

Statistical bulletin

# Subnational population projections for England: 2010-based

Indication of the future size and age structure of the population in the regions, local authorities, clinical commissioning groups and NHS regions of England.



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# 1 . Main points

- London, the East and the East Midlands regions are all projected to grow at a faster rate than England
- London is projected to grow by 14 per cent and both the East and the East Midlands regions are projected to grow by 10 per cent over the 10 year period to 2020, compared with the projected growth for England of 8 per cent over the same time period
- The number of local authorities where more than a quarter of the population are aged 65 and over is projected to increase from an estimated ten areas in 2010 to 63 by 2020
- These projections are based on the indicative mid-year population estimates published on 17 November, not the published mid-year estimates series
- These projections do not take into account any information from the 2011 Census

## 2 . Introduction

This bulletin presents the key findings from the 2010-based subnational population projections for England. They replace the 2008-based projections published by the Office for National Statistics (ONS) in May 2010.

Subnational population projections provide estimates of the future population of English regions, local authorities and primary care organisations, assuming a continuation of recent local trends in fertility, mortality and migration which are constrained to the assumptions made for the 2010-based national population projections. Subnational population projections by age and sex are produced every two years.

These projections are based on the [indicative 2010 mid-year population estimates](#) published on 17 November 2011 and a set of underlying demographic assumptions regarding fertility, mortality and migration based on five years of local trends. They are consistent with the [2010-based national population projections for England](#). They are not forecasts and do not attempt to predict the impact that future government or local policies, changing economic circumstances or other factors might have on demographic behaviour.

These projections do not take into account any information from the 2011 Census. [Further information about 2011 Census outputs](#) is available on the ONS website.

The primary purpose of the subnational projections is to provide an estimate of the future size and age structure of the population of local authorities in England. These are used as a common framework for informing local-level policy and planning in a number of different fields as they are produced in a consistent way.

Examples of uses made of the population projections include:

- the Department for Communities and Local Government (CLG) when calculating the allocation of central government resources to local areas
- locally they are used to inform planning of healthcare, education and other service provisions
- subnational projections also form the basis for other products such as household projections, and by researchers and other organisations that also produce their own projections

Projections become increasingly uncertain the further they are carried forward due to the inherent uncertainty of demographic behaviour. This is particularly so for smaller geographical areas.

This bulletin focuses on the first ten years of the projections. [Projections to 2035 are also available on the ONS website](#) (211.5 Kb Excel sheet) . For more information on how ONS population projections meet user needs along with information on their fitness for purpose, please see the [report on quality and methodology](#) (120.6 Kb Pdf) .

### 3 . Projections for regions

The [2010-based national population projections](#) for England published in October 2011 projected the population of England to grow by 4.4 million by 2020. This 8.4 per cent growth over 10 years is equivalent to an average annual growth rate of 0.8 per cent. All regions of England are projected to see population growth over the 10 year period to 2020 but the rate of that growth varies. Three regions are projected to grow faster than the national average with London projected to grow the fastest, by 14 per cent over the 10 year period. The East and the East Midlands regions are both projected to grow by 10 per cent. The region projected to grow at the slowest rate over the next 10 years is the North East at 3.5 per cent (Table 1).

**Table 1: Population change in regions by age group, 2010 to 2020**

	Population (thousands)		Percentage population change by age group			
	Mid-2010	Mid-2020	All ages	0-15	16-64	65 and over
North East	2,587	2,678	3.5	7.8	-2.3	21.1
North West	6,939	7,380	6.4	11.4	1.3	20.3
Yorkshire and The Humber	5,247	5,577	6.3	11.0	1.1	21.4
East Midlands	4,489	4,946	10.2	14.2	4.5	27.3
West Midlands	5,479	5,915	7.9	12.5	3.0	21.3
East	5,771	6,354	10.1	13.0	4.5	27.0
London	7,950	9,083	14.2	21.3	12.0	16.0
South East	8,498	9,101	7.1	9.5	1.2	26.0
South West	5,252	5,574	6.1	8.7	-0.4	24.5
England	52,213	56,607	8.4	12.7	3.5	23.0

