

Article

Impact of births and deaths on UK population change: 2020

Births and deaths statistics for the UK and its constituent countries, and information about the availability of the latest provisional births and deaths data.

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Release date:
6 July 2021

Next release:
To be announced

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1 . Main points

- The latest mid-year population estimates show that in the year to mid-2020 there were 700,700 live births and 669,200 deaths in the UK; this means that in mid-2020, natural change (the difference between the number of births and the number of deaths) was around 31,500.
- In the calendar year of 2020, there were 90,173 deaths registered involving coronavirus (COVID-19) across the UK, taking the total number of deaths to 689,629 – an increase of 84,922 from 2019.
- The number of births decreased in 2020, to 683,191, which was a fall of 29,489 from 2019; this means that natural change in the UK in 2020 was negative 6,438, the first time deaths have exceeded births in 44 years.
- There were more deaths than births in Scotland and Wales in 2020, while there were more births than deaths in England and Northern Ireland.
- In Scotland, there were more deaths than births each year since 2015, and for Wales this was the case each year since 2016; There were more births than deaths in England and Northern Ireland up to and including 2020.

2 . Latest official estimates of the UK population and natural change

Annual population change is driven by the number of live births and deaths, and the migration that takes place each year. Collectively, these are referred to as the components of change. The difference between the number of live births and the number of deaths is known as natural change. If the number of deaths exceeds the number of live births, then negative natural change occurs. This might not mean the total size of the population decreases, because migration can still lead to overall population growth through more people moving into an area than leaving it.

The [latest official estimates of the UK population](#) relate to the year ending June 2020 (referred to as mid-2020). They are based on 2011 Census data and rolled forward each year to take account of the births, deaths and migration that took place since the previous mid-year estimates. The data show that in the year to mid-2020 there were approximately 700,700 live births and 669,200 deaths in the UK. This means that in mid-2020, natural change (the difference between the number of births and the number of deaths) was approximately 31,500.

The year to mid-2020 includes the early part of the coronavirus (COVID-19) pandemic, so the number of deaths that occurred in this period was influenced by COVID-19 deaths from March to June 2020. The number of births that occurred in the year to mid-2020 is not affected by coronavirus because babies born in the year ending June 2020 were conceived before the start of the pandemic. However, birth registrations were suspended during the early part of the pandemic, and this affected how we collated the data. We estimate that the data in the mid-year population estimates cover at least 99.7% of births in the reference period.

The first eight months of the period covered by the latest mid-year population estimates relate to before the pandemic, so these estimates do not show the full extent of its impact on births and deaths in the UK. However, more recent data on births, and data on deaths based on the date the death was registered, are now available.

3 . Trends in births and deaths over recent years and the impact of the pandemic

In the five years preceding the onset of the coronavirus (COVID-19) pandemic, natural change in the UK was driven by a steadily falling number of births and a relatively stable number of deaths. This has caused natural change to generally decrease over the last decade between mid-2011, when there were 255,000 more births than deaths, to mid-2020 when the difference was 31,500. [Our blog on the potential impacts of the pandemic on demography](#) explores this in more detail.

The coronavirus pandemic meant that 2020 was an exceptional year for demography in the UK. In the calendar year of 2020 there were 90,173 deaths registered involving COVID-19 across the UK, taking the total number of deaths to 689,629, an increase of 84,922 from 2019. The number of births decreased in 2020, to 683,191, which was a fall of 29,489 from 2019. This means that natural change in the UK in 2020 was negative 6,438, which is smaller than that reported in the mid-2020 population estimates. This shows how the COVID-19 pandemic continued to have an impact on population change in the second half of 2020.

More recent waves of COVID-19 have also affected population change in the early part of 2021, and the pandemic may continue to have an impact on the remainder of 2021 and beyond. These impacts could be driven by further deaths involving COVID-19, longer-term residual impacts of the pandemic on public health and the resulting mortality outcomes, and the effect of lockdowns and wider uncertainty on family planning and fertility. These factors, along with long-term demographic trends, such as falling fertility, will determine the level of natural change in the UK population in the future. Accordingly, there is ongoing interest in ascertaining the most up-to-date picture of trends in births and deaths across the UK and its four constituent countries.

4 . Latest data on births and deaths in the UK

Publication of statistics on births and deaths in England and Wales, Northern Ireland and Scotland is the responsibility of the Office for National Statistics (ONS), the Northern Ireland Statistics and Research Agency (NISRA) and National Records of Scotland (NRS) respectively. The data are comparable across the UK countries but the latest statistics from them are available at different times. In addition, the time it can take between a birth or death occurring and it being registered and subsequently recorded in the statistics can also differ. To provide timely statistics, provisional data are first made available, which can be revised later as more data are collected.

