

Mid-year population estimates QMI

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1 . Methodology background

National Statistic	
Frequency	Annual
How compiled	Based on third party data
Geographic coverage	UK
Last revised	28 February 2019

2 . Important points

- Mid-year population estimates are the official source of population sizes in-between censuses, covering populations of local authorities, counties, regions and countries of the UK by age and sex.
- The estimates use the census definition of people who are “usually resident” in the UK for 12 months, excluding short-term migrants, and counting students at their term-time addresses.
- The estimates roll forward the population found by the previous census, one year at a time by accounting for births, deaths, international migration and internal migration; to accomplish this multiple registration, survey and administrative data sources are used.
- On 22 March 2018, a revised set of population estimates for mid-2012 to mid-2016, incorporating methodological improvements for local authorities in England and Wales, were published.
- The distribution of international in-migrants at local authority level for mid-year 2017 population estimates, was calculated using the three-year average method; this was because one of the administrative sources, Customer Information Service, (CIS) used in the calculations was unavailable; therefore, the mid-2017 estimates (of sub national international immigration) are based on the average of the local authority distribution of international in-migrants used in the revised mid-2014 to revised mid-2016 population estimates.
- The mid-2017 population estimates incorporate a new method for internal migration; this includes an improved method for accounting for the movements of those leaving higher education and a new data source for accounting for the moves made by those who move more than once, who are born or die during the year, or who immigrate or emigrate during the year.
- The next set of revisions is not expected until the results of the 2021 Census are available.
- On 28 February 2019 long-term migration estimates for the year to mid-2017 were [revised upwards by 33,000](#) to address an isolated sampling issue with the data of non-EU students for the year ending September 2016; a corresponding revision to the mid-year estimates has not been made and the reasons behind this decision are discussed in the validation and quality assurance section of this report.

3 . Overview of the output

The mid-year population estimates relate to the usually resident population on 30 June of each year. Several data sources are used to compile the population estimates, including the General Register Office (GRO), the International Passenger Survey (IPS), the Higher Education Statistics Agency (HESA), the National Health Service Central Register (NHSCR) and the Ministry of Justice.

Comparable estimates for Scotland and Northern Ireland are produced by the National Records Scotland (NRS) and the Northern Ireland Statistics and Research Agency (NISRA) respectively. Revisions occurring in March 2018 did not affect Scotland or Northern Ireland. Annually published estimates are available from 1981 onwards.

The [mid-year population estimates](#) are the official set of population estimates for the UK and its constituent countries, the regions of England and Wales and local authorities.

The estimates account for long-term international migrants (people who change their country of usual residence for a period of 12 months or more), but do not account for short-term migrants (people who come to or leave the country for a period of less than 12 months). A combination of registration, survey and administrative data are used to estimate the different components of population change.

The mid-year population estimates are essential building blocks for a wide range of [National Statistics](#). They are used directly as a base for other secondary population statistics, such as [population projections](#), [population estimates for the very old](#) and [population estimates for small geographical areas](#). They are also used in the weighting of survey estimates, such as the Labour Force Survey (LFS) and other social surveys to ensure that they are representative of the total population. Further details of how population estimates are used to weight the LFS can be found in [Volume 1 of the LFS user guide](#). Population estimates are also used as denominators for rates or ratios, for example, in health and economic indicators.

External users of the estimates include central and local government and the health sector, where they are used for planning and monitoring service delivery, resource allocation and managing the economy. Other users include commercial companies (for market research), special interest groups and academia.

We quality assure the administrative data used for these statistics to ensure that they are suitable for this purpose. To gain further insight on data quality issues and the impact on statistics, please see the quality assurance of administrative data for:

- [Births](#)
- [Deaths](#)
- [UK Armed Forces](#)
- [US Armed Forces](#)
- [Patient Register](#)
- [Higher Education Statistics Agency](#)
- [Prisoners](#)
- [National Health Service Central Register](#)
- [Northern Ireland internal migration](#)
- [International migration data for Scotland](#)
- [International migration data for Northern Ireland](#)
- [Migrant Workers Scan](#)
- [Asylum Seeker Data and Non-Asylum Enforced Removals](#)
- [Home Office Immigration](#)
- [Asylum Seekers Support](#)

4 . Output quality

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

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

- relevance
- timeliness and punctuality
- coherence and comparability
- accuracy
- output quality trade-offs
- assessment of user needs and perceptions
- accessibility and clarity

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

5 . About the output

Relevance

(The degree to which statistical outputs meet users' needs.)

This product is the official set of population estimates for the UK and constituent countries, consisting of annual published estimates from 1981 onwards. The published estimates meet the known users' needs as described in this section. The accuracy of the estimates is limited to the quality of the data sources used to compile the estimates, as discussed in the Accuracy section.

The estimates refer to the mid-year (30 June), usually resident population and are available at the following geographies and population sub-groups:

- UK, Great Britain, England, Wales, Scotland and Northern Ireland
- regions, counties, unitary authorities and local government districts in England; council areas in Scotland, unitary authorities in Wales and district council areas in Northern Ireland

The standard tables are published using unformatted data, which provide unrounded data to aid further analysis for users. However, the unrounded estimates cannot be guaranteed to be as exact as the level of detail implied by unit-level data. This is due to levels of uncertainty around the unrounded estimates (also see the Accuracy section).

Additional supporting data published with the population estimates comprises components of population change, which provides information on population events (births, deaths, internal migration within the UK, international migration, and other changes) between the reference year and previous mid-year population estimate. The components of population change are available as totals for the following geographies:

- UK, Great Britain, England, Wales, Scotland and Northern Ireland
- regions, counties, unitary authorities and local government districts in England; council areas in Scotland, unitary authorities in Wales and district council areas in Northern Ireland

The components of population change are available by sex and single year of age for the following geographies:

- England and Wales
- regions, counties, unitary authorities and local government districts in England and unitary authorities in Wales

The published mid-year population estimates data tables and supporting documentation can be found on our [population estimates pages](#).

For geographical levels that are smaller than local authority district, estimates are published as a separate output and have their own specific quality information: the [Quality and Methodology Information for small area population estimates](#).

