

Measuring household income

Explaining the differences between RHDI and HBAI

31 July 2026

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Living standards is one of the hottest political issues in the UK today. But when it comes to measuring household incomes, the choice of metric matters.

There are two main measures that policy makers use to track UK household incomes: Real Household Disposable Income (RHDI) and Households Below Average Income (HBAI). RHDI is a macroeconomic measure designed to capture the real purchasing power of households. It is internationally comparable and timely, providing a mean value for household income but with little nuance beyond.

The alternative metric is HBAI, which measures household income at different points in the distribution including at the median. Unlike RHDI, HBAI adjusts for household size and composition, and takes a more expansive view of housing costs. However, data quality can be an issue, and there is a two-year lag between collection and publication.

These distinctive features mean that the two measures can tell very different living standards stories. For example, RHDI shows that between 2005-06 and 2023-24, mean household income grew by 14 per cent, while HBAI shows median household income after housing costs grew by 8 per cent. For this reason, whenever policy makers make statements about living standards, it is important to understand which measure they are using, and what it truly represents.

Policy makers make use of two different household income measures to track living standards in the UK today

There are two main measures that policy makers use to track living standards in the UK: Real Household Disposable Income (RHDI) published by the Office for National Statistics (ONS), and Households Below Average Income (HBAI) produced by the Department for Work and Pensions (DWP). These two measures differ in what they capture and how they are constructed, and these differences can have significant consequences for the picture of household income that each measure presents.

RHDI is a macroeconomic measure produced from National Accounts data that draws on a multitude of sources, including household and business surveys and administrative records. It measures the [real purchasing power of households](#), taking account of the resources that households have at their disposal (for example, earnings), and netting off non-discretionary outgoings they must make (for example, taxes). RHDI is internationally comparable, making it useful for benchmarking UK household income growth against other economies. It is published quarterly, allowing the effects of policy changes, economic shocks and wage growth on household purchasing power to be observed in close to real time. For example, the latest RHDI data was published on 30 June 2026 and it covered the period up to Q1 2026. Furthermore, although RHDI is produced for the whole UK only, the ONS publishes a version of RHDI before it is adjusted for inflation (known as gross disposable household income (GDHI)) at a [regional](#) and [local authority level](#).

The alternative, HBAI, is derived from one data source alone: DWP's Family Resources Survey (FRS), a household survey that aims to sample around 20,000 households each year. Much like RHDI, HBAI also captures [information on money coming into and out of households in the UK](#). Because this data is available for each individual household in the survey, HBAI also provides valuable information on all points of the income distribution, and can be used to track the number of households in low income or below a poverty line, or measures of overall inequality. It also captures concepts other than just incomes, with questions, for example, on health and on material deprivation. The key statistics derived from HBAI are [broadly, although not perfectly, comparable to others produced internationally](#) such as the EU's Statistics on Income and Living Conditions (SILC). HBAI is published annually but with a considerable lag: data for the financial year 2025-26 will not be available until March 2027, for example. Finally, HBAI can be used to present a household income picture in each of the nine English regions and the three devolved nations, but not for lower-level geographies.²

As with every measure, RHDI and HBAI both have their strengths and their weaknesses. Historically, the Treasury and the Office for Budget Responsibility (OBR) have foregrounded RHDI at fiscal events, reporting on trends and forecasts for the measure. Likewise, the Starmer Government adopted [RHDI per head as a headline metric in its commitment to raise living standards](#) in the UK by the end of the Parliament. But there have also been occasions where past governments have put HBAI centre-stage, such as in the [Child Poverty Strategy](#) in 2025, and the [Child Poverty Act](#) of 2010. The choice between the two measures is substantive, and it is critical to understand their differences as a result.