The 2020 births figures in this release are provisional and subject to change, except for data for Scotland, which are final. The deaths data for Northern Ireland are provisional and will be finalised in October 2021. However, we do not expect the provisional figures to change substantially when the final figures are released.

Table 1 shows the number of births, deaths, and natural change in the UK and its constituent countries in 2020. The table shows that there were more deaths than births in Scotland and Wales in 2020, while there were more births than deaths in England and Northern Ireland.

Table 1: Live births, deaths and natural change by UK country, 2020

	Births	Deaths	Natural change
UK	683,191	689,629	-6,438
England	585,704	569,700	16,004
Northern Ireland	20,825	17,614	3,211
Scotland	46,809	64,093	-17,284
Wales	28,661	37,399	-8,738

Source: Office for National Statistics, National Records of Scotland, Northern Ireland Research and Statistics Agency

Notes

1. Live births figures for the UK, England, Wales and Northern Ireland are provisional.
2. Live births figures for England and Wales are based on births notifications and as such relate to the number of live births occurring in the reference period, while those for Scotland and Northern Ireland are derived from birth registrations and represent number of live births by date of registration.
3. Finalised data relating to 2020 for Northern Ireland will be published in the Registrar General's Annual Report, produced by the Northern Ireland Statistics and Research Agency, which is planned for publication in October 2021.
4. Death figures are based on deaths registered rather than deaths occurring in a calendar year. For information on the impact of registration delays in England and Wales, see Impact of Registration Delays on Mortality Statistics.
5. Figures for the UK, Scotland and Northern Ireland represent country of occurrence. England and Wales are based on country of residence.
6. UK totals include live births and deaths of non-residents. Therefore, the sum of the four constituent countries does not equal that of the UK overall.

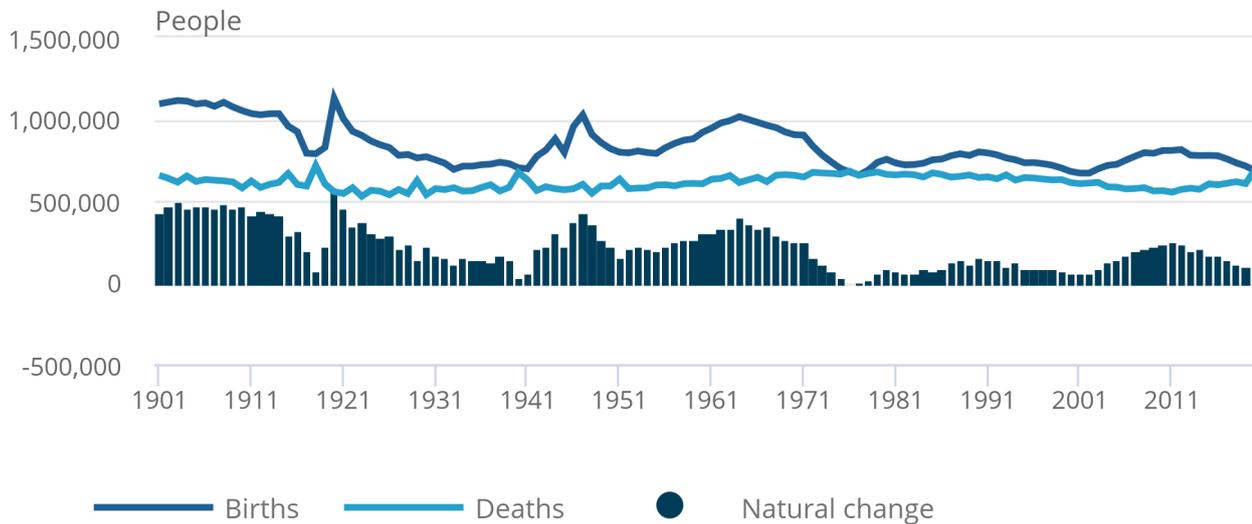
Figure 1 shows the steady decline in the number of births in the UK over recent years, and the marked increase in the number of deaths in 2020. It shows that there were more deaths registered in 2020 than in any year since the First World War. The increase in the number of deaths in 2020, combined with decreasing numbers of births, caused the rate of natural change to be negative for the first time in 44 years.

Figure 1: There were more deaths than births in the UK in 2020 for the first time since 1976

Live births, deaths and natural change, UK, 1901 to 2020

Figure 1: There were more deaths than births in the UK in 2020 for the first time since 1976

Live births, deaths and natural change, UK, 1901 to 2020



Source: Office for National Statistics, National Records of Scotland, Northern Ireland Research and Statistics Agency

Notes:

1. Deaths and births data for 2020 are provisional.
2. Death figures are based on deaths registered rather than deaths occurring in a calendar year. For information on the impact of registration delays in England and Wales, see [Impact of Registration Delays on Mortality Statistics](#).

