

Statistical bulletin

# Household income inequality, UK: financial year ending 2019

Estimates of income inequality in the UK for the financial year ending 2019.

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# 1 . Other pages in this release

Commentary on average household income in financial year ending 2019 is reported in a separate bulletin:

- [Average household income, UK: financial year ending 2019.](#)

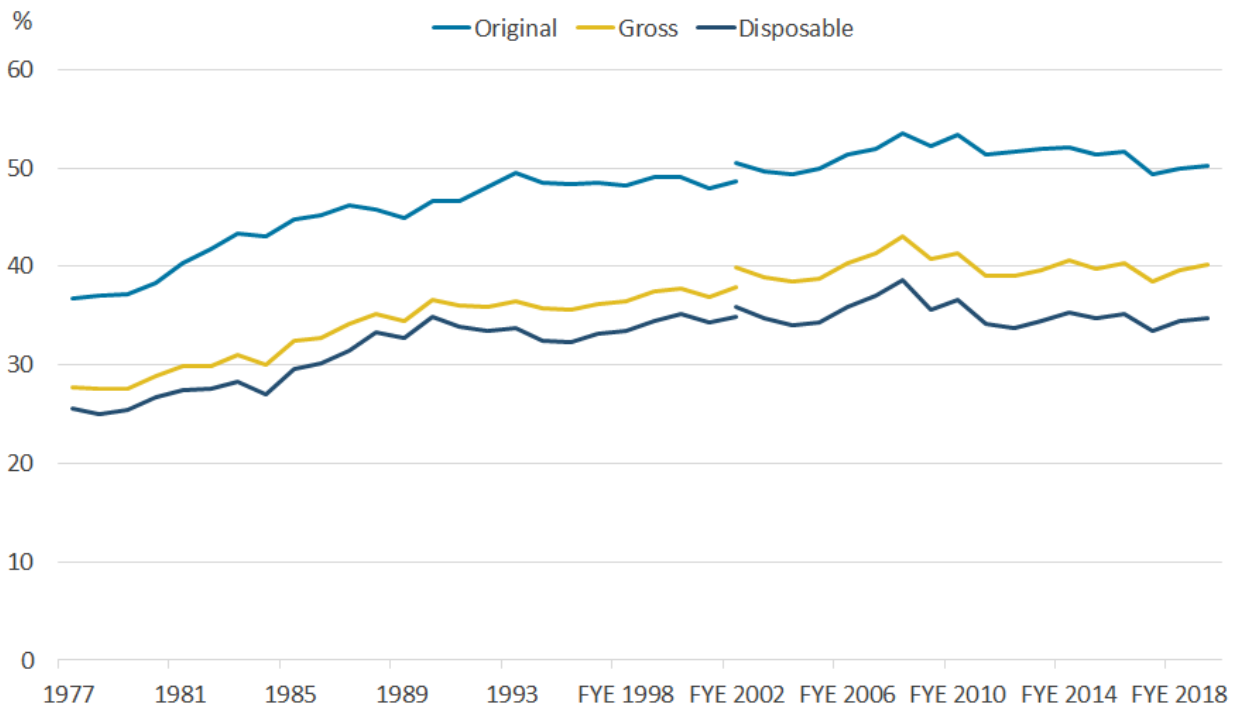
## 2 . Main points

- Income inequality in the UK increased slightly over the two years to financial year ending (FYE) 2019, to reach 34.7% according to estimates from our Living Costs and Food Survey; this means that levels of income inequality are broadly comparable with their FYE 2011 levels.
- Income inequality remains lower than the levels reached prior to the economic downturn; over the four years to FYE 2008 income inequality increased by an average of 1.2 percentage points per year to reach 38.6%, before falling to 34.1% by FYE 2011.
- Income inequality for people in retired households has increased by 4.2 percentage points to reach 31.6% over the five years to FYE 2019; income inequality for people in non-retired households has been broadly stable over this period.
- The gap between the richest people and the rest of population has narrowed over recent years; the income share of the richest 1% fell from an average of 8.8% between FYE 2007 and FYE 2009 to 7.6% between FYE 2017 and FYE 2019.

