

Household projections for England QMI

Quality and Methodology Information report for household projections for England.

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1 . Output information

- Product name: Household projections for England
- Statistical designation: accredited official statistics
- Data collection: using existing data
- Frequency: every two years
- How compiled: Administrative data, survey data and projections methodology
- Geographic coverage: Country, region and local authority – England
- Related publications: Subnational population projections for England: 2022-based

2 . About this Quality and Methodology Information report

This quality and methodology information (QMI) report contains information on the quality characteristics of the data (including the European Statistical System's five dimensions of quality) as well as the methods used to create it. The information in this report will help you to:

- understand the strengths and limitations of the data
- learn about existing uses and users of the data
- decide suitable uses for the data
- understand the methods used to create the data
- reduce the risk of misusing the data

3 . Important points

- For this release of household projections, analyses in the bulletin use the migration category variant projection and we recommend use of this in place of principal projections. This is consistent with the approach taken in our release [Subnational population projections for England: 2022-based](#).
- A five-year migration variant, which aligns with the principal projection in the 2022-based national population projections is available in this release; we advise the use of the up-to-date migration category variant in place of the principal projections referred to in the [National population projections: 2022-based release](#), as it better reflects short-term population change.
- Household projections relate to the usually resident population and do not include people who come to or leave the country for less than 12 months; they are not forecasts and do not attempt to predict the effect of future political and economic changes, or local development policies.
- Since household projections are produced in the same way for all local authorities, they can be used as a common framework for informing local-level policy and planning; they should be seen as a starting point for calculating potential future housing needs.
- Projections become increasingly uncertain as they go forward into the future, particularly for smaller geographical areas and detailed age and sex breakdowns.
- Trends in household projections are a result of trends in household formation between the census years 2011 and 2021 and population change indicated by the subnational population projections.

4 . Quality summary

Overview

Household projections have been published by the Office for National Statistics (ONS) since 2018. Previously, they were published by the Ministry of Housing, Communities and Local Government (MHCLG). Household projections show the number of households there would be in England in the future if a set of assumptions about the size, structure, and household formation patterns were realised.

Uses and users

Household projections contribute towards policy decisions at a national and local level.

Uses of the 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

Strengths and limitations

Household projections provide users with valuable insight into the changing patterns of household formation in England. They are produced using the same methods for all local authorities in England, so that data for one local authority are comparable for other local authorities, within a set of projections.

Since projections are produced in a consistent way, they can be used as a common framework for informing local level policy and planning; local areas are advised to supplement them with any local information they have.

The demographic assumptions used in the household projections, and in the subnational population projections for fertility, mortality and migration are based on past trends. However, demographic behaviour is inherently uncertain, so projections become increasingly uncertain the further they are carried forward. This is particularly so for smaller geographical areas and detailed age, sex and household type breakdowns. Changes in factors such as fertility, housing affordability and availability, and family formation can change these assumptions. Population and housing change is also influenced by economic development and housing policies at the local level. These are factors that are not included in these projections.

Household projections are also limited by what data are available to inform detailed breakdowns of household population and households by the age and sex of the household reference person (HRP) at the local authority level. These detailed data are only available from census points; the latest projections use the two most recent censuses, 2011 and 2021.

Household projections are not forecasts. They do not attempt to predict the impact of future government or local policies, changing economic circumstances or other factors that may influence household growth, such as the number of houses built. Household projections are not a prediction or forecast of how many houses should be built in the future. Instead, they show how many additional households would form if the population of England keeps growing as it has been projected to grow in the [2022-based subnational population projections](#) and keeps forming households as it has done between 2011 and 2021 Censuses. Therefore, household projections should be used as a starting point for calculating the future housing needs of a local area.

Recent improvements

Census 2021 data have been included in the model used for the release.

A change has been made to the definition of "dependent children" in this release. We now use those aged 0 to 15 years living in a household, or a person aged 16 to 18 years in full-time education and living in a family with their:

- parent or parents
- grandparent or grandparents

It does not include any people aged 16 to 18 years who have a spouse, partner or child living in the household.

In the 2022-based publication, consistent with the 2018-based release, the household population has been constrained to both regions and England; this was not done in the 2016-based projections.

5 . Quality characteristics of the household projections data

This report provides a range of information that describes the quality of the data and identifies the issues that should be noted when using the output.

We have developed [guidelines for measuring statistical quality](#) based upon the five European Statistical System (ESS) quality dimensions. This report addresses the quality dimensions and important quality characteristics, which are:

- relevance
- accuracy and reliability
- output quality
- coherence and comparability
- concepts and definitions
- geography
- accessibility and clarity
- timeliness and punctuality
- why you can trust our data

More information is provided about these quality dimensions in the following sections.