Source: Office for National Statistics

Of the 14.2 per cent projected growth in London, 11.8 per cent is due to natural change (more births than deaths) and 2.5 per cent to net migration (Table 2). Although London is a destination for many people migrating to live and work both from other regions and internationally, there are also large numbers of people who migrate out of London, which is why growth due to net migration is projected to be just 2.5 per cent. One reason for the high level of natural change is because London as a region has a relatively young age structure, with little over 11 per cent of its population being aged 65 and over in 2010 compared with most other regions which have about 17 per cent of the population aged 65 and over. Since mortality rates are higher in the older age groups, fewer deaths are projected in London than elsewhere. London also has a correspondingly larger population of adults aged 16 to 64. In particular, nearly half the population in 2010 are estimated to be aged between 16 and 44 years old, the main childbearing ages. In most other regions the proportion in this age group is just less than two-fifths. This drives the higher number of births being projected in London over the next 10 years, leading to a 21 per cent projected increase in the number of children between 2010 and 2020 (Table 1).

**Table 2: Percentage population growth between mid-2010 and mid-2020**

	Total	Due to:			
		Natural change	Migration and other changes	Internal migration	International migration
North East	3.5	2.2	1.3	-0.2	1.5
North West	6.4	3.9	2.5	-0.5	3.0
Yorkshire and The Humber	6.3	4.2	2.1	-0.3	2.5
East Midlands	10.2	3.7	6.5	1.2	5.3
West Midlands	7.9	4.7	3.2	-1.1	4.3
East	10.1	4.0	6.1	3.4	2.7
London	14.2	11.8	2.5	-8.4	10.7
South East	7.1	3.6	3.5	3.3	0.2
South West	6.1	1.7	4.4	5.1	-0.7
England	8.4	4.8	3.6	0.0	3.5

Source: Office for National Statistics

Notes:

1. Figures may not sum due to constraining methods and rounding. Cross-border migration is included with international migration

## 4 . Projections for local authorities

### Summary

Population change in local authorities can exhibit very different trends to those observed nationally and to other areas around them. The population of England is projected to grow by 8.4 per cent over the 10 years to 2020, but a quarter of local authorities are projected to increase by more than 10.2 per cent, and a quarter by less than 4.5 per cent over the same period. Tables 3 and 4 show areas where the population is projected to have the highest and lowest percentage growth in the 10 years to 2020.

**Table 3: Local authorities with the highest projected percentage population growth between 2010 and 2020**

	Population (thousands)		Projected change	
	Mid-2010	Mid-2020	Thousands	Per cent
Tower Hamlets	249	308	59	23.7
Barking and Dagenham	183	221	38	20.8
Redbridge	273	327	54	20.0
Boston	64	76	12	19.4
Corby	58	68	11	18.7
Newham	272	323	51	18.6
East Cambridgeshire	86	102	16	18.2
Southwark	292	345	53	18.2
Hounslow	242	283	41	17.1
Kingston upon Thames	171	200	29	17.0

Source: Office for National Statistics

**Table 4: Local authorities with the lowest projected percentage population growth between 2010 and 2020**

	Population (thousands)		Projected change	
	Mid-2010	Mid-2020	Thousands	Per cent
Oxford	143	135	-8	-5.8
Cambridge	106	102	-3	-3.3
North Dorset	65	65	-1	-0.9
Redcar and Cleveland	137	136	-1	-0.9
Weymouth and Portland	64	64	0	0.3
Kensington and Chelsea	163	164	1	0.4
Exeter	118	119	1	0.9
Scarborough	108	109	1	1.0
North East Lincolnshire	157	159	2	1.1
Burnley	86	87	1	1.2

Source: Office for National Statistics

How a population is projected to change locally depends on a number of factors that can interact and produce very different growth rates. The size and age structure of the population at mid-2010 is a big indicator of the future population. Fertility and mortality have greater impact at certain age groups within the population and therefore affect areas differently depending on their age structures. Some areas also have more people moving in and out of them and will therefore be more affected by migration trends than others.

