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# **USER GUIDE**

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If you have any queries relating to the 2003-2004 EFS database please contact the EFS team on 020 7533 5752 or 5762

# Introduction

This volume provides a brief overview of the Expenditure and Food Survey User Documentation, together with information on database and survey definitions, as well as background to the 2003-04 survey. The details it contains are about information resulting from the third year of the Expenditure and Food Survey (EFS) for the financial year April 2003 to March 2004.

The EFS was the result of more than two year's development work to bring together the Family Expenditure and National Food Surveys (FES and NFS). Both surveys were well established and important sources of information for government and the wider community, charting changes and patterns in Britain's spending and food consumption since the 1950's. The Office for National Statistics (ONS) has overall project management and financial responsibility for the new survey whilst the Department for Environment, Food and Rural Affairs (DEFRA) sponsors the food data.

The survey continues to be primarily used to provide information for the Retail Prices Index; National Accounts estimates of household expenditure; the analysis of the effect of taxes and benefits and trends in nutrition. However, the results are multi purpose, providing an invaluable supply of economic and social data. The merger of the two surveys also brought benefits for users. A single survey on food expenditure removes the difficulties of reconciling data from two sources.

The design of the EFS was based on the FES, although new processing software (SPSS) has resulted in a dataset which differs from the FES structure. However, the most significant change in terms of reporting expenditure was the introduction of the European Standard Classification of Individual Consumption by Purpose, or COICOP. More details are given in Part 3 of this volume.

The structure of the User Documentation is based on the FES documentation. However, the use of new software has resulted in changes which have affected the documentation. The main change which impacts on these volumes is the reduction in the number of tables and "sets" which were a feature of the FES.

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# **GUIDE TO THE 2003-2004 USER DOCUMENTATION**

# Structure of the User Documentation (each volume is separately bound)

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- Part 1 Guide to the 2003-2004 User Documentation
- Part 2 The Structure of the 2003-2004 Database
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Explanatory note

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# **VOLUME 6 - VARIABLE RELATIONSHIPS**

# Explanatory note

- Part 1 List of target variables showing source variables
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# Use of the 2003-2004 User Documentation

Explanatory notes on the use of the volumes of the documentation are given at the beginning of each volume. The following gives a summary only. See 'Database Definitions' in Part 3 and 'Survey Definitions' in Part 5 for explanation of terms.

# **VOLUME 1 - THE USER GUIDE**

This volume begins with a guide to the contents and the use of the User Documentation (Part 1 - Guide to the 2003-2004 User Documentation).

**Part 2:** explains **The structure of the 2003-2004 database** and includes a useful flow diagram which gives a pictorial summary of the database structure.

**Part 3: Database definitions** - gives some definitions of the terms used both on the flow diagram and in other parts of the documentation.

Part 4: Background to the 2003-2004 Expenditure and Food Survey includes information on the sampling methodology and non-response.

Part 5: covers Survey Definitions.

# **VOLUME 2 - THE RAW DATABASE**

This volume of the User Documentation describes the raw database. The raw database contains data 'as it was received'. That is, before any calculations or aggregations have been carried out. The document is in four parts, as outlined below.

#### Part 1 - Raw file definitions

The raw variables are grouped into three data files, this part of the document defines these raw files and gives information on the three sources of the data (diary, household and income questionnaire).

# Parts 2 - 4: Raw variable lists

These are variable lists, listing all raw variables and including information on the variable name, description, file name, coding frame name and question reference. These four lists allow details of a variable (such as the file in which it is found, or the question to which it relates) to be looked up if the variable name (Part 2 - ordered by variable name), variable description (Part 3 - ordered by variable description), or question number (Part 4 - ordered by question reference) is known. The coding frame name refers to the name of the coding frame used by the variable. These coding frames are listed in part 5.

#### Part 5 – Raw variable coding frame

This lists coding frames for each of the variables in the questionnaires, in question reference order.

# **VOLUME 3 - THE DERIVED DATABASE**

This volume of the User Documentation, in five parts, describes the derived database. A summary of anonymisation, particularly in relation to council tax, is also given following the explanatory notes.

# Part 1 - Derived file definitions in file name order

The derived variables are also grouped into files and this part of the document defines these files and gives information on the variables included in each type. It can be used to look up details of the variables and coding frames when the table name and SPSS file is known.

# Parts 2 and 3: Derived variable lists

These are variable lists, listing all derived variables and including information on the variable name, description, table (file) name and coding frame (where relevant). These two lists allow details of a variable to be looked up if the variable name (Part 2 - ordered by variable name) or variable description (Part 3 - ordered by variable description) is

known.

# Part 4 - P-codes

Product codes (or p-codes) are aggregated codes, some at household level and some at personal level. Part 4 gives descriptions of these codes in 'English' as an aid to understanding their structure.

# Part 5 - Coding frames

This part of the document contains an alphabetical list of all the coding frames, including an index of those most used.

# **VOLUME 4 - EXPENDITURE CODES**

In the Expenditure and Food Survey, information about expenditure is collected at a detailed level. It is collected through both the diary (which respondents fill in daily for a fortnight) and through the Household Questionnaire.

**Part 1 Expenditure Codes: Summary** - Items of expenditure are assigned a 'COICOP' code which represents the type of expenditure (the code might represent 'bread', 'mortgage payments' or 'visits to the cinema', for example). The expenditure codes are listed here.

**Part 2 Expenditure Codes : Detail** - is the 'data dictionary'. It gives an indication of the types of items to be found under each expenditure code.

# **VOLUME 5 - DATABASE CHANGES**

Volume 5 of the Documentation describes the changes that have taken place in the 2003-2004 database compared with 2002-2003.

- Part 1 contains the new raw variables for 2003-2004.
- Part 2 contains 2002-2003 raw variables that have been deleted for 2003-2004.
- Part 3 contains 2002-2003 raw variables amended in 2003-2004.
- Part 4 contains new derived variables for 2003-2004.

Part 5 - contains 2002-2003 derived variables that have been deleted for 2003-2004.

# Part 6 - contains 2002-2003 derived variables amended in 2003-2004.

**Part 7** - contains an approximate mapping between the old FES and new EFS (COICOP) **expenditure codes**, listed by FES code.

