

Article

Household estimates and projections across the UK : user guide

Guidance for users about the coherence and comparability of data on household estimates and projections for England, Wales, Scotland and Northern Ireland.

Contact:
Amanda Sharfman and Pamela
Cobb
pop.info@ons.gov.uk
+44 1329 444661

Release date:
18 May 2023

Next release:
To be announced

Table of contents

1. [Introduction](#)
2. [Household estimates and projections across the UK](#)
3. [Comparing survey-based estimates of households with official estimates for Wales, Scotland and Northern Ireland](#)
4. [Further research](#)
5. [Glossary](#)
6. [Annex](#)

1 . Introduction

Each of the four countries of the UK produces their own household estimates and/or projections. This user guide details the coherence and comparability of household estimates and projections for England, Wales, Scotland and Northern Ireland. It provides information on the household and family type estimates available for each country.

2 . Household estimates and projections across the UK

Estimates of the number of households by household size and composition for the UK are available back to 1996 in our [Families and households in the UK](#) bulletins. These estimates are based on Quarter 2 (Apr to June) of the Labour Force Survey (LFS) and are the official national statistics on households for the whole UK.

We selected this survey as the preferred source because of its large sample size, long time series and timeliness. We used Quarter 2 because it includes the mid-point of each year, which provides consistency with the reference point for the mid-year population estimates.

As the estimates are based on a sample survey, we reported confidence intervals alongside them to show the degree of uncertainty around each estimate. These confidence intervals show that the estimates of the number of households for the UK are generally precise.

Information on the number of households in England, Wales, Scotland and Northern Ireland has been produced and published by the Office for National Statistics (ONS), the Welsh Government, National Records of Scotland (NRS), and the Northern Ireland Statistics and Research Agency (NISRA) since the early 1990s. These are available as both estimates and projections of the number and composition of households.

Earlier estimates are available from the [General Lifestyle Survey](#) back to 1971. However, these are only for Great Britain, and this is not a consistent time series as there are many years for which the data is missing.

An understanding of households is crucial for those involved in planning and decision making and informing policy decisions at both a national and local level. The statistics are also used by those who want to improve their understanding of the UK's households.

Policy uses of household data include:

- assessing potential need and demand for housing and associated services
- planning future service provision such as household waste and recycling, school places, adult and child social services, and health and social care
- macroeconomic forecasting and central government policy simulation and planning

England

We publish the official household estimates for England annually in our [Families and households in the UK bulletins](#). The estimates are derived from Quarter 2 of the LFS and are available by household composition and the number of people in a household. Currently, estimates are published back to 2014 and are also available for the regions of England.

We also produce [Household projections for England datasets](#). We publish them every two to three years and make them available down to local authority level. These are derived using a combination of mid-year population estimates, subnational population projections, census data, and the Annual Population Survey (APS). More information on the household projections methodology is available in the [2018-based methodology report](#).

Wales

The official [household estimates for Wales](#) are produced and published annually by the Welsh Government. The estimates are made by applying assumptions about household composition and size from previous censuses to mid-year population estimates. They are published at national and subnational (local authority) level and are available back to 1991.

As part of our Families and households in the UK bulletins, we also publish a set of household estimates for Wales. These are available by household composition and the number of people in a household. These are produced using LFS data but are not the official household estimates for Wales. The LFS-based household estimates for Wales do not give the same figures as the official Welsh Government household estimates, so caution should be taken when using the two sources. Further information about the definitions used and comparability between the two sources can be found in the household estimates for Wales publication.

The Welsh Government also publishes household projections every three years. They are available down to local authority and national park level. They are based on the Welsh Government's subnational population projections and assumptions about household composition and size from previous censuses. More information on the household projections methodology is available in the [technical report for the subnational projections](#). This report will be updated in due course following the publication of the latest subnational projections.

Scotland

The official [household estimates for Scotland](#) are produced and published annually by NRS. They are available back to 1991. From 2001 they have been produced using council tax data. The estimates are published at national and subnational (council area) level. Information from the Scottish Household Survey is used to estimate a breakdown by household type.

We also publish a set of household estimates for Scotland as part of the Families and households in the UK bulletins. These include estimates by household composition and the number of people in a household. They are not the official household estimates for Scotland. The LFS-based household estimates for Scotland do not give the same figures as the official NRS household estimates, so caution should be taken when using the two sources.

Household projections are also produced by NRS every two years. More information on the household projections methodology is available in the [Household Projections for Scotland, 2018-based](#) report.

