

Statistical bulletin

Effects of taxes and benefits on UK household income – flash estimate: financial year ending 2018

Early and provisional estimates of median equivalised disposable income and measures of income inequality, ahead of revised estimates published in the annual article Effects of taxes and benefits on UK household income: disposable income estimate.

Contact:
Dominic Webber / Lee Mallett
hie@ons.gov.uk
+44 (0) 1633 456246

Release date: 25 July 2018

Next release: To be announced

Table of contents

- 1. Main points
- 2. Things you need to know about this release
- 3. Trends in household income
- 4. Trends in income inequality
- 5. Economic context
- 6. Policy context: taxes and benefits in financial year ending 2018
- 7. Links to related statistics
- 8. Quality and methodology
- 9. Future plans

1. Main points

- This release presents provisional estimates of median disposable household income and measures of income inequality in the UK, for the financial year ending (FYE) 2018.
- The provisional estimate of median household disposable income for FYE 2018 is £28,400, an increase of £300 (1.2%) compared with FYE 2017 after accounting for inflation and household composition; this is slower than the 2.4% growth recorded in FYE 2017.
- Median disposable income of retired households increased by £300 (1.4%) compared with £200 for non-retired households (0.6%).
- Stronger growth in the median disposable income of retired households compared with non-retired households continues the trend following the economic downturn; between FYE 2008 and FYE 2018, the median disposable income of retired and non-retired households increased by £3,200 (16.0%) and £900 (2.9%) respectively.
- Despite the stronger growth in the median income of retired households, the median income of non-retired households was £7,600 larger in FYE 2018 (£23,200 and £30,800 respectively).
- Early estimates of income inequality in FYE 2018 are broadly unchanged from those for the previous financial year.

2. Things you need to know about this release

What is a flash estimate?

Statistics that reflect the experience of a typical household, such as median disposable income reported here, are important to properly understand changes in households' material living conditions. However, the complexities involved in collecting, processing and analysing household financial survey data mean indicators concerning the distribution of income are typically only available with a sizeable time lag.

For instance, <u>estimated median disposable income</u> (estimated using survey data) for the financial year ending (FYE) 2017 was published more than eight months after the end of the reference period. Meeting the considerable user demand for more timely data on household incomes, we have developed this set of Experimental Statistics, which are produced using so-called "nowcasting" techniques. More detail on the rationale for nowcast estimates are presented in the Quality and methodology section of this release.

Nowcasting is an increasingly popular approach for providing initial estimates of economic indicators, such as median household income. In contrast to forecasting, which relies heavily on projections and assumptions about future economic circumstances, nowcasting uses data that are more timely and already available for the period of study.

Although, at the time of producing these statistics, detailed survey data on household incomes are not yet available for FYE 2018, a lot is known about individual components of household income and the factors that affect them. This includes data on earnings, employment and inflation, as well as details of how changes to the tax and benefits system affect different types of households and individuals. This information is used to adjust income survey data for recent years to reflect the current period and measures such as median disposable income are published earlier than was previously possible.

While flash estimates do not perfectly reflect changes in the distribution of income, particularly when examining smaller sub-groups of the population, they provide an early indication of what the full survey-based data may show when published in 2019.

The methodology used in this bulletin has undergone significant testing and benefitted from having a range of external experts to ensure it is as robust as possible. As Experimental Statistics, the content of this bulletin and the associated dataset will continue to be evaluated to ensure that user needs are met.

How are these estimates adjusted?

All measures of household income for the UK given in this article are calculated without adjusting for expenses relating to housing costs. The measures have been deflated to FYE 2018 prices using the Consumer Prices Index including owner occupiers' housing costs (CPIH), excluding Council Tax, to give a better comparison of households' standards of living. These deflated measures are referred to as "real" in this publication. This contrasts with "nominal" measures, which have not been deflated.

The nowcasting household income publication requires a deflator dating back to 1977. The CPIH, excluding Council Tax, is currently available from January 2005. The Consumer Prices Index (CPI) is available from 1996, with a modelled historical series available from 1950. For this analysis, the owner occupiers' housing costs (OOH) component is estimated using the actual rental series available from the Retail Prices Index (RPI). The OOH component is factored into the CPI (and modelled CPI prior to 1996) using the average OOH weight. Prior to 2005 this series is classed as experimental.

What is disposable income?

Disposable income is the amount of money that households have available for spending and saving after direct taxes (such as Income Tax 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. More information on the different stages of income can be found in the Things you need to know about this release section of Effects of taxes and benefits on UK household income: financial year ending 2017.

The median household income is the income of what would be the middle household, if all households in the UK were sorted in a list from poorest to richest. As it represents the middle of the income distribution, the median household income provides a good indication of the standard of living of the "typical" household in terms of income.

How do we define retired households?

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

Data periods

Data in this release are based upon financial years, April to March, for example, financial year ending 2018 is April 2017 to March 2018.