**Part 8** – as for Part 7, listed by COICOP code.

Part 9 - contains the 2002-2003 expenditure codes amended in 2003-2004.

Part 10 - contains question number changes for 2003-2004 dataset.

Part 11 - Major changes, highlights some of the more important definitional changes for 2003-2004.

# **VOLUME 6 - VARIABLE RELATIONSHIPS**

Volume 6 of the User Documentation shows the relationships between variables within the dataset.

Part 1 of this volume shows which raw and/or derived variables (source) are used to make up particular variables.

**Part 2** of this volume shows which variables a particular variable feeds into (target).

# There are seven other items of documentation that can be provided to users (if required):

Household Questionnaire Household questionnaire showing changes made from the previous year Income Questionnaire Income questionnaire showing changes made from the previous year The EFS Diary (adult and young person's) EFS Interview Prompt Cards Household Questionnaire – coding & editing notes and interviewer's instructions Income Questionnaire – coding & editing notes and interviewer's instructions EFS Diary – coding & editing notes and interviewer's instructions

#### **Standard Period Codes**

A new period coding frame was introduced from April 1996 for the Family Expenditure Survey. It has been continued for the EFS. A number of questions relating to period covered use this standard set of codes.

One week	
Two weeks	
Three weeks	
Four weeks	
Calendar Month	
Two Calendar Months	
Eight times a year	
Nine times a year	(9)
Ten times a year	
Three months	
Six months	
A Year	
Less than one week	
One off/lump sum	
None of these	. ,
	(,,,)

N.B. codes 95 and 97 are for interview use only and will be re-coded to one of the other codes in the dataset.

# THE STRUCTURE OF THE 2003-2004 DATABASE

# For definitions of the terms used here, please see Part 3 - Database definitions.

# Outline of the structure of the EFS database 2003-2004

In the EFS database, variables are grouped to form a number of different SPSS DATA FILES. The raw files contain data as it is received and the derived files contain processed data. There are 12 anonymised SPSS data files (with filename in the form "filename.sav") but the raw data files are not available to the public. These are:

RAWPER	DVloans_SET86	DV_SET900
RAWHH	DVcredit_SET87	DV_SET89
DVPER	DVhp_SET88	DV_pocketmoney
DVHH	DVdry_SET114	DVbenunit

The attached flow diagram - OUTLINE OF THE STRUCTURE OF THE EFS DATA FLOW, gives an approximation of the location of different categories of data and the flow of data between the files that comprise the database (data flow is shown by the arrows). It should be noted that it gives general flows only and is not definitive.

It can be seen that there are raw data tables relating to diary expenditure, expenditure recorded on household and income questionnaires, credit clubs, loans and so on. Definitions of the raw database are to be found in VOLUME 2 of the User Documentation.

All derived file names are pre-fixed "DV" and definitions are to be found in VOLUME 3 of the User Documentation.

# The data flow

For definitions of expenditure relating to loans, credit clubs and hire purchase (DVLOANS\_SET86, DVCREDIT\_SET87 and DVHP\_SET88) please see Part 5 - Survey Definitions.

Items recorded in the two week diary are recorded in the raw diary file. At this stage, every separate instance of expenditure by every person is represented by a separate "record" or "row" and is assigned an EXPENDITURE CODE that indicates the type of item purchased and the type of transaction (e.g. cash, credit card, business expense). See Volume 4 for information on expenditure codes. Data at this level is not provided in the user dataset.

DVDRY\_SET114 is the first derived file for the diary data and here the data are more aggregated. Each row represents the total expenditure for week one or week two of the diary keeping period for separate expenditure code by person: one row represents the total expenditure by that person on that code in week 1 and the other represents the expenditure in week 2.

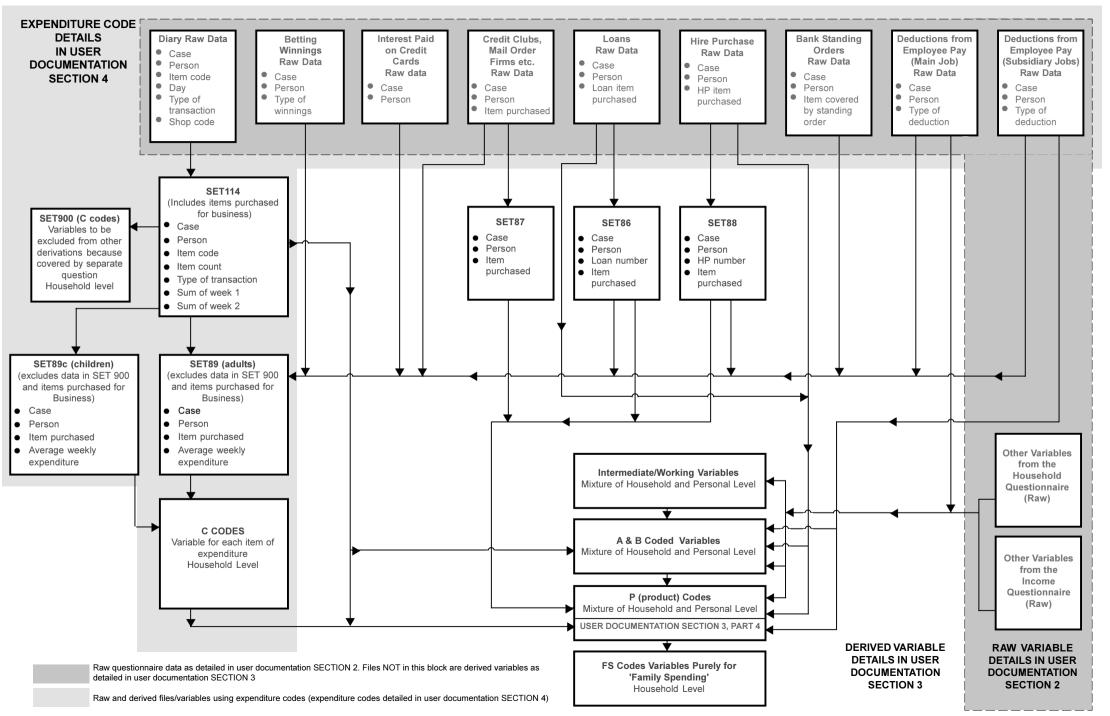
Following DVDRY\_SET114, the diary data that relates to expenditure codes for which data are also collected through the questionnaires are re-directed to DVDRY\_SET900 to avoid double counting. They are not used in any further tables.

