

Fuel Poverty levels in England, 2011

Introduction

The Government has recently announced a new definition of fuel poverty that it plans to adopt, based on the Low Income High Costs (LIHC) framework that was recommended by Professor Hills in his Independent review (www.gov.uk/government/publications/fuel-poverty-a-framework-for-future-action). This article summarises the 2011 Fuel Poverty statistics using the new. The 2013 annual reports and data can be downloaded in full at: www.gov.uk/government/organisations/department-of-energy-climate-change/series/fuel-poverty-statistics. In addition, a snapshot of fuel poverty under the original 10 per cent indicator is provided.

The Low Income High Cost Indicator

Under the new **Low Income High Cost** definition a household is considered to be fuel poor where:

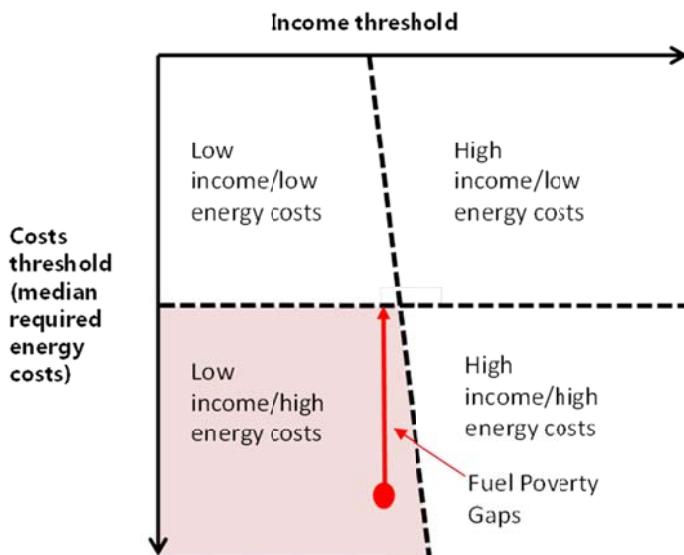
- they have required fuel costs that are above average (the national median level)
- were they to spend that amount, they would be left with a residual income below the official poverty line.

The low income high cost indicator consists of two parts:

The **number** of households that have both low incomes and high fuel costs (the bottom left quadrant in the diagram below);

The **depth** of fuel poverty amongst these households. This is measured in terms of a fuel poverty gap, which represents the difference between the modelled fuel bill for each household, and the reasonable cost threshold for the household. This is summed for all households that have both low income and high costs to give an aggregate fuel poverty gap.

