

Statistical bulletin

Population estimates for England and Wales: mid-2022

National and subnational mid-year population estimates for England and Wales by administrative area, age and sex.

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1 . Main points

- The population of England and Wales at mid-year 2022 was estimated to be 60.2 million, an increase of around 578,000 (1.0%) since mid-year 2021.
- In the year to mid-2022, there were 574,000 deaths in England and Wales, slightly fewer than in the previous year; the number of births in the year to mid-2022 was 620,000, which was an increase of 11,000 compared with the year to mid-2021.
- In the year to mid-2022, we estimate that 983,000 people immigrated to England and Wales from outside the UK, while 441,000 emigrated; this makes net international migration to England and Wales 541,000.
- In the year to mid-2022, there were 9,800 net internal moves out of England and Wales to the rest of the UK.
- The population of England increased at a higher rate (1.0%) than the population of Wales (0.8%) in the year to mid-2022.

2 . Population of England and Wales at mid-2022

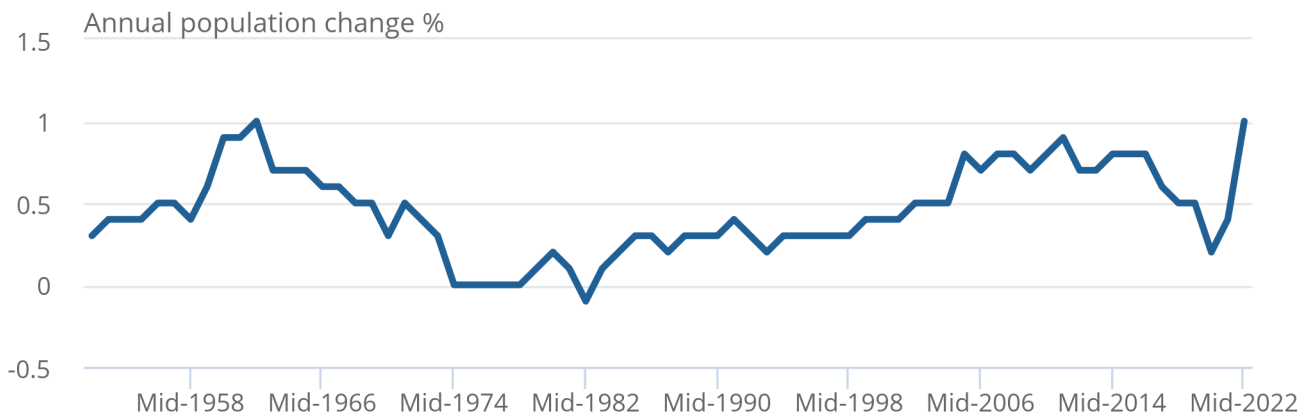
We estimate the population of England and Wales at mid-2022 as 60.2 million (60,238,038). This is an increase of 578,000 (1.0%) compared with mid-2021. Figure 1 shows that the growth rate for England and Wales for the year to mid-2022 was the highest since mid-1962 (1.0%). Unlike in 1962, when the increase in population was largely because of a high number of births, the population increase in mid-2022 is mostly driven by an increase in net international migration.

Figure 1: England and Wales population grows at fastest rate since mid-1962

Annual population growth rates, mid-1952 to mid-2022, England and Wales

Figure 1: England and Wales population grows at fastest rate since mid-1962

Annual population growth rates, mid-1952 to mid-2022, England and Wales



Source: Population estimates from the Office for National Statistics

Long-term international immigration for England and Wales in the year to mid-2022 was estimated at 983,000, an increase of 344,000 compared with the year to mid-2021. International emigration was also higher for mid-2022 at 441,000, than for mid-2021. Net migration was 541,000 in the year to mid-2022, 330,000 more than both mid-2021 and the average net migration flow over the past 10 years (see Table 1). For analysis of international migration for the whole of the UK to mid-2023, see our [Long-term international migration, provisional: year ending June 2023 bulletin](#).