RHDI captures some elements of income that households do not actually have to spend

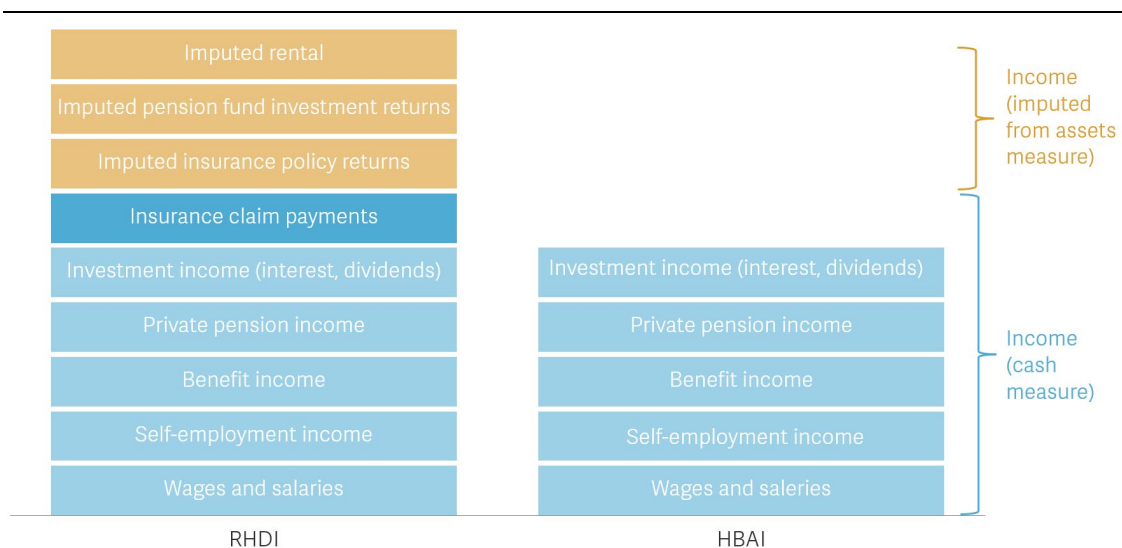
The amount of money that households have available to spend is central to most people's understanding of living standards, and both RHDI and HBAI capture components that most people would intuitively view as 'income', such as wages and benefits, or a landlord's income from rental properties. But as Figure 1 shows, RHDI also includes a number of other

elements.³ To begin, it adds insurance claim payments into the mix; but more materially, it imputes an income stream from a number of assets as well.⁴ In particular:

- RHDl counts ‘imputed rental’ as income: this is the theoretical rent that a homeowner would pay to themselves.⁵ Including this as a notional form of income keeps RHDl consistent as home ownership rates change, but it is not cash that the household actually receives or can spend.
- RHDl treats any change in the value of pension funds as income accruing to the people who own the fund, even though it cannot be accessed or spent.
- RHDl counts as an income the [returns on investment that insurance policies generate](#), which are treated as if they are paid out to policy holders and then implicitly reinvested back into policy reserves.

These income sources are appropriate to include for National Accounts purposes but are arguably less meaningful when describing a household’s living standards experience, as they represent income that households cannot actually draw upon.

Figure 1 **RHDl includes income components that are excluded in HBAI**
Partial schematic comparison of RHDl and HBAI, by income component



Notes: The height of the segments does not indicate the relative importance of the different components of income. Benefit income includes Statutory State Pension and working-age benefits.
Source: ONS Regional accounts methodology guide, June 2019; DWP, Households Below Average Income Quality and Methodology Information Report.

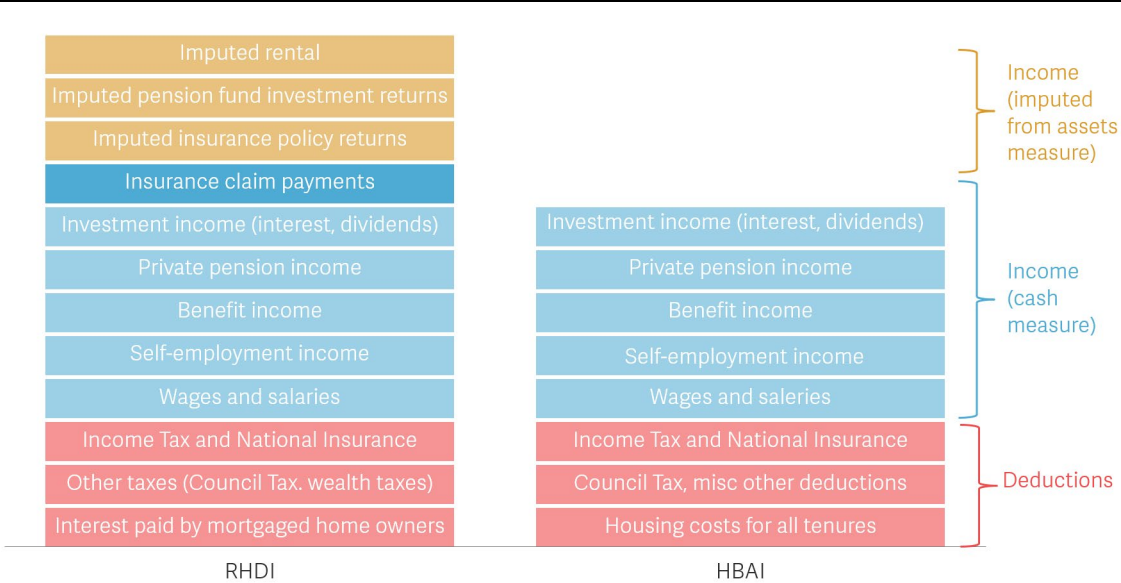
The RHDl measure takes a different approach to housing costs than HBAI