In DVADULT\_SET89 (adults) and DVCHILD\_SET89C (children), some expenditure relating to the expenditure codes but collected through the questionnaires is added to that collected through the diary. In this file, there is only one row per expenditure code. This represents the average weekly expenditure for each person on items in that code. This file feeds into various C-CODE files. In these, the expenditure codes become VARIABLES and are pre-fixed with 'C'. The two SET89 files are merged in the user dataset to form one larger file called DV\_SET89.

The four boxes in the centre of the flow-diagram represent various levels of aggregated variables at both household (DVHH) and personal (DVPER) level. Information from the questionnaires not previously included (from the two raw data files RAWPER and RAWHH) feeds in at this level. Details on p-codes are given in Part 4 of Volume 3 of the User Documentation.



# **OUTLINE STRUCTURE OF THE EFS DATABASE**



# **DATABASE DEFINITIONS**

# The raw database

The raw database contains data "as it was received". At this stage, weekly equivalent DV values have been calculated for questionnaire data (see note on 'weekly equivalent values') and some imputation has been carried out. Care should be taken when using raw data. In particular, a new feature of the EFS is the inclusion of "looping" variables – where a question is repeated a variable may be repeated (see Volume 2, Explanatory Notes).

The raw database is defined in Volume 2 of the User Documentation.

# The derived database

The derived database consists of variables that have been adjusted in some way in relation to the state in which they were received. This adjustment might involve only a change in name, or it might involve some calculation or aggregation. The variables are grouped in files which have DV in the name. Examples are DVHH or DVLOANS\_SET86.

The main variable prefixes and suffixes are briefly described below, but more information on the derived database is given in Volume 3 of the User Documentation.

#### 'A' and 'B' codes

A-codes and B-codes are aggregate codes, some at household level and some at personal level. They are all derived codes and so are listed in Volume 3 (The Derived Database) of the User Documentation. That they are pre-fixed 'a' or 'b' has no significance.

# Anonymisation

Variables which could lead to the identification of a household or an individual are not released to users.

An 'anonymised' version of sensitive raw or derived variables is provided in the user dataset. In the main, variables which have been anonymised can be identified because they are suffixed 'p' (those which are not have been detailed in the appropriate User Documentation). Unanonymised versions are suffixed 'u' and are not accessible to external users of the EFS. Raw diary information is not provided to any external users. The principles of anonymisation, particularly in relation to council tax, are explained in Volume 3 of the User Documentation.

#### Codes suffixed 'c'

These codes represent the expenditure of children, aged between 7 and 15, who completed a diary. The codes are aggregated to household level. Variables suffixed 'c' are only available as expenditure or product codes e.g. p522c.

#### Codes suffixed 't'

These codes represent total expenditure by children and adults. They are aggregated to household level by adding the original (adult) variable to those suffixed 'c', (i.e. p522 + p522c = p522t). Variables suffixed 't' are only available as expenditure or product codes.

#### Codes suffixed 'l'

These codes represent expenditure in nominated large supermarkets. Variables suffixed 'l' are only available as expenditure codes for food, alcohol, petrol, some household goods and regular purchases. For expenditure on clothing the suffixes are 'x' for selected clothing chains, 'y' for large supermarkets and 'z' for charity shops.

# Codes suffixed 'w'

These codes represent expenditure for goods and services ordered via the internet. Variables suffixed 'w' are only available as expenditure codes for goods and services ordered via the internet.

# Coding frame

If a variable has a coding frame, it means that it is allowed to take on only certain permitted values (i.e. the variable is not a 'free' field).

The name of a coding frame is usually the same as the name of the variable using it, however, the more commonly used coding frames have their own names. If a variable has a coding frame it is named in the final column of sections 2-4 of Volume 3 of the User Documentation. The coding frames are listed in alphabetical order in Part 5 (Coding Frames) of the User Documentation.

# Diary

The diary is completed by every spender. It is completed daily for 14 days and all expenditure in that period is recorded. See 'Expenditure' in 'Survey Definitions', Volume 1, Part 5 for further information on the collection of data through the diary.

# Expenditure codes

Each expenditure amount collected through the diary and some collected through the questionnaire are given a code which represents the type of item that was purchased. The EFS expenditure codes differ from those used for the FES and users should refer to Volume 4 (Expenditure Codes) for details of the new codes. These are based on a new European classification called COICOP (Classification of Individual Consumption by Purpose).

Variables representing household aggregates of the expenditure codes are called C-codes (or C-variables): the variable name is the expenditure code pre-fixed with 'C'. A complete listing of the expenditure codes and more details on their use can be found in Volume 4 (Expenditure Codes) of the User Documentation.

# File name

The filename is the database reference name of the file, referring to individual SPSS datafiles.

In the EFS database, the data is stored in a number of different FILES. A single file may contain information on a number of variables that are related to one another in some way, such as is the file called 'DVLOANS\_SET86' which contains information about loans, or variables which are at the same level of detail, such as DVPER which contains the main person level derived variables.

Conceptually, a file can be perceived as consisting of rows and columns: the 'column headings' are the names of the variables contained in that table and each 'row' represents an individual 'record'. A 'row' or 'record' is uniquely labelled with, for example, case (case number), person (person number), or itemnum (item number). If both case and person are used, such as in the file DVPER, then there is a separate row in the table not only for every case, but for every person within that case.

The raw data files are defined in Part 1 of Volume 2 of the User Documentation and the derived data tables are defined in Part 1 of Volume 3.

# FS Codes

FS codes are used only for the preparation of the publication 'FAMILY SPENDING'.

#### Household questionnaire

The Household Questionnaire must be completed for EVERY adult in the household.

The household questionnaire collects information on household characteristics and the characteristics of the individuals living there. Also collected through the Household Questionnaire is information on mortgages, rents, bills, insurance policies, loans, hire purchase, standing orders, season tickets and other irregular expenditure such as that on cars or home improvements. Information on the irregular purchases is often obtained through retrospective recall (i.e. the question may be 'when did you last purchase a ......?'). Expenditure on retrospective recall is converted to a weekly equivalent value. That is, if the recall period is one year, then the weekly equivalent value is calculated by dividing by 52.

