

Statistical bulletin

Household income inequality, UK: financial year ending 2022

Initial insight into main estimates of household incomes and inequality in the UK, with analysis of how these measures have changed over time accounting for inflation and household composition.



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Next release: To be announced

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1. Other pages in this release

Average household income, UK: financial year ending 2022

2. Main points

- Disposable income inequality increased to 35.7% in the financial year ending (FYE) 2022 from 34.4% in FYE 2021.
- This follows a decrease of 1.0 percentage points between FYE 2020 and FYE 2021, the period covering the first year of the coronavirus (COVID-19) pandemic.
- Original income (before direct taxes and cash benefits) has increased from 48.6% to 50.2% in FYE 2022, reflecting greater inequality in earnings over this period; however, longer-term trends (FYE 2013 to FYE 2022) show an overall decrease in original income inequality, reducing at an average rate of 0.2 percentage points per year.
- Disposable income inequality for people in retired households increased by 1.3 percentage points to 32.1% in FYE 2022; income inequality of retired households is at its highest since records began, although remains consistently lower than for non-retired households (35.7% for FYE 2022).
- In the 10-year period leading up to FYE 2022 (FYE 2013 to FYE 2022), disposable income inequality for non-retired households has increased by 0.8 percentage points, while income inequality for people in retired households increased by 3.9 percentage points, driven by the diminishing effects of cash benefits.

3. Analysis of income inequality

Income inequality in the UK, as measured by the <u>Gini coefficient</u>, increased by 1.3 percentage points to 35.7% when comparing financial year ending (FYE) 2021 to FYE 2022 (as seen in Figure 1). This was driven by a reduction in mean <u>disposable income</u> in the fifth poorest households (3.4%), attributed to reduced original income and cash benefits. There was an increase in mean disposable income of the fifth richest households of similar magnitude (3.3%), driven by increased original income. This follows a decrease in the Gini coefficient for all households between FYE 2020 and FYE 2021, meaning inequality derived from disposable income measures in FYE 2022 have returned to comparable levels to those prior to the coronavirus (COVID-19) pandemic (35.4% in FYE 2020).

Figure 1: The Gini coefficient increased from 34.4% in financial year ending (FYE) 2021 to 36.5% in FYE 2022

Gini coefficient for disposable income and 95% confidence intervals around the central estimate, UK, FYE 2020 to 2022

Figure 1: The Gini coefficient increased from 34.4% in financial year ending (FYE) 2021 to 36.5% in FYE 2022

Gini coefficient for disposable income and 95% confidence intervals around the central estimate, UK, FYE 2020 to 2022



Source: Office for National Statistics – Household Finances Survey

Notes:

1. 2021/22, represents the financial year ending 2022, (April to March), and similarly for all other years expressed in this format.

The Gini coefficient for original income (which includes sources of income from employment, private pensions, investments and other income) has increased by 1.6 percentage points to 50.2% in the FYE 2022. However, when looking over the 10-year period leading up to FYE 2022 (FYE 2013 to FYE 2022), the Gini coefficient for original income decreased by 1.8 percentage points, reflecting greater income equality, at an average rate of 0.2 percentage points per year.

The Gini coefficient for gross income (which incorporates cash benefits) increased by 1.8 percentage points between FYE 2021 and FYE 2022 to 40.9%. Levels are slightly higher than those seen in the period prior to the coronavirus pandemic (40.0% in FYE 2020). However, they have remained broadly stable over the ten-year period leading up to FYE 2022, highlighting the effects of cash benefits.

Figure 2: Income inequality for people in retired households increased by 3.9 percentage points in the 10year period leading up to financial year ending (FYE) 2022

Gini coefficients for disposable income by household type, UK, 1977 to financial year ending 2022

Figure 2: Income inequality for people in retired households increased by 3.9 percentage points in the 10-year period leading up to financial year ending (FYE) 2022

Gini coefficients for disposable income by household type, UK, 1977 to financial year ending 2022



Source: Office for National Statistics – Household Finances Survey

Notes:

- 1. 2021/22 represents the financial year ending 2022, (April to March), and similarly for all other years expressed in this format. Estimates prior to FYE 1995 are measured on a calendar year basis.
- 2. Estimates of income inequality from FYE 2002 onwards have been adjusted for the under-coverage of top earners.
- Estimates up to and including financial year ending (FYE) 2017 are sourced from the Living Costs and Food Survey (LCF). Estimates from FYE 2018 onwards are based on the Household Finances Survey, which the LCF is part of.

Disposable income inequality, as measured by the Gini coefficient, for people in <u>retired households</u> increased by 1.3 percentage points to 32.1% in FYE 2022 (as seen in Figure 2). Income inequality of retired households is at its highest since records began, although remains consistently lower than non-retired households (35.7% for FYE 2022). In the 10-year period leading up to FYE 2022 (FYE 2013 to FYE 2022), the Gini coefficient for disposable income has increased by 3.9 percentage points for retired households, at an average rate of 0.4 percentage points per year. However, there was an increase of only 0.8 percentage points for non-retired households, remaining broadly stable with an average increase of 0.1 percentage points per year between FYE 2013 and FYE 2022 (as seen in Figure 2).

