Department for Business, Energy & Industrial Strategy

Sub-Regional Fuel Poverty in England, 2019 (2017 data)

13 June 2019 **Experimental Statistics**

Summary findings:

- Local Authorities in the South East of England and East Midlands generally have below average fuel poverty levels, while households in the West Midlands and the North West generally have the highest levels of fuel poverty.
- This is consistent with the data in Figure 3.13 of the Annual Fuel Poverty Report, which showed the South East and East Midlands have the lowest fuel poverty levels at 8.7 per cent and 9.3 per cent, respectively; and the North West and West Midlands to have higher than average fuel poverty levels at 13.1 per cent and 12.6 per cent.
- The Annual Fuel Poverty Statistics report, which provides a comprehensive view of the latest statistical trends and analysis of fuel poverty in England can be found at the following link:

  https://www.gov.uk/government/statistics/annual-fuel-poverty-statistics-report-2019

What you need to know about these statistics:

Estimates of fuel poverty at the sub-regional level should only be used to look at general trends and identify areas of particularly high or low fuel poverty. They should not be used to identify trends over time.

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Contents

Experimental Statistics: Sub-regional fuel poverty, 2019 (2017 data) 2

1.1 Introduction 2

1.2 Sub-regional fuel poverty 3

1.3 Methodology 4

1.4 Mapping fuel poverty 5

1.5 Summary 7

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Experimental Statistics[1]: Sub-regional fuel poverty, 2019 (2017 data)

1.1 Introduction

Fuel poverty in England is measured using the Low Income High Costs (LIHC) indicator[2], which considers a household to be fuel poor if:

- they have required fuel costs[3] that are above average (the national median level); and
- were they to spend that amount, they would be left with a residual income[4] below the poverty line[5].

In 2014, the Government put in place a new statutory fuel poverty target for England: to ensure that as many fuel poor households as reasonably practicable achieve a minimum energy efficiency rating of Band C[6,7] by 2030, with interim targets of Band E by 2020, and Band D by 2025.

The Government is interested in the amount of energy people need to consume to have a warm, well-lit home, with hot water for everyday use, and the running of appliances. We therefore measure fuel poverty based on *required* energy bills rather than *actual* spending. This ensures that we do not overlook those households who have low energy bills simply because they actively limit their use of energy at home, for example, by not heating their home.

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[1] They are Official Statistics which will be undergoing an evaluation process prior to being assessed as National Statistics.
[2] Further information on the LIHC indicator works can be found in Annex B of the Annual Fuel poverty Statistics Report: https://www.gov.uk/government/statistics/annual-fuel-poverty-statistics-report-2019.
[3] Fuel costs required to have a warm, well-lit home, with hot water and the running of appliances. An equivalisation factor is applied to reflect that households require different levels of energy depending on who lives in the property. Further information on how fuel costs are calculated can be found in Section 5 of the Methodology Handbook: https://www.gov.uk/government/publications/fuel-poverty-statisticsmethodology-handbook
[4] Residual income is defined as equivalised income after housing costs, tax and National Insurance. Equivalisation reflects that households have different spending requirements depending on who lives in the property. Further information on how income is modelled can be found in Section 3 of the Methodology Handbook (above).
[5] The poverty line (income poverty) is defined as an equivalised disposable income of less than 60% of the national median (Section 2): https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/articles/persistentpovertyintheukandeu/2015
[6] Energy efficiency rating is measured using Fuel Poverty Energy Efficiency Rating (FPEER), see Section 2 in the Annual Fuel poverty Statistics Report
[7] Household energy efficiency ratings are banded from *G* (lowest) to *A* (highest).

The Annual Fuel Poverty Statistics Report is a National Statistics report which provides a comprehensive view of the latest statistical trends and analysis of fuel poverty in England. It is available at:
https://www.gov.uk/government/statistics/annual-fuel-poverty-statistics-report-2019

A methodology handbook has been published alongside the annual fuel poverty publication. It is available at:
https://www.gov.uk/government/publications/fuel-poverty-statistics-methodology-handbook

The sub-regional Experimental Statistics aim to complement the National Statistics on fuel poverty, by estimating the number and proportion of fuel poor households at smaller geographical levels, for example, Local Authority (LA) level. The sub-regional statistics do not report on the average fuel poverty gap, which is the reduction to their energy bill that the average household needs to not be classed as fuel poor.

