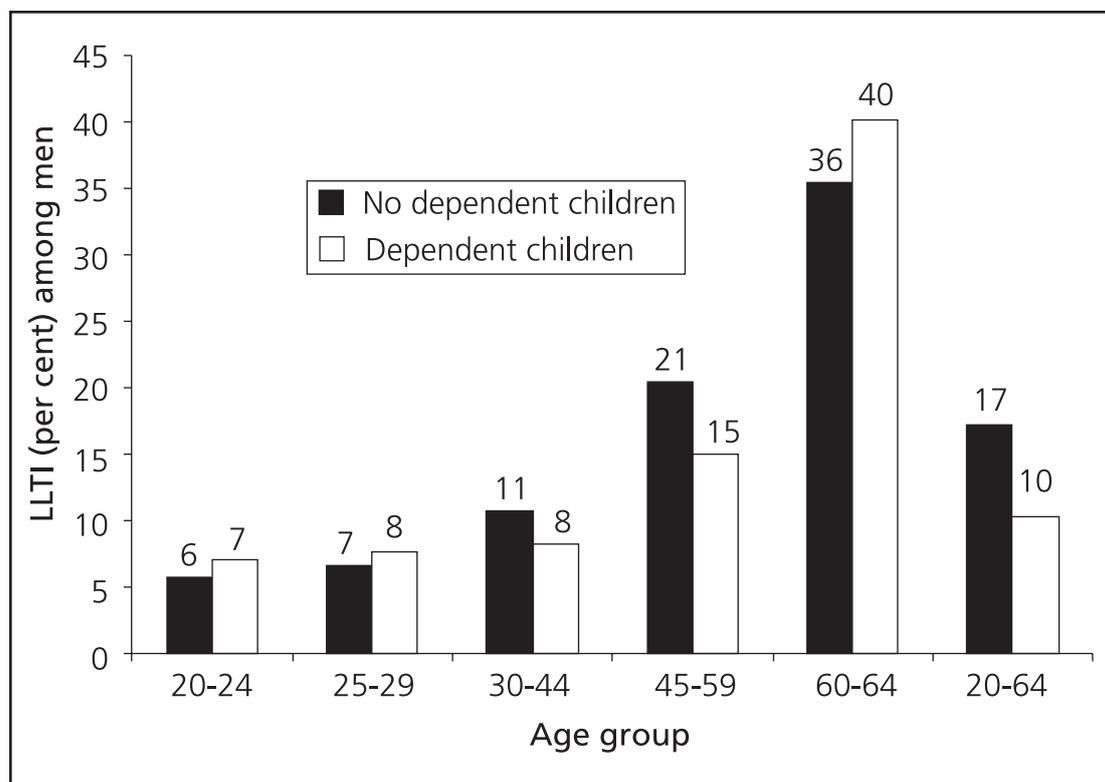
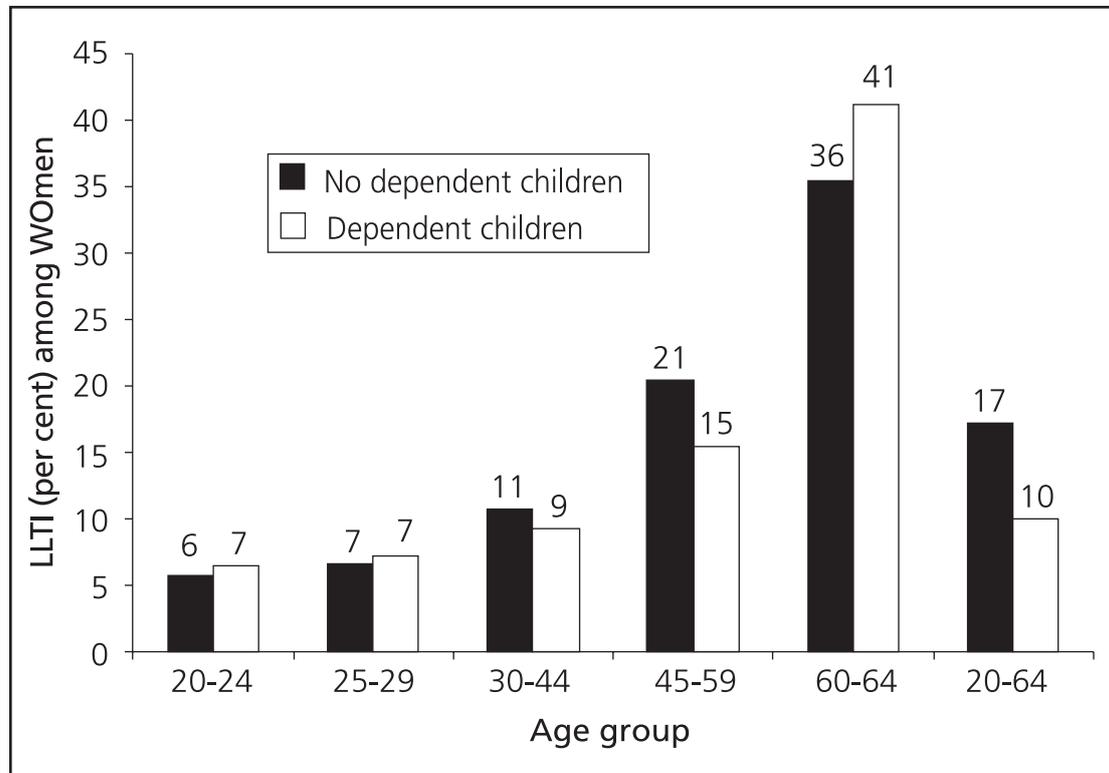


Figure 2.2 LLTI by age and whether any dependent children – women



2.2.2 Qualifications

The proportion of adults reporting LLTI varied greatly with qualification level, as shown in Table 2.1. Those with no qualifications were more than three times as likely to have a limiting illness as those with the highest level of qualification (equating to graduate status, National Vocational Qualification (NVQ) level 4 or 5). The biggest step-difference in the proportions reporting LLTI was between those with no qualifications and those who have achieved level 1 – a decrease of 16 percentage points. Well over one-quarter (28 per cent) of those without qualifications had a limiting long-term illness, or approaching double the national average for those aged 20-64 (15 per cent). Conversely, only ten per cent of graduates had a limiting long-term illness.

Table 2.1 LLTI among those with qualifications of different levels

<i>Column percentages</i>							
NVQ level of qualifications (England & Wales only)							
	None	1	2	3	4/5	Other	All
Examples		4 GCSEs, grades D-G	4 GCSEs at grade C+	2 GCE A-Levels	Degree+, BTEC Higher National		
Has LLTI	28	12	10	8	9	19	15
<i>Unweighted base</i>	<i>243,073</i>	<i>178,290</i>	<i>183,049</i>	<i>81,326</i>	<i>215,079</i>	<i>66,473</i>	<i>967,290</i>

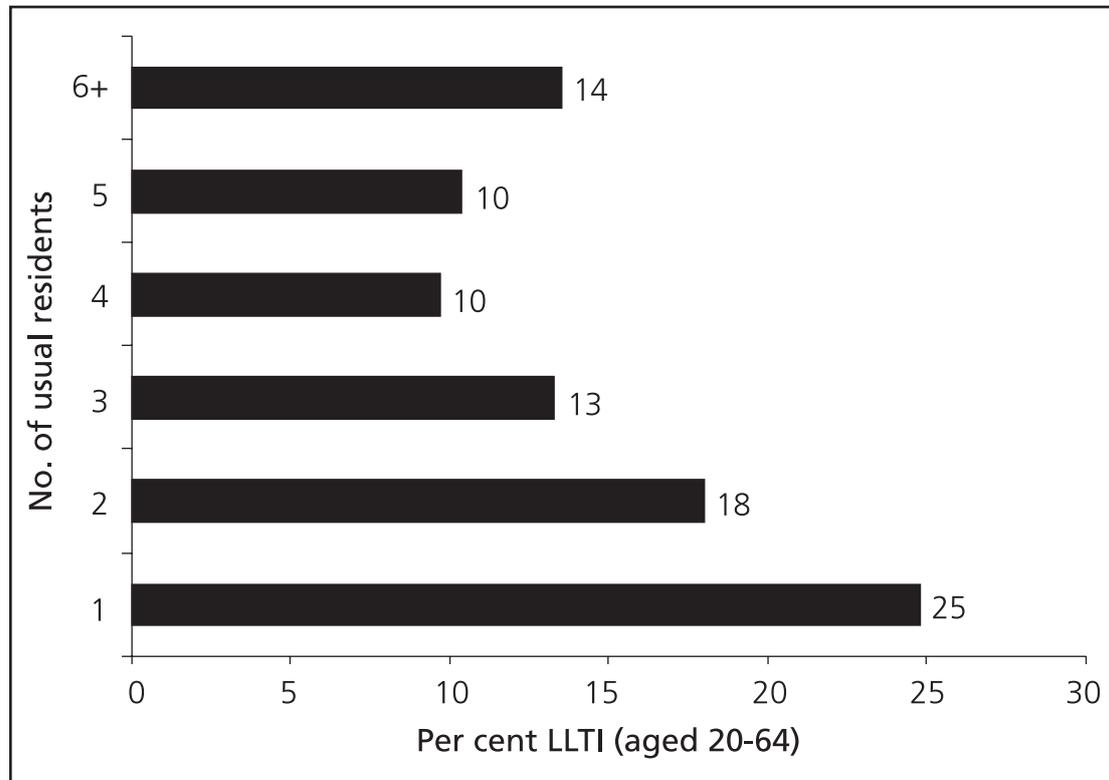
Source: 2001 Census SARs.

2.2.3 Household size

Almost one-quarter of adults living alone had a long-term illness that limited their activities or work (Figure 2.3). This was considerably more than in households with more residents. In households with four residents this was as low as one in ten individuals. The largest households identified in the data (six or more residents⁹) show a slightly increased propensity to have a resident with a long-term illness compared with other multiple occupancy households. Even so, the proportion is only half of that amongst those who live alone.

⁹ The number of residents is truncated at six or more. This is justified as an attempt to help protect the confidentiality of respondents to the Census.

Figure 2.3 LLTI in households of different sizes (by number of usual residents in household)



2.2.4 Ethnic group

There were some large variations in rates of disability by ethnic group and gender (Table 2.2). Around half as many Chinese men and women reported an LLTI as 'White: British' adults. Only amongst 'Asian or Asian British' adults did more women report LLTI than men.

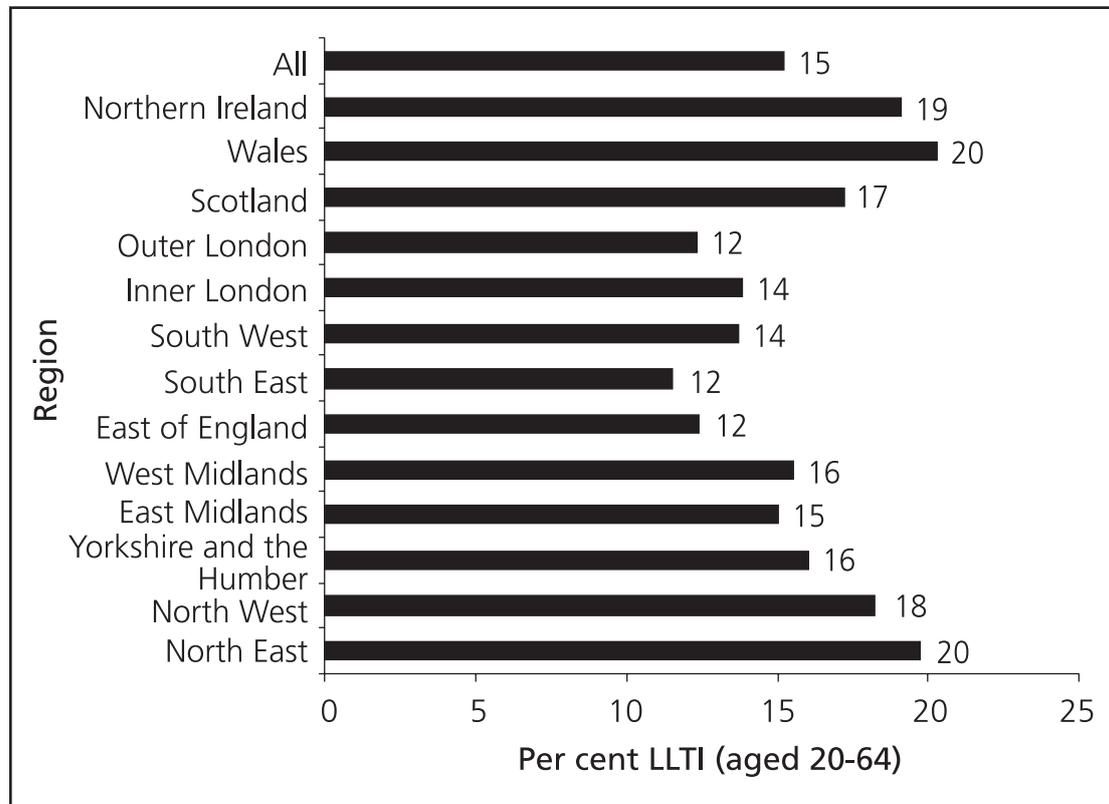
Working age adults who described their ethnicity as 'White: Irish' were considerably more likely to report long-term illness than the 'White: British' group, and almost twice as likely as other white ethnic groups. This kind of distinction would generally be lost in survey data, where the 'White' group would not be broken down any further. But here, those identifying themselves as 'White: Irish' had quite different rates of LLTI to those regarding themselves as 'White: British' or some other 'White' background and the difference was particularly pronounced amongst men.

