

# **Living Costs and Food Survey, 2010: Unrestricted Access Teaching Dataset**

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## **UK Data Service**

## **User Guide**

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## About this User Guide

This is a user guide for the Living Costs and Food Survey (LCF), 2010: Unrestricted Access Teaching Dataset. This teaching dataset has been created for teaching related purposes only such as for teaching basic statistics or for students to write reports for coursework. Those wishing to use the Living Costs and Food Survey for research purposes are advised to use the original SN 6945 Living Costs and Food Survey, 2010 that can be downloaded from the website [www.ukdataservice.ac.uk](http://www.ukdataservice.ac.uk). This LCF 2010 Unrestricted Access Teaching Dataset contains a reduced number of variables from the original LCF 2010. It gives students the opportunity to gain experience of using nationally representative UK data.

## Introduction to the Living Costs and Food Survey

The LCF collects information on spending patterns and the cost of living that reflects household budgets across the country. The survey is conducted throughout the year across the whole of the UK and is the most significant consumer survey undertaken in the UK. The LCF is a voluntary sample survey of private households<sup>1</sup>. Each individual aged 16 and over in the household visited is asked to keep diary records of daily expenditure for two weeks.

The LCF provides 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. The results, however, are multi-purpose, providing an invaluable supply of economic and social data. The survey is carried out by the Office for National Statistics (ONS) in Great Britain and by the Northern Ireland Statistics and Research Agency (NISRA) in Northern Ireland.

Data from each ONS Opinions Survey module are anonymised and deposited with the UK Data Archive at the University of Essex and distributed through the UK Data Service via the website [www.ukdataservice.ac.uk](http://www.ukdataservice.ac.uk)

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<sup>1</sup> A household comprises one person or a group of people who have the accommodation as their only or main residence and (for a group): either share at least one meal a day or share the living accommodation, that is, a living room or sitting room.

## **Main Topics**

### *Household questionnaire:*

The first part of the LCF questionnaire collects information about households; the majority of the questions are asked at a household-level, with the household reference person typically responding on behalf of the household as a whole. The household questionnaire includes questions on a range of subjects including family relationships, ethnicity, employment details and the ownership of household durables. It is also the source of all expenditure information not recorded in the LCF diary; principally that which concerns regular payments typically made by all households and large, infrequently purchased items such as vehicles, package holidays and home improvements.

### *Individual questionnaire:*

The income questionnaire follows on immediately from the household questionnaire and collects the key person-level variables used on the survey. The principal components of the LCF income questionnaire are the sections covering income from employment, benefits and assets. These together form an overview of the total income received by each household, as well as each household member individually.

### *LCF Diary:*

In addition to the two questionnaires, each individual aged 16 years and over in the household is asked to keep diary records of daily expenditure for two weeks.

## **The Datasets**

In the LCF dataset, variables are grouped to form a number of different data files. The raw files contain the data as received. The derived data file (DV) consists of variables that have been adjusted in some way in relation to the state in which they were received. The LCF, 2010: Unrestricted Access Teaching Dataset is based on the derived household file “2010\_dvhh\_ukanon.sav” and includes only derived variables.

### **The Sample Design and Response Rate**

The LCF 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 (PAF) – 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.

The Northern Ireland sample is drawn as a random sample of addresses from the Land and Property Services Agency list.

The total sample size for LCF 2010 is 5,263. Of this only 147 households are from Northern Ireland.

### **Weighting the Dataset**

All respondents to the survey did not have an equal chance of selection. There were also differences in response rates between groups. Weights were calculated for the LCF to correct for these issues. The weight “weighta” refers to the annual weight and should be used to reduce the effect of non-response bias and produce population totals and means.

### **Other Useful Sources of Information**

For a brief overview of the 2010 LCF user documentation, together with information on database, survey definitions, weighting, as well as background to the survey please see the LCF documentation on the UK Data Service website:

- LCF 2010 User Guide Volume A - Introduction
- LCF Volume B: The Household Questionnaire User Guide, January – December 2010, Great Britain and Northern Ireland
- LCF Volume F: Derived Variable User Guide, January – December 2010, Great Britain & Northern Ireland

Documentation and the full LCF datasets can be downloaded from the UK Data Service website: [www.ukdataservice.ac.uk](http://www.ukdataservice.ac.uk).

