Office for National Statistics

Statistical bulletin

Subnational population projections for England: 2018-based

Indicate potential future population size of English local and health authorities. Widely used in planning – for example labour market, housing, health and education.

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1 . Main points

- The populations of all regions within England are projected to grow by mid-2028.
- All regions are projected to have a greater proportion of people aged 65 years and over by mid-2028.
- The East Midlands is projected to be the fastest-growing region, increasing 7% by mid-2028.
- The three northern regions are projected to grow at a slower rate than all other regions in England over the next 10 years.

Subnational population projections do not attempt to predict the impact of political circumstances such as the UK's withdrawal from the European Union.

Statistician's comment

"Over the next decade, the population of most areas is set to continue growing, particularly in the south and Midlands. Our projections also show the share of people aged 65 years and over will increase almost everywhere. This information is particularly important for anyone planning local services – for example, opportunities and services for older people."

Andrew Nash, Population and Household Projections, Office for National Statistics

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2 . Change by age

Over time, England's population is projected to age, meaning that a higher proportion will be in older age groups. More detail on this is included in the national population projections bulletin.

A common measure of ageing is the proportion of people aged 65 years and over. In England as a whole, this is projected to increase from 18.2% to 20.7% of the total population between mid-2018 and mid-2028. This is the continuation of a trend seen in the population estimates. The proportion is also projected to increase for all regions and local authorities, with the exception of Coventry where there is a slight reduction.

An alternative measure of ageing is the old age dependency ratio (OADR), defined as the number of people of State Pension age (SPA) per 1,000 people of working age. Working age covers all people aged from 16 years up to State Pension age. Note that being over SPA does not necessarily mean someone is retired, nor are all working age people in employment.

By 2028, the State Pension age will rise to age 67. As a result, the OADR in England is projected to fall from 293 in mid-2018 to 287 in mid-2028. However, at local authority level around a third of areas see a rise in OADR over this period.

After mid-2028, almost all areas are projected to have an increasing OADR up to the end of the projection in mid-2043. This reflects the continued ageing of the population during a period in which no more rises in State Pension age are scheduled.

Figure 1: A heat map of proportion of people aged 65 years and over and old age dependency ratio by local authority over the 25-year projection

Notes:

1. Old Age Dependency Ratio (OADR) is defined as the number of people of State Pension age (SPA) per 1,000 people of working age. Working age covers all people aged from 16 up to State Pension age. Under current legislation, the SPA in mid-2028 and mid- 2043 will be 67 years old for both sexes.

Download this chart

.csv .xls

The interactive population pyramids (Figure 2) allow you to explore the results of the 2018-based population projections for local authorities, counties, regions and England as a whole. By choosing the name of an area you can see how the size and age structure of its population is projected to change. You can create age groups by highlighting your desired ages and can also compare two areas at once.

Figure 2: Population age structure by single year of age and sex for local authorities, counties, regions and England as a whole, mid-2018 to mid-2043

Source: Office for National Statistics – Subnational population projections

3 . Change by region

The East Midlands is projected to be the fastest-growing region in England, growing by 7.0% between mid-2018 and mid-2028

The population of England is projected to increase by 5.0% over the next 10 years, from 56.0 million in mid-2018 to 58.8 million in mid-2028. By mid-2043, the population of England is projected to be 61.7 million. More information on this is available in the 2018-based national population projections. The population of every region in England is also projected to increase by mid-2028.

The East Midlands is projected to be the fastest-growing region in percentage terms; its population is projected to increase by 7.0% by mid-2028, an increase of 334,000 people. Regions in the north are projected to grow at a slower rate than regions in the Midlands and south. The North East is the region with the slowest projected population growth, 2.3% (61,000) by mid-2028.

London is projected to be the largest-growing region in absolute terms; its population is projected to increase by 434,000 people by mid-2028. However, although it was the region with the fastest-growing population in the 2016-based projections, it has dropped to fifth place in the 2018-based.

This can be explained by two factors. The 2016-based projections used internal migration trend data that included some years with lower levels of net internal out-migration from London, years that are no longer used in the 2018-based projections. There have also been higher levels of internal out-migration from London to the rest of England resulting from the improved methodology for estimating internal migration. More information about this methodology change can be seen in the 2018-based methodology report.

