

Statistical bulletin

# Household Costs Indices for UK household groups: January 2022 to September 2023

Household Costs Indices, 12-month growth rates, expenditure shares and contributions for UK household groups and all-households.

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# 1 . Main points

- Overall, UK household costs, as measured by the Household Costs Index (HCI), rose 8.2% in the 12 months to September 2023, little changed from the 8.3% rises in July and August 2023, and down from a peak of 12.6% in October 2022.
- Between July and September 2023, there was little difference in annual inflation rates for high- and low-income households, which were 8.3% and 8.2%, respectively in September 2023.
- Increases in household costs peaked earlier in October 2022, with low-income households (as represented by the second income decile) experiencing an annual inflation rate of 13.5%, and 2.0 percentage points higher than the rate for high-income households (as represented by the ninth income decile); electricity, gas and other fuel prices contributed to higher rates for low-income households and were partially offset by mortgage interest payments for high-income households.
- While annual household cost inflation has fallen from its October 2022 peak, owner occupiers still paying for their house experienced a rate of 9.3% in September 2023, which was 2.1 percentage points higher than the rate experienced by private renters and was primarily because of mortgage interest payments.
- Non-retired households experienced a higher annual inflation rate in September 2023 than retired households (8.3%, compared with 7.8%), despite experiencing a lower rate during the October 2022 peak (11.9%, compared with 14.2% for retired households).
- Households with children experienced a higher annual inflation rate of 8.4% in September 2023, compared with 8.1% for households without children.

## 2 . Overview of the Household Costs Indices inflation rates

The Household Costs Indices (HCIs) show how changing prices and costs affect different subgroups of the population. They differ from the Consumer Prices Index including owner occupiers' Housing costs (CPIH) and the Consumer Prices Index (CPI), which show how the prices of goods and services consumed by all households in the UK change over time. The HCIs are intended to complement our lead measures of inflation CPIH and CPI by providing insight into the inflationary experience of different household subgroups.

Consumer price statistics measure the change in price of a "fixed basket" of goods and services, as described in our [Brief guide to consumer price indices, published 2017](#). For the HCIs, the weight of each component in a subgroup's "fixed basket" is based on the average household's share of expenditure. By contrast, the CPIH and CPI baskets reflect the total share of expenditure across all households in the UK. The HCIs also include the costs faced by households from changes in mortgage interest rates, stamp duty and other costs related to the purchase of a dwelling. These costs are omitted from CPI and are measured in a different way in CPIH, reflecting its different use case ([see our Measuring changing prices and costs for consumers and households article](#)). CPIH uses the rental price for an equivalent property to represent the cost of consuming housing services.

Further differences include interest payments on debt (which are out of scope of CPIH and CPI), university education (where the HCIs capture the change in student loan repayments), and insurance weights. The approach used in CPIH and CPI reduces the insurance weight to reflect insurance claims that are paid back out to households and are, therefore, spent in other areas of the basket. More information is provided in our [Developing the HCIs article](#).

HCIs annual inflation rates for the most recent three months are presented in Table 1.

Table 1: Household Costs Indices annual inflation rates, UK, September 2022 and July to September 2023

	Sep-22	Jul-23	Aug-23	Sep-23
<b>All-households</b>	11.4%	8.3%	8.3%	8.2%
<b>Income decile 2</b>	12.0%	8.2%	8.3%	8.2%
<b>Income decile 3</b>	11.9%	8.2%	8.3%	8.2%
<b>Income decile 4</b>	11.6%	8.1%	8.1%	8.1%
<b>Income decile 5</b>	11.4%	8.2%	8.2%	8.1%
<b>Income decile 6</b>	11.2%	8.3%	8.3%	8.1%
<b>Income decile 7</b>	11.1%	8.0%	8.1%	7.9%
<b>Income decile 8</b>	10.8%	8.2%	8.3%	8.1%
<b>Income decile 9</b>	10.8%	8.3%	8.3%	8.3%
<b>Private renter</b>	9.1%	7.2%	7.2%	7.2%
<b>Social and other renter</b>	11.6%	8.9%	8.8%	8.8%
<b>Outright owner occupier</b>	12.1%	7.6%	7.5%	7.4%
<b>Mortgagor and other owner occupier</b>	11.7%	9.4%	9.6%	9.3%
<b>Retired households</b>	12.4%	8.1%	7.9%	7.8%
<b>Non-retired households</b>	11.0%	8.4%	8.4%	8.3%
<b>Households with children</b>	10.9%	8.5%	8.6%	8.4%
<b>Households without children</b>	11.5%	8.2%	8.2%	8.1%

Source: Household Costs Indices from the Office for National Statistics

#### Notes

1. The first- and tenth-income deciles are omitted as the composition of these groups can be unusual and may therefore be influenced by unrepresentative expenditures.

