

Research report

# Review of the child material deprivation items in the Family Resources Survey

by Stephen McKay

Department for Work and Pensions

Research Report No 746

# **Review of the child material deprivation items in the family resources survey**

Stephen McKay

A report of research carried out by Birmingham University on behalf of the Department for Work and Pensions

© Crown copyright 2011.

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence.

To view this licence, visit <http://www.nationalarchives.gov.uk/doc/open-government-licence/> or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: [psi@nationalarchives.gsi.gov.uk](mailto:psi@nationalarchives.gsi.gov.uk).

This document/publication is also available on our website at:  
<http://research.dwp.gov.uk/asd/asd5/rrs-index.asp>

Any enquiries regarding this document/publication should be sent to us at:  
Department for Work and Pensions, Commercial Support and Knowledge Management Team,  
Upper Ground Floor, Steel City House, West Street, Sheffield S1 2GQ

First published 2011.

ISBN        978 1 84712 980 2

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

# Contents

Acknowledgements.....	v
The Author.....	vi
1 Introduction .....	1
1.1 Introduction.....	1
1.2 Background .....	1
1.3 Research questions .....	2
1.4 Research methods.....	2
2 Qualitative research.....	4
2.1 Introduction.....	4
2.2 Background .....	4
2.3 Research findings.....	4
3 Analysis of omnibus data .....	6
3.1 Introduction.....	6
3.2 Data collection .....	6
3.3 Items regarded as necessities.....	6
3.3.1 <i>Children</i> .....	7
3.3.2 <i>Showcard order effects</i> .....	10
3.4 Items lacking.....	12
3.4.1 <i>Factor analysis</i> .....	15
3.4.2 <i>Reliability analysis</i> .....	19
4 Discussion and recommendations .....	21
4.1 Introduction.....	21
4.2 Evidence on changing the existing questions .....	21
4.3 Evidence on proposed new questions.....	23
4.4 Recommendations .....	24
Appendix A Additional tables.....	26
Appendix B Existing FRS questions .....	29
Appendix C ONS Omnibus Survey questions .....	31
References .....	39

## List of tables

Table 3.1	Items regarded as essential – starred items are existing FRS questions .....	7
Table 3.2	Items regarded as essential – by location within each showcard.....	11
Table 3.3	Items not owned by families with children .....	12
Table 3.4	Correlations with gross income, of not having the items .....	14
Table 3.5	Factor loadings following (unrotated) factor analysis, for factors 1-3 .....	17
Table 3.6	Factor loadings following (unrotated) factor analysis, for factors 1-3 .....	18
Table 3.7	Reliability analysis (items in italics did not contribute to the reliability of the overall scale) .....	19
Table 4.1	Summary of evidence on existing FRS questions .....	22
Table 4.2	Summary of evidence on proposed new material deprivation questions .....	23
Table A.1	Items regarded as essential by age group.....	26
Table A.2	Items regarded as essential, by gender and disability .....	27

## List of figures

Figure 1.1	Overview of the research methodology .....	3
Figure 3.1	Scree plot for factor analysis of most adult-related items [KMO = 0.80].....	16
Figure 3.2	Scree plot for factor analysis of most child-related items [KMO = 0.64].....	18

# Acknowledgements

This work partly presents analysis of new data from the Office for National Statistics (ONS) Omnibus Survey, but also draws on the work of researchers at the Centre for Research in Social Policy, and within the Child Poverty Unit. It also draws on discussions held within these teams. I acknowledge the help and insight in particular of Michael Kelly, Stephen Munn and Laura Adelman at the Child Poverty Unit, Donald Hirsch and Noel Smith at Loughborough. At ONS, Helen Harris and Matthew Steel provided support and excellent documentation to facilitate accessing and analysing the new omnibus data. However, any errors or misunderstandings are the author's responsibility.

# The Author

Stephen McKay is the chair in social research at the University of Birmingham.

# 1 Introduction

## 1.1 Introduction

Material deprivation indicators have often been recommended as a rigorous scientific approach to the measurement of poverty (Pantazis *et al.*, 2006). The concept of deprivation indicators has been influential in the development of measures to track progress towards reducing child poverty, with targets based, in part, on a measure of material deprivation alongside low income. In 2004/05 the Family Resources Survey (FRS) was amended to include questions relating to material deprivation (McKay and Collard, 2004), and these have formed part of the annual reports monitoring progress to reduce and, in time, eradicate child poverty.

The inclusion of new material deprivation questions from 2004/05 was based on quantitative research to determine the most reliable and valid indicators of deprivation among families with children. It was envisaged that this set of questions would need to be updated over time, to reflect changes in what people believe to be the necessities of life. This report provides evidence on which items (material goods, activities, access to services) are now regarded as essential in the UK. It draws on this evidence to propose changes to the overall set of indicators used to measure child poverty.

## 1.2 Background

Consultations in 2002 provided support for using a measure of material deprivation to calculate poverty. Academic research (McKay and Collard, 2004) identified a set of 21 questions that have been included on the FRS since 2004/05. This analysis and question selection was based on the most up to date data available at the time, including:

- the *Poverty and Social Exclusion* (PSE) Survey 1999, including an ONS Omnibus Survey (1999) with questions on perceptions of necessities;
- the *Families and Children Study* (FACS), 1999-2002;
- the *British Household Panel Survey* (BHPS), especially 2001 data (wave 10);
- literature from other countries, especially Ireland, where similar analysis had been conducted.

However, it is possible that attitudes towards the existing FRS questions may have changed, or that new questions may now better represent children's material deprivation. It is clear that such perceptions of essential items have changed over time, partly in response to changes in technology. Few would now believe that a VHS machine was a necessity; access to the internet would have only rarely been contemplated as a necessity in the 1990s. Attitudes towards leisure activities and food intake may also change over time. It is the purpose of this research to track such trends, and consider what are regarded as essential in 2009 and onwards.

Analysis of the most recent waves of FRS data, conducted by analysts within the Child Poverty Unit, continues to inspire confidence in the initial selection of deprivation questions. They maintain a robust correlation with income and with each other. As such they continue to serve as a good means of measuring deprivation separately from levels of household income.

The **Child Poverty Unit** commissioned the analysis in this report to update, if and where necessary, the current FRS questions used to measure children's material deprivation. Recommendations for such changes would reflect movements in what are perceived to be necessities since the current questions were introduced, and any changes in the ability of such questions (taken as a whole) to track material deprivation among families with children.



This programme of work also fulfils the commitment to periodically review the items selected, established as part of the 2003 conclusions of the *Measuring Child Poverty* consultation.

### 1.3 Research questions

It is worth noting that in previous research respondents have generally been asked to identify those items that they regard as **necessities for all family types**, rather than for families with children or parents in particular. Of course those questions specifically about children presume their presence, but the questions about adults and households have not related specifically to parents. Part of the research will be to compare the answers given in relation to parents, with previous survey responses relating to adults of all kinds. There is recent evidence that changing the frame of reference to older people generated higher proportions identifying different items as necessary, and found '*greater unanimity about what might be regarded [as] a necessity for the older group*' (McKay, 2008: p25). Even so, a holiday was not regarded as essential for those aged 65+, in 2008, but was seen as a necessity for all people in 1999. It is plausible that asking about families with children will have similar effects, sometimes increasing but perhaps sometimes reducing the likelihood that items are regarded as essential.

We already know that that some items were more likely to be regarded as essential by families with children, but other items were less often regarded as necessities (McKay and Collard, 2004: p36). For instance the concept of 'Money to spend on self weekly' was not regarded as a necessity by parents (42 per cent said it was essential), but was a necessity among the general population (59 per cent regarding this as essential). The same was also true of 'an outfit for social occasions', which parents **did not** rate as necessary and going against the views of a narrow majority of the general population.

There are two key overall research questions that this research project is designed to answer. First what kinds of items (goods or activities) are regarded as necessities for families with children. Second, linked to this, for which items does an enforced absence (through lack of money) constitute deprivation?

The existing deprivation questions appear to be working well, but it was always envisaged that such a set of questions must be subject to periodic testing to ensure they continue to capture deprivation in an optimal way. There is, of course, a strong argument for continuity, however, the research may need to update the set of questions in line with any changes in perceptions of what is a necessity for families with children. It is worthless having a consistent time-series measure if what is being measured is no longer relevant, or has a new and different meaning.

The second key research aim is to ensure that any set of questions continues to be a good discriminator between deprived, and non-deprived, families with children. This analysis will draw on analysis of links between lacking an item and measures of living standards, such as incomes. We already have good data on the existing questions through FRS, of course, but omnibus data will provide some information on any **new** questions proposed for future inclusion in the deprivation measure.

