

## Fuel Poverty levels in England, 2013

Fuel poverty in England is measured using the Low Income High Costs (LIHC) indicator. In March 2015 the Government published ‘Cutting the cost of keeping warm: a fuel poverty strategy for England’<sup>1</sup>, setting out in detail its statutory target to raise as many fuel poor homes in England as is reasonably practicable to Band C by 2030. The strategy also set out interim milestones to lift as many fuel poor homes in England as is reasonably practicable to Band E by 2020 and Band D by 2025, alongside a strategic approach to developing policy to make progress towards those targets.

Under the Low Income High Costs definition, a household is considered to be fuel poor if:

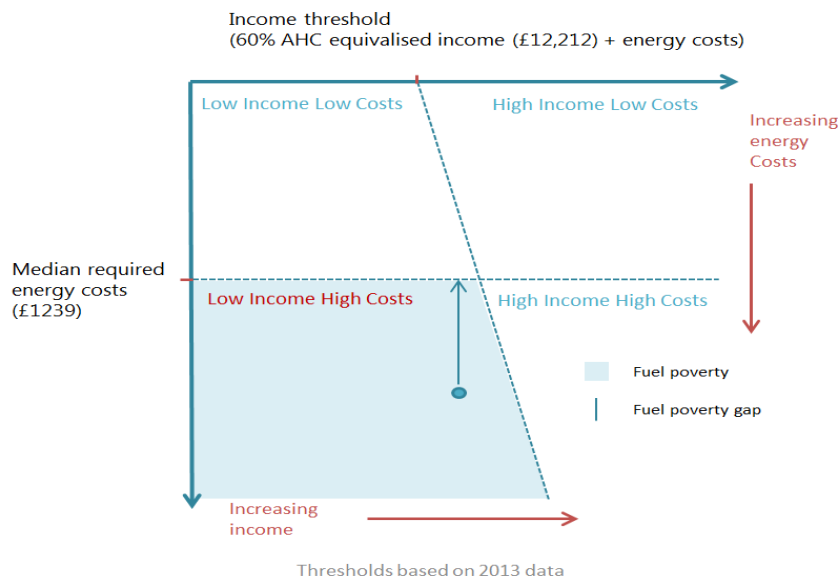
- they have required fuel costs that are above average (the national median level);
- were they to spend that amount, they would be left with a residual income below the official poverty line.

The Low Income High Costs indicator consists of two components:

- the **number** of households that have both low incomes and high fuel costs (shown by the shaded area in bottom left hand quadrant in Figure 1 below); and
- the **depth** of fuel poverty amongst these fuel poor households. This is measured through a fuel poverty gap (shown by the vertical arrow) which represents the difference between the required fuel costs for each household and the median required fuel costs.

The fuel poverty gap for each individual household is then aggregated across all fuel poor households to produce an overall fuel poverty gap which gives a sense of the depth of fuel poverty on a national level.