Fuel Poverty under the Low Income High Costs (LIHC) indicator



Headline figures

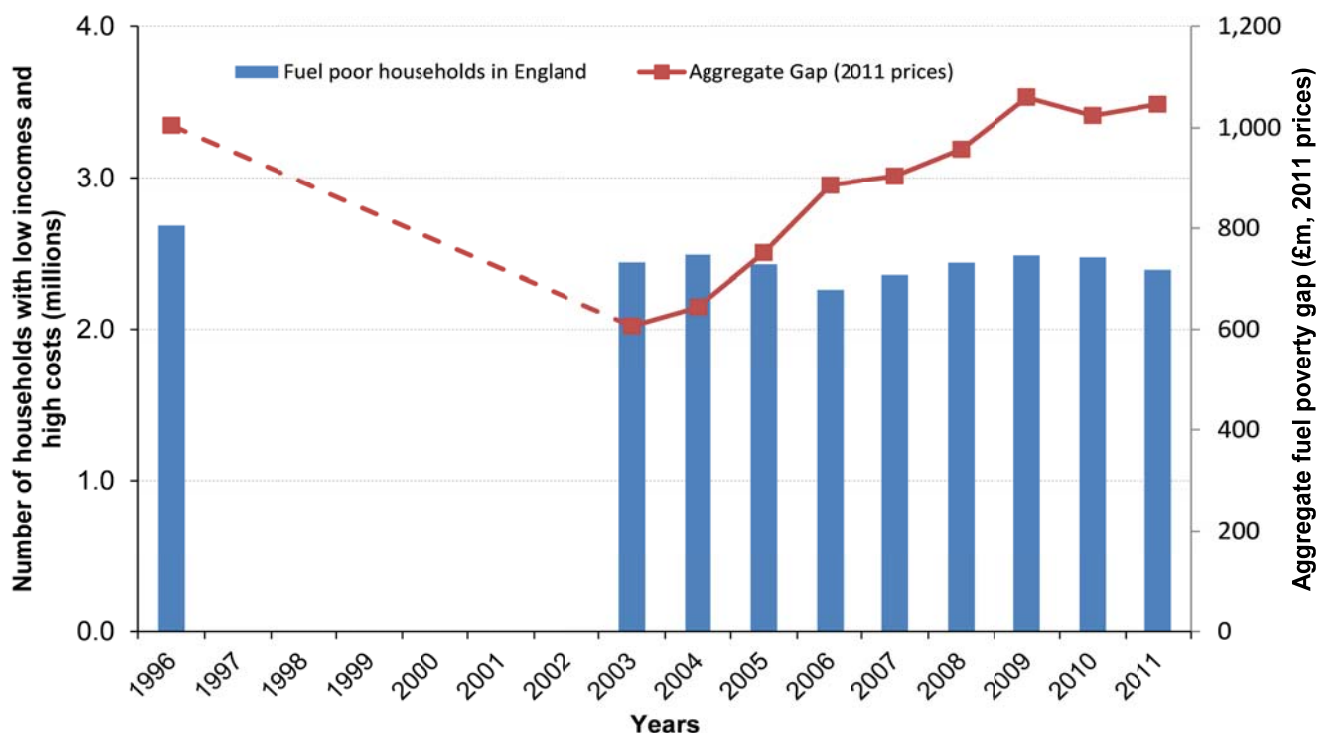
Chart 1 shows that the number of households living in fuel poverty in England, under the LIHC indicator, fell from 2.47 million in 2010 to around 2.39 million in 2011 (around 11% of households).

However, the aggregate and average fuel poverty gap increased. The aggregate gap increased from £1.02 billion in 2010 to £1.05 billion in 2011 (approximately 2%), and the average gap

Special feature – Fuel Poverty levels in England

(defined as the total gap divided by the number of households in fuel poverty) rose by £24 to £438 in 2011.

Chart 1 – Fuel poverty in England, 1996 to 2011



Note: Figures not calculated for 1997-2002.

Interpreting the change in fuel poverty

Looking at the trends over time, the number of households with low income and high costs (LIHC) has remained relatively stable. The fuel poverty gap has however increased over time in response to prices. Between 2004 and 2009 energy prices increased substantially: domestic electricity prices rose by around 56 per cent and gas prices increased by around 97 per cent (both in real terms). Over the same period the fuel poverty gap (in 2011 prices) rose from £644 million to £1 billion. In 2010, electricity and gas prices declined by approximately five and eight per cent respectively. This is reflected in a slight reduction in the fuel poverty gap.

In 2011, the number of households in fuel poverty remained broadly similar to 2010, falling by around 80,000 households. When considering the change in the LIHC indicator, the key factor is how the key drivers of fuel poverty change for households with low incomes and high costs, relative to other households. Between 2010 and 2011 after housing cost (AHC) incomes remained broadly similar for those in the LIHC group, falling very slightly compared with a slight increase for the overall population. Modelled fuel costs fell by a similar amount for both LIHC households and the overall population. However, SAP ratings increased by slightly more for LIHC households than the overall population. The last factor is likely to have led to the small reduction in the number of fuel poor households between the two years, where improvements in energy efficiency in the LIHC group may have caused some households previously classed as fuel poor to move across the energy cost threshold, such that they are no longer classed as having high costs.