### 1.4 Research methods

The overall research programme proceeded using three inter-connected elements. First, qualitative research (focus groups) with parents was used to examine contemporary views of necessities for families with children. This element was conducted by the Centre for Research in Social Policy (CRSP) at Loughborough University. Second, new questions were devised for an omnibus survey to test whether suggestions for items generated by stage one, and the existing child material deprivation

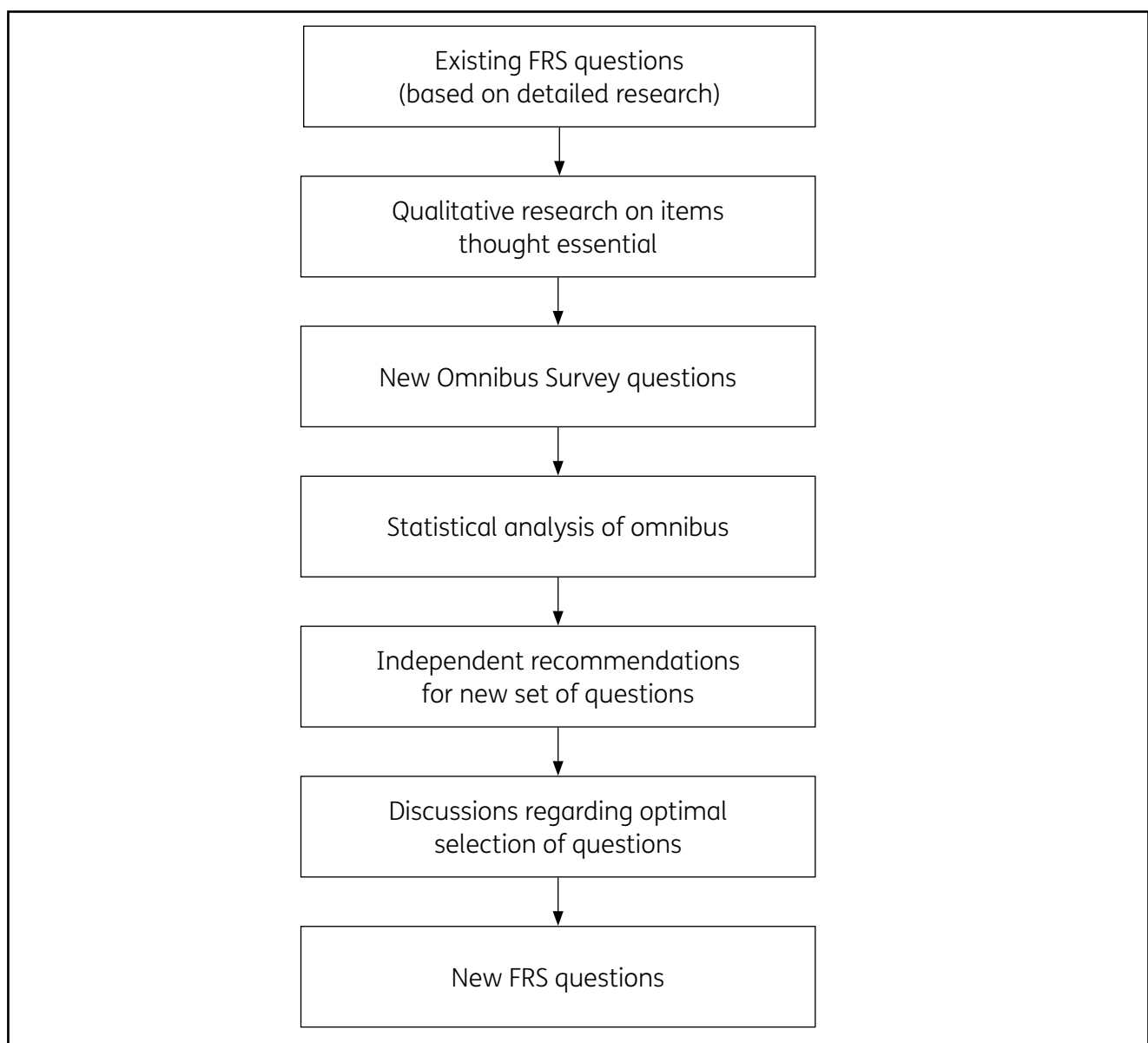
items, were viewed as necessities by the general population. The fieldwork was conducted by ONS (ONS 2009), with input from DWP, CRSP and the University of Birmingham to help develop those questions.

In the Omnibus survey, respondents were asked what items they regard as essential among families with children. And among families with children, respondents were also asked if they had each item, and if they did not, whether this was because they do not want it or could not afford it.

The final stage of the research, having analysed the results of the omnibus data, was to make recommendations for a final suite of questions to include on the FRS from 2010/11 onwards.

An overview of the research methodology is presented in diagrammatic form in Figure 1.1. It is worth a reminder that the original questions were only selected after extensive research, which itself built on many years of experience with indicators of this kind. The new set of questions should also be reviewed after an appropriate period, of around five years.

**Figure 1.1 Overview of the research methodology**



## 2 Qualitative research

### 2.1 Introduction

In this section we summarise the qualitative stage of this project. Qualitative research was designed and conducted by CRSP, at the University of Loughborough, in discussion with the Child Poverty Unit. Full results are presented in Hirsch and Smith (2010).

### 2.2 Background

It is common for qualitative preparatory work to precede quantitative data collection. This kind of research may have different purposes. It might be used to clarify what kinds of words and terms people are most familiar with. Or it might be used to construct a set of items to be tested, based on the public's understanding of how people live their lives.

Research by Middleton (1998) showed how a qualitative study might be used to select goods and services that people regard as necessary. In her research, focus group participants identified lists of items that every adult in the UK should be able to afford. They went on to discuss if some of these were more important than others. In a second phase of qualitative research respondents considered how long people might be able to do without these items before falling into poverty. The PSE study, of which this was a part, went on to test a very large number of questions in omnibus research, before selecting those regarded as necessary for the main interview.

A distinctive feature of this research project, unlike the PSE research, was that it was possible to include only parents in the research to look at what should be essential for parents (Hirsch and Smith, 2010). Past research has generally tended to consider the whole population, and not look at specific subgroups, although sometimes partitioning groups into similar people for some of the constituent focus groups (Middleton 1998).

### 2.3 Research findings

It was not necessary to start from a blank sheet. For this study there were the existing questions from the Family Resources Survey (FRS) which were clearly important to include. Indeed they owe their origins partly to qualitative research conducted in the late 1990s. This set of questions is enumerated in Appendix B to this report. The new qualitative research offered an opportunity both to affirm the existing set of questions, and also to look at new areas and suggestions that could be included if they were thought to be important by families.

The core of the qualitative work was a set of eight focus groups with parents conducted across three cities in England – including 45 parents in all. Five of these groups included parents who had a school-aged child, and perhaps other children as well. In three of the groups all parents had at least one child who was younger than school age. Both mothers and fathers were included in the groups, and the socio-economic and demographic characteristics were varied.

In line with work on Minimum Income Standards, there was an emphasis on recognising consensus within the groups, or at least coming to an overall common view. Participants were also reminded that the task was one of defining what is a necessity for everyone (or, at least, every family with children) in the UK. This was achieved through looking at particular hypothetical case studies, and not focussing in on individual experience.

The discussions were guided by looking at four areas:

- 1 Aspects of the home environment – involving a kind of ‘walk through’ of the home.
- 2 Social participation.
- 3 Items purchased on a regular basis.
- 4 Maintaining standards over time (e.g. around bills, and avoiding debt).

The researchers identified a number of key messages from this stage. Parents put great emphasis on intra-family relationships, and on features that contribute towards children’s longer-term development. These may sometimes be expressed in terms of particular items (e.g. various forms of social interaction, developmental toys), based on these insights. Parents also had to grapple with ever-changing technologies (mobile phones, internet) that are becoming harder to live without, even if their direct contribution to welfare is less clear.

On the basis of new suggestions regarding items to test, the existing set of just over 20 FRS questions was increased to well over 40, plus some variations on the existing questions. For instance, to ask about a family holiday lasting for a shorter period than a week (the standard question), both for adults and for children. And to ask about regular savings of at least £50 per month, rather than the more meagre £10 per month that has been the value used for many years now.

The set of questions tested in the September 2009 ONS Omnibus Survey is shown in Appendix C.

# 3 Analysis of omnibus data

## 3.1 Introduction

Following on from the qualitative research the September 2009 ONS Omnibus asked first about whether people regarded a set of 47 items as being essential for families with children. It then asked families with children if they had the items, and the reasons why not when not owned.

## 3.2 Data collection

Questions on necessities were asked in the September 2009 ONS Omnibus Survey (ONS, 2009). The set of 47 questions about necessities was asked in one of four different approaches, each showing the lists of items in different orders on the relevant showcards. This was partly to replicate the fuller randomisation found in some previous studies, such as Gordon *et al.* (2000), and partly to enable investigation of whether those orderings affected the propensity of people to describe an item as necessary.

The ONS study comprised a random sample of 957 people interviewed in 67 postal sectors. The response rate in this particular month was 53 per cent. The data was weighted to ensure it matched the expected numbers of people in each age group, by gender and region, after having allowed for the sample design which selected one person per household (ONS, 2009).

All the results reported below are appropriately weighted, with the unweighted sample sizes also shown to provide an indication of the reliability of results.

## 3.3 Items regarded as necessities

In Table 3.1 we show the proportions of respondents, and of parents, who regarded each of the items as being essential. We also show the results for similar items asked in the 1999 Poverty and Social Exclusion Survey (PSE) (Gordon *et al.*, 2000), though some of the equivalents are closer than others owing to some differences in the wording used.

Previous work on material deprivation has classed an item as essential if at least half of the population thought this was the case. It is fairly clear that, in general, fewer people than 10 years ago say that many of the particular items suggested are necessary. For example, a warm winter coat was regarded as essential by 85 per cent in 1999, but only by 66 per cent in 2009 – albeit a clear majority in both years. Among other changes:

- those rating a hobby (for the adults) as essential plummeted from 78 per cent in 1999 to only 36 per cent in the 2009 data;
- having friends or family around for a drink or meal at least once a month was regarded as necessary by close to two-thirds in 1999, but only one-third in 2009;
- taking children to swimming classes also saw a sizeable decrease, from 75 per cent down to 42 per cent;
- many more selected a mobile phone as a necessity, but this surely represents technological change rather than a specific increase in generosity.

All of the FRS questions were rated as necessary by a majority of people in 1999. By 2009 the following were no longer regarded as essentials in the 2009 ONS Omnibus Survey:

- C: Leisure equipment such as sports equipment or a bicycle (49 per cent overall – but 51 per cent of parents);
- C: Having friends round for tea or a snack at least once a fortnight (46 per cent);
- C: A family holiday away from home for at least one week each year (45 per cent). However, a shorter holiday, perhaps a long weekend, was still thought to be essential by 72 per cent of the population;
- C: Going swimming at least once a month (42 per cent);
- P: Two pairs of all weather shoes for each parent (41 per cent);
- P: A holiday away from home for at least one week a year (40 per cent). However, a shorter holiday, perhaps a long weekend, was still thought to be essential by 69 per cent of the population;
- P: A hobby or leisure activity (36 per cent);
- P: Having friends or family around for a drink or meal at least once a month (34 per cent).