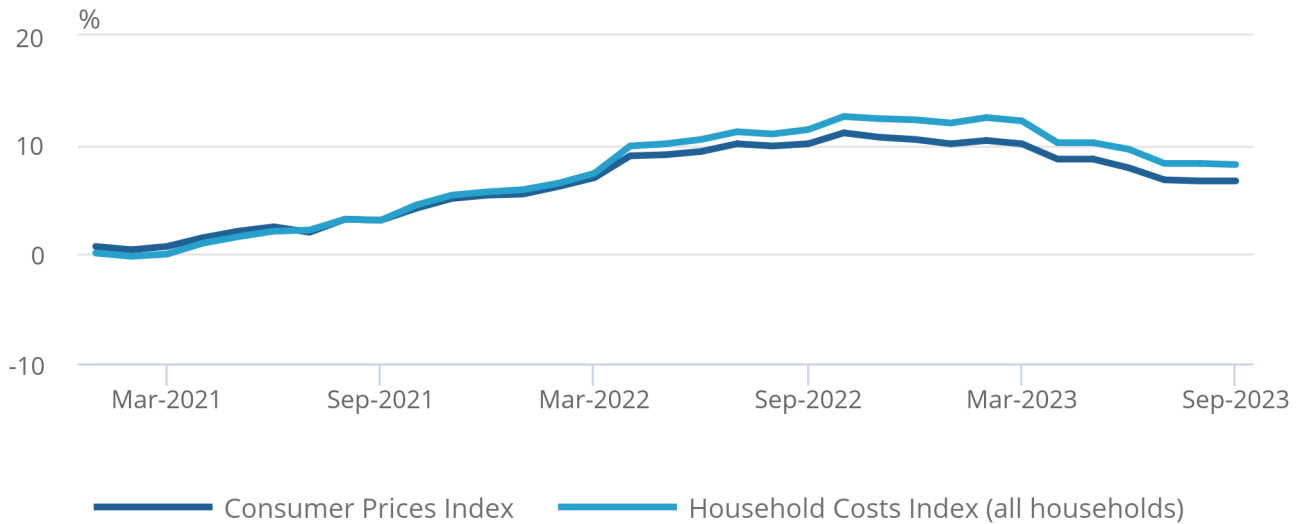
In the most recent month, September 2023, the all-households HCI annual rate was 8.2%, compared with a CPI annual inflation rate of 6.7%. The all-household HCI rate saw little change from 8.3% in July and August 2023 and was down from 12.6% at the recent peak in October 2022 (Figure 1). However, different household groups experience inflation in different ways and subgroup breakdowns of the HCIs provide greater insight into how households are affected by inflation. The following sections provide more information on HCIs by income decile and other subgroups.

**Figure 1: In the 12 months to September 2023, household costs rose by 8.2%**

Household Costs Index and Consumer Prices Index annual inflation rates (%) for all households, UK, January 2021 to September 2023

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Household Costs Index and Consumer Prices Index annual inflation rates (%) for all households, UK, January 2021 to September 2023



