

# The effects of taxes and benefits on household income, technical report: financial year ending 2020

This technical report provides an update on how the effects of taxes and benefits on household income (ETB) datasets for financial year ending (FYE) 2018 to FYE 2020 are produced. It contains information relating to questionnaire changes and new or changed methodology for these years.

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## Table of contents

1. [Introduction](#)
2. [Transforming the ONS household income statistics](#)
3. [Changes to benefits in kind](#)
4. [Adjusting for high incomes](#)
5. [Change of unit of analysis from household to person](#)

# 1 . Introduction

This technical report provides an update on how the Effects of Taxes and Benefits on Household Income (ETB) datasets for financial year ending (FYE) 2018 to FYE 2020 are produced. Household income estimates are produced using data from the Household Finances Survey. This survey is undertaken by the Office for National Statistics (ONS) Social Survey Operations, which is part of the Population and Public Policy Operations Directorate of the ONS.

Information relating to questionnaire changes and new or changed methodology for FYE 2018 to FYE 2020 is provided in this technical report. The report does not describe the methodology prior to FYE 2018. For a more in-depth explanation of ETB processes and methodology, users should refer to [The effects of taxes and benefits on household income, technical report: financial year ending 2019](#).

## 2 . Transforming the ONS household income statistics

Over the past few years, the Office for National Statistics (ONS) has undertaken a programme of work to transform the production of its household financial statistics. A major strand of this work has been to integrate two of the ONS's existing household income surveys - the Living Costs and Food Survey (LCF) and the Survey on Living Conditions (SLC). Through the harmonisation of questions on income, pensions, employment and living conditions, this source - the Household Finances Survey (HFS) - provides an achieved sample of around 17,000 households across the UK.

This work means that ONS's household income statistics, that were previously estimated from the LCF alone (approximately 5,000 households), will benefit from a larger sample. This in turn will enable greater precision in our headline estimates, increased stability over time, and more granular statistics at regional levels and for different population subgroups.

For financial year ending (FYE) 2020, the ONS estimates of household income and inequality were produced using the HFS and our [historical datasets](#) back to FYE 2018, have also been revised to incorporate the HFS. For more information relating to this methodological change, users can refer to [Improving the measurement of household income](#). Effects of Taxes and Benefits on Household Income (ETB) datasets can be accessed via the [UK Data Service](#). However, it is recommended that any users wishing to access ETB data should first check with us that the latest version of data for a particular year, containing all the changes described in this technical report, has been uploaded as there can be a slight delay in the application of methodological changes and making the new data publicly available.

## 3 . Changes to benefits in kind

For income estimates from financial year ending (FYE) 2018 onwards, a number of changes were made to what was included as a benefit in kind (BIK) and to the methodology used to compute the monetary value of some BIKs.

The benefit of a company car, including any fuel provided for personal use, has been included in our analysis since 1990. Prior to FYE 2018, the methodology for assigning the monetary value of the benefit of a company car used the list price of the car, along with the fuel type, provided by the survey respondent as a proxy for the carbon dioxide (CO<sub>2</sub>) emissions of the car. A factor based on the fuel type and CO<sub>2</sub> emissions was applied to the list price to generate the benefit value of the company car. The same factor was applied to the fuel benefit charge multiplier to calculate the benefit value of any fuel provided by an employer for private use.

A change in the methodology for calculating the benefit of company cars has been applied to income estimates for FYE 2018 onwards. The new method uses published data from HM Revenue and Customs (HMRC) on the total taxable value of company cars and company car fuel for a financial year by income band. From these published data we calculate the average taxable value of a company car and company car fuel provided for personal use and apply these average figures to survey respondents within the appropriate income band who possess a company car and who receive fuel for private use. An adjustment factor is applied to ensure that the cumulative total figures for the taxable values of company cars and company car fuel are consistent between the survey sample and the HMRC published estimates. The adjusted taxable value is assumed to be the benefit value of a company car. The benefit value of a company car is included in the imputed income category within original income.

In addition to the benefit of a company car, the benefit value of private medical insurance provided by an employer has been included in imputed income for income estimates from FYE 2018 onwards. Published data from HMRC on the taxable value of employer-provided private medical insurance by income band are used to calculate average figures which are then applied to survey respondents who indicate they are in receipt of private medical insurance provided by their employer. An adjustment factor is applied to ensure that the cumulative total figure for the taxable value of private medical insurance is consistent between the survey sample and the HMRC published estimates. In order to calculate the value of the benefit of private medical insurance that is not taxed, the average taxable value is adjusted by a value proportional to the survey respondent's marginal tax rate. The value of the benefit of private medical insurance provided by an employer is the sum of the average taxable value and the non-taxed value.

Another new BIK included in income estimates from FYE 2018 onwards is the benefit of free early education and childcare for young children and Tax-Free Childcare. Free early education and childcare schemes vary across the UK nations whilst Tax-Free Childcare is a UK-wide scheme. For simplicity, the benefit is referred to as "Free childcare hours" on data tables.

The calculation of the benefit value of free early education and childcare first identifies eligible households in the survey sample. Average numbers of hours per week used of free early education and childcare per child is obtained from the Department of Education's Childcare and Early Years Survey of Parents and are applied to the eligible survey households. The benefit value is then calculated by multiplying the number of hours used by the average hourly provider rate for the government region. The benefit value of Tax-Free Childcare is calculated directly from the survey data and added to the benefit value for free early education and childcare to give the final BIK value amount.

An estimate of the benefit of adult social care is included in income estimates from FYE 2017 onwards. Adult social care is defined as the personal care and practical support provided to adults with physical or learning disabilities or physical or mental illnesses, as well as support for their carers. Only adult social care in non-residential care home settings is taken into account because the survey sample is comprised only of private households.

Total spending on adult social care split into two age groupings (18 to 64 years and 65 years or older) across the different UK regions is allocated across the survey sample. The lack of data on survey respondents' savings does not allow for the identification of individuals eligible for state-funded adult social care. Consequently, we allocate a high proportion of the total spending on adult social care by age group and region to respondents in receipt of specific cash benefits whilst the remaining proportion of the total spend is allocated to the other adults in the age group and region. Future work will explore how to improve our method for calculating the BIK value of adult social care, including the potential of adding new questions to our survey to better understand which individuals are in receipt of state-funded adult social care.

## 4 . Adjusting for high incomes

Headline estimates of income from financial year ending (FYE) 2002 onwards are adjusted for the under-coverage of the richest earners. While more details of the methodology are presented in [Top income adjustment in effects of taxes and benefits data: methodology](#), this adjustment increases both the number and incomes of the very richest people, using information from HM Revenue and Customs' [Survey of Personal Incomes \(SPI\)](#), an administrative sample of UK tax records. Work to produce estimates prior to FYE 2002 is scheduled, however, there is no specific completion date planned for this yet.

## 5 . Change of unit of analysis from household to person

In response to requests from users, the unit of analysis used for income estimates from financial year ending (FYE) 2018 onwards is the individual. Previously the basic unit of analysis was the household. Using the individual as the unit of analysis brings us in line with international best practice. As equivalised disposable household income can be considered a measure of the economic resources available to each member of a household, it is sensible for income measures for equivalised estimates to be based on the number of people rather than households. It also ensures that people in large households have the same contribution to the income distribution as people in small households. Our [historical datasets](#) have been revised back to FYE 2002 to account for the change in the unit of analysis.