### 3.3.1 Children

In the 1999 PSE, only three out of 30 possible child-related items were **not** rated as necessary, namely computer games (18 per cent), computer suitable for school work (41 per cent) and at least 50p a week for sweets (49 per cent). By comparing the 1999 results with comparable figures for 1983 ('Poor Britain') and 1990 ('Breadline Britain') they identified a trend of increasing support for children's necessities (p. 324). This trend does not appear to have continued to the present time.

**Table 3.1 Items regarded as essential – starred items are existing FRS questions**

Area	Item	Regarded as necessary		
		All	Parents	In PSE
Family	A space in which the family can eat together at a table	73	70	
	At least one basic mobile telephone	33	30	7
	Being able to go on regular family outings – unspecified	48	48	
	Being able to go on regular family outings – 2 weekly	24	31	
	Being able to go on regular family outings – monthly	43	45	
	A car	36	39	38
	* Being able to keep their accommodation warm enough	94	95	94

Continued

Table 3.1 Continued

Area	Item	Regarded as necessary		
		All	Parents	In PSE
Parents	A warm winter coat	66	64	85
	* Replace or repair major electrical goods, when broken	80	83	85
	Childcare to go out socially [unspecified]	31	28	
	Childcare to go out socially 2 weekly	15	12	37
	Childcare to go out socially monthly		28	24
	* Small amount of money to spend on themselves,	50	42	59
	* A holiday away from home for at least one week a year	40	42	
	A holiday away from home for a [long weekend]	69	67	
	A presentable home	57	51	
	* Friends around for a drink or meal at least once a month	34	31	64
	* Keep their home in a decent state of decoration	75	72	82
	* Being able to replace any worn out furniture	55	54	54
	Regular savings of £50 a month or more	48	52	
	* Regular savings of £10 a month or more	82	83	
	Keeping up with bills and any regular debt repayments	93	95	
	Being able to pay an unexpected expense of £250	56	61	
	* Two pairs of all weather shoes for each parent	41	36	64
	* Household contents insurance	59	56	79
	* A hobby or leisure activity	36	34	78
	Meat, fish or equivalent every other day	64	58	

Continued

Table 3.1 Continued

Area	Item	Regarded as necessary		
		All	Parents	In PSE
Children	* Space or facilities nearby where they can play safely	85	84	
	[Private] outdoor space or facilities	18	16	
	Enough toys, games for development	75	77	83
	Able to attend one regular organised activity a week	59	61	
	* Family holiday for at least one week each year	45	46	71
	Eating fresh fruit and/or vegetables every day	86	86	93
	Properly fitted shoes which were bought new	74	76	94
	A warm winter coat for each child	86	88	95
	* Bedrooms for every child of 10+ of a different sex	72	70	78
	* Sports equipment or a bicycle	49	51	60
	* Celebrations on special occasions such as birthdays	77	77	92
	* Going swimming at least once a month	42	42	75
	* A hobby or leisure activity	65	61	90
	Meat, fish or equivalent at least every other day	80	78	
	* Friends round for tea or a snack at least once a fortnight	46	40	59
	* For school-aged children, going on school trips	63	65	74
	* Going to nursery at least once a week	74	76	88
	All the school uniform required by their school	77	82	88
	Computer connected to the internet at home	44	50	41

Source: ONS Omnibus Survey 2009. PSE questions use the nearest equivalent question, though often the wording is different. Unweighted bases were 957 for 'all' and 218 for 'parents' with a dependent child of 16 or younger.



### 3.3.2 Showcard order effects

[This section is somewhat more technical and methodological than the remainder of this report, and may be safely skipped by those concerned with the substantive results and recommendations. It concerns the effects of having the set of items located at different points on the showcards.]

One feature of the data collection was that sets of items were grouped together in a number of showcards, but with some randomisation of the order. Any particular item could appear in up to four different locations within that showcard – sometimes at the top, or somewhat in the middle, or at the end. The showcards typically had either five or six listed items. There were four different pre-set random orderings of the showcards, so not all permutations were possible. We might expect that items appearing at the top of the showcard, or perhaps at the lower end, might elicit a different response from those appearing in the middle (see Krosnick and Alwin, 1987).

In Table 3.2 we show the proportion who rated particular items as necessary, according to their positioning on the showcard. So, for example, when asked about ‘A space in which the family can eat together at a table’, overall, 73 per cent thought that this was a necessity (refer back to Table 3.1). However, among those respondents who were presented with this item as the first on the showcard list, some 80 per cent said it was essential, compared to just 66 per cent who thought this when it appeared in third place (there were five separate items listed). Some 73 per cent agreed it was essential when it appeared second on the list. We may be confident that these differences in responses, according to showcard order are statistically significant with a 99 per cent level of confidence. Overall, for 12 of the 39 items that were asked about in this way, there appeared to be different proportions who rated them as necessities according to their location on the showcards. Mostly the proportions were lower, the lower down the showcard, but with some evidence of a positive effect from appearing right at the foot of the card.

Many of the statistically significant differences appear to have occurred on the first two sets of showcards. It is possible that respondents took a while to get used to the task they were being asked to do, and perhaps assigned lesser importance to the item ordering as the interview proceeded. Even so, among the child items appearing rather later in the interview some occasional differences according to showcard order were also found – this affected those reflecting on whether ‘fresh fruit and vegetables each day’ and having all the school uniform required should be counted as essential or not.

There may be explanations for these apparent differences which do not relate to the showcard order. It may be reflecting differences in the groups and interviewers who happened to be encountering alternative ordering. At this stage, it is perhaps safest to conclude that showcard order **might** be having an effect on some questions, but it remains unclear why some questions appear to be affected whilst others were not.

**Table 3.2 Items regarded as essential – by location within each showcard**

Item	Percentage agreeing was necessary						Sig
	1st	2nd	3rd	4th	5th	6th	
Space the family can eat together at a table	80	73	66				**
At least one basic mobile telephone	40	28		34	29		*
Being able to go on regular family outings	48		49		43		ns
A car	47			32			***
Able to keep their accommodation warm enough		91	98		94		**
A warm winter coat	65		65		67		ns
Able to replace electrical goods	75	85	86	77			**
Being able to arrange childcare to go out socially	30	30	31		35		ns
Small amount of personal spending money	46	51	51	49			ns
A holiday for at least one week a year		42		40	40		ns
A presentable home	63	57			51		*
Family around for a drink or meal	40	31		34			*
Home in a decent state of decoration			70	75	81		**
Able to replace any worn out furniture	52			54	62		ns
Regular savings of £50 a month or more	53		46		45		ns
Keeping up with bills	96	94	93			90	ns
An unexpected expense of £250	55	50	57			61	ns
Two pairs of all weather shoes for each parent	43		44	41	37		ns
Household contents insurance	63		61	61	53		ns
A hobby or leisure activity		37		39	29	38	ns
Eating meat, fish every two days		63		63	67	63	ns
Outdoor space or facilities for play	88	86	82			84	ns
Toys, games for child's development	78	75	75			72	ns
At least one regular organised activity			64	61	57		ns
A family holiday for at least one week	44	48	40	46			ns
Eating fresh fruit and/or vegetables every day	90			79	87	89	***
Properly fitted shoes which were bought new		74		72	75	74	ns
A warm winter coat for each child	86	91		85		81	*
Bedrooms for every child of 10+ of each sex	77	70	72				ns
Sports equipment or a bicycle			51	48	47	50	ns
Celebrations on special occasions		76	77	80			ns
Going swimming at least once a month	41				44	40	ns
A hobby or leisure activity	66			61	67	67	ns
Meat, fish every two days	85	80	81		74		*
Friend round for tea or a snack	47	38	50			48	ns
For school-aged children, going on school trips			67	64	60	61	ns
Going to toddler group, or nursery	73	72	80	72			ns
All the school uniform required	84			73	70	81	***
Having a computer connected to the internet		45		42	46	43	ns

Significance is based on ANOVA test – which identifies differences between categories. \* – 5 per cent level, \*\* – 1 per cent level, \*\*\* -0.1 per cent level.

### 3.4 Items lacking

In Table 3.3 we show the proportions of items that families do **not** have. How many lack them, for any reason, and how many said they were unable to afford them. So, for instance, six per cent of families did not have a space for a table for the family to eat at, whilst three per cent said they lacked this because they were unable to afford it. For the others (lacking this space, but not saying it was an affordability issue) this must be reflecting some element of choice rather than financial constraint.

**Table 3.3 Items not owned by families with children**

		<i>Cell percentages</i>	
Area	Item	Missing – any reason	Unable to afford
Family	A space in which the family can eat together at a table	6	3
	At least one basic mobile telephone	*	-
	Being able to go on regular family outings – two weekly	39	19
	Being able to go on regular family outings – monthly	20	13
	A car	13	7
	Being able to keep their accommodation warm enough	7	7
Parents	A warm winter coat	5	4
	Replace or repair major electrical goods, when broken	17	12
	Childcare to go out socially two weekly	57	19
	Childcare to go out socially monthly	45	14
	Small amount of money to spend on themselves	30	28
	A holiday away from home for at least one week a year	33	27
	A holiday away from home for a [long weekend]	18	15
	A presentable home	7	6
	Friends around for a drink or meal at least once a month	30	11
	Keep their home in a decent state of decoration	15	14
	Being able to replace any worn out furniture	24	17
	Regular savings of £50 a month or more	48	42
	Regular savings of £10 a month or more	38	32
	Keeping up with bills and any regular debt repayments	8	8
	Being able to pay an unexpected expense of £250	27	26
	Two pairs of all weather shoes for each parent	7	5
	Household contents insurance	25	15
	A hobby or leisure activity	28	8
	Meat, fish or equivalent every other day	3	2
	Children	Space or facilities nearby where they can play safely	7
[Private] outdoor space or facilities		30	30
Enough toys, games for development		4	2
Able to attend one regular organised activity a week		31	6
Family holiday for at least one week each year		27	19
	A family holiday away from home for a [long weekend]	18	13

Continued

Table 3.3 Continued

		<i>Cell percentages</i>	
Area	Item	Missing – any reason	Unable to afford
Children	Eating fresh fruit and/or vegetables every day	8	2
	Properly fitted shoes which were bought new	4	*
	A warm winter coat for each child	4	2
	Bedrooms for every child of 10+ of a different sex	19	5
	Sports equipment or a bicycle	13	1
	Celebrations on special occasions such as birthdays,	2	*
	Going swimming at least once a month	44	8
	A hobby or leisure activity	25	3
	Meat, fish or equivalent at least every other day	6	2
	Friends round for tea or a snack at least once a fortnight	35	3
	For school-aged children, going on school trips	7	3
	Going to nursery at least once a week	36	4
	All the school uniform required by their school	3	1
	Computer connected to the internet at home	10	4

Source: ONS Omnibus Survey 2009.