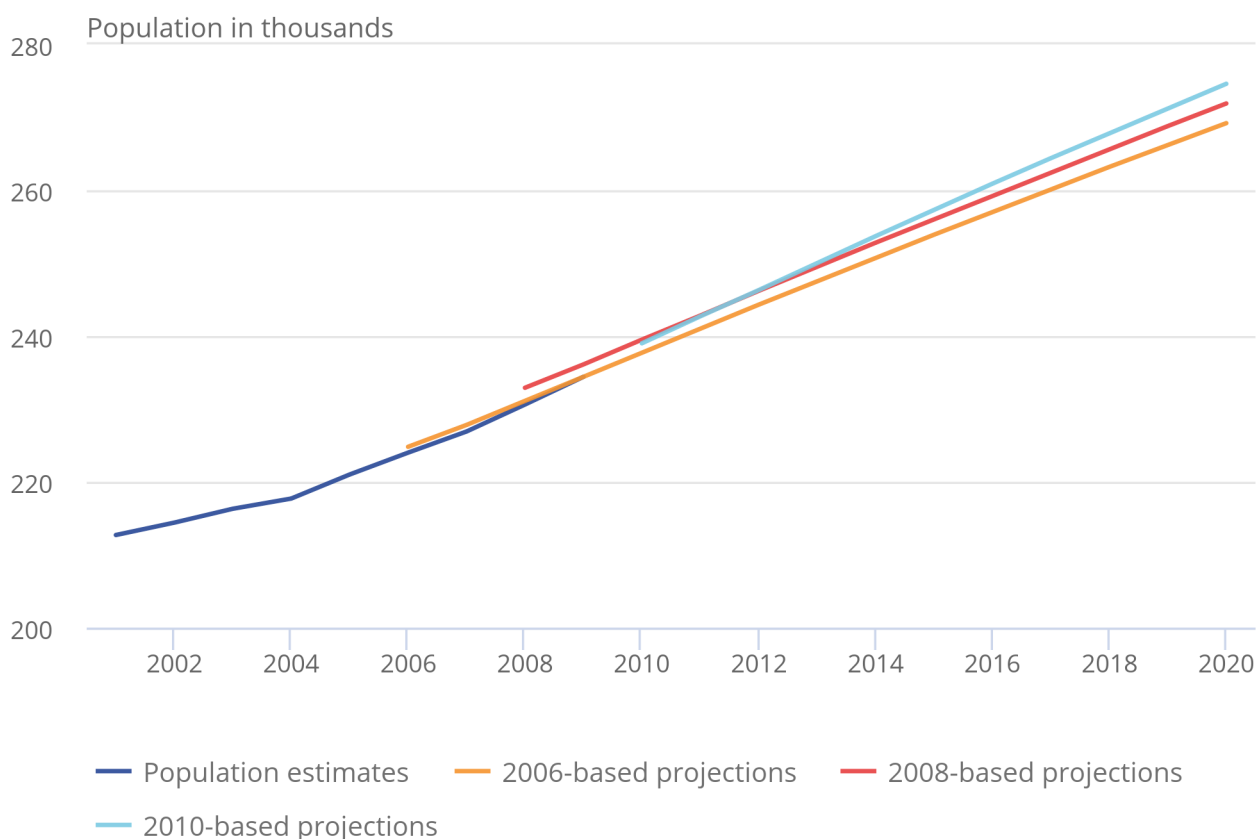
In this bulletin we examine a few areas to illustrate how some of these trends and features about the local population drive the resulting projections and what should be considered when using local area projections.

## Understanding the effects of past trends

Milton Keynes is an area where the population has been increasing fairly consistently year on year, faster than population growth nationally. This is in part due to local policy on housing development that has continued the growth in this area over a long period of time. Over the 10 years up to mid-2010 the population of Milton Keynes is estimated to have grown by 13.9 per cent, an average of 1.3 per cent a year. This is comparable with the projected growth over the next 10 years of 14.9 per cent. The results of the 2010-based subnational projections are very similar to both the 2008-based and the 2006-based projection, with less than 2 per cent difference between all three sets of projections for mid-2020 (Figure 1). In terms of subnational projections it is very unusual for three sets of subnational projections to be so similar; trends are often more volatile which can lead to larger differences between successive projections.

**Figure 1: Estimated and projected total population for Milton Keynes, mid-2001 to mid-2020**

Figure 1: Estimated and projected total population for Milton Keynes, mid-2001 to mid-2020



Source: Office for National Statistics

If the present/future local planning policy is similar to the policies in place in the last 10 years for this local authority, then these projections are likely to give a good indication of the future population in the short term.