Table 2.2 LLTI among different ethnic groups, by gender

<i>Cell percentages</i>				
Ethnic group	<i>Unweighted base</i>	LLTI	LLTI – Men	LLTI – Women
White				
British	818,273	15	15	15
Irish	12,926	19	20	18
Other White	28,659	10	10	10
Mixed				
White and Black Caribbean	2,191	12	14	11
White and Black African	1,097	16	17	15
White and Asian	2,293	13	13	13
Other Mixed	2,043	13	14	13
Asian or Asian British				
Indian	19,991	15	14	17
Pakistani	11,558	18	17	19
Bangladeshi	4,286	18	17	19
Other Asian	4,746	15	14	15
Black or Black British				
Black Caribbean	1,997	16	16	16
Black African	8,822	10	10	10
Other Black	1,474	15	16	15
Chinese	4,496	8	7	8
Other ethnic group	4,598	10	11	10
All aged 20-64	938,450	15	15	15

2.2.5 Region

Figure 2.4 reveals something of a north/south divide in reporting long-term illness that limits activities or work. The proportions reporting this kind of disability in northern England (between the Scottish border and the Midlands) ranged from 20 per cent to 15 per cent whilst the proportion of LLTI amongst those who live south of the midlands ranged from 14 per cent to 11 per cent. Adults in Scotland, Northern Ireland and Wales were more likely to report an LLTI than average for the United Kingdom, with over one in five Welsh adults reporting such a limitation. This finding casts further light on the differences in proportions of LLTI by ethnic group, since those most likely to identify themselves as White Irish are also more likely than average to be based in Northern Ireland (unsurprisingly).

Figure 2.4 LLTI in different regions of the UK

2.2.6 Marital status

Just under 12 per cent of all adults who were single and have never married reported having a limiting illness (see Table 2.3). In contrast, widowed adults are twice as likely as the population as a whole is to have an LLTI and almost three times as likely as single adults, but this is almost certainly because of their older profile. In fact, remarriage, separation, divorce and widowhood were all related to higher incidence of disability. This may be linked to earlier results relating disability to household size among adults of working age.

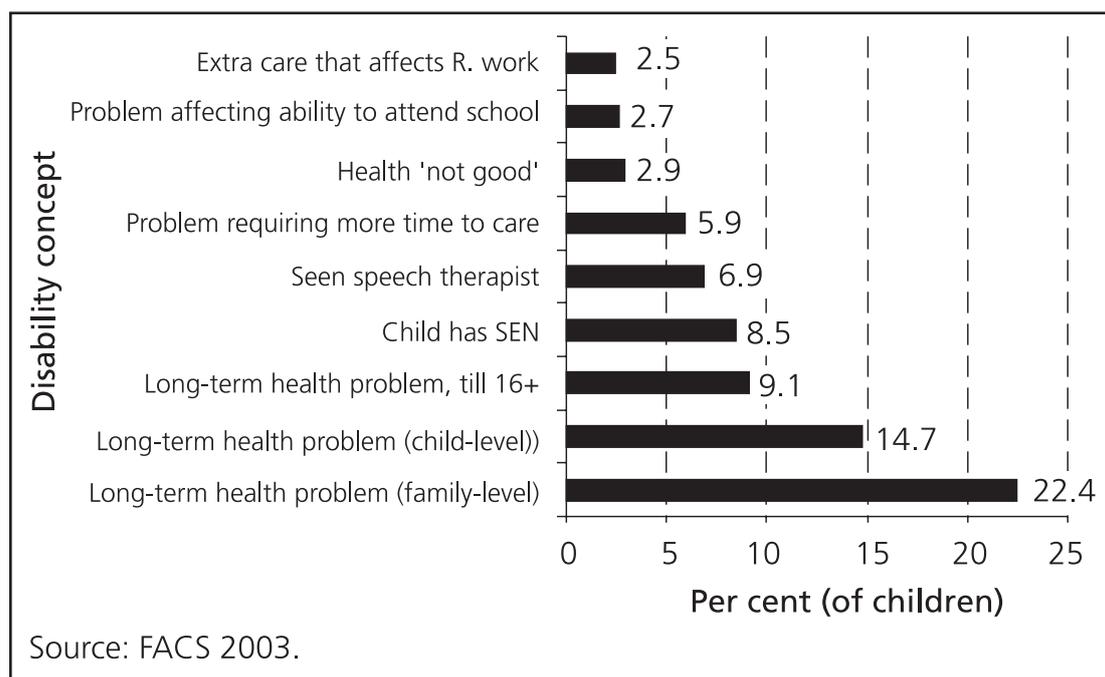
Table 2.3 LLTI by marital status

<i>Cell percentages</i>	
Marital status	LLTI
Single (never married)	12
Married (first marriage)	14
Remarried	19
Separated (but still legally married)	19
Divorced	23
Widowed	31

2.3 Childhood disability and health

The level of childhood disability depends crucially on the measure adopted. Whilst this is also true for adults, rather less research has been devoted to children with health problems. Previous research on child disability has quoted figures, from the same surveys, of between three and 16 per cent. In the FACS, rates of disability may be quoted as low as 2.5 per cent, where the child has a health problem that affects the ability of the respondent to work. Alternatively, 22 per cent of families contain at least one child who the respondent describes as having a longstanding illness or disability. The range of possibilities within these two extremes is shown as Figure 2.5, which illustrates results for a number of different questions relating to child health. Those problems likely to last for some time and affecting the time spent caring, are likely to be more closely linked to the employment status of the adults in the family and of most interest to policy makers.

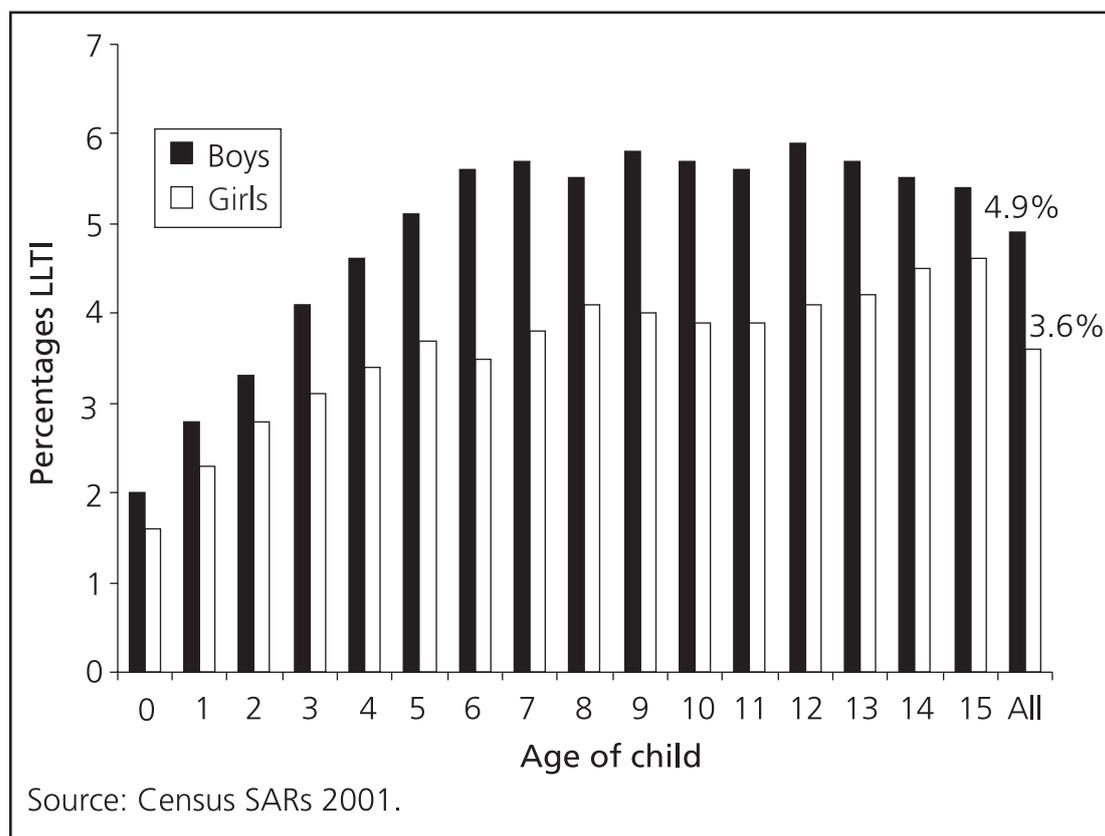
Figure 2.5 Rates of childhood disability, using different disability definitions



Conversely, estimates based on the 2001 Census showed around four per cent of children having a long-term illness that affects their activities. This is the judgement of the person completing the Census form, which could differ from that of the child and may not be that of the main carer. It is within the range of estimates generally given for childhood disability and comparable to the FRS estimate of five per cent. Also, as shown in Figure 2.6, reported rates of disability were somewhat higher for boys than for girls. For both genders, rates of disability rose steadily from birth until around age six or seven, at which point they tended to vary less with age, although they peaked at age 12 for boys and age 15 for girls. The low rates for very young children may simply reflect the length of time taken to get a

diagnosis of a potential problem or the reduced likelihood of recognising that a very young child is limited relative to their peers.

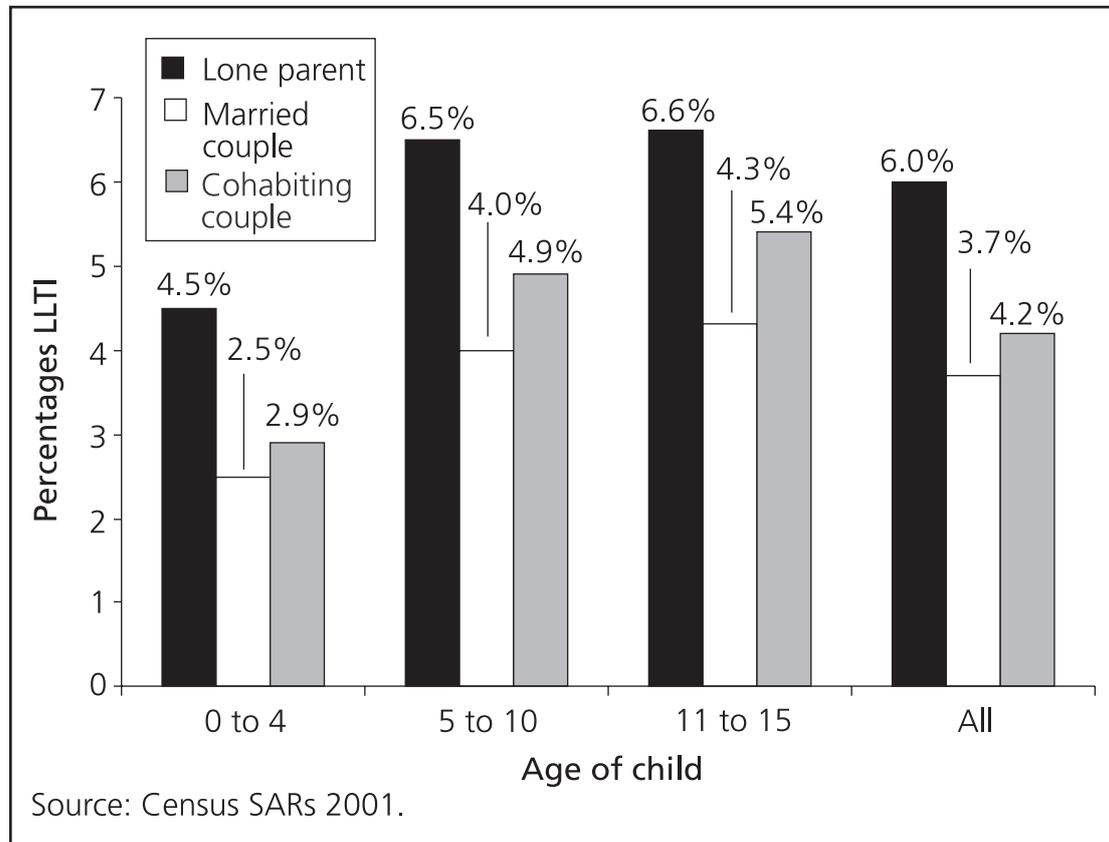
Figure 2.6 Rates of childhood disability by age and sex



2.3.1 Family type and disabled children

Again, drawing on Census data for 2001, children were least likely to be reported as disabled if they were living with a married couple (3.7 per cent), compared with either a cohabiting couple (4.2 per cent) or a lone parent (six per cent). The magnitude of these differences was fairly constant across children of different ages (Figure 2.7).

