

Article

Overview of the UK population: February 2016

Overview of the UK population, its size, characteristics and the causes of population change including national and regional variation.

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1. Introduction

This report gives an overview of the UK population. It examines the size and characteristics of the UK population: showing how the UK population has changed, how it is projected to change, what has caused it to change and how its characteristics are changing. It also compares the growth of the UK population with other European countries.

This is a quarterly report and contains the most recently published statistics. While the report is primarily concerned with the UK picture, it does contain a brief exploration of subnational variation in population statistics.

2. How many people are there in the UK and how does this change over time?

The UK population grew to an estimated 64.6 million in 2014, its highest ever value. This represents an increase of almost half a million people from 2013 according to the <u>most recent population estimates</u>. Please note that the population statistics used in this story are mid-year estimates unless otherwise stated.

<u>Population projections</u> are also available which show how the population would change in future years if recent demographic trends were to continue.

The change in the UK population, including annual growth rates, from the 1960s onwards is available in Table 1.

Table 1: UK population estimates and annual growth rates, 1960s to 2020s

Decade Initial population		10 year growth in population	Annual growth rate (%)	
1960s	52,372,500	3,259,700	0.61	
1970s	55,632,200	697,500	0.12	
1980s	56,329,700	907,800	0.16	
1990s	57,237,500	1,648,600	0.28	
2000s	58,886,100	3,873,400	0.64	
2010s [†]	62,759,500	4,600,200	0.71	
2020s [†]	67,359,600	3,993,000	0.58	

Source: Office for National Statistics

Notes:

1. † projected.

Following the relatively high growth in the UK population during the 1960s, a result of the 1960s' baby boom, population growth slowed during the 1970s and even fell between 1975 and 1978. In the 1980s, the UK population grew again (with the exception of 1982 when it fell by 0.12%, its biggest fall since 1951). In the late 1980s, annual growth reached between 0.2% and 0.3%, when the 1960s' baby boomers were having children. The 1990s had a stable level of growth, similar to that of the late 1980s.

The annual growth rate between the 1990s and the 2000s more than doubled, up from 0.28% to 0.64%. Uplifts in population growth have generally coincided with an increase in the number of countries holding EU membership. Growth in the UK population since 2010 has been similar to that of the late 2000s and, while it is projected to be the decade with the biggest period of growth in the last 50 years, UK population growth is then projected to slow steadily, with the long-term annual growth rate projected to stabilise at around 0.3% of the UK population.

3. How does the UK population compare with other countries?

The UK population is one of the largest in the European Union. Table 2 shows the population of the UK and selected EU and non-EU countries as well as their annual growth.

Table 2: Population Estimates and Annual Growth for Selected EU and non-EU Countries, 2013 to 2014

Country	Annual growth (%)	2013 Population	2014 Population	% of 2014 EU Population
Luxembourg	2.36	537,000	549,700	0.1
Italy	1.84	59,685,200	60,782,700	12.0
Turkey	1.38	75,627,400	76,667,900	N/A
Norway	1.12	5,051,300	5,108,000	N/A
United Kingdom	0.70	63,905,300	64,351,200	12.7
France	0.42	65,560,700	65,835,600	13.0
Belgium	0.38	11,161,600	11,204,000	2.2
EU	0.35	505,127,200	506,880,600	100.0
Ireland	0.31	4,591,100	4,605,500	0.9
Germany	0.30	80,523,700	80,767,500	15.9
Netherlands	0.30	16,779,600	16,829,300	3.3
Russia	:	:	143,666,900	N/A
Poland	-0.12	38,062,500	38,017,900	7.5
Romania	-0.36	20,020,100	19,947,300	3.9
Spain	-0.46	46,727,900	46,512,200	9.2
Bulgaria	-0.53	7,284,600	7,245,700	1.4
Greece	-0.70	11,003,600	10,926,800	2.2
Latvia	-1.10	2,023,800	2,001,500	0.4

Source: Eurostat

Notes:

- 1. Please note that, because of the way Eurostat collects data, the population figures in this table are the populations at 1 January and not mid-year estimates as used elsewhere.
- 2. Turkey, Norway and Russia are not members of the EU.
- 3. EU refers to EU 28
- 4.: Not available
- 5. N/A Not applicable

The UK had the third largest population in the EU in 2014: 16.4 million fewer people than Germany and 1.5 million fewer people than France in 2014. The UK had 3.6 million people more than Italy which was the country with the fourth highest population in the EU in 2014.

