

## Fuel Poverty levels in England, 2012

Through the Energy Act 2013, the Government has laid the ground for a new legal framework to monitor fuel poverty in England using the Low Income High Costs Indicator (LIHC). This new measure of fuel poverty was first proposed in Professor Hills' review of Fuel Poverty<sup>1</sup> and following consultation, the Government confirmed its intention to adopt the indicator in July 2013<sup>2</sup>. In the accompanying strategic framework document, 'Fuel Poverty: a framework for future action'<sup>3</sup>, Government set out how the new indicator will inform the strategic approach to tackling fuel poverty, including setting a new fuel poverty target which will be underpinned by a new fuel poverty strategy. Further details will be published in due course.

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

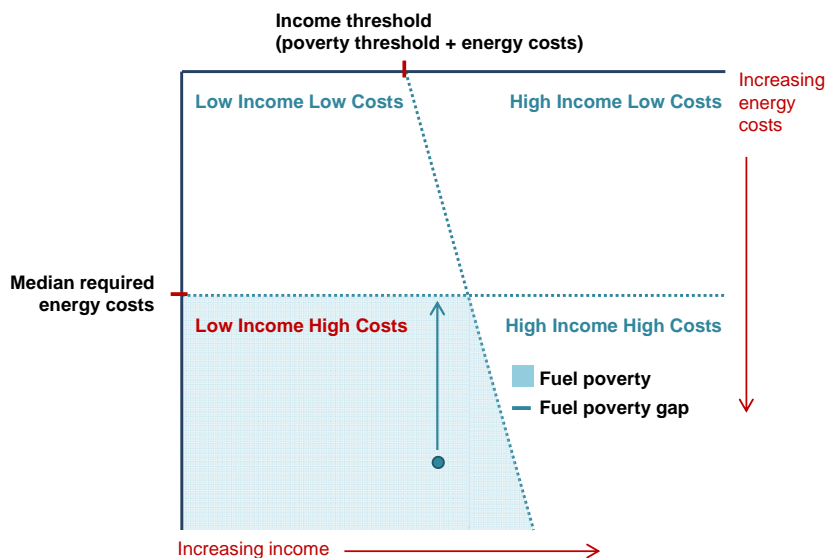
- they have required fuel costs that are above average (the national median level)
- were they to spend that amount, they would be left with a residual income below the official poverty line.

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 aggregate 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**



<sup>1</sup> See [www.gov.uk/government/publications/final-report-of-the-fuel-poverty-review](http://www.gov.uk/government/publications/final-report-of-the-fuel-poverty-review)

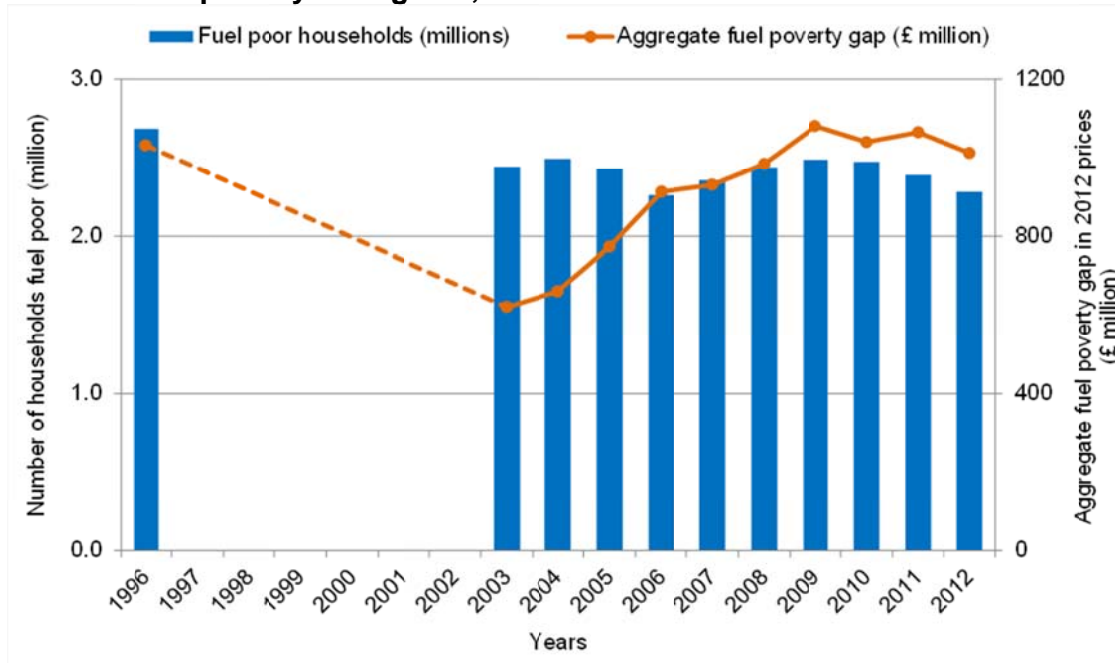
<sup>2</sup> See [www.gov.uk/government/consultations/fuel-poverty-changing-the-framework-for-measurement](http://www.gov.uk/government/consultations/fuel-poverty-changing-the-framework-for-measurement)