Table 1: Components of population change for England and Wales

	Mid-2022	Mid-2021	10 year average (mid-2011 - mid-2021)
Births	620,000	609,000	678,000
Deaths	574,000	577,000	532,000
Natural change (births minus deaths)	46,000	32,000	146,000
Net internal migration	-9,800	-6,500	-7,900
International immigration	983,000	639,000	685,000
International emigration	441,000	428,000	473,000
Net international migration	541,000	212,000	211,000
Other changes	-400	-7,600	200
Total change	578,000	230,000	349,000
% change	1.0%	0.4%	0.6%

Source: Population estimates from the Office for National Statistics

Notes

1. "Other changes" includes changes to the size of armed forces stationed in the UK and other special population adjustments; for years before mid-2022, "other changes" includes unattributable population change.
2. The 10-year average includes births, deaths and migration occurring between 1 July 2011 and 30 June 2021.

There was a small increase in the number of births for mid-2022 in England and Wales compared with mid-2021. However, the number of births was still lower than in all the years between mid-2003 and mid-2020. Deaths in the year to mid-2022 were slightly fewer in number than for mid-2021. The resulting natural change (births minus deaths) is estimated to be 46,000 for England and Wales in the year to mid-2022.

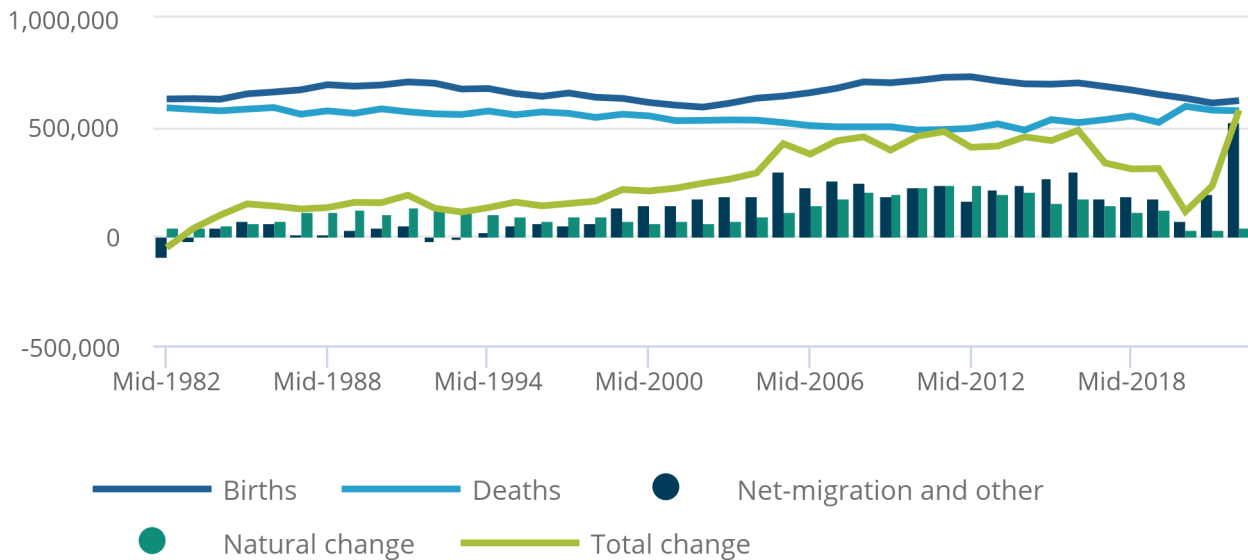
The level of population change in the year to mid-2022 (578,000) is a clear contrast to the population changes in both the year to mid-2020 and the year to mid-2021, which covered the coronavirus (COVID-19) pandemic. In the two years up to mid-2021, the combined increase in population in England and Wales was 343,000, which was mostly driven by net international migration of 308,000 and natural change of 70,000.

Figure 2: Population increase in mid-2022 was driven mostly by net international migration

Drivers of England and Wales population growth, mid-1982 to mid-2022

Figure 2: Population increase in mid-2022 was driven mostly by net international migration

Drivers of England and Wales population growth, mid-1982 to mid-2022



Source: Population estimates from the Office for National Statistics, National Records of Scotland, Northern Ireland Statistics and Research Agency

Notes:

1. Figures may not sum exactly because of rounding.
2. Total change and "international migration and other" include internal migration, changes in armed forces personnel and dependants, and unattributable population change.
3. Components of population change are broken down for countries, regions, counties and local authority districts in Table MYE3.