Relevance

(The degree to which the statistical product meets user needs for both coverage and content.)

A robust and objective methodology is employed to create household projections that are relevant for all types of users. The projections take no account of local development aims, policies on growth, capacity to accommodate population change, or economic factors that could impact the population in the future. As with the national and subnational population projections (SNPPs), they also do not try to predict any potential demographic consequences of political, social or economic changes occurring after the base year of the projections or in the future.

Household projections are produced up to 25 years in the future from the base year. This provides a sufficiently long time series to enable analysis and planning, but it avoids going too far into the future when values become increasingly uncertain.

Household projections do not predict changing demographic patterns over time – they simply provide an indication of household levels arising if the underlying assumptions are realised.

Local authorities can use household projections as part of local-level planning and monitoring. The household projections are used in the calculation of local rates and measures, which provide indicators for future requirements of local services.

We engaged with users of projections in 2024 regarding their needs according to 2022-based projections. More information can be found in our [Response summary: User needs from 2022-based national, subnational and household projections engagement \(PDF, 392KB\)](#). We ran a further engagement in 2025; [Household projections: user engagement 2025](#), and have published our response summary alongside the release.

The Office for National Statistics (ONS) Population Statistics Directorate (PSD) routinely considers what user needs are not being met by their published statistics. This is done using evidence from user engagement activities and contact with users. This process enables the PSD to understand unmet user needs and, if appropriate, consider the inclusion of new outputs in our workplans.

Accuracy and reliability

(The degree of closeness between an estimate and the true value.)

The household projections use the latest available subnational population projections (SNPPs) and are inevitably dependent on the accuracy of these data. The [Comparing subnational population projections with estimates report](#) considers the subnational population projections produced since the 2011 Census, up to and including the 2018-based projections. The report shows how projections may deviate from the resulting population estimates.

SNPPs are demographic, trend-based projections indicating likely size and age structure of the future population if the underlying trends and assumptions about future levels of components of change are realised. SNPPs are based on levels of births, deaths and migration observed over a five-year reference period leading up to the base year. However, projections are not forecasts and, because of the inherent uncertainty of demographic behaviour, any set of projections will inevitably differ from actual future outcomes to a greater or lesser extent.

As such, the household projections should be used as a starting point and supplemented with other information for planning purposes.

For further information on the accuracy of the SNPPs, refer to the [Quality and Methodology Information \(QMI\) article for SNPPs](#). Household projections take no account of the following factors, which could lead to differences between the projections and actual change in the numbers of households:

- local development aims
- policies on growth
- capacity of a given area to accommodate population change
- changes in the stock of dwellings and communal establishments (CEs) (for example, new builds, demolitions and changes of use)
- political or economic factors that could impact the population in the future
- future changes to the housing market, such as house prices or changes to the private or social renting sectors
- changes in marital status, income, economic activity or any other demographic factors or international factors that may affect the UK population.

Output quality

- For users to gain an understanding of the level of accuracy and coherence of the household projections, [the accuracy paper](#), published in 2018, compares past household projections with household estimates and other sources.
- [Variant household projections](#) have been produced, based on the [SNPP variants](#) published on 24 June 2025. There are six variants in total: four show alternative assumptions of migration, one is a five-year migration variant which aligns with the principal population projection in the 2022-based national population projections (NPPs). The final variant is a continuous projection of the household representative rates (HRRs), which were held constant from 2031 onwards in the principal projection.

Coherence and comparability

(Coherence is the degree to which data that are derived from different sources or methods, but refer to the same topic, are similar. Comparability is the degree to which data can be compared over time and domain, for example, geographic level.)

Coherence

Household projections, household estimates, and other sources of household and planning data are produced differently for different purposes; figures from different sources and methods should not be expected to match exactly.

[Families and households in the UK: 2024](#) are an example of data that are produced differently for different purposes; these are survey estimates derived from the Labour Force Survey (LFS) and so do not match data in the household projections.

The 2014-based (and earlier) household projections are produced by the Ministry of Housing, Communities and Local Government (MHCLG). These household projections use different methodologies, input data sources and assumptions to those used to produce the 2016-based, 2018-based, and 2022-based household projections produced by the ONS.

Important methodological differences to consider when comparing different sets of household projections in general include:

- different assumptions about the household population projections, for example, other organisations may have more detailed knowledge of the population that resides in communal establishments
- different assumptions about future patterns of household formation
- different assumptions about the future population of a geographical area, such as levels of future migration, fertility and mortality

Comparability

In relation to the household projections, each set of household population projections is unique and is produced using trends based on the best data available at that time, including the latest population estimates. Therefore, each new set of projections supersedes the previous set. Although projections are broadly comparable over time, like-for-like comparisons are not straightforward. However, it is possible to observe what effect the most recent demographic trends, when built into projections for the future, have on the possible future population of local areas.

