Population estimates for the UK, England and Wales, Scotland and Northern Ireland: mid-2019

National and subnational mid-year population estimates for the UK and its constituent countries by administrative area, age and sex.

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1. Main points

- The UK population was estimated to be 66,796,807 in mid-2019.
- The growth in the year to mid-2019 was the slowest since mid-2004, at 0.5% (361,000).
- Net international migration of 231,000 people was 44,000 fewer than in the year to mid-2018.
- The year to mid-2019 saw the fewest births since mid-2005, at 722,000.
- In mid-2019, there were 12.4 million people aged 65 years and over (18.5%) and 2.5% were aged 85 years and over.
- Local authorities with the highest proportions of older people in the UK are most commonly found in coastal areas of southern and eastern England.
- The population of the UK is spread unevenly, with the population density ranging from 5,700 people per square kilometre across London to fewer than 50 people per square kilometre in the most rural local authorities of the UK.
- This release follows the provisional release of mid-2019 estimates published on 6 May 2020; no revisions have been made to the mid-2019 population estimates but additional information, unavailable in May, is published in this bulletin.

Statistician’s comment

“The population grew at the slowest rate for 15 years between mid-2018 and mid-2019. This is due to the lowest number of births for 14 years alongside an increase in emigration and a fall in international immigration.

“The figures we’re publishing today highlight the variation in the population across the UK. For example, the population density in London is 24 times higher than that for the South West of England. Also, the proportion of people aged 65 or over ranges from over 30% in coastal areas such as North Norfolk to less than 8% in parts of central London like Tower Hamlets.”

Neil Park, Population Estimates Unit, Office for National Statistics

Follow the ONS Centre for Ageing and Demography on Twitter @RichPereira_ONS.

2. UK population growth

UK population growth slowest since 2004

In mid-2019, the population of the UK was 66.8 million (66,796,807 with a confidence interval of plus or minus 0.2%). Over the year to mid-2019, the population of the UK increased by 0.5%, or 361,000 people.

Decreasing numbers of births and net international migration have resulted in the slowest rate of growth that the UK has seen in 15 years, returning it to the level seen in mid-2004. Despite population growth slowing, Figure 1 shows this was the 37th consecutive year (since 1982) that the total UK population has increased.
Figure 1: UK population continues to grow in mid-2019, but at a slower rate than any year since mid-2004
UK, 1953 to 2019


Notes:

1. For a more detailed breakdown of the mid-2019 population estimates data, see our publication tables, detailed time-series tables, or Nomis.

Figure 1 shows that mid-2019 represents a break in a recent pattern of historically high growth – between 0.6% and 0.8% – from mid-2005 to mid-2018. However, it was still higher than in any year between mid-1967 and mid-2004.

3. Births, deaths and international migration

In the year to mid-2019, the number of births decreased to around the same level as in mid-2005, despite the population being 6.4 million higher. In the year to mid-2019, fewer international immigrants and more international emigrants mean a decrease in net international migration compared with the previous year. The drivers of change in the UK population in mid-2019 are set out in Table 1.
Table 1: Components of UK population change

<table>
<thead>
<tr>
<th></th>
<th>Mid-2019</th>
<th>Mid-2018</th>
<th>5-year average</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Births</strong></td>
<td>721,685</td>
<td>743,933</td>
<td>756,862</td>
</tr>
<tr>
<td><strong>Deaths</strong></td>
<td>593,410</td>
<td>622,944</td>
<td>602,116</td>
</tr>
<tr>
<td><strong>Natural change (births minus deaths)</strong></td>
<td>128,275</td>
<td>120,989</td>
<td>154,746</td>
</tr>
<tr>
<td><strong>International immigration</strong></td>
<td>609,318</td>
<td>625,927</td>
<td>618,517</td>
</tr>
<tr>
<td><strong>International emigration</strong></td>
<td>378,804</td>
<td>350,934</td>
<td>337,230</td>
</tr>
<tr>
<td><strong>Net international migration</strong></td>
<td>230,514</td>
<td>274,993</td>
<td>281,291</td>
</tr>
<tr>
<td><strong>Other changes</strong></td>
<td>2,467</td>
<td>-683</td>
<td>3,973</td>
</tr>
<tr>
<td><strong>Total change</strong></td>
<td>361,257</td>
<td>395,321</td>
<td>440,011</td>
</tr>
<tr>
<td><strong>% change</strong></td>
<td>0.54</td>
<td>0.60</td>
<td>0.67</td>
</tr>
</tbody>
</table>


Figure 2 shows the last three years of population growth are well below the average levels between mid-2005 and mid-2016. The slower growth in recent years is driven by a combination of both lower natural change (the balance between births and deaths) and lower net international migration.
Figure 2: Increase in natural change offset by decrease in international migration, mid-2019

UK, 1992 to 2019

![Graph showing annual population change (thousands) from 1992 to 2019, with categories for natural change (births minus deaths), net international migration and other, and overall net change.]