Source: Household Costs Indices from the Office for National Statistics

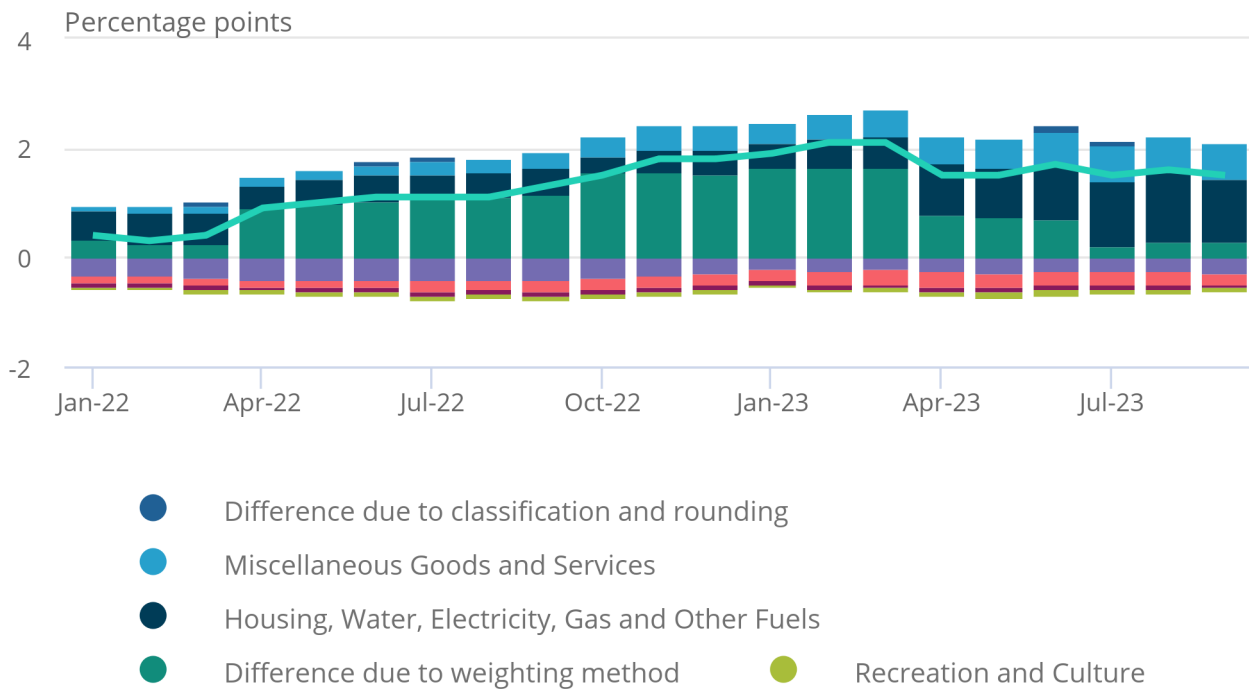
Figure 2 shows the contributions to differences in the annual inflation rates for CPI and the all-households HCI over the period January 2022 to September 2023. The largest difference of 2.1 percentage points was in March 2023, with the main contribution to the difference coming from the use of different weighting methodologies. Since then, the biggest contributions to the difference have come from housing and household services. The main compositional difference in this division is the inclusion of owner occupiers' housing costs in the HCIs.

**Figure 2: Democratic weighting contributed most to the largest difference between annual inflation rates for the all-households HCI and CPI in March 2023**

Contributions to the difference in annual inflation rates, all-households HCI less CPI, (percentage points), UK, January 2022 to September 2023

Figure 2: Democratic weighting contributed most to the largest difference between annual inflation rates for the all-households HCI and CPI in March 2023

Contributions to the difference in annual inflation rates, all-households HCI less CPI, (percentage points), UK, January 2022 to September 2023



Source: Consumer price inflation and Household Costs Indices from the Office for National Statistics

Notes:

- Contributions to the difference may not sum to the difference between CPI and all-households HCI annual inflation rates because of rounding
- Differences because of classification and rounding arise from the use of unrounded weights for HCIs, compared with rounded weights for CPI, as well as price uprating at the Class level for HCIs, compared with sub-class for CPI.
- Differences because of weighting refers to the use of democratic weights, compared with plutocratic weights for CPI.

### 3 . Household Costs Indices by income decile

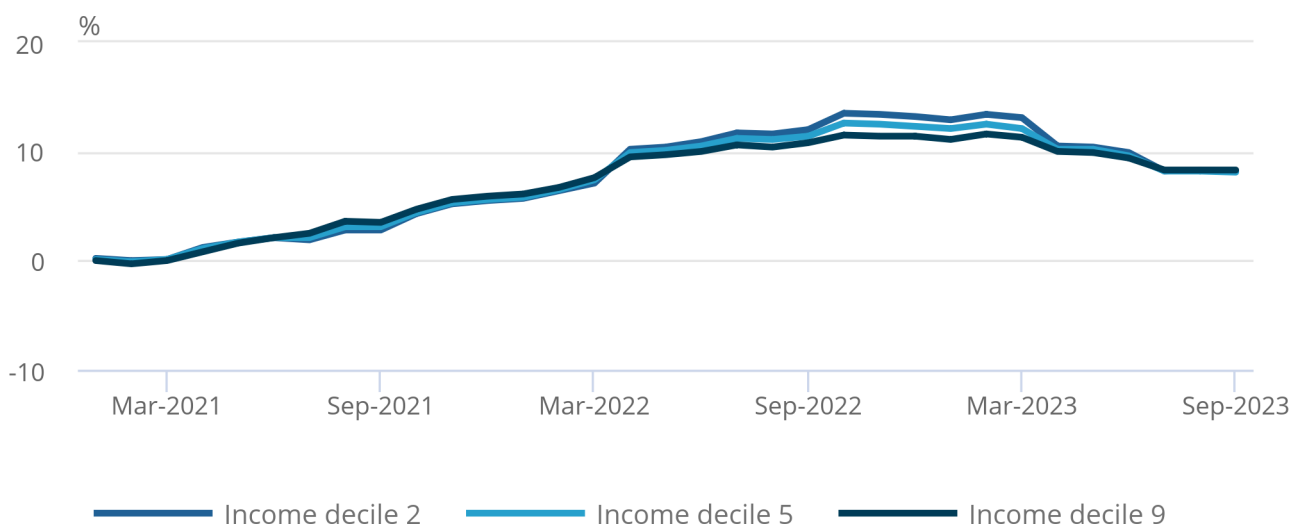
Figure 3 shows the Household Costs Indices (HCIs) annual inflation rate for income deciles over the period from January 2021 to September 2023. The data suggest little difference in annual rates for low- and high-income households (as represented by the second- and ninth-income deciles). Their rates were 8.2% and 8.3%, respectively, in September 2023. However, over the period from April 2022 to June 2023, there were substantial differences in the rates experienced by these two household groups. Inflation for low-income households peaked in October 2022 at 13.5%, the highest annual rate recorded for this group since January 2006, when our records begin. This compares with 11.5% for high income households. The gap of 2.0 percentage points is the largest gap recorded between these two groups since October 2009.