Northern Ireland

The official estimates of households in Northern Ireland are taken from [Northern Irish household projections](#) produced by NISRA. The projections are produced as and when key users require. They are available nationally and by the 11 local government districts (LGD) that make up Northern Ireland.

Household estimate metadata by UK country

We summarise the details of each country's household estimates, including frequency, geography, household composition and data sources.

For the UK official household estimates:

- the data source is the LFS, Quarter 2
- the data is available electronically from 1996 to the latest year
- the data is available for GB constituent countries
- the data is updated annually

For the England official household estimates:

- the data source is the LFS, Quarter 2
- the data is available electronically from 2014 to the latest year
- the data is available for regions in England
- the data is updated annually

For the Wales official household estimates:

- the data source is mid-year population estimates and household composition from census data
- the data is available electronically from 1991 to the latest year
- the data is available for local authorities in Wales
- the data is updated annually

For the Scotland official household estimates:

- the data source is Scottish council tax information
- the data is available electronically from June 1991 to the latest year
- the data is available for council areas in Scotland
- the data is updated annually

For the Northern Ireland official household estimates:

- the data source is household projections produced by NISRA
- the data is acquired from the latest NISRA household projections release, with the most recent available being 2016
- the data is available for local government districts in Northern Ireland
- the data is updated only when requested

For a detailed breakdown of the available household types for each country of the UK, please see the annex in [Section 5](#).

Our [Household projections across the UK: user guide](#) provides more information on coherence and comparability of household projections across the UK.

3 . Comparing survey-based estimates of households with official estimates for Wales, Scotland and Northern Ireland

Figures 1 to 3 show how estimates derived from both the Labour Force Survey (LFS) and Annual Population Survey (APS) compare with those produced by the Welsh Government, the National Records of Scotland (NRS), and the Northern Ireland Statistics and Research Agency (NISRA).

The APS is a large household survey that includes the data collected in the LFS, as well as additional sample boosts in particular geographical areas. The APS estimates are also based on a full year's worth of data. As a result, the estimates are based on a larger sample than the LFS estimates. This improves the reliability of the estimates for certain geographies, but the APS estimates are less timely than the LFS estimates.

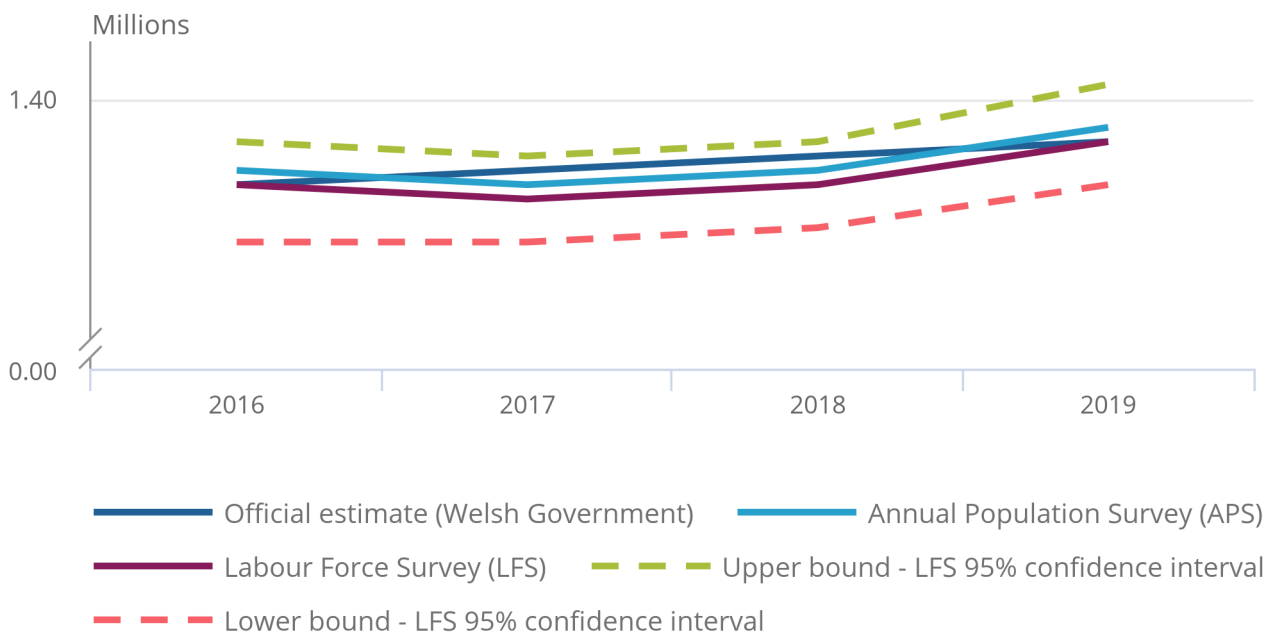
Figure 1 shows that the Welsh Government household estimates and annual APS-based estimates are similar to Quarter 2 (Apr to June) LFS-based estimates for Wales. They fall within the upper and lower bounds of the 95% confidence intervals of the LFS estimates.