Notes:

1. Figures may not add exactly because of rounding.

2. Other changes include changes to the size of armed forces stationed in the UK and other special population adjustments; and is combined with net international migration for the purposes of this chart.

Components of population change are broken down for countries, regions, counties and local authority districts in Table MYE3.

Fewest births since mid-2005

The 722,000 births that took place in the year to mid-2019 are the fewest in any year since mid-2005. In mid-2012, the number of births peaked at 813,000 and has subsequently decreased by 92,000.

Fertility analysis is largely based on calendar year data, for example [Births in England and Wales: summary tables 2018](https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/births/latest). The latest UK data in [Vital statistics in the UK: births, deaths and marriages – 2019 update](https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/vitalstatistics/in2019) show that in the calendar years 2012 to 2018, UK total fertility rates decreased from 1.92 children per woman to 1.68. However, the number of births is related to both the number of women of fertile ages as well as their levels of fertility, and both these things fluctuate year-to-year.
Deaths decrease by 5% in mid-2019

In the year to mid-2019, there were 593,000 deaths, 5% fewer than in the previous year. The number of deaths in the previous year (mid-2018) had been the highest since mid-2000 and the 30,000 decrease in the year to mid-2019 represents a return to longer-term levels. Part of the reason for this decrease was the lowest excess winter mortality since mid-2014.

Deaths time series data by local area (for mid-2002 to mid-2019), age and sex can be downloaded from our detailed time series files. Further analysis of mortality is available:

- on a calendar year basis, from individual country deaths bulletins, for example Deaths registered in England and Wales: 2018
- through ad-hoc analysis into mortality such as Changing trends in mortality by leading causes of death, England and Wales: 2001 to 2018
- as life expectancies, in the National life tables, UK: 2016 to 2018

The deaths reported in this bulletin pre-date the appearance of the coronavirus (COVID-19). For the latest data in the UK see the ONS's Coronavirus (COVID-19) page.

Net international migration 16% lower than in mid-2018

Net international migration in the year to mid-2019 was 44,000 (16%) lower than in the previous year. The change in net international migration was a result of 17,000 fewer immigrants arriving than in the previous year (a 3% decrease) and 28,000 more emigrants (an 8% increase).

Analysis of the long-term international migration data that form the basis of the international migration estimates in this release was first published in November 2019 in the Migration Statistics Quarterly Report. It points out that while overall long-term net migration, immigration and emigration have remained broadly stable since the end of 2016, we have seen a decrease in immigration for work alongside an increase in immigration for study. The bulletin also describes different patterns seen in EU and non-EU migration.

Accounting for the indirect impact of international migration

In addition to the direct impact of migration on the size of the population, current and past international migration also has indirect effects on the size of the population as it changes the numbers of births and deaths in the UK. A fuller assessment of the indirect effect of migration on the size of the population would consider:

- births to, and deaths of, people who had migrated to the UK
- births to, and deaths of, people who had emigrated from the UK (and who would have given birth, or died, in the UK had they not emigrated)
- how to account for births to, and deaths of, UK-born people who had emigrated and subsequently returned to the UK
- how to account for births to, and deaths of, UK-born people who had parents (or grandparents) who were themselves immigrants
Some additional information for England and Wales can be obtained in Births by parents’ country of birth, England and Wales: 2018. During the calendar year 2018, 28.2% of all births in England and Wales were to mothers who were born outside of the UK, a decrease for the first time since 1990. It presents other trends, showing, for example, that the total fertility rate for both UK-born and non-UK-born women is under two children.

