

# Population estimates and components of population change. Detailed time series 2001 to 2020

## United Kingdom, local authorities, sex and age

### Introduction

These datasets contain the most detailed population estimates and components of change for the mid-year population series. These time series offer users a rich source of data from which to conduct further investigation and research. The series are updated annually as part of each mid-year estimates release.

These datasets build on the population estimates and components of change previously published by ONS covering the period 2001 to 2020, by adding the most recent data from the mid-2020 population estimates. This offers a complete and consistent time series of estimates at detailed level from mid-2001 to mid-2020.

In April 2020, changes were made to the administrative geography of the UK. For this publication, the time series of population estimates and components of change have been produced twice, once using the [April 2020 administrative geographies](#) and once using [administrative geographies as of April 2021](#).

This release includes corrected data that address;

- the [revisions released in March 2018](#) for mid-2012 to mid-2016, incorporating methodological improvements and more timely data for local authorities in England and Wales
- the processing error in mid-year population estimates for Northern Ireland subnational internal migration data for mid-2002 to mid-2013
- the processing error in mid-year population estimates for Scotland LA Dumfries

and Galloway for mid-2013 (see Correction\_MYEB1\_16.06.16.pdf in Mid-2014 data)

- the error in the age distribution of the mid-year population estimates for Scotland for the years 2012 to 2014 and
- the error in the distribution of the foreign armed forces (FAF) special population presented in the mid-2013 release published 26 June 2014.
- the corrections for all local districts in Scotland to those aged 80 years plus (with some differences due to rounding in lower ages), affecting each year including mid-2002 through to mid-2010

Further information on the causes of these errors, their impact, and how decisions were reached on the approach taken is available in the [Quality Management Information](#) document available on the ONS website.

## Contents

Six datasets are provided covering the period 30 June 2001 to 30 June 2020:

- **MYEB1 (2020):** Annual mid-year population estimates for the United Kingdom, local authority **prior to April 2021**, by sex and single year of age;
- **MYEB1 (2020\_geog21):** Annual mid-year population estimates for the United Kingdom, local authority **as of April 2021**, by sex and single year of age;
- **MYEB2 (2020):** Annual mid-year population estimates, estimated components of population change for England and Wales, local authority **prior to April 2021**, by sex and single year of age;
- **MYEB2 (2020\_geog21):** Annual mid-year population estimates, estimated components of population change for England and Wales, local authority **as of April 2021**, by sex and single year of age;
- **MYEB3 (2020):** Annual mid-year population estimates, estimated components of population change for the United Kingdom, by local authority **prior to April 2021**; and
- **MYEB3 (2020\_geog21):** Annual mid-year population estimates, estimated components of population change for the United Kingdom, by local authority **as of April 2021**.

Datasets are presented by local authority, sex and age for each year in the series with the exception of MYEB3 which has no sex or age breakdown. Dataset MYEB2 is available for England and Wales only.

## MYEB1: Detailed population estimates UK, local authorities prior to April 2021

*MYEB1\_detailed\_population\_estimates\_series\_UK\_(2020).csv*

### Definition of dataset

Sort order of dataset:

- Local authority (LA), prior to April 2021, in ascending LA code order, sex (male then female), age 0-90+ for England and Wales;
- LA name in alphabetical order, sex (male then female), age 0-90+ for Scotland and Northern Ireland.

Data cells: 68978 rows and 25 columns of data plus headings. Care should be taken if importing this file into a software package to ensure that all rows have been successfully imported.

Format: CSV

Variables: as follows

Variable	Definition
ladcode20	ONS Geography code for local authorities (LA) as defined at mid-2020. Further information on the LA codes and how they link to other ONS geographies is available from the <a href="#">ONS Geoportal</a>
laname20	Local authority district or unitary authority name (2020). Subnational estimates for Northern Ireland are presented on the LGD2014 council areas
country	Country coding: 'E'=England, 'W'=Wales, 'S'=Scotland, 'N'=Northern Ireland
sex	Gender coding: 1=Male and 2=Female
age	Value 0 to 90 corresponding to single year of age at the mid-year reference point. Age 90 refers to estimates for those aged 90 and above
population_20xx	Estimated mid-year population: e.g. where population_2018 is the estimate for 30 June 2018.

xx=series year: 01-20.