Figure 1: 95% confidence bounds of the LFS estimates encompassed the official household estimates for Wales for 2016 to 2019

Comparison of APS and LFS-based household estimates for Wales with the Welsh Government household estimates, 2016 to 2019

Figure 1: 95% confidence bounds of the LFS estimates encompassed the official household estimates for Wales for 2016 to 2019

Comparison of APS and LFS-based household estimates for Wales with the Welsh Government household estimates, 2016 to 2019



Source: Office for National Statistics (ONS), Welsh Government

Notes:

1. [Welsh Government household estimates](#) have been rounded to the nearest hundred.

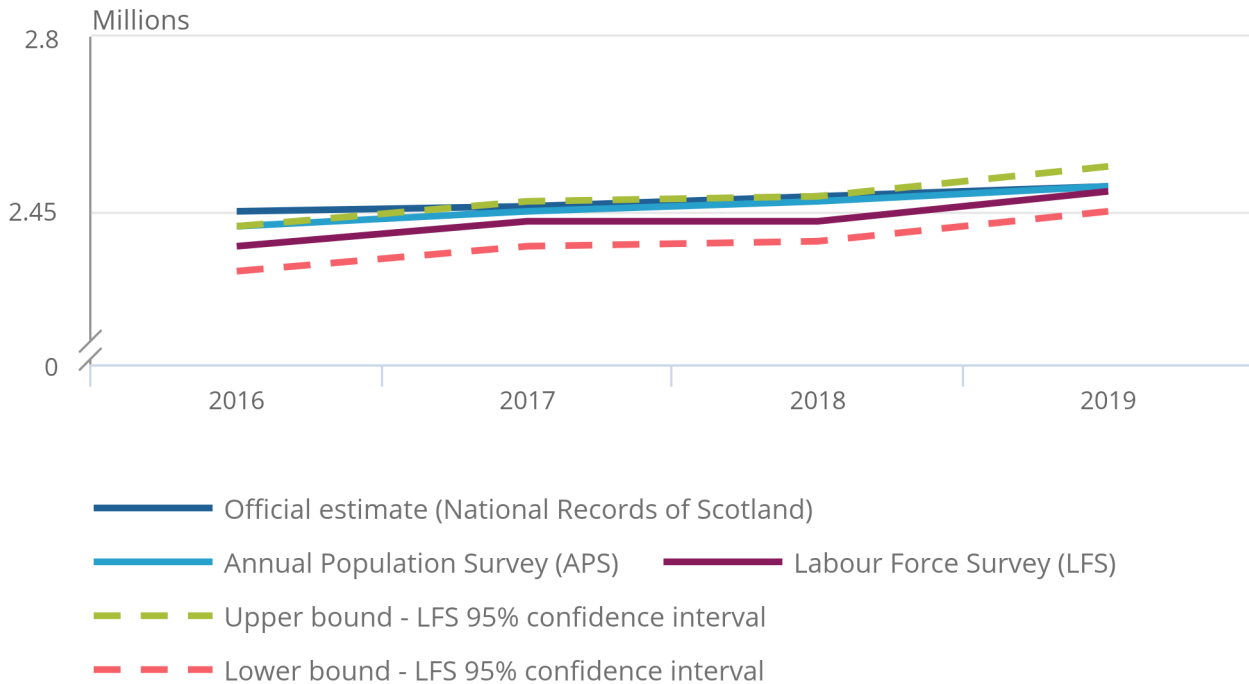
Figure 2 shows that NRS household estimates and annual APS-based estimates are similar to Quarter 2 LFS-based estimates for Scotland. They generally fall within the upper and lower bounds of the 95% confidence intervals of the LFS estimates.