3. Trends in household income

This section presents the provisional, flash estimate for the financial year ending (FYE) 2018 in the context of longer-term trends in household income. Based on these provisional estimates, the median household disposable income in the UK was £28,400 in FYE 2018 – 1.2% higher than FYE 2017 (£28,000) ¹. The 95% confidence intervals for the provisional estimate of median suggests a growth rate ranging from 0% to 2.4%.

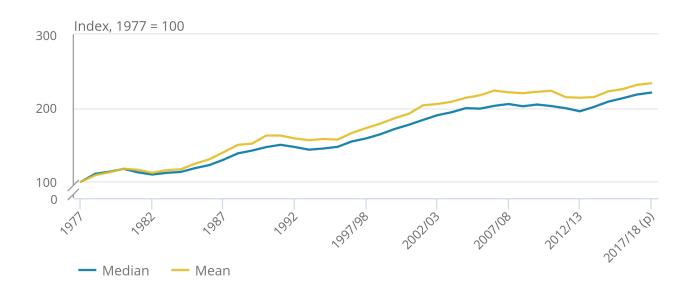
Median disposable income was £2,000 (7.5%) higher than its pre-economic downturn level of £26,400 in FYE 2008. Median household income declined after the start of the economic downturn and by FYE 2013, and was 4.8% (£1,300) lower than in FYE 2008. However, since FYE 2013, median disposable income has recovered, with the provisional FYE 2018 figure 13.0% higher than in FYE 2013 (Figure 1).

Figure 1: Index of mean and median equivalised household disposable income

UK, 1977 to financial year ending 2018

Figure 1: Index of mean and median equivalised household disposable income

UK, 1977 to financial year ending 2018



Source: Office for National Statistics

Notes:

- 1. Indices are calculated relative to 1977 values.
- 2. 1994/95 represents the financial year ending 1995 (April 1994 to March 1995), and similarly through to 2017/18, that represents the financial year ending 2018 (April 2017 to March 2018).
- 3. Income figures have been deflated to 2017/18 prices using our Consumer Prices Index, which includes owner occupiers' housing costs (CPIH).
- 4. Income is equivalised using the modified-Organisation for Economic Co-operation and Development scale.
- 5. Results for 2017/18 are provisional.

There has been a broadly similar pattern of growth in mean household income, with a provisional estimate for FYE 2018 of £33,800 – 0.9% higher than in FYE 2017 (£33,500) and up £2,800 from the post-economic downturn low in FYE 2013 (£31,000).

Looking at the historical perspective, median disposable income is 2.2 times greater in FYE 2018 compared with 1977 (Figure 2). Over this period, median disposable income grew from £12,800 at an average rate of 2.0% per year. Mean household income is estimated to have increased at a faster rate than the median measure, growing at an average annual rate of 2.1% from £14,500 to £33,800.

Faster growth in the mean compared with the median confirms increasing levels of income inequality over this period (see Trends in income inequality section for more details). This is due primarily to incomes of the richest households growing at a faster rate than for households in the middle and lower parts of the income distribution between 1977 and 1990.

Figure 2: Index of median equivalised household disposable income by household type

UK, 1977 to financial year ending 2018

Figure 2: Index of median equivalised household disposable income by household type

UK, 1977 to financial year ending 2018



Source: Office for National Statistics

Notes:

- 1. Indices are calculated relative to 1977 values.
- 2. 1994/95 represents the financial year ending 1995 (April 1994 to March 1995), and similarly through to 2017/18, that represents the financial year ending 2018 (April 2017 to March 2018).
- 3. Income figures have been deflated to 2017/18 prices using our Consumer Prices Index which includes owner occupiers' housing costs (CPIH).
- 4. Income is equivalised using the modified-Organisation for Economic Co-operation and Development scale.
- 5. Results for 2017/18 are provisional.

Median disposable income for retired households increased by £300 (1.4%) between FYE 2017 and FYE 2018 from £22,900 to £23,200. This compares with the income of non-retired households, which increased by £200 (0.6%) over the same period.

While the growth in the income of retired households compared with non-retired households between FYE 2013 and FYE 2018 was relatively volatile, the overall average rates were similar – both 2.2% per year respectively. This contrasts with the period between FYE 2008 and FYE 2013, during which average annual growth of disposable income of retired households was 0.8% compared with an average annual decline of 1.6% for non-retired households. Taking the period as a whole, average annual growth in median income for retired households between FYE 2008 and FYE 2018 was 1.5%, compared with 0.3% for non-retired households.

A number of factors have driven the consistent growth in the incomes of retired households since FYE 2008. One factor is a rise in the number of households reporting receipts from private pensions or annuities. In addition, there has been an increase in average income from the State Pension, due in part to the effect of the "triple lock" ²

The fall in the average disposable income for non-retired households after the economic downturn reflected a fall in income from employment (including self-employment). Similarly, earnings growth at the household level, due partly to rising employment levels, were the main driver of the most recent increases in average income for non-retired households. This effect seems to have abated in FYE 2018 (see Economic context section for further details).