Figure 2.7 Rates of childhood disability by age of child and family type



These differences are repeated in FACS, though with higher levels of child disability reported reflecting a different definition of health problems among children. It has been argued that the direction of causation is from child health to family type, with disabled children associated with couples separating (e.g. Fertig 2004), though effects in the UK appear harder to detect than in the US.

Between one-fifth and one-quarter of all families had one or more disabled children (see Table 2.4). Lone parents were slightly more likely than couples to have at least one child with a disability. Lone parents were also slightly more likely to have more than one disabled child than couples were, although one family in every 20 had more than one child with a disability.

Table 2.4 Number of disabled children by family type

Disabled children	<i>Column percentages</i>		
	Lone parent	Couple	All families
None	74	79	78
1	20	18	18
2	5	3	4
3+	1	1	1
Any	26	21	22
Average number (if any)	1.2	1.2	1.2

Table 2.4 and Table 2.5 show that fewer than half of families with one or more disabled children said that they needed extra help and support owing to their child's illness or disability. So, whilst 26 per cent of lone parents reported having one or more children with a disability, just 13 per cent of lone parents said that they had a child who needs such help.

Table 2.5 Number of children needing extra help, owing to illness or disability, by family type

Children needing extra help	<i>Row percentages</i>		
	Lone parent	Couple	All families
None	87	92	91
1	12	8	9
2	2	1	1
3+	*	*	*
Any	13	9	10
Average number (if any)	1.1	1.1	1.1

* indicates less than 0.5%, but greater than zero.

Table 2.6 indicates that disabled (LLSI) lone parents were three times as likely to have a child who needs help as non-disabled lone parents (28 per cent compared with nine per cent). Disabled parents were also more than twice as likely to have a disabled child. Indeed, over two-fifths of disabled parents reported having a disabled child. Parents who reported any longstanding illness or disability (LSI) were also more likely than average to have a child with a disability or who needed extra help.

Table 2.6 Lone parents: number of disabled children by lone parent's disability status

Row percentages

Lone parents	Parent's health status			
	LLSI	LSI	Neither	All
Any disabled child	43	35	20	26
Any child needing extra help	28	19	9	13

Comparing lone parents with mothers living in a couple (Table 2.7), we see that the relative proportions of parents with a disabled child were similar but that six per cent more disabled lone parents had a disabled child. Levels of children needing support were much lower for disabled mothers in couples than for disabled lone parents.

Table 2.7 Couple mothers: number of disabled children by parental disability

Row percentages

Couple mothers	Parent's health status			
	LLSI	LSI	Neither	All
Any disabled child	36	32	19	21
Any child needing extra help	19	12	7	9

2.3.2 Clustering of disability or health problems within families

A key aim of this research is to explore the circumstances within families and households, and not just look at individuals (as tends to happen, especially with LFS-based analyses). Disability or caring responsibilities may have implications not only for the individuals directly affected but also for their partners and children and possibly other members of the household. There may be particular issues affecting households where more than one person is disabled or if disability occurs across more than one generation.

If there is clustering of disability, the proportion **jointly** having health problems should be significantly in excess of the product of the two individual probabilities of such problems. In fact there were five per cent of couples (with children) where both parents had a longstanding illness. If the two adults were drawn at random and did not cluster with those with similar characteristics, we would expect that in 3.4 per cent of couples this joint situation would be observed. In other words there is some degree of clustering; indeed, over 40 per cent more households have two disabled adults than would be expected if there was no clustering.

A similar exercise may be conducted to examine clustering of disability between parents and their children. In 7.3 per cent of FACS families, both the mother and any child were reported to have a longstanding illness. Under the hypothesis of independence, we would expect this to happen within 4.5 per cent families. This is somewhat more of a link than between the two adults (about a 60 per cent increase over a random outcome) and does show some degree of similarity between mothers and children in the same families.

There could be a number of reasons for this link: Undoubtedly there is an hereditary link in some cases but this is likely to represent a relatively small group. Another possible explanation is the transmission of deprivation of various kinds between parents and children. Low income and poor housing is associated with health problems in both children and adults. The clustering of mother-child disability could be individual reactions to some common environmental factor. This is plausible, though under such circumstances we might expect a closer relationship between the reported disability status of the two parents as well. A third possibility is that of consistent 'bias' in reporting. The mother's disability status and that of the children are reported by the same person. This person, the respondent, could be providing reports that tend towards the optimistic or pessimistic for both groups, generating a clustering of this kind. It is also possible that some conditions may be perceived as more or less limiting by parents who have difficulties themselves – for example, a parent with mobility difficulties may find it very difficult to deal with a hyperactive child, whilst another parent may take such a condition in their stride.

However, the overall message is that the clustering within families of people with disabilities or health problems does seem to take place but in a relatively weak manner.

2.3.3 Child health and child care

The 2004/05 FRS contains some important information about childcare for children with and without health problems. In Table 2.8 we show the different kinds of childcare used by parents of children with, and without, long-term health problems. Broadly equal numbers of children with, and without, long-term health problems had some type of childcare arranged for them. Disabled children were somewhat less likely than other children to be cared for in nurseries or by childminders. This may be related to lower rates of employment among mothers with disabled children – a topic we discuss later in greater detail. Disabled children were slightly more likely to be looked after by close relatives, perhaps indicating that a family member was more likely to be regarded as appropriate childcare for disabled children or that specialist provision was more difficult to access.

Table 2.8 Provision of child care by child health status

	<i>Row percentages</i>		
	Child has health problem	No child health problem	All
Whether childcare arrangements made	26	27	27
Childcare is from			
Close relative	60	55	56
Other relative	3	3	3
Friend/neighbour	10	8	9
Childminder	9	14	13
Nursery/school/playgroup	15	22	21
Crèche	1	2	2
Employer provided nursery	0	*	*
Nanny/au pair	2	3	3
Before/after-school; holiday play-scheme	14	10	11
Other	4	1	1
<i>Base: all children</i>	<i>1,257</i>	<i>13,240</i>	<i>14,497</i>
<i>Base: arrangements made</i>	<i>331</i>	<i>3,556</i>	<i>3,887</i>

Source: FRS 2004/05: child-level.

2.4 Caring responsibilities

In this section we consider the characteristics of adults and families with children associated with having caring responsibilities.

2.4.1 Gender

Data from the 2001 Census shows that more women than men provided care but the difference was small – three per cent more women than men had responsibility for caring for one to 19 hours per week. Just five per cent of women and three per cent of men had caring responsibilities for over 20 hours each week. The percentages increased very slightly again with one in 20 adults caring for someone for over 50 hours a week.

Table 2.9 Provision of care (of different weekly hours) by men and women

<i>Row percentages</i>					
Sex	Base	1-19 hours care	20-49 hours care	50+ hours care	Total (any care)
Male	523,602	8	1	2	11
Female	541,039	11	2	3	16

Source: Census 2001 SARs.

2.4.2 Gender and age

Proportions providing care by age group are shown in Figure 2.8 for men and Figure 2.9 for women. The grouped age banding in the Census SARs makes it difficult to draw definitive conclusions but clearly the incidence of care rises with age. It may then drop back a little once people reach the age of 60-64.

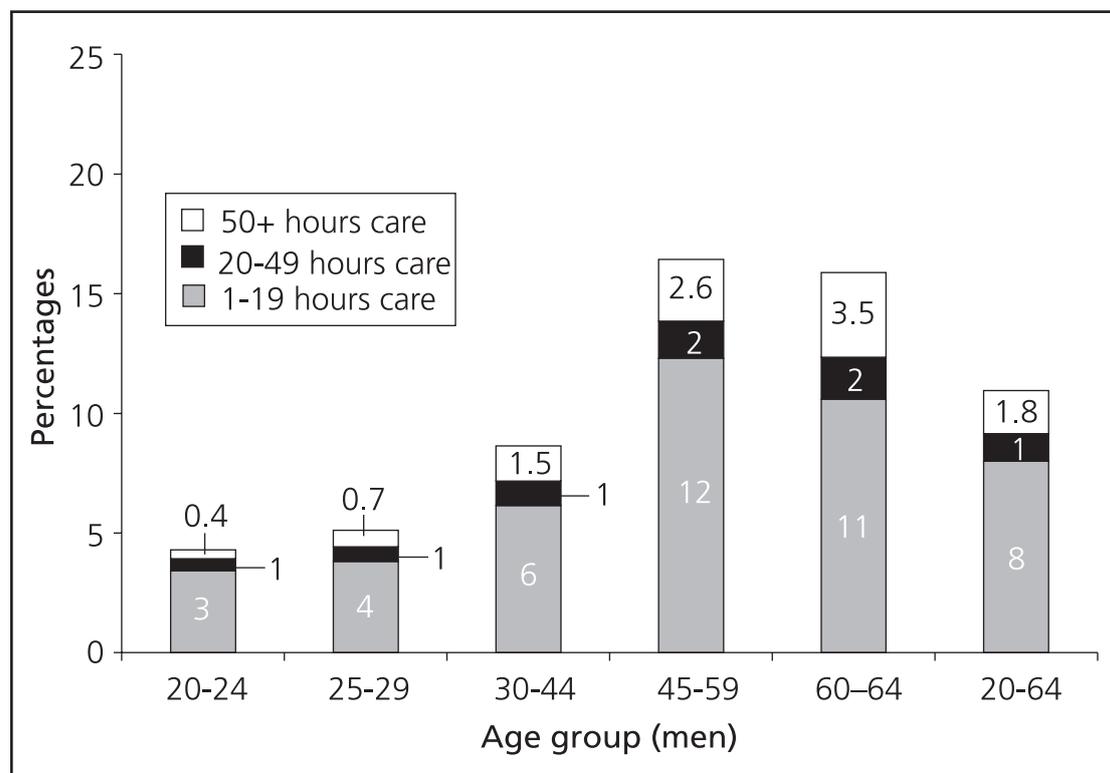
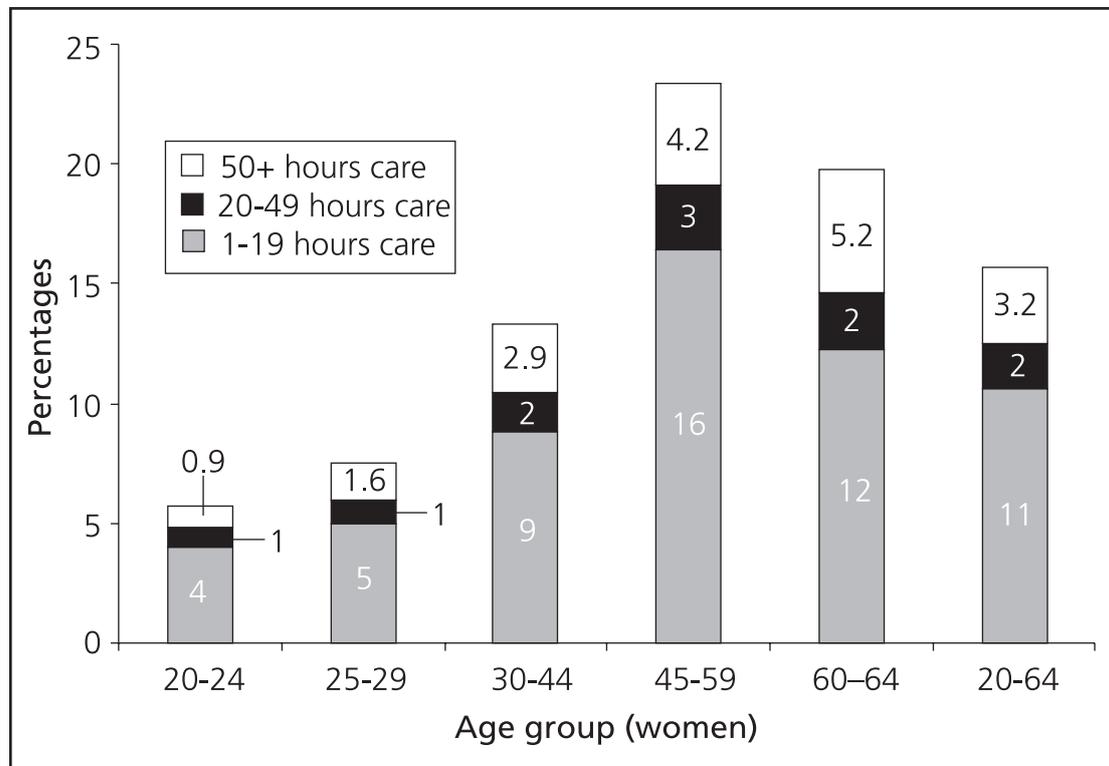
Figure 2.8 Caring status by age group – men

Figure 2.9 Caring status by age group – women



2.4.3 Ethnic group

We reported above that Chinese adults were only half as likely to report having a limiting illness as 'White: British' adults. As can be seen in Table 2.10, Chinese adults were also least likely to be providing care, and that this is just under half that provided by 'White: British' adults. The Chinese group were also only half as likely to provide any care as 'Asian or Asian British' (including those describing themselves as Pakistani, Indian, Bangladeshi) and 'White: Irish' ethnic minority residents. Relatively few people provided care for between 20 to 49 hours per week, although Indian and Pakistani adults were twice as likely to do so as the population as a whole.