## Understanding the impact of age structure

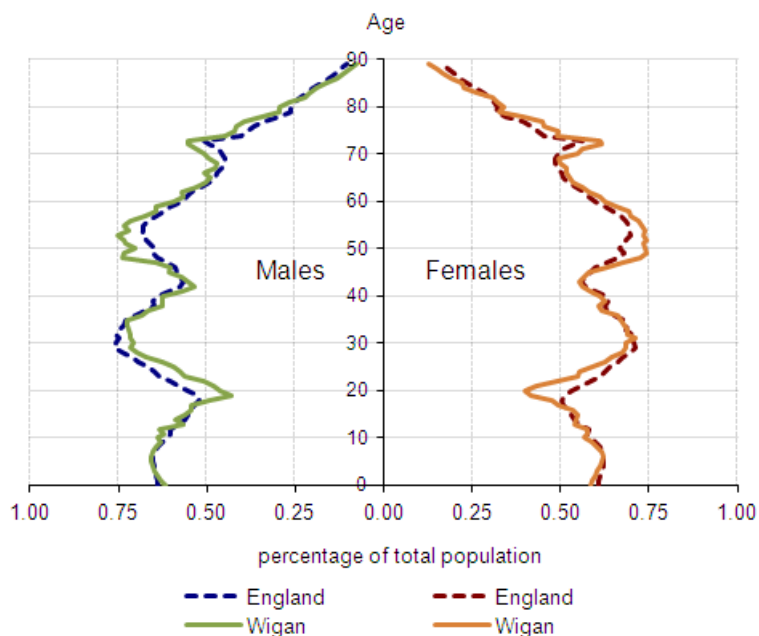
It is important when looking at projections to understand the changes in the age and sex structure of an area. Wigan is an interesting example to consider since its age and sex structure is very similar to that of England as a whole at 2010 and it is projected to have a similar age and sex structure by 2020. This means that the proportion of its population at each age in 2010 and in 2020 is almost the same as England (Figure 2), although it is projected to grow by 6.9 per cent, a slightly slower rate than England, over the next 10 years.

The easiest way to illustrate the age and sex structure of an area is in a population pyramid.

Figure 2 shows the population structure for Wigan and for England. It can be seen that there is a bulge in the population of people aged 70 to 74 in 2020 reflecting the higher number of people born immediately after the 2<sup>nd</sup> World War. These people would have been aged under 65 in 2010 and so will reach State Pension Age within the next 10 years.

Some local planning needs are directly relevant to specific age groups and therefore it is important to understand the possible changes to the age structure of an area when planning for the future. [Interactive population pyramids](#) are available for viewing the results of the 2010-based population projections for local authorities, regions, England, England & Wales and the UK. They can be used to illustrate how the size and age and sex structure of the population in an area is projected to change over time, as well as enabling comparison with other areas.