### 3 . Analysis of income inequality

Figure 1: Income inequality is up slightly in financial year ending 2019, but broadly unchanged over past seven years

Gini coefficients for measures of original, gross, and disposable income, UK, 1977 to FYE 2019



Source: Office for National Statistics – Living Costs and Food Survey

Notes:

1. FYE 2019, which represents the financial year ending 2019, (April to March), and similarly for all other years expressed in this format.
2. Original income includes all sources of income from employment, private pensions, investments and other non-government sources. The receipt of cash benefits is then added to original income to estimate gross income. Finally, direct taxes are subtracted from gross income to estimate disposable income.
3. Estimates of income inequality from FYE 2002 onwards have been adjusted for the under-coverage of top earners.

Disposable income inequality in the UK increased by 1.3 percentage points over the two years up to financial year (April to March) ending (FYE) 2019, to reach 34.7%. Despite this rise, levels are broadly comparable with FYE 2011 levels, and lower than those that preceded the economic downturn in FYE 2008 (38.6%).

Inequality measures how evenly household income is shared among the population. One of the most widely used measures of income inequality is the [Gini coefficient](#). Gini coefficients can vary between 0% and 100% and the lower the value, the more equally household income is distributed.

Figure 1 highlights how the Gini coefficients of disposable, as well as original and gross income, have changed since 1977. Original income includes all sources of income from employment, private pensions, investments and other non-government sources. Gross income is equivalent to original income plus cash benefits (such as the State Pension).

Inequality of gross income also increased in the two years up to FYE 2019, up by 1.7 percentage points to 40.2%, while inequality of original income has remained broadly unchanged (50.2%).

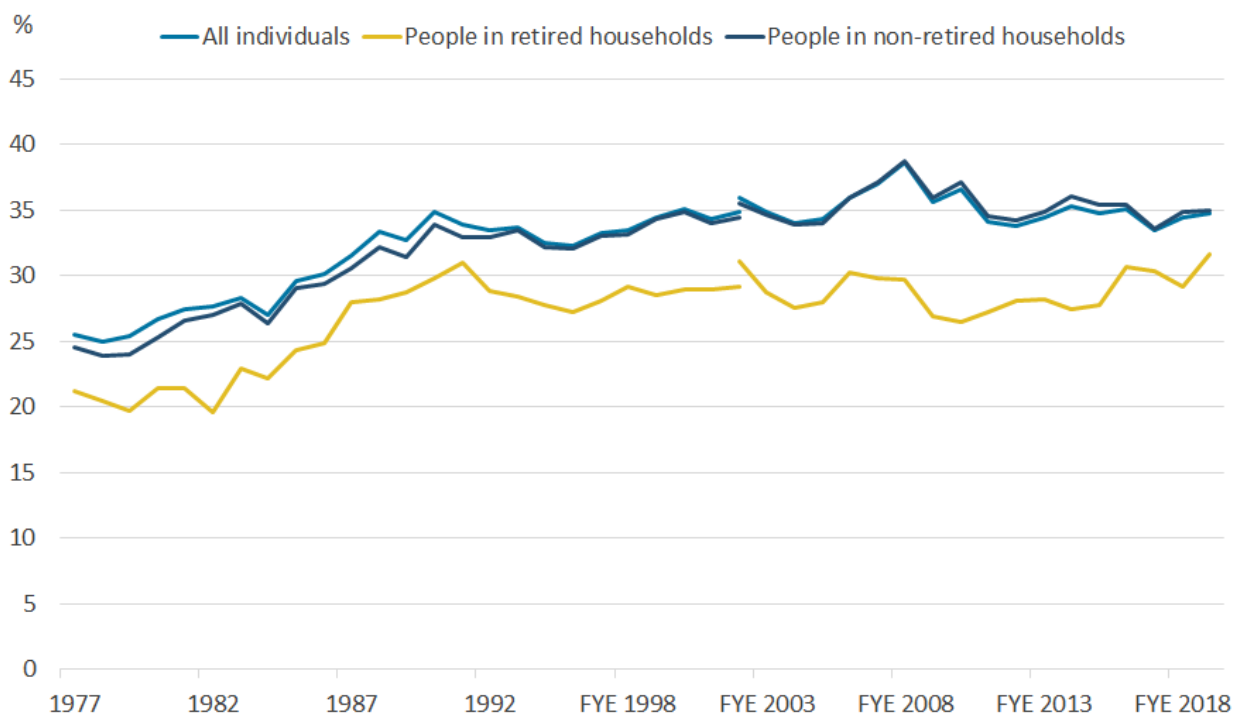
The Gini coefficient of original income is 10 percentage points higher than gross income in FYE 2019, which in turn is 5.5 percentage points higher than disposable income. This highlights that cash benefits have the largest impact on reducing income inequality, followed by direct taxation.