<sup>3</sup> See [www.gov.uk/government/publications/fuel-poverty-a-framework-for-future-action](http://www.gov.uk/government/publications/fuel-poverty-a-framework-for-future-action)

### Headline figures

In 2012, the number of households in fuel poverty in England was estimated at around 2.28 million, representing approximately 10.4 per cent of all English households. This is a fall from 2.39 million households in 2011 (a reduction of almost 5%). In line with this, the aggregate fuel poverty gap, in real terms, also dropped by around five per cent, from £1.06 billion in 2011 to £1.01 billion in 2012. The average fuel poverty gap in real terms over this period decreased from £445 to £443.

**Chart 1: Fuel poverty in England, 1996 – 2012**



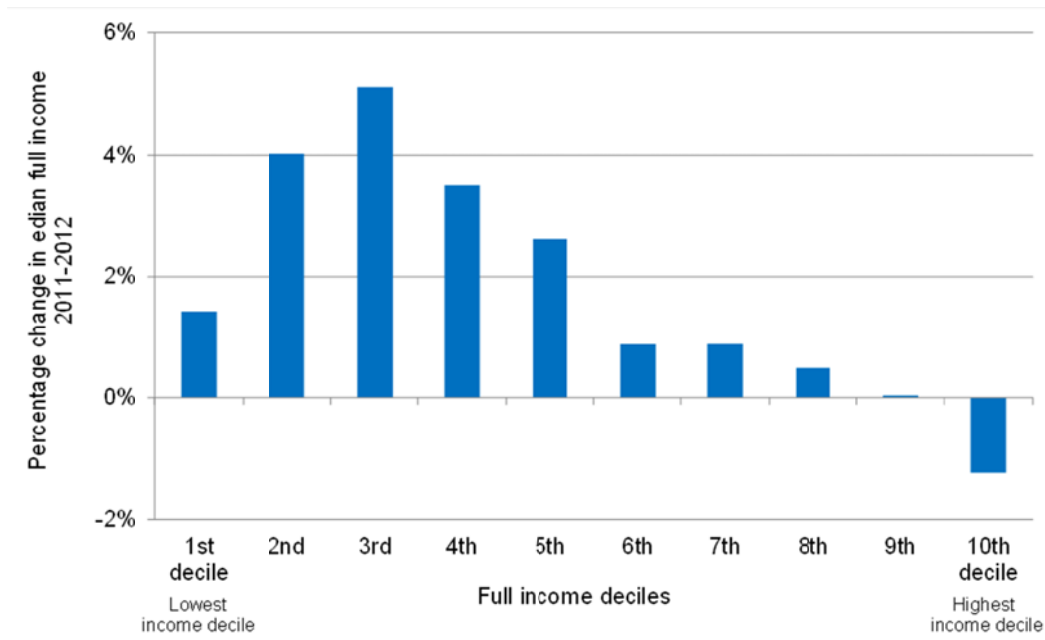
### Interpreting changes in fuel poverty

The fuel poverty status of a household depends on the interaction between three key factors: incomes, fuel prices and energy efficiency.