In selecting items for the FRS, there is only limited utility from having an item that is very rarely lacked. Where items have ownership that is close to universal, they cannot tell us much about which families are more deprived than others, or how levels of deprivation are changing over time. Conversely, where a high proportion of people are unable to afford something, it is probably unlikely to be regarded as a necessity.

We would expect that the questions selected for measuring material deprivation would be correlated with income. A higher income is associated with lower deprivation, and the reverse. However, we might expect that links would often be weak, because material deprivation may often be measuring something distinct from level of income. The correlations of each question with gross income are shown in Table 3.4. Those with statistically significant correlations are in bold type. As may be seen, in many instances there is a strong negative correlation between income and being unable to afford particular items. This does not extend to all the items shown – some (such as having space to eat at a table) did not appear to be associated within income. They may instead be reflecting either different preferences, or a longer term measure of living standards rather than current income.

**Table 3.4 Correlations with gross income, of not having the items**

Area	Item	Lacking	Pearson correlation coefficients		
			Sig.	Can't afford	Sig.
Family	A space in which the family can eat together at a table	-0.08	0.24	-0.03	0.70
	At least one basic mobile telephone	-0.01	0.87	-	-
	Being able to go on regular family outings – two weekly	-0.05	0.41	-0.18	0.01
	Being able to go on regular family outings – monthly	-0.16	0.01	-0.23	0.00
	A car	-0.31	0.00	-0.26	0.00
	Being able to keep their accommodation warm enough	-0.14	0.03	-0.14	0.03
Parents	A warm winter coat	-0.14	0.04	-0.12	0.07
	replace or repair major electrical goods, when broken	-0.25	0.00	-0.24	0.00
	Childcare to go out socially 2 weekly	-0.02	0.82	-0.04	0.57
	Childcare to go out socially monthly	-0.08	0.19	-0.13	0.04
	Small amount of money to spend on themselves,	-0.30	0.00	-0.28	0.00
	A holiday away from home for at least one week a year	-0.16	0.01	-0.21	0.00
	A holiday away from home for a [long weekend]	-0.23	0.00	-0.23	0.00
	A presentable home	-0.09	0.16	-0.07	0.28
	Friends around for a drink or meal at least once a month	-0.17	0.01	-0.23	0.00
	Keep their home in a decent state of decoration	-0.11	0.08	-0.11	0.10
	Being able to replace any worn out furniture	-0.18	0.00	-0.19	0.00
	Regular savings of £50 a month or more	-0.17	0.01	-0.24	0.00
	Regular savings of £10 a month or more	-0.14	0.04	-0.22	0.00
	Keeping up with bills and any regular debt repayments	-0.10	0.12	-0.10	0.12
	Being able to pay an unexpected expense of £250	-0.37	0.00	-0.35	0.00
	Two pairs of all weather shoes for each parent	-0.14	0.03	-0.21	0.00
	Household contents insurance	-0.14	0.03	-0.25	0.00
	A hobby or leisure activity	-0.25	0.00	-0.20	0.00
	Meat, fish or equivalent every other day	-0.09	0.18	-0.13	0.05

Continued

Table 3.4 Continued

Area	Item	Lacking	Pearson correlation coefficients		
			Sig.	Can't afford	Sig.
Children	Space or facilities nearby where they can play safely	-0.11	0.09	-0.11	0.09
	[Private] outdoor space or facilities	-0.17	0.01	-0.17	0.01
	Enough toys, games for development	0.00	0.97	-0.10	0.12
	Able to attend one regular organised activity a week	-0.02	0.81	-0.17	0.01
	Family holiday for at least one week each year	-0.12	0.05	-0.18	0.01
	Family holiday away from home for a [long weekend]	-0.16	0.01	-0.21	0.00
	Eating fresh fruit and/or vegetables every day	0.00	0.96	-0.11	0.10
	Properly fitted shoes which were bought new	0.05	0.49	-0.04	0.59
	A warm winter coat for each child	0.01	0.83	-0.06	0.35
	Bedrooms for every child of 10+ of a different sex	-0.06	0.35	-0.14	0.03
	Sports equipment or a bicycle	0.05	0.46	-0.13	0.05
	Celebrations on special occasions such as birthdays,	-0.03	0.60	-0.06	0.34
	Going swimming at least once a month	-0.10	0.13	-0.19	0.00
	A hobby or leisure activity	-0.03	0.59	-0.11	0.09
	Meat, fish or equivalent at least every other day	-0.07	0.27	-0.10	0.11
	Friends round for tea or a snack at least once a fortnight	0.00	0.95	-0.15	0.02
	For school-aged children, going on school trips	-0.09	0.23	-0.17	0.03
	Going to nursery at least once a week	-0.07	0.47	-0.08	0.38
	All the school uniform required by their school	-0.03	0.70	-0.06	0.46
	Computer connected to the internet at home	-0.05	0.55	-0.14	0.05

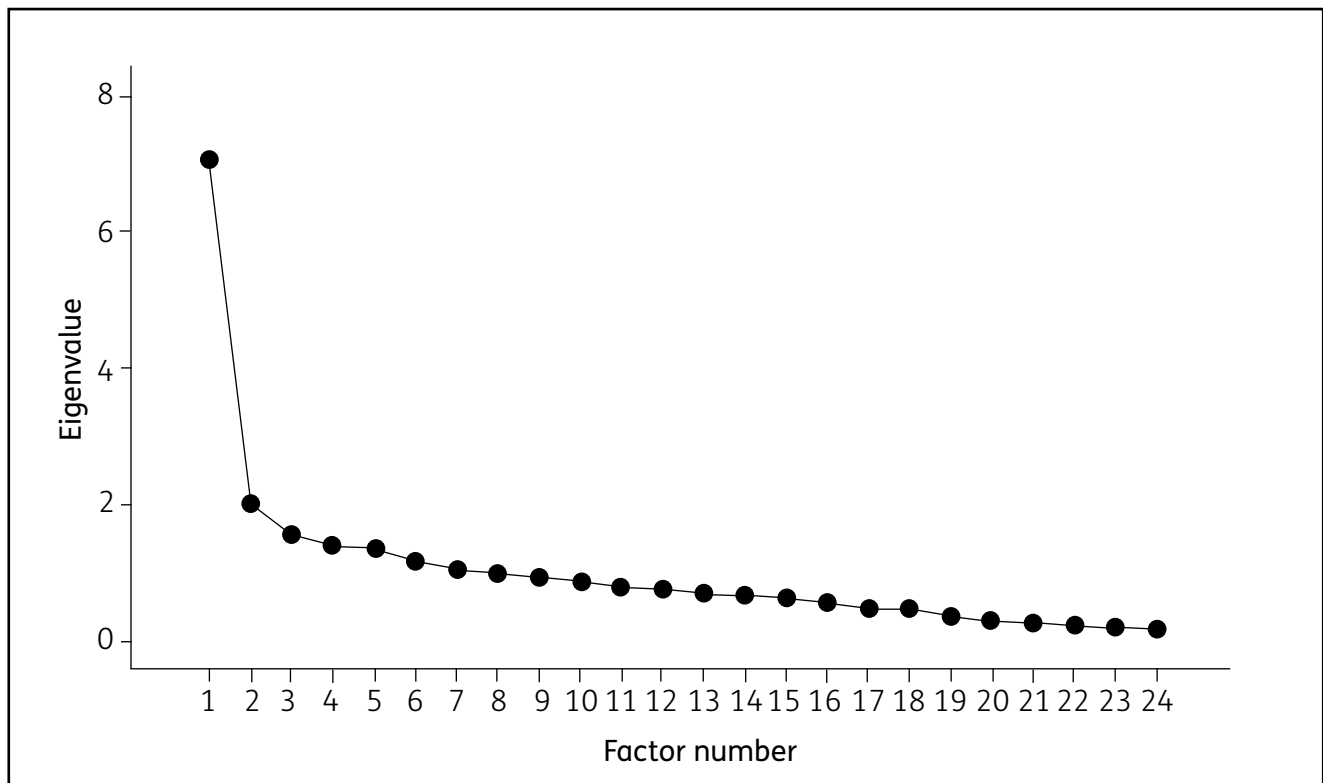
Source: ONS Omnibus Survey 2009.

### 3.4.1 Factor analysis

Factor analysis provides an important statistical method for looking at how far a set of questions is measuring the same underlying concept (see Calandrino (2003) for past analysis of deprivation questions). We, therefore, ran separate factor analysis covering the adult/family variables, and the child-related variables, and discuss each in turn.

One interpretative diagram is the so-called 'scree plot; this illustrates the different proportions of the overall explained variance that may be attributed to one or more underlying factors. In Figure 3.1 we show the plot for the family and adult-related questions. This shows that there is one strong underlying dimension that explains most of the systematic variation in responses – in other words, something like a factor representing material deprivation. This is a positive result for this analysis, indicating that the questions are probably capturing a single underlying dimension rather than several.