The impact of direct taxes in reducing income inequality, as demonstrated by the gap between the Gini coefficients of disposable and gross, is larger for years where there is a top income adjustment. This reflects the fact that the top income adjustment increases the income of the richest individuals and therefore also the amount of tax paid. This in turn leads to a greater impact from taxation in reducing inequality, although not enough to offset the rise in original income inequality that the adjustment introduces, and so disposable income inequality is higher on adjusted data, compared with unadjusted.

The [Effects of taxes and benefits on income inequality: 1977 to financial year ending 2015](#) article provides more detailed analysis of the relative effectiveness of taxes and benefits in reducing income inequality over time.

**Figure 2: Income inequality of retired individuals grew sharply in FYE 2019**

Gini coefficients for disposable income by household type, UK, 1977 to financial year ending 2019



Source: Office for National Statistics – Living Costs and Food Survey

Notes:

1. FYE 2019, which represents the financial year ending 2019, (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.

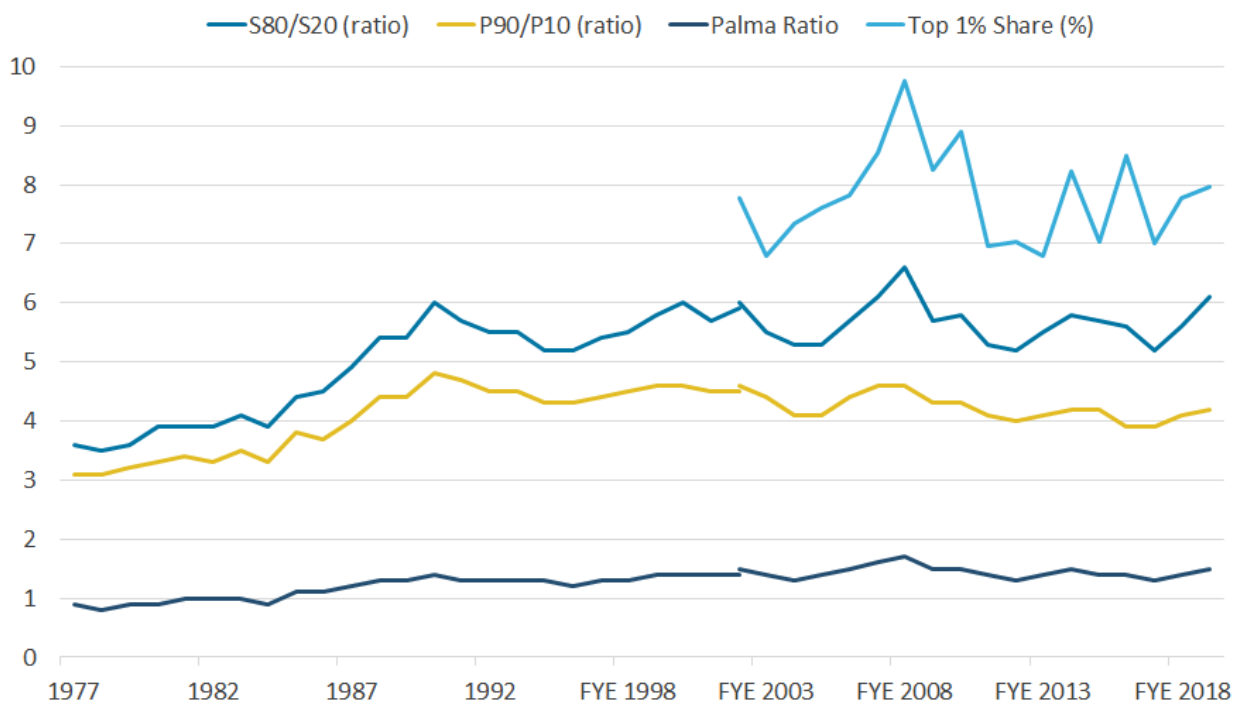
Income inequality among people living in retired households grew by 2.4 percentage points in FYE 2019 to 31.6%, continuing its trend since FYE 2014 where it has grown by an average of 0.8 percentage points per year. Rising inequality among people living in retired households reflects stronger growth for the richest fifth of people living in retired households, relative to the poorest fifth, in part caused by increasing income from private pensions.