#### Income

In 2012, average median full income (before housing costs) increased. However, as the chart below shows, incomes did not rise equally across all income decile groups. Households in the lower income deciles who are predominantly in receipt of state benefit, tax credits and housing related income saw the largest increases. In contrast, incomes of households in the higher deciles are dominated by earnings. Rises in earnings between 2011 and 2012 saw much smaller increases. This is shown in the change in median full incomes from 2011 to 2012 in Chart 2 below:

**Chart 2: Annual percentage change in median full income by income deciles**



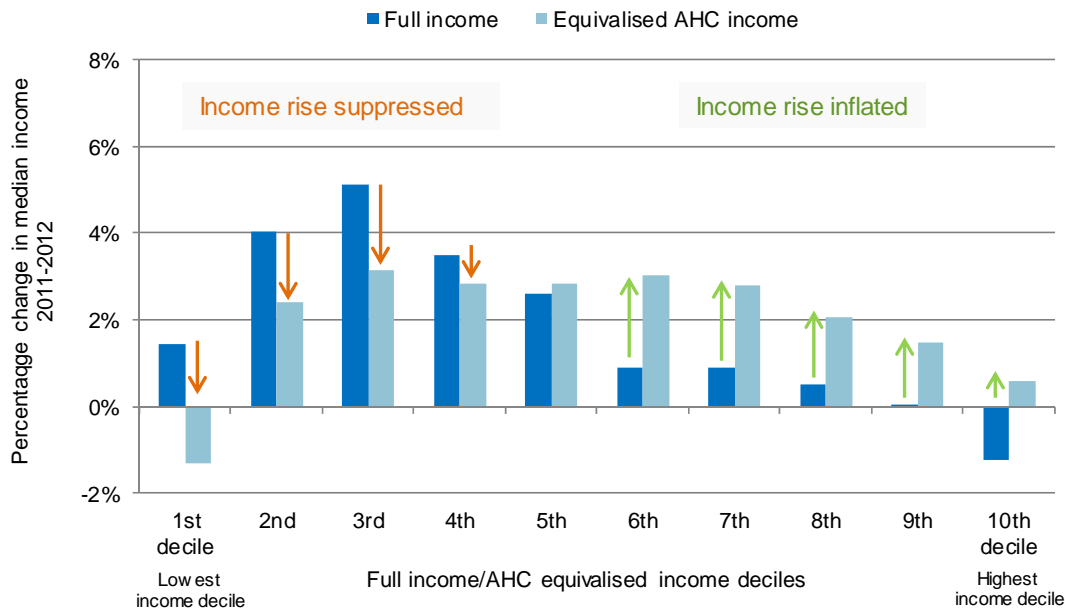
Under the LIHC indicator, housing costs are taken off the income of each household. This is to reflect that money spent on housing costs cannot be spent on fuel. Once housing costs are deducted, incomes are then equivalised to reflect the fact that different household types will have different spending 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.

Between 2011 and 2012, reported average housing costs increased considerably for households in the social housing sector and more modestly for those in the private rental sector.

Households in the lower half of the equivalised After Housing Costs (AHC) income deciles live in around 81% of all social sector housing. Therefore despite the rises seen in the full incomes of these households, increases in their housing costs act to suppress the income rise. Conversely, the lower housing costs in the higher income decile groups work to inflate the income rises.

The equivalised AHC income changes therefore show a fairly consistent income rise across the income distribution, as seen in Chart 3.