Table 2.10 Provision of care (of different weekly hours) by different ethnic groups

<i>Row percentages</i>					
Ethnic group	Base	1-19 hours care	20-49 hours care	50+ hours care	Total (any care)
White					
British	818,273	10	1	3	14
Irish	12,926	8	1	2	12
Other White	28,659	5	1	1	8
Mixed					
White and Black Caribbean	2,191	7	1	2	10
White and Black African	1,097	7	2	2	11
White and Asian	2,293	7	1	2	11
Other Mixed	2,043	7	1	2	10
Asian or Asian British					
Indian	19,991	9	3	3	14
Pakistani	11,558	8	3	4	15
Bangladeshi	4,286	7	2	4	13
Other Asian	4,746	7	2	3	11
Black or Black British					
Black Caribbean	10,997	7	1	2	10
Black African	8,822	5	2	2	8
Other Black	1,474	7	1	1	9
Chinese	4,496	4	1	1	6
Other Ethnic Group	4,598	4	2	2	7
All	938,450	9.4	1.5	2.4	13.3

Source: Census 2001 SARs.

2.4.4 Qualifications

Table 2.11 suggests that a considerable number of people had qualifications or levels of qualifications that are not recognised, and that these individuals were the most likely to have caring responsibilities, followed closely by those with no qualifications. Those with no qualifications were five times more likely to care for someone for over 50 hours a week than highly qualified individuals, and less likely than most others to care for someone for between one to 19 hours a week. However, it should be noted that the proportion of people caring did not fall steeply between levels of attainment, and that actual differences were small – usually only one or two percentage points.

Table 2.11 Provision of care (of different weekly hours) by different levels of qualifications

<i>Row percentages</i>					
Qualification groups	Base	1-19 hours care	20-49 hours care	50+ hours care	Total (any care)
Other qualifications/level unknown	66,473	12	2	3	17
No qualifications	243,073	8	2	5	15
Level 1	178,290	9	1	2	13
Level 2	183,049	10	1	2	13
Level 3	81,326	8	1	1	11
Level 4/5	215,079	10	1	1	12

Source: Census 2001 SARs (England and Wales only).

3 Links with employment patterns

3.1 Introduction

In this chapter the aim of the analysis is to connect families' disability and caring characteristics with their employment. How are disability characteristics, and having caring responsibilities for others, associated with employment rates and type of work? In this kind of analysis, employment may be analysed as working versus non-working (or with a split at a certain number of hours work a week, such as 16). We may also investigate the number of hours that people work – it is possible that disability status affects hours of work among workers, rather than (or in addition to) whether people work. Last, we may also be interested in groups that manage to sustain paid work despite facing the same (potential) barriers as others not in paid work.

Some results based on American data have found different effects of child disability on the working patterns of lone mothers and mothers/fathers in couples (Corman *et al.* 2003). For all groups, those in work were working fewer hours. However, the effects on whether people were in paid work were rather different across family status groups – a strong effect for mothers (less likely to be working), a weaker effect for lone mothers and basically no effect at all among fathers.

There are a number of issues that also need to be addressed to gain a full understanding of the links between disability status, caring and employment. First, the FACS data is based on families with children, not all individuals. Therefore, the FACS-based analysis should be interpreted as applying only to families, at least directly, though similar conclusions may apply for other groups. The Census-based results apply more widely – to the whole working age population – and differences due to family type (whether there are dependent children in the household) actually turn out to be fairly small.

There are also modelling issues when examining employment effects. Some economists had voiced concerns that reports of disability status may be

'endogenous' to employment. This means, to give one simple interpretation, that people may regard their disability or health problems differently according to whether or not they work. Those in paid work may give a different kind of description of 'objectively' to the same disability or health problem.

The same effect may occur regarding children's reported disability status, too. A further issue is that of 'selection' into disability among those already facing disadvantage. People from poorer backgrounds, having achieved fewer qualifications, are more likely than others (better-qualified, less poor family backgrounds) to become disabled. This means there is a danger of attributing to 'disability' results that are more the result of these prior, pre-existing factors. These kinds of points are best addressed by using a wide range of different variables to try to understand employment status, such as pre-existing labour market capital. The use of longitudinal/panel data also offers better opportunities to disentangle the combined results of these complex causal links.

3.1.1 Individuals and families

In looking to understand the effects on employment (of both caring and disability) we may also need to look more widely than the individual and take account of the family and household setting. This affects both the outcomes of interest and the factors of interest. In terms of the outcomes, if a person has a disability this may affect not just whether they work but also whether they have a working partner. If they require care, their partner may choose to become that carer, perhaps by working fewer hours or none at all. Alternatively, the partner might choose to work longer hours to help pay for care or to compensate for the family's loss of earnings. The effects could be in either direction and may depend on the different earning power that people have.

Similarly, in looking at whether someone works, the fact that their partner may be a carer, or that their children have a disability, may be determining factors. This is potentially the case even if the individual under analysis does not appear to have health problems or disabilities or caring responsibilities affecting them directly.

3.2 Childhood disability and rates of paid work

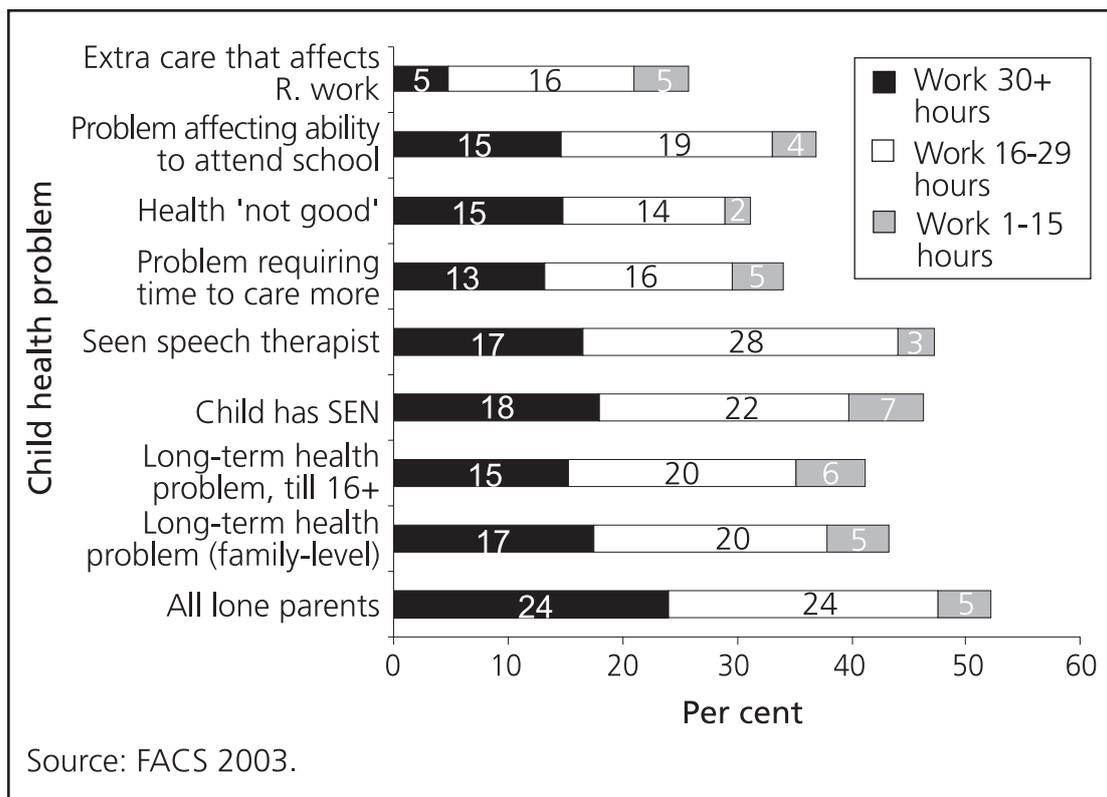
In this first section we look at rates of paid work among lone parents, mothers and fathers in couples and how they are affected by having a disabled child. As we have discussed in Chapter 2, there are many different ways of trying to measure children's disabilities or health problems. The consequences for the incidence of childhood disability are very great. However, there is no simple correspondence between the incidence of the child disability or health problem and the effect on rates of working among the adults.

In Figure 3.1 we show the effect of different definitions on the proportions of lone parents in paid work (and the number of hours worked). Unsurprisingly, where the respondent said that the child health problem affected their ability to

work, the effect on work was greatest, with a particularly strong effect on rates of full-time work. Only five per cent were working for 30 or more hours a week, compared with 24 per cent of all lone parents. Even so, over one-quarter (26 per cent) of this group, where the respondent's work was directly affected by the child health problem, were still in paid work.

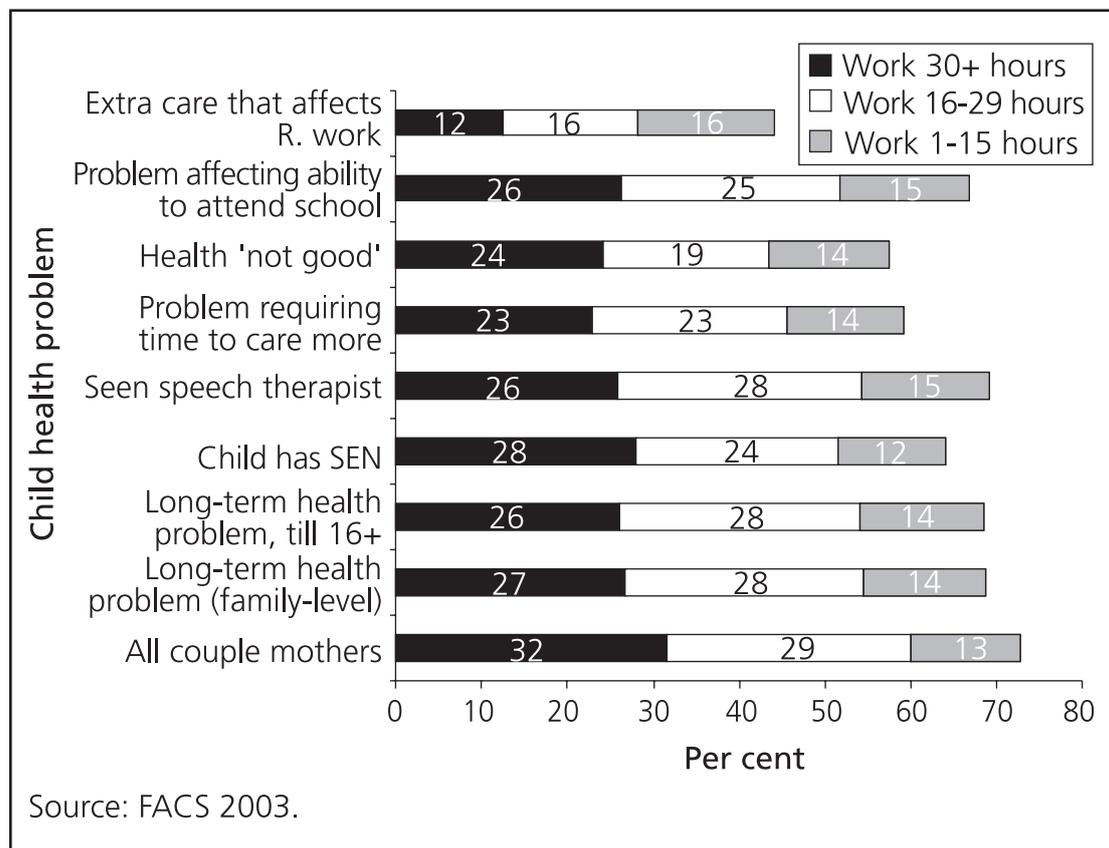
Each of the other definitions of childhood disabilities had **some** effect on rates of paid work. In each case the effect seemed to be concentrated on the proportions working full-time (30+ hours a week). The proportions working for 16-29 hours, whilst still affected, tended to be reduced by fewer percentage points. The kinds of disability or health problem most strongly associated with reduced rates of working also included those stating generally that their child's health was 'not good'. This is a fairly subjective measure, to say the least, but may indicate something about recent conditions and changes that were important. Rates of working were also reduced by conditions requiring the parent to spend longer providing care.

Figure 3.1 Lone parents' employment: effects of child disability or health problem



Comparable results for mothers within couples (in FACS) are shown in Figure 3.2. The same kinds of disabilities or health problems were most strongly associated with reduced rates of working and linked to the same decisions about working hours, as were found with lone parents. But more couple mothers than lone mothers were in paid employment and in particular there were rather more who worked part-time hours. The presence of disabled children appears to have had stronger negative effects on full-time work, though part-time work (16-29 hours) was also reduced. The proportions working **any** hours a week (15 or less) among mothers in couples was not much affected by childhood disabilities or health problems – if anything slightly more were working such hours.