See the Household Questionnaire for details on questions and recall periods.

#### **Income Questionnaire**

The Income Questionnaire must be completed for EVERY adult in the household.

The income questionnaire collects information on the income of the individuals in the household and the household as a whole.

See 'Survey Definitions', Volume 1, Part 5 for income definitions.

#### Period codes

Where expenditure amounts are not given on a weekly equivalent basis, a weekly equivalent is calculated by dividing the amount given by the appropriate period. The **standard period codes can be found at the end of Part 1 of this volume**.

#### **Product codes (p-codes)**

Product codes (or p-codes) are aggregate codes, some at household level and some at personal level. Part 4 of Volume 3 of the User Documentation gives descriptions of these codes as an aid to understanding their structure, along with more detailed explanatory notes on their use.

#### **Question reference**

The question reference is the question number relating to the variable, as contained within the Household (if pre-fixed by H) or Income (if pre-fixed by I) Questionnaire. Only raw variables have a question reference. If a raw variable does not have a question reference, one of the following may be given instead:

- 'diary' if the variable relates to diary data
- 'system' if the variable is a system variable used only for editing purposes (and therefore probably not of use to users of the database)

A list of variables ordered by question reference is given in Part 4 of Volume 2 of the User Documentation.

#### Variable name

The variable name (sometimes just written 'variable' in the documentation) is the database reference name of the variable. Variable lists ordered by variable name can be found in Part 2 of both Volume 2 and Volume 3 of the User Documentation.

#### Variable description

The variable description is a brief description of the variable. Variable lists ordered by variable description can be found in Part 3 of both Volume 2 and Volume 3 of the User Documentation.

# Weekly equivalent values (wev) - codes prefixed 'DV'

So that expenditure from different sources can be aggregated, it is necessary for all expenditure amounts to be on an equivalent basis. In order to achieve this, all expenditure amounts collected through the questionnaire are converted to WEEKLY EQUIVALENT VALUES. In the dataset, weekly equivalent values can be identified because they are pre-fixed 'DV'. Information on weekly equivalent values is included as part of the questionnaire. Weekly equivalent values are RAW variables and so are listed in Volume 2 of the User Documentation.

# Description and response rate of the survey

For more information please see Family Spending 2003-04

#### The survey

The Expenditure and Food Survey (EFS) is a voluntary sample survey of private households. The basic unit of the survey is the household. In the 2001-02 survey the EFS adopted the harmonised definition used in other government household surveys: a group of people living at the same address with common housekeeping, that is sharing household expenses such as food and bills, or sharing a living room (see Section B4 of Family Spending 2003-04). The previous definition differed from the harmonised definition by requiring both common housekeeping **and** a shared living room. This resulted in the EFS having slightly more one person households and fewer large households than the other surveys.

Each individual aged 16 or over in the household visited is asked to keep diary records of daily expenditure for two weeks. Information about regular expenditure, such as rent and mortgage payments, is obtained from a household interview along with retrospective information on certain large, infrequent expenditures such as those on vehicles. Since 1998-99 the results have also included information from simplified diaries kept by children aged between 7 and 15. The effects were shown in Appendix F of Family Spending for 1998-99 and again for 1999-2000. The analysis is not repeated this year as inclusion of the data is now a standard feature of the survey.

Detailed questions are asked about the income of each adult member of the household. In addition, personal information such as age, sex and marital status is recorded for each household member. Paper versions of the computerised household and income questionnaires can be obtained from the address given in the Introduction.

The survey has been conducted each year since 1957. The survey is continuous, interviews being spread evenly over the year to ensure that seasonal effects are covered. From time to time changes are made to the information sought. Some changes reflect new forms of expenditure or new sources of income, especially benefits. Others are the result of new requirements by the survey's users. An important example is the redefinition of housing costs for owner occupiers in 1992 (see Appendix E of Family Spending 2003-04).

#### The sample design

The EFS sample for Great Britain is a multi-stage stratified random sample with clustering. It is drawn from the Small Users file of the Postcode Address File - the Post Office's list of addresses. All Scottish offshore islands and the Isles of Scilly are excluded from the sample because of excessive interview travel costs. Postal sectors (ward size) are the primary sample unit. Six hundred and seventy two postal sectors are randomly selected during the year after being arranged in strata defined by Government Office Regions (sub-divided into metropolitan and non-metropolitan areas) and two 1991 Census variables - socio-economic group and ownership of cars. These were new stratifiers introduced for the 1996-97 survey. The Northern Ireland sample is drawn as a random sample of addresses from the Valuation and Lands Agency list.

# **Response to the survey**

# Great Britain

Some 12,096 households are selected each year for the EFS in Great Britain, but it is never possible to get full response. A small number cannot be contacted at all, and in other households one or more members decline to co-operate. Six thousand two hundred and ninety-nine households in Great Britain co-operated fully in the survey in 2003-04, that is they answered the household questionnaire and all adults in the household answered the income questionnaire and kept the expenditure diary. A further 133 households provided sufficient information to be included as valid responses. The overall response rate for the 2003-04 EFS was 58 per cent in Great Britain. This compares with 58 per cent in 2002-03.

Details of response are shown in the following table.

# Response in 2003-04 - Great Britain

	Ν	lo of households	Percentage of
		or addresses	effective sample
i.	Sampled addresses	12,096	-
ii.	Ineligible addresses: businesses,		
	institutions, empty, demolished/derelict	1,103	-
iii.	Extra households (multi-household addresses)	127	-
iv.	Total eligible (i.e. i less ii, plus iii)	11,120	100.0
v.	Co-operating households (which includes 133 par	tials) 6,432	57.8
vi.	Refusals	3,884	34.9
vii.	Households at which no contact could be obtained	1 804	7.2

# Northern Ireland

In the Northern Ireland survey, the eligible sample was 1,064 households. The number of co-operating households who provided usable data was 616, giving a response rate of 58 per cent. Northern Ireland is over-sampled in order to provide a large enough sample for some separate analysis. The re-weighting procedure compensates for the over-sampling.