**Figure 3: Inflation for low-income households peaked at 13.5% in October 2022, 2.0 percentage points higher than for high-income households**

Household Costs Indices annual inflation rates (%) by selected income decile, UK, January 2021 to September 2023

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Household Costs Indices annual inflation rates (%) by selected income decile, UK, January 2021 to September 2023



Source: Household Costs Indices from the Office for National Statistics

Notes:

1. The second and ninth deciles are used to represent low- and high-income households; the first- and tenth-income deciles are omitted as the composition of these groups can be unusual and may be influenced by unrepresentative expenditures.

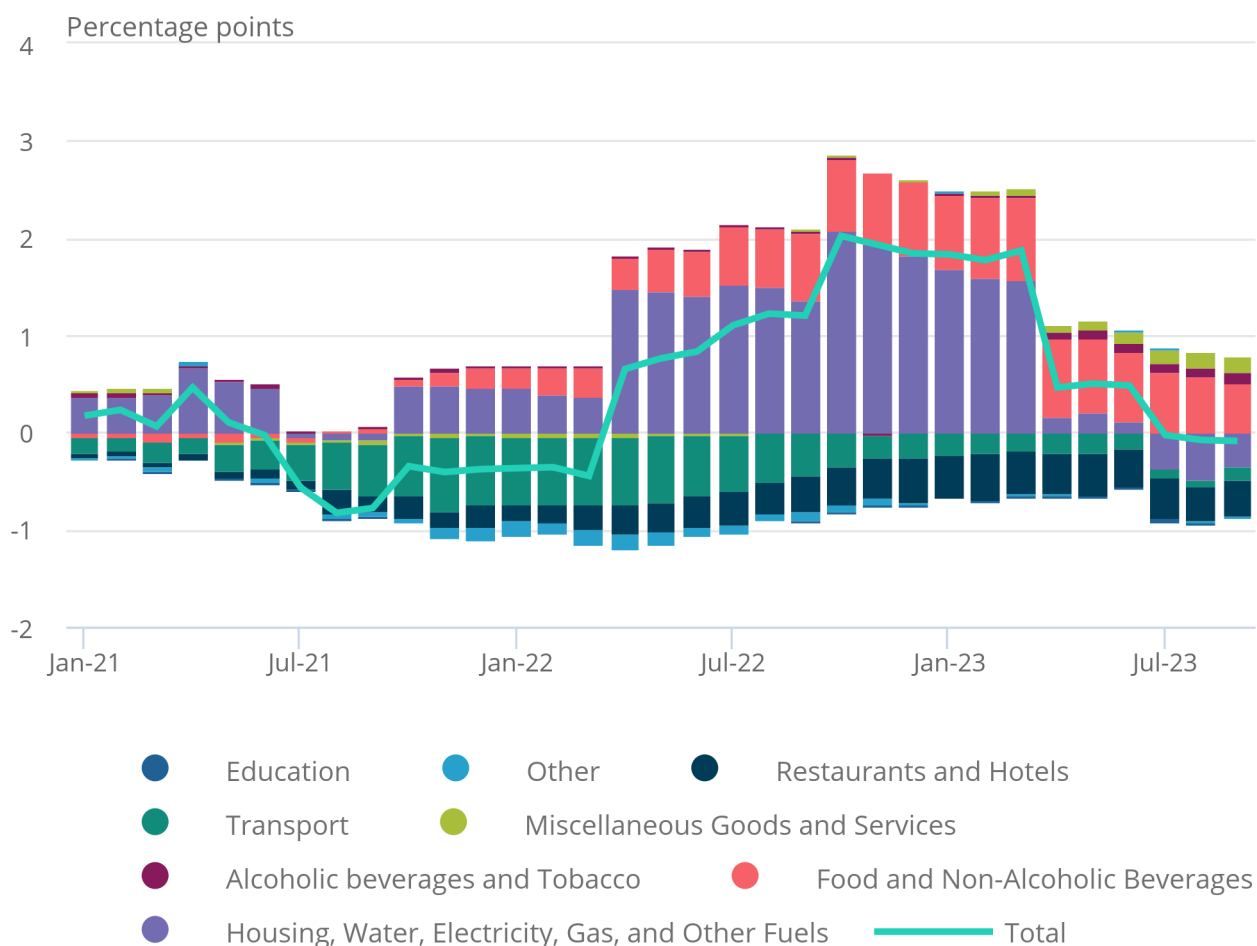
Differences between subgroups are influenced by the interaction between price movements and expenditure weights. Differences in expenditure patterns mean that, if a particular subgroup spends more on a product with a high inflation rate, they will experience a greater increase in costs relative to other households. We assume that class-level inflation rates are the same for all subgroups (for more information, please refer to our [Household Costs Indices for UK household groups Quality and Methodology Information \(QMI\)](#)). Figure 4 shows which expenditure categories are contributing the most to differences between the second- and ninth-income deciles. The contributions account for changing prices, the weight of each expenditure category relative to the basket, and the relative size of expenditure weights between the two subgroups.