For Scotland published estimates split by sex for all ages are rounded to the nearest 10 at council area level for accuracy and ease of aggregation.

## MYEB1: Detailed population estimates UK, local authorities as of April 2021

MYEB1\_detailed\_population\_estimates\_series\_UK\_(2020\_geog21).csv

### Definition of dataset

Sort order of dataset:

- Local authority (LA), as of April 2021, in ascending LA code order, sex (male then female), age 0-90+ for England and Wales;
- New merged unitary authorities (UA);
  - o North Northamptonshire Unitary Authority replaces Corby, East Northamptonshire, Kettering, Wellingborough
  - o West Northamptonshire Unitary Authority replaces Daventry, Northampton, South Northamptonshire
  - o Northamptonshire County abolished
- LA name in alphabetical order, sex (male then female), age 0-90+ for Scotland and Northern Ireland.

Data cells: 68,068 rows and 25 columns of data plus headings. Care should be taken if importing this file into a software package to ensure that all rows have been successfully imported.

Format: CSV

Variables: as follows

Variable	Definition
ladcode21	ONS Geography code for local authorities (LA) as defined in April 2021. Further information on the LA codes and how they link to other ONS geographies is available from the <a href="#">ONS Geoportal</a>
laname21	Local authority or unitary authority name (April 2021). Subnational estimates for Northern Ireland are presented on the LGD2014 council areas
country	Country coding: 'E'=England, 'W'=Wales, 'S'=Scotland, 'N'=Northern Ireland
sex	Gender coding: 1=Male and 2=Female
age	Value 0 to 90 corresponding to single year of age at the mid-year reference point. Age 90 refers to estimates for those aged 90 and above
population_20xx	Estimated mid-year population: e.g. where population_2018 is the estimate for 30 June 2018.

xx=series year: 01-20.

For Scotland published estimates split by sex for all ages are rounded to the nearest 10 at council area level for accuracy and ease of aggregation.

## MYEB2: Detailed components of population change England and Wales, local authorities prior to April 2021

*MYEB2\_detailed\_components\_of\_change\_series\_EW\_(2020).csv*

### Definition of dataset

Sort order of dataset: LA, prior to April 2021, in ascending LA code order, sex (male then female), age 0-90+.

Data cells: 61,152 rows and 225 columns of data plus headings. Care should be taken if importing this file into a software package to ensure that all rows and columns have been successfully imported.

Format: CSV

Variables: as follows; variables containing estimates are grouped together across years.

Variable	Definition
ladcode20	ONS Geography code for local authorities (LA) as defined at mid-2020 Further information on the LA codes and how they link to other ONS geographies is available from the <a href="#">ONS Geoportal</a>
laname20	Local authority or unitary authority name (2020)
country	Country coding: 'E'=England, 'W'=Wales
sex	Gender coding: 1=Male and 2=Female
age	Value 0 to 90 corresponding to single year of age at the mid-year reference point. Age 90 refers to estimates for those aged 90 and above
population_20xx	Estimated mid-year population: e.g. where population_2018 is the estimate for 30 June 2018
births_20xx	Estimated number of births occurring in the twelve months to mid-year
deaths_20xx	Estimated number of deaths occurring in the twelve months to mid-year
internal_in_20xx	Estimated in moves originating elsewhere in the UK during the twelve months to mid-year
internal_out_20xx	Estimated out moves terminating elsewhere in the UK during the twelve months to mid-year
internal_net_20xx	Surplus of internal migration in moves over out moves taken as the difference of previous two variables