# The fieldwork

The fieldwork is conducted by the Office for National Statistics (ONS) in Great Britain and by the Northern Ireland Statistics and Research Agency of the Department of Finance and Personnel in Northern Ireland using almost identical questionnaires. Households at the selected addresses are visited and asked to cooperate in the survey. In order to maximise response, interviewers make at least four separate calls, and sometimes many more, at different times of day on households which are difficult to contact. Interviews are conducted by Computer Assisted Personal Interviewing (CAPI) using portable computers. During the interview information is collected about the household, about certain regular payments such as rent, gas, electricity and telephone accounts, about expenditure on certain large items (for example vehicle purchases over the previous 12 months), and about income. Each individual aged 16 or over in the household keeps a detailed record of expenditure every day for two weeks. Children aged between 7 and 15 are also asked to keep a simplified diary of daily expenditure.

In 2003-04 a total of 2,149 children aged between 7 and 15 in responding households in the UK were asked to complete expenditure diaries; 192 or about 8 per cent did not do so. This number includes both refusals and children who had no expenditure during the two weeks. Information provided by all members of the household is kept strictly confidential. If all persons aged 16 and over in the household co-operate each is subsequently paid £10 for the trouble involved. Children who keep a diary are given a £5 payment.

In the last two months of the 1998-99 survey, as an experiment, a small book of postage stamps was enclosed with the introductory letter sent to every address. It seemed to help with response and the measure has become a permanent feature of the survey. It is difficult to quantify the exact effect on response but the cognitive work that was carried out as part of the Expenditure and Food Survey development indicated that it was having a positive effect.

A new strategy for reissues was adopted in 1999-2000 and has continued since. Addresses where there had been no contact or a refusal, but were judged suitable for reissue, were accumulated to form complete batches consisting only of reissues. The interviewers dealing with them were specially selected and given extra briefing. The information from households converted from non-responding to responding was included with the data for the quarter of the year when the interview was carried out. The increase in response rate, however, was attributed to the original month of issue. In 2003-04 some 1,533 addresses were reissued, of which 147 were converted into responding households, this added 1.3 percentage points to the response rate.

# **Eligible response**

Under EFS rules, a refusal by just one person to respond to the income section of the questionnaire invalidates the response of the whole household. Similarly, a refusal by the household's main shopper to complete the two-week expenditure diary also results in an invalid response.

Proxy Interviews – while questions about general household affairs are put to all household members or to a main household informant, questions about work and income are put to the individual members of the household. Where a member of the household is not present during the household interview, another member of the household (e.g. spouse) may be able to provide information about the absent person. The individual's interview is then identified as a proxy interview.

In 2001-02, the EFS began including households that contained a proxy interview. In that year, 12 per cent of all responding households contained at least one proxy interview. In 2002-03, 14 per cent of all responding households did so. Analysis of the 2002-03 data revealed that the inclusion of proxy interviews increased response from above average income households. For the 2002-03 survey, the average gross normal weekly household income was some three per cent higher than it would have been if proxy interviews had not been accepted. The analysis showed a similar difference for average total expenditure.

Short Income – all adult members of a household must supply information about their income. This information is quite detailed, and a small number of respondents are reluctant to provide it. For these people, we accept responses to a reduced set of questions, called short income.

From 2001-02, the EFS began including households that contained a short income section. In that year, 0.5 per cent of households contained at least one short income response. In 2003-04, 0.3 per cent did so.

# Reliability

Great care is taken in collecting information from households and comprehensive checks are applied during processing, so that errors in recording and processing are minimised. The main factors that affect the reliability of the survey results are sampling variability, non-response bias and some incorrect reporting of certain items of expenditure and income. Measures of sampling variability are given alongside some results in this report and are discussed in detail in Appendix C of Family Spending 2003-04.

The households which decline to respond to the survey tend to differ in some respects from those which cooperate. It is therefore possible that their patterns of expenditure and income also differ. A comparison was made of the households responding in the 1991 FES with those not responding, based on information from the 1991 Census of Population (A comparison of the Census characteristics of respondents and nonrespondents to the 1991 FES by K Foster, ONS Survey Methodology Bulletin No. 38, Jan 1996). Results from the study indicate that response was lower than average in Greater London, higher in nonmetropolitan areas and that non-response tended to increase with increasing age of the head of the household, up to age 65. Households that contained three or more adults, or where the head was born outside the United Kingdom or was classified to an ethnic minority group, were also more likely than others to be non-responding. Non-response was also above average where the head of the household had no post-school qualifications, was self-employed, or was in a manual social class group. The data are now re-weighted to compensate for the main non-response biases identified from the 1991 Census comparison, as described in Appendix F of Family Spending 2003-04. ONS is currently undertaking a similar comparative exercise, with the 2001 Census data, which will result in an update of the non-response weights.

Checks are included in the CAPI program which are applied to the responses given during the interview. Other procedures are also in place to ensure that users are provided with high quality data. For example, quality control is carried out to ensure that any outliers are genuine, and checks are made on any unusual changes in average spending compared with the previous year.

When aspects of the survey change, rigorous tests are used to ensure the proposed changes are sensible and work both in the field and on the processing system. For example, in 1996-97 an improved set of questions was introduced on income from self-employment. This was developed by focus groups and then tested by piloting before being introduced into the main survey.

The information obtained by the survey does not permit the construction of household accounts in the form of an income-expenditure balance sheet. The definitions of weekly household expenditure and income used are such that it is not to be expected that expenditure and income will balance, either for an individual household or even when averaged over a group of households. Hence, the difference between expenditure and income is not a measure of savings or dis-savings.

# Imputation of missing information

Although EFS response is generally based on complete households responding, there are areas in the survey for which missing information is imputed. This falls into two broad categories:

- (i) Specific items of information missing from a response. These missing values are imputed on a case by case basis using other information collected in the interview. The procedure is used, for example, for council tax payments and for interest received on savings.
- (ii) Imputation of a complete diary case. Where a response is missing a diary from a household member, this information is imputed using information from respondents with similar characteristics.

# Definitions

Major changes in definitions since 1991 are described in Appendix E of Family Spending 2003-04. Changes made between 1980 and 1990 are summarised in Appendix E of Family Spending 1994-95. For earlier changes see Annex 5 of Family Expenditure Survey 1980.

For more information please see Family Spending 2003-04.