Outside of the EU, Russia had the highest European population, with 143.7 million people in 2014, almost twice the population of Germany. Turkey had the third highest European population, with 76.7 million people in 2014; 12.3 million people more than lived in the UK.

Between 2013 and 2014, the UK population grew faster than that of the EU as a whole: 0.7% growth for the UK population, compared with 0.35% growth for the EU. The growth rate for the population of the UK was more than twice that of Ireland, where the population grew by 0.31% between 2013 and 2014.

Of the 28 countries in the EU, there were 4 countries where the population grew faster than the UK between 2013 and 2014: Luxembourg, Italy, Malta and Sweden.

There were 13 EU countries where the population shrank between 2013 and 2014; these countries included Poland, Bulgaria, Hungary, Romania, Spain, Portugal and Greece.

4. What caused the UK population to change?

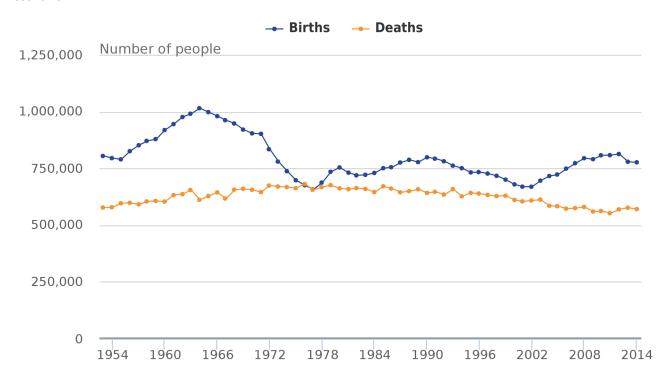
There are 4 ways that the UK population changes: people are born, they die, they move in or they move out.

Natural change

<u>Natural change</u> is the number of births minus the number of deaths. Figure 1 shows the number of births and deaths for the UK going back to 1953.

Figure 1: UK births and deaths

1953 to 2014



Source: Office for National Statistics

Notes:

1. Please note that the births and deaths in Figure 1 are the totals for the year 1 January to 31 December and not mid-year figures as with population estimates. When mid-year population estimates are calculated, birth and death statistics for 1 July to 30 June are used for consistency.

Figure 1 shows that in all years except 1976 the number of births was higher than the number of deaths. This means that generally natural change resulted in population growth throughout the last 60 years.

The number of births per year in the UK was high (above 850,000) from the mid-1950s up until the early 1970s: the 1960s' baby boom. The number of births fell markedly during the 1970s, before rising again in the 1980s, when the 1960s' baby boomers were having children. The number of births in the UK peaked again in 2012 when it was at its highest for 40 years: 813,000 in 2012 compared with 834,000 in 1972.

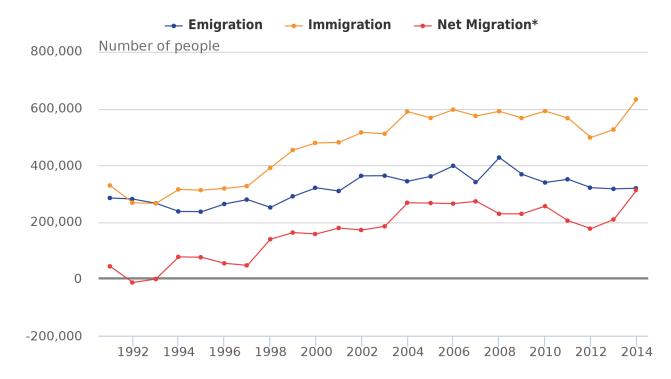
The number of deaths was more stable than the number of births. From 1953 the number of deaths rose to a peak in 1976 (680,800): when the highest number of deaths since 1918 (715,200) was recorded; and then fell away. The number of UK recorded deaths fell faster in the 2000s than in the previous 2 decades; falling below 600,000 in 2004 for the first time since the 1950s. Since 2004, the number of UK recorded deaths has remained below 600,000 because people are living longer.

Net migration

Net migration is the number of immigrants minus the number of emigrants. The growth of the UK population since the 1990s has been attributed primarily to the growth of net migration. The direct effect of net migration has increased the UK population by more than 240,000 people per year on average from 2004 to 2014; this is about 40,000 more people per year than natural change for the same period. Figure 2 shows the levels of emigration and immigration since the early 1990s.

