

Fuel Poverty Dataset Documentation

2007

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1. Introduction & Background Information

The 2007 Fuel Poverty dataset is the outcome of analysis conducted to produce estimates of the number of households living in fuel poverty in England in 2007. A household is defined as being fuel poor if they spend more than 10% of their income on fuel. This is calculated using the equation below:

$$FuelPoverty = \frac{FuelCosts}{Income}$$

Where this ratio is greater than 0.1 the household is defined as fuel poor. The amount spent on fuel is modelled using standard heating regimes to account for the fact that in reality households may not spend enough to reach the established standards for comfort (for example they may not heat their house to the required temperature).

The results form the basis of the Government's fuel poverty figures and are used to measure progress towards the Government's targets for the reduction and eradication of fuel poverty. The intention of this guide is to list and provide a basic description of the fuel poverty variables so that they may be used to inform the user of the components of the Government's figures.

This guidance should be supplemented with other relevant supporting documents and information available on the [DECC website](#). This additional information includes the fuel poverty methodology documentation, the Fuel Poverty Strategy 7th Annual Progress Report, and analysis of a number of key variables by fuel poverty using the 2007 dataset (both physical and household characteristics).

The fuel poverty dataset is derived from the 2007 English House Condition Survey (EHCS) database created by CLG. This database is constructed from fieldwork carried out between April 2006 and March 2008. The results are presented in terms of the survey midpoint, April 2007. A detailed explanation of all the EHCS variables and the analysis conducted can be found in the guidance documentation accompanying the 2007 EHCS database, available on request from CLG (ehcs@communities.gsi.gov.uk). Full information about the survey is available on the [EHCS website](#). Guidance on use of EHCS data given by CLG should also be applied to the fuel poverty dataset.

All variables are presented for households and each case in the dataset is uniquely identified by the variable **aacode**. This is the key variable used to link data when matching together more than one data file. The variables are presented in Table 1 below and are discussed in more detail in section 2.

Variable Name	Variable Label
aacode	EHCS case number
fuelexpn	Total fuel cost (£)
fpbasinc	Annual basic household income (£)
fpfullinc	Annual full household income (£)
wathcost	Cost of energy to heat water (£)
spahcost	Total space heating cost (£)
litecost	Total cost for lights and appliance use (£)
cookcost	Total energy cost for cooking (£)
elecMOP	Method of payment - electricity
gasMOP	Method of payment - gas
fpindb	Fuel poverty index - basic income definition
fpflgb	Fuel poverty flag - basic income definition
fpindf	Fuel poverty index - full income definition
fpflgf	Fuel poverty flag - full income definition
fpvuln	Vulnerable flag - fuel poverty definition
unoc	Under occupancy
Aagch67	Household weight (core cases 06/07 & 07/08)

Table 1 – Fuel Poverty 2007 Dataset Variables

The EHCS builds a picture of the English housing stock by surveying a stratified sample of dwellings from around the country. A weighting factor needs to be applied to the data to obtain figures that reflect the whole English stock. Fuel poverty is a condition experienced by dwelling *occupants* and so the weighting factor used is the *household* weighting factor (**aagch67**), which is present in the fuel poverty dataset. Once the weighting factor is applied, the total number of households in England for 2007 in the EHCS is 21,380,077. Generally this and other estimates from the dataset are rounded so as not to imply a false sense of precision when presenting results.

2. The 2007 Fuel Poverty Variables

A brief summary of each of the variables included in the 2007 fuel poverty dataset is given below. More detailed information on how these variables are calculated is available in the fuel poverty methodology documentation which is available to download from the DECC website.

aacode - The 2007 EHCS address number

This variable is the unique identifier of the survey unit. As well as identifying the dwelling/household it enables 2007 EHCS data files to be matched together, ensuring that the integrity of the dataset is maintained. The variable is an eight-character code. Address codes prefixed with a 'E' denote surveys conducted in the financial year 2006/07, whereas those prefixed with a 'F' denote surveys conducted in 2007/08.

fpbasinc - Annual basic household income (£)

This variable is used in the derivation of 'fpflgb'. It describes the basic annual income of the household, which is net income, excluding housing benefit, Income Support for Mortgage Interest (ISMI), Mortgage Payment Protection Insurance (MPPI) and net council tax payments. This measure of income takes as its base the 'hhincx' variable (see CLG dataset) and adds the reported incomes of any additional benefit units and income from the Winter Fuel Payment if appropriate.