# Contents Household Retired households Household reference person Members of household Household composition Adult Children Spenders **Economically active Economically inactive NS-SEC** Regions Urban/rural areas Expenditure Goods supplied from a household's own shop or farm Hire purchase, credit sales agreements and loans Club payments Credit card transactions Income tax Rented dwellings Rent-free dwellings Owner-occupied dwellings Second-hand goods and part-exchange transactions **Business** expenses Income Wages and salaries of employees Income from self-employment Income from investment Social security benefits Quantiles

# Household

A household comprises one person or a group of people who have the accommodation as their only or main residence and (for a group):

share the living accommodation, that is a living room or sitting roomor share meals together or have common housekeeping

Resident domestic servants are included. The members of a household are not necessarily related by blood or marriage. As the survey covers only private households, people living in hostels, hotels, boarding houses or institutions are excluded. Households are not excluded if some or all members are not British subjects, but no attempt is made to obtain information from households containing members of the diplomatic service of another country or members of the United States armed forces. Nor are attempts made to obtain information from Roman Catholic priests living in accommodation provided by the parish church.

# **Retired households**

Retired households are those where the household reference person is retired. The household reference person is defined as retired if 65 years of age or more and male or 60 years of age or more and female, and economically inactive. Hence if, for example, a male household reference person is over 65 years of age, but working part-time or waiting to take up a part-time job, this household would not be classified as a retired household. For analysis purposes two categories are used in this report:

- a. "A retired household mainly dependent upon state pensions" is one in which at least three quarters of the total income of the household is derived from national insurance retirement and similar pensions, including housing and other benefits paid in supplement to or instead of such pensions. The term "national insurance retirement and similar pensions" includes national insurance disablement and war disability pensions, and income support in conjunction with these disability payments.
- b. "Other retired households" are retired households which do not fulfil the income conditions of "retired household mainly dependent upon state pensions" because more than a quarter of the household's income derives from occupational retirement pensions and/or income from investments, annuities etc.

# Household reference person (HRP)

From 2001-02, the concept of household reference person (HRP) was adopted on all government-sponsored surveys, in place of head of household. The household reference person is the householder, i.e. the person who:

- a. owns the household accommodation, or
- b. is legally responsible for the rent of the accommodation, or
- c. has the household accommodation as an emolument or perquisite, or
- d. has the household accommodation by virtue of some relationship to the owner who is not a member of the household.

If there are joint householders the household reference person will be the one with the higher income. If the income is the same, then the eldest householder is taken.

A key difference between household reference person and head of household is that the household reference person must always be a householder, whereas the head of household was always the husband, who might not even be a householder himself.

# Members of household

In most cases the members of co-operating households are easily identified as the people who satisfy the conditions in the definition of a household, above, and are present during the record-keeping period. However difficulties of definition arise where people are temporarily away from the household or else spend their time between two residences. The following rules apply in deciding whether or not such persons are members of the household:

- a. married persons living and working away from home for any period are included as members provided they consider the sampled address to be their main residence; in general, other people (e.g. relatives, friends, boarders) who are either temporarily absent or who spend their time between the sampled address and another address, are included as members if they consider the sampled address to be their main residence. However, there are exceptions which override the subjective main residence rule:
  - i. Children under 16 away at school are included as members;
  - ii. Older persons receiving education away from home, including children aged 16 and 17, are excluded unless they are at home for all or most of the record-keeping period.
  - iii. Visitors staying temporarily with the household and others who have been in the household for only a short time are treated as members -provided they will be staying with the household for at least one month from the start of record-keeping.

# Household composition

A consequence of these definitions is that household compositions quoted in this report include some households where certain members are temporarily absent. For example, "one adult and children" households will contain a few households where one parent is temporarily away from home.

# Adult

In the report, persons who have reached the age of 18 or who are married are classed as adults.

# Children

In the report, persons who are under 18 years of age, in full-time education and have never been married are classed as children.

However, in the definition of clothing, clothing for persons aged 16 years and over is classified as clothing for men and women; clothing for those aged five but under 16 as clothing for boys and girls; and clothing for those under five as babies clothing.

# Spenders

Members of households who are aged 16 or more, excluding those who for special reasons are not capable of keeping diary record-books, are described as spenders.

# **Economically active**

These are persons aged 16 or over who fall into the following categories:

- a. *Employees at work* those who at the time of interview were working full-time or part-time as employees or were away from work on holiday. Part-time work is defined as normally working 30 hours a week or less (excluding meal breaks) including regularly worked overtime.
- b. *Employees temporarily away from work* those who at the time of interview had a job but were absent because of illness or accident, temporary lay-off, strike etc.
- c. *Government supported training schemes* those participating in government programmes and schemes who in the course of their participation receive training, such as Employment Training, including those who are also employees in employment.
- d. *Self-employed* those who at the time of interview said they were self-employed.
- e. *Unemployed* those who at time of interview were out of employment, and have sought work within the last four weeks and were available to start work within two weeks, or were waiting to start a job already obtained.
- f. Unpaid family workers those working unpaid for their own or a relative's business. In this report, unpaid family workers are included under economically inactive in analyses by economic status (Tables A19 and A48 of Family Spending 2003-04) because insufficient information is available to assign them to an economic status group.

# **Economically inactive**

- a. *Retired* persons who have reached national insurance retirement age (60 and over for women, 65 and over for men) and are not economically active.
- b. *Unoccupied* persons under national insurance retirement age who are not working, nor actively seeking work. This category includes certain self-employed persons such as mail order agents and baby-sitters who are not classified as economically active.

In this report, unpaid family workers are classified as economically inactive in analyses by economic status, although they are economically active by definition. This is because insufficient information is available to assign them to an economic status group.

# National Statistics Socio-economic classification (NS-SEC)

From 2001, the National Statistics Socio-economic classification (NS-SEC) was adopted for all official surveys, in place of Social Class based on Occupation and Socio-economic group. NS-SEC is itself based on the Standard Occupational Classification 2000 (SOC2000) and details of employment status. Although NS-SEC is an occupationally based classification, there are procedures for classifying those not in work.