Other changes

The three main constituents of other changes are:

- changes to the number of armed forces personnel and dependants stationed in the UK
- changes to foreign armed forces based in the UK – mainly US Air Force personnel and dependants
- changes to the prison population

These groups, often referred to as special populations, tend to have small effects on the national population but can have a larger impact at a local level. For example, while the prison population in England and Wales remained broadly stable in the year to mid-2019, the prison population living in Dorset increased, as prisoners have been transferred to the newly re-opened HM Prison The Verne.

In the year to mid-2019, the UK population increased by 2,500 because of these changes. The largest driver of this population increase is the returning to the UK of home armed forces and their dependants stationed abroad (particularly in Germany).

4. Ageing

The age composition of the UK population is determined by the patterns of births, deaths and migration that have taken place in previous years. The result is that the broad age groups in the UK population are changing at different rates, with the number of those aged 65 years and over growing faster than those under 65 years of age. Between mid-2009 and mid-2019:

- the number of children (those aged under 16 years) increased by 8.0% to 12.7 million
- the working age population (those aged 16 to 64 years) increased by 3.2% to 41.7 million, the lowest growth of any age group
- the number of people aged 65 years and over increased by 22.9% to 12.4 million
- the number of people aged 70 years and over increased by 24.7% to 9.0 million
- the number of people aged 85 years and over increased by 23% to 1.6 million

The population pyramid in Figure 3 is interactive, allowing you to compare the population structures of different areas of the UK over time. This shows that the age structure of different parts of the UK can vary considerably.

For example, Northern Ireland had the highest proportion of children aged under 16 years of any country of the UK in mid-2019 (20.9%), whereas Scotland had the lowest proportion of people of this age group (16.9%). An interactive pyramid that can be customised further is available as part of the Analysis of population estimates (APE) tool.

Figure 3: Interactive population pyramid, mid-2001 to mid-2019
Number of those aged 65 years and over continues to increase faster than the rest of the population

The population pyramids in Figure 3 illustrate how numbers of older people within the population can change year on year because of variations in cohort size. Notably, the large cohort of people born around 1946 and 1947 are now aged around 72 years. The main trends for older people in the UK include:

- the population aged 65 years and over increased by 2.3 million between mid-2009 and mid-2019, from 16.2% of the total population in mid-2009, to 18.5% in mid-2019
- the population aged 65 years and over had the highest level of growth of any broad age group
- there was a relatively uniform increase in the number of people aged 65 years and over in the year to mid-2019 across the constituent countries of the UK, with England (1.7%), Scotland (1.8%), Wales (1.6%) and Northern Ireland (2.1%) all experiencing a similar proportion of growth
- in mid-2019, there were 1.6 million people aged 85 years and over living in the UK, making up 2.5% of the total population

The average age in England reaches 40 years old

A useful summary measure of ageing is median age. In mid-2019, the median age in the UK was 40.3 years, 0.2 years higher than mid-2018 and 1 year higher than mid-2009.

Between mid-2014 and mid-2018, the median age of the UK population increased from 40.0 years to 40.1 years. However, in the year to mid-2019, it increased at a faster rate to reach 40.3 years following a combination of fewer births, fewer deaths and lower net international migration.

Wales had the highest median age in mid-2019 (42.5 years), followed by Scotland (42.0), England (40.0) and Northern Ireland (38.9). Over the 10 years to mid-2019, the median age in all four countries increased. However, the largest increases in median age in the year to mid-2019 were in the two countries with the youngest populations, Northern Ireland and England.

Rural areas typically have older populations than cities

The areas of the UK with the lowest median age in mid-2019 were predominantly major cities, with the areas surrounding them often having a higher median age, and coastal and rural areas having a higher median age still. For example:

- the local authorities with the lowest median age in mid-2019 were Oxford (28.9), Nottingham (29.7), Manchester (30.1) and Cambridge (30.3), all areas with large student populations
- the local authorities with the highest median age were North Norfolk (54.3), Rother (53.1), East Lindsey (52.4) and South Hams (51.5)
- 44 areas in the UK have a median age of less than 36 years and 51 have a median age of more than 48 years
Figure 4 is an interactive map that illustrates how the populations of each local authority in the UK vary. The map can show the median age of each area, but also the proportion of the population in different age groups, and population densities.