**Figure 3.1 Scree plot for factor analysis of most adult-related items**  
[KMO = 0.80]



Analysts looking at this plot would be inclined to investigate the kinds of meanings that might be possible for one or two (possibly three) underlying dimensions (Bartholomew *et al.*, 2008). Results for the factor loadings are shown in Table 3.5. These are the correlations between each question (those items people were unable to afford) and the latent variables constructed. There is no evidence here to suggest that there are strong secondary dimensions, constituting a distinctive variant on material deprivation. We may also note that those with lower values in the first column are less well correlated with the underlying concept of material deprivation, as derived through factor analysis.

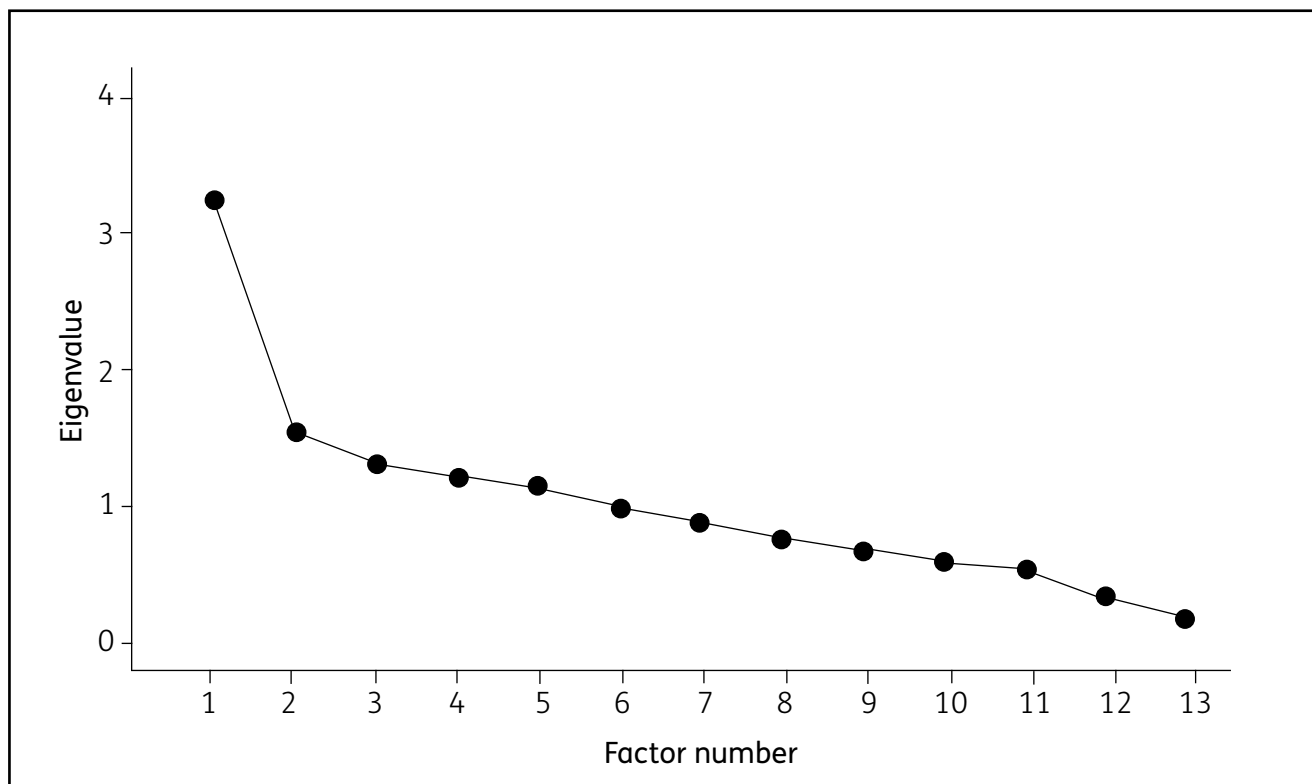
**Table 3.5 Factor loadings following (unrotated) factor analysis, for factors 1-3**

Question	1	2	3
An unexpected expense of £250?	0.751	-0.259	
Regular savings of £50 a month or more for rainy days or retirement?	0.690	-0.360	
A holiday away from home for at least one week a year?	0.682		
Regular savings of £10 a month or more for rainy days or retirement?	0.676	-0.352	
Holiday for a shorter period such as a long weekend?	0.674		
Replace or repair major electrical goods when broken?	0.651		
Family outings, at least once every two weeks?	0.642	0.323	-0.417
Regular family outings, at least once a month?	0.634	0.317	-0.448
Replace any worn out furniture?	0.564	-0.235	
Small amount of money to spend each week on yourself, not on your family?	0.552		
Friends or family around for a drink or meal at least once a month?	0.518		
Keep your home in a decent state of decoration?	0.484		0.280
Two pairs of all weather shoes?	0.452		
Household contents insurance?	0.451	-0.225	0.250
Keep up with bills and any regular debt repayments?	0.430	-0.207	
Hobby or leisure activity?	0.411		-0.288
A warm winter coat?	0.386		
Keep this accommodation warm enough?	0.371		
Presentable home you are comfortable bringing friends or family back to?	0.281		
Childcare to go out socially, at least once a month?	0.477	0.650	0.294
Childcare to go out socially, at least once a fortnight?	0.486	0.596	0.305
A car?	0.408	-0.257	
Meat, fish or a vegetarian equivalent at least every other day?	0.312		
Space in which the family can eat together at a table?			

Values <0.2 are not shown.

For the child-related questions there was also evidence of one clear underlying factor (material deprivation) as shown in Figure 3.2 – though less decisively so than for adults. Again, analysts would be inclined to follow up and to investigate the nature of two or possibly three underlying dimensions.



**Figure 3.2** Scree plot for factor analysis of most child-related items [KMO = 0.64]

Again, we may be fairly confident that the selected questions constitute a strong main measure of child deprivation. One exception was that lacking enough bedrooms of each child aged 10+ of different genders was not well correlated with the main deprivation scale. It may be measuring something rather different from the other questions – perhaps a longer-term dimension, or perhaps related to a larger family size.

**Table 3.6** Factor loadings following (unrotated) factor analysis, for factors 1-3

Question	1	2	3
A family holiday away from home every year for a shorter period?	0.795		
A family holiday away from home for at least one week a year?	0.783		
Do they have friends round for tea or a snack?	0.560	-0.389	0.534
Do they have a hobby or leisure activity?	0.414	0.269	
Do they go swimming at least once a month?	0.400		
Attend at least one regular organised activity a week outside school?	0.359	0.311	
Leisure equipment such as sports equipment or a bicycle?	0.348		
[Play] space or facility private to your family?	0.317	-0.296	-0.216
Outdoor space or facilities nearby where they can play safely?	0.519	-0.689	-0.211
Meat, fish or a vegetarian equivalent at least every other day?	0.217		0.535
A warm winter coat each?	0.215		
Eat fresh fruit and/or vegetables every day?	0.324		
Enough bedrooms for every child of 10 or over of a different sex?			

Values < 0.2 are not shown.

### 3.4.2 Reliability analysis

Next we consider the consistency of the variables, again looking at those unable to afford the different items. This is conducted using a statistical technique known as reliability analysis, which generates a key outcome known as Cronbach's alpha. The alpha value for the set of variables (41 questions) shown here was 0.908. This represents a very high level of reliability for adding up a set of questions to make an overall score (values above 0.7 are generally considered good for comparing groups; Bland and Altman, 1997, with values of 0.9 or higher indicating a level that may even be suitable for diagnostic use at an individual level).

There were only a few questions which did not really contribute to the overall reliability of the scale – and, even for these, the extra reliability gained from their removal would have been fairly small (see Table 3.7). Those small gains reflect that the overall level of reliability is already very high. It is also instructive to consider the correlation between the item, and the overall scale (the first numeric column). Lower values indicate lower levels of reliability, meaning that the particular question (being unable to afford the good/service) has a low correlation with the sum of being unable to afford the others listed.

**Table 3.7 Reliability analysis** (items in italics did not contribute to the reliability of the overall scale)

	Corrected item- total correlation	Cronbach's alpha if item deleted
<i>Space in which the family can eat together at a table?</i>	0.107	0.909
<i>At least one basic mobile telephone?</i>	0.000	0.909
Regular family outings, at least once every two weeks?	0.567	0.904
Do you go on regular family outings, monthly?	0.586	0.904
Does your family have a car?	0.348	0.907
Able to keep this accommodation warm enough?	0.360	0.907
Do you (and your partner) have a warm winter coat?	0.378	0.907
Replace or repair major electrical goods when broken?	0.612	0.904
Childcare to go out socially, at least once a fortnight?	0.422	0.907
Childcare to go out socially, at least once a month?	0.424	0.906
A small amount of money to spend on yourself?	0.521	0.905
Holiday away from home for at least one week a year?	0.686	0.902
Holiday for a shorter period, such as a long weekend?	0.684	0.902
A presentable home?	0.280	0.908
Friends or family around for a drink or meal monthly?	0.493	0.905
Keep your home in a decent state of decoration?	0.466	0.906
Replace any worn out furniture?	0.535	0.905
Make regular savings of £50 a month or more?	0.609	0.904
Make regular savings of £10 a month or more?	0.597	0.904
Keep up with bills and any regular debt repayments?	0.379	0.907
An unexpected expense of £250?	0.682	0.902
Two pairs of all weather shoes?	0.430	0.907
Household contents insurance?	0.442	0.906
Do you have a hobby or leisure activity?	0.402	0.907

Continued

Table 3.7 Continued

	Corrected item- total correlation	Cronbach's alpha if item deleted
Meat, fish or a vegetarian equivalent at least 2 days?	0.260	0.908
Outdoor space or facilities nearby where they can play?	0.340	0.907
<i>Space or facility private to your family?</i>	0.304	0.909
Toys, games and books to support their development?	0.237	0.908
At least one regular organised activity a week?	0.375	0.907
A family holiday away from home for one week?	0.695	0.902
A family holiday for a shorter period?	0.657	0.903
Fresh fruit and/or vegetables every day?	0.298	0.908
<i>Properly fitted shoes which were bought new?</i>	0.224	0.909
Do they have a warm winter coat each?	0.243	0.908
<i>Bedrooms for every child of 10+ of different sex?</i>	0.199	0.909
Leisure equipment such as a bicycle?	0.249	0.908
<i>Celebrations on special occasions?</i>	0.224	0.909
Do they go swimming at least once a month?	0.402	0.907
Do they have a hobby or leisure activity?	0.324	0.908
Do they have meat, fish at least every other day?	0.188	0.908
Friends round for tea or a snack at least once a fortnight?	0.373	0.907

# 4 Discussion and recommendations

## 4.1 Introduction

In this section we bring together the evidence already presented, and make suggestions for how the FRS material deprivation may be adapted for future use. Overall, we may identify three different **strategies** to changing the set of questions. These are: No change; Minor change; and Major change.