Table 1: Projected population change for English regions, mid-2018 and mid-2028

Region	Mid-2018 population	Mid-2028 population	Population change over 10 years	Percentage population change
England	55,977,000	58,752,000	2,775,000	5.0
East Midlands	4,804,000	5,138,000	334,000	7.0
South West	5,600,000	5,983,000	383,000	6.8
West Midlands	5,901,000	6,263,000	362,000	6.1
East	6,201,000	6,512,000	311,000	5.0
London	8,908,000	9,342,000	434,000	4.9
South East	9,134,000	9,539,000	405,000	4.4
North West	7,292,000	7,581,000	289,000	4.0
Yorkshire and The Humber	5,480,000	5,674,000	195,000	3.6
North East	2,658,000	2,719,000	61,000	2.3

Source: Office for National Statistics – Subnational population projections

Notes

1. Because of rounding, figures may not sum.

Figure 3: Projected percentage population change for regions in England, mid-2018 to mid-2028

Source: Office for National Statistics – Subnational population projections

What causes population change?

Population change is the result of:

- natural change – the difference between births and deaths
- net migration – the difference between the number of people moving into and out of an area

Migration is further divided into:

- within UK migration – the movement of people within the UK, including between the four countries of the UK and also between areas in England
- international migration – the movement of people into and out of the UK

The balance of factors underlying population change varies by region.

Table 2: Projected population change for English regions by component of change, mid-2018 to mid-2028

Region	Population change	Natural change	All migration net	Net within UK migration	Net international migration	Other
London	434,000	629,200	-199,700	-1,040,700	841,000	400
South East	405,300	61,300	343,400	106,400	237,000	1,000
South West	382,900	-56,500	433,000	357,000	76,000	7,100
West Midlands	362,200	103,700	258,500	46,700	211,800	800
East Midlands	333,900	21,700	312,800	167,400	145,400	400
East	311,200	52,800	257,200	116,000	141,200	400
North West	289,100	56,200	232,400	115,500	117,000	800
Yorkshire and The Humber	194,600	48,000	147,000	25,400	121,600	700
North East	61,300	-31,900	93,200	41,100	52,000	500

Source: Office for National Statistics – Subnational population projections

Notes

1. Because of rounding figures may not sum.

The dynamics of population change vary by region. In some areas – for example, the South East – natural change, net within-UK migration and net international migration are all positive. However, in the North East and the South West, the growth rate is slowed down by negative natural change, meaning more deaths than births. Conversely, although London is the only area with a net outflow of migrants to the rest of the UK, this is more than offset by high net international migration and high positive natural change.

There is also a relationship between different components of population change. For example, London's high levels of natural change reflect a young population where there are many births but few deaths. However, at a slightly older age many people leave London for elsewhere in England, often now with children, contributing to the large net within-UK migration outflow.

Use the interactive population pyramid (Section 2) to see the age structure of regions in England and how they are projected to change over time.

4 . Change by local authority

Nearly all local authorities are projected to grow by mid-2028

Although every region in England is projected to grow by mid-2028, there are considerable differences at the local authority level; slow-growing regions can contain fast-growing local authorities and the other way around. However, of the 10 local authorities with the fastest projected population growth to mid-2028, five are in the fastest-growing region, the East Midlands, but none are in the more northerly regions.

Population projections at local authority level are especially subject to any limitations of the source data, as well as annual local fluctuations in those sources. In addition, actual local population change will be strongly influenced by local economic development and housing policies. On that basis you should be cautious when comparing different areas' exact numbers or growth rates.

With that caveat, however, the populations of all but 22 local authorities are projected to grow by mid-2028. Tewkesbury is projected to have the greatest percentage increase, 16.4%. This is mainly because of a high level of net internal migration.

Table 3: Local authorities in England with the highest projected population growth between mid-2018 and mid-2028

Local Authority	Population in 2018	Population in 2028	Population change over 10 years	Percentage population change
Tewkesbury	92,600	107,800	15,200	16.4
Tower Hamlets	317,700	368,500	50,800	16.0
North West Leicestershire	102,100	118,400	16,300	15.9
Dartford	109,700	126,700	17,000	15.5
Daventry	84,500	97,300	12,800	15.2
South Derbyshire	104,500	120,300	15,800	15.2
South Norfolk	138,000	158,400	20,400	14.8
Corby	70,800	81,000	10,100	14.3
Blaby	100,400	114,600	14,100	14.1
Cotswold	89,000	101,500	12,500	14.0

Source: Office for National Statistics – Subnational population projections

Notes

1. Figures may not sum because of rounding.

Copeland is the area with the largest projected decrease in population, at 3.9% by mid-2028. This is mainly because of more deaths than births. Oxford is next, with a projected decrease of 3.5%. This is because of the net outflow of people moving to other areas in England.