There are also important differences in how RHDl and HBAI account for a household’s essential outgoings. In Figure 2, we show which deductions are made for both RHDl and HBAI to produce a final household income figure.⁶ The two measures take a very similar approach to deducting Income Tax and National Insurance contributions, along with Council

Tax and miscellaneous other taxes. But the two measures take a radically different approach to housing costs. As well as adding imputed rental to homeowners’ income (as discussed above), RHDl deducts the interest payments that mortgaged households must pay. However, the ‘after housing costs’ version of HBAI subtracts from income not just the interest payments that mortgaged households must pay but also the rental payments made by tenants.⁷

Figure 2 **RHDI and HBAI treat housing costs in very different ways**

Full schematic comparison of RHDI and HBAI, by component



Notes: The height of the segments does not indicate the relative importance of the different components of income. Benefit income includes Statutory State Pension and working-age benefits.
Source: ONS Regional accounts methodology guide, June 2019. DWP, Households Below Average Income Quality and Methodology Information Report.

The different approaches turn on the extent to which housing costs are treated as discretionary. RHDI effectively takes the view that they are largely discretionary, and therefore presents a picture of a disposable income available to households before any decision is made as to how to spend it. In this, RHDI abides by the conventions of the [System of National Accounts](#), with rent paid by tenants treated as final consumption expenditure rather than a deduction to be made as part of the disposable income measure.

HBAI takes a different approach. The dataset does contain a before housing costs (BHC) household income variable, but the orthodox way of measuring living standards in HBAI is to deduct housing costs for all tenures to produce an after housing costs (AHC) number. For many (including the Resolution Foundation), this is generally the preferred approach because it truly reflects what households have to spend once their (usually) largest single cost is removed. This recognises that although households do have an element of choice as

to what they spend on housing, these costs are hard to flex, at least in the short to medium term.

The RHDl measure presents a per capita figure, while HBAI accounts for household size and composition

RHDl reports a figure for income per person, produced by dividing total income across the economy by the size of the population. In contrast, HBAI measures the total income of each household in the underlying survey, and then explicitly accounts for that household's composition. Most people would agree that a single adult with a household income of £50,000 has a different (and probably higher) standard of living than if the same income were shared between two adults and two children. HBAI addresses this by giving each household in the survey an 'equivalised' income, which adjusts total household income depending on the number and age of people in the household.⁸ This allows the household income of a single person and a family of four to be meaningfully compared, and conclusions drawn about their respective living standards.

Because RHDl per head takes no account of the extent to which people share households, the same figure can represent different living standards depending on household composition. In particular, [average household size has fallen over the past two decades](#). But because less sharing means people need more income each to reach the same standard of living, a measure that ignores this can show incomes per head holding steady or rising even when living standards are not.