The **No change** option would emphasise the time-consistency of the measure, and propose no new questions and no questions to be removed. This default path would maximise consistency with the existing series. However, we must challenge the benefits of consistency if the meaning and usefulness of those questions has changed. There are now questions included in the FRS which less than 40 per cent of the population now regard as necessary for families with children, **and** which are not supported by qualitative research. It was always envisaged that changes would be needed at regular, if lengthy, intervals. There is sufficient evidence to propose changes at this stage.

An approach of **Minor change** would imply changing perhaps two to six questions. This would ensure a high degree of consistency with past data – indeed it would always be possible to calculate measures based on the large number of questions that were retained – but would also ensure that the questions reflected standard thinking on deprivation indicators which requires them to have widespread support.

The final approach is that of **Major change**. This would imply changing rather more questions, perhaps seven to eight<sup>1</sup> or still more, on the grounds that these are no longer regarded as necessities and, therefore, should be dropped. I think, however, that this would reduce confidence in the consistency of the time-series of data. There are also fewer than this number that really justify themselves as appropriate replacements (see Section 4.3) and, therefore, the measure might run the risk of having fewer items if this route was adopted.

Therefore, overall I think the ‘minor change’ option is backed by the strongest evidence and is what is proposed by this report.

## 4.2 Evidence on changing the existing questions

It makes sense to start from the existing questions used to measure material deprivation in the FRS. In Table 4.1 we show the existing set, the verdict from qualitative research, the proportion rating as necessary in the September 2009 ONS omnibus, and the proportion of families with children who were unable to afford the item concerned.

There are now eight of these questions that are no longer supported as essential by at least half the population. This has long been a key criterion of whether an item should be included in a measure of poverty that takes account of material deprivation.

---

<sup>1</sup> The eighth question ‘at risk’ of being dropped (children’s leisure equipment) was supported by 49 per cent of the population. This is not statistically discernible from a value of 50 per cent in the population as a whole.

One unknown factor is whether the large drop in proportions rating items as necessary is mainly a recession ‘blip’, or instead part of a longer-term trend against certain ‘social’ measures of deprivation that will persist during a recovery. There did seem to be rather smaller decreases in support for some of the material goods and those related to children’s development. Proportions very close to half – such as the 49 per cent agreeing that sports equipment was essential – are not statistically discernible from 50 per cent in any case. This set of eight questions represents those that should be subject to detailed scrutiny. However, some had a degree of support from the qualitative research, and some appear to correlate well both with incomes and the other questions.

Another consideration is how many people are unable to afford the items. Where coverage is almost universal, it is hard for a question to track change over time. This might apply, for instance, to ‘Celebrations on special occasions such as birthdays, Christmas or other religious festivals’, which fewer than one in every 200 families could not afford. Also, taking out an item with a high proportion unable to afford it puts greater pressure on the consistency of the overall time series (a week’s holiday each year being the key example of this).

**Table 4.1 Summary of evidence on existing FRS questions**

Area	Item	Qualitative view	Necessary	Unable to afford
Family	In winter, being able to keep their accommodation warm enough	+	94	6.9
Parents	Being able to make regular savings of £10 a month or more for rainy days or retirement	=	82	31.8
	Being able to replace or repair major electrical goods, when broken	+/=	80	12.2
	Having enough money to keep their home in a decent state of decoration	-/=	75	14.4
	Household contents insurance	+	59	14.7
	Being able to replace any worn out furniture	-	55	16.9
	Having a small amount of money to spend each week on themselves, not on their family	+	50	27.5
	Two pairs of all weather shoes for each parent		41	4.9
	A holiday away from home for at least one week a year	=	40	26.7
	A hobby or leisure activity	-	36	8.4
	Having friends or family around for a drink or meal at least once a month	-	34	11.0
Children	Having an outdoor space or facilities nearby where they can play safely		85	7.4
	Celebrations on special occasions such as birthdays, Christmas or other religious festivals	+	77	0.4

Continued

**Table 4.1 Continued**

Area	Item	Qualitative view	Necessary	Unable to afford
Children	For children below school age, going to toddler group, or nursery, or playgroup at least once a week	+	74	3.8
	Having enough bedrooms for every child of 10 or over of a different sex		72	4.6
	A hobby or leisure activity	-	65	3.3
	For school-aged children, going on school trips	+	63	2.6
	Leisure equipment such as sports equipment or a bicycle	+/=	49	1.4
	Having friends round for tea or a snack at least once a fortnight	-	46	3.4
	A family holiday away from home for at least one week each year	=	45	18.7
	Going swimming at least once a month		42	7.9

### 4.3 Evidence on proposed new questions

We have seen that some existing FRS questions are no longer regarded as concerning essential items. Have new items instead become essential? In this section we consider the contemporary evidence on non-FRS items and how far they have widespread support as being necessities. We show overall results in Table 4.2. One question – keeping up with regular commitments – was regarded as essential by over nine people in every ten. A further three questions, each relating to children, were regarded as necessities by some 80 per cent, or more. Three of these questions also attained a high degree of support within the focus groups.

**Table 4.2 Summary of evidence on proposed new material deprivation questions**

Area	Item	Qualitative view	Necessary	Unable to afford
Family	A space in which the family can eat together at a table	+	73	3.4
	Being able to go on regular family outings – monthly	+	43	12.6
	A car	=	36	7.3
	At least one basic mobile telephone	+	33	0.0
	Being able to go on regular family outings – 2 weekly	+	24	18.7
	F: Being able to go on regular family outings – unspecified		48	

Continued

Table 4.2 Continued

Area	Item	Qualitative view	Necessary	Unable to afford
Parents	Keeping up with bills and any regular debt repayments	+	93	7.7
	A holiday away from home for a [long weekend]	+	69	15.1
	A warm winter coat	+	66	4.3
	Eating meat, fish or a vegetarian equivalent at least every other day	-	64	2.4
	A presentable home you are comfortable bringing friends or family back to	+	57	6.3
	Being able to pay an unexpected expense of £250		56	25.8
	Being able to make regular savings of £50 a month or more for rainy days or retirement	+	48	42.1
	Being able to arrange childcare to go out socially unspecified frequency	+	31	
	Being able to arrange childcare to go out socially – monthly	+	28	13.9
	Being able to arrange childcare to go out socially – 2 weekly	+	15	18.6
Children	Eating fresh fruit and/or vegetables every day	+	86	1.7
	A warm winter coat for each child	+	86	1.6
	Eating meat, fish or a vegetarian equivalent at least every other day	-	80	2.1
	For school-aged children, all the school uniform required by their school		77	1.4
	Enough toys, games and books to support a child's development	+	75	1.6
	Properly fitted shoes which were bought new, not second-hand		74	0.2
	A family holiday away from home for a [long weekend]	+	72	13.1
	Being able to attend at least one regular organised activity a week outside school	+	59	5.8
	For school-aged children, having a computer connected to the internet at home	+	44	4.0
	[private] outdoor space or facilities nearby where they can play safely	+	18	29.6

## 4.4 Recommendations

Adopting a strategy of minor change then raises the question of which items to drop, and which new ones to include.

On the basis of the information presented here, we may strongly recommend that we remove the last two questions on parents. That is, having a hobby or leisure activity, and having friends or family around for a drink or meal at least once a month. These have the weakest support, and only a minority believe them to be essential. The qualitative research was also sceptical about their value. The one week's holiday question continues to be very important within the measure – over a quarter of families were unable to afford this. It would interrupt the measure somewhat to remove it. The next two questions with proportions in the low-40s (children going swimming, shoes for parents) should also be considered as vulnerable to being removed with little to recommend their retention.

By contrast many of the new candidate questions attracted high levels of support as representing necessities. In particular there was very strong support for being able to keep up with bills<sup>2</sup>, which over 90 per cent believed was essential. Enjoying almost as much support was for children to be eating fresh fruit and vegetables every day, and children having a warm winter coat. The question of fruit and vegetables also has strong face validity, and fills something of a gap towards diet-based questions. These three questions are straightforward to recommend, assuming that at least three questions are being dropped.

More of a judgement call is to have a replacement question if we remove the question concerning children attending regular swimming, which has fallen back rather far in parental and popular support. A suitable replacement might be for children to be attending at least one activity organised outside school. This enjoyed the support of 59 per cent of people, and proved resilient within the focus group element of the research.

Overall, the evidence supports making some minor changes to the questions asked in the FRS to measure material deprivation among families. It is something of a judgement call whether this should involve changing as few as two questions, or as many as four or five. Replacement questions should ideally tap into the same kinds of domains as those lost.

---

<sup>2</sup> The FRS does ask about arrears, but this has never been part of the overall deprivation indicator used within the Households Below Average Income series.