## Introduction to the LCF 2010: Unrestricted Access Teaching Dataset

The LCF 2010: Unrestricted Access Teaching Dataset contains 14 variables which include information on total expenditure as well as standard socio-demographic variables. The variables have been chosen to enable new users to explore the data and to use it apply some basic statistical techniques such as linear regression analysis.

Details of the variables are given below including a data dictionary which lists information about variable names, values, labels, missing values and frequency. The name of the variables and their labels remain the same or very close to the original LCF data set. However, for statistical disclosure reasons, some variables have been recoded and their level of detail reduced. Variables that differ from the original LCF have been listed in Table 2. The syntax for how these variables were recoded is in Appendix II. In addition a new ID variable was created in order to avoid linking the Unrestricted Access Teaching Dataset with the original dataset.

The total expenditure variable is a continuous variable and has been included in the Unrestricted Access Teaching Dataset to enable users to carry out linear regression analysis. This variable is collected through both the diary (which respondents fill in daily for a fortnight) and through the Household Questionnaire. The coding structure is based on the European classification, 'The Classification Of Individual Consumption by Purpose' (COICOP) and includes the following categories<sup>2</sup>:

- 01 Food and Non-Alcoholic Beverages
- 02 Alcoholic Beverages, Tobacco and Narcotics
- 03 Clothing and Footwear
- 04 Housing, Water, Electricity, Gas and Other Fuels
- 05 Furnishings, Household Equipment and Routine Maintenance of the House
- 06 Health
- 07 Transport
- 08 Communication
- 09 Recreation
- 10 (A) Education
- 11 (B) Restaurant and Hotels
- 12 (C) Miscellaneous Goods and Services
- 20 (K) Non-Consumption Expenditure

Details of how the expenditure variable was derived can be found in Appendix III.

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<sup>2</sup> See for more details, see the excel document among the LCS 2010 documentation on the UK Data Service website [www.ukdataservice.ac.uk](http://www.ukdataservice.ac.uk): 6945 volume\_d\_expenditure\_codes\_2010.xls.

### **Details of variables**

Table 1: Variable list

Observations: 5,263

Variables: 14

---

Variable name	Variable label	Variable type
<hr/>		
casenew	Randomly generated case number	Scalar
weighta	Annual weight	Scalar
p550tpr	Total expenditure, by adults & children (top-coded)	Scalar
p344pr	Gross normal weekly household income (top-coded)	Scalar
p425r	Main source of household income	Nominal
a172	Internet connection in household	Nominal
a093r	Economic position of Household Reference Person	Nominal
a094r	NS-SEC 3 class of Household Reference Person	Nominal
a121r	Tenure type	Nominal
sexhrp	Sex of Household Reference Person	Nominal
a049r	Number of persons in household	Ordinal
g018r	Number of adults in household	Ordinal
g019r	Number of children in household	Ordinal
gorx	Government Office Region - modified	Nominal

### **Variable names and suffixes:**

The variable names are written in form of codes and are based on the original LCF 2010 dataset. Below is a brief explanation how to read these codes.

#### **Codes suffixed ‘r’**

When creating the unrestricted teaching dataset a few variables have been recoded in order to reduce their level of detail for reasons of confidentiality. These variables are suffixed “r” (to keep the original name) and are listed in table 2. SPSS syntax on how they were recoded is given in Appendix II.

**Table 2: List of recoded variables**

New Recoded Variable	Variable Label	Original Variable	
p550tpr	Total expenditure	p550tpr	top-coded at 96 <sup>th</sup> percentile
p344pr	Household income	p344pr	top-coded at 96 <sup>th</sup> percentile
p425r (2 cat.)	HH income	P425 (6 cat.)	
a093r (4 cat.)	Economic position of HRP	a093 (7 cat.)	
a094r (5 cat.)	NS-SEC 3 of HRP	a094 (12 cat.)	
a121r (3 cat.)	Tenure type	a121 (8 cat.)	
a049r (5 cat.)	No. of persons in HH	a049 (8 cat.)	
g018r (3 cat.)	No. of adults in HH	g018 (6 cat.)	
g019r (3 cat.)	No. of children in HH	g019 (7 cat.)	

#### **Codes suffixed ‘t’**

Variables with a “t” as a suffix represent total expenditure by children and adults (p550tp). They are aggregated to household level by adding the original (adult) variable to those suffixed ‘c’, (i.e. p522 + p522c = p522t).