RHDl gives the arithmetic average of household incomes but HBAI allows users to estimate median household income

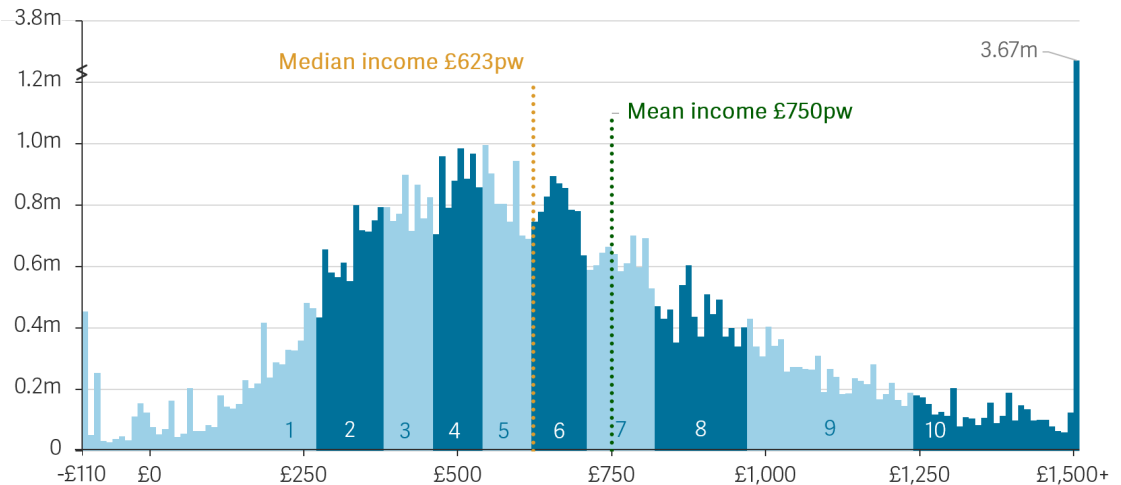
Because RHDl is a single aggregate figure divided by population headcount, it can only ever output the mean (i.e. the arithmetic average) for disposable household income. In contrast, HBAI provides estimates of household income at all points of the distribution. This is an important point because household incomes are not normally distributed. Instead, more households are clustered at the lower and middle end of the income distribution, with a smaller number of high earners stretching it towards the top (see Figure 3).

In circumstances such as this, the median value (i.e. the income of the household at the mid-point of the distribution) is [generally regarded as a more robust measure than the mean](#). This is because the mean is especially sensitive to the extremes: the average income of people in a room changes dramatically if someone with a seven-figure salary walks in, even if no one else in the room is any better off. Figure 3 brings the point home: the median sits within the main cluster of households, marking the typical case, while the mean is pulled above it towards the high earners. And the size of the difference between the two statistics is non-negligible: in 2024-25, mean household income in the UK as measured by HBAI was £750 a week; in contrast the median was £623, £127 less a week.

Figure 3

Household income is not normally distributed, with the mean income sitting above the income of the typical household

Number of individuals by weekly equivalised household income after housing costs, by income decile group: UK, 2024-25



Notes: Incomes are grouped into £10 bands. The vertical axis is broken between 1.2 million and 3.8 million, as marked: the top band (£1,500+) covers 3.67 million individuals.

Source: RF analysis of DWP, Households Below Average Income.

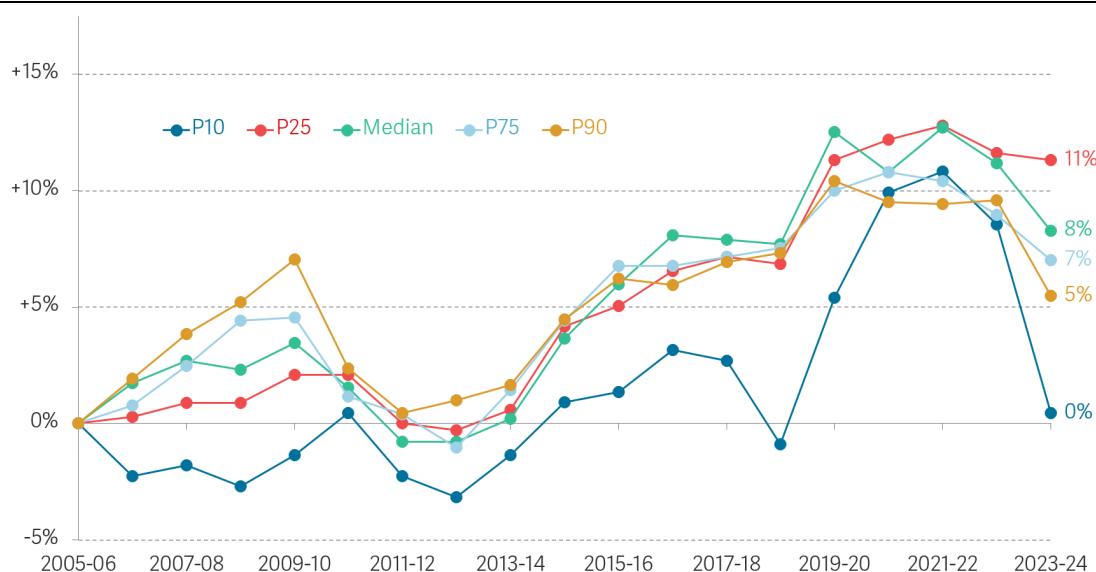
HBAI enables policy makers to understand how incomes change across the entire distribution