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 (see the Assessment of user needs and perceptions section). These uses can be categorised into two broad groups:

- uses where the absolute numbers are important – this may be in terms of allocating financial resources from central government, planning services or grossing up survey results; some of the main central government uses are concerned with resource allocation and are carried out by the [Ministry of Housing, Communities and Local Government](#) for England and the [Welsh Government \(WG\)](#)
- uses where the population figures are used as denominators, for example, in the calculation of social and economic indicators

In addition to 2011 Census data, the main data sources used in the compilation of the mid-year population estimates down to local authority level are:

- birth and death registrations from the [General Register Office \(GRO\)](#)
- [International Passenger Survey \(IPS\)](#) data, [Higher Education Statistics Agency \(HESA\)](#) data, [Migrant Worker Scan \(MWS\)](#) data, GP [Patient Register \(PR\)](#) data, [Home Office Visa](#) data, in addition to other sources listed in the population estimates [Methodology guide](#) used to estimate international migration moves
- [National Health Service Central Register \(NHSCR\)](#), the [GP Patient Register Data System \(PRDS\)](#) and [Higher Education Statistics Agency \(HESA\)](#) data used to estimate internal migration moves
- [Ministry of Defence](#) data and [United States Air Force \(USAF\)](#) data used to estimate the change in the home and foreign armed forces population
- [Ministry of Justice](#) data used to estimate the number of prisoners

Timeliness and punctuality

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

Population estimates for the UK and for England and Wales are normally published annually in June. For a particular mid-year (30 June) they are available about 12 months after the reference date. This time lag reflects the availability of the data sources that measure the components of population change over the year preceding the estimate and the time required to process the data and calculate the estimates. Where substantial changes occur later to either the data or the methodology used in producing population estimates, a backseries of revised estimates is made available to create a continuous time series between censuses.

The publication of mid-year population estimates would be later than the planned date only if essential data used to calculate the estimates were not available. For example, if estimates of international migration were not received or delays were encountered in the supply of administrative data from third parties.

In previous years, the planned publication date, as entered into the [Release calendar](#), has always been met, though in 2013 the UK estimates were published six weeks after the estimates for England and Wales due to the timetable for the publication of the estimates for Scotland.

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

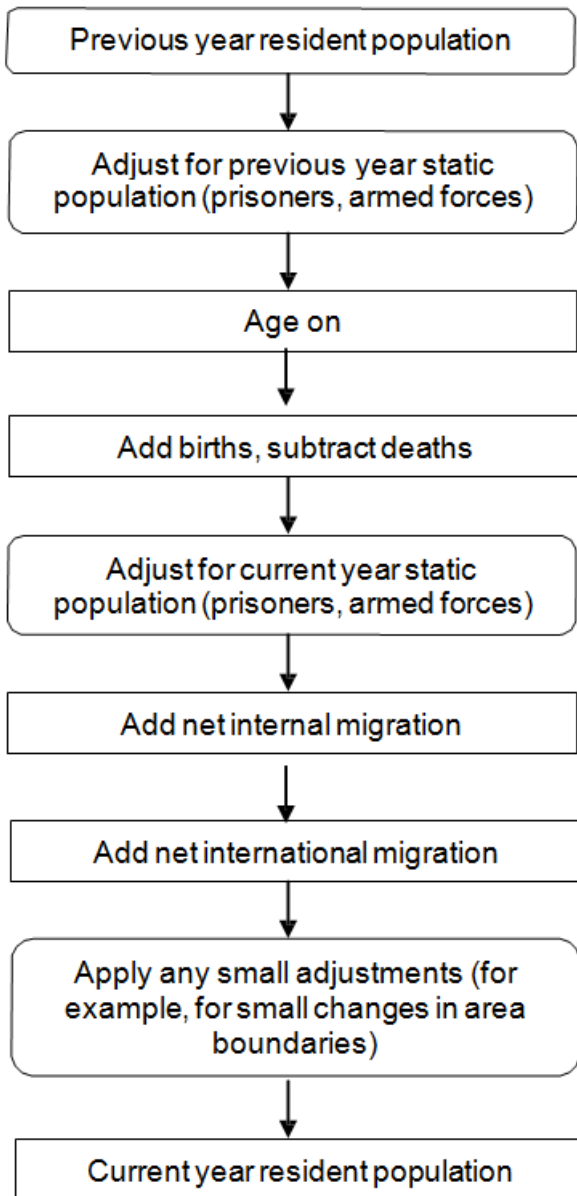
6 . How the output is created

Population estimates down to local authority level are calculated using the cohort component method. 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, those born during the 12-month period prior to the mid-year point are added on to the population and those who have died during the 12-month period are removed.

Other factors taken into account are the movement of people into and out of the UK (international migration) and, for estimating the population for different areas within the UK, movements between areas of the UK (internal migration). Internal migration includes both cross-border moves between the four constituent countries of the UK and moves between local areas within each part of the UK.

Some population sub-groups such as prisoners and armed forces (UK and foreign) are estimated separately from the rest of the population (this is because internal or international migration moves of these groups are not captured using the standard data sources). Figures for the previous year are removed from the population prior to the estimation process and then figures for the current year are added back in for the final compilation. The cohort component method used for the mid-year population estimates is illustrated in Figure 1.

Figure 1: Cohort component method



Source: Office for National Statistics

For census years the population is aged by the period of time between the census and 30 June (in 2001 this was nine weeks and in 2011 it was 14 weeks). Similarly, the components only need to account for change during this period. For each component, this is established by the availability of data for the period between census day and 30 June and the amount of change expected. Further details of how this was done in 2001 can be found in [Population Trends 109](#). Details of the methods used in 2011 can be found in [Methods guide for census-based mid-2011 population estimates](#).

As part of our commitment to maintaining and improving the quality of its outputs, proposed changes to the methods following the 2011 Census were first described in Appendix 2 of the [Population estimates methodology guide](#) published alongside the mid-2016 population estimates. Changes have taken place to the emigration component of population change in particular, with [Office for National Statistics \(ONS\) having earlier set out its aims](#) of:

- making it more intuitive for users
- using more administrative data
- improving some outdated geographical references
- ensuring the method is more likely to capture future patterns of emigration well, even if these patterns are different from those seen today

Before changes are applied to the mid-2017 estimate methodology, we have applied them to the mid-2012 to mid-2016 estimates for England and Wales, using the most up-to-date data, to create a coherent time series based on the 2011 Census. Details of the changes to the backseries and those starting with the mid-2017 estimates are set out in [Population estimates for local authorities in England and Wales, new methods: February 2018](#).

After the results of a new census are known, the population estimates over the previous decade are subsequently revised to ensure a consistent time series. In light of the 2011 Census results, the mid-2002 to mid-2010 population estimates were revised at [national](#) and [subnational](#) level. The methodology for revising the population estimates involved identifying parts of the population estimates that were under- or over-estimated between 2002 and 2010, using 2011 Census data and other sources. Further details of the methods used to revise the mid-2002 to mid-2010 population estimates at national level can be found in the [methodology guide for the national back series](#) and at subnational level in the [methodology guide for the subnational back series](#).