Sub-regional breakdowns are available back to 2011[8] data at the following link:

https://www.gov.uk/government/collections/fuel-poverty-sub-regional-statistics

Data available

For each of the following geographical levels, estimates are available for the total number of households, the number of fuel poor households, and the proportion of households in fuel poverty:

- English Region (former Government Office Region)[9]
- County
- Local Authority (LA)
- Parliamentary Constituency
- Lower Super Output Area (LSOA)

1.2 Sub-regional fuel poverty

In 2013, BEIS undertook an internal review of the methodology used to produce sub-regional estimates of fuel poverty, in conjunction with Office for National Statistics (ONS) Methodology Advisory Service. This review found that estimates of fuel poverty were robust at Local Authority level, but not robust at lower levels of geography. Estimates of fuel poverty at the sub-regional level should only be used to look at general trends and

[8] For the Low Income High Costs measure.
[9] These are National Statistics and are presented in the Annual Fuel Poverty Statistics Report. https://www.gov.uk/government/collections/fuel-poverty-statistics

identify areas of particularly high or low fuel poverty. They should not be used to identify trends over time. In particular, estimates of fuel poverty at Lower Super Output Area (LSOA) should be treated with caution. They should not be used to identify trends over time within an LSOA, or to compare LSOAs with similar fuel poverty levels due to very small sample sizes and consequent instability in estimates at this level.

The Office of National Statistics are due to publish research investigating the ability to produce sub-regional estimates of fuel poverty using a small area estimation approach in July 2019. Feedback relating to this research are welcomed and should be sent to: fuelpoverty@beis.gov.uk

1.3 Methodology

Fuel poverty statistics are based on data from the English Housing Survey (EHS). Given the sample size of the EHS (11,963 households in 2017 fuel poverty dataset[10]), it is not possible to robustly estimate fuel poverty levels in small geographical areas, such as Local Authorities, without the use of modelling.

A model is created, matching data from the EHS on whether a household is fuel poor or not with data from other sources available for all Census Output Areas (OA)[11], e.g. Census 2011 data.

The model is used to estimate the levels of fuel poverty for all OAs across England; these are then aggregated to higher level geographies, which are constrained to the regional totals. This modelling approach introduces the possibility that small atypical areas are not accurately picked up by the model. It is therefore essential to compare, where possible, the modelled sub-regional level results to the national and regional statistics.

More information on the sub-regional statistics methodology can be found at the following link:

https://www.gov.uk/government/publications/fuel-poverty-sub-regional-methodology-and-documentation

[10] More information on the EHS combined dataset can be found in Section 1 and Annex B of the Annual Fuel Poverty Statistics report: https://www.gov.uk/government/statistics/annual-fuel-poverty-statistics-report-2019
[11] More information on ONS census geography: http://www.ons.gov.uk/methodology/geography/ukgeographies/censusgeography