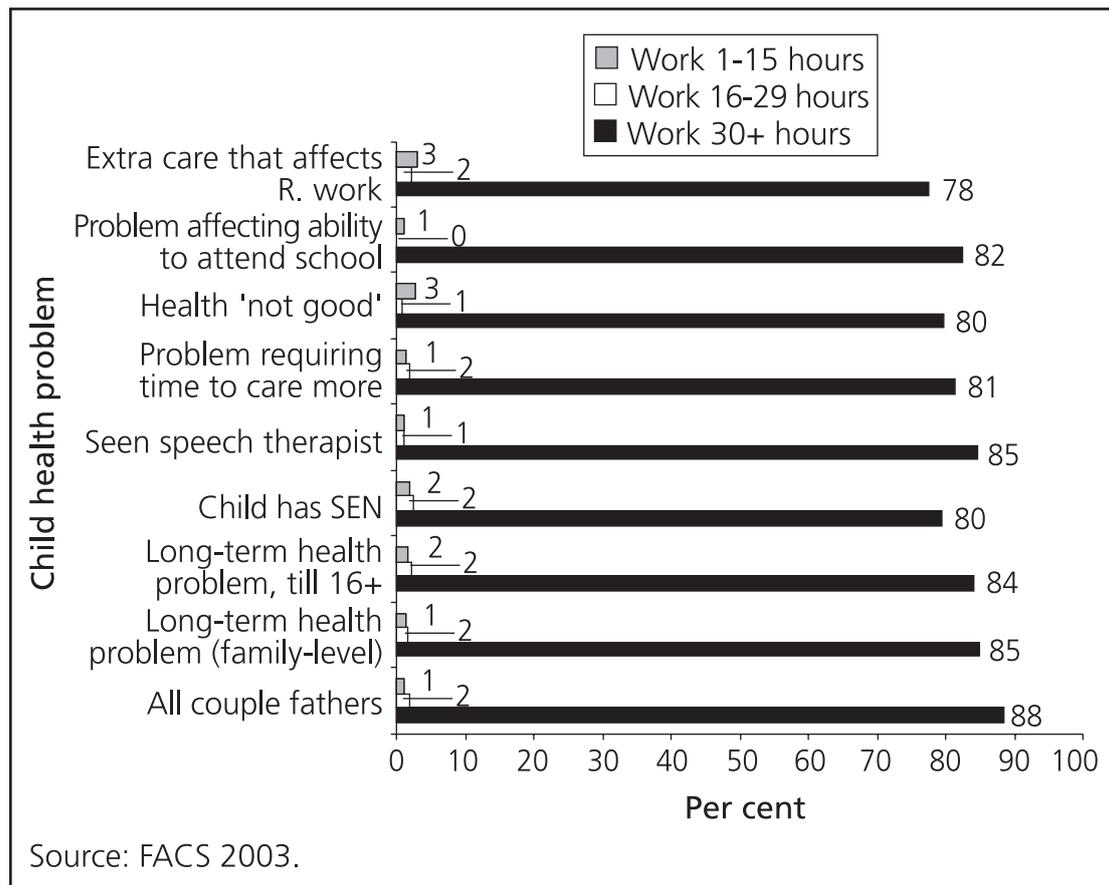
Figure 3.2 Mothers in couples: effects of child disability or health problems on working hours



The final set of results in this section relates to fathers in couples, within FACS. Relatively few fathers worked anything other than full-time hours (at least 30 hours a week). The results shown in Figure 3.3 indicate that having a child with a disability or health problem did not change that basic pattern – among fathers work was full-time or not at all. So, any links between child disability and fathers' working patterns were on full-time work. In each case, the presence of a health problem was associated with a lower rate of paid work. However, the negative effect was often rather small, only a few percentage points from an already quite high base. The kinds of child health problems most likely to be associated with reduced rates

of working were those already associated with lower rates of employment among mothers in couples (and lone parents). That is, health problems said to directly affect work (albeit as reported by the respondent).

Figure 3.3 Fathers in couples: effects of child disability or health problems on working hours



3.2.1 Dual earning among couples with children

The above analysis looks at each adult in turn, for couples. It is also important to look at the effect within couples, taking both together – how were the reductions in overall rates of working shared among the adults? In Table 3.1 we see that amongst couples with a disabled child, over 50 per cent still had both partners working at least 16 hours a week (which compares with just over one-third of lone parents, not shown). This compares with 56 per cent overall or a reduction of six percentage points. The reduction is evenly divided between the couple either becoming workless (neither working 16 hours a week) or a one-earner couple.

It is noteworthy that amongst couples with a disabled child it was still more likely that both partners would work than that just one would – just under ten per cent more couples with a disabled child had both partners working over 16 hours a week than had just one worker (see Table 3.1). However, almost twice as many couples with a disabled child were workless (nine per cent as opposed to five per cent of those with no disabled children).

Table 3.1 Couples' joint work status by child disability

Column percentages

Couples	No disabled children	Any disabled child	All couples	Effect
Couple – both work 16+ hours	58	50	56	-6
Couple – one worker	37	41	38	+3
Workless couple	5	9	6	+3

Source: FACS 2003.

Table 3.2 shows that the among families having any child needing extra help, the association with lower employment was greater than that of having a disabled child (one with a longstanding illness). For this group of couples, the single-earner couples just outnumbered the dual-earner couples (by 45 per cent compared to 42 per cent), and the proportion of workless couples was almost three times that of couples who did not have disabled children.

Table 3.2 Couples' joint work status by child health status

Column percentages

Couples	No disabled children	Any child needing extra help	All couples	Effect
Couple – both work 16+ hours	58	42	56	-14
Couple – one worker	37	45	38	+7
Workless couple	5	13	6	+7

Source: FACS 2003.

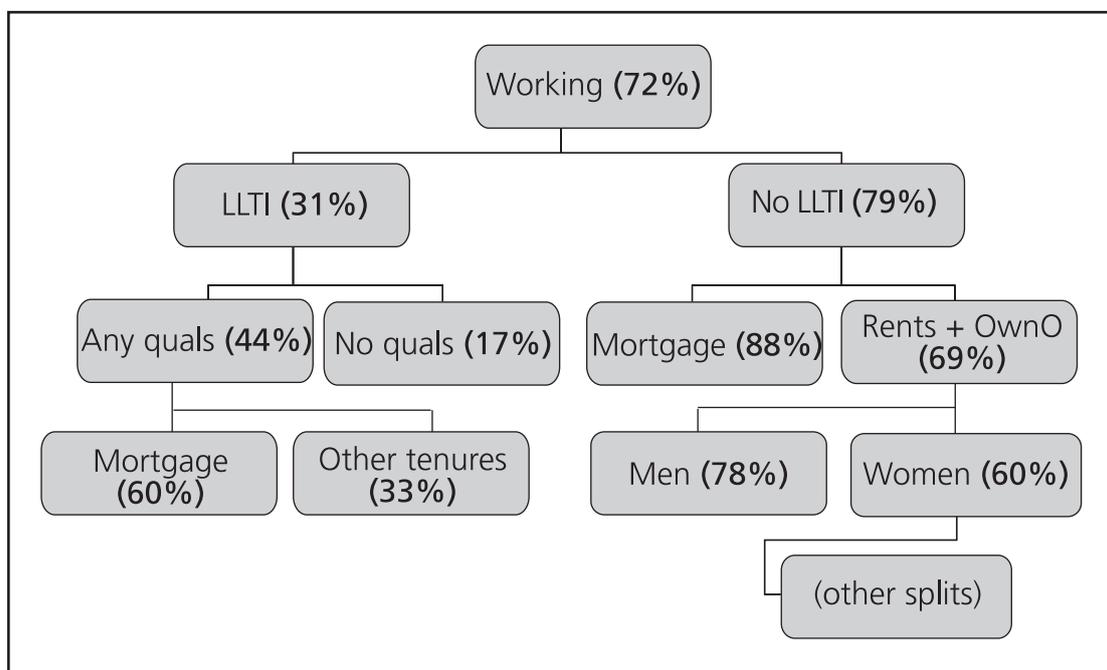
3.3 Adult disability and caring responsibilities

3.3.1 Segmentation analysis of employment

It is important to try to understand the differential rates of employment as much as possible. For this reason, we have employed an alternative statistical approach to the analysis reported above to identify groups of people that are very different in terms of their rates of working. This approach is sometimes known as a segmentation analysis and it gives rise to tree-based structures of the type below (see Figure 3.4). In the 2001 Census, around 72 per cent of those aged 20-64 years were in paid work. The statistical routine calculates which (binary) split identifies those two groups that differ most in rates of paid work. The result shows that the two groups primarily differed in terms of having an LLTI. As shown, some 79 per cent of those without an LLTI were in paid work, compared to just 31 per cent of those with an LLTI.

Within each group one may identify further splits. Among disabled people (those with an LLTI) the next key factor was level of qualifications: 44 per cent of those with any qualifications were in paid work, compared with only 17 per cent of those without. For those with qualifications, housing tenure was also associated with different rates of paid employment. The right-hand side of Figure 3.4 shows results for those with no LLTI. The next most important determinants of paid work were housing tenure, followed by gender and then a wide host of factors such as age, family status, and so on.

Figure 3.4 Segmentation: whether in any paid work¹⁰



3.3.2 Logistic regressions of rates of paid work

Regression analysis is a widely used alternative analytic approach to segmentation. This involves combining a range of different explanatory variables in an additive way, to explore which variables are associated with the outcome of interest. This can mean that variables that look important in a two-way analysis turn out to be insignificant once confounding factors are included.

In this section we run a number of regressions of being in work, to investigate the effects of disability and caring, once other differences (such as in age, qualifications, and ethnic group¹¹) are taken into account. One appropriate method is known as 'logistic regression', which is generally used when we are looking at two different

¹⁰ The results were modelled in R 2.0.1 using the rpart algorithm.

¹¹ The variables controlled for were, in fact, age, ethnic group, family type, number of children, household structure, marital status, qualifications, region and housing tenure.

outcomes (such as good/bad health, working or not working). Statistical models of this kind indicated that adults with LLTIs were less likely than average to do any work, although mothers with an LLTI were almost twice as likely to work as fathers with such limiting conditions.

Health and caring status of the individual

A number of regressions included measures of individual health and caring status, and the key estimates relating to these elements are shown in Table 3.3. Where the 'odds ratios' shown are less than one, it implies a lower propensity to be in work – the smaller the number, the less likely to be in work compared to the group without the characteristics described in the row. Five separate models were run, covering in turn all individuals, men, women, fathers and mothers. The results for each group are shown in the separate columns of the table.

The regression shows that those with caring responsibilities for a maximum of 19 hours a week (i.e. one to 19 hours weekly) were actually at least as likely to work as the population as a whole, and slightly more likely to work if they were also parents. Caring responsibility for between 20 and 49 hours a week almost halved the odds of work participation, with odds ratios ranging from 0.46 for fathers to 0.61 for women. Caring for over 50 hours a week halved the odds ratio again, indicating that a father with caring responsibilities was much less likely than average to participate in employment. Men in each of the LLTI or caring responsibility categories were less likely to work than women. Fathers were more likely to work than the average person if they had caring responsibilities for no more than 19 hours a week.

Table 3.3 Logistic regressions of being in any work – odds ratios from separate regressions for each group

	All	Men	Women	Fathers	Mothers
LLTI	0.24	0.19	0.29	0.19	0.36
Care 1-19 hours	1.04	1.00	1.07	1.14	1.12
Care 20-49 hours	0.59	0.54	0.61	0.46	0.60
Care 50+ hours	0.28	0.23	0.30	0.20	0.30

Source: Census SARs 2001.

Health and caring status of the wider family

A new set of estimates is shown in Table 3.4. These relate to the same groups in the population as above, but the explanatory variables now take into account the situation of others in the household. The outcome remains the employment status of the individual, however.

Looking first at disability we see that where the respondent and anyone else in the household had LLTI the odds of working were much reduced. A person was less likely to work if they had LLTI but even less likely to be in paid work if they

and someone else in the household were disabled. This was true for all the groups separately analysed. Conversely, if someone else in the household had a disability but the individual being analysed did not, the odds of working were actually significantly increased.

This may be a kind of ‘added worker’ effect, with the disability of one person perhaps prompting others to move into paid work. However, it is worth noting that this effect only seems to work in respect of partners and not children’s disability (which depresses overall rates of paid work).

As before, these results control for a wide range of other differences in characteristics, such as age, family type and so on.

Turning now to caring, the second half of Table 3.4 shows results of being a carer and having other carers in the household. Overall, being a carer somewhat reduced the odds of being in paid work. We know from previous analysis that one of the key factors was the number of hours spent on caring tasks. Where the individual and another person in the household were both carers, the individual rates of paid work were reduced further overall, from an odds ratio of 0.9 to around 0.8. The magnitudes of these reductions were fairly similar across men and women, and mothers and fathers, with perhaps the largest double-impact being on fathers.

The last row of the table shows the effect of having a carer in the household, other than the person being analysed. This seems to show a large reduction in the odds of being in paid work. In this instance it could be the individual under analysis being the one receiving care, thus identifying a greater level of severity than picked up by the LLTI variable alone.