### **Anonymisation ‘p’**

Variables which are suffixed ‘p’ have been anonymised. This has been done to avoid identification of a household or an individual. Also, a new random ID variable has been created which replaced the “case” variable in the original dataset. This has been done to avoid linking individuals in the LCF Unrestricted Access Teaching Dataset with the original LCF 2010 data.

### **Downloading the Data**

Unlike other government surveys the LCF 2010: Unrestricted Access Teaching Dataset does not require any registration and can be downloaded via the UK Data Service website:  
[www.ukdataservice.ac.uk](http://www.ukdataservice.ac.uk).

The dataset is available in two formats: SPSS and STATA.

## Appendix I: Data Dictionary

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casenew	New random ID number
---------	----------------------

---

type: numeric (double)

range: [16,14994]      units: 1  
unique values: 4445      missing .: 0/5262

mean: 7536.11  
std. dev: 4332.96

percentiles:    10%    25%    50%    75%    90%  
              1448    3728    7609.5    11287    13466

---

weighta	Annual weight
---------	---------------

---

type: numeric (double)

range: [.04206908,18.438429]      units: 1.000e-10  
unique values: 3303      missing .: 0/5262

mean: 5.00158  
std. dev: 1.54812

percentiles:    10%    25%    50%    75%    90%  
              3.45727    3.95402    4.67806    5.71448    6.97464

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P550tpr	Total expenditure (top coded)
---------	-------------------------------

---

type: numeric (double)

range: [7.785,1175]      units: 1.000e-09  
unique values: 5046      missing .: 0/5262

mean: 446.398  
std. dev: 283.795

percentiles:    10%    25%    50%    75%    90%  
              136.312    225.286    386.973    594.168    865.266

P344pr	Gross normal weekly household income - top-coded				
-----					
type: numeric (double)					
range: [0,1184.99]		units: 1.000e-07			
unique values: 4436		missing .: 0/5262			
mean: 589.636					
std. dev: 360.055					
percentiles:    10%    25%    50%    75%    90%					
165.3 276.095 511.091 885.44 1184.99					
-----					
P425r	Main source of household income (recoded)				
-----					
type: numeric (double)					
label: P425r					
range: [1,2]		units: 1			
unique values: 2		missing .: 0/5262			
tabulation:	Freq.	Numeric Label			
	2943	1 Earned income			
	2319	2 Other income			
-----					
A172	Internet connection in household				
-----					
type: numeric (double)					
label: A172					
range: [1,2]		units: 1			
unique values: 2		missing .: 0/5262			
tabulation:	Freq.	Numeric Label			
	3886	1 Internet connection in household			
	1376	2 No internet connection			
-----					
A093r	Economic position of Household Reference Person (recoded)				
-----					
type: numeric (double)					
label: A093r					
range: [1,4]		units: 1			
unique values: 4		missing .: 0/5262			
tabulation:	Freq.	Numeric Label			
	2587	1 Full-time working			
	477	2 Part-time working			
	182	3 Unemployed and work related Government Training Programmes			
	2016	4 Economically inactive			

---

A094r                                      NS - SEC 3 Class of Household Reference Person (recoded from NS-SEC 12)

---

type: numeric (double)  
label: A094r

range: [1,5]                                      units: 1  
unique values: 5                                      missing .: 0/5262

tabulation: Freq.	Numeric Label
1525	1 Higher managerial, administrative and professional occupations
594	2 Intermediate occupations
962	3 Routine and manual occupations
334	4 Never worked and long term unemployed, students and occupation not stated
1847	5 Not classified for other reasons

---

A121r    Tenure - type (recoded)

---

type: numeric (double)  
label: A121r

range: [1,3]                                      units: 1  
unique values: 3                                      missing .: 0/5262

tabulation: Freq.	Numeric Label
906	1 Public rented
760	2 Private rented
3596	3 Owned

---

SexHRP    Sex of Household Reference Person

---

type: numeric (double)  
label: SexHRP

range: [1,2]                                      units: 1  
unique values: 2                                      missing .: 0/5262

tabulation: Freq.	Numeric Label
3189	1 Male
2073	2 Female

---

A049r Household size; number of persons in HH (recoded)

