**UNIVERSITY OF YORK**

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**UPDATE OF FUEL POVERTY ESTIMATES FOR APRIL 2023 FOLLOWING THE AUTUMN STATEMENT ON 17 NOVERMBER 2022.**

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Since August 2022 we have been making estimates of household fuel poverty (spending more than 10% or more of net after housing costs equivalent income on fuel) based on the secondary analysis of the ONS Living Costs and Food Survey 2019/20. The most recent version of these was published by the Child Poverty Action Group in their journal *Poverty* [here](https://askcpag.org.uk/content/208471/rising-fuel-poverty).

On 17 November 2022 the Chancellor announced that the Energy Price Guarantee (EPG) would be raised from £2500 to £3000 from April 2023 when the £400 per household energy rebate would also end. He also announced that social security benefits and pensions would rise by 10.1% and there would be a new set of costs of living payments for pensioner, those receiving means-tested benefits and people on disability benefits.

Meanwhile the ONS had sent the micro data from the 2020/21 LCFS to the survey archive. This update is based on that data.

There is one other addition that we have made to our original analysis. Unlike our previous analyses using the 2019/20 LCFS in this version using LCFS 2020/21 we have increased net household income by 10%. This is an attempt to adjust for improvements in net income between September 2020 and April 2023. We have to acknowledge it is only an estimate. Household incomes will have been affected by Covid during 2020/21 especially the £20 per week uplift in Universal Credit. There were upratings of benefits in April 2021 (by 0.5%) and 2022 (by 3.2%) and they will increase again in April 2021 (by 10.1%). Also the National Minimum Wage has been increased faster over this period than general increases in earnings. ONS estimates show that nominal earnings grew by 1.0% in the year ending April 2020, 5.5% in the year ending April 2021 and 6.9% in the year ending April 2022. But all those increases will have been offset by reductions in UC and/or increases in taxation Remember we are dealing with net household income.

There are still many defects in this analysis. We take no account of any behavioural responses. The energy price cap is applied to all expenditure on fuel and it is still not at all clear how the EPG is going to be delivered to oil and LPG users. It is not possible to take account of household energy requirements using the LCFS. The [government measure of fuel poverty](https://www.gov.uk/government/collections/fuel-poverty-statistics#2020-statistics) based on the English Housing Survey attempts to do that. But their estimates are not up to date. We have not yet taken account of the cost-of-living payments paid through the social security system.

We have added one new indicator of fuel poverty in Table 4. This is closer to, but not identical to, the measure proposed by Professor John Hills in his [review of fuel poverty](http://eprints.lse.ac.uk/51237/). It shows the proportion of households that are pushed into poverty by rising fuel costs using the conventional income poverty threshold of net income after housing costs less than 60% of the median.

**Table 1: Weekly fuel expenditure, fuel poverty rates and fuel poverty gaps and numbers of households and individuals in fuel poverty**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **Actual 20/21** | **Oct 2022 (with rebate)**  **EPG cap: £2500** | **April 2023**  **EPG cap: £3000** |
| **Average weekly fuel expenditure** | |  | | |
|  | Mean £ | 23.50 | 32.67 | 57.66 |
|  | Median £ | 20.77 | 27.09 | 50.96 |
| **% of UK household in fuel poverty on different measures** | | | | |
| > 10% net income after housing costs | | 23.5 | 32.3 | 65.3 |
| > 20% net income after housing costs | | 7.3 | 11.1 | 27.1 |
| > 25% net income after housing costs | | 4.8 | 7.8 | 18.6 |
| > 30% net income after housing costs | | 3.6 | 5.8 | 13.6 |
| **Average weekly fuel poverty gap on different measures** | | | | |
| > 10% net income after housing costs | |  |  |  |
|  | Mean £ | 13.25 | 24.28 | 32.74 |
|  | Median £ | 8.87 | 15.96 | 24.74 |
| > 20% net income after housing costs | |  |  |  |
|  | Mean £ | 15.77 | 27.89 | 31.82 |
|  | Median £ | 9.95 | 16.16 | 21.60 |
| > 25% net income after housing costs | |  |  |  |
|  | Mean £ | 18.55 | 29.14 | 32.98 |
|  | Median £ | 12.18 | 18.85 | 21.71 |
| > 30% net income after housing costs | |  |  |  |
|  | Mean £ | 21.39 | 30.43 | 34.18 |
|  | Median £ | 14.35 | 17.49 | 22.56 |
| **Number of households living in fuel poverty on different measures** | | | | |
| > 10% net income after housing costs | | 6,525,000 | 8,964,000 | 18,109,000 |
| > 20% net income after housing costs | | 2,037,000 | 3,071,000 | 7,517,000 |
| > 25% net income after housing costs | | 1,330,000 | 2,166,000 | 5,166,000 |
| > 30% net income after housing costs | | 996,000 | 1,608,000 | 3,763,000 |
| **Number of people in fuel poverty on different measures** | | | | |
| > 10% net income after housing costs | | 17,128,000 | 24,504,000 | 45,503,000 |
| > 20% net income after housing costs | | 5,207,000 | 8,497,000 | 19,718,000 |
| > 25% net income after housing costs | | 3,167,000 | 6,008,000 | 13,547,000 |
| > 30% net income after housing costs | | 2,330,000 | 4,425,000 | 9,947,000 |

Sources: LCFS 2020-21 weighted data. Weekly rebate of £15.38 applied to Oct 22. Assumed 10% increase in household income in 2022-23.