**Figure 4: Interactive map comparing local authority age structure in UK: mid-2019**

Download data

Figure 4 shows the proportions of people in different age groups across the UK. With few exceptions these show similar patterns to median age, with higher proportions of younger people in more urban areas and higher proportions of older populations in more rural areas. In mid-2019:

- areas neighbouring London, Manchester and Birmingham in England, Cardiff in Wales, and Glasgow and Edinburgh in Scotland had a higher proportion of children aged under 16 years than the national average
- the regions with the greatest proportion of working-age people were London (67.4%), the North East (62.2%), the North West (62.1%), and Yorkshire and The Humber (62.1%)
- exceptions can be found with some university cities such as Exeter and Plymouth, both of which have a greater proportion of working age adults compared with their respective surrounding areas
- the areas with the greatest proportions of people aged 65 years or over were predominantly located in the South West, around the south and east coasts of England, around the west coast of Scotland or in central and western areas of Wales

Local authorities usually contain a mix of different landscapes and settlement types. In some cases a younger urban area balances an older rural one in the same authority. Those that are at the extremes tend to contain just urban areas, or mostly rural areas, including coastline and areas of National Park. This includes areas such as South Lakeland, Craven, Ryedale, Powys, Conwy, West Devon, Somerset West and Taunton, and Derbyshire Dales.

Further information on the populations in National Parks can be found in the Population estimates by output areas, electoral, health and other geographies release. Population density helps to distinguish some of these differences between areas.

**Variations in population density continue to get larger**

Population density gives the population per square kilometre. The interactive map in Figure 4 shows that areas in and around major cities, particularly London and Birmingham, are the most densely populated.

London boroughs account for the 20 most densely populated areas in the UK. The highest population densities in the UK, of over 16,000 people per square kilometre, are found in the London Boroughs of Tower Hamlets and Islington. Along with Hackney, at 14,800 people per square kilometre, these three local areas have notably higher population densities than any others, and have been steadily becoming more dense since mid-2005.

Most local authorities in Scotland and Wales have lower population densities than is typical of the UK. Exceptions include cities such as Glasgow, Edinburgh, Dundee, Aberdeen and Cardiff as well as their respective surrounding areas. Of the 20 local authorities in the UK with population densities of less than 50 people per square kilometre, 11 were in Scotland, 5 in England, 3 in Wales and 1 in Northern Ireland.
5. Population growth in England, Wales, Scotland and Northern Ireland

Of the four countries of the UK, Northern Ireland’s population grew the fastest in the year to mid-2019 but over the last five years the population of England has been the fastest growing (Table 2).

Table 2: Drivers of population change for UK countries: mid-2019

<table>
<thead>
<tr>
<th></th>
<th>United Kingdom</th>
<th>England</th>
<th>Wales</th>
<th>Scotland</th>
<th>Northern Ireland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population mid-2019</td>
<td>66,796,807</td>
<td>56,286,961</td>
<td>3,152,879</td>
<td>5,463,300</td>
<td>1,893,667</td>
</tr>
<tr>
<td>Total change mid-2018 to mid-2019</td>
<td>361,257</td>
<td>309,783</td>
<td>14,248</td>
<td>25,200</td>
<td>12,026</td>
</tr>
<tr>
<td>% change to mid-2019</td>
<td>0.54%</td>
<td>0.55%</td>
<td>0.45%</td>
<td>0.46%</td>
<td>0.64%</td>
</tr>
<tr>
<td>Average annual % change since 2015</td>
<td>0.67%</td>
<td>0.72%</td>
<td>0.39%</td>
<td>0.43%</td>
<td>0.57%</td>
</tr>
<tr>
<td>Natural change (mid-2019, rate per 1,000 population)</td>
<td>1.93</td>
<td>2.30</td>
<td>-0.78</td>
<td>-1.02</td>
<td>3.88</td>
</tr>
<tr>
<td>International migration (mid-2019, rate per 1,000 population)</td>
<td>3.47</td>
<td>3.55</td>
<td>2.49</td>
<td>3.71</td>
<td>1.97</td>
</tr>
<tr>
<td>Internal migration and other changes (mid-2019, rate per 1,000 population)</td>
<td>0.04</td>
<td>-0.32</td>
<td>2.83</td>
<td>1.94</td>
<td>0.54</td>
</tr>
</tbody>
</table>


Notes

1. Other changes include cross-border migration between the four countries of the UK and changes in the number of home and foreign armed forces and their dependants.