**Figure 2: Projected age structure of the population of England and Wigan: mid-2020**



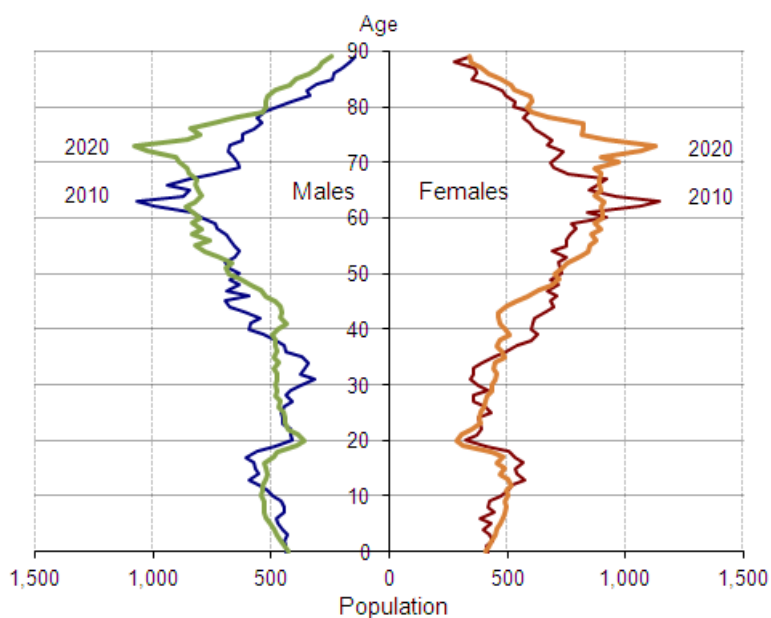
Source: Office for National Statistics

## Understanding older age structures

Estimates indicate that in 2010 there were 10 local authorities where more than a quarter of people were aged 65 and over. This is projected to increase to 63 local authorities with this proportion by 2020. Quantifying these trends is important in order to inform organisations who are interested in the population in this age group. For example, projections can be used to inform organisations involved in planning for health and social care provision, reviewing transport needs and business planning.

North Norfolk is an area where there a high proportion of the population is aged 65 or over. The total population of North Norfolk is projected to grow by 6.5 per cent over the 10 years to 2020. This compares with a projected growth in the population aged 65 and over of 26.1 per cent over the same period. This results in the projected proportion of people in this age group increasing from 28.7 to 33.9 per cent by 2020. The population aged 16 to 64 is projected to fall by 1,500 (2.6 per cent) over the same period. The main reason for these changes is that those people aged between 60 and 64 in 2010 will be aged over 70 by 2020 (Figure 3).

**Figure 3: Estimated and projected age structure of the population of North Norfolk: mid-2010 and mid-2020**



**Source: Office for National Statistics**

In North Norfolk, it is migration rather than natural change which is the current main driver of population change, unlike at the national level. Over the next 10 years there is projected to be net growth of around 500 people per year to North Norfolk. The population is projected to grow by around 1,000 people per year due to net migration, but, due to this area's older age structure, it is projected that there will be about 500 more deaths than births, leading to natural change having a negative effect on population growth. This is a feature that may be present in other areas that have a population structure like North Norfolk.



## Understanding younger age structures

There are also some local authorities that have relatively young age structures, with a higher proportion of children and adults of child bearing age. Due to higher fertility rates assumed in the short-term for the national projections, local area fertility rates are also correspondingly higher at a subnational level than in the previous 2008-based projections. Therefore many areas may see more births projected than in the 2008-based projections, but in particular, if an area has a young age structure then these higher assumed fertility rates will affect the number of projected births. Therefore the projections provide a useful indication of future requirements when planning for maternity and other health services and future school places.

Barking and Dagenham is an area that has a young age structure. Estimates show that in 2010 nearly nine out of 10 people resident in Barking and Dagenham were aged under 65, with nearly a quarter of the population aged under 16 years. This local authority is projected to be one of the fastest growing areas in England according to the 2010-based subnational projections. If current trends were to continue over the 10 years to 2020, the population would grow by over 20 per cent. This projected growth is mainly due to natural change, with more than three quarters of the increase in the population being due to more births than deaths.

## 5 . Methodological information

The subnational population projections take the [indicative 2010 mid-year population estimates](#) which were published on 17 November 2011 as their starting point. The projected local authority population for each year is calculated by ageing on the population for the previous year, applying assumed 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. Local authority assumed levels of fertility, mortality and migration are derived from observed values during the previous five years and are constrained to the assumptions made in the 2010-based national projections. Finally, the subnational population projections are constrained to the national population projections for England. A full description of the [methodology used to produce the subnational population projections](#) is available.

### Migration Statistics Improvement Programme

It has long been recognised that international migration is one of the most difficult components of population change to measure accurately, particularly at local authority level. There is no single, comprehensive source of international migration data at national and/or local levels.

The Migration Statistics improvement Programme (MSIP) ran from April 2008 to March 2012, with a vision to produce improved population and migration statistics that are relevant for user needs, are as accurate as possible, and are recognised as being definitive estimates.

On 17 November 2011, ONS published details of an improved methodology for estimating [long-term immigration to local authorities](#) in England and Wales. The methodology does not change the total immigration estimates for England and Wales, but aims to give better estimates of the distribution of migrants at local authority level. ONS also published a set of indicative mid-year long-term immigration estimates for 2006-2010 as well as indicative population estimates incorporating the improved methods. The 2010-based population projections incorporate these improvements to the estimates of immigration and population at local authority level. Users were invited to comment on the new methodology and the implications of this change on immigration and population estimates, and on the 2010-based subnational population projections. [A response to user feedback](#) was published on 10 February 2012.