Inequality amongst people in non-retired households, on the other hand, has been broadly stable over this period, to reach 35.0% by FYE 2019.

A recent article [What has happened to the income of retired households in the UK over the past 40 years?](#) highlights how cash benefits, including the State Pension, play by far the largest role in reducing inequality of retired individuals. Additionally, it provides analysis on the relatively lower but increasing levels of income inequality for retired households. It shows that cash benefits have been less effective at reducing income inequality than in the past, because of increasing prominence of private pension income for people living in retired households

**Figure 3: Alternative measures also show income inequality increasing over past couple of years**

**S80/S20 ratio, P90/P10 ratio, Palma ratio, and top 1% share, equivalised disposable income, all people, UK, 1977 to financial year ending 2019**



Source: Office for National Statistics – Living Costs and Food Survey

**Notes:**

1. FYE 2019, which represents the financial year ending 2019, (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.

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 drawback of the Gini 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.

One such measure is the S80/S20 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 P90/P10 compares the ratio of the income of the person at the bottom of the top 10% to that of the person at the top of the bottom 10%. Finally, the Palma ratio takes the ratio of the income share of the richest 10% of households to that of the poorest 40% of households. Together these measures provide further evidence on how incomes are shared across households and how this is changing over time.

Showing similar findings to those observed for the Gini coefficient, Figure 3 highlights that other measures of income inequality increased during the two years up to FYE 2019. In particular the ratio of total income received by the richest 20% compared with the bottom 20% (the S80/S20 ratio) increased from 5.2 to 6.1. Similarly, the P90/P10 and Palma ratios increased from 3.9 to 4.2 and 1.3 to 1.5 respectively over the same period. Despite these increases, these measures are still below the levels reached during the period before the economic downturn in FYE 2008.

One of the advantages of the top income adjustment, which has been introduced for the first time in these statistics, is that it allows new insights into income inequality, such as the income share of the top 1% of people.