The subnational mid-year population estimates for England and Wales are calculated first. The national estimates are produced by aggregating the subnational estimates. A different method is used to produce population estimates for smaller areas, for example, national parks and wards. Details of the [methods used to produce population estimates for small areas are available](#).

Several data sources are used to compile the population estimates. Where possible, we ensure that definitions are consistent between data sources. For example, following the 2011 Census, the population estimates definition for prisoners has been changed from those having served six months or more in prison to those who have been sentenced to serve six months or more, to be as consistent as possible with the 2011 Census prisoners definition. The estimates are produced using a variety of data sources and statistical models, including some statistical disclosure control methods, and small estimates should not be taken to refer to particular individuals.

Full details of the [methodology used to produce the population estimates](#) are available.

7 . Validation and quality assurance

Accuracy - overall

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

Population estimates are produced using a well-established demographic approach called the cohort component method (refer to the How the output is created section). This involves combining information from several data sources including the previous census, survey data and administrative registers. 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. Information from administrative registers such as the numbers of births and deaths are considered to be very reliable.

Uncertainty estimates have been created to give users additional information of the quality of these estimates. [Measures of statistical uncertainty](#) are available for the years mid-2012 to mid-2016. It should be noted that the uncertainty measures currently available were calculated using the methodology used for the mid-year estimates prior to the March 2018 revisions to population estimates for mid-2012 to mid-2016.

Several products providing information on the likely accuracy of the estimates are planned or already available:

- a set of [quality indicators](#), which provide a high-level indication of the likely reliability of the estimates for each local authority, are published alongside each release (from the estimates for 2013 onwards)
- a [data comparator tool \(QA pack\)](#), allowing easy comparison of the population estimates with counts from administrative sources, is also published alongside each release (again from the estimates for 2013 onwards)
- statistical measures of the reliability of the 2011 Census estimates – on which the population estimates are based – are published in the [Confidence intervals for the 2011 Census report](#)
- information is also available, on the likely [accuracy of the migration estimates](#), which are used in updating the population estimates each year

One source of potential inaccuracy in the estimates is the use of sample surveys in the derivation of the 2011 Census estimates (where the Census Coverage Survey is used to adjust for estimated non-response) used as the base population, and the International Passenger Survey (IPS)-based estimates of international migration.

Sampling error from those sources allows the derivation of an estimated confidence interval of plus or minus 0.2%. This means that if the census and IPS were repeated many times, with a new sample for the related surveys selected each time, we would expect the true value to be within 0.2% of the estimated value 95% of the time. Note that this confidence interval does not include error arising from other components, nor does it provide a measure of bias in either the census, mid-year estimates or other components.

This confidence interval has been derived from published information available from the [Confidence intervals for the 2011 Census report](#) for the England and Wales census, [Confidence intervals for Scotland's Census and the 2011 Census for Northern Ireland quality assurance report](#) and from the [Migration Statistics Quarterly Report](#).

Accuracy – international migration

Estimates of international migration are obtained from the [International Passenger Survey \(IPS\)](#) and are therefore subject to sampling and other types of error. Although national figures have relatively small levels of uncertainty, at local levels the sample counts in the IPS are small and it is necessary to combine data across years and distribute figures using other administrative data sources. Further information on how we estimate international immigration to local level is available at [Improved methodology for estimating immigration to local authorities in England and Wales](#).

At this level, individual migration estimates are subject to greater levels of uncertainty. However, the impact of uncertainty associated with net migration flows is small as a percentage of the local authority mid-year estimate. We are currently undertaking research to investigate the feasibility of providing specific measures of uncertainty for the population estimates at local authority level.

[Measures of uncertainty for the mid-2012 to mid-2016 population estimates](#) were published in 2017.

Further information on estimates of [international migration](#) is available and a detailed description of the quality associated with international migration estimates for national, UK constituent country and the regions of England is provided in the [Quality and Methodology Information for Long-Term International Migration](#).

Quality assurance of our most recent set of mid-year population estimates (MYEs) at a local level has indicated that our estimates of the number of children across England and Wales may be overestimated, with the overestimation building gradually across the intercensal period. As previously mentioned, our estimates use the most accurate information available to us about the changing population, however, the reliability of the data used to estimate different components of population change varies.

Investigation has shown the most likely cause of this overestimation to be the method by which we derive the age distributions of international immigrants and emigrants. We think the information we have on the number of immigrant children is broadly correct, however, the data source used to provide the age distribution of emigrants is less robust and we think this has led to an underestimation of the number of children emigrating (and consequently slightly overestimating the number of emigrant adults at working ages). This reflects the fact that the processes for assigning age and sex to international migrants is separate from the processes for determining their overall numbers, or distributing them amongst local authority areas.

The context to this issue, and the difference compared with a method using an alternative age distribution, is set out in Appendix 1.

Accuracy – internal migration

At the level of geographic detail at which population estimates are required, the use of administrative registers is essential to account for internal migration. Although NHS patient registers provide the best fit to usually resident populations, they have recognised limitations in relation to their timeliness and coverage, and methods have been improved by combining patient register data with [Higher Education Statistics Agency](#) data.

Delays in re-registering with a GP when moving between local authorities are prevalent amongst young men, for example. These delays can cause inaccuracies when estimating internal migration for these young men. An example of this is Oadby and Wigston, where the detailed age distribution for males is likely to underestimate the number of 23- to 27-year-olds and overestimate the number of 21- to 22-year-olds. Further information is available on estimates of [internal migration](#) and a detailed description of the quality associated with the estimates of internal migration is provided in the [Quality and Methodology Information for Internal Migration Estimates](#).

Accuracy – improvements planned

We have undertaken a substantial and long-term programme of work to improve our population and migration statistics. The scope for improving migration and population statistics was addressed in the conclusions and recommendations of the National Statistician's Task Force on Migration Statistics. The Task Force report was published in December 2006 and made recommendations for improvements between 2008 and 2012. These recommendations were taken forward as part of the [Migration Statistics Improvement Programme \(MSIP\)](#) of work in conjunction with other government departments.

Further work undertaken as part of Phase Two of the MSIP included using administrative data sources in the development of plausibility ranges around population estimates, quality indicators and measures of uncertainty in the population estimates and delivering potential statistical benefits of e-borders on the estimation of international migration. The MSIP delivered Phase Two in March 2012, completing the programme a year ahead of schedule.

Following the publication of results from the 2011 Census, work has been undertaken to understand the reasons for the difference between the population estimates rolled forward from 2001 and those based on the 2011 data. The results of this reconciliation exercise have been used to inform [revisions to the population estimates for mid-2002 to mid-2010](#) to ensure the availability of a consistent time series of population estimates.