**Chart 3: Annual percentage change in median income by income deciles**



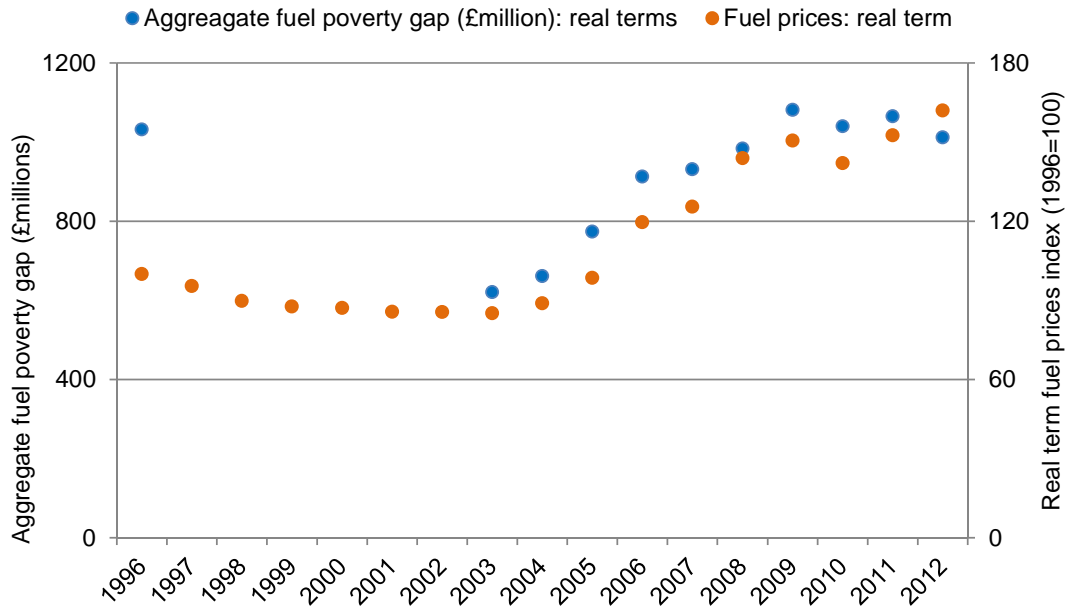
Prices

There is a strong correlation between fuel prices in real terms and the depth of fuel poverty as shown by the aggregate fuel poverty gap. As prices increased steadily between 2003 and 2009, the fuel poverty gap also increased; and when prices fell in 2010, the aggregate fuel poverty gap showed a corresponding reduction.

In 2012, despite a rise in real term fuel prices, the aggregate fuel poverty gap shows a reduction. This is mostly due to fewer households being classed as fuel poor in 2012, and part due to the change to the new model used to calculate fuel consumption (see the Annual fuel poverty report for further details).

It should be noted that each fuel poverty dataset is actually a combination of two consecutive years' worth of data. This means that the effects of price changes are staggered over a two year period.

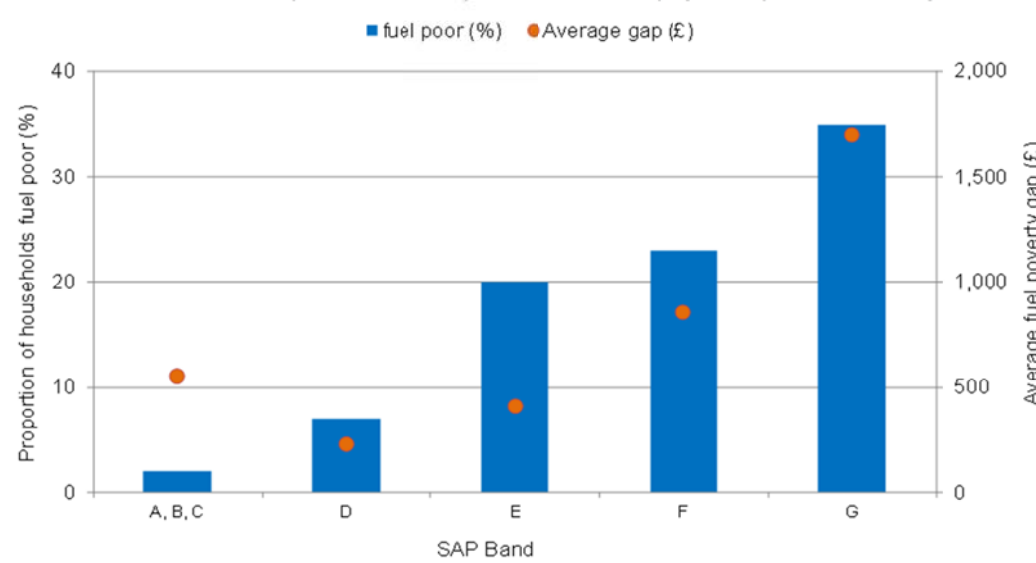
**Chart 4: Aggregate fuel poverty gap and real term fuel prices, 1996 – 2012**



Energy efficiency

The energy efficiency of dwellings is a key driver of the likelihood of a household being fuel poor, as it is strongly linked to the fuel costs incurred by the household. Chart 5 shows the fuel poverty rates by different SAP rating bands (based on SAP09 methodology) under the low income high cost indicator.