Notes for: Trends in household incomes

- 1. Comparisons of changes in income between years take account of inflation and changes in household composition over time. Income figures are deflated to financial year ending 2018 prices using our Consumer Prices Index including owner occupiers' housing costs (CPIH). Income is equivalised using the modified-Organisation for Economic Co-operation and Development scale.
- 2. A mechanism currently used by the government, the "triple lock" guarantees to increase the basic State Pension by the higher of inflation (as measured by the Consumer Prices Index), average earnings or a minimum of 2.5% every year.

4. Trends in income inequality

There are a number of different indicators which summarise inequality of household income. Perhaps the most commonly used internationally is the Gini coefficient. The Gini coefficient ranges between 0 and 100, where 0 indicates that income is shared equally among all households and 100 indicates the extreme situation where one household accounts for all income. Therefore, the lower the value of the Gini coefficient, the more equally household income is distributed.

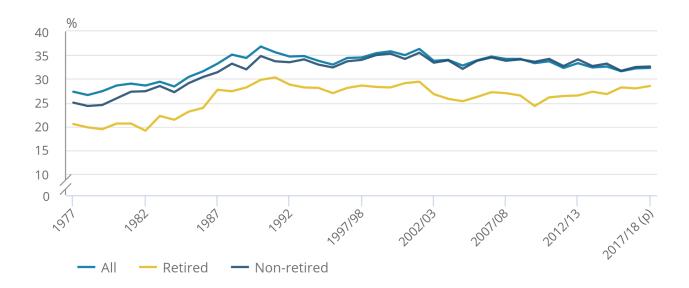
Looking at the results for all households (Figure 3), the 1980s were characterised by a large increase in inequality of disposable income, particularly during the second half of that decade. Following that rise, inequality of disposable income reduced slowly from 1990 until the mid-1990s, although it did not reverse the rise seen in the previous decade. In the late 1990s, income inequality rose slightly before falling in the early 2000s.

Figure 3: Gini coefficients of household equivalised disposable income by household type

UK, 1977 to financial year ending 2018

Figure 3: Gini coefficients of household equivalised disposable income by household type

UK, 1977 to financial year ending 2018



Source: Office for National Statistics

Notes:

- 1. On this figure 1994/95 represents the financial year ending 1995 (April 1994 to March 1995), and similarly through to 2017/18, that represents the financial year ending 2018 (April 2017 to March 2018).
- 2. Results for 2017/18 are provisional.

In recent years, there has been relatively little change in income inequality. The provisional estimate for the Gini coefficient for disposable income in the financial year ending (FYE) 2018 was 32.3%, broadly unchanged from FYE 2017 (32.2%). As described in the Effects of taxes and benefits on UK household income: financial year ending 2017, income inequality has slightly decreased over the past 10 years. The small increase in the Gini coefficient in FYE 2018 has done little to reverse this longer-term trend, with the Gini coefficient falling by an average of 0.2 percentage points per year between FYE 2008 and FYE 2018 ¹.

The Gini coefficient for non-retired households followed a similar trend as the all households measure – broadly unchanged in FYE 2018, but falling by an average of 0.2 percentage points between FYE 2008 and FYE 2018. Inequality of retired households, on the other hand, followed a different path. These provisional results show that the Gini coefficient for retired households increased by 0.5 percentage points in FYE 2018, matching the average annual growth since FYE 2010. As a consequence, the Gini coefficient for retired households in FYE 2018 was 1.8 percentage points below the peak reached in the early 1990s, compared with 2.9 percentage points for non-retired households and 4.5 percentage points for all households.

The characteristics of the Gini coefficient make it particularly useful for making comparisons over time, between countries and before and after taxes and benefits. However, no indicator is without limitations. One drawback of the Gini is that, as a single summary indicator, it cannot distinguish between differently-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. This is the ratio of the total income received by the richest and poorest 20% of households. Another related measure is the P90-P10 ratio – the ratio of the incomes of the households' 90th and 10th percentile.

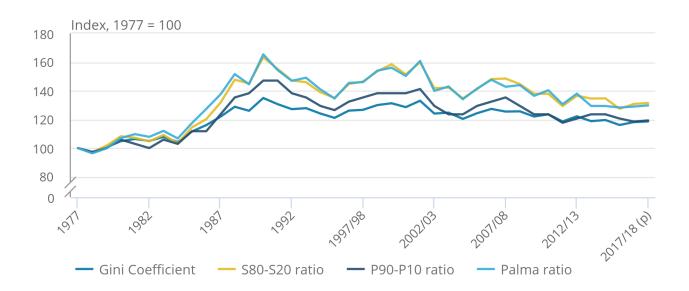
A more recently developed measure is the Palma ratio. The Palma ratio is the ratio of the income share of the richest 10% of households to that of the poorest 40% of households. The strength of the Palma ratio is that it recognises that the middle 50% of households are likely to have a relatively stable share of income over time (PDF, 982KB), and so isolating them should not lead to a substantial loss of information (Cobham and Sumner, 2013).