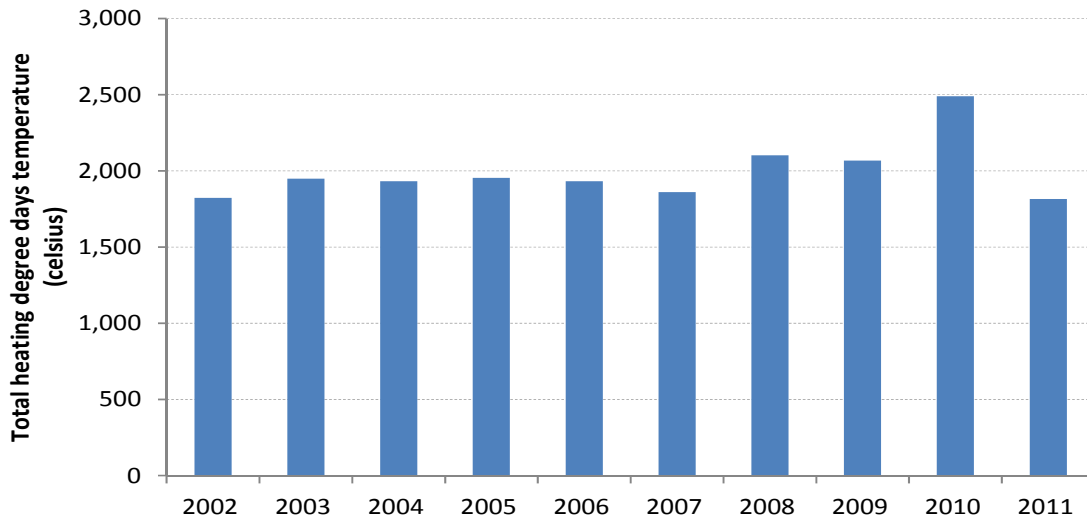
Between 2010 and 2011, the aggregate and average fuel poverty gap increased. This was largely due to price rises between the two years, which is the key driver of changes in the gap.

Table 1 - Fuel Poverty in England, 1996 to 2011

	1996	2003	2004	2005	2006	2007	2008	2009	2010	2011
Households with low incomes and high costs (millions)	2.69	2.44	2.49	2.43	2.26	2.36	2.44	2.49	2.48	2.39
Aggregate Fuel Poverty Gap (£million)	1,005	606	644	752	886	904	957	1,060	1,024	1,047
Average Fuel Poverty Gap (£)	374	248	259	310	391	384	393	427	414	438

It is important to consider the fuel poverty numbers alongside energy consumption data for the same year. The winter months falling in 2011 (i.e. the end of the 2010/11 winter and the start of the 2011/12 one) were mild relative to previous years. This resulted in a much lower number of heating degree days¹ in 2011 (chart 2) when compared with the cold year in 2010, but also relative to the past ten years in general. As a result of the milder winter, average annual household energy consumption was also lower than 2010 (chart 3).

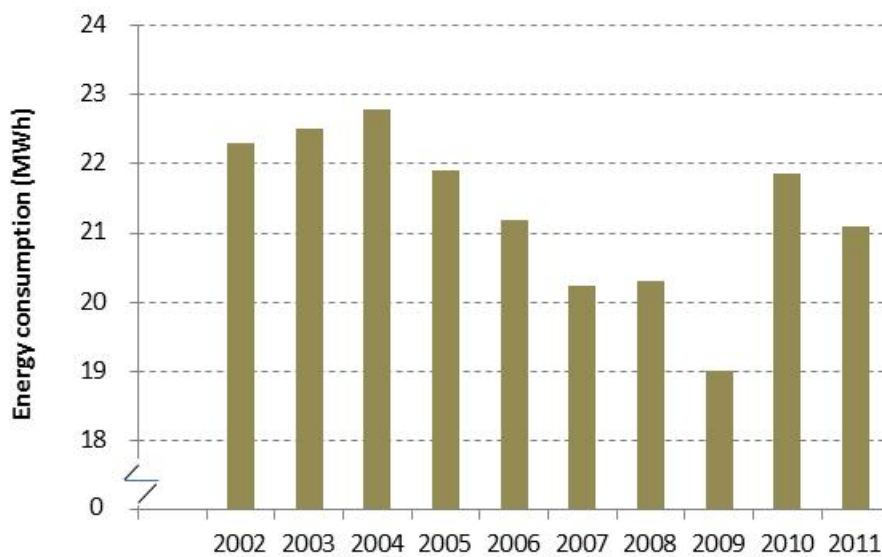
Chart 2 – Total annual degree days UK, 2002 to 2011



Source: Energy Trends, table 7.1

¹ Heating degree days (HDD) are defined relative to a base temperature - the outside temperature above which a building needs no heating. The chart uses 15.5° Celsius. If the average outside air temperature on a day is above this base temperature, no heat is required; if it is below, then the heating requirement that day will be equal to the temperature deficit in degrees. For example, a day with an average temperature of 10°, would score a HDD of 5.5. The HDDs are summed across the year and displayed in the chart.