RHDI does not show change across the income distribution, and so it cannot reveal whether income growth in a given year is widely shared across the population or concentrated among a particular group. But understanding who is benefiting from change can be just as important as knowing whether income growth is happening at all. HBAI, by contrast, tracks income changes across the full distribution and can be broken down by, for example, income quantiles, demographic group and household type. Figure 4 provides an illustration of this: that since 2005, real equivalised household incomes (after housing costs) have grown by 8 per cent for the median household; 11 per cent for a household at the 25th percentile of the income distribution; but 0 per cent for the household at the 10th percentile. The variation in these growth rates is precisely what a distributional measure like HBAI can reveal.

Figure 4

HBAI allows policy makers to understand income growth across the entire distribution over time

Cumulative change in real equivalised household income after housing costs between 2005-06 and 2023-24, by quantile: UK



Note: Figures show cumulative percentage growth relative to base year. The latest data point is 2023-24, taken from the 2023-24 HBAI release. The 2024-25 release, which integrates survey and administrative benefit data, is not used here, as the resulting break in the series would compromise continuity over the comparison period.
Source: RF analysis of DWP, Households Below Average Income.

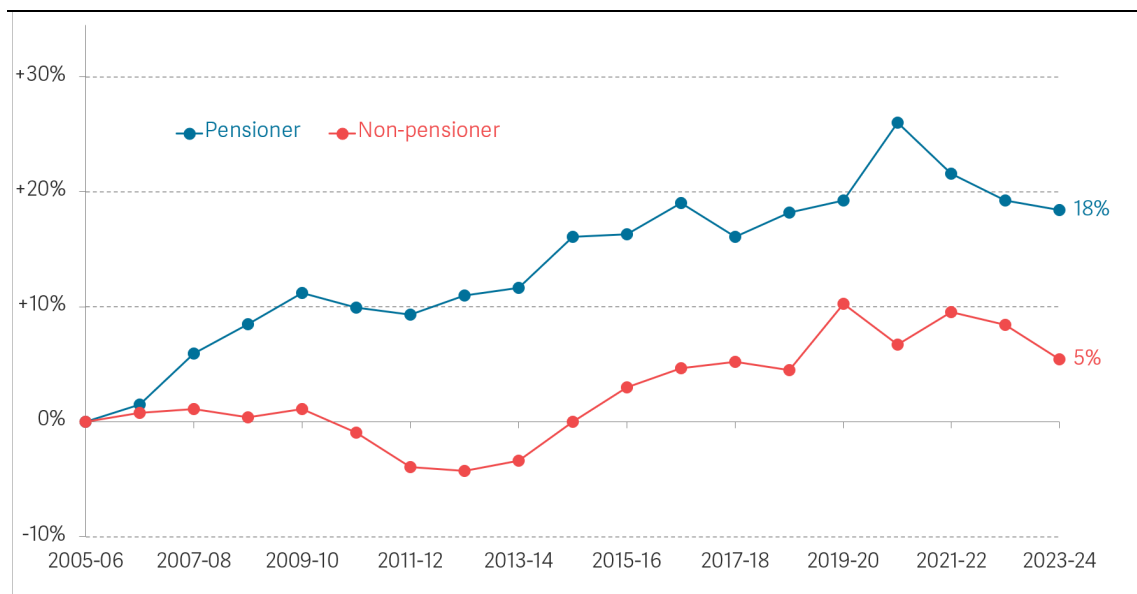
And HBAI allows policy makers to understand not just how incomes differ over time across the distribution, but also between different demographic groups. One example is working-age and pensioner incomes, which can follow very different trends as they are made up of different sources. Working-age incomes largely depend on labour market conditions and the working-age benefit system, whereas pensioner incomes are driven by the value of the State Pension, private pensions and Pension Credit. Figure 5 brings this point home, showing cumulative change in pensioner and non-pensioner incomes since 2005-06. Average pensioner incomes rose overall across the period by 18 per cent, but non-pensioner incomes rose by just 5 per cent. The divergence is sharpest between 2009 and 2013, when non-pensioner incomes fell while pensioner incomes held flat, opening a gap that persists to 2023-24.