Figure 4: Index of Gini coefficient, S80-S20 ratio, P90-P10 ratio and Palma ratio for equivalised disposable income, all households

UK, 1977 to financial year ending 2018

Figure 4: Index of Gini coefficient, S80-S20 ratio, P90-P10 ratio and Palma ratio for equivalised disposable income, all households

UK, 1977 to financial year ending 2018



Source: Office for National Statistics

Notes:

- 1. Indices are calculated relative to 1977 values.
- 2. 1994/95 represents the financial year ending 1995, and similarly through to 2017/18, that represents the financial year ending 2018.
- 3. 2017/18 results are provisional.

As highlighted in Figure 4, income inequality trends in the UK have been very similar when compared across all four measures. Some year-on-year movements may reflect survey volatility; however, inequality of disposable income increased in the late 1980s and, to a lesser extent, during the late 1990s, during periods of faster growth in income from employment and fell in the early 1990s, during a period of slower growth in employment income.

Since the turn of the millennium, changes in income inequality have been relatively small compared with previous decades. In the early 2000s, income inequality fell, due partly to faster growth in income from earnings and self-employment income at the bottom end of the income distribution.

Policy changes, such as increases in the National Minimum Wage, increases in Tax Credit payments and the increase in National Insurance contributions in FYE 2004 are also likely to have had an effect.

The most recent peak in income inequality was in FYE 2007 or FYE 2008 depending on the measure used. Since then, the broad trend has been one of gradual decline in levels of inequality on each of the measures.

Notes for: Trends in income inequality

1. DWP's Households below average income (HBAI) statistics have an alternative Gini series, which shows a stable picture in recent years. HBAI includes an adjustment for high-income individuals based on tax records, whose incomes tend to be under-reported on voluntary surveys. Changes in the incomes of the very richest may have contributed to the differences in trends between these two sources.

5. Economic context

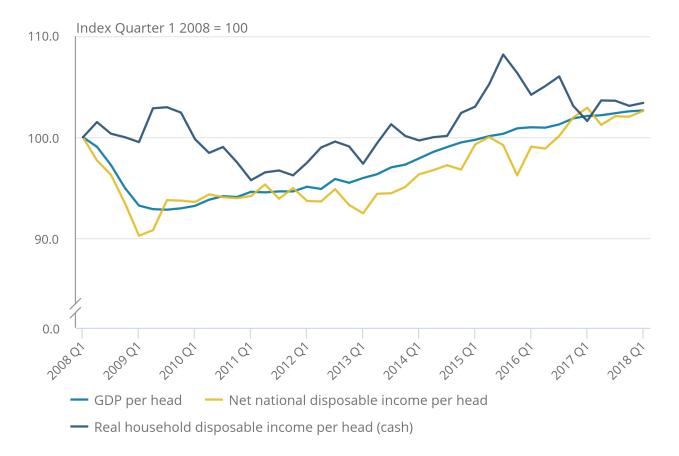
This section of the bulletin presents a range of economic indicators adding context to the provisional estimates of median disposable income in the financial year ending (FYE) 2018. It draws on headline indicators presented in the Economic well-being, UK: January to March 2018 and the Alternative measures of UK households income and saving: January to March 2018 releases and examines changes in real earnings over the period.

Figure 5: Measures of economic well-being: gross domestic product per head, net national disposable income per head, and real household disposable income per head (cash basis), chained volume measure

UK, Quarter 1 (Jan to Mar) 2008 to Quarter 1 2018

Figure 5: Measures of economic well-being: gross domestic product per head, net national disposable income per head, and real household disposable income per head (cash basis), chained volume measure

UK, Quarter 1 (Jan to Mar) 2008 to Quarter 1 2018



Source: Office for National Statistics: UK National Accounts

Notes:

1. Q1 refers to Quarter 1 (Jan to Mar) Q2 refers to Quarter 2 (Apr to June) Q3 refers to Quarter 3 (July to Sept) Q4 refers to Quarter 4 (Oct to Dec).

In FYE 2018, gross domestic product (GDP) per head – which adjusts economic growth with changes in the population – increased 0.9% compared with the preceding financial year. This is the same growth recorded in the provisional estimate of mean disposable income over the same period. This was slightly slower than the annual growth recorded in FYE 2017 (1.0%), but continues a period of growth following the FYE 2009 economic downturn. By the end of FYE 2018, GDP per head growth was 0% or above for 21 quarters – the longest sequence since Quarter 2 (Apr to June) 2006 (Figure 5).

Net national disposable income (NNDI) is similar to GDP but takes into account the depreciation of assets – such as the day-to-day wear and tear on vehicles and machinery – and the income generated by foreign-owned businesses in the UK, but includes the money made by UK companies based in other countries. It provides a more robust means of assessing the income available to all residents within the UK economy at any particular time.