In the year to mid-2019, the UK as a whole grew more slowly than has been typical for the last five years. Table 2 and the time series of population by country in Table MYE4 accompanying this release show that:

- population growth in England was slower than typical of the last five years
- for the first time since the year to mid-2009, Northern Ireland was the fastest-growing country in the UK
- the populations of Scotland and Wales grew more slowly than England and Northern Ireland in the year to mid-2019 and over the last five years

The long-term differences between countries' population growth in part reflects the different age structures of the four countries and that younger populations tend to have more births and fewer deaths than older populations.

One of the main drivers of the faster population growth in Northern Ireland is the comparatively high level of natural change driven by a younger population (median age of 38.9 years compared with 40.3 years across the UK) leading to a higher number of births and a lower number of deaths. However, in both Wales and Scotland there were a higher number of deaths than births. Once again, this reflects the age structure of Wales and Scotland, where the median ages of the population are 42.5 years and 42.0 years respectively; around two years above the UK average.
The short-term differences in annual growth rates can generally be explained by the year-on-year variations in each country’s components of population change, shown in Table MYE3 accompanying this release. In the year to mid-2019:

- natural change was positive in England and Northern Ireland; and remained negative in Scotland and in Wales
- net international migration in Scotland increased in mid-2019, while in England it decreased
- net internal migration (that is, moves between different parts of the UK) continued to add to the populations of Wales, Scotland and Northern Ireland

6. Local population change

Population increases in 86% of local authorities

Changes in local populations can be driven by international migration, internal migration, births and deaths. Taking account of each of these, in the year to mid-2019, the population increased in 326 (86%) of local authorities across the UK.

The interactive map in Figure 5 shows the overall change in population and components of change between mid-2018 and mid-2019 for each local authority in the UK. To use this interactive tool, select a component of change from the drop-down menu to view its impact on the mid-2019 population estimates at local authority level.

Figure 5: Population change and components of change, mid-2018 to mid-2019, local authorities in the UK

Download data

Many of the 53 authorities with decreasing populations in mid-2019 are on the coasts of England, Scotland and Wales, as has been the case in previous years. Often these are areas with older populations, which have more deaths than births on an annual basis and relatively low levels of migration. However, as shown by Figure 5, there were also population decreases in a variety of other areas spread across the UK. Some other points to note:

- out of the top 20 fastest-growing local authority areas in mid-2019, four were in London
- there is a cluster of fast-growing local authorities across the south west and Midlands including Tewkesbury, Wychavon, Stratford-upon-Avon, Warwick, Rugby, South Northamptonshire and Daventry; all have relatively high levels of net internal migration (more people moving in than out)
- a variety of trends can be seen in areas within each country; for example, in Scotland, areas in and around Edinburgh have consistently grown in the past six years (including Edinburgh City, Midlothian and East Lothian)
- population growth in many local authorities with large student populations is lower than in recent years, partly reflecting smaller cohorts of 18- and 19-year-olds across the UK in mid-2019; this is further discussed in Section 7

Looking at the maps for each component of population change provides insights into which components are driving population change in any given area. The next sub-section demonstrates how these combine for a single area, in this case, London.
London’s population growth slows

In the year to mid-2019, the population of London grew by 54,000 (0.6%), the smallest increase since mid-2004. The slower growth was largely because of an increase in the level of international emigration (by 26,000) and a decrease in international immigration (by 9,000). However, net international migration still added 77,000 to London’s population in the year to mid-2019.

In the year to mid-2019, the number of people moving out of London to somewhere else in the UK increased by 2.6% to 349,000, while the number of people moving into London increased by 7.6% to 255,000. Overall, this meant that 94,000 more people moved out of London than into it; this is the fewest since mid-2016.

However, (and like previous years), the direction of moves tends to be based around age, with people aged in their 30s to mid-40s along with children (aged under 18 years) most likely to leave London. Whereas, people aged in their 20s tend to move to London producing a net inflow for these ages. Furthermore, outflows were 11,000 higher than inflows for people aged 19 years, despite large numbers moving into London. This is likely to be driven by young adults moving in and out of London for higher education.

London continued to have a relatively high, positive level of natural change (71,000 more births than deaths) reflecting its relatively youthful population. In common with the UK as a whole the number of births and deaths in London was lower in mid-2019 than in the previous year.