**Table 2: Estimated percentages and numbers of households living in fuel poverty by region**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | October 2022 (with rebate) | | | | | | | | April 2023 | | | | | | | |
|  | **Fuel poverty thresholds, after housing costs** | | | | | | | | **Fuel poverty thresholds, after housing costs** | | | | | | | |
|  | 10% | | 20% | | 25% | | 30% | | 10% | | 20% | | 25% | | 30% | |
| **Region** | **Count (000s)** | **% within region** | **Count (000s)** | **% within region** | **Count (000s)** | **% within region** | **Count (000s)** | **% within region** | **Count (000s)** | **% within region** | **Count (000s)** | **% within region** | **Count (000s)** | **% within region** | **Count (000s)** | **% within region** |
| North East | 461 | 38.5% | 174 | 14.5% | 116 | 9.7% | 84 | 7.0% | 878 | 73.4% | 423 | 35.3% | 276 | 23.1% | 225 | 18.8% |
| North West & Merseyside | 923 | 29.6% | 254 | 8.2% | 189 | 6.1% | 132 | 4.2% | 2151 | 69.1% | 772 | 24.8% | 492 | 15.8% | 324 | 10.4% |
| Yorkshire and the Humber | 862 | 34.7% | 328 | 13.2% | 234 | 9.4% | 160 | 6.4% | 1741 | 70.1% | 759 | 30.5% | 525 | 21.1% | 355 | 14.3% |
| East Midlands | 537 | 24.1% | 177 | 8.0% | 136 | 6.1% | 103 | 4.6% | 1390 | 62.4% | 456 | 20.5% | 324 | 14.6% | 223 | 10.0% |
| West Midlands | 675 | 28.8% | 268 | 11.4% | 179 | 7.6% | 124 | 5.3% | 1547 | 66.0% | 562 | 24.0% | 429 | 18.3% | 300 | 12.8% |
| Eastern | 859 | 33.2% | 305 | 11.8% | 233 | 9.0% | 155 | 6.0% | 1644 | 63.5% | 756 | 29.2% | 525 | 20.3% | 400 | 15.4% |
| London | 1128 | 34.4% | 416 | 12.7% | 339 | 10.3% | 280 | 8.5% | 1872 | 57.1% | 955 | 29.1% | 705 | 21.5% | 555 | 16.9% |
| South East | 1022 | 27.8% | 314 | 8.5% | 207 | 5.6% | 176 | 4.8% | 2156 | 58.6% | 769 | 20.9% | 534 | 14.5% | 390 | 10.6% |
| South West | 843 | 35.4% | 269 | 11.3% | 179 | 7.5% | 137 | 5.8% | 1588 | 66.7% | 685 | 28.8% | 450 | 18.9% | 325 | 13.6% |
| Wales | 505 | 40.1% | 139 | 11.0% | 68 | 5.4% | 47 | 3.7% | 879 | 69.8% | 407 | 32.3% | 259 | 20.6% | 173 | 13.7% |
| Scotland | 828 | 33.5% | 309 | 12.5% | 223 | 9.0% | 169 | 6.8% | 1740 | 70.4% | 713 | 28.9% | 459 | 18.6% | 369 | 14.9% |
| Northern Ireland | 320 | 44.3% | 118 | 16.3% | 63 | 8.7% | 42 | 5.8% | 522 | 72.3% | 261 | 36.1% | 188 | 26.0% | 124 | 17.2% |
| Total | 8963 | 32.3% | 3071 | 11.1% | 2166 | 7.8% | 1609 | 5.8% | 18108 | 65.3% | 7518 | 27.1% | 5166 | 18.6% | 3763 | 13.6% |

Sources: LCFS 2020-21 weighted data.