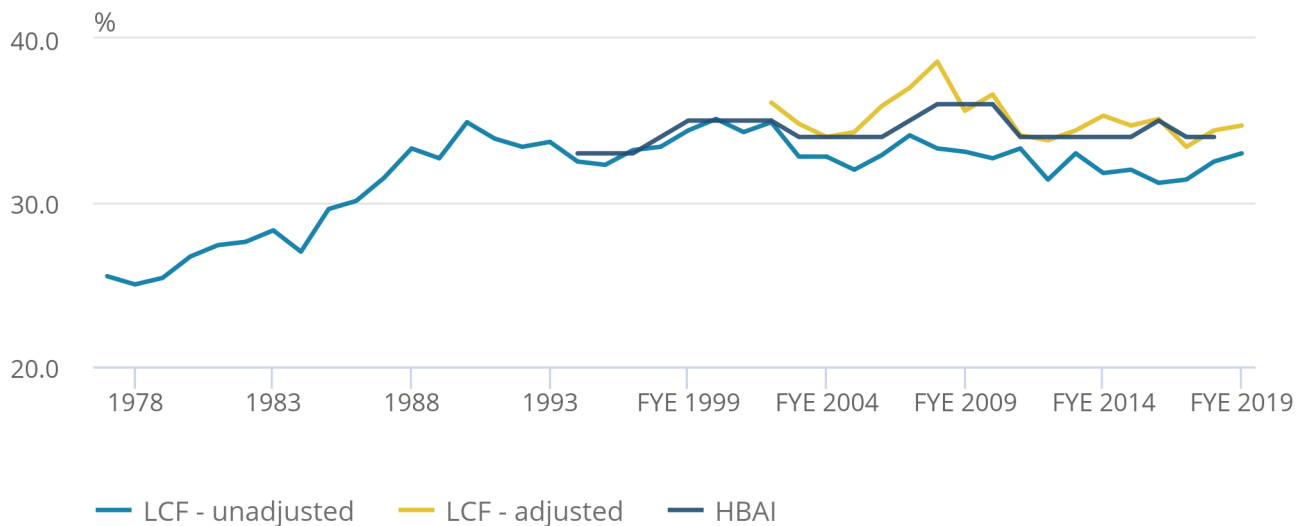
Figure 3 highlights that, despite some year-on-year volatility, the share of income accounted for by the richest 1% averaged 7.6% between FYE 2011 and FYE 2019. This is lower than the levels leading up to, and immediately after, the economic downturn, where the richest 1% share of total income was 8.8% on average between FYE 2007 and FYE 2009.

#### Figure 4: The introduction of a top income adjustment improves coherence with Household below average income statistics

Gini coefficient of disposable income as measured on Living Costs and Food Survey, both adjusted and unadjusted, and Households below average income, UK, 1977 to financial year ending 2019

### Figure 4: The introduction of a top income adjustment improves coherence with Household below average income statistics

Gini coefficient of disposable income as measured on Living Costs and Food Survey, both adjusted and unadjusted, and Households below average income, UK, 1977 to financial year ending 2019



Source: Office for National Statistics and Department for Work and Pensions

#### Notes:

1. FYE 2019, which represents the financial year ending 2019, (April to March), and similarly for all other years expressed in this format.

Figure 4 compares the Office for National Statistics's (ONS's) estimates of income inequality, both before and after the top income adjustment is introduced, and similar estimates reported by the Department for Work and Pensions (DWP) in their [Households below average income \(HBAI\)](#) series.

It shows that the introduction of a top income adjustment increases the coherence of estimates of levels of income inequality reported by the ONS and DWP, while the trends seen in both series remain comparable. The average absolute deviation between the ONS and DWP measures of income inequality between FYE 2002 and FYE 2018 narrowed from 1.9 percentage points before the top income adjustment is introduced, to 0.8 percentage points after.

For more information on the top income adjustment see [Top income adjustment in effects of taxes and benefits data: methodology](#).

## 4 . Household income inequality data

[The effects of taxes and benefits on household income, disposable income estimate: 2019](#)

Dataset | Released 5 March 2020

Average UK household incomes taxes and benefits by household type, tenure status, household characteristics and long-term trends in income inequality.

## 5 . Glossary

### Disposable income

Disposable income is arguably 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

Comparisons across different types of individuals and households (such as retired and non-retired, or rich and poor) or over time is done 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

#### Gini coefficient

The [Gini coefficient](#) is one of the most widely used measures. 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.

#### 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 share 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. These data are from the [Living Costs and Food Survey \(LCF\)](#), a voluntary sample survey of around 5,000 private households in the UK. These statistics are assessed fully compliant with the [Code of Practice for Statistics](#) and are therefore designated as [National Statistics](#).