While the Gini coefficient for original income has remained stable in retired households over the 10-year period leading up to FYE 2022 (FYE 2013 to FYE 2022), the Gini coefficient for gross income has increased by 4.7 percentage points. This highlights the diminishing effectiveness of cash benefits at reducing income inequality in this group.

Figure 3: Alternative measures of inequality have increased to highest levels over the 10-year period to financial year ending 2022

S80/S20 ratio, P90/P10 ratio, Palma ratio, and top 1% share, equivalised disposable income, all people, UK, 1977 to financial year ending 2022

Figure 3: Alternative measures of inequality have increased to highest levels over the 10-year period to financial year ending 2022

S80/S20 ratio, P90/P10 ratio, Palma ratio, and top 1% share, equivalised disposable income, all people, UK, 1977 to financial year ending 2022



Source: Office for National Statistics – Household Finances Survey

Notes:

- 1. FYE 2022, which represents the financial year ending 2022, (April to March), and similarly for all other years expressed in this format.
- 2. Estimates of income inequality from FYE 2002 onwards have been adjusted for the under-coverage of top earners.
- 3. Estimates up to and including financial year ending (FYE) 2017 are sourced from the Living Costs and Food (LCF) survey. Estimates from FYE 2018 onwards are based on the Household Finances Survey, which the LCF is part of.

The characteristics of the Gini coefficient make it particularly useful for making comparisons over time, between countries and before or after taxes and benefits. However, one disadvantage of the Gini coefficient is that, as a single summary indicator, it cannot distinguish between different-shaped income distributions. For that reason, it is useful to look at this index alongside other measures of inequality (as seen in Figure 3).

One such measure is the <u>S80/S20</u> ratio, which is the ratio of the total income received by the richest 20% of people to that received by the poorest 20%. In addition, the <u>P90/P10</u> ratio compares the ratio of the income of the person at the bottom of the top 10% with that of the person at the top of the bottom 10%. Finally, the <u>Palma ratio</u> compares the ratio of the income share of the richest 10% of people with that of the poorest 40% of people. Together these measures provide further evidence on how incomes are shared across households and how this is changing over time.

The S80/S20 ratio increased by 0.4 to 6.3 in the FYE 2022 and remains its highest level since FYE 2008. Similarly, the P90/P10 ratio increased from 4.3 to 4.5 between FYE 2021 to FYE 2022, and the Palma ratio has increased from 1.4 to 1.5 between FYE 2021 to FYE 2022. The amount of income accounted for by the richest 1% has increased by 0.8 percentage points to 8.2% between FYE 2021 and FYE 2022.

4. Household income inequality data

<u>The effects of taxes and benefits on household income, disposable income estimate</u> Dataset | Released 25 January 2023 Average UK household incomes taxes and benefits by household type, tenure status, household characteristics and long-term trends in income inequality.

5. Glossary

Confidence intervals

Confidence intervals use the standard error to derive a range in which we think the true value is likely to lie, provide an indication of the degree of uncertainty of an estimate and help to decide how precise a sample estimate is.

A confidence interval specifies a range of values likely to contain the unknown population value. These values are defined by lower and upper limits. The width of the interval depends on the precision of the estimate and the confidence level used. A greater standard error will result in a wider interval; the wider the interval, the less precise the estimate is.

This release uses 95% confidence intervals to communicate uncertainty in UK-level estimates of mean and median income. An observed change is statistically significant at the 5% level if there is less than a 1 in 20 chance of the observed change being calculated by chance or the variable nature of the sample, if there is actually no underlying change.

View more information in our Uncertainty and how we measure it for our surveys methodology.

Disposable income

Disposable income is the most widely used household income measure. Disposable income is the amount of money that households have available for spending and saving after direct taxes (such as Income Tax, National Insurance and Council Tax) have been accounted for. It includes earnings from employment, private pensions, and investments as well as cash benefits provided by the state.

Equivalisation

We compare different types of individuals and households (such as retired and non-retired, or rich and poor) over time after income has been equivalised. 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).

Measures of income inequality

The mean measure of income divides the total income of individuals by the number of individuals. A limitation of using the mean is that it can be influenced by just a few individuals with very high incomes and therefore does not necessarily reflect the standard of living of the "typical" person. However, when considering changes in income and direct taxes by income decile or types of households, the mean allows for these changes to be analysed in an additive way.

Many researchers argue that growth in median household incomes provides a better measure of how people's well-being has changed over time. The median household income is the income of what would be the middle person if all individuals in the UK were sorted from poorest to richest. Median income provides a good indication of the standard of living of the "typical" individual in terms of income.

Gini coefficient

The <u>Gini coefficient</u> is one of the most widely used measures of inequality in the distribution of household income. It takes values between 0% and 100%, with higher values representing an increase in the level of inequality. A value of 0% indicates complete equality in the distribution of household income, implying that all people have the same equivalised income. A value of 100% indicates complete inequality, implying that one person has all the income, and the others have no income.