3 . Population change in the countries of England and Wales

Figure 3 shows the sharp increase in growth for both England and Wales for mid-2022. The population of England grew by 1.0% (552,000) and the population of Wales grew by 0.8% (26,000) between mid-2021 and mid-2022.

The rate of population growth in both countries was higher than at any point in the past 50 years. However, the rate of population increase for England in the year to mid-2022 represents a return to similar levels of population change between mid-2004 and mid-2016. During this period, population growth for England fluctuated between 0.7% and 0.9% per year before slowing between mid-2016 and mid-2019 (to around a 0.5% increase per year), and slowing further during the coronavirus (COVID-19) pandemic (0.2% in the year to mid-2020).

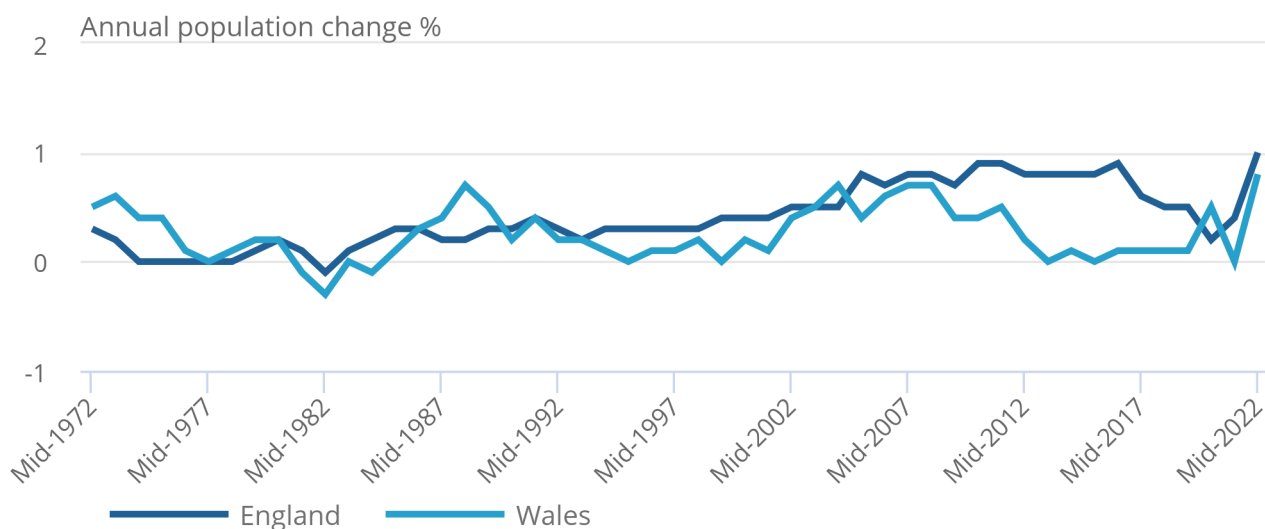
The rate of population change in Wales for the year to mid-2022 (0.8%) was much higher than population growth over the last decade. We estimate the population of Wales increased by a total of 1.4% (42,000) between 2011 and 2021.

Figure 3: Sharp increase in growth for mid-2022

Annual population growth rates, mid-1972 to mid-2022, England and Wales

Figure 3: Sharp increase in growth for mid-2022

Annual population growth rates, mid-1972 to mid-2022, England and Wales



Source: Population estimates from the Office for National Statistics

Notes:

1. For a more detailed breakdown of the mid-2022 population estimates data, see our accompanying dataset or the [Nomis website](#).

In the year to mid-2022, net international migration was the main driver of population growth in both England and Wales, contributing an increase in population size of 0.9% in England and 0.7% in Wales (Figure 4). Wales also had a net inward internal migration from the rest of the UK (0.3%), while England had a small outflow. Natural change (births minus deaths) increased the population size in England but decreased the population size in Wales.

The difference between natural change in England and Wales reflects the different age composition of the population. The population of Wales is on average older than the population of England, leading to a slightly higher rate of deaths, and a slightly lower rate of births. The median age of the combined England and Wales population remained at 40.6 years at mid-2022, the same as at mid-2021. The median age for the population in England at mid-2022 was 40.5, while in Wales it was 42.9.