Figure 2: UK emigration and immigration

1991 to 2014



Source: Office for National Statistics

Notes:

 *Please note that the net migration estimates up to 2011 have been revised in light of the 2011 Census. Immigration and emigration estimates have not been revised and are therefore not consistent with the revised net migration estimates.

Figure 2 shows that immigration has been higher than emigration since the early 1990s. In the late 1990s, the level of net migration increased from the tens of thousands to the hundreds of thousands. Rises in immigration have tended to coincide with expansion of the European Union, allowing more people to freely migrate to the UK. The rise in net migration in 1998 can in part be attributed to <u>instability in countries in Africa, Eastern Europe and the Middle East</u>. International immigration by students increased during the late 2000s, peaking between 2009 and 2011.

In addition to the direct effect of net migration on the size of the population, current and past international migration also has indirect effects on the size and structure of the population: migrants tend to arrive as young adults aged in their 20s to early 40s and they change the numbers of births and deaths in the UK. For example, statistics on the <u>number of births by the country of birth of the mother</u> show that 199,883 live births (25.7% of total live births) in the UK in 2014 were to mothers born outside the UK. However, this figure should not be interpreted as an estimate of the indirect effect of migration on the size of the population; it is only one aspect of this. A fuller assessment would consider:

- UK born children fathered by men born outside the UK
- deaths of people who had migrated to the UK
- births to, and deaths of, people who emigrated from the UK (and who would have given birth, or died, in the UK had they not emigrated)
- how to account for births to, and deaths of, UK-born people who had emigrated and subsequently returned to the UK
- how to account for births to, and deaths of, UK-born people who had parents (or grandparents etc) who were themselves immigrants

5. How are the characteristics of the UK population changing?

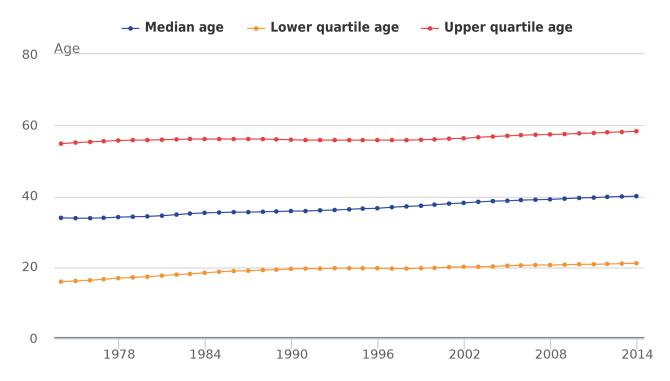
Age

The median and quartile ages can be used to assess how age is changing over time for a population. The median age is the age at which half the population is older and half the population is younger than the given value. The lower quartile age of the UK population is the age at which three-quarters of the population is older than the given value and a quarter of the population is younger than the given value. The upper quartile age of the UK population is the age at which a quarter of the population is older than the given value and three-quarters of the population is younger than the given value.

The median and quartile ages for the UK can be seen going back to 1974 in Figure 3.

Figure 3: UK median and quartile age





Source: Office for National Statistics

The median age for the UK population rose from 33.9 years in 1974 to 40.0 years in 2014, a rise of 6.1 years. This is its highest ever value and the figure shows that the UK population has been consistently getting older.

The lower quartile age of the UK population has risen from 15.9 years in 1974 to 21.1 years in 2014, a rise of 5.2 years. Over the same period the upper quartile age of the UK population has risen from 54.8 years to 58.3 years, a rise of 3.5 years.

The difference between the median age and the lower quartile age of the UK population narrowed through the 1970s and 1980s, falling from 18.0 years in 1974 to 16.3 years in 1990. It then started to widen and in 2014 reached 18.9 years. The difference between the median and the upper quartile range of the UK population has fallen from 21.0 years in 1974 to 18.3 years in 2014. The distribution of ages within the UK can be seen in Table 3.

Table 3: Age distribution of the UK population, 1974 to 2039 (projected)

	Population aged 0 to 15 (%)	Population aged 16 to 64 (%)	Population aged 65 and over (%)
1974	25.2	61.0	13.8
1984	21.0	64.1	14.9
1994	20.7	63.4	15.8
2004	19.5	64.5	15.9
2014	18.8	63.5	17.7
2024 †	19.0	61.1	19.9
2034 †	18.1	58.5	23.3
2039 †	17.8	57.9	24.3

Source: Office for National Statistics

Notes:

1. † projected.