international_in_20xx	Estimated international immigration moves originating from outside the UK during the twelve months to mid- year
international_out_20xx	Estimated international emigration moves terminating outside the UK during the twelve months to mid-year
international_net_20xx	Surplus of immigration moves over emigration moves taken as the difference of previous two variables
special_change_20xx	Estimated net effect of changes to special populations during the twelve months to mid-year. Special populations comprise prisoner, armed forces and their overseas based dependent populations
unattrib_20xx	Estimated population change not attributed to a specific cause in the twelve months to mid-year. This applies to series years 2002 to 2011 and reflects the residual remaining from the original 2001 Census based MYE series and the revised 2011 Census based series. This column is not applicable to estimates after mid-2011
other_adjust_20xx	Includes small adjustments necessary to account for issues such as minor LA boundary changes and large postcode areas that overlap LA boundaries.

xx=series year: 2001-2020 for population; 2002-2020 for components (except un\_attrib 2002-2011).

### Deaths

Death occurrences in a small minority of cells show a negative count. These are as a result of previously provisional data being updated in subsequent periods to account for late death registrations and reallocated counts.

### International migration

Estimates for international in/out/net are adjusted for visitor switcher, migrant switcher, asylum seeker and refugee flows.

### Special change

Net special change figures include the effect of change in the estimated special populations from one year to the next that are reflected in the general population of England and Wales - those joining and leaving the special population will create a resulting inflow and outflow between the general population.

## MYEB2: Detailed components of population change England and Wales, local

## authorities as of April 2021

*MYEB2\_detailed\_components\_of\_change\_series\_EW\_(2020\_geog21).csv*

### Definition of dataset

Sort order of dataset: LA, April 2021, in ascending LA code order, sex (male then female), age 0-90+.

- Local authority (LA), as of April 2021, in ascending LA code order, sex (male then female), age 0-90+ for England and Wales;
- New merged unitary authorities (UA);
  - o North Northamptonshire Unitary Authority replaces Corby, East Northamptonshire, Kettering, Wellingborough
  - o West Northamptonshire Unitary Authority replaces Daventry, Northampton, South Northamptonshire
  - o Northamptonshire County abolished

Data cells: 60,242 rows and 225 columns of data plus headings. Care should be taken if importing this file into a software package to ensure that all rows and columns have been successfully imported.

Format: CSV

Variables: as follows; variables containing estimates are grouped together across years.

Variable	Definition
ladcode21	ONS Geography code for local authorities (LA) as defined at April 2021. Further information on the LA codes and how they link to other ONS geographies is available from the <a href="#">ONS Geoportal</a>
laname21	Local authority or unitary authority name (April 2021)
country	Country coding: 'E'=England, 'W'=Wales
sex	Gender coding: 1=Male and 2=Female
age	Value 0 to 90 corresponding to single year of age at the mid-year reference point. Age 90 refers to estimates for those aged 90 and above
population_20xx	Estimated mid-year population: e.g. where population_2018 is the estimate for 30 June 2018
births_20xx	Estimated number of births occurring in the twelve months to mid-year
deaths_20xx	Estimated number of deaths occurring in the twelve months to mid-year

internal_in_20xx	Estimated in moves originating elsewhere in the UK during the twelve months to mid-year
internal_out_20xx	Estimated out moves terminating elsewhere in the UK during the twelve months to mid-year
internal_net_20xx	Surplus of internal migration in moves over out moves taken as the difference of previous two variables
international_in_20xx	Estimated international immigration moves originating from outside the UK during the twelve months to mid- year
international_out_20xx	Estimated international emigration moves terminating outside the UK during the twelve months to mid-year
international_net_20xx	Surplus of immigration moves over emigration moves taken as the difference of previous two variables
special_change_20xx	Estimated net effect of changes to special populations during the twelve months to mid-year. Special populations comprise prisoner, armed forces and their overseas based dependent populations
unattrib_20xx	Estimated population change not attributed to a specific cause in the twelve months to mid-year. This applies to series years 2002 to 2011 and reflects the residual remaining from the original 2001 Census based MYE series and the revised 2011 Census based series. This column is not applicable to estimates after mid-2011
other_adjust_20xx	Includes small adjustments necessary to account for issues such as minor LA boundary changes and large postcode areas that overlap LA boundaries.

xx=series year: 2001-2020 for population; 2002-2020 for components (except un\_attrib 2002-2011).