Figure 4: Impact of births, deaths and migration on population change

England and Wales, mid-2022

Figure 4: Impact of births, deaths and migration on population change

England and Wales, mid-2022



Source: Population estimates from the Office for National Statistics

Notes:

1. Rates are expressed as negative where their impact is to reduce the population.
2. Natural change is births minus deaths, negative natural changes means more deaths than births.

The interactive population pyramid in Figure 5 shows how numbers of older people within the population can change year on year because of variations in cohort size. The age composition of the population is determined by the patterns of births, deaths and migration that have taken place in previous years. Notably, the large cohort of people born around 1946 and 1947 are now aged around 75.

Figure 5: Interactive population pyramid, mid-2021 to mid-2022

At mid-2022, there were 30,720,000 females and 29,518,000 males in the population of England and Wales. In the year to mid-2022, the number of males increased at a slightly faster rate than the number of females (1.1% and 0.9%, respectively). The higher rate of increase for males is largely driven by net international migration (294,000 for males, 248,000 for females) and births (318,000 for males, 303,000 for females). In the year to mid-2022, there were more male deaths (291,000) than female deaths (283,000), with natural change being 26,000 for males and 20,000 for females.

Methods for measuring international migration are in development, we have updated previously published estimates of international migration for the year ending June 2022. For more information, see our [International migration research, progress update: November 2023 article](#).

International migration in the year to mid-2022 in England and Wales

In the year to mid-2022, we estimate that 983,000 people immigrated to England and Wales from outside the UK, while 441,000 emigrated from England and Wales to countries outside of the UK. This makes net international migration into England and Wales 541,000 for the year to mid-2022.

Net international migration was the largest component of population growth for this period and was over 11 times higher than natural change (births minus deaths). For England, international net migration was estimated to be 519,000 in the year to mid-2022. In Wales, the estimate was 22,000.

Internal migration in the year to mid-2022 in England and Wales

In the year to mid-2022, around 9,800 more people left England and Wales for elsewhere in the UK than moved in. This is broadly similar to between mid-2012 and mid-2021, which averaged a net annual outflow of 7,900 to the rest of the UK. Net internal migration was negative 20,500 for England and 10,700 for Wales in the year to mid-2022.

The data used to produce internal migration estimates for 2022 had quality issues which are not fully resolved. If these issues are more fully resolved, estimates of local population change will be revised. For more information, see our [Mid-year population estimates Quality and Methodology Information \(QMI\)](#).

Deaths in the year to mid-2022 in England and Wales

The number of deaths in England and Wales in the year to mid-2022 was 574,000. This reflects a 0.5% (around 2,800) decrease in the number of deaths from the previous year and is lower than for mid-2020, which covered the first wave of the coronavirus (COVID-19) pandemic and had the highest number of deaths (594,000) since mid-1990. Prior to mid-2020, the average annual number of deaths in the 10 years between mid-2009 and mid-2019 was 512,000.

In England, the number of deaths in the year to mid-2022 decreased by 2,300 (0.4%) from the previous year. In Wales, there were nearly 500 fewer deaths, a decrease of 1.3%.

Births in the year to mid-2022 in England and Wales

The number of births in England and Wales in the year to mid-2022 was 620,000. This is an increase of 11,000 compared with the year to mid-2021 but is lower than any other year since mid-2003. There was a peak in the number of births of 729,000 in the year to mid-2012, which is around 109,000 more births than in the year to mid-2022. The decrease since mid-2012 reflects reductions in overall fertility rates since then.

Natural change in the population of England and Wales

In mid-2022, natural change, which is the difference between the number of births and the number of deaths, was 46,000 for England and Wales (Figure 3). This is an increase on the previous year and is driven by the small increase in the number of births and small decrease in the number of deaths.

For England, the contribution of natural change to overall population growth was 53,000. In Wales, the number of deaths exceeded the number of births, leading to a 6,600 decrease through natural change.