Chart 3 – Total annual energy consumption per household, 2002 to 2010



Source: Energy Consumption in the UK, Table 3.4

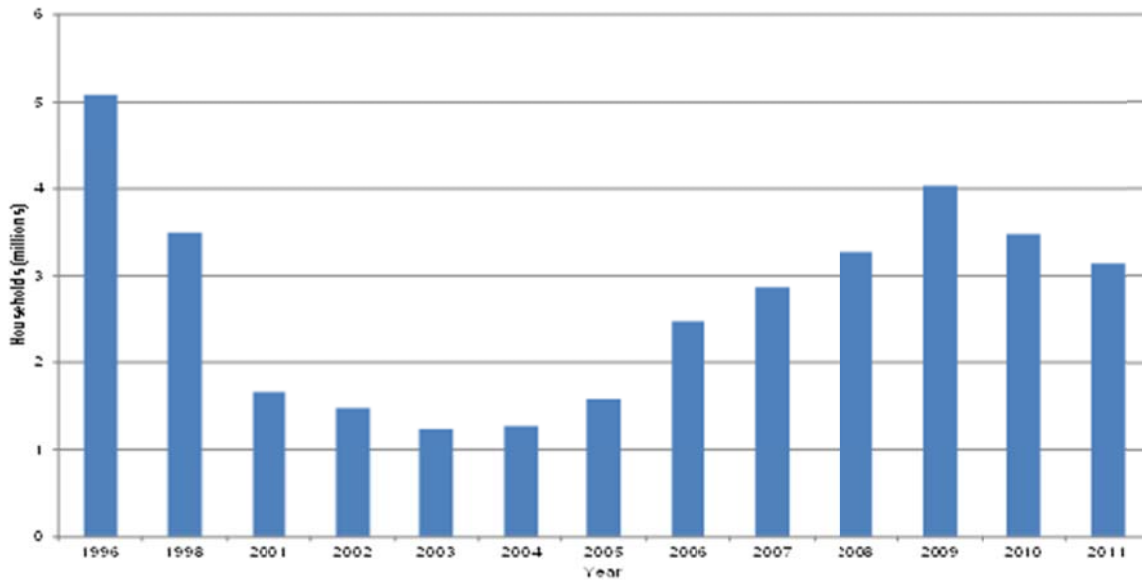
The notional bill used in estimating fuel poverty is modelled based on achieving an adequate standard of warmth of 21 degrees Celsius in the main living area, and 18 degrees in other occupied rooms. Although the fuel poverty modelling of heating requirements varies according to regional differences in climate, it does not reflect periods of annual temperature variations from long-term averages (either cold snaps during the winter that might require additional spells of heating, such as those in chart 2, or mild spells that might reduce the amount of heating required) in any one year that would cause the duration or extent of the heating season to change significantly. Therefore, it is assumed that the same amount of energy will be required to heat an identical dwelling and household in the same location in consecutive years.

So while actual domestic gas consumption rose sharply between 2009 and 2010 before falling again in 2011, the modelled consumption used in the fuel poverty data fell steadily over this period (mainly reflecting improvements in the energy efficiency of homes).

Measuring Fuel Poverty Using the 10 Per cent Indicator of fuel poverty

Under the 10 per cent indicator a household is said to be fuel poor if it needs to spend more than 10 per cent of its income on fuel to maintain an adequate level of warmth. In 2011, 3.2 million households were fuel poor under the 10 per cent indicator, equivalent to 14.6 per cent of all households in England. This is a fall of around nine per cent (0.3 million) since 2010 and 19 per cent since 2009 (the highest peak in recent years).

Chart 4 – Fuel poverty in England – 10 per cent, 1996 to 2011



Liz Whiting

Fuel Poverty statistics

Tel: 0300 068 5435

E-mail: Liz.Whiting@decc.gsi.gov.uk

Masuma Ahmed

Fuel Poverty statistics

Tel: 0300 068 5922

E-mail: Masuma.Ahmed@decc.gsi.gov.uk