NNDI per head grew at a similar rate (1.0%) to both GDP per head and the provisional estimate of mean disposable income in FYE 2018. More analysis is provided within <u>Economic well-being</u>, <u>UK</u>: <u>January to March 2018</u> examining both the factors explaining the growth profiles of GDP per head, and NNDI per head over recent years, and the contributions to growth of NNDI per head during FYE 2018.

While NNDI per head measures the income available to all residents within the UK, real household disposable income (RHDI) per head (cash measure) looks at how much of that income is available to the household sector. The analysis presented here is based on ONS's <u>Alternative measures of UK households' income and saving:</u>
<u>January to March 2018</u>, which adjusts traditional RHDI by removing "imputed" transactions aiming to better represent the economic experience of UK households. RHDI per head declined by 0.5% in FYE 2018, compared with a 0.9% increase in the provisional estimate of mean disposable income.

Differences in year-on-year growth rates between survey and national accounts measures of household income are not uncommon although, as highlighted in Figure 14 within Household disposable income and inequality in the UK: financial year ending 2017, the series broadly follow a similar trend over time. Nonetheless, we plan further research, which should help us better understand differences between survey-based measures and national accounts, building on earlier analysis presented within our Distribution of household income, consumption and savings release.

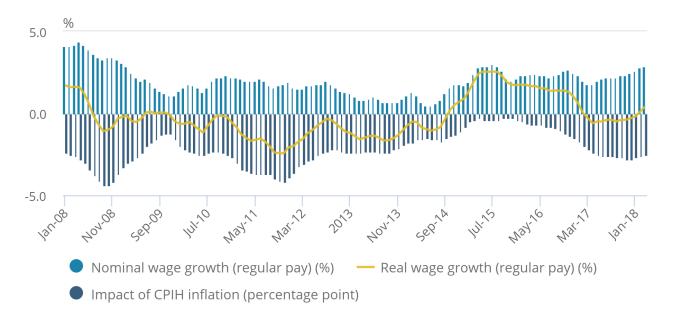
Other headline indicators presented in <u>UK labour market</u>: <u>June 2018</u> suggest that the labour market continued to perform strongly during FYE 2018. Both the headline employment and unemployment rate reached historic highs (lows) in the three months to March 2018 – 79% and 4.2% respectively.

Figure 6: Contributions to the growth of real regular pay: Consumer Prices Index including owner occupiers' housing costs (CPIH) inflation and the growth of average regular weekly earnings

UK, January 2008 to March 2018

Figure 6: Contributions to the growth of real regular pay: Consumer Prices Index including owner occupiers' housing costs (CPIH) inflation and the growth of average regular weekly earnings

UK, January 2008 to March 2018



Source: Office for National Statistics

Notes:

1. The data for regular pay presents the three months on three months a year ago growth rate for the month at the end of the period (the final data are for January to March 2018).

Favourable labour market conditions are typically associated with strong earnings growth. However, Figure 6 highlights that real earnings growth was largely negative during FYE 2018, and overall, declined by 0.2% compared with FYE 2017. This is a fall of 1.1 percentage points compared with growth in FYE 2017, helping to explain the fall in growth of the provisional estimate of mean disposable income from 2.6% in FYE 2017 to 0.9% in FYE 2018. Negative growth in real earnings is due primarily to higher inflation throughout 2017, outstripping the relatively buoyant nominal earnings growth seen since early 2015.

6. Policy context: taxes and benefits in financial year ending 2018

This section summarises some of the main tax and benefit changes occurring during the financial years ending (FYE) 2017 and 2018, but is not intended to represent an exhaustive list.

Benefit freeze

Certain working-age benefits will be frozen at FYE 2016 cash values from FYE 2017 to FYE 2020. Benefits excluded from the freeze are:

- Disability Living Allowance
- Personal Independence Payment
- Employment and Support Allowance Support Group component
- Carer benefits
- · Pension benefits
- Maternity Allowance
- Statutory Sick Pay
- Statutory Maternity Pay
- Statutory Paternity Pay
- Statutory Shared Parental Pay
- Statutory Adoption Pay

Benefit cap

A benefit cap in place in England, Scotland and Wales restricts the amount of certain benefits that a working-age household can receive. Any household receiving more than the cap has their Housing Benefit reduced to bring them back within the limit. This benefit cap was introduced in Northern Ireland from 31 May 2016 with "Welfare Supplementary Payments" paid to any households with children, who have their Housing Benefit reduced due to the cap.

From 7 November 2016, the benefit cap was reduced from £26,000 to £23,000 for households living in London and to £20,000 for those outside London.

Those in receipt of Guardian's Allowance, Carer's Allowance and the carer's element of Universal Credit are exempt from the benefit cap.