Table 3.4 Logistic regressions of any work – odds ratios from separate regressions

	All	Men	Women	Fathers	Mothers
LLTI					
Self, only	0.45	0.38	0.52	0.39	0.50
Self + other	0.26	0.21	0.31	0.23	0.41
Other only	1.60	1.69	1.57	1.59	1.17
Carers					
Self, only	0.90	0.85	0.92	0.92	0.94
Self + other	0.81	0.73	0.85	0.72	0.85
Other only	0.72	0.70	0.72	0.75	0.90

Source: Census SARs 2001.

3.3.3 Carers who work

A separate investigation was conducted to explore the differences between those carers who managed to remain in the labour market and those who did not have

paid jobs. A number of factors appeared to distinguish these two groups: First, and of strong importance, working carers tended to be living with the person for whom they were providing care. They also often had someone with whom care was shared, either inside or outside the household.

Among their wider characteristics, working carers tended to have qualifications that were of least level 3 (which equates to two A-level passes), and higher qualifications were helpful. They were also likely to be single and more likely to be male than female.

Our previous analysis has found relatively few effects on paid work for those whose caring role is for less than 20 hours a week. The groups in work were smaller among those caring for longer but the same characteristics were important. The main change of emphasis is that having qualifications became even more important in affecting work status for those caring for longer and there was more evidence that region played a part through differences in the availability of jobs.

3.4 Hours of work

We explained in the introduction that being in paid work was a crucial measure of labour market participation but not the only possibility for analysis. We may also be interested in the hours worked by those with paid work – the effect of disability or caring could be to move to part-time work or shorter hours, rather than leaving the labour market altogether.

We may look at discrete choices regarding work (part-time compared with full-time) or instead treat the hours worked as part of a continuum that people may vary. In this analysis we looked directly at the hours worked by those who remained in paid work and investigated the effects of ill-health on those hours of work. The analysis was conducted separately for lone parents and mothers and fathers in couples with children.

Among lone parents, there was no clear effect of disability on hours worked. Instead, it seems that once lone parents were in paid work (and a small majority were in paid work), poor health didn't affect the choice of hours. This may be related to the very high proportion working around the 16 hours point. However, there was an effect of having disabled children. Among disabled lone parents with health problems that were expected to last for some years, those in work tended to work around three hours less each week.

There were similar conclusions for mothers in couples (more of whom work). There was no clear effect from being disabled, but there was a distinct effect of having disabled children. Where any child needed extra care, mothers in paid work tended to be working six hours less than other mothers without such issues, controlling for all other factors.

It is crucial to emphasise that the lack of any effect on hours of work is conditional on parents actually being in work in the first place. There is an effect, often a

strong effect, of being disabled on whether mothers were in paid work. However, among those who do work, disability did not seem to affect the hours that they were working. It is perhaps worth noting that mothers in Britain are quite likely to be in part-time work, and to a much greater degree than in some other countries (though not dissimilar to rates in Germany and the Netherlands). This may be related to the lack of any effect on working hours – part-time work is often needed to deal with childcare and so is relatively common.

By contrast, the hours worked by fathers did not seem to be affected either by their own disability or that of their children. This may be related to a general reluctance among men to work anything other than standard full-time weeks. The effect of own disability and children's disability is, therefore, more connected to the decision about whether to work, rather than the amount of work, among fathers.

4 Incomes, inequality, poverty and participation in society

4.1 Introduction

In this chapter we analyse the effects of disability and caring roles on income and certain measures of poverty and hardship. The following sections look at differences in incomes (4.2), then at differences on measures of material deprivation (4.3). A final Section (4.4) briefly picks up some differences in **children's** well-being based on their own reporting – this is for children aged 11-15 at interview.

A detailed Section (4.2.2) looks at the HBAI conception of 'poverty' – being below 60 per cent of median income. In other sections we look instead at available measures of material hardship and at incomes more generally. Naturally, poverty is a key focus but disability may have important effects on incomes and living standards elsewhere in the income distribution.

Understanding the extent of extra costs associated with disability is important because it means that income and expenditure may not be equivalent and, therefore, not strictly comparable that of with non-disabled people. However a recent DWP review (Tibble, 2005) concludes that approaches to measuring extra costs are problematic. This means that findings should be interpreted cautiously.

4.2 Incomes

Research has found that disabled people often have lower incomes than the rest of the population. Burchardt (2003) has suggested a reduction of the order of 20 per cent across people of all ages and family types.

The effect of a range of disability and health measures on total incomes is shown in Figure 4.1. Lone parents are noted for having fairly equal incomes, the result

of high proportions receiving income-related benefits and tax credits with fixed amounts (for further discussion of this see Bradshaw and Millar 1991). This may explain why the presence of a range of disability or health problems had only relatively small effects on total income. Average (median) incomes were lowered in each case but not by much.

It is possible in this analysis that some of those with disabilities or health problems (or child disability or health problems) were receiving higher levels of benefits as a result of their additional needs, which mitigated the size of any effects. There is no agreement on how to adjust incomes for disability and so benefits related to extra costs are simply added to incomes for those receiving them.

Among couples with children the picture was somewhat different (see Figure 4.2). There was quite a significant association between disability and the distribution of incomes. Where someone was disabled, average (median) incomes were lower, and in particular the value of the upper quartile (top 25 per cent) was often much reduced. Being disabled meant fewer were observed to have higher incomes and the income distribution for such groups became more compressed. The lower quartile (amount received by the lowest 25 per cent within each group) was affected to a much lesser degree. So, whilst there was little association between adult and child health disability and the incomes of lone parents, among couples with children such problems were associated with reduced average incomes, and especially reduced chances of having a relatively high income.

These results, in addition, do not factor in any increased costs of disability. The income figures displayed are equivalised for family size (but not for disability or caring) as is standard in income measurement.

Figure 4.1 Income, disability, health and caring among lone parents

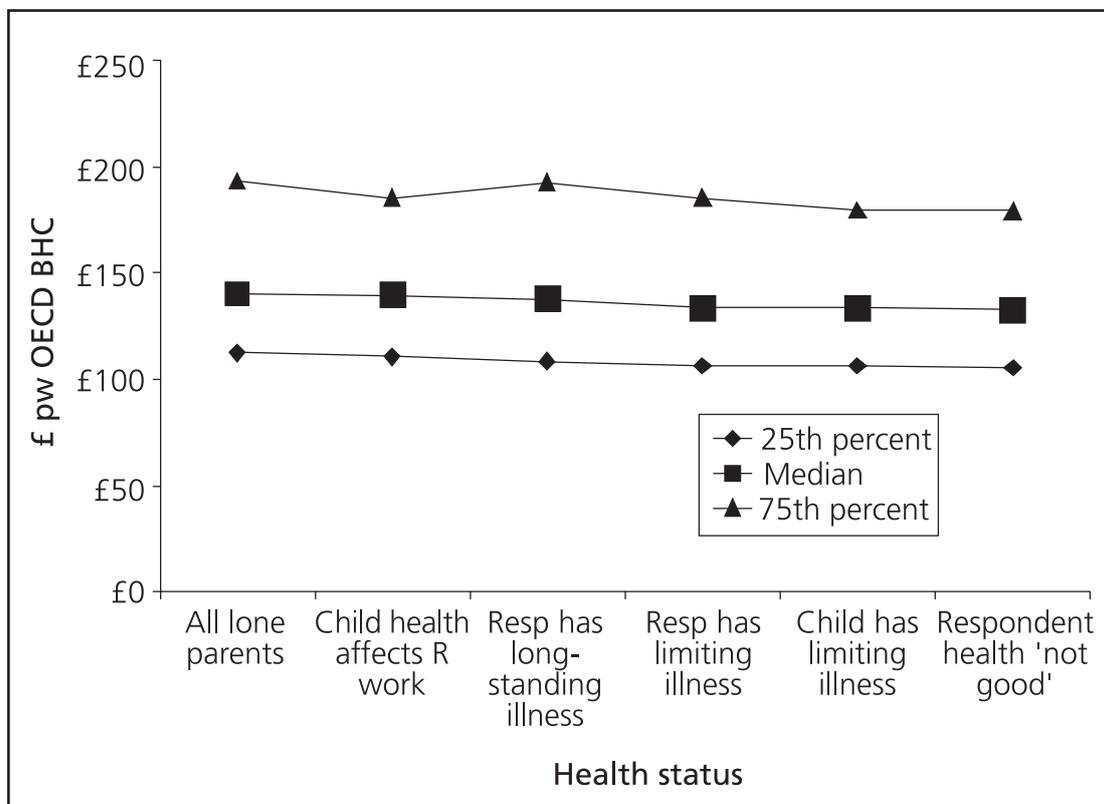
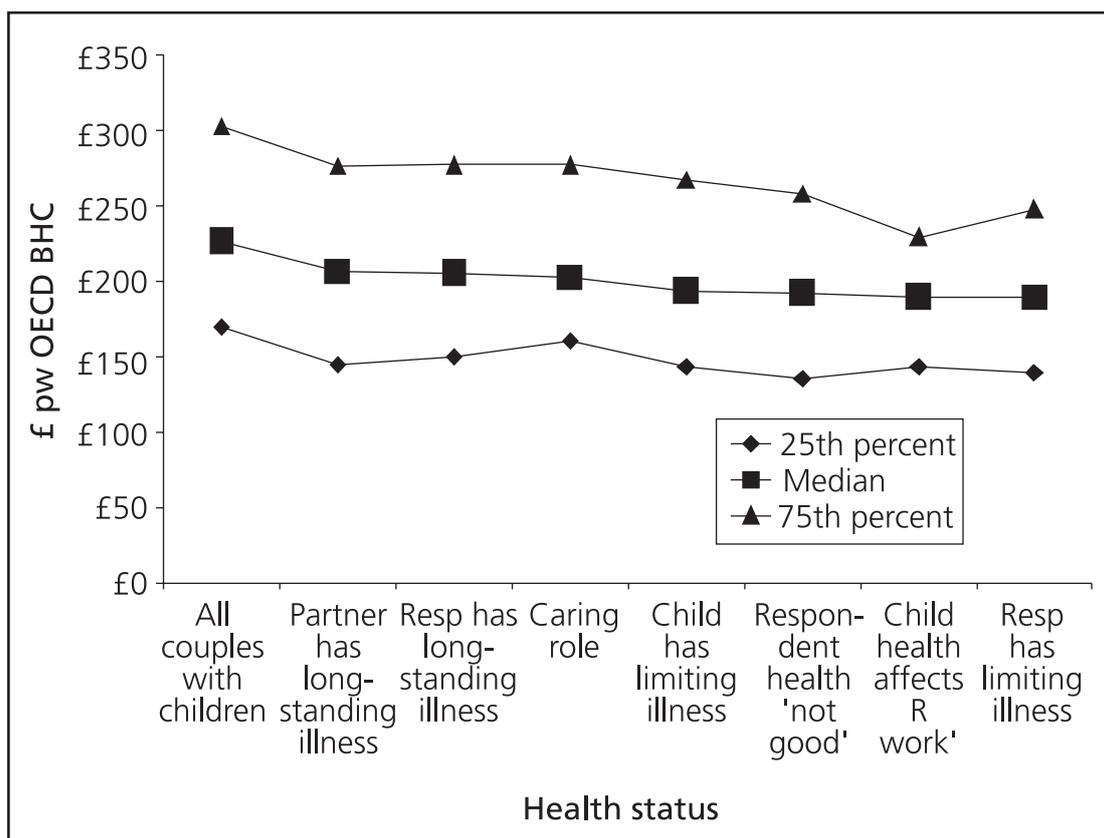


Figure 4.2 Income, disability, health and caring among couples with children



4.2.1 Modelling incomes

There are a number of reasons why families with disabled members may have lower incomes, some of which are not directly related to disability (such as low qualifications) or which are themselves associated with the onset of disability (e.g. higher age). Therefore, we should adopt a multivariate analysis approach before automatically concluding that disability (or caring) is directly implicated in lower incomes.

This is a complex area and to date, the models we have run do not take account of all possible statistical objections that may be raised. Even so the results should carry greater weight than simple two-way or bivariate approaches to the same questions.

Broadly, the models showed that child disability was a key factor associated with lower incomes. Among couples with children, having a disabled child appeared to reduce incomes by around £45 per week compared with similar families, with a smaller statistical effect for lone parents (whose average incomes are of course lower in any case). For lone parents, adult disability was also associated with lower incomes. Among couples, however, being a carer was associated with larger negative effects on incomes than was disability – in statistical models of incomes.

These are important results, but more analysis is needed before they may be regarded as definitive. In particular, it is possible that some of the effect is due to lower levels of income before the onset of any disability – if so, we may be describing a larger effect than is really due to disability and should, instead, attribute weight to pre-existing levels of experience, qualifications and so on. The new phase of this project, utilising longitudinal methods, will be able to shed greater light on this question. The links between income and disability are also a candidate for analysis using the larger sample sizes found in the FRS, though with lesser details about the type of disability collected in that survey.