**Figure 4: Housing and household services made the greatest contribution to higher inflation rates for low-income households between April 2022 and March 2023**

Contributions to the difference between the HCI annual rate, income decile 2 less income decile 9, UK, January 2021 to September 2023

Figure 4: Housing and household services made the greatest contribution to higher inflation rates for low-income households between April 2022 and March 2023

Contributions to the difference between the HCI annual rate, income decile 2 less income decile 9, UK, January 2021 to September 2023



Source: Household Costs Indices from the Office for National Statistics

Notes:

- Contributions to the difference between subgroups may not sum to the difference because of rounding.
- Positive contributions are contributing to higher inflation for low-income households and partially offsetting negative contributions are contributing to higher inflation for high-income households.

Between April 2022 and June 2023, low-income households experienced higher inflation than high-income households (shown on Figure 4 as positive values). Housing and household services made the greatest contribution to higher inflation rates for low-income households up to March 2023. This was mainly generated by electricity, gas, and other fuels, which contributed 2.38 percentage points to the gap in the October 2022 peak. This followed a period of increasing energy prices in line with rises in the [OFGEM energy price cap](#). The peak coincides with the introduction of [government's Energy Price Guarantee](#) on 1 October 2022. In October 2022, electricity, gas, and other fuels comprised 60 parts per thousand (ppt) of the basket for low-income households, compared with 33 ppt for high-income households.



The higher contribution to low-income households' costs from electricity, gas, and other fuels was partially offset by mortgage interest payments, where the costs for high-income households have risen faster. This has led to a broadly increasing negative contribution between June 2021 and September 2023. The largest negative contribution to the difference was 1.33 percentage points in August 2023. This coincides with changes to the [Bank Rate](#), which is set by the Monetary Policy Committee to meet the government's target for CPI inflation of 2%. The Bank Rate increased from 0.1% in December 2021 to 5.25% in August 2023.

Food and non-alcoholic beverages made an increasing contribution to the difference in inflation for low-income households from August 2021, with a peak of 0.85 percentage points in March 2023. Despite their contribution falling back to 0.52 percentage points in September 2023, food and non-alcoholic beverages is now the largest contributor to higher inflation for low-income households. Together, the contributions to the difference from food and non-alcoholic beverages, and smaller contributions from electricity, gas, and other fuels were offset by increasing contributions to the difference from mortgage interest payments in the most recent three months to September 2023. This has led to minimal differences in the overall annual rates for these two subgroups.

Looking further back, between July 2021 and March 2022, high-income households experienced a higher rate of inflation. The biggest gap occurred in August 2021, with annual inflation for high-income households at 3.6%, 0.8 percentage points greater than the rate for low-income households. Transport made the largest contribution to the difference in annual rates over this period, with a peak of negative 0.75 percentage points in November 2021. This coincided with a period of increasing second-hand car and motor fuel prices. Transport typically represents a larger proportion of the basket for high-income households. In November 2021, this division had a weight of 133 ppt, compared with 79 ppt for low-income households.

However, between March 2022 and March 2023, the negative contribution to the difference broadly fell from 0.70 percentage points to 0.17 percentage points. This is a "base effect" from high transport prices a year earlier, which led to a slowing of the current growth rate. See our blog post, [Beware Base Effects](#), for more information. Despite increasing negative contributions to the difference from catering prices over this period, they only partially offset the main contribution to the difference from increases in the energy price cap.