One of the consequences of London’s patterns of internal and international migration is that its population has a much younger age structure compared with the rest of the UK. In mid-2019, London had a median age nearly five years lower (35.6 years compared with 40.3) than the UK as a whole and only 12.1% of the population was aged 65 years or older. Further, the high level of migration means that there is a high proportion of the population aged 16 to 44 years compared with the rest of the UK, resulting in a relatively high number of births and the second-highest proportion of children in the UK.

Figure 6 shows net international and internal migration flows to and from London since 2011. Over time these flows have the effect of keeping London’s population relatively young.
Figure 6: The impact of migration to London’s population, 2011 to 2019


Notes:

1. Data for other areas of England and Wales are available through the Analysis of Population Estimates tool.

2. Population change is shown on a cohort basis. For example, internal migration flows for those aged 25 years in mid-2019 include moves made by those aged 25 years in mid-2019, aged 24 years in 2018, aged 23 years in 2017 and so on to those aged 18 years in 2012. The same individual may therefore appear in multiple flows.

As Figure 6 shows, since mid-2011, net international migration has added to the population at every age from 0 to 90 years, with the highest flows for those aged 23 to 31 years. Internal migration flows exhibit a different pattern, with the highest levels of net inflows for those aged 22 to 30 years and net outflows for all other ages.

While these patterns are true of London as a whole, there are a wide variety of different patterns of population change amongst the 33 London boroughs:

- the two fastest-growing local authorities in the UK in the year to mid-2019 were the City of London (11.7%) and Camden (3%)

- of the 33 local authorities in London, 27 of them had slower growth in the year to mid-2019 than in the previous year

- Westminster and the City of London both saw annual growth in the year to mid-2019 that was 2 percentage points slower than in the previous year
7. Internal migration

Characteristics of movers by age

In the 12-month period to mid-2019, an estimated 3.39 million people moved between local authorities in England and Wales, an increase of 3% on the previous year (3.28 million to mid-2018).

Figure 7 shows most moves occur in early adulthood, with the peak age for movers being 19 years, the main age at which people leave home for study. There is another smaller peak at age 22 years; in many cases this will reflect graduates leaving university, moving for employment, further study or returning to their home address. Levels of moves remain comparatively high for those aged in their 20s and 30s but gradually decline with age.

Figure 7: Proportions of moves by age into local authorities in England and Wales (including moves from Northern Ireland and Scotland)

In a number of local authorities with large student populations, the level of net internal migration decreased in the year to mid-2019. This could be in the form of lower net inflows or greater net outflows compared with the previous year, contributing to slower population growth in those areas.
Some of this change is because of a decrease in the number of 19-year-olds moving into these areas (to study) and an increase in the number of 22-year-olds (presumably new graduates) leaving. While there are a lot of other possible drivers for this change it is likely that some of this is demographically driven by changes in the size of cohorts turning 19 years old each year. In mid-2019, there were 678,000 19-year-olds in England and Wales, the lowest number since mid-2003 and 36,000 fewer than the equivalent for mid-2016 (the cohort now aged 22 years in mid-2019 and graduating from higher education). This reflects the decrease in the number of births around the time of the millennium.

In areas where moves are dominated by the inflows and outflows of students, these patterns are more obvious. However, in major cities such as Cardiff, Manchester, Leeds and many London boroughs, where internal migration flows are more complex (with larger flows of moves for work or retirement) this pattern may not be apparent.

**Internal migration for London continues to be negative**

Figure 8 shows the number of moves per 1,000 population (mid-2018) into and out of each of the nine regions of England, as well as Wales, Scotland and Northern Ireland.

This shows that the East Midlands had the highest rate of inflows (32.0 moves per 1,000 population (mid-2018)) and London had the highest rate of outflows (39.2 moves per 1,000 population (mid-2018)).

As is usually the case, more people moved out of London than into it (a net outflow of 10.6 per 1,000 population (mid-2018)). With the additional exception of the West Midlands with a small net outflow, all other English regions, Wales, Northern Ireland and Scotland saw more people arrive than depart for elsewhere in the UK. The highest rate of net inflow was in the South West (4.7 per 1,000 population (mid-2018)). However, there are still local authorities within these regions that had a net flow that differed from that of the region, demonstrating there is considerable within-region variation.