Housing Benefit

From May 2016 in England, Scotland and Wales, the family premium included in Housing Benefit (£17.45 per month) was removed for families making a new claim for Housing Benefit. The allowed period for Housing Benefit backdating also decreased from six months to four weeks. This was applied in Northern Ireland from 5 September 2016.

Universal Credit

During FYE 2018, the roll-out of Universal Credit continued. From April 2017, the Universal Credit "taper" has been cut from 65% to 63%, meaning workers will be able to keep 37 pence in every pound rather than just 35 pence.

From 1 April 2017, the earnings threshold that applies to the benefit cap exemption for Universal Credit claimants has changed. The change means that for example, after April 2017 a working Universal Credit claimant aged over 25 years in receipt of the Housing element (who is not otherwise exempt from the benefit cap) would have to earn £520 instead of £430 per month to be exempt from the cap.

Tax Credits

From April 2017, the Disabled Worker Element of Working Tax Credit has risen from £2,970 to £3,000 per year while the Severe Disability Element rises from £1,275 to £1,290 a year.

The Disabled Child Element of Child Tax Credit has risen from £3,140 to £3,175 a year and the Severely Disabled Child Element has gone up from £1,275 to £1,290 a year.

The Family Element in Child Tax Credit (First Child Element in Universal Credit) worth £545 a year is being abolished for children born on or after 6 April 2017.

Child Tax Credit and Universal Credit will also now be limited to two children, so you won't be able to get extra support for a third child or subsequent children born on or after 6 April 2017.

Income Tax

In April 2017, the tax-free personal allowance, which is the amount you can earn before paying any Income Tax, increased from £11,000 to £11,500. The higher rate (40%) tax threshold increased from £43,000 to £45,000. The Blind Person's Allowance – an extra amount of income that blind people living in England and Wales can earn without having to pay tax – is rising from £2,290 to £2,320.

Marriage Allowance

From April 2017, the Marriage Allowance increased from £1,100 to £1,150. This allowance enables those that are married or in a civil partnership to transfer a portion of their tax-free personal allowance to their partner, but only if both partners don't pay more than the basic rate of Income Tax.

Personal savings allowance

From 6 April 2017, the amount you can save tax-free in an Individual Savings Account (ISA) has increased from £15,240 to £20,000.

National Insurance

From April 2017, the new National Insurance contribution (NIC) thresholds for FYE 2018 are as follows:

- Class 1 NICs (employees) payable on income between £157 and £866 a week at 12%; above £866 a
 week the reduced rate of 2% applies
- Class 2 NICs (self-employed) will be payable on profits above £6,025 a year (up from £5,965) at a rate of £2.85 per week
- Class 3 NICs (voluntary) will rise from £14.10 to £14.25 a week
- Class 4 NICs (self-employed) payable on profits between £8,164 and £45,000 at 9%; above £45,000 the reduced rate of 2% applies

State Pension

The basic State Pension increased in line with the "triple guarantee" (or "triple lock") that was introduced in FYE 2013. This ensures that it increases by the highest of the increase in earnings, price inflation (as measured by the Consumer Prices Index) or 2.5%. In FYE 2017, the annual earnings increase (2.9%) was the highest of these three benchmarks.

The new single-tier State Pension launched on 6 April 2016 for people who reach pension age on or after 1 April 2016, to replace the basic State Pension and second State Pension. This consolidated the basic State Pension and additional State Pension into one single amount, paying up to £155.65 per week. The value paid for individuals may be less depending on recipients' National Insurance contributions.

From April 2017, the basic State Pension increased by 2.5% from £119.30 to £122.30 per week. The new State Pension has risen by 2.5% from £155.60 to £159.55 a week.

Industrial Death Benefit

In FYE 2017, Widow's Pension higher rate increased from £115.95 per week to £119.30 and the lower rate increased from £34.79 per week to £35.79 per week.

Widower's Pension increased from £115.95 to £119.30 a week.

Bereavement Benefit

The system of <u>Bereavement Payment</u>, <u>Widowed Parent's Allowance</u> and <u>Bereavement Allowance</u> has been replaced by the Bereavement Support Payment for those that lose a partner from 6 April 2017.

Under the new Bereavement Support Payment system, there will be a tax-free lump sum of £2,500 for those with no children or £3,500 for those with children.

This will be followed by a monthly tax-free payment of £100 if you don't have children and £350 if you do. This will last for 18 months, is paid regardless of your age or if you find a new partner, it is not subject to the benefits cap and is not linked to inflation.

National Minimum Wage and National Living Wage

In April 2017, the National Living Wage was increased to £7.50 per hour for employees aged 25 years and over. Workers under the age of 25 years continue to get the National Minimum Wage, which increased from April 2017 to £7.05 for workers aged 21 to 24 years and £5.60 for those aged 18 to 20 years.

Council Tax

The average Band D Council Tax set by local authorities in England for FYE 2018 is £1,591, which is an increase of £61 or 4.0% on the FYE 2017 figure of £1,530.