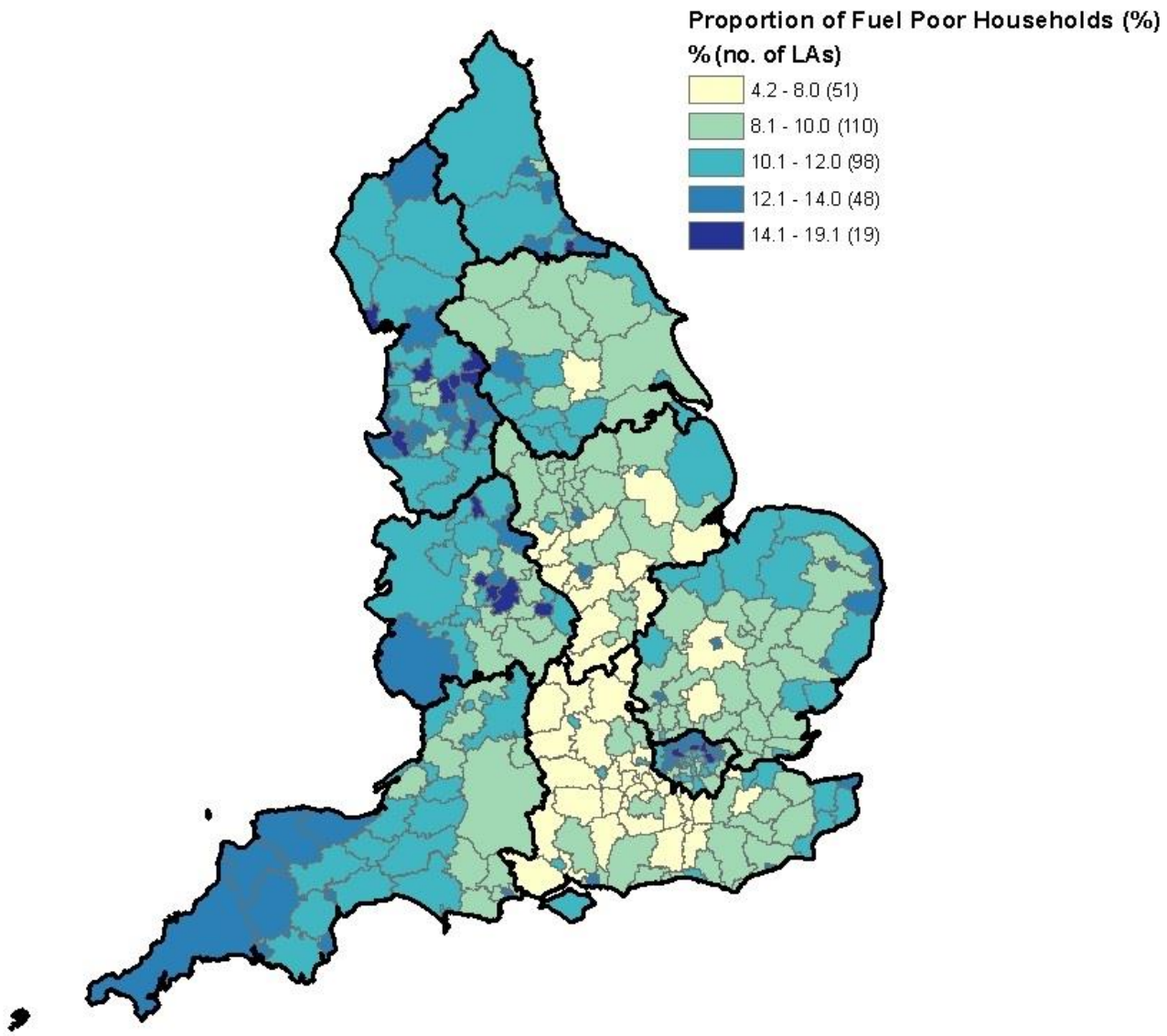
1.4 Mapping fuel poverty

Maps provide a useful way of comparing fuel poverty across different geographical areas. Figure 1.1 shows the proportion of households in fuel poverty in England at Local Authority level.

Many of the Local Authorities in the South East of England and East Midlands generally have below average fuel poverty levels, while households in the West Midlands and the North West generally have the highest levels of fuel poverty. This is consistent with the data in Figure 3.13 of the Annual Fuel Poverty Report, which showed the South East and East Midlands have the lowest fuel poverty levels at 8.7 per cent and 9.3 per cent, respectively; and the North West and West Midlands to have higher than average fuel poverty levels at 13.1 per cent and 12.6 per cent. For comparison, in 2017, 10.9 per cent of households were classed as fuel poor in England.

Estimates of fuel poverty at the sub-regional level should only be used to look at general trends and identify areas of particularly high or low fuel poverty. They should not be used to identify trends over time.

Figure 1.1: Households in the North West and West Midlands have the highest levels of fuel poverty in 2017



1.5 Summary

BEIS has published sub-regional Experimental Statistics alongside the National Statistics on fuel poverty, providing estimates of the number and proportion of fuel poor households at smaller geographies, including Local Authority. This is accompanied by a fuel poverty map across Local Authorities in England.

The datasets which underpin this report can be found at the following link on the BEIS website:

https://www.gov.uk/government/collections/fuel-poverty-sub-regional-statistics

If you have any comment or feedback in relation to the development of these statistics, please contact us at:

fuelpoverty@beis.gov.uk

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