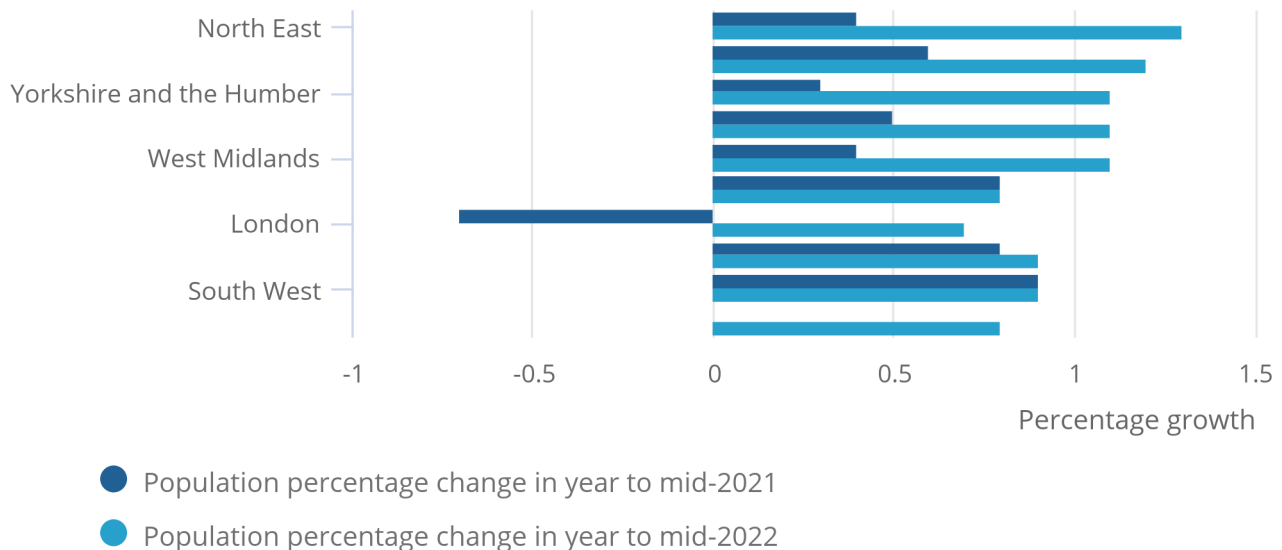
4 . Regional population change

Figure 6 shows the annual population growth in Wales and the English regions. All areas had an increase in population size in the year to mid-2022. The percentage growth was highest in the North East, which had an increase of around 1.3% in the year to mid-2022. The rate of population growth increased across most regions of England relative to the previous year. However, the rate of growth in the East of England was slightly lower than the previous year, and the population growth rate in the South West was very similar to that of the previous year.

The rate of population growth was higher in the north of England than in the south, with London having the lowest rate of population increase. London was the only region to have a decrease in population in the year to mid-2021 (negative 0.7%), with the growth rate in mid-2022 (0.7%) returning it to a similar population as at mid-2020.

Figure 6: Population growth from mid-2021 to mid-2022 in regions of England and Wales

Figure 6: Population growth from mid-2021 to mid-2022 in regions of England and Wales