**Figure 1: Fuel poverty under the Low Income High Costs indicator**



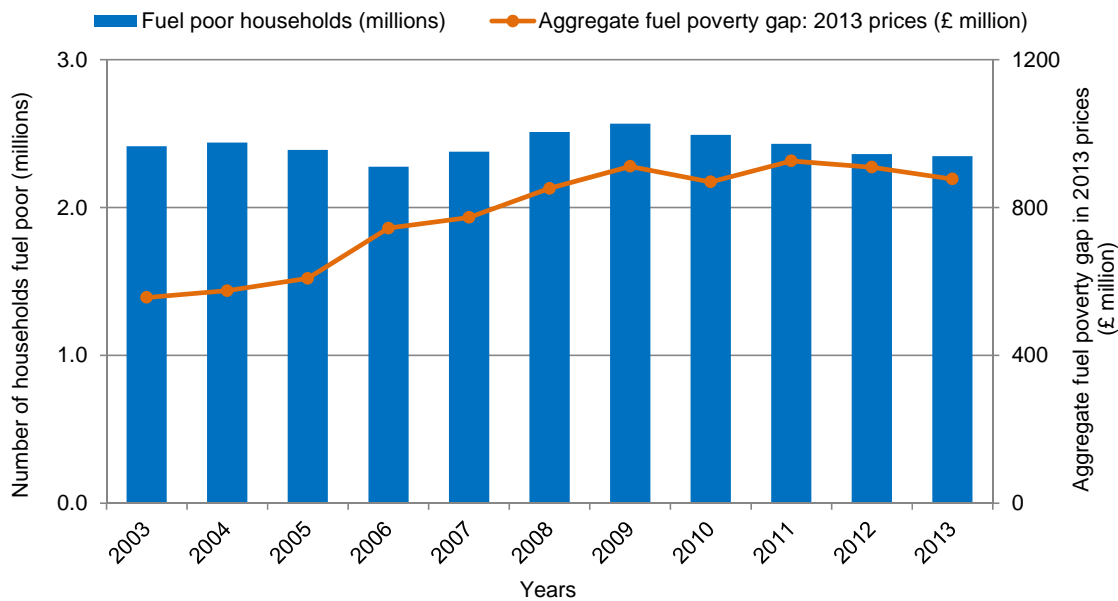
### Headline figures

In 2013, the number of households in fuel poverty in England was estimated at around 2.35 million, representing approximately 10.4 per cent of all English households. This is broadly unchanged from 2.36 million households in 2012 (a change of around 0.5 per cent). The aggregate fuel

<sup>1</sup>[www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/408644/cutting\\_the\\_cost\\_of\\_keeping\\_warm.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/408644/cutting_the_cost_of_keeping_warm.pdf)

poverty gap fell by four per cent in real terms, from £909 million in 2012 to £877 in 2013, and the average fuel poverty gap also fell, in real terms, from £385 to £375.

**Chart 1: Fuel poverty in England, 2003 – 2013**



In 2014 Government set a target to improve the energy efficiency of fuel poor homes, by getting as many households as reasonably practicable to a minimum standard of band C by 2030. Table 1 shows fuel poor households by the Fuel Poverty Energy Efficiency rating<sup>2</sup> of their dwellings. As can be seen, the proportion of fuel poor households in band C has increased from two to five per cent between 2010 and 2013. There has also been an increase in the proportion of households in band D and a reduction in fuel poor households in bands E and F.

**Table 1: Fuel Poverty by the FP Energy Efficiency Rating, 2010- 2013**

Band	2010		2013	
	Number	Proportions	Number	Proportions
A/B				
C	0.04	2%	0.11	5%
D	0.69	28%	1.09	46%
E	1.23	49%	0.84	36%
F	0.39	16%	0.23	10%
G	0.14	6%	0.08	3%
Total	2.49	100.0%	2.35	100%

### Interpreting Fuel poverty

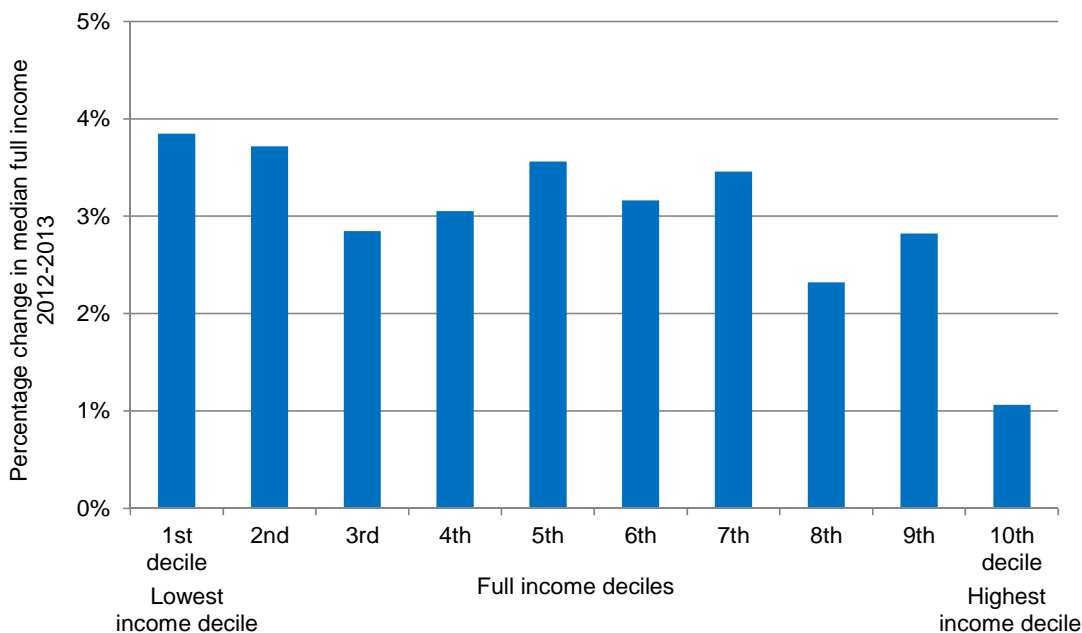
The fuel poverty status of a household is driven by an interaction of three key factors: incomes, fuel prices and energy efficiency.