**Chart 5: Fuel poverty and average fuel poverty gap by SAP rating bands, 2012**

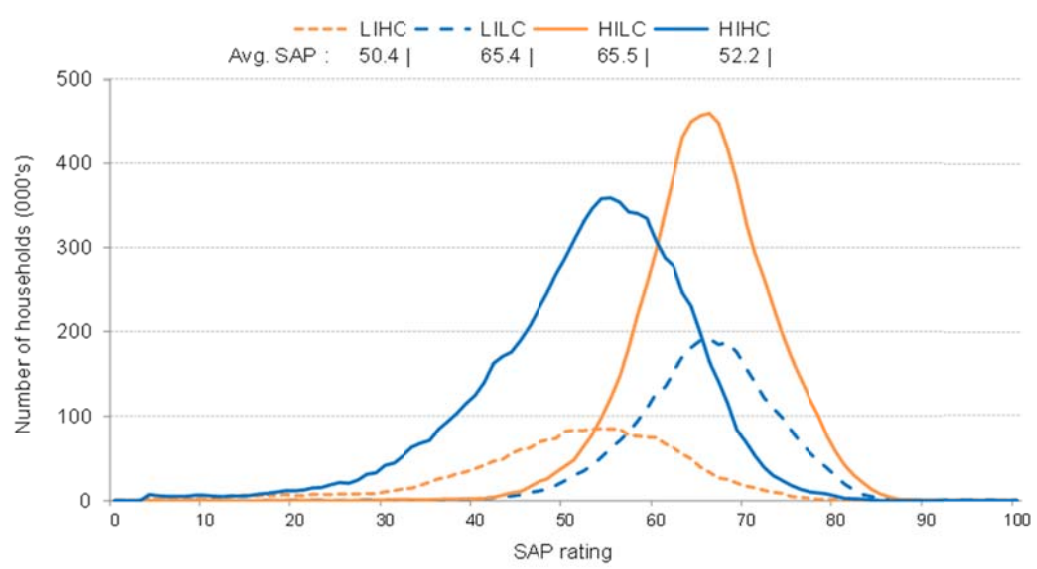


The above chart shows that the depth and likelihood of fuel poverty increases markedly with lower SAP scores. In 2012, 35 per cent of households living in G rated properties were fuel poor compared to only two and seven per cent of households living in A/B/C and D rated properties respectively. The corresponding average fuel poverty gap is also three times higher in G rated properties compared to A-C rated properties and seven times higher than in D rated properties (with an average fuel poverty gap of around £1,702 in G rated properties compared to £552 in A-C rated properties and £228 in D rated properties in 2012). The average fuel poverty gap is higher for households living in properties in bands A/B/C than households living in properties banded D or E as incomes for fuel poor households in this group are generally lower by comparison. The median

equivalised AHC income for fuel poor households in bands A/B/C was less than £6,000 pounds in 2012 compared to approximately £9,000 for fuel poor households in bands D or E. Caution should be taken when looking at the fuel poor in bands A/B/C as the number of households in this group are quite small, although the same pattern was observed in 2011.

Chart 6 shows the distribution of SAP ratings across households in all four quadrants. Fuel poor households (LIHC) and households with high incomes and high costs (HIHC) have notably lower median SAP ratings, at 50.4 and 52.2 respectively. This compares to an average SAP rating of 65.4 in low income low cost (LILC) and 65.5 in high income low costs (HILC) households.

**Chart 6: Distribution of SAP ratings for each quadrant under the LIHC indicator, 2012**



The average energy efficiency of households, as indicated by the Standard Assessment Procedure (SAP 09) continued to increase in 2012, rising to 58.6 from 56.8 in 2011<sup>4</sup>.

The table below shows that households who already have low fuel costs have seen smaller improvements in SAP (so fewer energy efficiency improvements). Whereas high costs households, which are likely to be more energy inefficient and thus have more scope for such improvements, have seen a larger increase in SAP.

<sup>4</sup> Note, this figure excludes vacant homes, and therefore differs from the SAP changes recorded in the EHS report. For more information on SAP ratings, see [www.bre.co.uk/filelibrary/SAP/2009/SAP-2009\\_9-90.pdf](http://www.bre.co.uk/filelibrary/SAP/2009/SAP-2009_9-90.pdf)

**Table 1: Median SAP ratings by each quadrant of the LIHC metric, 2011-2012**

	Median SAP score		
	2011	2012	Change
Low Income High Costs	50.4	52.2	1.8
Low Income Low Costs	64.3	65.8	1.5
High Income Low Costs	64.1	65.6	1.5
High Income High Costs	51.9	53.9	2.0
Overall population	58.7	60.6	2.0

### Summary

Due to the relative nature of the LIHC measure, it is difficult to accurately isolate absolute reasons for changes. However, in summary, changes in income, fuel costs and energy efficiency levels amongst fuel poor households are broadly consistent with the changes seen for the population as a whole. Hence the overall change in the number of households in fuel poverty was relatively small – with the reduction happening mainly due to income increases around higher income fuel poor households.

This reduction in the number of fuel poor households, coupled with the improvements to incomes and energy efficiency levels for households have reduced the aggregate and average fuel poverty gap.

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