---

type: numeric (double)  
label: A049r

range: [1,5] units: 1  
unique values: 5 missing .: 0/5262

tabulation: Freq.	Numeric Label
1511	1 1 person
1961	2 2 person
827	3 3 person
676	4 4 person
287	5 5 person and more

---

G018r Number of adults (recoded)

---

type: numeric (double)  
label: G018r

range: [1,4] units: 1  
unique values: 4 missing .: 0/5262

tabulation: Freq.	Numeric Label
1837	1 1 adult
2861	2 2 adults
430	3 3 adults
134	4 4 and more adults

---

G019r Number of children (recoded)

---

type: numeric (double)  
label: G019r

range: [1,3] units: 1  
unique values: 3 missing .: 0/5262

tabulation: Freq.	Numeric Label
3681	1 No children
733	2 One child
848	3 Two or more children

---

Gorx

Government Office Region modified

---

type: numeric (double)  
label: Gorx

range: [1,12]                      units: 1  
unique values: 12                      missing.: 0/5262

tabulation: Freq.	Numeric	Label
258	1	North East
596	2	North West and Merseyside
485	3	Yorkshire and the Humber
413	4	East Midlands
470	5	West Midlands
515	6	Eastern
476	7	London
678	8	South East
495	9	South West
261	10	Wales
468	11	Scotland
147	12	Northern Ireland

## **Appendix II: SPSS Syntax for variables derived for the LCF 2010: Unrestricted Access Teaching Dataset**

### **Recode “Main source of household income” P425 into P425r**

```
RECODE P425 (0=2) (1 thru 2=1) (3 thru 6=2) INTO P425r.  
VARIABLE LABELS P425r 'Main source of household income (recoded)'.  
VALUE LABELS P425r 1 'Earned income' 2 'Other income'.  
EXECUTE.
```

### **Recode “Economic position of Household Reference Person” A093 into A093r**

```
RECODE A093 (3=2) (1 thru 2=1) (4 thru 5=3) (6 thru 7=4) INTO A093r.  
VARIABLE LABELS A093r 'Economic position of Household Reference Person (recoded)'.  
VALUE LABELS A093r 1 'Full-time working ' 2 'Part-time working' 3  
'Unemployed and work related Government Training Programmes'  
4 'Economically inactive'.  
EXECUTE.
```

### **Recode “NS - SEC 12 Class of Household Reference Person” A094 into A094r**

```
RECODE A094 (12=5) (1 thru 3=1) (4 thru 5=2) (6 thru 8=3) (9 thru 11=4)  
INTO A094r.  
VARIABLE LABELS A094r 'NS-SEC 3 Class of Household Reference Person  
(recoded from NS-SEC 12)'.  
VALUE LABELS A094r 1 'Higher managerial, administrative and professional  
occupations' 2 'Intermediate occupations' 3 'Routine and manual  
occupations' 4 'Never worked and long term unemployed, students and  
occupation not stated' 5 'Not classified for other reasons'.  
EXECUTE.
```

**Recode “Tenure - type” A121 into A121r**

```
RECODE A121 (1 thru 2=1) (3 thru 4=2) (5 thru 7=3) (8=2) INTO A121r.  
VARIABLE LABELS A121r 'Tenure - type (recoded)'.  
VALUE LABELS A121r 1 'Public rented' 2 'Private rented' 3 'Owned'.  
EXECUTE.
```

**Recode “Household size; number of persons in HH” A049 into A049r**

```
RECODE A049 (1=1) (2=2) (3=3) (4=4) (4 thru 9=5) INTO A049r.  
VARIABLE LABELS A049r ' Household size; number of persons in HH  
(recoded)'.  
VALUE LABELS A049r 1 '1 person' 2 '2 person' 3 '3 person' 4 '4 person' 5  
'5 person and more'.  
EXECUTE.
```

**Recode “'Number of adults” G018 into G018r**

```
RECODE G018 (1=1) (2=2) (3=3) (4 thru Highest=4) INTO G018r.  
VARIABLE LABELS G018r 'Number of adults (recoded)'.  
VALUE LABELS G018r 4 '4 and more'.  
EXECUTE.
```

\*Note that the value 0 in G018 included only one case (i.e. households with no adults -children only) and it was therefore removed from the LCF Unrestricted Access Teaching Dataset.

```
FILTER OFF.
```

```
USE ALL.
```

```
SELECT IF (G018 ~= 0).
```

```
EXECUTE.
```