Figure 2: LFS household estimates for Scotland have been generally lower than official Scottish estimates, but were closer in 2019

Comparison of APS and LFS-based household estimates for Scotland with the NRS household estimates, 2016 to 2019

Figure 2: LFS household estimates for Scotland have been generally lower than official Scottish estimates, but were closer in 2019

Comparison of APS and LFS-based household estimates for Scotland with the NRS household estimates, 2016 to 2019



Source: Office for National Statistics (ONS), National Records of Scotland (NRS)

Notes:

1. National records of Scotland data are taken from [Estimates of households and Dwellings in Scotland, 2019](#) and rounded to the nearest hundred.

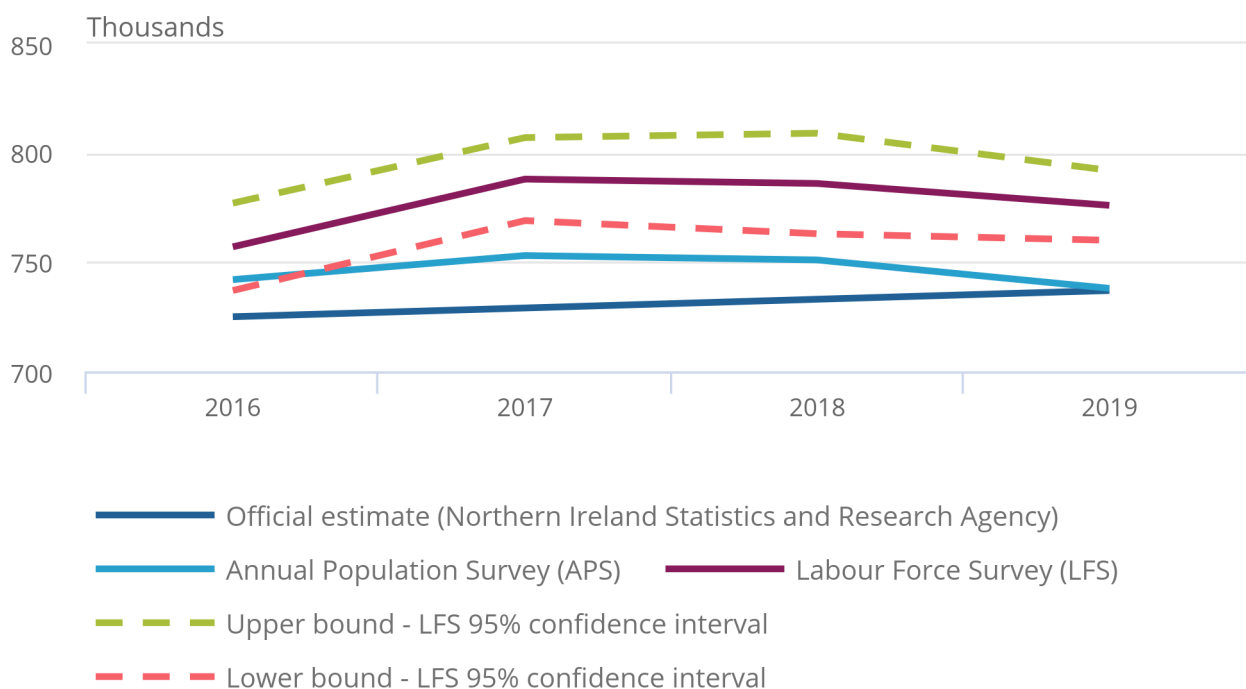
Figure 3 shows that estimates for Northern Ireland that are based on APS data are more similar to the Northern Ireland projections data than the Quarter 2 LFS based estimates. Both generally fall outside the upper and lower bounds of the 95% confidence intervals of the LFS estimates.

Figure 3: LFS household estimates for Northern Ireland were consistently higher than the official Northern Ireland household estimates for 2016 to 2019

Comparison of the APS and LFS-based household estimates for Northern Ireland with the 2016-based official NISRA household projections, 2016 to 2019

Figure 3: LFS household estimates for Northern Ireland were consistently higher than the official Northern Ireland household estimates for 2016 to 2019

Comparison of the APS and LFS-based household estimates for Northern Ireland with the 2016-based official NISRA household projections, 2016 to 2019



Source: Office for National Statistics (ONS), Northern Ireland Statistics and Research Agency (NISRA)

Notes:

- Northern Ireland data are taken from [Northern Ireland household projections](#) and rounded to the nearest hundred.