There are several important differences between the HRRs used in the 2022-based household projections and previous sets of household projections, produced by MHCLG (up to and including the 2014-based). Firstly, the demographic groups used for calculating the HRRs in the 2022-based household projections are based on geography, age group and sex and do not include marital status, unlike previous projections produced by MHCLG. Secondly, we use a different definition of household reference person (HRP), which is referenced in the concepts and definitions section. Thirdly, we have adapted the age groups used to calculate the HRRs to meet additional user needs and ensure the numerator and denominator match. In the latest 2022-based release, the same type of two-point exponential model has been used with data from the 2011 and 2021 Censuses. This is to maintain consistency with the method used in previous releases and subsequent testing of alternative model types.

There are two important consequences of the HRP definitional change. Firstly, it allows full information from the 2011 and 2021 Censuses to be used in the methodology for calculating HRRs. Sets of household projections prior to the 2018-based bulletin had only been able to use partial information from the 2011 Census, because complex adjustments were required to enable 2011 Census data to align to the eldest male definition of HRP. These adjustments are described on pages 4 to 5 and 13 to 16 of [Household Projections 2014-based: Methodological Report \(PDF, 781.7KB\)](#). By using the current definition, these adjustments to the 2011 and 2021 Census data are not required.

Secondly, the change of HRP definition means it is no longer possible to use the 1971, 1981 and 1991 Census data used in the previous methodology in the production of household projections. Household data from these censuses used the eldest male definition of HRP. Therefore, to include data from these censuses in the methodology would require making complex adjustments of a similar nature to the adjustments made to 2011 Census data in the previous methodology.

Concepts and definitions

(Concepts and definitions describe the legislation governing the output and a description of the classifications used in the output.)

The [National population projections QMI](#) explains the concepts and definitions used in population projections.

Average household size

The average household size is the average number of people within a household (including children). It is calculated by dividing the household population by the number of households for a given geography and/or age group.

Communal establishment (CE) population

The communal establishment (CE) population (also known as the institutional population) includes all people not living in private households. CEs provide managed residential accommodation, for example, nursing homes, student halls of residence, military barracks and prisons. The full definition of a CE can be found in the [Measurements used in 2021 Census data](#).

Dependent child

Any person aged 0 to 15 years living in a household, or a person aged 16 to 18 years in full-time education and living in a family with their parent(s) or grandparent(s). It does not include any people aged 16 to 18 years who have a spouse, partner or child living in the household.

Household

The household projections are based on the census definition of a household, which in 2011 and 2021 was: "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 all sheltered accommodation units in an establishment (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. A household must contain at least one person whose place of usual residence is at the address. A group of short-term residents living together is not classified as a household, and neither is a group of people at an address where only visitors are staying.

Household headship rate

In past sets of household projections, the household headship rate was the proportion of individuals in a specific group considered the head of household, defined by geography, age group, sex and household type. The formula differed from the household representative rate formula as it used the variable of household type, rather than relationship status.

Household population

The household population is the difference between the total usual resident population and the usual resident population living in communal establishments.

Household reference person (HRP)

The HRP is a person chosen for statistical reasons by virtue of economic activity, age and/or sex as the representative of a household. The 2022-based household projections define the HRP as the eldest economically active person in the household, then the eldest inactive person if there was no economically active person. 2014-based (and earlier) sets of Stage 1 household projections defined the HRP as the eldest male within the household, then the eldest female if there was no male. The full explanation of the current HRP definition can be found in the [Measurements used in Census 2021 data](#).

Household representative rate (HRR)

The HRR is the proportion of people in a particular demographic group (for the 2022-based household projections this is based on geography, age group and sex) who were the HRP. The value of the HRR will be between zero and one.

Household type

Household types classify each household by the number of adults and dependent children living within it and the nature of those relationships.

Institutional population

The institutional population is another name for the communal establishment population, used more frequently in past sets of household projections.

Quinary age group

The five-year age groups used in the 2022-based household projections and the two new age groups introduced for this release are:

- 16- to 18-year-olds
- 19- to 24-year-olds
- 25- to 29-year-olds
- 30- to 34-year-olds
- 35- to 39-year-olds
- 40- to 44-year-olds
- 45- to 49-year-olds
- 50- to 54-year-olds
- 55- to 59-year-olds
- 60- to 64-year-olds
- 65- to 69-year-olds
- 70- to 74-year-olds
- 75- to 79-year-olds
- 80- to 84-year-olds
- 85- to 89-year-olds
- those aged 90 years and over

Stage 1

Stage 1 household projections provide projected numbers of households by the age group and sex of the household reference person, for England, regions and local authorities.