In planning revisions due to improvements, Office for National Statistics (ONS) considers carefully the balance between “bunching” revisions versus many successive revisions, in consultation with users. Users often prefer grouping changes together to avoid multiple revisions. The following improvements have been applied to the mid-2012 to mid-2016 backseries for England and Wales, ready for use in the mid-2017 estimates:

- use of an updated model to distribute IPS estimates of emigration to local areas
- use of the latest administrative data to distribute immigrant workers, and improved matching techniques
- extension of the foreign armed forces method to include dependents as well as personnel

Further details are set out in the following “Revisions” section, in [Population estimates for local authorities in England and Wales, new methods: February 2018](#), and in the [report accompanying the backseries](#).

Extensive research has been conducted into internal migration methods and sources, and changes have been implemented in the mid-2017 estimates, these are explained in [Population estimates for local authorities in England and Wales, new methods: February 2018](#).

We welcome comments on our research priorities and the proposed publication plan.

The strategy for population statistics is available in [Improving our population and migration statistics](#).

Revisions

Estimates affected by the revisions described in this section remain on our website but are superseded by the latest release.

Details of minor corrections are made available alongside affected tables.

Note about decision not to revise the population estimates following the revision to Long-Term International Migration for the year to mid-2017

In February 2019 long-term migration estimates for the year to mid-2017 were [revised upwards by 33,000](#). This revision is to address an isolated sampling issue with the data of non-EU students for the year ending September 2016. A corresponding revision to the mid-year estimates is not being made at this time. The main reasons for this are:

- the change to LTIM of 33,000 would represent a revision of just 0.05% to the UK population estimate for mid-2017; this does not represent a material change to the UK population estimate, which has 95% confidence interval of around 0.2%
- the mid-year estimates underwent a major set of revisions in 2018 and the disruption to users from another set of revisions in 2019 for the benefit of a relatively small change is not proportionate
- the revisions to LTIM are not accompanied by revisions to the detailed migration data that feeds into the mid-year estimates; accounting for the revision would require the development of additional methods to account for the unavailable data

Note about revised population estimates for England and Wales for mid-2012 to mid-2016

As described in the previous sections, we consider carefully the balance between “bunching” revisions compared with many successive revisions, in consultation with users. Users often prefer grouping changes together to avoid multiple revisions. A suitable bundle of improved methods and more up-to-date data became available in 2017 and have been used to create a backseries of revised estimates for local authorities, counties and regions in England and Wales, covering mid-2012 to mid-2016.

These new methods will continue to be used in the mid-2017 estimates, due to be released in June 2018. The mid-2017 estimates will also incorporate changes to internal migration estimates. All these changes are set out in the [Population estimates for local authorities in England and Wales, new methods: February 2018](#). The main changes are:

- the local authority distribution of IPS emigration estimates will be modelled in a similar way, but with two technical improvements to the method and the incorporation of additional data-sources
- for mid-year 2015 and 2016 population estimates, the distribution of international in-migrants at local authority level could not be calculated as usual; further details are given in the “Quality trade-offs” section, which sets out how up-to-date Migrant Worker Scan data (MWS) have been incorporated into the backseries
- dependants of foreign armed forces personnel will be included for the first time, leading to improvements in age and sex distributions, particularly children and women in Forest Heath and other local authorities containing or neighbouring USAF bases

The following additional changes have also been made:

- changing the method used to estimate the age and sex distribution of asylum seekers at the local authority level for 2012 and 2013 to be consistent with that used for later years
- derive a more reliable distribution across Coventry and Warwick of students living in Warwick University Halls of residence in 2014 and 2015

To make these changes as clear and transparent as possible, ONS has released, on 22 March, the [following products](#):

- a detailed report setting out the impact of the changes and giving examples of their impact at different geographical levels
- new publication tables covering mid-2012 to mid-2016, including detailed time series tables giving the most detailed breakdown of England and Wales’ population by local authority, single year of age, sex and component of population change
- a new population estimates revisions tool showing the impact of the changes for each local authority and component of population change
- an updated methodology guide describing the methods used to create the revised estimates

Note about revised mid-2012 to mid-2014 estimates following an error in the age distribution of the mid-year estimates for Scotland

The data presented in the [Population estimates for UK, England and Wales, Scotland and Northern Ireland, revised: mid-2012, mid-2013 and mid-2014](#) release published on 28 April 2016 include corrected 2012, 2013 and 2014 estimates that address the previously announced error in the age distribution of the mid-year population estimates for Scotland for the years 2002 to 2014. These errors only affected areas within Scotland; population estimates for England, Wales and Northern Ireland were unaffected. Whilst the estimated age distribution of the UK population was affected for the period, the total estimates of the UK population remained valid.

For subnational areas of Scotland, the errors had only a very small effect on the total population estimates for council and NHS board areas. The errors in the (total) council area populations were less than 0.10% in all council areas. In percentage terms, the largest underestimate was 0.07% in Angus and the largest overestimate was 0.09% in Dundee City, both in 2014. In absolute terms, all errors were generally very small; the largest was an overestimate of 130 people for Dundee City.

The errors affected the age distribution of the estimated population in Scotland and also the age distribution of estimates provided for Great Britain and UK populations. The errors affected the age distribution of the population, particularly in the age range 17 to 25 years. In percentage terms, the largest underestimate in the total estimated population of Scotland for mid-2014 was 1.28% at age 21 years and the largest overestimate was 2.28% at age 18 years. At UK level in percentage terms, these resulted in a largest underestimate in the total estimated population for mid-2014 of 0.11% at age 21 years and a largest overestimate of 0.18% at age 18 years.

The [Population](#) section of the National Records of Scotland (NRS) website has further information on the causes of the errors, their impact and how NRS reached the decision for the approach taken. This includes tables showing the cumulative net impact of the errors for the 2012, 2013 and 2014 mid-year estimates at Scotland, council and NHS board area level by sex and age.

Note about revised mid-2013 estimates following an error in the distribution of the foreign armed forces

The data presented in the [Population estimates for UK, England and Wales, Scotland and Northern Ireland, mid-2013 and mid-2014](#) release, published on 25 June 2015, include corrected 2013 estimates that address the previously announced error in the distribution of the foreign armed forces (FAF) special population presented in the earlier release of 26 June 2014. The original error had the largest impact on the estimate for Forest Heath, with smaller impacts in other affected local authorities in England. Note that the national population estimates of the UK and its constituent countries have not been revised and remain valid.

Table 1 presents those local authorities and higher geographies that have revised estimates for mid-2013 that are in the absolute range of 50 or above.