In 2019, we began publishing household estimates for England, Wales, Scotland and Northern Ireland as part of the Families and Households in the UK bulletin. These estimates were made available back to 2014. These are not considered to be the official estimates of the number of households for Wales, Scotland and Northern Ireland. They were published in response to a user need for household estimates, including by household composition, for the devolved nations, produced on a consistent basis.

Comparisons with official estimates for these countries have raised some coherence concerns about the LFS estimates for constituent countries of the UK, particularly for Northern Ireland because of the smaller sample sizes. As a result, ONS no longer publishes estimates of families or households for Northern Ireland. Estimates based on the LFS are still published for England, Wales and Scotland. These should be used when comparability and consistency with other nations or with the UK estimates are required, or for breakdowns of household composition that are not otherwise available.

When users are interested only in household estimates for England, Scotland, Wales and Northern Ireland at a national or subnational level, they should use the official estimates for each nation. These are:

- The Office for National Statistics' (ONS') [Families and households in the UK](#) bulletins for the UK and England
- The Welsh Government's [Household estimates](#) for Wales
- The NRS' [Household estimates](#) for Scotland
- NISRA's [Household projections](#) for Northern Ireland

ONS continues to publish estimates of families for the UK, England, Wales and Scotland based on LFS data. As there are no alternative data sources for these estimates, they are considered the official estimates for families for these geographies.

4 . Further research

We intend to conduct further research to explore whether there is scope for using Annual Population Survey (APS) data as an alternative to the Labour Force Survey (LFS). This will involve calculating the 95% confidence intervals around the APS estimates to determine whether overall, the APS aligns more closely with the official estimates for each nation than the LFS does currently.

We also plan to make further assessments of the quality of the LFS-based estimates for both the UK and its constituent countries once Census 2021 data (2022 for Scotland) becomes available.

As part of wider plans to digitise and speed up publication of survey results, the Office for National Statistics (ONS) are developing a transformed version of the Labour Force Survey (LFS). This will give us even more accurate information about the people living in our country, allowing for more robust estimates, as well as more granular breakdowns of the data. Once available, we will assess how this data compares with the current LFS and will aim to update on progress in our Families and households in the UK bulletin.

5 . Glossary

Household

Since 2011, the definition of a household has been:

One person living alone, or a group of people (not necessarily related) living at the same address who share cooking facilities and share a living room or sitting room or dining area. This includes sheltered accommodation in units where 50% or more have their own kitchens (irrespective of whether there are other communal facilities) and all people living in caravans on any type of site that is their usual residence; this will include anyone who has no other usual residence elsewhere in the UK.

Note that a different definition of a household was used prior to 2001:

One person living alone, or a group of people (not necessarily related) living at the same address with common housekeeping -- that is, sharing either a living room or sitting room or at least one meal a day.

Confidence Interval

A confidence interval provides an estimated range of values in which an actual population value is likely to fall 95% of the time. The 95% confidence interval is defined as 1.96 times the standard error of the estimate.

6 . Annex

Availability of official household estimates differed by household type.

Official household estimates were available for one-person households in:

- UK
- England
- Wales
- Scotland
- Northern Ireland

Official household estimates were available for lone-parent households in:

- UK
- England

Official household estimates were available for households with couples without children in:

- UK
- England

Official household estimates were available for households with couples with dependent children in:

- UK
- England

Official household estimates were available for households with couples with non-dependent children in:

- UK
- England

Official household estimates were available for households with two or more unrelated adults in:

- UK
- England

Official household estimates were available for multi-family households in:

- UK
- England

Official household estimates were available for households with two adults in:

- Wales
- Scotland
- Northern Ireland

Official household estimates were available for households with one adult with children in:

- Wales
- Scotland
- Northern Ireland

Official household estimates were available for households with two or more adults with one or more children in:

- Wales
- Scotland
- Northern Ireland

Official household estimates were available for households with three or more adults in:

- Wales
- Scotland
- Northern Ireland

It is important to note that:

- available breakdowns have been summarised into aggregate categories to demonstrate comparability; more detailed breakdowns may be available within specific categories for individual devolved administrations
- terminology for the household type categories varies across the publications
- household types based on the LFS are derived from the family relationships within the household rather than the mix of adults and children; therefore, a lone parent household in the household estimates for UK and England, for example, is not directly comparable to a household which contains one adult with children in the estimates for the other nations of the UK
- the breakdowns for the UK and England are also available for Wales, Scotland and English regions via the ONS [Families and households in the UK](#) bulletin