To better understand the impact of household cost inflation on different subgroups, it is also important to consider them alongside appropriate measures of income. For example, while households pay interest on outstanding debt, they will also benefit from interest on savings. The data in this publication are largely consistent with mean equivalised disposable income data published in our [Average household income, UK bulletin](#) (for more information, please refer to our [The measurement of real income in the UK: options for a coherent approach article](#)). We will aim to incorporate analysis against income measures into future Household Costs Indices for UK household groups bulletins.

## 4 . Household Costs Indices for other subgroups

Figure 5 shows annual Household Costs Indices (HCI) inflation rates for different tenure types. The highest rate in September 2023 of 9.3% was experienced by mortgagor and other owner occupiers. This was mainly because of mortgage interest payments, pushing the inflation rate up for this subgroup relative to other tenure types. Restaurants and hotels also increased the rate for mortgagor and other owner occupier households relative to social and other renter households.

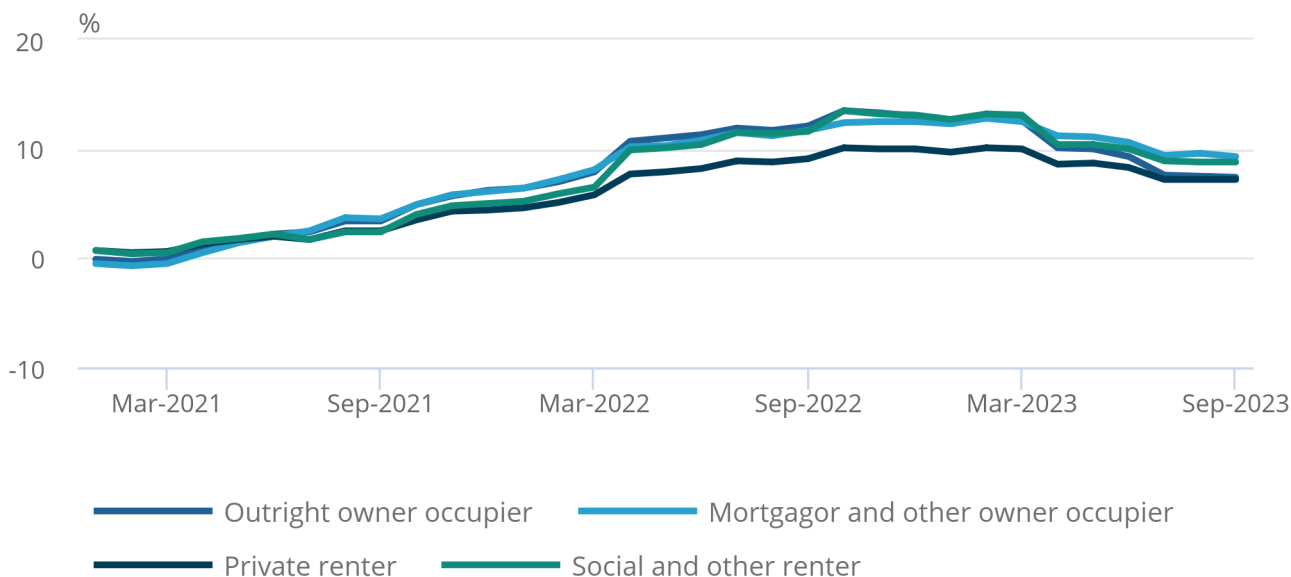
The lowest annual inflation rate in September 2023 was for private renters, whose inflation rate was also the lowest at the October 2022 peak at 10.1%. However, in October 2022, the highest rate of 13.5% was experienced by both social and other renters, and outright owner occupiers. This was mainly attributed to electricity, gas, and other fuels, which comprised 65 parts per thousand (ppt) of the social and other renters' basket and 56 ppt of the outright owner occupiers' basket. This compares with 35 ppt for both the other tenure types. Similarly, food and non-alcoholic beverage prices increased the social and other renter, and outright owner occupier household inflation rates relative to other subgroups. The weight was 148 ppt and 147 ppt respectively, compared with 118 ppt for mortgagor and other owner occupier households and 106 ppt for private renter households.

### Figure 5: Mortgagor and other owner occupier households experienced a higher household cost inflation rate than other tenures in September 2023

Household Costs Indices annual inflation rates (%) by tenure type, UK, January 2021 to September 2023

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Household Costs Indices annual inflation rates (%) by tenure type, UK, January 2021 to September 2023



Source: Household Costs Indices from the Office for National Statistics

In September 2023, the annual rate for non-retired households was 8.3%, compared with 7.8% for retired households. Household cost inflation for retired households peaked at 14.2% in October 2022, 2.3 percentage points higher than for non-retired households (Figure 6). As with our other subgroups, the period of increased differences in annual inflation rates was attributed to the impact of electricity, gas, and other fuels, and food and non-alcoholic beverages on non-retired households. However, mortgage interest payments have made an increasing contribution to the difference over the period, leading to a higher rate for non-retired households since July 2023.