### Census and subnational projections

The estimates of the population on which the projections are based are produced using the cohort component method. This means they themselves are based on data from the 2001 Census.

Each year it is possible that errors around measuring components of population change impact on the accuracy of the mid-year estimates. This is potentially compounded each successive year and therefore the ten-yearly population census provides a benchmark for rebasing the estimates. Since these subnational projections are based on mid-2010 population estimates which are as far from a census base as possible, any accuracy issues with the estimates affects the accuracy of the projections.

Following the publication of 2011 Census data, the mid-year estimates for 2011 will be produced and the previously published mid-year estimates for 2002 to 2010 will be rebased. This will then provide a consistent series of population estimates over time, avoiding a step change in the estimates when they are rebased on new census counts. This will be followed by a new set of projections which will incorporate 2011 Census data.

2011 Census data are due to be published later this year. More information is available about the [2011 Census data releases](#).

## 6 . Data and further information

Further information on [2010-based subnational population projections for England](#) is available on the ONS website.

Information on the [indicative population estimates](#) on which these projections are based released on 17 November 2011 is available.

Subnational population projections for the other constituent countries of the UK are produced by the devolved administrations: 2010-based subnational projections for Scotland.

The latest projections for Wales and Northern Ireland are 2008-based:

- [2008-based subnational projections for Wales](#)
- [2008-based subnational projections for Northern Ireland](#)

Information on the [2010-based national population projections for the UK and its constituent countries](#) released in October 2011 is available on the ONS website.

### **Next publication:**

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## 7. Background notes

1. A [quality and methodology information report for subnational population projections for England](#) is available on the national statistics website
2. A new set of projections is normally made every second year. Full details of the results from the [2010-based subnational population projections](#) are available on the National Statistics website. Details of the [2008-based subnational projections](#) published in May 2010 are also available
3. Subnational population projections are produced on a consistent basis across all local authorities in England. The 2010-based subnational population projections for England are fully consistent with the indicative [2010 mid-year population estimates](#) published on 17 November 2011 and at a national level with the [2010-based national population projections for England](#) published in October 2011
4. Projections are made of the usually resident population, as defined for the mid-year population estimates. The population includes all usually resident persons, whatever their nationality. Members of HM Armed Forces in England are included, but members of HM Armed Forces and their families who are abroad are excluded. Members of foreign armed forces in England are also included, as are any accompanying dependants
5. Assumptions made about future fertility, mortality and migration at local authority level in the [2010-based subnational population projections](#) are based upon recent observed trends from the components of change as published with the indicative 2010 mid-year population estimates on 17 November 2011. The assumptions do not take account of future policy changes nor local development policies that have not yet occurred
6. Subnational population projections produced by ONS are for England only. Subnational population projections for other UK countries are the responsibility of the respective devolved administrations; 2010-based subnational population projections for Scotland were published by the National Records of Scotland on 29 February 2012. The latest subnational population projections for Wales and Northern Ireland are 2008-based and were published by the statistical directorate of the Welsh Government and the Northern Ireland Statistics and Research Agency respectively on 27 May 2010
7. Information about [2011 Census data releases](#) is available on the ONS website
8. References in this statistical bulletin to local authorities exclude the Isles of Scilly and the City of London as the results for these areas are considered to be less reliable than for other areas due to their small population sizes
9. These projections are available on local authority boundaries in place at mid-2010, which are different to those used for the 2008-based subnational population projections. The April 2009 Local Government reorganisation in England created nine new unitary authorities and abolished a number of other districts. There are now 326 local authorities in England
10. The ONS has published a new charging policy which is available on the ONS website
11. All figures presented in the tables in this release have been rounded independently, so component figures may not add exactly to totals
12. Further information about [population statistics](#) is available on the ONS website
13. Details of the policy governing the release of new data are available from the Media Relations Office. Also available is a list of the names of those given pre-publication access to the contents of this release
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16. Details of the policy governing the release of new data are available by visiting [www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html](http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html) or from the Media Relations Office email: [media.relations@ons.gsi.gov.uk](mailto:media.relations@ons.gsi.gov.uk)

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