Overall, HBAI can provide a rich and detailed picture of household income, but it does have three important limitations of which to be aware. First, in recent years, the Family Resource Survey (FRS – from which HBAI is derived) has experienced a significant decline in both response rate and sample size. Before 2020 the response rate was consistently around 50 per cent; it stood at 32 per cent in 2023-24, while the achieved sample size has fallen from around 19,000 households before 2020, to an estimated 16,000 in 2025-26. A smaller sample widens the margin of error, making estimates less reliable especially for smaller subgroups.

Figure 5

Pensioner incomes have grown over three times more than non-pensioner incomes since 2005-06

Cumulative change in real equivalised household income after housing costs between 2005-06 and 2023-24, by age group: UK



Note: Figures show cumulative percentage growth relative to base year. The latest data point is 2023-24, taken from the 2023-24 HBAI release. The 2024-25 release, which integrates survey and administrative benefit data, is not used here, as the resulting break in the series would compromise continuity over the comparison period.
Source: RF analysis of DWP, Households Below Average Income.

Second, the survey struggles to capture the bottom of the income distribution accurately. Households reporting the very lowest incomes tend to [spend far more than that income would allow](#), a pattern that points to some income at the bottom going unreported, though it does not prove it. In addition, benefit income recorded in the FRS has historically [fallen well short of what DWP administrative records show](#) is actually paid out. This underreporting of benefits has now been largely addressed by linking survey responses directly to DWP administrative benefit records [in the latest HBAI release](#).

Third, [households at the bottom of the distribution are less likely to respond to the survey](#), leaving them underrepresented, which DWP is working to address through improvements to its weighting methodology. The FRS also samples private households only, excluding people in institutions such as student halls of residence and people experiencing homelessness, groups disproportionately found at the lower end of the distribution.

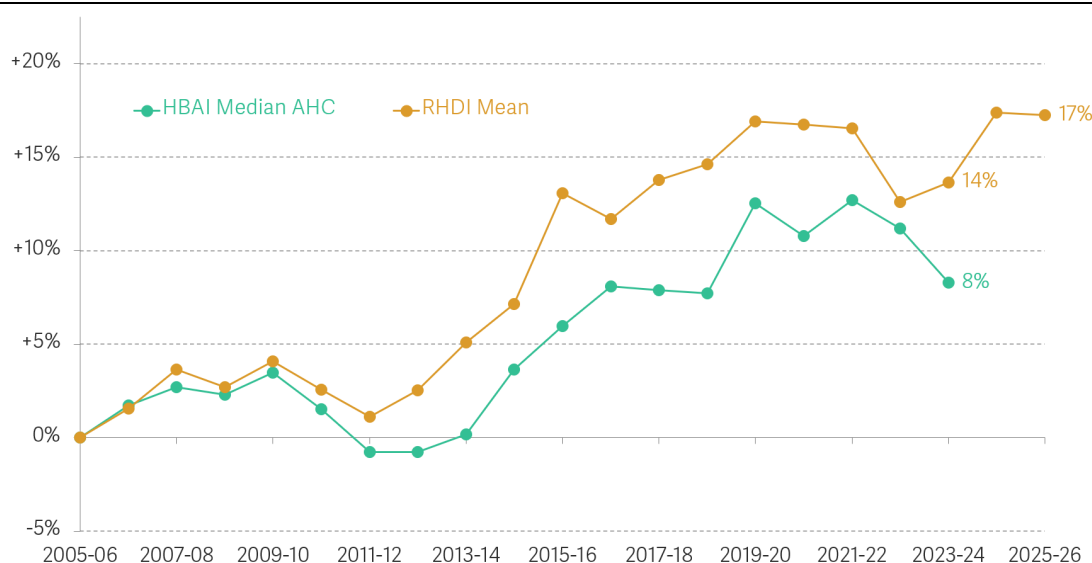
Conclusion

Both RHD and HBAI measure household income but provide different answers to inform policy. RHD provides a timely, economy-wide read on whether household purchasing power is growing in aggregate, with genuine strengths in international comparability and frequent, up-to-date publication. But it arguably does not reflect what households truly have available to spend; does not account for household composition; and does not provide a picture of