Stage 2

Stage 2 household projections provide projected numbers of households by household type, sex of household representative person (HRP) and age group, for England, regions and local authorities.

Usually resident

Household projections relate to the usually resident population. This is the standard UN definition and includes only people who reside in a country for 12 months or more. As such, visitors and short-term migrants are excluded.

Geography

Household estimates are produced by the ONS for England, for English local authorities, and for English regions.

Accessibility and clarity

(Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the release details, illustrations and accompanying advice.)

Household projections are available online and can be downloaded free of charge in Microsoft Excel and CSV format. Graphs, textual background information and supporting documents are provided as part of each release.

Any additional enquires regarding household projections can be made via email to pop.info@ons.gov.uk or by telephone on +44 1329 444661. Additional data requests will be met where this is possible. Metadata describing the limitations of additional data are provided with individual requests. [These requests are also published on the ONS website.](#)

Our recommended format for accessible content is a combination of HTML web pages for narrative, charts and graphs, with data being provided in usable formats such as CSV and Excel. We also offer users the option to download the narrative in PDF format. In some instances, other software may be used or may be available on request. For further information, please refer to the contact details in the previous paragraph.

For information regarding conditions of access to data, please refer to the following:

- [Terms and conditions \(for data on the website\)](#)
- [Freedom of information](#)
- [Accessibility](#)

Timeliness and punctuality

(Timeliness refers to the lapse of time between publication and the period to which the data refer. Punctuality refers to the gap between planned and actual publication dates.)

Household projections follow the publication of SNPPs, typically published around two years after the base year. This timeframe occurs because the SNPPs are based on input data that are not available until late in the year after the base year. The time between the availability of data and the publication is needed for the production and quality assurance of the projections.

It has been over five years since our [Household projections for England: 2018-based](#) bulletin was last published. We have engaged with users who provided feedback. Users want the next release to benefit from Census 2021 data, rebased population estimates, and components of change. Delays to the release in 2025 arose from delays to the release of subnational population projections which are an important input data source.

SNPPs were delayed because national population projections (NPPs) were delayed to January 2025 from an originally planned release date in November 2024. This was to incorporate more up-to-date international migration data. A further delay to this quality and methodological information (QMI) release was made to enable further quality assurance of results.

Following the release of the 2021 Census data for England and Wales, the population estimates from mid-2012 to mid-2020 were rebased to ensure a consistent time series. More information is available in our [Rebasing of mid-year population estimates following Census 2021, England and Wales](#) bulletin. This rebasing involved identifying parts of the population estimates that were under- or over-estimated between 2012 and 2020, using 2021 Census data and other sources, including the latest international migration data from the long-term international migration release of November 2023.

In terms of punctuality, all previous sets of projections have been published to schedule on pre-announced dates.

In special circumstances, interim sets of population and household projections may be produced, using modified methods and the most recent data available. An example of this is the interim 2011-based SNPPs which were produced shortly after the 2011 Census results. This set of projections was published to satisfy a strong user requirement for projections that took on board the results of the 2011 Census, sooner than the normal publication timetable.

For more details on related releases, the [release calendar](#) provides 12 months' advance notice of release dates. In the event of a change to the pre-announced release schedule, public attention will be drawn to the change and the reasons for the change explained at the same time, as set out in the [Code of Practice for Statistics](#).

6 . Methods used to produce the household projections data

Main data sources

This section provides a list of all the input data sources used in the production of the 2022-based household projections for England, for users wishing to carry out their own analysis or modelling.

To produce the household population projections, the following data sources are used:

- Mid–2011 to mid-2021 population estimates by age and sex, [detailed time series](#)
- [2022-based subnational population projections](#) by age and sex
- 2011 Census data on [communal establishment \(CE\)](#) and [total usual resident](#) populations by age and sex
- Census 2021 data on [communal establishment \(CE\)](#) and [total usual resident](#) populations by age and sex.

Prison population data from [offender management statistics quarterly](#) was not used in this release, as prison populations are included in the Census 2021 data on communal establishments.

To produce base household representative rates (HRRs), the following data sources are used:

- 2011 Census data – [HRPs by age and sex](#)
- 2011 Census data – household populations by age and sex (the 2011 household population was derived by subtracting the [CE](#) population from the [total usual resident population](#))
- 2021 Census data – [HRPs by age and sex](#)
- 2021 Census data – [household populations by age and sex](#)

Use of other data sources in the projection of HRRs

The 2014-based household projections used Labour Force Survey (LFS) data in the projection of HRRs, to adjust the 2011 Census data point to reflect the new HRP definition, to combine the two fitted trends used to project forward the five Census points of data, and to make further adjustments at the England level for 2002 to 2011 data.