Retired and non-retired households

This bulletin presents analysis examining the incomes of people who live in retired households. A retired household is one where more than 50% of its income is sourced from retired people. A retired person requires satisfying one of the following criteria:

- their self-defined employment status is "Retired," and they are aged over 50 years
- their self-defined employment status is "Sick or Injured," not seeking work, and aged at or above the State Pension age

Analysis of the average income of people living in retired households can include much younger people and potentially exclude older people. However, the strength of this measure is that it highlights those individuals who are most likely to be affected by policy, societal or economic changes that disproportionately affect upon pension income.

P90/P10

The ratio of the income of the individual at the bottom of the top decile (or 10%) to that of the person at the top of the bottom decile.

S80/S20

The ratio of the total income received by the 20% of people with the highest income to that received by the 20% with the lowest income.

Palma ratio

The ratio of the income shares of the richest 10% of people to that of the poorest 40%.

6. Measuring the data

This release provides headline estimates of average disposable income, calculated using the Household Finances Survey (HFS) data. These data are derived from both the Living Costs and Food Survey (LCF) and the Survey on Living Conditions, with harmonised income collection, covering around 17,000 private households in the UK. The Office for National Statistics (ONS) estimates of household income from 1977, up to and including FYE 2017, are based on the LCF. From FYE 2018 onwards estimates have been revised to include data from the HFS and remain comparable with those produced using the LCF for the same period. Further detail is available in our Improving the measurement of household income methodology.

These statistics are assessed fully compliant with the <u>Code of Practice for Statistics</u> and are therefore designated as <u>National Statistics</u>.

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the <u>Effects of taxes and benefits on household income (ETB) QMI</u>.

A newly released <u>Income and Earnings interactive tool</u> allows data to be compared across a range of sources, and can be filtered by topic area, data source, and geographic coverage. More detail on the different data sources and outputs that feed into the analysis of income and earnings in the UK is available in the <u>Income and</u> <u>Earnings statistics guide</u>.

7 . Strengths and limitations

Comparable estimates are available back to 1977, allowing analysis of long-term trends. This release also provides the earliest survey-based analysis of the household income distribution available annually, providing timely insight into the evolution of living standards.

Data remain subject to limitations. The Household Finances Survey (HFS) is a sample of the private household population and does not include those who live in institutionalised households, such as care homes and hostels, or people who are homeless. Therefore, many of the poorest in society are likely not captured.

Household income surveys can suffer from under-reporting at the top and bottom of the income distribution. While an <u>adjustment to address survey under-coverage</u> of the richest people has been introduced for statistics covering the financial year ending (FYE) 2002 onwards, measurement issues at the bottom remain. <u>The Effects of</u> <u>taxes and benefits on household income (ETB) QMI</u> provides further details.

The characteristics of the <u>Gini coefficient</u> metric make it particularly useful for making comparisons over time, between countries and before or after taxes and benefits. The Office for National Statistics (ONS) report the Gini coefficient on an annual basis providing timeseries back to 1977. Underlying data are published alongside headline statistics, to include 95% confidence intervals to aid interpretation. Table 11 and Table 32 of the <u>effects</u> of taxes and benefits on household income, disposable income estimate dataset provide estimates of uncertainty for many headline measures of average income and income inequality.

The ONS publish a range of income inequality metrics to supplement the Gini coefficient, to include the S80/20, P90/10 and Palma ratios, and top 1% share. In doing so, we aim to overcome limitations of using single summary indicators such as changes to the shape and composition of the income distribution. Furthermore, the ONS now takes the approach of <u>integrating survey and administrative data</u> to better capture the top 3% of earners which can be underreported when using survey approaches alone.

The Department for Work and Pensions (DWP) also produces an analysis of the UK income distribution in its annual <u>Households below average income (HBAI)</u> publication, using data from its Family Resources Survey (FRS).

8. Related links

Income estimates for small areas, England, and Wales: financial year ending 2018

Bulletin | Released 5 March 2020

Small area model-based income estimates covering local areas called Middle layer Super Output Areas (MSOAs) in England and Wales.

Effects of taxes and benefits on UK household income: financial year ending 2021

Bulletin | Released 29 July 2022

The redistribution effects on individuals and households of direct and indirect taxation and benefits received in cash or kind, analysed by household type.

Employee earnings in the UK: 2022

Bulletin | Released 26 October 2022 Measures of employee earnings, using data from the Annual Survey for Hours and Earnings (ASHE).

Household below average income: for financial years ending 1995 to 2021

Report | Last revised 24 May 2022 Statistics on the number and percentage of people living in low-income households for financial years between 1995 and 2020.

Using tax data to better capture top earners in household income inequality statistics

Article | Released 26 February 2019 Adjustments to deal with issues of under-reporting of UK top incomes. Builds on methods from the Department for Work and Pensions (DWP), using administrative data supplied by HM Revenue and Customs (HMRC).

Income and earnings coherence workplan

Report | Last revised 18 January 2023

The Government Statistical Service (GSS) income and earnings coherence workplan sets out the actions needed to achieve the GSS vision for coherence of income and earnings statistics.

9. Cite this statistical bulletin

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