### Deaths

Death occurrences in a small minority of cells show a negative count. These are as a result of previously provisional data being updated in subsequent periods to account for late death registrations and reallocated counts.

### International migration

Estimates for international in/out/net are adjusted for visitor switcher, migrant switcher, asylum seeker and refugee flows.

### Special change

Net special change figures include the effect of change in the estimated special populations from one year to the next that are reflected in the general population of England and Wales - those joining and leaving the special population will create a resulting inflow and outflow between the general population.



## MYEB3: Summary components of population change UK, local authorities prior to April 2021

*MYEB3\_summary\_components\_of\_change\_series\_UK\_(2020).csv*

### Definition of dataset

Sort order of dataset:

- LA in ascending LA code order for England and Wales; LA in alphabetical order for Scotland and Northern Ireland.
- LA name in alphabetical order, sex (male then female), age 0-90+ for Scotland and Northern Ireland.

Data cells: 379 rows and 213 columns of data plus headings.

Format: CSV

Variables: as follows; variables containing estimates are presented in ascending year order.

Variable	Definition
ladcode20	ONS Geography code for local authorities (LA) as defined at mid-2020. Further information on the LA codes and how they link to other ONS geographies is available from the <a href="#">ONS Geoportal</a>
laname20	Local authority district or unitary authority name (2020)
country	Country coding: 'E'=England, 'W'=Wales, 'S'=Scotland, 'N'=Northern Ireland
population_20xx	Estimated mid-year population: e.g. where population_2018 is the estimate for 30 June 2018
births_20xx	Estimated number of births occurring in the twelve months to mid-year
deaths_20xx	Estimated number of deaths occurring in the twelve months to mid-year
natchange_20xx	Surplus of births over deaths taken as the difference of previous two variables
internal_in_20xx	Estimated in moves originating elsewhere in the UK during the twelve months to mid-year
internal_out_20xx	Estimated out moves terminating elsewhere in the UK during the twelve months to mid-year
internal_net_20xx	Surplus of internal migration in moves over out moves taken as the difference of previous two variables

international_in_20xx	Estimated international immigration moves originating from outside the UK during the twelve months to mid-year
international_out_20xx	Estimated international emigration moves terminating outside the UK during the twelve months to mid-year
international_net_20xx	Surplus of immigration moves over emigration moves taken as the difference of previous two variables
other_change_20xx	Includes estimated net effect of changes to special populations during the twelve months to mid-year. Special populations comprise prisoner, armed forces and their overseas based dependent populations. Also includes estimated population change not attributed to a specific cause in the twelve months to mid-year and small adjustments necessary to account for issues such as minor LA boundary changes and large postcode areas that overlap LA boundaries.

xx=series year: 2001 to 2020 for population; 2002 to 2020 for components.

For Scotland published estimates split by sex for all ages are rounded to the nearest 10 at council area level for accuracy and ease of aggregation.

### International migration

Estimates for international in/out/net are adjusted for visitor switcher, migrant switcher, asylum seeker and refugee flows.

## MYEB3: Summary components of population change UK, local authorities as of April 2021

*MYEB3\_summary\_components\_of\_change\_series\_UK\_(2020\_geog21).csv*

### Definition of dataset

Sort order of dataset:

- LA in ascending LA code order for England and Wales; LA in alphabetical order for Scotland and Northern Ireland.
- New merged unitary authorities (UA);
  - o North Northamptonshire Unitary Authority replaces Corby, East Northamptonshire, Kettering, Wellingborough
  - o West Northamptonshire Unitary Authority replaces Daventry, Northampton, South Northamptonshire
  - o Northamptonshire County abolished
- LA name in alphabetical order, sex (male then female), age 0-90+ for Scotland and Northern Ireland.