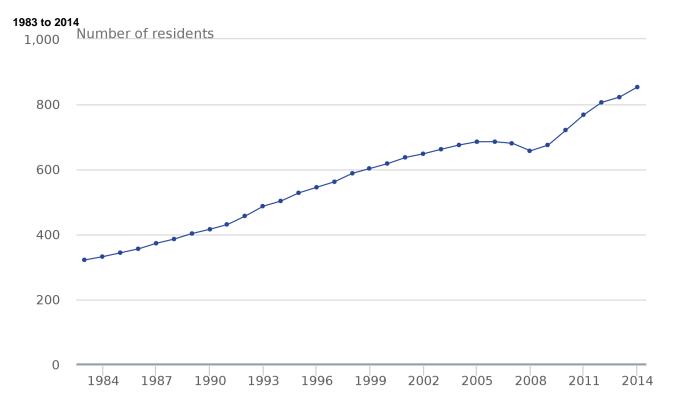
2. Numbers may not sum to 100 due to rounding.

The proportion of the UK population who are of traditional working age (16 to 64) has remained relatively stable over the last 40 years, but is projected to decline in future years.

The proportion of children in the UK population has fallen from over a quarter in 1974 to less than a fifth in 2004. This proportion is projected to fall even further in future years.

Conversely the proportion of those aged 65 or over increased by 3.8 percentage points between 1974 and 2014, from 13.8% of the UK population to 17.7%. This proportion is projected to increase by a further 6.6 percentage points of the UK population by 2039. This rise in proportion of the population indicates that the UK has an ageing population. This is due to both the existing age structure of the population, where people born in the 1960s' baby boom are entering older ages, as well as the population living longer. Figure 4 shows the UK population aged 90 or older as a rate of the total UK population.

Figure 4: UK residents aged 90 and over per 100,000 UK residents



The figure shows that the proportion of population aged 90 or over has been steadily increasing since the early 1980s. There was a decrease in the mid-2000s, because of the effects of World War I, including associated changes in birth cohort size, as well as the influenza pandemic in the early 20th century.

While living longer is a cause for celebration, an ageing population becomes a concern as there may be fewer people of working age to support those of pension age. The old age dependency ratio (OADR) shows the relative size of the working-age and pensioner populations, which is the number of people of or above state pension age (SPA) for every 1,000 people of working age. While the relationship is complicated by whether those of working age and pension age are economically active, it provides a good indicator of the issue.

The OADR was steady at around 300 from the 1980s to 2006, but then rose as women born in the post World War II baby boom reached SPA. In the absence of any increases to SPA, the OADR is projected to reach 487 by 2037. However, as a result of planned SPA increases taking place between 2010 and 2046 under current legislation, the population projections suggest that, if current demographic trends continue, in 2039 there would be 370 people of or above SPA for every 1,000 people of working age. This increase in the OADR means that there will be fewer people of working age to support a larger population over SPA.

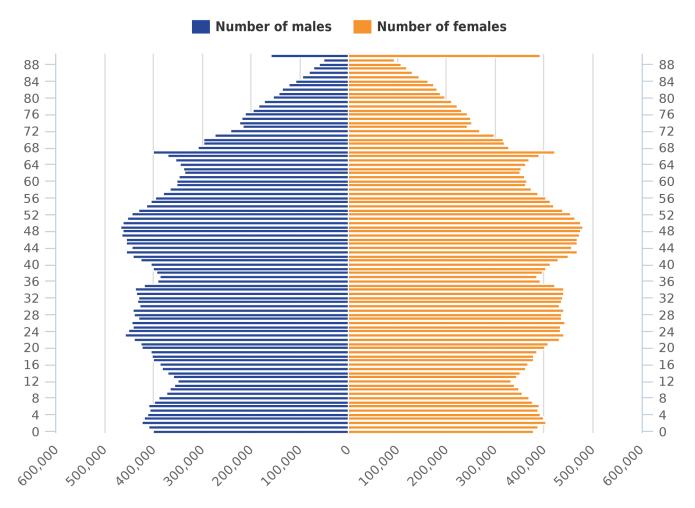
International migration affects the OADR in the short-term since migrants tend to be of working age. The population projections suggest that if there was no international migration, in 2039 there would be 406 people of or above SPA for every 1,000 people of working age. This implies that international migration is projected to reduce the OADR by 36 people of SPA or above for every 1,000 people of working age.