fpfullinc – Annual full household income (£)

This variable is used in the derivation of 'fpflgf'. It describes the full annual income of the household, which is based on the net income, including housing benefit, ISMI, MPPI and net council tax payments. This includes income for the whole household from all sources, including benefits and savings & investments.

fuelexpn – Total fuel cost (£)

This variable gives a value in £/year for the cost to the household of the fuel they use for space heating, water heating, lights & appliances energy use and cooking energy use. Energy consumption is estimated using the BRE's Domestic Energy Model (BREDEM-12). The cost is based on BREDEM-12 modelled consumption and fuel prices, which vary by region and method of payment. Variables detailing amounts for each of these components and the different methods of payment used, are included in the dataset (see below).

wathcost – Total water heating cost (£)

This variable gives a value in £/year for the modelled cost to the household of heating their hot water.

spahcost – Total space heating cost (£)

This variable gives a value in £/year for the modelled cost to the household of space heating. This value includes standing charges for gas and any additional standing charge for off-peak electricity (if present), over and above the standard rate electricity standing charge.

litecost – Total cost for lights and appliance use (£)

This variable gives a value in £/year for the modelled cost to the household of powering their lights and appliances. This value includes standing charge amounts for electricity not related specifically to heating (i.e. all standard rate standing charges).

cookcost – Total cost for cooking (£)

This variable gives a value in £/year for the modelled cost to the household of cooking.

elecMOP – Method of payment - electricity

This variable indicates which method the household uses to pay for their electricity. Possible values are Direct Debit, Standard Credit and Pre-Payment.

gasMOP – Method of payment - gas

This variable indicates which method the household uses to pay for their gas. Possible values are Direct Debit, Standard Credit, Pre-Payment and No Gas.

fpindb – Fuel poverty index – basic income definition

This variable contains the result of the fuel poverty calculation for each household. A value greater than 0.1 indicates that a household is fuel poor. This variable can be used to determine the severity of fuel poverty. It uses the basic income definition.

To account for cases where income is less than or equal to zero, the fuel poverty ratio is set to 1. Where the fuel poverty ratio calculated is greater than 1 the fuel poverty ratio is set to 1.

fpflgb - Fuel poverty flag - basic income definition

This is a boolean (i.e. true/false) variable. A value of 1 indicates that the household *is* in fuel poverty, 0 indicates that they are *not* in fuel poverty. This uses the index variable 'fpindb' and is based on basic income as described above.

fpindf – Fuel poverty index – full income definition

This variable contains the result of the fuel poverty calculation for each household. A value greater than 0.1 indicates that a household is fuel poor. This variable can be used to determine the severity of fuel poverty. It uses the full income definition.

To account for cases where income is less than or equal to zero, the fuel poverty ratio is set to 1. Where the fuel poverty ratio calculated is greater than 1 the fuel poverty ratio is set to 1.

fpflgf - Fuel poverty flag - basic income definition

This is a boolean (i.e. true/false) variable. A value of 1 indicates that the household *is* in fuel poverty, 0 indicates that they are *not* in fuel poverty. This uses the index variable 'fpindf' and is based on full income as described above.

fpvuln – Vulnerable – Fuel Poverty Strategy definition

This is a boolean true/false variable. A value of 1 indicates that the household *is* vulnerable, 0 indicates that it is *not* vulnerable. This relates to the Government's target of reducing the number of vulnerable households living in fuel poverty to zero by 2010, as far as is reasonably practicable. A vulnerable household is defined for the purposes of fuel poverty as being any household with a member aged 60 or over, a child under the age of 16 or a member who is disabled or has a long-term illness. This differs somewhat from the CLG definition of vulnerable but is the correct one to use when considering fuel poverty.

unoc – Under Occupancy

This is a boolean true/false variable. A value of 1 indicates that the dwelling *is* under occupied, 0 indicates that it is *not* under occupied. A household is considered to be under-occupying if the dwelling is more than large enough for the number (and type) of occupants living there.

Aagch67 – Household weight (core cases 2006-7 & 2007-8)

This weighting factor is a weighting applied to each case to make the dataset representative of the national picture of fuel poverty, taking account of the sampling techniques used and issues of non-response within the EHCS.