Average Band D Council Tax for Wales for FYE 2018 is £1,420, which is an increase of £46 or 3.3% on FYE 2017.

For FYE 2018, the Regional Rate in Northern Ireland increased by 1.6% on its FYE 2017 value.

7. Links to related statistics

Household disposable income and inequality in the UK: financial year ending 2017 presents final estimates of median disposable income for the financial year ending (FYE) 2017. Effects of taxes and benefits on UK household income: financial year ending 2017 extends this analysis by including the effects of indirect taxes and benefits-in-kind.

A guide to sources of data on earnings and income provides more information on the topic of household income.

The Department for Work and Pensions (DWP) publishes analysis each year on household income in their publication <u>Households below average income (HBAI)</u>. The latest edition of this publication, including data for FYE 2017, was released on 22 March 2018. This release is based on data from the Family Resources Survey (FRS) and focuses on the lower part of the income distribution.

HBAI has a different focus from the effects of taxes and benefits on household income (ETB) dataset, which is primarily focused on the redistribution of income through taxes and benefits across the income distribution. However, for both publications to be able to present a coherent narrative, some comparable statistics are presented in both bulletins, including median and Gini coefficient for equivalised disposable (net) income.

Due to HBAI being based on a different survey, along with some methodological differences, HBAI and ETB estimates for these figures can differ slightly from each other. However, historical trends are broadly similar across the two sources.

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 Living Costs and Food Survey (LCF) and, as such, will have a higher level of precision than ETB estimates. In addition, HBAI includes an adjustment for "very rich" households to correct for the under-reporting using data from HM Revenue and Customs's (HMRC's) Survey of Personal Incomes (SPI). These differences make HBAI a better source for looking at income-based analysis that does not need a very long time series (the FRS data are available from FYE 1995) and when looking at smaller subgroups of the population, particularly at the upper end of the income distribution.

In order to address some of the limitations with the current ETB estimates, Office for National Statistics (ONS) is currently working on <u>transforming its data</u> 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 so that these estimates from FYE 2018 onwards will benefit from a larger sample size of around 17,000 households.

8. Quality and methodology

The input data for this analysis come from the Living Costs and Food Survey (LCF) and the effects of taxes and benefits on household income (ETB) dataset, which is derived from the LCF. Together, these provide information on income, expenditure and important family characteristics.

There are four main steps involved to produce nowcast estimates of disposable income. These are:

- 1. Compile base data. This involves joining three years of historic LCF data.
- 2. Uprate base data. Adjust the base data to reflect changes in the macro-economic conditions have affected households at different points of the income distribution. For instance, taking into account wage growth from more timely earnings growth data.
- 3. Model tax and benefit changes. Apply rules of the current tax and benefit system to the uprated base data.
- 4. Recalibrate weights Account for changes in labour market participation and the socio-demographic characteristics of the population between base data and reference period.

For this analysis, historical LCF data covering the financial years ending (FYE) 2012, 2013, and 2014 were combined to produce nowcast estimates of disposable income for different household types and measures of inequality for FYE 2017 and FYE 2018. The growth rate between the various nowcasts was applied to the published FYE 2017 estimates presented within Household income in the UK: financial year ending 2017, published 10 January 2018. A more detailed description of the methodology is provided in the accompanying article, Nowcasting household income in the UK: Methodology, 2016.

The historical data in this article are based on the ETB series, produced by Office for National Statistics, which itself is derived from the LCF. This series has been chosen for this article due to its long time series and its use as the primary input for the Intra-Governmental Tax and Benefit Model (IGOTM) used for producing the FYE 2017 nowcast estimates.

Also, it allows the possibility of extending the work on nowcasting to indirect taxes and benefits in kind provided by the state. The period covered begins in 1977 because this is the year from which consistent data from the ETB series are available.

How do these estimates fit in with other official statistics on household incomes?

These experimental nowcast estimates have been developed to serve as early or provisional estimates of figures that are currently published in the <u>Household disposable income and inequality in the UK</u> release (shortly to be renamed The effects of taxes and benefits on household income: disposable income estimate). When the survey-based estimates figures for FYE 2018 are available in 2019 they will supersede these nowcast estimates. We will also use these survey-based figures to evaluate the accuracy of these nowcasts.

The figures published in this bulletin use exactly the same definition of disposable income used in the ETB, which in turn is consistent with the concepts set out in the second edition of the United Nations Economic Commission for Europe Canberra Handbook (UNECE, 2011); this sets out the main international standards in this area. Additionally, these estimates and ETB use the same primary data source, the LCF.

What are Experimental Statistics?

The UK Statistics Authority <u>Code of Practice for Statistics</u> defines <u>Experimental Statistics</u> as "new official statistics undergoing evaluation, which are published in order to involve users and stakeholders in their development and as a means to build in quality at an early stage." The data contained within this release have undergone the same high levels of quality assurance as other official statistics. However, as Experimental Statistics, the methodology used to create them remains under development and may be revised following further evaluation. It is therefore recommended that this is taken into account when using the findings.