Source: Population estimates from the Office for National Statistics

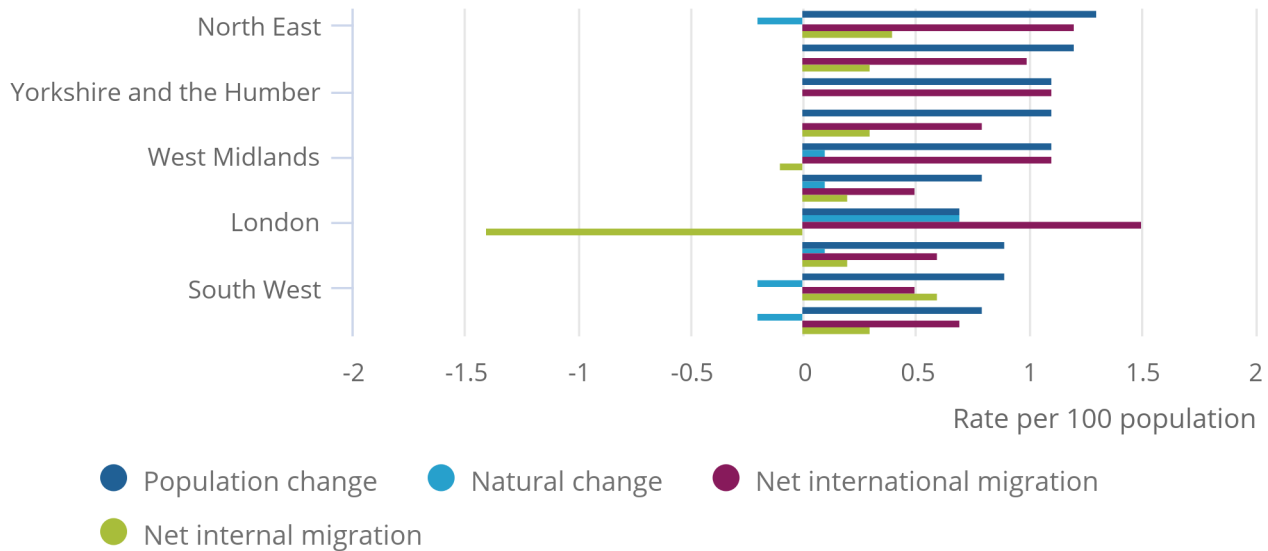
Figure 7 shows the population growth rate for regions in mid-2022 and the components that drive the change. For most regions, the rate of population change in the year to mid-2022 is largely determined by net international migration. However, for London, which had the highest rate of population change because of international migration, this was offset by high levels of net outward internal migration, meaning London's population increased by the slowest rate of any region.

Figure 7: Rate of population change in regions of England and Wales

Population change rate by component, regions of England and Wales, mid-2022

Figure 7: Rate of population change in regions of England and Wales

Population change rate by component, regions of England and Wales, mid-2022



Source: Population estimates from the Office for National Statistics

Notes:

1. Rates are expressed as negatives where their impact is to reduce the population.
2. Natural change is births minus deaths, and negative natural changes means more deaths than births.

5 . Local area population change

The interactive chart in Figure 8 shows the overall change in population from mid-2021 to mid-2022 for each local authority in England and Wales. In this period, we estimate the population grew in 296 of the 318 local authorities.

Figure 8: Population change in local authorities of England and Wales, mid-2021 to mid-2022

Notes

1. City of London (population change of 24.8% between 2021 and 2022) has been omitted from this chart

Some of the areas with the highest rates of population growth from mid-2021 to mid-2022 were boroughs of London, such as City of London (24.8%), Tower Hamlets (4.2%) and Camden (3.4%).

Other areas with the highest growth include Exeter (4.2%), Cardiff (3.4%), Manchester and Coventry (both 3.3%).

One feature in common with many of the fastest growing local authorities (Camden, Exeter, Cardiff, Manchester) in the year to mid-2022 is large increases in the number of people aged 19 to 20 years. This reflects a large number of international students coming to England and Wales. There are also some local authorities growing quickly from internal migration, such as a cluster including South Derbyshire (2.9%) and the adjoining North West Leicestershire (2.5%). The relatively fast growth in these areas is a continuation of recent trends.

There were no local authorities with a decrease of over 1% in the year to mid-2022. The only three local authorities with a decrease of more than 0.5% were in the adjoining London local authorities of Haringey, Waltham Forest and Enfield. The decreases in these three local authorities continue recent trends.

International migration by local authority

In the year to mid-2022, the net international migration to England and Wales of 541,000 was much higher than the 212,000 seen in the previous year. At the local authority level, many areas of England and Wales with higher education institutions had large population increases because of international migration. These include Coventry, where net international migration for the year to mid-2022 was estimated to be 5.1% of the 2021 population, Middlesbrough (4.2%), Camden (4.0%), and Leicester (3.7%).

Internal migration by local authority

As is typical, internal migration in mid-2022 tended to decrease the populations of local authorities with higher education institutions, London, and other large cities, and to increase the population of rural and coastal areas. For more information on typical patterns of internal migration at the local authority level, see our [previous mid-year estimates releases](#).