**Table 3: Estimated fuel poverty rates by household type**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | October 2022 (with rebate) | | | | | | | | April 2023 | | | | | | | |
|  | **Fuel poverty thresholds, after housing costs** | | | | | | | | **Fuel poverty thresholds, after housing costs** | | | | | | | |
|  | **10%** | | **20%** | | **25%** | | **30%** | | **10%** | | **20%** | | **25%** | | **30%** | |
| **Family Type** | **Count (000s)** | **% within Family Type** | **Count (000s)** | **% within Family Type** | **Count (000s)** | **% within Family Type** | **Count (000s)** | **% within Family Type** | **Count (000s)** | **% within Family Type** | **Count (000s)** | **% within Family Type** | **Count (000s)** | **% within Family Type** | **Count (000s)** | **% within Family Type** |
| **Single** | 1047 | 24.7% | 517 | 12.2% | 437 | 10.3% | 373 | 8.8% | 2163 | 51.1% | 1163 | 27.5% | 902 | 21.3% | 709 | 16.7% |
| **Couple** | 954 | 18.1% | 271 | 5.1% | 200 | 3.8% | 129 | 2.4% | 2376 | 45.1% | 820 | 15.6% | 518 | 9.8% | 363 | 6.9% |
| **Couple with 1 child** | 649 | 32.1% | 265 | 13.1% | 148 | 7.3% | 124 | 6.1% | 1291 | 63.9% | 521 | 25.8% | 372 | 18.4% | 297 | 14.7% |
| **Couple with 2 children** | 1045 | 41.5% | 311 | 12.4% | 236 | 9.4% | 185 | 7.4% | 1932 | 76.8% | 768 | 30.5% | 488 | 19.4% | 348 | 13.8% |
| **Couple with 3 children** | 472 | 57.5% | 203 | 24.7% | 157 | 19.1% | 107 | 13.0% | 713 | 86.7% | 427 | 51.9% | 303 | 36.9% | 220 | 26.8% |
| **Couple with 4 or more children** | 135 | 72.6% | 69 | 37.1% | 67 | 36.0% | 48 | 25.8% | 186 | 100.0% | 115 | 61.8% | 105 | 56.5% | 91 | 48.9% |
| **Lone parent with 1 child** | 221 | 42.0% | 101 | 19.2% | 61 | 11.6% | 43 | 8.2% | 437 | 83.1% | 231 | 43.9% | 169 | 32.1% | 141 | 26.8% |
| **Lone parent with 2 or more children** | 392 | 64.8% | 180 | 29.8% | 155 | 25.6% | 132 | 21.8% | 586 | 96.9% | 378 | 62.5% | 299 | 49.4% | 238 | 39.3% |
| **Pensioner, single** | 1070 | 28.1% | 325 | 8.5% | 229 | 6.0% | 170 | 4.5% | 2727 | 71.5% | 961 | 25.2% | 657 | 17.2% | 486 | 12.7% |
| **Pensioner couple** | 1447 | 34.0% | 369 | 8.7% | 209 | 4.9% | 120 | 2.8% | 3005 | 70.6% | 1039 | 24.4% | 654 | 15.4% | 387 | 9.1% |
| **Other pensioners (living with dependent children or multi-unit)** | 330 | 45.1% | 83 | 11.3% | 73 | 10.0% | 53 | 7.2% | 581 | 79.4% | 247 | 33.7% | 157 | 21.4% | 109 | 14.9% |
| **Other (multi-unit)1** | 1202 | 43.4% | 377 | 13.6% | 194 | 7.0% | 125 | 4.5% | 2112 | 76.3% | 848 | 30.6% | 543 | 19.6% | 373 | 13.5% |
| **Total** | 8964 | 32.3% | 3071 | 11.1% | 2166 | 7.8% | 1609 | 5.8% | 18109 | 65.3% | 7518 | 27.1% | 5167 | 18.6% | 3762 | 13.6% |

Sources: LCFS 2020-21 weighted data. A household with more than one benefit unit.

Table 4: Weekly energy expenditure, % of households and number of individuals with residual net income less than 60% of the median after housing (AHC) and energy costs (AEC), and the poverty gaps

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Actual 2020/21** | **Oct 2022 (with rebate)**  **EPG cap: £2500** | **April 2023**  **EPG cap: £3000** |
| **Energy expenditure** | Mean £23.50 | Mean £32.67 | Mean £57.66 |
| Median £20.77 | Median £27.09 | Median £50.96 |
| **Equivalised net household income** **AHC and AEC** | Mean £383.74  Median £344.15 | Mean £424.90  Median £379.68 | Mean £407.91  Median £364.63 |
| **% of households living in poverty AHC only (A)** | 29% | 27.7% | 27.7% |
| **% of households living in poverty AHC and AEC (B)** | 31.9% | 31.3% | 34.5% |
| **% point difference (B) - (A)** | +2.9% point | +3.6% point | +6.8% point |
| **Average poverty gap AHC and AEC** | Mean £95.32  Median £80.94 | Mean £103.65  Median £88.68 | Mean £111.21  Median £93.83 |
| **Number of households living in poverty AHC and AEC** | 8,859,000 | 8,678,000 | 9,574,000 |
| **Number of people living in poverty AHC and AEC** | 19,296,000 | 18,982,000 | 20,874,000 |

Source: LCFS 2020/21 weighted. Weekly rebate of £15.38 applied to Oct 22. Assumed 10% increase in household income in 2022/23.