As with any other nowcast, the accuracy of these indicators will inevitably depend on many factors. Throughout the development work feeding into this bulletin, a variety of approaches have been tested to develop a robust methodology and the experience of external experts has been used to make use of international best practice. Despite this, it is unrealistic to expect nowcast estimates to perfectly reflect changes in the distribution of income, particularly when examining smaller sub-groups of the population. This means that the final survey data may show different patterns of change for some groups. This is taken into account in the level of detail presented in this bulletin.

In line with the UK Statistics Authority's statement on <u>Assessment and Designation of Experimental Statistics</u> (<u>PDF, 44KB</u>), we will be carefully evaluating these new estimates against the Code of Practice for Statistics. This will include assessments of both the quality of the estimates themselves and the extent to which they meet user needs.

Accuracy and reliability of nowcast estimates

The nowcast estimates are subject to the same degree and types of statistical error as any other analysis based on survey data. As the LCF data are a sample survey, the estimates are subject to sampling error. Surveys gather information from a sample rather than from the whole population. The sample is designed carefully to allow for this and to be as accurate as possible given practical limitations such as time and cost constraints, but results from sample surveys are always estimates, not precise figures. This means that they are subject to a margin of error, which can have an effect on how changes in the numbers should be interpreted, especially in the short-term. In practice, this means that small, short-term movements should be treated as indicative and considered alongside medium- and long-term patterns in the series.

As well as sampling error, all statistics, including these nowcast estimates, are also subject to non-sampling error. Non-sampling error includes all sources of data error that are not a result of the way the sample is selected. There are a wide number of different types of potential non-sampling error, including coverage error, non-response and measurement error. It is not possible to provide a measure of non-sampling error.

Using micro-simulation and nowcasting techniques to estimate distribution of income provides an additional source of non-sampling error in the estimates due to, for instance, approximations in the simulation of tax benefit rules, adjustments for non-take up, uprating of financial parameters and socio-demographic characteristics to the simulation year or ignoring behavioural responses (see, for example, Navicke and others, 2013). On the other hand, simulation can arguably improve the accuracy of results relative to survey-based estimates through simulating the exact rules of the tax and benefit system.

A 95% confidence interval is a range within which the true population would fall for 95% of the times the sample survey was repeated. It is a standard way of expressing the statistical uncertainty of a survey-based estimate. Estimates of the confidence intervals are provided in Table 5 from the dataset download.

Equivalisation of household income

The majority of figures in this release are based on equivalised disposable income. 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 takes into account the number of people living in the household and their ages, acknowledging that whilst 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 equivalisation scale. Nowcasting household income in the UK: financial year ending 2017 provides more detail on the equivalisation factors used within this analysis.

Rationale for earlier estimates of household income

In measuring how living standards have changed over time, median household disposable income is widely regarded as one of the most important indicators. As it represents the middle of the income distribution, the median household income provides a good indication of the standard of living of the "typical" household in terms of income. However, it is also desirable to have information on the whole distribution of household income and analyse not only a typical household but also those towards the top and bottom of the income distribution.

A variety of inequality measures are calculated based on disposable income. Together, these measures provide evidence on how incomes are shared across households and how this is changing over time. However, an important limitation in using such measures as proxies for changes in material living standards is their lack of timeliness.

Unlike macro-economic indicators such as gross domestic product (GDP) per head or real household disposable income (RHDI), which are typically available within a few months, statistics on the distribution of income in the UK and other countries are typically produced to a much longer timetable, reflecting the complexity involved in collecting, processing and analysing household financial survey data. For instance, <u>estimated median disposable income</u> (estimated using survey data) for financial year ending 2017 was published more than eight months after the end of the reference period.

In February 2015, the UK Statistics Authority published their monitoring review on The coherence and accessibility of official statistics on income and earnings (PDF, 1.6MB). In that report, they noted that users had said that "a 15-month lag in publishing key income and earnings statistics means that the relevance to decision-making is diminished almost before the statistics are released". The Authority went on to recommend that "where data cannot be collected or compiled at the required frequency or timeliness, attempts to model or forecast /nowcast estimates should be considered" and our current work exploring nowcasting of household income was warmly welcomed.

9. Future plans

In line with UK Statistics Authority guidance, we will carefully evaluate these statistics to determine future plans. Consideration will be given to the quality of the estimates possible through nowcasting and the extent to which estimates produced using such methods are able to meet user needs. This will inform any future plans for publication, including the frequency and level of detail provided.

In June 2018, we published <u>Transformation of ONS household financial statistics</u>: <u>ONS statistical outputs</u> <u>workplan, 2018 to 2019</u>, in which we outlined our plans to publish nowcast estimates for the financial year ending 2019 in July 2019.