Deaths by local authority

The annual change in deaths was not evenly distributed, with the South West seeing a 5.7% annual increase and London seeing a 6.5% decrease. The largest increases in deaths in local authorities were in Halton (15.2%) and Nuneaton and Bedworth (14.6%). The pattern of deaths across local authorities reflects the age structure of the population. Coastal and less urban locations with older populations, such as East Lindsey, North Norfolk and Rother, had relatively more deaths than areas in cities and more urban areas with younger populations (such as Tower Hamlets, City of London and Newham).

Births by local authority

There was a small increase in the number of births in the year to mid-2022 compared with mid-2021, with 224 of the 318 local authorities in England and Wales having an increase in birth registrations compared with the previous year. For more information on birth trends, see our [Births in England and Wales: summary tables](#) and [Vital statistics in the UK: births, deaths and marriages dataset](#).

For access to detailed information on population change for local authority areas, regions and countries within England and Wales, see our [Analysis of population estimates tool](#).

6 . Comparison with experimental admin-based estimates published in June 2023

In June 2023, we published [experimental admin-based population estimates \(ABPE\)](#) based on the Dynamic Population Model.

The ABPE and the mid-year estimates (MYE) for mid-2022 at the England and Wales level are very similar. The MYE is around 1,600 higher than the ABPE.

At the local level, there is a high degree of coherence between ABPEs and MYEs, with 314 of 331 local authorities (2021 local authorities) having MYEs within 1% of the ABPEs, and all but one local authority (Isles of Scilly) within 2%.

Looking at the estimates by age and sex, the MYEs have 70,000 more children aged 0 to 15 years and 71,000 fewer working age adults (aged 16 to 64 years).

We plan to publish provisional ABPEs for mid-2023 in December 2023. The ABPEs are classified as official statistics in development (previously known as experimental statistics).

7 . Upcoming population estimates

UK population estimates for 2022

We plan to release a full set of UK population estimates for mid-2022 in February 2024. This includes estimates for Northern Ireland produced by the Northern Ireland Statistics and Research Agency (NISRA) and estimates for Scotland produced by National Records of Scotland (NRS).

Population and migration statistics transformation

The estimates of long-term international migration included in this release are the best possible given the available data sources. However, they remain experimental. Users should be aware that they are likely to be revised as new sources of information become available and as we refine our methodology for measuring migration. For more information on our future plans for improving migration statistics, see our [Population and migration statistics system transformation article](#). As part of this work, we are aiming for future publications of official population estimates to be based on our admin-based population estimates, using the Dynamic Population Model. The National Statistician will make a recommendation on the future of population statistics in 2024.

8 . Population estimates data

[Estimates of the population for England and Wales](#)

Dataset | Released 23 November 2023

National and subnational mid-year population estimates for England and Wales by administrative area, age and sex (including components of population change, median age and population density).

[Analysis of population estimates tool](#)

Dataset | Released on 23 November 2023

Interactive analysis of estimated population change for England and Wales, by geography, age and sex. Annual estimates are from mid-2011 onwards.

[Population estimates: quality information](#)

Dataset | Released 23 November 2023

Quality information on the mid-year population estimates at local authority level.

[Internal migration: detailed estimates by origin and destination local authorities, age and sex](#)

Dataset | Released 23 November 2023

Annual mid-year data on internal migration moves into and out of each local authority in England and Wales, including moves to and from Scotland and Northern Ireland.

[Internal migration: by local authority and region, age and sex](#)

Dataset | Released 23 November 2023

Annual mid-year data on internal migration moves for England and Wales, by local authority, region, age and sex.

[Internal migration: matrices of moves by local authority and region \(countries of the UK\)](#)

Dataset | Released 23 November 2023

Annual mid-year data on internal migration moves between local authorities and regions in England and Wales, Scotland and Northern Ireland.

Alternatively, [Nomis](#) provides free access to the most detailed and up-to-date UK population estimates.

9 . Glossary

Components of change

Components of change are the factors that contribute to population change. This includes births and deaths (commonly referred to as natural change) and net migration. Migration includes movements of people between England and Wales and the various countries of the world (international migration) and between local authority areas within the UK (internal migration).

Internal migration

Internal migration describes moves made between local authorities, regions or countries within the UK. Unlike international migration, there is no internationally agreed definition.