The main categories used for analysis in Family Spending are:

- 1 Higher managerial and professional occupations, sub-divided into:
  - 1.1 Large employers and higher managerial occupations
  - 1.2 Higher professional occupations
- 2 Lower managerial and professional occupations
- 3 Intermediate occupations
- 4 Small employers and own account workers
- 5 Lower supervisory and technical occupations
- 6 Semi-routine occupations
- 7 Routine occupations
- 8 Never worked and long-term unemployed
- 9 Students
- 10 Occupation not stated
- 11 Not classifiable for other reasons

The long-term unemployed are defined as those unemployed and seeking work for 12 months or more. Members of the armed forces, who were assigned to a separate category in Social Class, are included within the NS-SEC classification. Individuals that have retired within the last 12 months are classified according to their employment. Other retired individuals are assigned to the 'Not classifiable for other reasons' category.

# Regions

These are the Government Office Regions as formed in 1994. See section B4 of Family Spending 2003-04 for more details.

# Urban and rural areas

This classification is based on the population of the continuous built-up areas, irrespective of administrative boundaries derived by the Department for Transport, Local Government and the Regions (DTLR) based on the 1991 Census. Note that the metropolitan built-up areas are not the same as the metropolitan administrative districts. They exclude any rural areas within the metropolitan districts and include any built up areas adjoining them.

# Expenditure

Any definition of expenditure is to some extent arbitrary, and the inclusion of certain types of payment is a matter of convenience or convention depending on the purpose for which the information is to be used. In the tables in this report, total expenditure represents current expenditure on goods and services. Total expenditure, defined in this way, excludes those recorded payments which are really savings or investments (e.g. purchases of national savings certificates, life assurance premiums, contributions to pension funds). Similarly, income tax payments, national insurance contributions, mortgage capital repayments and other payments for major additions to dwellings are excluded. Expenditure data are collected in the diary recordbook and in the household schedule. Informants are asked to record in the diary any payments made during the 14 days of record-keeping, whether or not the goods or services paid for have been received. Certain types of expenditure which are usually regular though infrequent, such as insurance, licences and season tickets, and the periods to which they relate, are recorded in the household schedule as well as regular

payments such as utility bills.

The cash purchase of motor vehicles is also entered in the household schedule. In addition, expenditure on some items purchased infrequently (thereby being subject to high sampling errors) has been recorded in the household schedule using a retrospective recall period of either three or 12 months. These items include carpets, furniture, holidays and some housing costs. In order to avoid duplication, all payments shown in the diary record-book which relate to items listed in the household or income schedules are omitted in the analysis of the data irrespective of whether there is a corresponding entry on the latter schedules. Amounts paid in respect of periods longer than a week are converted to weekly values.

Expenditure tables in this report show the 12 main commodity groups of spending and these are broken down into items which are numbered hierarchically (see section B5 of Family Spending 2003-04 which details a major change to the coding frame used from 2001-02). Table A1 of Family Spending 2003-04 shows a further breakdown in the items themselves into components which can be separately identified. The items are numbered as in the main expenditure tables and against each item or component are shown the average weekly household expenditure and percentage standard error.

Qualifications which apply to this concept of expenditure are described in the following paragraphs:

a. Goods supplied from a household's own shop or farm

Spenders are asked to record and give the value of goods obtained from their own shop or farm, even if the goods are withdrawn from stock for personal use without payment. The value is included as expenditure.

b. *Hire purchase and credit sales agreements, and transactions financed by loans repaid by instalments* 

Expenditure on transactions under hire purchase or credit sales agreements, or financed by loans repaid by instalments, consists of all instalments which are still being paid at the date of interview, together with down payments on commodities acquired within the preceding three months. These two components (divided by the periods covered) provide the weekly averages which are included in the expenditure on the separate items given in the tables in this report.

# c. Club payments and budget account payments, instalments through mail order firms and similar forms of credit transaction

When goods are purchased by forms of credit other than hire purchase and credit sales agreement, the expenditure on them may be estimated either from the amount of the instalment which is paid or from the value of the goods which are acquired. Since the particular commodities to which the instalment relates may not be known, details of goods ordered through clubs, etc. during the month prior to the date of interview are recorded in the household schedule. The weekly equivalent of the value of the goods is included in the expenditure on the separate items given in the tables in this report. This procedure has the advantage of enabling club transactions to be related to specific articles. Although payments into clubs, etc. are shown in the diary record-book, these entries are excluded from expenditure estimates.

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# d. Credit card transactions

From 1988 purchases made by credit card or charge card have been recorded in the survey on an *acquisition* basis rather than the formerly used payment basis. Thus, if a spender acquired an item (by use of credit/charge card) during the two week survey period, the value of the item would be included as part of expenditure in that period whether or not any payment was made in this period to the credit card account. Payments made to the card account are ignored. However any payment of credit/charge card *interest* is included in expenditure if made in the two week period.

# e. Income Tax

Amounts of income tax deducted under the PAYE scheme or paid directly by those who are employers or self-employed are recorded (together with information about tax refunds). For employers and the self-employed the amounts comprise the actual payments made in the previous twelve months and may not correspond to the tax due on the income arising in that period, e.g. if no tax has been paid but is due or if tax payments cover more than one financial year. However, the amounts of tax deducted at source from some of the items which appear in the Income Schedule are not directly available. Estimates of the tax paid on bank and building society interest and amounts deducted from dividends on stocks and shares are therefore made by applying the appropriate rates of tax. In the case of income tax paid at source on pensions and annuities, similar adjustments are made. These estimates mainly affect the relatively few households with high incomes from interest and dividends, and households including someone receiving a pension from previous employment.

# f. Rented dwellings

Expenditure on rented dwellings is taken as the sum of expenditure on rent, rates, council tax, water rates etc. For local authority tenants the expenditure is gross rent less any rebate (including rebate received in the form of housing benefit), and for other tenants gross rent less any rent allowance received under statutory schemes including the Housing Benefit Scheme. Rebate on Council Tax or rates (Northern Ireland) is deducted from expenditure on Council Tax or rates. Receipts from sub-letting part of the dwelling are not deducted from housing costs but appear (net of the expenses of the sub-letting) as investment income. Average payments by households renting accommodation for repairs, maintenance and decorations are shown separately in the estimates of expenditure by such households in table A34 of Family Spending 2003-04 which gives housing expenditure by tenure type. Accommodation rented from a housing association is shown separately.