Age and sex

While the age distribution is useful, if we want to understand how distributions by age and sex vary throughout a population we need to use a population pyramid. The population pyramid for the UK in 2014 is in Figure 5.

Figure 5: UK population by single year of age

2014

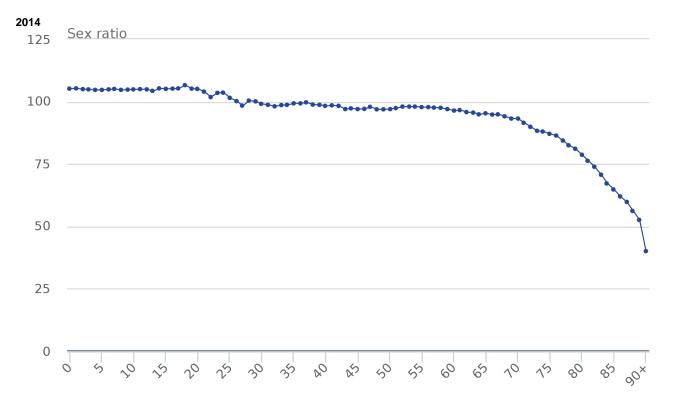


Source: Office for National Statistics

Figure 5 shows several events that affected the UK population. The spike in births after the end of World War II can be seen in the relatively large number of 67-year-olds when compared with 68-year-olds in 2014. The 1960s' baby boom can be seen in the relatively large number of people who were aged in their mid-40s to mid-50s. The low fertility of the 1970s can be seen in the relatively small number of people in their mid-30s to early-40s. In the 1980s, the 1960s' baby boomers would have started to have children; this can be seen in Figure 5 in the relatively high number people in their 20s through to mid-30s. The low fertility in the early 2000s can be seen in the relatively small number of those in their early teens.

Figure 5 also shows that the shape of the UK population by age was broadly similar for males and females in 2014. At older ages women begin to outnumber men; this shows up particularly in the final grouped age band: 90 and over. The differences between the sexes at different ages can be analysed by interpreting a sex ratio by single year of age, which can be seen in Figure 6.

Figure 6: UK sex ratio by single year of age



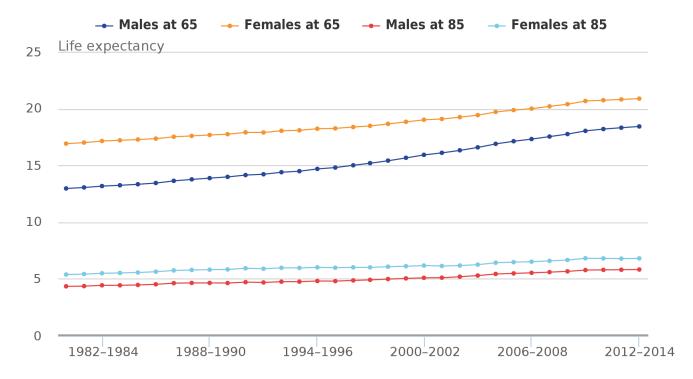
The sex ratio is the number of males per 100 females in the population. Since the 1950s, the overall UK sex ratio has generally been rising and is moving towards equality, increasing from 92.5 in 1953 to 96.9 in 2014. The sex ratio has also grown faster since 2000, increasing by 1.9 men per 100 women in the 14 years between 2000 and 2014, compared with 2.4 men per 100 women in the 46 years between 1953 and 1999.

Figure 6 shows that the 2014 UK sex ratio was higher than 100 for every childhood age. This reflects that more boys than girls were born.

The changing UK sex ratio for the working age population is primarily due to international migration. The sex ratio falls rapidly for those in their 20s, by 5 males per 100 females (from 105 for 20 year olds to 100 for 29 year olds) and at age 27 the sex ratio falls below 100 for the first time, meaning that there were more women than men at this age.

Changes in the UK sex ratio in the last few years of working age and older are primarily due to mortality. From age 70, the 2014 UK sex ratio fell rapidly, dropping below 90 from age 72 and ending at 40 males per 100 females for those aged 90 and over. This reflects females living longer than males; an important factor for financial planning in later life. Recent life expectancies at older ages are shown in Figure 7.