#### Income

In 2013, average median full income (before housing costs) continued to increase. However, as the chart below shows, this increase was not evenly spread across the income decile groups. Those households in the lower income deciles saw a greater rise in their income than those in the higher income deciles.

<sup>2</sup> For details on the Fuel Poverty Energy Efficiency Rating Methodology see: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/332236/fpeer\\_methodology.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/332236/fpeer_methodology.pdf)

**Chart 2: Annual percentage change in median full income by income deciles, 2012 – 2013**

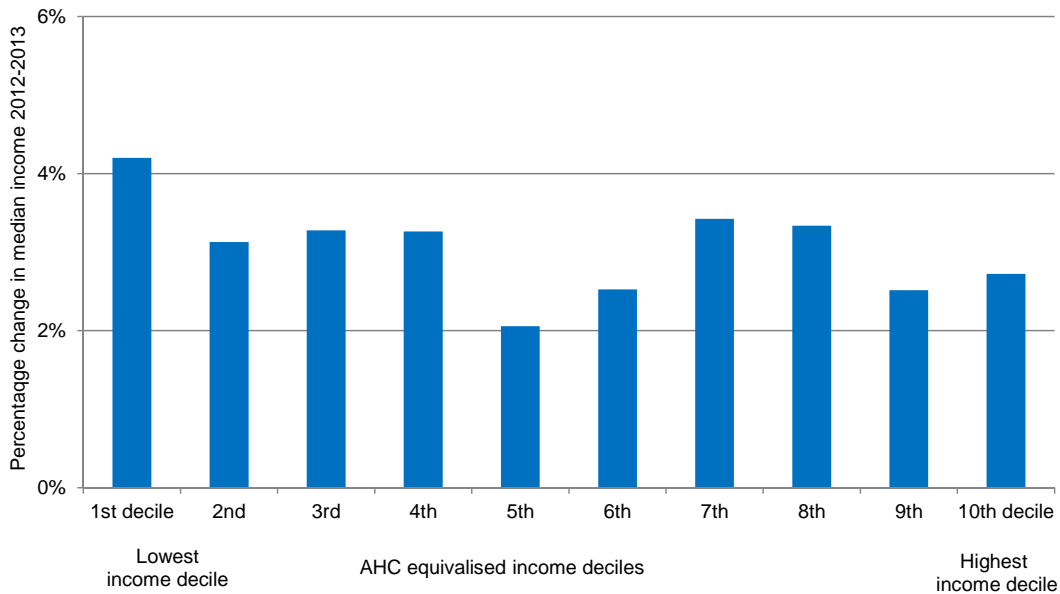


Households in the lower income deciles are predominantly in receipt of state benefit, tax credits and housing related income. In contrast, incomes of households in the higher deciles are dominated by earnings. As a result, increases in state benefits and housing income are a major factor behind income rises in the lower deciles, whilst in general earnings saw smaller increases, affecting the incomes of households in the higher income deciles. Household income is made up of various elements, including benefits, earnings and income from additional adults. In 2013 there has been an increase in income from additional adults in the household, across all deciles, reflecting the growth in multi-person households.

Under the LIHC indicator, housing costs are taken off the income of each household. This is to reflect that money spent on housing costs cannot be spent on fuel. Once housing costs are deducted, incomes are then equivalised to reflect the fact that different household types will have different spending requirements. For example, a single person on a given income will usually have more disposable income than a family of four on the same income.

In the past, households in the lower income deciles have seen smaller increases in AHC equivalised income, as they are most likely to have housing costs. However, in 2013 households in the lower deciles have seen a larger increase in AHC equivalised income. This is because median housing costs for the bottom decile have risen by just 0.6 per cent between 2012 and 2013, compared to 4.0 per cent for the population as a whole. Moreover, rent payments for the bottom decile have risen by just two per cent. This coupled with an increase in the proportion of households renting in the bottom decile (from 68 to 74 per cent), has led to income increases outstripping the rise in housing costs.