Table 1: Local authorities and higher geographies in England that have revised population estimates for mid-2013 in the absolute range of 50 or above

Code	Name	Error (Published 26 June 2014 - correct)	Corrected 2013 estimate (published 25 June 2015)	Error as percentage of correct estimate
E07000201	Forest Heath	2,000	61,200	3.3
E07000155	South Northamptonshire	200	87,200	0.2
E10000029	Suffolk	1,400	734,500	0.2
E07000139	North Kesteven	100	109,800	0.1
E07000011	Huntingdonshire	100	172,000	0.1
E10000021	Northamptonshire	200	706,400	0.0
E10000019	Lincolnshire	100	724,400	0.0
E12000004	EAST MIDLANDS	300	4,598,400	0.0
E12000008	SOUTH EAST	-100	8,792,800	0.0
E12000006	EAST	-100	5,954,300	0.0
E10000025	Oxfordshire	-100	666,200	0.0
E07000177	Cherwell	-100	143,800	-0.1
E10000020	Norfolk	-900	871,000	-0.1
E10000003	Cambridgeshire	-700	632,800	-0.1
E07000008	Cambridge	-200	126,700	-0.2
E07000143	Breckland	-400	132,900	-0.3
E07000146	King's Lynn and West Norfolk	-500	149,300	-0.3
E07000204	St Edmundsbury	-500	111,800	-0.4
E07000009	East Cambridgeshire	-500	85,900	-0.6

Source: Office for National Statistics

Of the other affected local authorities and higher geographies that have revised estimates for mid-2013, there were seven local authorities and one county with absolute revisions in the range 10 to 49, with 28 local authorities and four counties having absolute revisions in the range 1 to 9. The remaining 304 local authorities in England and Wales (and all local authorities elsewhere in the UK) were unaffected by this revision. The full list of affected geographies is available on request.

The revised estimates relate to a special population and as such have been restricted to ages in the range 18 to 59 years with the great majority of revision being for males rather than females.

When we identified the error, we sought users' views on the preferred approach to correcting the estimates. We did this through direct contact with the most affected users, Local Insight Reference Panel events, posts on StatsUserNet and by publicising the error in our published outputs.

Considering the responses we received, we have:

- kept the affected 2013 estimates on the website but marked them as superseded
- published the corrected 2013 estimates alongside the 2014 estimates released on 25 June 2015
- used the corrected 2013 estimates in the mid-2012 to mid-2016 revised backseries, which also incorporates the dependents of foreign armed forces personnel

Note about revised mid-2002 to mid-2010 estimates following an error in the census rebasing mid-year estimates for Scotland

Revised data were published on 25 September 2018 as [Population estimates for UK, England and Wales, Scotland and Northern Ireland, revised: mid-2002 to mid-2010](#) to address errors in the age distribution, mainly in those aged 80 years and over, of the population for Scotland for these years. It is this age group that has the biggest impact of change in population numbers. These errors only affected areas within Scotland; population estimates for England, Wales and Northern Ireland were unaffected. Whilst the estimated age distribution of the UK population was affected for the period, the total estimates of the UK population remained valid.

In 2013, the mid-year estimates from 2002 to 2010 were rebased using the 2011 Census. First, the census-based mid-year estimates for 2011 were rolled back, using these 2011 estimates to calculate the estimated population in 2010, then using these 2010 estimates to calculate 2009 figures, and so on until 2002. To ensure continuity of the time series, this initial 2002 mid-year estimate was then rolled back to give an estimate for the 2001 population. The difference was then calculated between this rolled-back 2001 estimate and the published population estimate based on the 2001 census. The rolled-back figures for 2002 to 2010 were then adjusted to compensate for this “unattributable” difference.

The intended methodology was, for each council and single year of age, to multiply the 2001 adjustment by 90% for the rolled-back 2002 estimate, multiply by 80% for 2003, and so on until 10% of the adjustment was used for 2010. This adjustment also accounted for the population ageing so that, for example, the 20-year-old population in 2010 was adjusted based on the difference in the 11-year-old population in 2001.

This was done correctly for ages up to 80 years, but the adjustments for older people were aged on incorrectly. An error meant that the same age structure was used for those aged over 80 years in 2001 and those over 90 years in 2011. This is the same cohort (those born before or on 1921) but the age structure did not stay the same over the 10 years, due to people being much more likely to die as they get older.

The impact on the overall population figures will be very small, with a difference of at most 30 people (in 2006). Some population estimates for ages and age groups below 80 years may have small negligible differences, caused entirely by rounding adjustments. Further details are available from the [National Records Scotland website](#).

Coherence and comparability

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

Office for National Statistics (ONS) compiles and publishes population estimates for the UK using estimates for England and Wales (also produced by ONS), estimates for Scotland produced by [National Records of Scotland](#) and estimates for Northern Ireland produced by the [Northern Ireland Statistics and Research Agency](#). Population estimates for each of the UK constituent countries are compiled using a common methodological approach and aim to be as consistent as possible. More information on comparisons between UK constituent countries can be found in [Consistency of methods used for population statistics across UK countries](#).

Where very substantial changes in methods are implemented, we seek to publish a consistent back series of estimates to the year of the previous census. So, the rebasing of estimates to the results of the 2011 Census was accompanied by the publication of [a full set of comparable estimates back to 2002](#); and the methods changes implemented after the mid-2016 estimates led to the publication of a revised set of estimates from mid-2012 to mid-2016.

The mid-year population estimates provide data on components of population change that have overlap with other ONS topic outputs. The coherence of these data can be affected by both reporting periods and context.

The comparability of migration statistics used to calculate the population estimates are described in the [Quality and Methodology Information for Long-Term International Migration \(LTIM\)](#) and the [Quality and Methodology Information for Internal Migration Estimates](#). The LTIM estimates cited for a year may be different to the international migration component of change in the population estimates for two reasons.

Firstly, the LTIM estimates are available on a quarterly rolling-year basis and the estimates for, say, 2014, would conventionally be taken as relating to the calendar year, whilst the population estimates component of change necessarily relates to the period between mid-years. Secondly, even when comparing estimates for the same period, the estimates used to calculate the population estimates are based partly on provisional LTIM data rather than final (also see the Other information section) and will therefore not tally exactly with the final year-to-end-June figures published in the Long-Term International Migration series.

Estimates of births and deaths used to calculate the population estimates are based on births and deaths that occur during the year to the mid-year reference point, irrespective of when registered. This definition is different to that used in other ONS outputs on births and deaths that use alternative reporting periods (for example, calendar year) and measure birth and death registrations rather than occurrences and figures quoted from the components of change in the population estimates will therefore be slightly different from the standard ONS outputs related to these events.