4.2.2 Child poverty and disability¹²

Detailed analysis within the DWP has found that the presence of a disabled child **does not** increase the risk of poverty but the presence of a disabled adult **does**. However, this might be misleading as extra-cost benefits are currently counted as income but the extra costs of disability are not taken into account. This results in income appearing higher for disabled families in receipt of additional benefits (creating an upward bias). The new 'material deprivation' measure will help to address this by capturing those families facing particular difficulties due to high living costs (e.g. disability, housing, childcare, travel). Because it incorporates a new – higher – relative income line, some children will be counted as living in poverty for the first time.

¹² We are grateful to DWP for providing the analysis described in this section of the report.

In terms of the risk of experiencing relative low income (see Table 4.1):

- households with a disabled child showed no difference in risk – 19 per cent of households with a disabled child falling into relative low income compared with 19 per cent of households without a disabled child;
- households with a disabled adult were at a higher risk of low income – 31 per cent of households with one or more disabled adults were in relative low income compared with 17 per cent of those households with no disabled adult;
- the risk for households with both a disabled child and a disabled adult was greatest, with 31 per cent of this group being found in relative low income;
- the presence of a disabled adult resulted in a higher risk of poverty than for households which had disabled children only.

Table 4.1 Low income and health status

Column and cell percentages

Disability	Children in relative low-income	
	Composition [column percentages]	Risk [cell percentages]
No disabled adults	74	17
One or more disabled adults	26	31
No disabled children	87	19
One or more disabled children	13	24
Of which		
No disabled adults in family	7	19
One or more disabled adults in family	6	31

Source: FRS 2004/05 – DWP analysis.

Note: 60 per cent of median income before housing costs.

It was further found that:

- almost half of disabled children in families with at least one disabled adult lived in a workless household. This proportion dropped to around 38 per cent for non-disabled children in families with at least one disabled adult and to around 27 per cent for disabled children with no disabled parents. Only around 14 per cent of non-disabled children with non-disabled parents lived in workless households;
- a higher proportion of children in families with no disabled members were concentrated in the top two income quintiles compared to the children in the other three groups. Differences in the income distribution between the four groups became less profound when we controlled for the employment status of the adults;

- a lower proportion of children in families with no disabled adults lived in families with income of less than 60 per cent of median income when compared to families with disabled adults. These differences ceased to exist when we looked specifically at families in employment;
- disabled children with disabled parents were less likely to be in employment when they were in adulthood compared to the children in the other three groups. Conversely, disabled children in families with no disabled adults were as likely as non-disabled children to be in employment;
- finally, disabled children were more likely to live in poverty when they reached adulthood compared to non-disabled children, irrespective of the disability status of their parents. Around one in four disabled children from families with at least one disabled adult ended up in poverty.

4.3 Material deprivation

There are well-known problems in measuring incomes and income itself is not always a good guide to living standards. For such reasons some analysts believe that indicators of material deprivation (or 'hardship') provide a valuable source of comparison. An influential study which took place in 1999 (Gordon *et al.* 2000) used such measures along with incomes to classify people as either poor or non-poor. Material deprivation reflects aspects of poor living standards by indicating the inability to afford/access items including: food and meals; clothing and shoes; consumer durables; and leisure activities. A family is defined as deprived if there are two items it did not have and wanted but could not afford. This is not the kind of definition associated with the new child poverty measure, which is based on a measure of material deprivation and having a relatively low income. For the simpler analysis presented here, we define material hardship as being unable to afford two necessities.

It can be seen in Table 4.2 that the unemployed were more likely to be in poverty than either working or inactive adults. Respondents with a limiting disability were more than twice as likely to be in poverty as those with no limiting factors. It is also noticeable from this table that inactive respondents with no disability were much more likely to be in poverty than those with a disability who were inactive; there is a 14 percentage point difference – which may, in part, be reflecting the range of additional help available to disabled people. It should be noted that this table does not include any items associated with disability or health needs, so does not take into account possible higher costs associated with disability. There are different interpretations possible. If disabled people spend more to cover costs associated with their disability at the expense of their standard of living, then it is likely that this will be captured as it may impact on their ability to afford the things others take for granted. On the other hand if they spend money on these things at the expense of meeting their care and mobility needs (which are not subject to specific questions) then this will not be captured.

Table 4.2 Poverty and long-term limiting illness (aged 16-64)

	<i>Column percentages</i>			
	In work	Unemployed	Inactive	Total
All respondents				
In poverty (material deprivation based measure)	19	54	42	26
<i>Unweighted base</i>	539	78	366	983
Respondents with limiting disability				
In poverty (material deprivation based measure)	33	[78]	36	46
<i>Unweighted base</i>	64	26	172	262
Respondents without any limiting disability				
In poverty (material deprivation based measure)	18	45	50	22
<i>Unweighted base</i>	475	52	194	721

Source: PSE 1999 (own analysis).

Figures in [] are percentages based on fewer than 50 cases and so may be unreliable.

Of course an alternative way to control for different circumstances is to look at a break-down by income. This becomes difficult with relatively few disabled people on higher incomes but restricting our attention to the bottom third of incomes shows that 67 per cent of those with an LLTI were in poverty, compared with 45 per cent of the remainder.

Amongst working adults, those with an LLTI were more likely to report that they could not afford most goods – the only exception being a car (see Table 4.3). They were twice as likely to be unable to afford a holiday or to decorate their house as other adults. Almost one-third were unable to save for a rainy day. Moving on to look at the situation for adults who had a limiting illness and no work, almost one half were unable to save. Furthermore, they were almost three times as likely to be unable to afford a car or a holiday as working adults.

Almost one in four of those adults who were not in work and had an LLTI could not afford daily fresh fruit and vegetables. This dropped to one in three amongst working adults with an LLTI who could not afford such items.

It should be noted that older people are more likely than younger groups to say they don't want something rather than being unable to afford it (see Dominy and Kempson 2006). This has important implications for the proportions of different age groups found to be 'poor' in surveys – an income measure will show that many older people are poor, whereas one based on material deprivation (inability to **afford**) items paints a more optimistic picture of their poverty situation. However,

with the exception of a car, there was no pattern amongst the disabled or those with LLTI of saying 'don't want' rather than 'cannot afford'.

Table 4.3 Cannot afford particular items, and LLTI and work status among families with children

	<i>Column percentages</i>			
	Working		Not in work	
	Not disabled	LLTI	Not disabled	LLTI
To save for rainy day	17	31	36	49
Decorate	11	24	20	23
Fruit/vegetable daily	19	27	26	39
Evening out	12	21	22	31
Annual holiday	12	25	32	29
A car	7	7	21	19
Materially deprived [lacking two or more items from list of necessities]	18	33	38	53
<i>Unweighted base</i>	<i>475</i>	<i>64</i>	<i>246</i>	<i>198</i>

Source: PSE 1999 (own analysis).

A related set of results for carers (again split by work status) is shown in Table 4.4, this time based on FACS 2003. The switch of dataset, from the PSE to FACS, is necessitated by the relatively small sample of carers in the former. The PSE was only just about large enough to support the above analysis and would not have been an appropriate source for the analysis presented in Table 4.4.

As before, those not in paid work had much higher levels of deprivation than workers. Over two-thirds of the non-workers could not afford an annual holiday (of at least one week, not staying with family¹³) compared with around one in five of those in paid work. Moreover, one-quarter of the non-workers could not afford a car, compared with around one in 20 of those in work.

Having controlled for work status, there are still clear associations between higher levels of hardship and being a carer. For most of the questions carers appear somewhat worse off than non-carers. Among non-workers, they were less likely to be able to afford various clothing items or to have leisure time for themselves. More had a car, which might have been linked to best means of providing care. Among those in paid work the differences were relatively small, reflecting the better off status of workers generally. However, somewhat more continued to be unable to afford 'new clothes' and shoes for themselves or their children.

¹³ This question differs from that used in the PSE and hence, the results are rather different.

Table 4.4 Cannot afford particular items, and carer status, among families with children

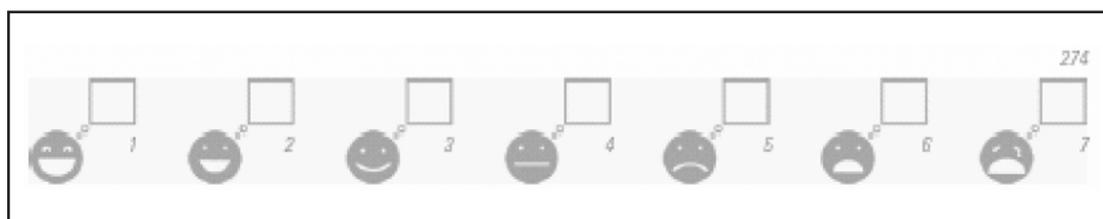
Column percentages

	Working		Not in work	
	Carer	Not a carer	Carer	Not a carer
A one week holiday	25	19	68	67
Fruit/vegetable daily	2	1	15	12
Adults: two pairs shoes	7	3	32	23
Children: two pairs shoes	5	2	21	13
New clothes when needed	8	5	35	29
Monthly night out	25	21	46	38
A car	5	4	24	28
Does save regularly	45	49	17	14
<i>Unweighted base</i>	865	5,117	345	930

Source: FACS 2003.

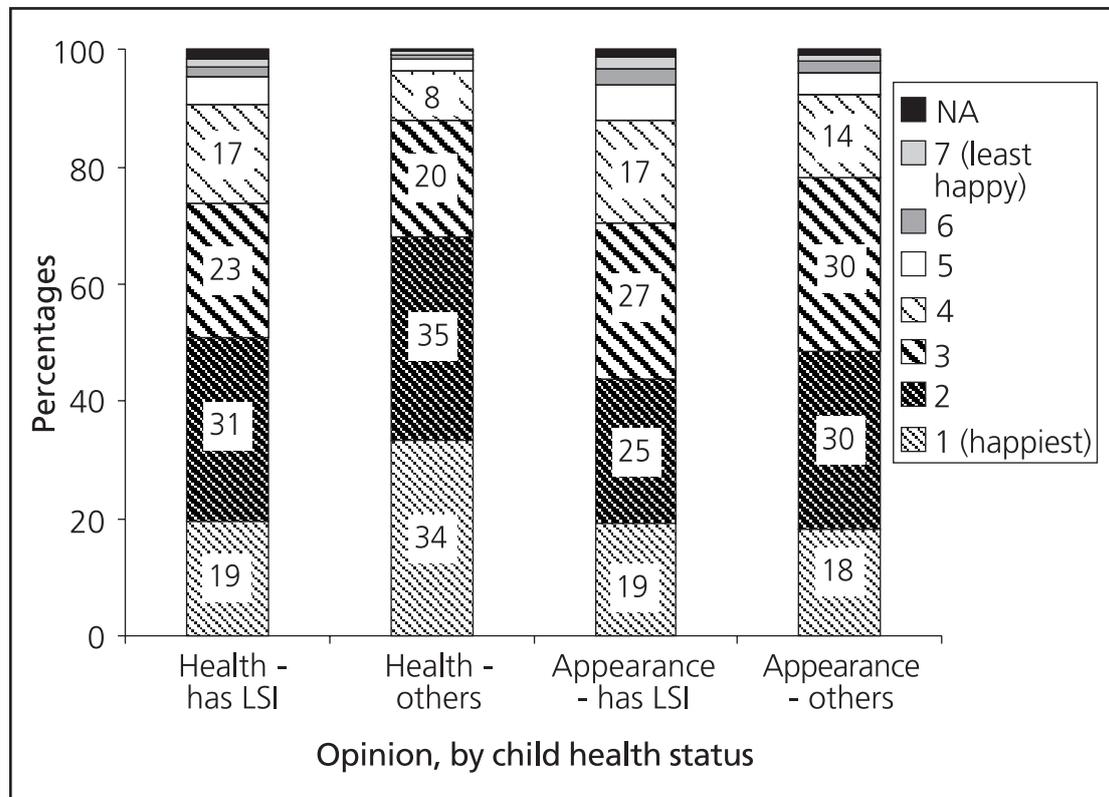
4.4 Some effects experienced by children

It is possible to use FACS to look at some outcomes specifically related to children. As part of the self-completed form filled in by 11-15 year olds in FACS the children were asked to rate a number of aspects of their lives (health, appearance, their family), using the following chart:

Figure 4.3 Aspects of life – ratings chart

The responses were coded in the analysis as between 1 (most happy) and 7 (least). In Figure 4.4 we show the responses given by children on 'appearance' and 'health'. This is broken down by their disability status, as determined by the main respondent, typically their mother and in particular whether they had any longstanding illness.

Figure 4.4 Children's opinions on health and appearance, by parent's description of their health status



Those identified as having a longstanding illness expressed lower levels of happiness with their general health. This may just be recognition that they had a longstanding illness of some kind and simply a validation of other information (the health status questions about children were answered by the responding parent). It is, however, a relatively large difference that raises concerns about issues of self-esteem among disabled children. Even so, around half still used one of the two most positive codes to express how they felt about their health (but compared with over two-thirds of those who did not have a longstanding illness).

Those with a longstanding illness also expressed generally lower levels of satisfaction with their appearance but the differences were rather smaller than for health. Some 71 per cent of those with a longstanding illness used one of the three most positive codes compared with 78 per cent of other children aged 11-15. Not shown here, there was little or no difference in the attitudes expressed towards their families by these two groups (those with and without a longstanding illness). They were about as likely as each other to express positive thoughts about their family.