# Appendix A

## Additional tables

**Table A.1 Items regarded as essential by age group**

Area	Item	Regarded as necessary		
		16 – 34	35 – 54	55+
Family	A space in which the family can eat together at a table	67	71	80
	At least one basic mobile telephone	36	25	37
	Being able to go on regular family outings – unspecified	40	49	53
	Being able to go on regular family outings – two weekly	22	27	23
	Being able to go on regular family outings – monthly	35	46	48
	A car	40	36	32
	Being able to keep their accommodation warm enough	93	95	94
Parents	A warm winter coat	59	65	73
	Replace or repair major electrical goods, when broken	80	83	78
	Childcare to go out socially [unspecified]	31	24	40
	Childcare to go out socially two weekly	17	10	19
	Childcare to go out socially monthly	27	22	36
	Small amount of money to spend on themselves,	50	42	57
	A holiday away from home for at least one week a year	33	43	44
	A holiday away from home for a [long weekend]	71	66	70
	A presentable home	52	55	62
	Friends around for a drink or meal at least once a month	29	31	41
	Keep their home in a decent state of decoration	71	75	77
	Being able to replace any worn out furniture	55	54	57
	Regular savings of £50 a month or more	57	46	40
	Regular savings of £10 a month or more	90	78	78
	Keeping up with bills and any regular debt repayments	94	95	90
	Being able to pay an unexpected expense of £250	55	59	54
	Two pairs of all weather shoes for each parent	34	36	52
	Household contents insurance	51	58	67
	A hobby or leisure activity	36	30	41
	Meat, fish or equivalent every other day	61	62	69
Children	Space or facilities nearby where they can play safely	83	85	86
	[Private] outdoor space or facilities	17	16	23
	Enough toys, games for development	79	75	71
	Able to attend one regular organised activity a week	61	58	60
	Family holiday for at least one week each year	41	46	47
	A family holiday away from home for a [long weekend]	73	71	72

Continued

**Table A.1 Continued**

Area	Item	Regarded as necessary		
		16 – 34	35 – 54	55+
	Eating fresh fruit and/or vegetables every day	84	85	88
	Properly fitted shoes which were bought new	69	72	80
	A warm winter coat for each child	83	87	87
	Bedrooms for every child of 10+ of a different sex	73	68	77
	Sports equipment or a bicycle	53	46	48
	Celebrations on special occasions such as birthdays,	83	76	74
	Going swimming at least once a month	38	41	47
	A hobby or leisure activity	63	63	69
	Meat, fish or equivalent at least every other day	76	80	83
	Friends round for tea or a snack at least once a fortnight	42	43	54
	For school-aged children, going on school trips	64	65	59
	Going to nursery at least once a week	75	76	72
	All the school uniform required by their school	78	77	77
	Computer connected to the internet at home	46	45	42

Source: ONS Omnibus Survey 2009. Unweighted bases were 213 for those aged 16-34; and 218 for 'parents' with a dependent child of 16 or younger.

**Table A.2 Items regarded as essential, by gender and disability<sup>3</sup>**

Area	Item	Regarded as necessary		
		Men	Women	Disabled
Family	A space in which the family can eat together at a table	73	72	70
	At least one basic mobile telephone	31	34	35
	Being able to go on regular family outings – unspecified	47	48	51
	Being able to go on regular family outings – two weekly	24	24	25
	Being able to go on regular family outings – monthly	42	45	47
	A car	36	36	35
	Being able to keep their accommodation warm enough	92	97	97
Parents	A warm winter coat	62	70	72
	replace or repair major electrical goods, when broken	76	85	81
	Childcare to go out socially [unspecified]	32	31	36
	Childcare to go out socially two weekly	16	15	20
	Childcare to go out socially monthly	27	29	32
	Small amount of money to spend on themselves,	49	50	52
	A holiday away from home for at least one week a year	45	36	42
	A holiday away from home for a [long weekend]	72	65	67
A presentable home	60	53	59	

Continued

<sup>3</sup> Disability is measured as those stating they have a limiting long-standing illness or disability.

Table A.2 Continued

Area	Item	Regarded as necessary		
		Men	Women	Disabled
Parents	Friends around for a drink or meal at least once a month	34	34	37
	Keep their home in a decent state of decoration	74	75	73
	Being able to replace any worn out furniture	52	58	59
	Regular savings of £50 a month or more	51	45	44
	Regular savings of £10 a month or more	82	81	78
	Keeping up with bills and any regular debt repayments	93	93	94
	Being able to pay an unexpected expense of £250	54	58	53
	Two pairs of all weather shoes for each parent	40	42	46
	Household contents insurance	56	63	61
	A hobby or leisure activity	39	32	37
	Meat, fish or equivalent every other day	65	64	66
Children	Space or facilities nearby where they can play safely	83	86	85
	[Private] outdoor space or facilities	19	18	17
	Enough toys, games for development	76	74	77
	Able to attend one regular organised activity a week	59	60	64
	Family holiday for at least one week each year	47	42	48
	A family holiday away from home for a [long weekend]	75	69	73
	Eating fresh fruit and/or vegetables every day	82	90	87
	Properly fitted shoes which were bought new	69	78	80
	A warm winter coat for each child	83	88	88
	Bedrooms for every child of 10+ of a different sex	72	73	76
	Sports equipment or a bicycle	51	47	49
	Celebrations on special occasions such as birthdays,	77	78	74
	Going swimming at least once a month	41	43	49
	A hobby or leisure activity	67	64	67
	Meat, fish or equivalent at least every other day	76	83	84
	Friends round for tea or a snack at least once a fortnight	42	50	46
	For school-aged children, going on school trips	61	65	64
	Going to nursery at least once a week	68	81	76
	All the school uniform required by their school	73	81	77
Computer connected to the internet at home	46	42	38	

Source: ONS Omnibus Survey 2009. Unweighted bases were 448 for men, 509 for women and 334 for those with a long-standing illness or disability.

# Appendix B

## Existing FRS questions

For each of the following things please tell me the number from the showcard which best explains whether you have it or not.

Do you have:

...a holiday away from home for at least one week a year, whilst not staying with relatives at their home?

...friends or family around for a drink or meal at least once a month?

...two pairs of all weather shoes for adults?

...enough money to keep your home in a decent state of decoration?

...household contents insurance?

...make regular savings of £10 a month or more for rainy days or retirement?

...replace any worn out furniture?

...replace or repair major electrical goods such as a refrigerator or a washing machine, when broken?

(On a slightly different note) do you have a small amount of money to spend each week on yourself (not on your family)?

And do you have a hobby or leisure activity?

### Answer codes for all questions

- (1) We do this
- (2) We would like to do this but cannot afford this at the moment
- (3) We do not want/need this at the moment
- (4) [Does not apply]

In winter, are you able to keep this accommodation warm enough?

Yes/No

The next questions are asked about all the children you (and your partner) are responsible for in this household.

Please think about children when answering these questions.

Does child have:

...a family holiday away from home for at least one week a year?

And are there enough bedrooms for every child of 10 or over of a different sex to have their own bedroom?

...leisure equipment such as sports equipment or a bicycle?

...celebrations on special occasions such as birthdays, Christmas or other religious festivals?

I now want to ask some questions about whether or not your children can afford to do a number of different activities.

Does child:

...go swimming at least once a month

...do a hobby or leisure activity?

...have friends round for tea or a snack once a fortnight?

...go to a toddler group/nursery/playgroup at least once a week?

...go on school trips?

For the next question please just answer yes or no.

Does child...have an outdoor space or facilities nearby where they can play safely?

# Appendix C

## ONS Omnibus Survey questions

### a Necessities

We list the questions on the ONS Omnibus Survey for September 2009. Four different orderings of these items were used on the different showcards – see Section 3.3.2 for analysis of the effects of different orderings.

Which of the items on this card do you think are necessities for the family as a whole? Please choose as many items as you would like to.

- (1) A space in which the family can eat together at a table
- (2) At least one basic mobile telephone
- (3) Being able to go on regular family outings
- (4) A car
- (5) In winter, being able to keep their accommodation warm enough

*If respondent selects (3):*

How often do you think regular family outings should be?

- (1) At least once every two weeks
- (2) At least once a month
- (3) Less often than once a month (Spontaneous only)

The next set of showcards show items which may or may not be necessary for parents in the family. By a necessity I mean something that every family should be able to afford if they want it, and not have to do without.

Please look at this card and tell me which items you think are necessities for the parents in the family?

*Answers for each item should be based on the respondent's own interpretation of the item.*

*Code all that apply*

- (1) A warm winter coat
- (2) Being able to replace or repair major electrical goods such as a refrigerator or a washing machine, when broken
- (3) Being able to arrange childcare to go out socially
- (4) Having a small amount of money to spend each week on themselves (not on their family)
- (5) A holiday away from home for at least one week a year, whilst not staying with relatives at their home

*If respondent selects (3):*

How often do you think parents should be able to arrange the childcare they need to go out socially?

- (1) At least once every two weeks
- (2) At least once a month
- (3) Less often than once a month (Spontaneous only)

*If respondent selects (5):*

You have said that it is not necessary for parents to have a holiday away from home for at least one week a year. Do you think it is necessary for them to have a holiday away from home for a shorter period each year, such as a long weekend?

- (1) Yes
- (2) No

And which of the items on this card do you think are necessities for the parents in the family?

Please choose as many items as you would like to.

*Answers for each item should be based on the respondent's own interpretation of the item.*

*Code all that apply*

- (1) A presentable home you are comfortable bringing friends or family back to
- (2) Having friends or family around for a drink or meal at least once a month
- (3) Having enough money to keep their home in a decent state of decoration
- (4) Being able to replace any worn out furniture
- (5) Being able to make regular savings of £50 a month or more for rainy days or retirement

*If respondent does not select (5):*

Do you think it is necessary for parents to be able to make regular savings of £10 a month or more for rainy days or retirement?

- (1) Yes
- (2) No

And which of the items on this card do you think are necessities for the parents in the family?