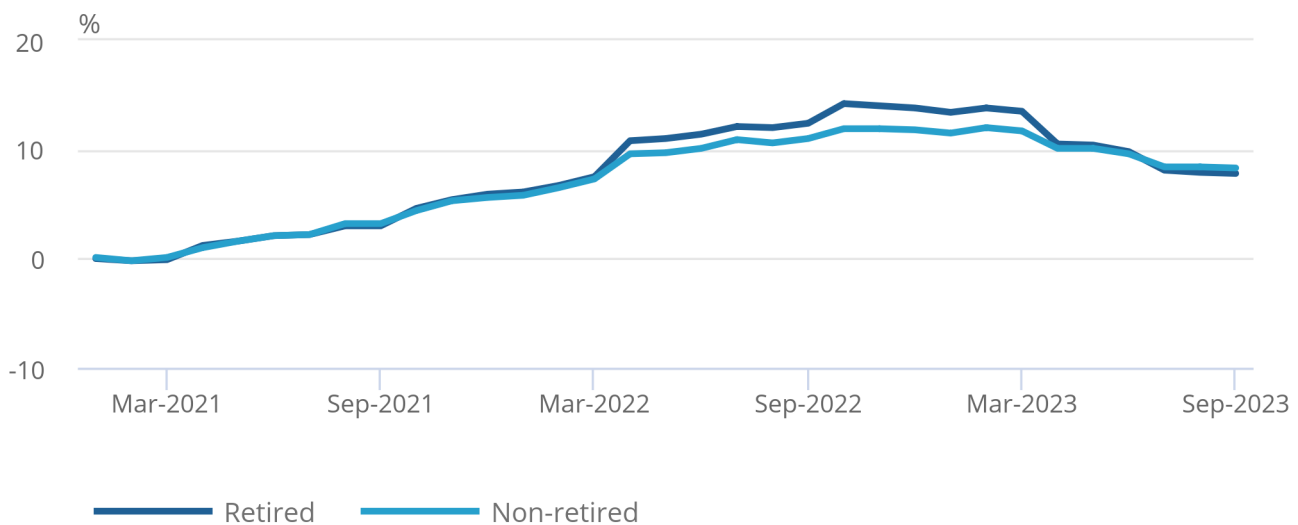
The trends seen in the HCIs breakdown by retirement status were like those observed for households with and without children. Households without children, who experienced the higher rate at the October 2022 peak, had the lower rate in September 2023 of 8.1%, compared with 8.4% for households with children.

**Figure 6: Retired households experienced the highest household cost annual inflation rate between October 2021 and June 2023**

Household Costs Indices annual inflation rates (%) by retirement status, UK, January 2021 to September 2023

Figure 6: Retired households experienced the highest household cost annual inflation rate between October 2021 and June 2023

Household Costs Indices annual inflation rates (%) by retirement status, UK, January 2021 to September 2023



Source: Household Costs Indices from the Office for National Statistics

## 5 . Household Costs Indices data

[Household Costs Indices for UK household groups reference tables](#)

Dataset | Released 4 December 2023

Household Costs Indices inflation rates, indices, weights and contributions for income deciles, tenure types, retirement status and households with and without children.

## 6 . Glossary

## Annual inflation rate

The most common approach to measuring inflation is the 12-month or annual inflation rate, which compares prices for the latest month with the same month a year ago. In any given month, the annual rate is determined by the balance between upward and downward price movements of the range of goods and services included in the index.

## Equivalised

Income and expenditure groups are based on a ranking of households by equivalised income and expenditure. Equivalisation is the process of accounting for the fact that households with many members are likely to need a higher income to achieve the same standard of living as households with fewer members.

Equivalisation considers the number of people living in the household and their ages, acknowledging that while a household with two people in it will need more money to sustain the same living standards as one with a single person, the two-person household is unlikely to need double the income. This analysis uses the [modified Organisation for Economic Co-operation and Development \(OECD\) equivalisation scale \(PDF, 165KB\)](#).

## Disposable income

Disposable income is that which is available for consumption and is equal to all income from wages and salaries, self-employment, private pensions, and investments, plus cash benefits less direct taxes.