**Recode "'Number of children" G019 into G019r**

```
RECODE G019 (0=1) (1=2) (2 thru Highest=3) INTO G019r.  
VARIABLE LABELS G019r 'Number of children (recoded)'.  
VALUE LABELS G019r 1 'No children' 2 'One child' 3 'Two or more  
children'.  
EXECUTE.
```

**Top-code the expenditure and gross income variable at the 96<sup>th</sup>  
percentile.**

```
RECODE P550tp (1175 thru Highest=1175) (ELSE=Copy) INTO P550tpr.  
VARIABLE LABELS P550tpr ' Total expenditure (top coded)'.  
EXECUTE.  
  
RECODE p344pr (1184.99 thru Highest=1184.99) (ELSE=Copy) INTO P344pr.  
VARIABLE LABELS P344pr 'Gross normal weekly household income - top-  
coded'.  
EXECUTE.
```

**Compute a new ID variable with random numbers (from 0-15000) and then  
sort dataset by the new ID variable descending.**

```
COMPUTE casenew=TRUNC (UNIFORM(15000)) +1.  
VARIABLE LABELS casenew 'New random ID number'.  
EXECUTE.  
SORT CASES BY casenew (D).  
EXECUTE.
```

### Appendix III: P550tp Total Expenditure, by Adults and Children

Below is a brief summary of how the variable **P550tp Total Expenditure, by Adults and Children** was derived. For more detailed breakdown please see the Living Costs and Food Survey 2010 Volume F: Derived Variable User guide; January-December 2010 on the UK Data Service website, [www.ukdataservice.ac.uk](http://www.ukdataservice.ac.uk).

**P550tp Total expenditure, by adults and children (anonymised data)<sup>3</sup>**:- sum of codes P536tp, P537t, P538t, P539t, P540t, P541t, P542t, P543t, P544t, P545t, P546t, P547t, P548t, P549t (see note 7).

This includes the following items:

**P536tp                    ONS housing (net), expenditure by adults and children (anonymised data)**:-  
sum of codes P536p and P536cp (see note 7). (as P515tp)

**P537t                    ONS fuel, light and power, expenditure by adults and children - (negative answers possible)**:-  
sum of codes P537 and P537c (as P517t)

**P538t                    ONS food, expenditure by adults and children:-**  
sum of codes B260t, P118t (see note 7). (as P518t)

**P539t                    ONS alcoholic drink, expenditure by adults and children:-**  
sum of codes P539 and P539c (see note 7). (as P519t)

**P540t                    ONS tobacco, expenditure by adults and children:-**  
sum of codes P540 + P540c (see note 7). (as P520t)

**P541t                    ONS clothing and footwear, expenditure by adults and children:-**  
sum of codes P541 + P541c (see note 7). (as P521t)

**P542t                    ONS household goods, expenditure by adults and children:-**  
sum of codes P542 and P542c (see note 7) (as P522t).

**P543t                    ONS household services, expenditure by adults and children:-**  
sum of codes P543 and P543c (see note 7).

**P544t                    ONS personal goods and services, expenditure by adults and children:-**  
sum of codes P544 and P544c (see note 7). (as P524t)

**P545t                    ONS motoring expenditure, by adults and children (negative values possible)**:-  
sum of code P545 and P545c. (as P525t)

---

<sup>3</sup> P550p is the anonymised total expenditure variable which is released to other users and has been recalculated to include anonymised council tax, water and sewerage charges.

**P546t**                **ONS fares and other travel costs, total expenditure by adults and children:-**  
sum of codes B216, B217, B218, B219, B248, P134t (see note 7). (as P526t)

**P547t**                **ONS leisure goods, expenditure by adults and children:-** sum of codes P547 and  
P547c (see note 7). (as P527t)

**P548t**                **ONS leisure services, expenditure by adults and children:-** sum of codes P548  
and P548c (see note 7). (as P528t)

**P549t**                **Miscellaneous, expenditure by adults and children:-** sum of codes P126t (see  
note 7) and B237 + B238.

**Note 7)** Product codes P515 to P528, P530, P531, P535 to P550 include payments made via  
credit, HP, standing order, or deductions from current pay (because they use codes P116 to  
P121, P126, P128, P130 to P136 and P153).