The mid-year population estimates are used both within and outside government as the definitive set of population figures for the UK, constituent countries and subnational geographies to local authority level. They are used for calculating other official population statistics such as population projections, small area population estimates, population estimates by marital status and estimates of the very old population. These outputs are consistent with the current series of mid-year population estimates, though there is inevitably a lag between population estimates for a particular year being published and this being reflected in the derived products.

Developments are taking place in population statistics across ONS. One of the main developments is the production of research outputs, which estimate local authority and small-area population based on record level data linking. These are known as [Statistical Population Datasets \(SPDs\)](#). Releases each autumn [compare the latest research outputs to the official mid-year population estimates](#).

In addition to the official mid-year population estimates, alternative population estimates are supplied to [Eurostat](#) that are produced using different methods and reference dates. These estimates are produced for the UK and subnational nomenclature of territorial units for statistics (NUTS) geographies. They are used by Eurostat for calculating European demographic indicators. These estimates are not consistent with the current series of mid-year population estimates given the alternative methods used in their production and dissimilar reference dates.

Users often compare population estimates for individual local authorities to other data sources, for example, administrative records or anecdotal evidence. Comparisons between datasets should be treated with caution, as there are always definitional differences in the data collected (for example, whether the data differentiate between long-term or short-term migration, or whether they account for individuals who have left the country or authority). Also, other data sources may cover only a subset of the population.

8 . Concepts and definitions

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

Although the population estimates are not explicitly required by law, they would seem to be consistent with our duty under Section 5 of the [Census Act 1920](#) to collect and publish “any available statistical information” with respect to the number and condition of the population between censuses.

A [conceptual framework for population and migration statistics](#) (including the population estimates) is available.

The mid-year population estimates are consistent with the standard UN definition for population estimates, which is based upon the concept of usual residence and includes people who reside, or intend to reside, in the country for at least 12 months, whatever their nationality. Visitors and short-term migrants (who enter or leave the UK for less than 12 months) are not included.

Members of Her Majesty's armed forces stationed in England and Wales are included at their place of residence but those stationed outside England and Wales are excluded. Members of the US armed forces and their dependents stationed in England and Wales are included. Students are taken to be resident at their term-time address. Prior to 2011, prisoners had been regarded as usually resident at an institution if they have served six months or more of a custodial sentence. However, from 2011 onwards, this definition has changed to those who have been sentenced to serve six months or more, which is consistent with the definition used in the 2011 Census. The figures for the UK do not include the population of the Channel Islands or the Isle of Man, which are Crown Dependencies rather than part of the UK.

For some people, the concept of usual residence is more complicated. People with no usual residence are counted in the census as being usually resident in the area in which they were staying on census day.

“Visitor switchers” (people who enter a country intending to visit but end up staying and becoming a usual resident) and “migrant switchers” (people who enter a country intending to become a usual resident but leave before that happens) are adjusted for at the time of their move into or out of the country rather than the precise point that they change their intentions or reach the 12-month threshold. This adjustment is made by applying multiplying factors to the estimates of visitors and migrants as described in the [Long-Term Migration Estimates methodology](#).

Although usual residence is the recognised definition for population estimates, use of a single definitional base does not meet the needs of all users. The usually resident population does not always coincide with the number of persons to be found in an area at a particular time of day or year. The daytime populations of cities and the summertime populations of holiday resorts, for example, will normally be larger than their usually resident populations.

We have developed and published national estimates of short-term migrants to supplement the mid-year population estimates. These estimates refer to the flows of short-term migrants to and from England and Wales for each year since mid-2004. As part of the [Migration Statistics Improvement Programme](#), methods for producing short-term migration estimates at local authority level have been developed. Further information about these estimates can be found in the [Short-Term Migration Estimates methodology](#) and the accompanying [QMI report](#).

Population estimates are produced with a standard reference date of 30 June – that is, mid-year. This is consistent with previous releases and with other statistics, such as the population projections, and also provides a simple estimate of the “population at risk” for data collected on a calendar year basis.

9 . Other information

Output quality trade-offs

(Trade-offs are the extent to which different dimensions of quality are balanced against each other.)

To maintain the timeliness of the publication of the population estimates at national and local authority level, the data sources used are the best available at the time of production. However, these may not be final or published sources. Some provisional International Passenger Survey (IPS) data are used in the international migration component and information on the differences between these and final data are reported in the [Long-Term International Migration Quality and Methodology Information \(QMI\)](#).

Impact of using a three-year average local authority distribution for international migration on the 2015, and 2016 mid-year estimates

Our national estimates of international migration are based on the International Passenger Survey (IPS). The IPS estimates are not reliable enough to be used to estimate migrants at the local authority level, as the sample of people in each local authority is too small. Therefore, local authority estimates of international migration are derived using a variety of data sources including the Migrant Workers Scan (MWS). More information on this methodology is available in the [methodology guide](#).

For mid-year 2015 and 2016 population estimates, the distribution of international in-migrants at local authority level could not be calculated as usual. This was because one of the administrative sources used in the calculations, the MWS, was unavailable. Consequently, the estimates (of subnational international immigration) were based on three-year averages of the local authority distribution of international in-migrants used in previous releases. This was in line with our commitment to use the best available data sources at the time of production.

The MWS data became available after the population estimates were published and have therefore been used to update the mid-2015 and mid-2016 distributions, in line with the usual method, for the backseries of mid-2012 to mid-2016 estimates. The impact of both years' changes can be seen in the [report accompanying the backseries](#). The specific impact of the mid-2015 estimates being produced in this way was reported previously; and can be explored in detail using the Population Estimates Revision Tool that accompanies the backseries.

The unavailability of the 2015 MWS dataset also impacted the estimation of international emigration at local authority level. A statistical model is used to estimate emigration at local authority level, using relationships established between the estimate of emigration from the IPS and estimates from other data sources (covariates). One of these covariates is data from the MWS. As these data were not available for mid-year 2015 or mid-year 2016, an average of the previous three years' data was used instead.

For mid-year 2017 population estimates, the distribution of international in-migrants at local authority level had to be calculated using the three-year average method used initially for the mid-2015 and mid-2016 immigration distributions. This was because one of the administrative sources, Customer Information Service, (CIS) used in the calculations was unavailable. Consequently, the mid-2017 estimates (of subnational international immigration) are based on the average of the local authority distribution of international in-migrants used in the revised mid-2014 to revised mid-2016 population estimates. This was in line with our commitment to use the best available data sources at the time of production.

The size of the impact on the mid-2017 population estimates is not yet clear. Once data are available to make meaningful comparisons with the published estimates, and the size of the impact is understood, any necessary revisions will be considered in line with the Population Statistics revisions policy.