## Disposable income deciles

Households are grouped into deciles (or tenths) based on their equivalised disposable income. The richest decile (decile 10) is the 10% of households with the highest equivalised disposable income. Similarly, the poorest decile (decile one) is the 10% of households with the lowest equivalised disposable income. It should be noted that the second and ninth deciles are more stable, so users may wish to consider these in their analysis.

## Households with children

A child is defined as any person aged under 16 years. For the purposes of the Family Spending report, people who are aged under 18 years and unmarried are also classed as children. A household is classified as a household with children if at least one member of the household is a child.

## Outright owner-occupier households

Owner-occupier households are defined as any household in which the residents own the property outright and use it as their primary or non-primary residence.

## Mortgagor and other owner-occupier households

Owner-occupier households are defined as any household that is buying their primary or non-primary residence property with a mortgage, or own part of the property (for example, paying both rent and mortgage).

## Renter households

Renter households are defined as any household that rents their property from a private sector landlord. It excludes households who live in their property rent-free.

## Social and other renter households

Non-private renter households are defined as any household that rents their property from a council or a registered social landlord or lives in their property rent-free.

## Retired persons and households

A retired person is defined as anyone who describes themselves in the Living Costs and Food Survey (LCF) as "retired" or anyone over minimum National Insurance pension age describing themselves as "unoccupied" or "sick or injured but not intending to seek work". A retired household is defined as one where the combined income of retired members amounts to at least half the total gross income of the household.

## 7 . Measuring the data

### Further data improvements

For 2022 and 2023, the household-level variable used to derive expenditure weights for stamp duty was not available to us. This is because of ongoing additional quality assurance procedures. We expect these data to become available in time for our Quarter 4 (Oct to Dec) bulletin, due to be published in February 2024, and we will therefore revise to incorporate the stamp duty variable as an exception. In the meantime, the stamp duty weights have been derived using our standard proxy methodology (which is described in more detail in our [Household Costs Indices for UK household groups Quality and Methodology Information \(QMI\)](#)).

As part of the development process for implementing the Household Costs Indices (HCI) as a quarterly publication, we have rationalised the calculation for non-mortgage interest payments while we seek to make further improvements. Some interest data are not collected as part of the Living Costs and Food Survey and must, therefore, be calculated separately. All types of interest payments are captured in the aggregate expenditure for the interest payments on debt category (12.6.9). However, household-level distributions for interest payments on loans and overdrafts are now proxied. Data on expenditure deciles are also unavailable at this time.

We will seek to implement these improvements in our February 2024 publication.

### Households and the cost of living

To help people understand how the rise in inflation affects their expenditure, we have produced a [Personal inflation calculator](#). The calculator allows users to enter the amount they spend to produce an estimate of their personal inflation based on those spending patterns.

Our [Shopping prices comparison tool](#) shows how the average prices of items have changed over time.

### Quality

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in our [Household Costs Indices for UK household groups QMI](#).

## 8 . Strengths and limitations

### Household prices

While the calculation of inflation rates for household groups is straightforward analytically, data constraints make their estimation challenging in practice. In particular, an analysis of household group-specific inflation rates would ideally use price indices and expenditure weights specific to each household group. This would reflect the fact that different households will purchase goods and services from different outlets and, therefore, face different prices.

However, such data are not available and, therefore, we have had to use national price indices as an approximation. There are also challenges that arise from the data sources that we have available for us to calculate the expenditure shares. These limitations do not impede the validity of the chosen methodology and its robustness. For more information, please see our [Methodology to calculate CPIH-consistent inflation rates for UK household groups methodology](#).

## 9 . Related links

[Impact of increased cost of living on adults across Great Britain: July to October 2023](#),

Article | Release 4 December 2023

Analysis of the groups of the population affected by recent increases in the cost of living using data from the Opinions and Lifestyle Survey and of the characteristics associated with financial resilience from the Wealth and Assets Survey.

[Consumer price inflation, UK: October 2023](#)

Bulletin | Released 15 November 2023

Price indices, percentage changes, and weights for the different measures of consumer price inflation.

[Average household income, UK: financial year ending 2022](#)

Bulletin | Released 25 January 2023

Final estimates of average household income in the UK, with analysis of how these measures have changed over time, accounting for inflation and household composition.

[UK House Price Index: September 2023](#)

Bulletin | Released 15 November 2023

Monthly house price inflation in the UK, calculated using data from HM Land Registry, Registers of Scotland, and Land and Property Services Northern Ireland.

[Shopping prices comparison tool](#)

Interactive tool | Released 3 May 2023

Search the tool to see how the average prices of hundreds of shopping items are changing.

[Personal inflation calculator](#)

Interactive tool | Released 19 June 2023

Use our inflation calculator to see how increases in the cost of living have affected you in the past year.

## 10 . Cite this statistical bulletin

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