Median age

Median age is the age that divides a population into two numerically equal groups (that is, half the people are younger than this age and half are older).

Net flow

The net flow is the inflow minus the outflow. Positive net flows (greater than zero) indicate the inflow is larger than the outflow, that is, a net inflow. Negative net flows (less than zero) indicate the outflow is bigger than the inflow, that is, a net outflow.

Usually resident population

These data estimate the "usually resident population". This is the standard United Nations definition and includes only people who reside in a country for 12 months or more, making them usually resident in that country. As such, visitors and short-term migrants are excluded.

10 . Measuring the data

Quality

The mid-year estimates for England and Wales are produced by the Office for National Statistics (ONS). Estimates are produced by updating a census base using a standard demographic method, known as the cohort component method, and cover the usually resident population.

The previous year's resident population, by single year of age, is aged by one year, and then flows are applied to cover births, deaths, immigration, emigration and people entering and leaving "special populations", such as people in prisons or the armed forces. For mid-2012 to mid-2021, this release uses the rebased population estimates published in November 2023. For more information on this, see our [Rebasing of mid-year population estimates following Census 2021, England and Wales bulletin](#).

For detailed information on the methods and data sources used, see our [Population estimates for England and Wales, mid-2022: methods guide](#) and our [Consistency of methods used for population statistics across UK countries article](#).

For further information on how the estimates were created, quality assurance, their appropriate usage, and strengths and limitations, see our [Mid-year population estimates Quality and Methodology Information \(QMI\) for England and Wales](#).

We also provide [quality indicators](#) which show the percentage of a local authority population that consists of difficult-to-estimate population groups. In future, we will provide a set of uncertainty measures that reflect the statistical uncertainty relating to the estimation of the 2021 census base, internal and international migration.

11 . Strengths and limitations

Strengths

- The estimates form the official population estimates of the UK, providing timely data between censuses.
- Information from administrative registers, such as the numbers of births and deaths, is considered to be very reliable.
- Estimates include data on moves between local authorities, and between countries of the UK (internal migration).
- Estimates are coherent with the latest available estimates of international migration based on administrative data.
- These estimates will form the basis of coherent [small-area population estimates](#) and official [population projections](#) to be released in 2024.

Limitations

- The data are not counts, rather they are estimates created by combining many different data sources.
- The data sources used are the best available on a nationally consistent basis down to local authority level, but the estimates are subject to the coverage and error associated with these sources.
- Errors can accumulate over time, therefore population estimates for the years immediately following a census year tend to be more accurate than for those immediately prior to a census year.
- International migration methods and data sources are still being developed and may lead to revisions to population estimates.
- This release does not cover the population of the UK; a comprehensive release of mid-2022 estimates for the whole UK is planned for early 2024.

National Statistics status for population estimates

The date of the [last assessment](#) of the National Statistics status of the population estimates was 24 November 2020.

12 . Related links

[Mid-year population estimates for Scotland: 2021](#)

Report | Released 13 July 2022

The latest annual mid-year population estimates for Scotland and its constituent NHS Board and council areas, produced by National Records of Scotland (NRS).

[Scotland's Census 2022](#)

Statistical publication | Released 14 September 2023

Results from Scotland's 2022 Census for Census Day (20 March 2022), published by the National Records of Scotland.

[Mid-year population estimates for Northern Ireland: 2022](#)

Report | Released 31 August 2022

The latest annual mid-year population estimates for Northern Ireland, produced by the Northern Ireland Statistics and Research Agency (NISRA).

[Population estimates by output areas, electoral, health and other geographies, England and Wales: mid-2020](#)

Bulletin | Released 16 September 2021

National population estimates for Super Output Areas and experimental statistics for health geographies, electoral wards, Parliamentary constituencies, and National Parks in England and Wales.

[Measures of statistical uncertainty in ONS local authority mid-year population estimates: England and Wales, 2020](#)

Report | Released 28 January 2022

Measures of statistical uncertainty are research statistics that aim to give users of Office for National Statistics (ONS) local authority mid-year population estimates (MYEs) information about their quality.

13 . Cite this statistical bulletin

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