Please choose as many items as you would like to.

*Answers for each item should be based on the respondent's own interpretation of the item.*

*Code all that apply*

- (1) Keeping up with bills and any regular debt repayments
- (2) Being able to pay an unexpected expense of £250
- (3) Two pairs of all weather shoes for each parent
- (4) Household contents insurance
- (5) A hobby or leisure activity
- (6) Eating meat, fish or a vegetarian equivalent at least every other day

The next set of showcards show items which may or may not be necessary for children in the family. By a necessity I mean something that every family should be able to afford if they want it, and not have to do without.

Please look at this card and tell me which items you think are necessities for the children in the family?

Please choose as many items as you would like to.

*Answers for each item should be based on the respondent's own interpretation of the item.*

*Code all that apply*

- (1) Having an outdoor space or facilities nearby where they can play safely
- (2) Enough toys, games and books to support a child's development
- (3) Being able to attend at least one regular organised activity a week outside school, such as sport or a youth group
- (4) A family holiday away from home for at least one week each year
- (5) Eating fresh fruit and/or vegetables every day
- (6) Properly fitted shoes which were bought new, not second-hand

*If respondent selects (1):*

You have said that it is necessary for children to have an outdoor space or facilities nearby where they can play safely. Should this space or facility be private to each family?

- (1) Yes
- (2) No

*If respondent does not select (4):*

You have said that it is not necessary for children to have a holiday away from home for at least one week a year. Do you think it is necessary for them to have a holiday that is shorter than this, such as a long weekend, at least once a year?

- (1) Yes
- (2) No

Please look at this card and tell me which items you think are necessities for the children in the family?

Please choose as many items as you would like to.

*Answers for each item should be based on the respondent's own interpretation of the item.*

*Code all that apply*

- (1) A warm winter coat for each child
- (2) Having enough bedrooms for every child of 10 or over of a different sex to have their own bedroom
- (3) Leisure equipment such as sports equipment or a bicycle
- (4) Celebrations on special occasions such as birthdays, Christmas or other religious festivals
- (5) Going swimming at least once a month
- (6) A hobby or leisure activity

Please look at this card and tell me which items you think are necessities for the children in the family?

Please choose as many items as you would like to.



Answers for each item should be based on the respondent's own interpretation of the item.

Code all that apply

- (1) Eating meat, fish or a vegetarian equivalent at least every other day
- (2) Having friends round for tea or a snack at least once a fortnight
- (3) For school-aged children, going on school trips
- (4) For children below school age, going to toddler group, or nursery, or playgroup at least once a week
- (5) For school-aged children, all the school uniform required by their school
- (6) For school-aged children, having a computer connected to the internet at home

### b Having and affording these items

The next section is about things that some families with children have, but which many people have difficulty finding the money for. For each of the following things, please tell me the number from the showcard which best explains whether you have the item or not.

Answers for each item should be based on the respondent's own interpretation of the item

The following questions are about items for your family as a whole.

Does your family have a car?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you have a space in which the family can eat together at a table?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you go on regular family outings, at least once every two weeks?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you go on regular family outings, at least once a month?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Does your family as a whole have at least one basic mobile telephone?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

For the next question, please answer yes or no

In winter, are you able to keep this accommodation warm enough?

- (1) Yes
- (2) No

Do you (and your partner) eat meat, fish or a vegetarian equivalent at least every other day?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you (and your partner) have childcare to go out socially, at least once a fortnight?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you (and your partner) have childcare to go out socially, at least once a month?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you (and your partner) have enough money to keep your home in a decent state of decoration?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you have a hobby or leisure activity?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Could you (and your partner) pay an unexpected expense of £250?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you (and your partner) have a holiday away from home for at least one week a year, whilst not staying with relatives at their home?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

[IF NO] Do you (and your partner) have this for a shorter period each year, such as a long weekend?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you (and your partner) replace any worn out furniture?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you (and your partner) have friends or family around for a drink or meal at least once a month?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you (and your partner) make regular savings of £50 a month or more for rainy days or retirement?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

[IF NO] Do you (and your partner) make regular savings of £10 a month or more for rainy days or retirement?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you (and your partner) have a presentable home you are comfortable bringing friends or family back to?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you (and your partner) have two pairs of all weather shoes?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you (and your partner) have a warm winter coat?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you (and your partner) have household contents insurance?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you have a small amount of money to spend each week on yourself, not on your family?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

Do you (and your partner) replace or repair major electrical goods such as a refrigerator or a washing machine, when broken?

- (1) We have/do this
- (2) We would like to have/do this, but cannot afford this at the moment
- (3) We do not want/need this at the moment

For the next question, please answer yes or no

Do you (and your partner) keep up with bills and any regular debt repayments?

- (1) Yes
- (2) No

The next questions are about all the children you (and your partner) are responsible for in this household.

*Answers for each item should be based on the respondent's own interpretation of the item.*

Are any of your children of school-age?

This includes children aged 4 who are attending primary school, and children aged 16–19 who are still in full-time education, unless they are at university

- (1) Yes
- (2) No

Do they eat fresh fruit and/or vegetables every day?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

For the next question, please answer yes or no

Do they have an outdoor space or facilities nearby where they can play safely?

‘Nearby’ and ‘safely’ are respondent’s own interpretation

- (1) Yes
- (2) No

[IF YES] And is this space or facility private to your family?

- (1) Yes
- (2) No

Do they have a computer connected to the internet at home?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

Do they go on school trips?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

Do they have all the school uniform required for their school?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

Do they have a hobby or leisure activity?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

Do they have a warm winter coat each?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

Do they have celebrations on special occasions such as birthdays, Christmas or other religious festivals?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

Do they have a family holiday away from home for at least one week a year?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

[IF NO] Do they have a family holiday away from home every year for a shorter period, such as a long weekend?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

Do they have enough toys, games and books to support their development?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

Do they have properly fitted shoes which were bought new, not second-hand?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

Do they have meat, fish or a vegetarian equivalent at least every other day?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

Do they go swimming at least once a month?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

Do they have leisure equipment such as sports equipment or a bicycle?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

Do they attend at least one regular organised activity a week outside school, such as sport or a youth group?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

Do they have friends round for tea or a snack at least once a fortnight?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

Do they have enough bedrooms for every child of 10 or over of a different sex to have their own bedroom?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

Do they go to toddler group, or nursery, or playgroup at least once a week?

- (1) Child(ren) do this
- (2) Child(ren) would like to do this but we cannot afford this at the moment
- (3) Child(ren) do not want/need this at the moment

# References

- Bartholomew, D., Steele, F., Moustaki, I. and Galbraith, J. (2008). *Analysis of Multivariate Social Science Data*. Second Edition, Chapman & Hall.
- Bland J. and Altman, D. (1997). 'Statistics notes: Cronbach's alpha'. *BMJ* 314:572.
- Calandrino, M. (2003). *Low income and deprivation in British families*. London: DWP Working Paper No. 10.
- Gordon, D., Adelman, L., Ashworth, K., Bradshaw, J., Levitas, R., Middleton, S., Pantazis, C., Patsios, D., Payne, S., Townsend, P. and Williams, J. (2000). *Poverty and Social Exclusion in Britain*. York: Joseph Rowntree Foundation.
- Hirsch, D. and Smith, N. (2010). *Family values – parents' views on necessities for families with children* DWP report, forthcoming.
- Krosnick, J. and Alwin, D. (1987). 'An evaluation of a cognitive theory of response-order effects in survey measurement' in *Public Opinion Quarterly*, vol 51: 201-219.
- McKay, S. and Collard, S. (2004). *Developing deprivation questions for the Family Resources Survey*. London: DWP Working Paper No. 13.
- McKay, S. (2008). *Measuring material deprivation among older people: Methodological study to revise the Family Resources Survey questions*. London: DWP Working Paper No. 54.  
<http://www.dwp.gov.uk/asd/asd5/WP54.pdf> [ISBN 978 1 84712 443 2] (64pp).
- Middleton, S. (1998). 'Revising the Breadline Britain Questions: Relevant Findings from the Group Discussions' (Chapter 8) pp 43-64 in Bradshaw, J., Gordon, D., Levitas, R., Middleton, S., Pantazis, C., Payne, S., Townsend, P. (editors). *Perceptions of Poverty & Social Exclusion, 1998: Report on Preparatory Research*. University of Bristol: Townsend Centre for International Poverty Research.
- Office for National Statistics (2009). *National Statistics Opinions Survey – Technical Report – September 2009*. London: ONS.
- Pantazis, C., Gordon, D. and Levitas, R. (editors) (2006). *Poverty and Social Exclusion in Britain: the millennium survey*. Bristol: The Policy Press.

The inclusion of new material deprivation questions from 2004/05 was based on quantitative research to determine the most reliable and valid indicators of deprivation among families with children. It was envisaged that this set of questions would need to be updated over time, to reflect changes in what people believe to be the necessities of life.

The Child Poverty Unit commissioned the analysis in this report to update, if and where necessary, the current Family Resources Survey questions used to measure children's material deprivation. Recommendations for such changes would reflect movements in what are perceived to be necessities since the current questions were introduced, and any changes in the ability of such questions, taken as a whole, to track material deprivation among families with children.

This report provides evidence on which items (material goods, activities and access to services) are now regarded as essential in the UK. It draws on this evidence to propose changes to the overall set of indicators used to measure child poverty.

If you would like to know more about DWP research, please contact:  
Kate Callow, Commercial Support and Knowledge Management Team,  
Upper Ground Floor, Steel City House, West Street, Sheffield, S1 2GQ.  
<http://research.dwp.gov.uk/asd/asd5/rrs-index.asp>

**DWP** Department for  
Work and Pensions

---

Published by the  
Department for Work and Pensions  
May 2011  
[www.dwp.gov.uk](http://www.dwp.gov.uk)  
Research report no. 746  
ISBN 978-1-84712-980-2