**Chart 3: Annual percentage change in median AHC equivalised income by income deciles, 2012 – 2013**

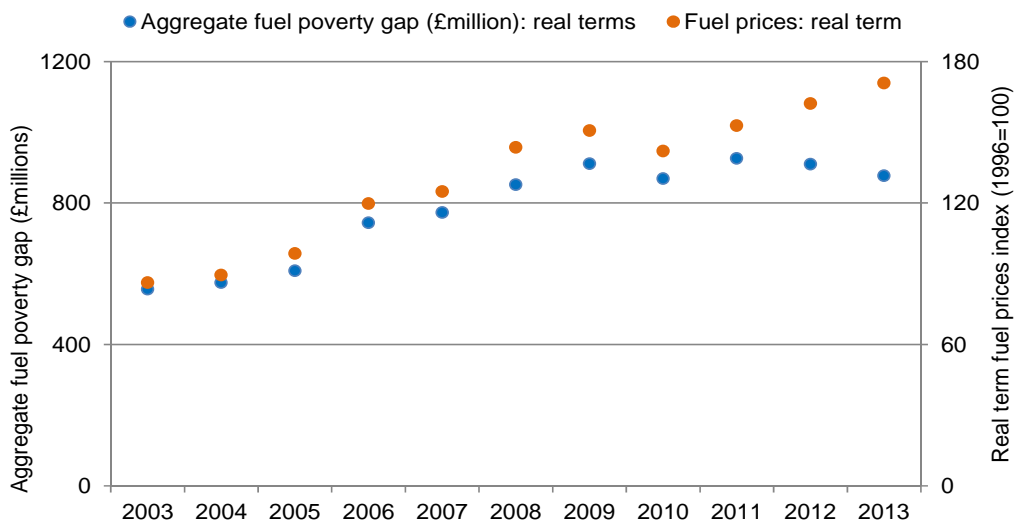


An increase in equivalised AHC income for households in the very bottom decile is however unlikely to have a large impact under the LIHC indicator, as despite their income increasing they are still likely to be classed as having ‘low incomes’.

**Prices**

Historically there has been a strong relationship between fuel prices and the aggregate fuel poverty gap as can be seen by Chart 4. As prices increased steadily between 2003 and 2009, the fuel poverty gap also increased; and when prices fell sharply in 2010, the aggregate fuel poverty gap showed a corresponding reduction

**Chart 4: Aggregate fuel poverty gap and real term fuel prices, 2003 – 2013**



However, despite rising fuel prices in 2013, both the aggregate and average fuel poverty gap fell. This is largely due to rising incomes among the low income group, which helped to temper any increase in fuel costs. This effectively moved fuel poor households closer to the income threshold

### Special feature – Fuel Poverty levels

(Figure 1). In addition, the fuel costs of the LIHC group increased by less than the overall median fuel costs, bringing them closer to the fuel cost threshold.

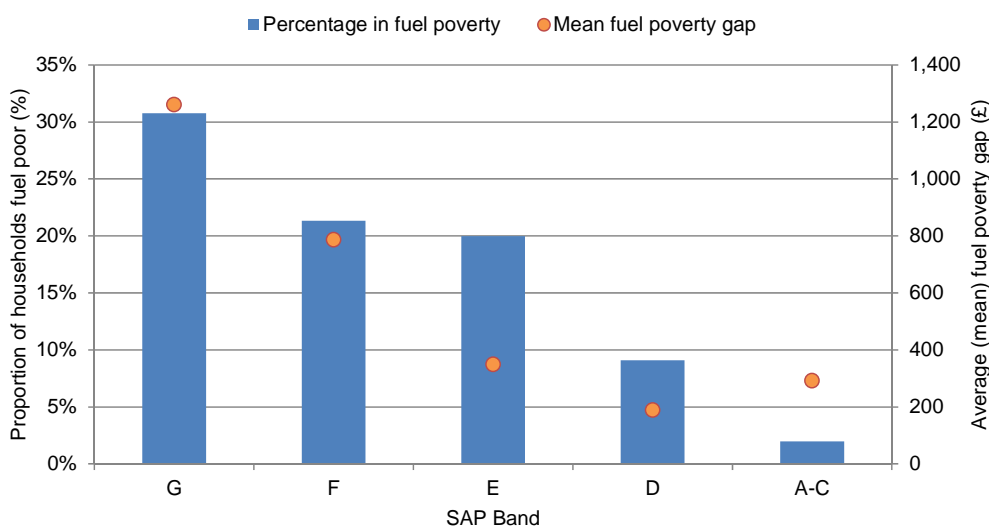
It should be noted that the correlation between prices and fuel poverty is weakened by the fact that each fuel poverty dataset is actually a combination of two consecutive years' worth of data (i.e. the 2013 data is a combination of 2012/13 and 2013/14 data).

### Energy Efficiency

The energy efficiency of a dwelling is a key driver of the likelihood of a household being fuel poor, as it is strongly linked to the fuel cost incurred by a household. The average energy efficiency of households, as indicated by the SAP 12 continued to increase in 2013, rising to 60 from 58.7 in 2012. In line with this, a greater proportion of dwellings are now classed SAP band D or above (75% of dwellings in 2013 compared to 69% in 2012 and 64% in 2011).