# g. Rent-free dwellings

Rent-free dwellings are those owned by someone outside the household and where either no rent is charged or the rent is paid by someone outside the household. Households whose rent is paid directly to the landlord by the DSS do not live rent-free. Payments for Council Tax, water rates etc., are regarded as the cost of housing. Rebate on rates(Northern Ireland)/Council Tax/water rates(Scotland) (including rebate received in the form of housing benefit), is deducted from expenditure on rates/Council Tax/water rates. Receipts from sub-letting part of the dwelling are not deducted from housing costs but appear (net of the expenses of the sub-letting) as investment income.

# h. Owner-occupied dwellings

In the EFS payments for water rates, ground rent, fuel, maintenance and repair of the dwelling, and other miscellaneous services related to the dwelling etc., are regarded as the cost of housing. Receipts from letting part of the dwelling are not deducted from housing costs but appear (net of the expenses of the letting) as investment income. Mortgage capital repayments and amounts paid for the outright purchase of the dwelling or for major structural alterations are not included as housing expenditure, but are entered under "Other items recorded", as are Council Tax, rates (Northern Ireland), and mortgage interest payments. Structural insurance is included in Miscellaneous goods and services.

# i. Second-hand goods and part-exchange transactions

The survey expenditure data are based on information about actual payments and therefore include payments for second-hand goods and part-exchange transactions. New payments only are included for part-exchange transactions, i.e. the costs of the goods obtained less the amounts allowed for the goods which are traded in. Receipts for goods sold or traded in are not included in income.

# j. Business expenses

The survey covers only private households and is concerned with payments made by members of households as private individuals. Spenders are asked to state whether expenditure which has been recorded on the schedules includes amounts which will be refunded as expenses from a business or organisation or which will be entered as business expenses for income tax purposes, e.g. rent, telephone charges, travelling expenses, meals out. Any such amounts are deducted from the recorded expenditure.

# Income

The standard concept of income in the survey is, as far as possible, that of gross weekly cash income current at the time of interview, i.e. before the deduction of income tax actually paid, national insurance contributions and other deductions at source. However, for a few tables a concept of disposable income is used, defined as gross weekly cash income less the statutory deductions and payments of income tax (taking refunds into account) and national insurance contributions. Analysis in Chapter 3 of Family Spending 2003-04 and some other analyses of EFS data use "equivalisation" of incomes - i.e. adjustment of household income to allow for the different size and composition of each household. For more information see Chapter 3 of Family Spending 2003-04. The cash levels of certain items of income (and expenditure) recorded in the survey by households receiving supplementary benefit were affected by the Housing Benefit Scheme introduced in stages from November 1982. From 1984 housing expenditure is given on a strictly net basis and all rent/council tax rebates and allowances and housing benefit are excluded from gross income.

Although information about most types of income is obtained on a current basis, some data, principally income from investment and from self-employment, are estimated over a twelve-month period.

The following are excluded from the assessment of income:

- a. money received by one member of the household from another (e.g. housekeeping money, dress allowance, children's pocket money) other than wages paid to resident domestic servants;
- b. withdrawals of savings, receipts from maturing insurance policies, proceeds from sale of financial and other assets (e.g. houses, cars, furniture, etc.), winnings from betting, lump-sum gratuities and windfalls such as legacies;
- c. the value of educational grants and scholarships not paid in cash;
- d. the value of income in kind, including the value of goods received free and the abatement in cost of goods received at reduced prices, and of bills paid by someone who is not a member of the household;
- e. loans and money received in repayment of loans.

Details are obtained of the income of each member of the household. The income of the household is taken to be the sum of the incomes of all its members. The information does not relate to a common or a fixed time period. Items recorded for periods greater than a week are converted to a weekly value.

Particular points relating to some components of income are as follows:

a. Wages and salaries of employees

The normal gross wages or salaries of employees are taken to be their earnings. These are calculated by adding to the normal "take home" pay amounts deducted at source, such as income tax payments, national insurance contributions and other deductions, e.g. payments into firm social clubs, superannuation schemes, works transport, benevolent funds etc. Employees are asked to give the earnings actually received including bonuses and commission the last time payment was made and, if different, the amount usually received. It is the amount usually received which is regarded as the normal take-home pay. Additions are made so as to include in normal earnings the value of occasional payments, such as bonuses or commissions received quarterly or annually. One of the principal objects in obtaining data on income is to enable expenditure to be classified in ranges of normal income. Average household expenditure is likely to be based on the long-term expectations of the various members of the household as to their incomes rather than be altered by short-term changes affecting individuals. Hence if employees have been away from work without pay for 13 weeks or less they are regarded as continuing to receive their normal earnings instead of social security benefits, such as unemployment or sickness benefit, that they may be receiving. Otherwise, normal earnings are disregarded and current short-term social security benefits taken instead. Wages and salaries include any earnings from subsidiary employment as an employee and the earnings of HM Forces.

b. *Income from self-employment* 

Income from self-employment covers any personal income from employment other than as an employee; for example, as a sole trader, professional or other person working on his own account or in partnership, including subsidiary work on his own account by a person whose main job is as an employee. It is measured from estimates of income or trading profits, after deduction of business expenses but before deduction of tax, over the most recent twelve-month period for which figures can be given. Should either a loss have been made or no profit, income would be taken as the

amounts drawn from the business for own use or as any other income received from the job or business. Persons working as mail order agents or baby-sitters, with no other employment, have been classified as unoccupied rather than as self-employed, and the earnings involved have been classified as earnings from "other sources" rather than self-employment income.

c. Income from investment

Income from investments or from property, other than that in which the household is residing, is the amount received during the twelve months immediately prior to the date of the initial interview. It includes receipts from sub-letting part of the dwelling (net of the expenses of the sub-letting). If income tax has been deducted at source the gross amount is estimated by applying a conversion factor during processing.

d. Social security benefits

Income from social security benefits does not include the short-term payments such as unemployment or sickness benefit received by an employee who has been away from work for 13 weeks or less, and who is therefore regarded as continuing to receive his normal earnings.

# Quantiles

The quantiles of a distribution, e.g. of household expenditure or income, divide it into a number of equal parts; each of which contains the same number of households.

For example, the median of a distribution divides it into two equal parts, so that half the households in a distribution of household income will have income more than the median, and the other half will have income less than the median. Similarly, quartiles, quintiles and deciles divide the distribution into four, five and ten equal parts respectively.

Most of the analysis in Family Spending is done in terms of quintile groups and decile groups.

In the calculation of quantiles for this report, zero values are counted as part of the distribution.