We did not incorporate the LFS or any other data sources into the projection of the HRRs for the 2016-, 2018- or 2022-based household projections. This is primarily to reduce the complexity of the method. As we are no longer using the eldest male definition of HRP, we no longer need to use the LFS to adjust census data to refer to this definition. As we are using only two census points and a different projection model to that used by MHCLG, we no longer need to use the LFS to combine the two fitted trends in the previous model.

The first stage produces projected total numbers of households by quinary age group (with the exception of those aged 16 to 18 and 19 to 24 years) and sex of the HRP over the projection period for England, regions and local authorities. In the 2018-based and 2022-based household projections, the HRP is the eldest economically active person in the household.

The second stage produces household type breakdowns from the total numbers of households, and applies adjustments to these to ensure household population totals are coherent with the total numbers of households.

A step by step guide to our methodology can be obtained from our [Methodology used to produce the 2022-based household projections for England](#) report.

How we analyse the data

Variant household projections

The six variant household projections that have been produced for the 2022-based household projections correspond with those from the 2022-based subnational population projections and are:

- a high international migration variant
- a low international migration variant
- a 10-year migration variant
- a zero net migration variant
- a five-year migration variant which aligns with the principal population projection in the 2022-based NPPs
- a continuous projection of the HRRs, which were held constant from 2031 onwards in the principal projection

The 10-year migration variant is based on 10 years of data for all migration trends (internal, cross-border and international). The five-year migration variant aligns with the principal population projections in the 2022-based NPPs. The migration category variant takes the place of a principal projection and is consistent with the subnational population projections. This variant includes more up-to-date migration data and are a better reflection of short-term population change.

How we quality assure the data

Rigorous quality assurance is carried out at all stages of production. Specific procedures include:

- scrutinising input data to investigate the accuracy of any abnormal values
- scrutinising trends in the total population, household population and HRRs projected over time for plausibility
- comparing current household projections with previous household projections and household estimates, to see where large changes are taking place and understand the reasons for these
- examining sex ratios to find any areas of imbalance
- comparison between local authorities, to check for outliers
- checking output tables to ensure that there are no errors or inaccuracies during the creation of published tables

How we disseminate the data

[Household projections are available online](#), by local authority and region from 2022 to 2047. Previous sets of household projections (2014-based and earlier) for England are available on the [MHCLG website](#).

Links from the [release calendar](#) make the release date and location of each new set of household projections clear. Household projections can be downloaded free of charge in Microsoft Excel format. A statistical bulletin accompanies each publication. The underlying data for the charts and tables in the bulletin can also be downloaded. Supporting documentation is also available. A [Household Projections Analysis Tool](#) is also available, to help compare household projections data for local authorities.

Most queries can be answered from the website datasets or supporting methods documents. Any additional enquires regarding the household projections can be made by emailing pop.info@ons.gov.uk. It may be possible to meet additional data requests, but these may be chargeable depending on the time required to produce the additional data requested. Metadata describing the limitations of the data for more detailed tables are provided with each individual request.

How we review the data

Future revisions to the household projections may be required to reflect occasional or post-census revisions to the subnational population projections. This is in line with the [Office for National Statistics revision policy for population statistics](#).

7 . Other information

Useful links

[Subnational population projections for England](#) include supporting documentation comprising a [methodology document](#) and a [Quality and Methodology Information \(QMI\) report](#).

[Household projections for England, comparisons with other sources: 2001 to 2018](#) provides analysis comparing household projections with household estimates and other sources of households and planning data.

The article [Comparing the differences between the 2014-based and 2016-based household projections for local authorities in England](#) provides analysis and guidance about the differences between the 2014-based and 2016-based household projections.

Previous releases of [household projections](#) (2014-based and earlier) are available from the Ministry of Housing, Communities and Local Government (MHCLG). In January 2017, the responsibility for household projections was transferred to the Office for National Statistics (ONS). Queries on these projections should be emailed to pop.info@ons.gov.uk.

8 . Related links

[Household projections for England: 2022-based](#)

Bulletin | Released 28 October 2025

Indicate the future number of households for England and its regions and local authorities. Used in planning in areas such as housing and social care.

[Methodology used to produce the 2022-based household projections for England](#)

Methodology | Released 28 October 2025

Methods used to produce subnational population projections.

9 . Cite this methodology

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