income change across the distribution. HBAI, too, has much to recommend in that it equalises for household size and can produce a wide range of distributional outputs including a median value and for population subgroups. But it also has weaknesses in that it has difficulty capturing the lowest incomes accurately; a falling survey sample size; and a two-year data lag.⁹

Figure 6 **RHDI provides a more flattering picture of income growth over the last two decades than HBAI**

Cumulative household income growth between 2005-06 and 2023-24, RHDI and HBAI: UK



Notes: Figures show cumulative percentage growth relative to base year. The latest data point is 2023-24, taken from the 2023-24 HBAI release. The 2024-25 release, which integrates survey and administrative benefit data, is not used here, as the resulting break in the series would compromise continuity over the comparison period. RHDI is published quarterly and shown here as annual figures. RHDI for 2025-26 combines published ONS outturn with OBR projections for quarters not yet available, taken from the March 2026 Economic and Fiscal Outlook. Source: RF analysis of DWP, Households Below Average Income; ONS, Real Household Disposable Income.

Fully appreciating the differences between the two measures is critical as they can (and currently do) paint a very different picture of living standards in the UK. As Figure 6 shows, RHDI and HBAI tell noticeably different stories about income growth. Over the period from 2005-06 to 2023-24, mean RHDI grew by 14 per cent while median incomes on an after housing costs basis in HBAI grew by 8 per cent. Given this, when policy makers make statements about living standards, it behoves us all to understand which measure they are using, and what it truly represents.

¹ The author thanks colleagues Mike Brewer, Alex Clegg, Lindsay Judge and Louise Murphy for research guidance and advice. Any errors, however, remain the author's own.

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- 2 Strictly speaking, HBAI does contain a local authority variable which is available from the microdata in the ONS's [Secure Research Service](#). However, sample sizes do not allow for robust results to be generated for single local authorities.
- 3 A version of this chart first appeared in: L Judge & C McCurdy, [Income outcomes: Assessing income gaps between places across the UK](#), Resolution Foundation, June 2022.
- 4 The ONS does publish a [cash RHDl variant](#) which excludes imputed rental and other imputed transactions. However, this is neither the measure that governments foreground at fiscal events nor used as the basis for the OBR's published projections.
- 5 Imputed rental is the amount of money a homeowner would have to pay in rent for the housing services they enjoy. Conceptually, one could think of this as a form of spending that a homeowner does not have to make, or a flow of income that they would receive if their tenant were paying rent. RHDl uses the latter approach, treating homeowners as if they received this money. For further details of imputed rental, see: ONS, [Changes to National Accounts: Imputed Rental](#), March 2016.
- 6 A version of this chart first appeared in: L Judge & C McCurdy, [Income outcomes: Assessing income gaps between places across the UK](#), Resolution Foundation, June 2022.
- 7 The after housing costs measure in HBAI includes other items beyond rent and mortgage interest payments, such as water charges, structural insurance premiums, ground rent and services charges. See: [Households Below Average Income: Background Information and Methodology report FYE 2025](#) for further details.
- 8 HBAI uses the [modified OECD equivalisation scale](#) to adjust for household size for income after housing costs. This assigns the following weights: first adult 0.58, spouse 0.42, other second adult 0.42, third adult 0.42, subsequent adults 0.42, children aged 14-plus 0.42, children aged 14 and under 0.20. Household income is divided by the sum of these weights to produce an equivalised figure, converting every household onto a comparable scale. A different scale is used for before housing costs income.
- 9 To bridge this gap, the Resolution Foundation produces its own projections of household income that can indicate where living standards are likely to stand before survey data becomes available. See, for example: A Clegg, L Murphy & J Smith, [Living Standards Outlook 2026](#), Resolution Foundation, February 2026.