Table 4: Local authorities in England with the highest projected percentage population decline between mid-2018 and mid-2028

Local Authority	Population in 2018	Population in 2028	Population change over 10 years	Percentage population change
Copeland	68,400	65,800	-2,700	-3.9
Oxford	154,300	149,000	-5,300	-3.5
Luton	214,100	206,800	-7,400	-3.4
Barrow-in-Furness	67,100	65,000	-2,200	-3.3
Rushmoor	95,100	92,800	-2,400	-2.5
Ealing	342,000	336,100	-5,900	-1.7
Ipswich	137,500	135,400	-2,200	-1.6
Wycombe	174,600	172,000	-2,700	-1.5
Woking	101,200	99,700	-1,500	-1.5
Tamworth	76,700	75,900	-800	-1.0

Source: Office for National Statistics – Subnational population projections

Notes

1. Isles of Scilly has been omitted from the table because its small size makes reliance on accuracy of the source data especially challenging.

2. Figures may not sum because of rounding.

Figure 4 is an interactive tool that illustrates how the populations of each local authority in England are projected to change. By choosing a local authority, you will see total population change, natural change, net international migration and net within-UK migration over the 10 years to mid-2028.

Figure 4: Population change for local authorities in England between mid-2018 and mid-2028

Source: Office for National Statistics – Subnational population projections

5 . Variant population projections

All statistics in this bulletin are from our main (principal) subnational projection. However, we have also published a range of variant projections. These include:

- a high international migration variant
- a low international migration variant
- an alternative internal migration variant
- a 10-year migration variant

The high and low international migration variants assume either higher or lower levels of net international migration to England as a whole, but the proportional distribution at local authority level remains the same. The result is that all areas see correspondingly higher or lower population totals, with areas that have high levels of international migration in the principal projection (especially parts of London) seeing the greatest difference.

There is often debate around how many years of data should be used to inform the projected population change at local level. In general we use five years of data, but we have used just two years of data for internal migration in the 2018-based projections. This is because we only have two years of data for internal migration available using our current method.

We have produced the alternative internal migration variant, which uses five years of data for internal migration: two using the new method and three using the old method. We have also produced a 10-year migration variant where all migration trends (internal, cross-border and international) are based on 10 years of data.

The pros and cons of using different numbers of years of input data are complex. More information and a comparison of the results of the principal projection, the alternative internal migration variant and the 10-year migration variant are discussed in our article on the Impact of different migration trend lengths. However, you can explore the different results for your area in the interactive Figure 5.

Figure 5: The variant population projections showing a range of future demographic scenarios by local authority, mid-2009 to mid-2043

Source: Office for National Statistics – Subnational population projections

6 . Subnational population projections data

2018-based subnational population projections
Datasets | Released 24 March 2020
This release includes:

- a range of datasets containing all the projections data; this includes summaries and detailed data, as well as projected population by components of change
- supporting documentation to help you understand how the projections are produced

7 . 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.

Population projections

Population projections provide statistics on the potential future size and age structure of the population. They are based on past trends and assumptions of future levels of births, deaths and migration. They do not incorporate local development plans, but instead provide a baseline, which can be combined with local knowledge as required.

Variant projections

Variant projections are based on alternative assumptions of fertility, mortality and migration to those used in the principal projection. Each variant provides an alternative set of plausible projections that users may find helpful. They provide an indication of uncertainty but do not represent upper or lower limits of future demographic behaviour.

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), the other countries of the UK (cross-border migration) and between local areas within England (internal migration).

Mid-year

This is 30 June of any given year.

Usually resident population

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

Old age dependency ratio (OADR)

The number of people of pensionable age for every 1,000 people of working age.

8 . Measuring the data

The 2018-based subnational population projections provide statistics on the potential future size and age structure of the population in England at region, county, local authority, clinical commissioning group and NHS England region levels. They are used as a common framework for informing local-level policy and planning as they are produced in a consistent way. They are also used in the production of the 2018-based household projections for local authorities, to be published in early summer 2020. This publication supersedes the 2016-based projections.

The projections take the mid-2018 population estimates, published on 26 June 2019, as their starting point. The projected local authority populations for each year are calculated by ageing on the population from the previous year, applying local fertility and mortality rates to calculate the number of projected births and deaths, and then adjusting for migration into and out of each local authority.

The total projected population for England is also constrained to the 2018-based national population projections for England, by single year of age and sex, for each year of the projection.

In these projections we have incorporated two changes. The first is to treat prisoners as a special population group and the second is to include improved estimates of internal migration. Further information on these changes and on the methodology used to produce the subnational population projections is in the 2018-based methodology report.