**Figure 8: London continues to see net outflow of residents to other parts of the UK**

Data download

At the local authority (LA) level, there were 247 LAs with more people moving in than out, of which 43 had a net inflow of over 10 people per 1,000 population (mid-2018). These areas are spread across England and Wales predominantly in the Midlands, south and east of England. Most of the areas with the highest inflows remain the same as in the year to mid-2018.

Conversely, there were 132 LAs with more people moving out than in, of which 30 had a net outflow of more than 10 people per 1,000 population (mid-2018). Of these, 14 were in London, with the rest predominantly in areas with large student populations in the south east, Midlands and east of England.

**People tend to move to nearby areas**

In general, around 50% of moves are to areas within the same region whilst many other people move to neighbouring areas just outside their region. This figure is even higher for moves within London and the South East regions. In fact, two-thirds of inner London moves are to other parts of London. Whereas, half of outer London moves are outside London mainly to and from the East of England and South East regions.
The interactive map (Figure 9) shows that internal migration generally occurs between neighbouring areas. But it also highlights where people move further afield. As an example, for Manchester this shows that the three largest internal migration flows are with the local authorities that immediately surround it (Salford, Trafford and Stockport). In addition, Figure 9 shows that many of the large migration flows between Manchester and local authorities in other regions of England and Wales are with areas with large higher education institutions (for example, Leeds, Sheffield, Birmingham and Liverpool).

By selecting a local authority of interest and hovering or clicking on the map to select another local authority, the interactive map in Figure 9 will show the flows to and from that pair of local authorities.

**Figure 9: Most internal migration is to neighbouring local authorities**

**Data download**

### 8. Population estimates data

- **Estimates of the population for the UK, England and Wales, Scotland and Northern Ireland**
  Dataset | Released 24 June 2020
  National and subnational mid-year population estimates for the UK and its constituent countries by administrative area, age and sex (including components of population change, median age and population density).

- **Analysis of population estimates tool**
  Dataset | Released on 24 June 2020
  Interactive analysis of estimated population change for England and Wales, by geography, age and sex. Annual estimates are from mid-2011 onwards.

- **Internal migration: detailed estimates by origin and destination local authorities, age and sex**
  Dataset | Released on 24 June 2020
  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 on 24 June 2020
  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 on 24 June 2020
  Annual mid-year data on internal migration moves between local authorities and regions in England and Wales, Scotland and Northern Ireland.

### 9. Glossary

**Population estimates**

Population estimates provide statistics on the current size and age structure of the population in the UK at country, region, county and local authority level. They are the official source of estimated population size in between censuses and inform a wide range of National Statistics.
Mid-year

Mid-year refers to the 30 June of any given year.

Usually resident population

These data estimate the “usually resident population”. This is the standard UN 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.

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).

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 the various countries of the world (international migration) and between local authority areas within the UK (internal migration).

Internal migrant

Internal migrant is someone who moves home from one geographical area to another. This may be between local authorities, regions or countries within the UK. Unlike international migration, there is no internationally agreed definition.

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.

10. Measuring the data

Early release of population estimates

Mid-year population estimates for the UK, England and Wales, and Northern Ireland are regularly published at the end of June each year; estimates for Scotland are regularly published in April each year. To provide more timely data in light of the coronavirus (COVID-19) pandemic, a provisional set of UK estimates was published on 6 May. The current publication makes no revisions to those provisional estimates. This release includes additional data, covering:
• local authority data for Northern Ireland
• subnational components of population change
• internal migration for England and Wales
• a suite of analysis and quality assurance tools
• a parallel release of data on Nomis

Data sources

The mid-year estimates for England and Wales are produced by the Office for National Statistics (ONS), for Scotland by National Records Scotland (NRS) and for Northern Ireland by the Northern Ireland Statistics and Research Agency (NISRA). The data sources used to produce estimates for England and Wales, Scotland, and Northern Ireland differ reflecting the availability of different data sources in each country, and are set out in the methodology guides in the "Quality" section.

Methodology

Estimates for each country are produced using the cohort component method and cover the usually resident population. This is a standard demographic method that uses information on the components of population change to update a population base such as the census estimate. The resident population, by single year of age, on 30 June of the year prior to the reference year 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. This is described in more detail in the methodology guides in the "Quality" section.