Table 2 shows how use of different distributions of international migrants and different methods for producing the distributions have been combined in recent releases. The report accompanying the mid-2012 to mid-2016 backseries provides analysis and commentary on the combined impact of these emigration and immigration changes.

Table 2: Data and methods used to estimate emigration and immigration in recent mid-year population estimate

Release	Data or methods	Immigration	Emigration
Mid-2015	Data	Distribution a three-year average (mid-2012 to mid-2014)	Three year average Migrant Worker Scan (MWS); other data up-to-date
	Methods	Original post 2011 Census method	Original post 2011 Census method
	Data	Distribution a three-year average (mid-2013 to mid-2015)	Three year average Migrant Worker Scan (MWS); other data up-to-date
Mid-2016		No revision to mid-2015 estimates	No revisions to mid-2015 estimates
	Methods	Original post 2011 Census method	Original post 2011 Census method
Mid-2012 to Mid 2016 back-series	Data	Mid-2015 and mid-2016 now using up-to-date distributions	Mid-2015 and mid-2016 now using up-to-date MWS
	Methods	Original post 2011 Census method	Updated method
Mid-2017	Data	Distribution a three-year average (mid-2014 to mid-2016)	Mid-2017 MWS
	Methods	Original post 2011 Census method	Updated method

Assessment of user needs and perceptions

(The processes for finding out about uses and users, and their views on the statistical products.)

Information on users' needs for, and perceptions of, the population estimates is collected in several ways:

- user groups, for example, the [Central and Local Information Partnership](#) and the [Population and Migration Statistics Inter-Departmental Strategy Group](#), which allows the important users to comment on existing plans and to put forward changes in their requirements
- user events, such as the [Local Insight Reference Panels](#), which are open to a range of users and held in different parts of the country to encourage discussion on plans and existing products
- contact with individual users – drawing on the evidence provided by the thousands of users who contact the Population Estimates Unit each year with requests for, or queries on, the estimates

From 2014 onwards, evidence collected through these methods is brought together in November of each year to inform an update of the Population Estimates User Requirements report, with a view to implementing any required changes in the following year's release, where possible.

Following the publication of the revised backseries of population estimates in March 2018 a series of roadshow events were held across England and Wales in April and May. Around 200 stakeholders from a variety of backgrounds attended the events and took the opportunity to find out more about the changes to methods we have implemented and to hear about the changes to internal migration we had planned for the mid-2017 estimates.

10 . Sources for further information or advice

Accessibility and clarity

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

Our recommended format for accessible content is a combination of HTML web pages for narrative, charts and graphs, with data being provided in usable formats such as CSV and Excel. Our website also offers users the option to download the narrative in PDF format. In some instances, other software may be used, or may be available on request. Available formats for content published on our website but not produced by ONS, or referenced on our website but stored elsewhere, may vary. For further information, please refer to the contact details at the beginning of this report.

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

- [terms and conditions](#) (for data on the website)
- [copyright and reuse of published data](#)
- [accessibility](#)

The population estimates release consists of a combination of HTML web pages for narrative, charts and graphs (brought together in a statistical bulletin), with data being provided in usable formats such as CSV and Excel. The [bulletin](#) can also be downloaded in PDF format.

As statistical disclosure control methods are applied to each component of the estimates, the standard outputs now include the most detailed (single year of age and sex) estimates at the local authority level and there is no requirement for data access agreements to use the estimates at any level of detail. Alternative presentations of the data – in response to an [ad hoc query](#) or a [Freedom of Information request](#) – are made available simultaneously with provision to the requester under the principle of equal access.

In addition to a summary table, providing the main results on one page, detailed unformatted tables can be downloaded free of charge in Microsoft Excel format. These provide unrounded data that are published to promote further analysis for users. A note provided with these detailed tables states that the estimates should not be taken to be accurate to the level of detail provided. An [analysis tool](#) (in Excel) is also published to help users easily manipulate the data.

Any additional enquiries regarding the mid-year population estimates can be made via email at pop.info@ons.gsi.gov.uk or by telephone on +44(0)1329 444661.

Advance notice of any forthcoming major changes in methodology will be announced.

11 . Other useful links

Other information related to the topic of population statistics is available:

- [Consistency of methods used for population statistics across UK countries](#)
- [Estimates of the very old \(including centenarians\), UK: 2002 to 2015](#)
- [Further research on population statistics](#)
- [Internal migration estimates QMI](#)
- [Local area migration indicators](#)
- [Measures of statistical uncertainty](#)
- [Mid-year population estimates methods guide](#)
- [National population projections](#)
- [National Records of Scotland](#)
- [Northern Ireland Statistics and Research Agency](#)
- [Overview of the UK population](#) articles
- [NOMIS](#)
- [ONS Geoportal](#)
- [Population estimates by marital status](#)
- [Quality and Methodology Information](#)
- [2011 Census](#)

12 . Appendix 1: Analysis of estimates of children and age distributions of international migrants

Population estimates are calculated using a cohort component method. This takes the last census estimate and adjusts it each year for births, deaths, international immigration, international emigration and internal migration. The data for some of these components (births and deaths) is more reliable than for others (international and internal migration).

International immigration estimates for local authorities by age and sex are calculated by:

- taking the national estimates of immigration, based primarily on the International Passenger Survey (IPS)
- distributing this to local authorities using administrative data by reason for migration (work, study, other and UK returning migrants)
- applying age and sex distributions derived from the 2011 Census International emigration estimates for local authorities by age and sex are calculated by:
 - taking the regional estimates of emigration, based primarily on the IPS
 - distributing this to local authorities using a regression model that uses census, survey and administrative data
 - distributing migrants by sex based on the current year's IPS data
 - applying an age distribution based on the latest three years of IPS data

The differences between the methods for immigration and emigration reflect the greater availability of data for estimating immigration compared with emigration. One of the changes made to the mid-year population estimates (MYE) methods in 2012 was to move from using IPS data to derive an age and sex distribution of immigrants to using the age and sex distribution of immigrants from the 2011 Census. This change was made as there was a deficit of children in the [rolled forward MYEs compared with estimates of the census](#) that we could attribute to international migration. For England and Wales as a whole the rolled forward mid-year estimates for mid-2011 had around 1.4% fewer 5- to 10-year-olds and 4.4% fewer 11- to 15-year-olds than the 2011 Census.

While the age distribution of emigrants was improved following the 2011 Census, it is still based entirely on data from the IPS. This reflects that the IPS is the only data source that provides an age breakdown of emigrants. However, emerging evidence of the number of children in administrative data compared with the number of children expected based on the mid-year population estimates suggests that there is a shortcoming with the IPS age distribution.