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the Subnational population projections QMI.

Proposed timing of next projections

Following the publication of the subnational population projections, we will publish the 2018-based household projections for local authorities in England, in early summer 2020.

We usually publish population projections every two years. However, we are currently proposing not to produce 2020-based projections, which would theoretically be published in autumn 2021 for the national projections and spring 2022 for the subnational projections. This is because the first 2021 Census results are also expected in spring 2022; we therefore propose that the next round of projections will be based on 2021, enabling them to use the updated base population that the 2021 Census results will offer, and also a revised back-series of earlier years of input data. This approach would also apply to our household projections.

At this stage, this is not a definitive policy and we cannot be certain of exact timings. Factors that will affect our plans include how different the 2021 Census results are from the current population estimates and our evaluation of the causes of any differences. However, we aim to produce national population projections using a mid-2021 population base by around the end of 2022.

We would welcome any feedback on this proposed approach – please let us know your thoughts at pop.info@ons.gov.uk. Further updates on the timing of future projections will be communicated in our quarterly Migration and Population Statistics Newsletter. To sign up to this, please contact us at pop.info@ons.gov.uk.

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 projections.

9 . Strengths and limitations

Subnational population projections are produced in a consistent way across all areas and use a robust methodology so that they are relevant to all types of users. They are used in a number of ways, including: for local planning of health, education and other service provisions; as a basis for household projections; and as a basis for projections produced by other organisations. Dependent on timing of central government planning rounds, they are also sometimes used in the assessment of local authority needs and the funding formula.

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

The assumptions used in the subnational population projections are based on past trends. However, demographic behaviour is inherently uncertain, so projections become increasingly uncertain the further they are carried forward. This is particularly so for smaller geographical areas and detailed age and sex breakdowns. In the longer-term, demographic patterns are increasingly likely to differ from recent trends. This bulletin focuses on the first 10 years of the projections, up to mid-2028. The data files published with this release include projections going forward 25 years to mid-2043.

It is currently not possible to calculate projections for any further breakdowns such as ethnicity, marital status or lower-level geographies, because of limitations in the availability of data and the lack of a robust methodology required for such projections.

The projections are not forecasts and take no account of local development aims, policies on growth, capacity to accommodate population change, or economic factors that could impact the population in the future. As with the national population projections, they also do not try to predict any potential demographic consequences of future political or economic changes, including the UK's withdrawal from the European Union.

There is already a margin of error in the underlying input data used in the projections, for example, estimates of the current population and past migration flows. In addition, our assumptions about the future cannot be certain as patterns of births, deaths and migration are always liable to change and can be influenced by many factors.

In most cases, each set of projections is superseded when the next scheduled release is published. However, should there be cause to revise a specific set of projections – for example, because of an error in production – the policy on revisions is outlined in the Quality and Methodology Information report.

The subnational population projections Quality and Methodology Information report helps users to understand the strengths and limitations of the data and the suitable uses for the data. It will also help users to reduce the risk of misusing the data.

10 . Related links

Subnational population projections across the UK
Article | Released 24 March 2020
Provides a summary of the different methodologies used to produce the subnational population projections across the UK and reflects any changes to the methodology and data sources in the latest projections for each country of the UK.

Impact of different migration trend lengths
Article | Released 24 March 2020
Provides a summary of the impact of different migration trend lengths on the subnational population projections.

Nomis website
Datasets | Released 24 March 2020
The subnational population projections are also available on the Nomis website where you can use the "Query data" option to do customised extracts for your chosen year, area, sex and age combination.

2018-based national population projections
Bulletin | Released 21 October 2019
The table of contents tool contains links to our full range of data and all related methodological and background information associated with the 2018-based national population projections.

Projections for other countries in the UK

Scotland

National Records of Scotland (NRS) publishes subnational population projections every two years. The 2018-based population projections for Scottish Areas were published on 24 March 2020 and are constrained to the 2018-based national population projection for Scotland.

Wales

Local area population projections are produced by the Welsh Government.

The 2018-based population projections for Welsh areas were published on 27 February 2020 and are constrained to the 2018-based national population projection for Wales. In future it is intended these will be produced every three years.

Northern Ireland

The Northern Ireland Statistics and Research Agency (NISRA) publishes subnational population projections every two years. The 2016-based population projections for areas within Northern Ireland were published on 26 April 2018. These projections are constrained to the 2016-based national population projection for Northern Ireland. The 2018-based population projections for areas in Northern Ireland are provisionally planned for publication in April 2020.