Data cells: 374 rows and 213 columns of data plus headings.

Format: CSV

Variables: as follows; variables containing estimates are presented in ascending year order.

Variable	Definition
ladcode21	ONS Geography code for local authorities (LA) as defined in April 2021. Further information on the LA codes and how they link to other ONS geographies is available from the <a href="#">ONS Geoportal</a>
laname21	Local authority district or unitary authority name (2021)
country	Country coding: 'E'=England, 'W'=Wales, 'S'=Scotland, 'N'=Northern Ireland
population_20xx	Estimated mid-year population: e.g. where population_2018 is the estimate for 30 June 2018
births_20xx	Estimated number of births occurring in the twelve months to mid-year
deaths_20xx	Estimated number of deaths occurring in the twelve months to mid-year

natchange_20xx	Surplus of births over deaths taken as the difference of previous two variables
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international_out_20xx	Estimated international emigration moves terminating outside the UK during the twelve months to mid-year
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xx=series year: 2001 to 2020 for population; 2002 to 2020 for components.

For Scotland published estimates split by sex for all ages are rounded to the nearest 10 at council area level for accuracy and ease of aggregation.

### International migration

Estimates for international in/out/net are adjusted for visitor switcher, migrant switcher, asylum seeker and refugee flows.

## Useful links

An [Overview of Population Statistics](#) is available on the ONS website.

Latest publications and summaries of population estimates are available on the [ONS Population and migration](#) webpage.

Mid-2018 population estimates data for the United Kingdom (UK) are available on the [ONS Population Estimates for UK](#) webpage. Published tables for mid-2018 include UK countries by single year of age and sex; region and local authority; and components of population change by local authority. Tables are published at unit level detail to enable re-use of the data.

Population estimates methods are available from the [ONS Population Estimates methodology](#) webpage.

Further information on the quality of mid-year population estimates can be found in the [ONS Quality and Methodology Information reports](#) webpage.

Further information on the LA codes and how they link to other ONS geographies is available from the [ONS Geoportal](#)

Data for local authority districts in England prior to April 2019 can be accessed via the [Analysis of Population Estimates tool](#).

## Notes and Definitions

These datasets provide the most detailed population estimates and components of change for the mid-year population series for 2001-2019 and are consistent with the results of the 2011 Census.

These datasets bring together data that have already been made available separately in previously published releases:

- The mid-2017, mid-2018, mid-2019 and mid-2020 population estimates releases.
- Revised Mid-2012 to mid-2016 UK population estimates published on 22 March 2018;
- Mid-2011 UK population estimates published on 26 June 2014;
- Revised mid-2001 to mid-2010 population estimates published on the 17 December 2013, all available [here](#); and
- [Ad hoc table 001875](#) published on the 22 October 2013.

These unrounded estimates are published to enable and encourage further calculations and analysis. However, the estimates should not be taken to be accurate to the level of detail provided. More information on the accuracy of the estimates is available in the [Quality and Methodology document](#). Appropriate methods of disclosure control have been applied to prevent inference of information relating to individuals.

The estimated resident population of an area includes all people who usually live there, whatever their nationality. People arriving into an area from outside the UK are only included in the population estimates if their total stay or intended stay in the UK is 12 months or more. Visitors and short-term migrants (those who enter the UK for 3 to 12 months for certain purposes) are not included. The components of change provided in the file relate to the usual resident population only and will not show, for example, short-term migrants as part of the international migration flow.

Similarly, people who leave the UK are only excluded from the population estimates if they remain, or intend to remain, outside the UK for 12 months or more. This is consistent with the United Nations recommended definition of an international long-term migrant. Members of UK and non-UK armed forces stationed in the UK are included in the population and UK forces stationed outside the UK are excluded. Students are taken to be resident at their term time address.

Further advice on the appropriate use of these data can be obtained by emailing [mailto: pop.info@ons.gov.uk](mailto:pop.info@ons.gov.uk) or phoning +44 (0) 1329 444 661.

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