Chart 5 shows the fuel poverty rates by different SAP rating bands (based on SAP12 methodology) under the low income high cost indicator.

**Chart 5: Fuel poverty by SAP band, 2013**



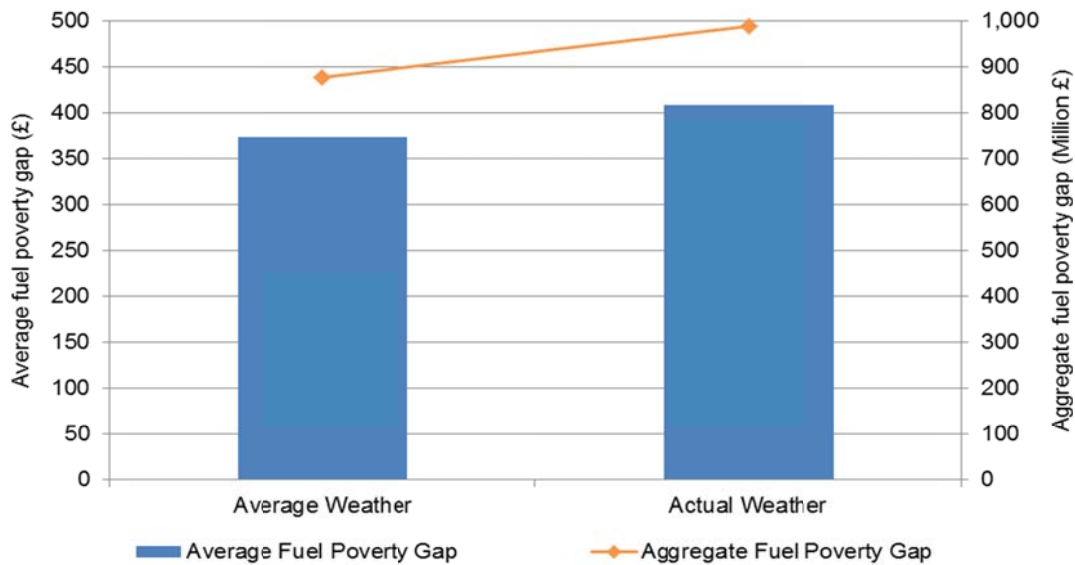
It can be seen that both the likelihood of being fuel poor and the fuel poverty gap increase in the lower SAP bands. In 2013, 31 per cent of households living in G rated properties were fuel poor compared to only two and nine per cent of households living in A/B/C and D rated properties respectively. The corresponding average fuel poverty gap is also three and half times higher in G rated properties compared to A/B/C rated properties and six times higher than in D rated properties (with an average fuel poverty gap of around £1274 in G rated properties compared to £370 in A/B/C rated properties and £209 in D rated properties).

In addition, in 2013 there were some methodological changes to the English Housing Survey which may have caused some of the reduction in the fuel poverty gap (see the full report section 1.5.2 for more details).

### Weather

Fuel poverty is calculated using standardised temperatures over a 20 year period, in order to be able to assess long term changes and identify where improvements can be made. However, for 2013 some additional analysis was undertaken looking at the impact of using actual annual temperature data on fuel poverty. It was found the number of households in fuel poverty would have been 2.42 million in 2013, using 2012 and 2013 temperature data. The aggregate and average gap would also have increased by 12 and nine per cent respectively (Chart 6).

**Chart 6: Mean and aggregate fuel gap for 2013 for average and actual temperature model runs.**



However, predicting the impact of weather on fuel poverty is complex due to the fact the fuel poverty dataset covers a two year period. Whilst it is likely that a colder year will see more households move into fuel poverty and the fuel poverty gap increase, it is plausible that different regional and local temperature effects may actually lead to a small fall in fuel poverty.

**Summary**

Due to the relative nature of the LIHC measure, it is difficult to accurately isolate absolute reasons for changes. However, in summary, low income households have seen larger rises in incomes and a smaller increase in fuel costs, than the overall population. The rise in incomes has largely been concentrated in very low income households and so has not changed their fuel poverty status, resulting in the number of fuel poor households staying broadly the same.

Rising incomes and improvements in energy efficiency amongst fuel poor households, and a smaller increase in fuel bills than experienced in the population as a whole has meant there has been a decrease in the fuel poverty aggregate and average gap.

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