Figure 7: UK life expectancy at selected ages between 1980 to 82 and 2012 to 14



Life expectancy at ages 65 and 85 have been consistently rising since the early 1980s. Over the period between 1980 to 1982 and 2012 to 2014, male life expectancy at age 65 has risen by 42.1%, from 13.0 years to 18.4 years, compared with a rise of 23.4% for female life expectancy at age 65, from 16.9 years to 20.9 years. This means that the gap between life expectancy for males and for females at age 65 has fallen from 4.0 years to 2.5 years.

Over the same period, male life expectancy at age 85 has risen by 34.1%, from 4.3 years to 5.8 years, compared with 26.4% for female life expectancy at age 85, from 5.4 years to 6.8 years.

6. How does the population differ across the UK?

Having seen that the UK population can vary by age and sex, the UK population also differs by country and by region of England; Table 4 contains some example statistics to show this.

Table 4: Regional variation in selected demographic statistics, 2004 to 2014

	2014 Population	2014 Population density	2004 to 2014 Annual 2014 growth rate (%) Sex ratio		Life expectancy at birth in years, 2012 to 2014 ¹	
	(millions)				Male	Female
UK	64.6	266	0.75	96.9	79.1	82.8
England	54.3	417	0.79	97.2	79.4	83.1
North East	2.6	305	0.30	96.1	78.0	81.7
North West	7.1	506	0.42	97.0	78.1	81.9
Yorkshire and The Humber	5.4	348	0.57	97.2	78.7	82.4
East Midlands	4.6	297	0.78	97.4	79.4	83.0
West Midlands	5.7	440	0.67	97.8	78.9	82.9
East	6.0	315	0.89	96.9	80.4	83.8
London	8.5	5,432	1.40	98.4	80.3	84.2
South East	8.9	465	0.88	96.8	80.5	84.0
South West	5.4	228	0.74	96.5	80.2	83.9
Wales	3.1	149	0.45	96.9	78.4	82.3
Scotland	5.3	69	0.51	94.4	77.1	81.1
Northern Ireland	1.8	136	0.71	96.3	78.3	82.3

Notes:

1. Figures for UK, England, Wales, Scotland and Northern Ireland are derived from the national life tables. Figures for regions within England are derived from the local area life expectancy release. As national and local area life expectancies are calculated using different methodologies, they are not comparable.

Table 4 shows that in 2014 the national and regional populations are not equal in size. Furthermore the number of people per square kilometre (also known as population density) is also very different, with just 69 people per square kilometre in Scotland compared with 5,432 people per square kilometre in London. The population density of London was more than 10 times that of any other region or country. Table 4 shows that population density varies within England, it will also vary within other countries and within the regions of England: for example, in Scotland, Glasgow and Edinburgh will have a larger population density than areas of the Highlands.

The UK 2014 sex ratio was 96.9 males per 100 females. This varies from 94.4 males per 100 females in Scotland to 98.4 males per 100 females in London.

The 2004 to 2014 annual growth rate varied from 0.3% of the regional population in the North East to 1.4% of the regional population in London. The 2004 to 2014 annual growth rate in London was 0.51 percentage points more than for the East of England which had the second highest annual growth rate over the period 2004 to 2014. High population growth in London may be due to its <u>popularity as a destination for graduates</u> and as <u>an initial port of call for many immigrating to the UK</u>.

UK life expectancy at birth for 2012 to 2014 was 79.1 years for boys and 82.8 years for girls, a difference of 3.7 years.

National male life expectancy varied from 77.1 years in Scotland to 79.4 years in England, a range of 2.3 years across the countries of the UK. Female life expectancy ranged from 81.1 years in Scotland to 83.1 years in England, a difference of 2.0 years. The difference between male and female life expectancy varied from 3.7 years in England and for the whole of the UK, to 4.0 years in Scotland and Northern Ireland.

Regional male life expectancy varied from 78.0 years in the North East to 80.5 years in the South East, a range of 2.5 years across the regions within England. Female life expectancy ranged from 81.7 years in the North East to 84.2 years in London, again a difference of 2.5 years. The difference between male and female life expectancy varied from 3.4 years in the East of England to 4.0 years in the West Midlands.

7. Background notes

Details of the policy governing the release of new data are available by visiting www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html or from the Media Relations Office email: media.relations@ons.gsi.gov.uk