5 Conclusions

5.1 Introduction

This report has looked at individuals included in the 2001 Census extract file and interviewed as part of the FACS. It has described and explored the important links between disability and caring responsibilities and families' living standards. In this short final section we bring together a number of key themes and discuss the most important conclusions.

The key characteristics of disabled people and carers are worth a reminder. In particular, disabled people are more likely to be living on their own and less likely than others to have dependent children. Among adults of working age (16-59 for women and 16-64 for men), 38 per cent of people are responsible for looking after children, compared with 27 per cent of those with a health problem. However, this is primarily an age-related point – with disability increasing with age. Taking any given age group there is little difference in the proportions of disabled and non-disabled people with children.

There appears to be some concentration of disabled children in families already facing different kinds of disadvantage. Childhood health problems are more commonly reported by lone parents, and cohabiting couples, and where the parents are themselves disabled. Whilst disabled children were more commonly found in households with disabled parents, by contrast, there was not so strong an association between the disability status of partners in couples.

5.2 Effects of disability and caring responsibilities

5.2.1 Employment

Having a disabled child (or children) reduced the extent of paid work for both lone parents, and mothers living within couples. In particular it reduced the proportion in full-time work, but had less of an effect on part-time working. Fathers tend to work full-time in almost all circumstances. Having a disabled child meant only a small reduction in the proportion in paid work.

Overall, having disabled children tended to reduce the proportion of two-earner couples and increased the number of couples who were workless. Indeed, couples with a disabled child were much more likely to be workless than those without and rather more likely to be single-earner couples. Similarly, the likelihood of work fell as caring responsibilities increased – but **only** for those caring for more than 20 hours a week. Caring responsibilities between 20 and 49 hours a week halved the odds of working in the labour market and caring for over 50 hours halved the odds yet again.

However, there was some evidence of an ‘added worker effect’, with the partners of disabled people more likely to work than would be expected on their basis of their educational and demographic.

Among carers, **working** carers tended to live with the person being cared for, and to have higher qualifications (particularly those providing care for the longest hours).

5.2.2 Family poverty

The incomes of lone parents were not much affected by any disability – probably because lone parents’ incomes occupy a fairly narrow range. But disability did significantly reduce the average incomes of couples with children, and in particular of reaching the higher levels of the income distribution. For couples, being a carer meant a bigger drop in income than having a disability – perhaps reflecting other circumstances in the household. However, perhaps because of disability-related benefits, disabled people out of the labour market were less materially deprived than other groups of non-workers¹⁴.

Carers also experienced hardship, experiencing a lower living standard than other non-workers (for carers not in paid work) and others in work (among working carers).

5.3 Discussion

There are complex links between disability and caring, on the one hand, and employment and well-being on the other.

The level of support for disabled people not in work appears to be successful in allowing them a level of material wellbeing greater than others not in paid work. The same is less true of carers. It will be interesting to see how looking at the duration of caring and disability – in the next phase of the project – alters those conclusions.

One means of maintaining a life out of poverty is through paid work, probably the surest route to doing so. Mothers with disabled children were less likely to be

¹⁴ It is worth a reminder that, overall, disabled people were twice as likely to report material hardship as those not disabled.

in paid work and when working were rather less likely to be working full-time. The kinds of childcare used were also rather different, with more of an emphasis family and informal solutions rather than childminders and nurseries. Where mothers have contact with advice and support, issues around childcare provision for disabled children would be among the highest priorities to address.

Fathers' rates of paid work were rather less affected by their children's health, as they tended to be in full-time work in overwhelming numbers anyway. The absence of couple mothers from the labour market did mean a higher rate of single earner households where children had health problems and/or needed additional care and support. For this group it is important to try to maintain contact with the labour market and that single earner families do not become workless.

The longitudinal phase of the project will focus attention on the rate and type of work transitions occurring among families with and without caring responsibilities and experiencing disability.

Appendix A

Questions and definitions

Introduction

In this section we reproduce the questions asked in the various surveys about health, child health and caring.

FACS wave 5

Respondent health

Hea1

I would now like to ask you about your health. Over the last 12 months would you say your health has been good, fairly good or not good?

- 1 good
- 1 fairly good
- 2 not good

Hea2

Do you have any longstanding illness, disability, or infirmity of any kind? By longstanding I mean anything that has troubled you over a period of time or that is likely to affect you over a period of time?

- 1 Yes
- 2 No

{If Hea2 = yes}

Hea3^

SHOWCARD B1

What kind of illness or disability do you have?

- 1 Problem with arms, legs, hands, feet, back or neck (including arthritis or rheumatism)
- 2 Difficulty in seeing
- 3 Difficulty in hearing
- 4 Skin conditions, allergies
- 5 Chest, breathing problem, asthma, bronchitis
- 6 Heart, blood pressure or blood circulation problems
- 7 Stomach, liver, kidney or digestive problems
- 8 Diabetes,
- 9 Depression, bad nerves
- 10 Mental illness or suffer from phobia, panics or other nervous disorders
- 11 Learning difficulties (or mental handicap)
- 12 Epilepsy,
- 13 Other health problems or disabilities

{If has depression or mental illness (Hea3=9 or 10)}

Hea3a

Has a doctor ever told you that you were suffering from depression or severe anxiety?

INTERVIEWER: Includes postnatal depression:

- 1 Yes
- 2 No

{If Hea2 = yes}

Hea4

[Does this health problem/Do any of these health problems] limit your daily activities in any way compared to people of your age?

- 1 Yes
- 2 No

TABLE for each illness coded at Hea3

{If Hea2 = yes}

Hea5

INTERVIEWER: QUESTION ABOUT [Illness listed at **Hea3**]

How old were you when this health problem started?

Range = 0..120

END OF TABLE

{If Hea2 = yes}

Hea6

Do you expect [this/these] health [problem/problems] or [disability/disabilities] to last more than a year?

INTERVIEWER: CODE 3 ONLY APPLIES WHEN RESPONDENT HAS MORE THAN ONE HEALTH PROBLEM

- 1 Yes
- 2 No
- 3 Some expected to last, some not expected to last

{If Hea2 = yes}

Hea9b

[Does this problem/Do these problems] affect the amount of work that you can do?

- 1 Yes
- 2 No

{If Hea2 = yes}

Hea9

[Does this problem/Do these problems] affect the kind of work you can do or where you can do it?

- 1 Yes
- 2 No

Children's health

TABLE for each child in the household

Chea0

[Since your baby was born/over the last 12 months] would you say [name of child]'s health has been good, fairly good or not good?

- 1 Good
- 2 Fairly good
- 3 Not good

Chea1

Does [name of child] have any longstanding illness or disability? By longstanding I mean anything that has troubled [name of child] over a period of time or that is likely to affect [childs name] over a period of time?

- 1 Yes
- 2 No

{If Chea1 = yes}

Chea2^

SHOW CARD C 1

What kind of illness or disability does [he/she] have?

INTERVIEWER: THERE ARE 14 CODES.

- 1 Problems with arms, legs, hands, feet, back or neck (including arthritis or rheumatism)
- 2 Difficulty in seeing
- 3 Difficulty in hearing
- 4 Skin conditions, allergies
- 5 Chest, breathing problem, asthma, bronchitis
- 6 Heart, blood pressure or blood circulation problems
- 7 Stomach, liver, kidney or digestive problems
- 8 Diabetes,
- 9 Depression, bad nerves
- 10 Mental illness or suffer from phobia, panics or other nervous disorders
- 11 Learning difficulties (or mental handicap)
- 12 Epilepsy,
- 13 Childhood congenital conditions
- 14 Other health problems or disabilities

Chea3

[Do/Does/Will this problem/any of these] problems affect [name of child] ability to attend school or college regularly?

- 1 Yes,
- 2 No,
- 3 Not at school
- 4 Above school age

{If any problem(s) at Chea2 except 'childhood congenital' problems}

Chea3a

How old was [name of child] when [this problem/these problems] started?

INTERVIEWER: WHERE MORE THAN ONE PROBLEM, ASK WHEN FIRST PROBLEM STARTED

Range = 0..18

Hard Check

If Chea3a greater than age recorded in the household grid.

CHILD'S AGE IS GREATER THAN THAT GIVEN IN HOUSEHOLD GRID SECTION

{If any problem(s) at Chea2 except 'childhood congenital' problems}

Chea4

[Do/Does/Will this problem/any of these] cause you to spend more time caring for [name of child] compared with a fully-fit child of similar age?

- 1 Yes
- 2 No

{If any problem(s) at Chea2 except 'childhood congenital' problems}

Chea5

Do you expect [this problem/any of these problems] to continue at least until [name of child] reaches 16?

- 1 Yes
- 2 No
- 3 Above school age

{If Chea5 = no}

Chea6

How long do you expect [this problem/these problems] to last?

INTERVIEWER: ENTER NUMBER OF YEARS FROM NOW

Range = 0..97

{If Chea4 = yes}

Chea7

Do you do all of the work of looking after [name of child] or does someone else help with it?

- 1 Respondent does all of the work
- 2 Someone else helps

{If Chea4 = yes}

Chea8

Does this extra work looking after [name of child] prevent you from doing a paid job, or as much paid work as you might if your child(ren) was/were fully fit?

- 1 Yes
- 2 No
- 3 Wouldn't work anyway

Census 2001

Over the last 12 months would you say your health has on the whole been:

Good?

Fairly good?

Not good?

Do you look after, or give any help or support to family members, friends, neighbours or others because of:

- long-term physical or mental ill health or disability, or
- problems related to old age?

(time spent in a typical week)

No

Yes, 1-19 hours a week

Yes, 20-49 hours a week

Yes, 50+ hours a week

Do you have any long-term illness, health problem or disability which limits your daily activities or the work you can do?

(include problems which are due to old age)

Yes

No

Family Resources Survey 2004-05

Respondent health

Health

NOW THERE ARE SOME QUESTIONS ABOUT HEALTH.

*Do you have any longstanding illness, disability or infirmity? By 'longstanding' I mean anything that has troubled you over a period of time or that is likely to affect you over a period of time?

INTERVIEWER: THIS IS A QUESTION OF OPINION.

If 'yes' to Health:

HProb

Does this physical or mental illness or disability (Do any of these physical or mental illnesses or disabilities) limit your activities in any way?

References

- Bejekal, M., Harries, T., Breman, R. and Woodfield, K. (2004) *Review of disability estimates and definitions* London: DWP In-house Report 128.
- Berthoud, R. (2003) *Multiple disadvantage in employment: A quantitative analysis*. York: York Publishing Services.
- Berthoud, R., Lake, J. and McKay, S. (1992) *The economic problems of disabled people* London: Policy Studies Institute.
- Bradshaw, J. and Millar, J. (1991) *Lone parent families in the UK* London: HMSO (DSS Research Report No. 6).
- Burchardt, T. (2003) *Being and becoming: Social exclusion and the onset of disability* [CASEreport 21], November 2003.
- Casebourne, J. and Britton, L. (2004) *Lone parents, health and work* Leeds: CDS (DWP Research Report No. 214).
- Corman, H., Reichman, N. and Noonan, K. (2003) *Mothers' and Fathers' Labor Supply in Fragile Families: The Role of Child Health* NBER Working Paper 9918.
- Dominy, N. and Kempson, E. (2006) *Understanding older people's experiences of poverty and material deprivation* Leeds: CDS (DWP Research Report No. 363).
- Dorsett, R. and Kasparova, D. (2004) *Families and Children Strategic Analysis Programme (FACSAP): Low-moderate income couples and the labour market* Leeds: CDS (DWP Working Paper No. 15).
- Evandrou, M. and Glaser, K. (2003) 'Combining work and family life: the pension penalty of caring' *Ageing and Society* vol 23 pp 583-601.
- Evans, M., Harkness, S. and Ortiz, R. (2004) *Lone parents cycling between work and benefits* Leeds: CDS (DWP Research Report No. 217).
- Fertig, A. (2004) *Healthy Baby, Healthy Marriage? The Effect of Children's Health on Divorce* Princeton University working paper.
- Gordon, D. et al. (2000) *Poverty and social exclusion in Great Britain* York: JRF.

Jenkins, S. and Rigg, J. (2003) *Disability and disadvantage: selection, onset and duration effects*. Institute for Social and Economic Research working paper no. 2003-18. Colchester: University of Essex.

Kempson, E., McKay, S. and Willits, M. (2004) *Characteristics of households in debt and the nature of indebtedness* Leeds: CDS (DWP Research Report No. 211).

McKay, S. and Collard, S. (2004) *Developing Deprivation Questions for the Family Resources Survey* London: (DWP Working Paper No. 13).

McKay, S. (2004) *Lone parents in London: quantitative analysis of differences in paid work* London: (DWP In-house report No. 136).

Marsh, A. and Finlayson, L. (1998) *Lone parents on the Margins of Work* Leeds: CDS (DWP Research Report No. 80).

Tibble, M. (2004) *User's guide to disability estimates and definitions* London: DWP (DWP in-house report 128).