There is no known issue with the IPS that would specifically result in an under-count of children. If this is indeed what has occurred, the lack of availability of alternative sources of emigrant ages makes it difficult to fully assess the impact at local level. However, we have conducted some initial analysis into the potential scale of the problem using one alternative age distribution. This analysis should be regarded as indicative rather than definitive.

Alternative age distribution

The approach taken to understand the impact of this issue involves using our understanding of differences between census-based and IPS-based age distributions of immigration and applying this to our IPS-based age distributions of emigration. This method makes a number of assumptions, and hence is only indicative. Applying this alternative age distribution, it's likely that by mid-2016 this issue resulted in our population estimates for the whole of England and Wales including around 0.3% too many children aged 0 to 4 years and around 1.1% too many children aged 5 to 10 years.

At a local level these impacts are likely to vary depending on the levels of international migration experienced in different parts of the country. Areas of the country with high levels of international migration will be impacted more. For example, across London this issue is likely to have inflated that number of 0- to 4-year-olds by around 0.8% and the number of 5- to 10-year-olds by around 2.5%. The majority of local authorities (lower tier) outside of London will be impacted, on average, by around 0.2% for 0- to 4-year-olds and 0.8% for 5- to 10-year-olds.

It's important to note that other components of the population estimates method will also contribute to differences between our estimates of the number of children and the "true" number in the population.

Tables 3 and 4 show the impact this alternative age distribution would have on London boroughs. The impacts have been calculated on a cohort basis (so the 0- to 4-year-old age group uses the impact for mid-2016 for 0- to 4-year-olds, the impact in mid-2015 for 0- to 3-year-olds and so on).

Table 3: Local authority indicative impacts – London Boroughs, mid-2016

	Population 0-4 in mid-2016	Indicative Impact 0-4 year olds	Indicative Impact 0-4 year olds (%)	Population 5-10 in mid-2016	Indicative Impact 5-10 year olds	Indicative Impact 5-10 year olds (%)
Westminster	13,676	385	3%	15,579	1,245	8%
Camden	14,358	288	2%	16,923	1,027	6%
Lambeth	20,380	252	1%	21,506	956	4%
Ealing	26,303	230	1%	28,344	891	3%
Tower Hamlets	22,293	304	1%	22,570	857	4%
Brent	25,169	237	1%	25,376	855	3%
Wandsworth	22,713	242	1%	21,599	855	4%
Southwark	21,591	238	1%	21,931	794	4%
Hammersmith and Fulham	11,521	220	2%	12,531	684	5%
Kensington and Chelsea	8,711	174	2%	10,067	666	7%
Barnet	27,137	189	1%	31,988	585	2%
Haringey	19,247	192	1%	20,137	556	3%
Lewisham	22,746	109	0%	23,699	512	2%
Newham	29,546	183	1%	27,998	510	2%
Waltham Forest	22,452	133	1%	22,338	504	2%
Hackney	20,880	140	1%	21,257	489	2%
Hounslow	21,328	153	1%	22,028	459	2%
Merton	15,978	132	1%	16,091	442	3%
Islington	13,318	120	1%	13,875	397	3%
Greenwich	22,493	101	0%	23,462	382	2%
Hillingdon	23,005	129	1%	24,737	379	2%
Harrow	17,935	76	0%	19,126	366	2%
Croydon	28,652	53	0%	32,796	331	1%
Richmond upon Thames	13,487	39	0%	16,509	292	2%
Redbridge	23,130	78	0%	25,835	272	1%
Kingston upon Thames	11,698	95	1%	13,687	267	2%
Enfield	25,108	75	0%	29,540	250	1%
Barking and Dagenham	20,015	39	0%	22,644	133	1%
Sutton	14,205	16	0%	16,296	131	1%
Bromley	21,710	27	0%	25,472	121	0%
City of London	363	20	5%	404	120	30%
Havering	17,035	29	0%	18,633	104	1%
Bexley	16,219	36	0%	19,562	85	0%

Source: Office for National Statistics

1. This table gives an indication of the potential impact of issues with the age distribution of international emigrants. [Back to table](#)

Table 4: Local authority indicative impacts - England and Wales (excluding London), mid-2016

	Population 0-4 in mid-2016	Indicative Impact 0-4 year olds	Indicative Impact 0-4 year olds (%)	Population 5-10 in mid-2016	Indicative Impact 5-10 year olds	Indicative Impact 5-10 year olds (%)
Manchester	39,288	211	1%	41,682	1,034	2%
Birmingham	85,939	207	0%	97,608	1,006	1%
Leeds	51,612	158	0%	57,076	718	1%
Bristol, City of	30,687	142	0%	32,534	572	2%
Oxford	9,033	126	1%	10,543	484	5%
Cambridge	6,956	116	2%	8,036	466	6%
Cardiff	22,533	122	1%	26,139	454	2%
Bradford	40,903	104	0%	48,758	443	1%
Liverpool	29,276	128	0%	30,917	442	1%
Sheffield	33,436	84	0%	40,625	425	1%
Nottingham	21,328	74	0%	23,172	411	2%
Bournemouth	11,357	140	1%	12,165	390	3%
Leicester	26,078	69	0%	28,669	367	1%
Reading	12,250	92	1%	12,970	363	3%
Coventry	23,706	92	0%	27,067	360	1%
Newcastle upon Tyne	17,078	71	0%	19,894	356	2%
Brighton and Hove	14,739	73	0%	17,462	344	2%
Salford	17,637	77	0%	19,107	324	2%
Southampton	16,367	64	0%	17,382	310	2%
Luton	18,100	82	0%	19,690	302	2%
Kirklees	28,143	84	0%	34,336	287	1%
Northampton	16,483	66	0%	18,645	273	1%
Wiltshire	28,164	61	0%	36,840	266	1%
Cheshire East	20,454	34	0%	25,933	257	1%
Milton Keynes	20,126	57	0%	24,650	257	1%
Cornwall	29,309	27	0%	36,088	253	1%
Cheshire West and Chester	18,851	60	0%	22,621	224	1%
Wolverhampton	18,195	54	0%	20,518	222	1%
Medway	18,723	61	0%	21,662	216	1%
Derby	17,494	62	0%	20,981	212	1%

Source: Office for National Statistics

Notes

1. This table gives an indication of the potential impact of issues with the age distribution of international emigrants. [Back to table](#)

We will continue to discuss the extent of this issue with our stakeholders. However, until an alternative data source can provide a robust age distribution for emigrants that improves estimates across England and Wales, it will not be possible to change the official estimates based on this indicative method.