Quality

Detailed information on the methods used in each country can be found in their methodology guides:

• England and Wales
• Northern Ireland (PDF, 204KB)
• Scotland (PDF, 840KB)

More information on comparisons between UK constituent countries can be found in Consistency of methods used for population statistics across UK countries.

More quality and methodology information on the England and Wales estimates, including strengths, limitations, appropriate uses, and how the data were created, is available in the Mid-year population estimates QMI, and the Internal migration estimates QMI.

Changes to this release

In compiling the 2019 mid-year estimates for England and Wales, some of the administrative data used to distribute national international immigration and international emigration flows to local authorities were not available. Consequently, international immigrants have been distributed to local authorities using an average of the distributions of the three previous years. As assessment of the impact of this change will be published in due course; the impact this had when applied in 2017 can be found in the Mid-year population estimates QMI.
In April 2020, the district authorities and county council of Buckinghamshire merged to make a single local authority. Data are published on this basis, with alternative files covering the boundaries as at April 2019. Full details of boundary changes are available in the Population estimates for the UK, mid-2018: methods guide.

**Upcoming changes – transformation of population statistics**

It is our mission to provide the best insights on population and migration using a range of new and existing data sources to meet the needs of our users. Our ambition is to deliver a fully transformed system by 2023, making regular improvements to our statistics along the way as more administrative data become available. We will rigorously quality assure new methods and share the impact of any changes made. The Transformation of the population and migration statistics system: overview gives more information on this work. The resulting improvements will also be incorporated into future sets of population estimates.

**Population estimates for mid-2020**

The population estimates for mid-2020 are planned for release in June 2021. The coronavirus (COVID-19) pandemic has disrupted the collection of several data sources (such as the International Passenger Survey) that underpin the production of population estimates. Further, the pandemic may have had impacts on how different groups, for example students, are captured on different data sources used in the population estimates. Over the coming months we will be working to further understand the impacts of these issues and will share our findings and consult with stakeholders as we progress.

**11. Strengths and limitations**

Mid-year population estimates have a wide variety of uses within central government as well as being used by local authorities and health bodies, other public bodies, commercial companies, and individuals in the private and academic sector.

**Strengths:**

- the estimates form the official population estimates of the UK, providing timely data between censuses
- breakdowns are coherent with totals – so ages, areas or components of change can be added up as required
- population estimates are produced using a well-established demographic approach called the cohort component method, combining information from several data sources including the previous census, survey data and administrative registers
- 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)
- these estimates are coherent with small-area population estimates and official population projections

**Limitations:**
• the data are not counts; rather they are estimates created by combining many different data sources

• the data sources used are the best that are 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; consequently, 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 in particular is estimated using multiple data sources; in England and Wales the latest data are not always available, necessitating the use of averages

• mid-year estimates use the unadjusted series of LTIM estimates, as the detailed breakdowns needed for the mid-year estimates are not yet available for the adjusted LTIM data; some of these data are provisional

• estimates are not available on other bases such as out-of-term (with students at home addresses) or including short-term migrants and visitors

• population estimates are released 12 months after the reference date to which they relate, consequently, these estimates pre-date the appearance of the coronavirus (COVID-19): for the latest data on the coronavirus in the UK see the ONS's Coronavirus (COVID-19) page.

National Statistics status for population estimates

Date of last assessment: 30 July 2015

Improvements since last review:

• made methodological improvements to internal migration for England and Wales, notably an improved method for determining the moves of recent graduates

• included estimates of flows of refugees in international migration estimates for England, Wales and Scotland

• corrected minor errors, set out in the Mid-year population estimates QMI, such as correcting the age breakdown of older people in Scotland, 2002 to 2010
12. Related links

Population estimates for the UK, England and Wales, Scotland and Northern Ireland, provisional: mid-2019
Bulletin | Released 6 May 2020
Early release of UK mid-year population estimates.

Mid-year population estimates for Wales: 2019
Report | Released May 2020
Additional analysis of the population of Wales, based on population estimates for Wales published by the Office for National Statistics (ONS).

Mid-year population estimates for Scotland: 2019
Report | Released 30 April 2020
The latest annual mid-year population estimates for Scotland and its constituent NHS Board and council areas, produced by National Records of Scotland (NRS).

Mid-year population estimates for Northern Ireland: 2019
Report | Released 11 June 2020
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-2018
Bulletin | Released 25 October 2019
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 summary
Report | Released 30 November 2017
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.