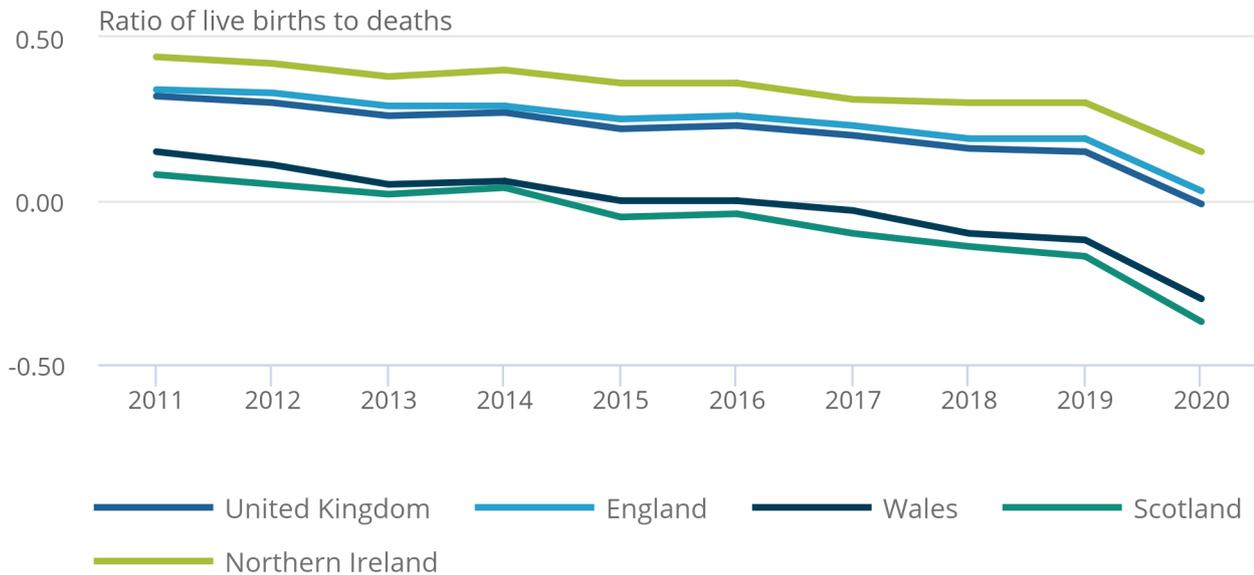
Figure 2 shows the ratio of births to deaths in each UK country over recent years, where a negative value denotes more deaths than births (negative natural change). It shows that in Scotland, there were more deaths than births each year since 2015, and for Wales, this was the case each year since 2016. There were more births than deaths in England and Northern Ireland up to and including 2020, although the difference between the numbers of births and deaths has been decreasing.

Figure 2: There were more deaths than births in Scotland and Wales in 2020

Ratio of live births to deaths by UK country, 2011 to 2020

Figure 2: There were more deaths than births in Scotland and Wales in 2020

Ratio of live births to deaths by UK country, 2011 to 2020



Source: Office for National Statistics, National Records of Scotland, Northern Ireland Research and Statistics Agency

Notes:

1. The ratio of deaths to births was calculated by: $1 - \frac{\text{deaths}}{\text{births}}$, such that a value of zero denotes an equal number of births and deaths, and a negative value denotes more deaths than births.

[Our recent blog, How many people live in the UK?](#) explains how best to interpret the latest statistics on the population and how we have been addressing the data collection issues the pandemic imposed.

5 . Related links

[Deaths registered in England and Wales: 2020](#)

Bulletin | Released 5 July 2021

Registered deaths by age, sex, selected underlying causes of death and the leading causes of death. Contains death rates and death registrations by area of residence and single year of age.

[Population estimates for the UK, England and Wales, Scotland and Northern Ireland: mid-2020](#)

Bulletin | Released 25 June 2021

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

[Vital Events Reference Tables for Scotland: 2020](#)

Webpage | Updated 29 June 2021

These tables give the numbers of Vital Events for 2020. They provide the same kind of information as was contained in the pre-2001 Registrar General's Annual Reviews, plus additional details that have been added in recent years.

[Northern Ireland births, deaths and marriages statistics](#)

Webpage | Updated as and when data are available

The Vital Statistics Team provide statistics on vital events registered by the General Register Office (GRO) for Northern Ireland; these include birth, stillbirth, marriage and death registrations.