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the [Effects of taxes and benefits on household income QMI](#).

## 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/Injured", not seeking work and aged at or above the State Pension age (SPA)

As such, 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 impact upon pension income.

## Transformation of data

The Office for National Statistics (ONS) is currently working on transforming its data on the distribution of household finances. The first part of this work has concentrated on combining the samples from the LCF and another of ONS's household surveys, the Survey on Living Conditions (SLC) and harmonising the income collection in these questionnaires. This will result in a dataset formed of a sample of around 17,000 households. This first stage of work was carried out during financial year ending (FYE) 2018 and we plan to release microdata covering FYE 2019 using these combined data during 2020.

The ONS is currently conducting research into making more use of administrative data on income, including Department for Work and Pensions (DWP) benefits data and HM Revenue and Customs (HMRC) tax data. Although these other sources have their own limitations, by using them together with surveys we should be able to improve how we measure household income. In particular, administrative data are likely to help address limitations in survey-based statistics, discussed in more detail in the Strengths and limitations section such as under-reporting at the top and bottom of the income distribution, and enable analysis at lower geographic levels.

Over the next year, the ONS plans to publish research using linked administrative and survey data to compare administrative and survey measures for the main income components and continue to develop our experimental [Admin-based income statistics](#).

## 7 . Strengths and limitations

An important strength of these data is that comparable estimates are available back to 1977, allowing analysis of long-term trends. This release also currently provides the earliest survey-based analysis of the household income distribution available each year, allowing people insight into the evolution of living standards as early as possible.

However, as with all survey-based sources, the data are subject to some limitations. For instance, the Living Costs and Food Survey (LCF) is a sample of the private household population, and therefore does not include those that live in institutionalised households, such as care homes and hostels, or the homeless. As such, it is likely that many of the poorest in society are not captured, which users should bear in mind when interpreting these statistics.

In addition, the LCF is known to suffer from under-reporting at the top and bottom of the income distribution. While an adjustment to address survey under-coverage of the richest people has been introduced for statistics covering financial year ending (FYE) 2019, reported in more detail in [Top income adjustment in effects of taxes and benefits data: methodology](#), measurement issues at the bottom remain (see [the Effects of taxes and benefits on household income QMI](#) for further details of the sources of error).

Table 11 and table 32 provide estimates of uncertainty for many headline measures of average income and income inequality.

The Department for Work and Pensions (DWP) also produces an analysis of the UK income distribution in its annual [Households below average income \(HBAI\)](#) publication, using data from its Family Resources Survey (FRS). While the FRS is subject to the same limitations as other survey sources, it benefits from a larger sample size (approximately 19,000 households) than the LCF and, as such, will have a higher level of precision than effects of taxes and benefits (ETB) estimates. These differences make HBAI a better source for looking at income-based analysis that does not need a longer time series (the FRS data are available from FYE 1995) and when looking at smaller sub-groups of the population.

## 8 . Related links

### [Households below average income: 1994/95 to 2017/18](#)

Bulletin | Released 28 March 2019

Information on living standards in the UK based on household income measures for the financial year ending 2018. Estimates are provided for average incomes, income inequality, and for the number and percentage of people living in low income households.

### [Top income adjustment in effects of taxes and benefits data: methodology](#)

Article | Released 25 February 2020

Analysis of a recently introduced approach to addressing survey under-coverage of the highest earners in effects of taxes and benefits data, using tax record information.

### [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.

### [A guide to sources of data on earnings and income](#)

Article | Updated 16 December 2019

Further information on other sources of income and earnings data, including the appropriate uses of and limitations of each data source.

### [Employee earnings in the UK: 2019](#)

Bulletin | Released 29 October 2019

Measures of employee earnings, using data from the Annual Survey for Hours and Earnings (ASHE).

### [Total wealth in Great Britain: April 2016 to March 2018:](#)

Bulletins | Released 26 February 2020

Main results from the sixth round of the Wealth and Assets Survey covering the period April 2016 to March 2018.