

Mid-2022 Population Estimates, Scotland

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This statistical report provides population estimates for Scotland, its council areas and NHS boards, by sex and age.

Main points

- Scotland's population was estimated to be 5,447,700 at mid-2022 (30 June 2022).
- There were 2,801,000 (51.4%) females and 2,646,700 (48.6%) males.
- An estimated 20% of Scotland's population were aged 65 and over, with 16% aged 0 to 15 years.
- Of the 32 council areas in Scotland, Glasgow City had the highest population (622,820), followed by City of Edinburgh (514,990). The three island council areas had the lowest populations (Na h-Eileanan Siar with 26,120, Shetland Islands with 23,020, and Orkney Islands with 22,020).
- These mid-year population estimates are the first set based on Scotland's Census 2022. Any population changes mentioned in this report refer to changes between 20 March 2022 (Census Day) and 30 June 2022 (mid-year).
- These estimates will be followed by rebased population estimates for mid-2011 to mid-2021, using the results from the 2022 census. When the rebased estimates are published, the corresponding report will include analysis of the changes to the population over the last decade, as well as the components of change over time (births, deaths and migration).

Mid-year population estimates and the census

Scotland's Census was carried out in March 2022. The census results are available on the [Scotland's Census](#) website, along with analysis of the changes over time. During the years between each census, NRS produces annual population estimates. They are based on the previous census, and adjusted each year to account for births, deaths and migration. Over time, these estimates gradually drift from the actual population counts until the next census is conducted. This 'drift' is anticipated, and it is standard procedure to revise the annual population estimates once census data becomes available. **This is the first set of mid-year population estimates to incorporate the new data from Scotland's Census 2022.**

NRS will now begin the rebasing exercise to revise the annual mid-year population estimates for 2011 to 2021. It will not be possible to make comparisons between the 2022 mid-year population estimates and previous figures until these revisions have been made. Therefore, **this document will only compare population changes between Census Day (20 March 2022) and the population as at 30 June 2022.**

NRS has also published a '[reconciliation report](#)' to identify the differences between the census and the annual population estimates, and to consider reasons for these differences.

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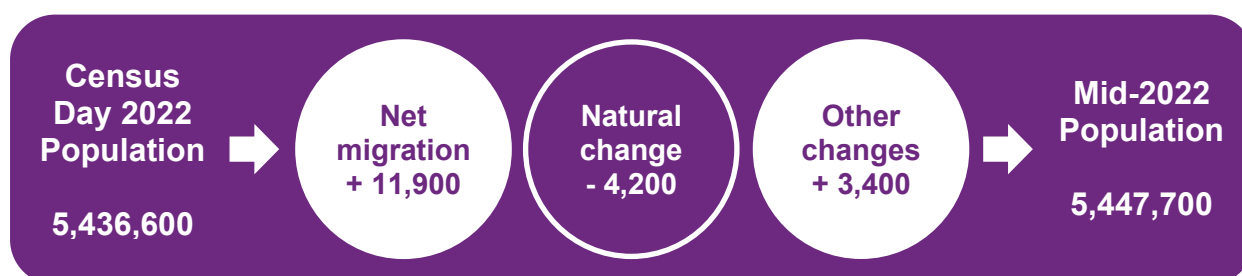
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Scotland's population at mid-2022

We estimate that Scotland's population on 30 June 2022 was **5,447,700 people**.

Population change is driven by two main components, natural change and net migration:

- **Natural change** is the number of births minus the number of deaths.
- **Net migration** is the number of people moving into an area minus the number of people leaving.



Between Scotland's Census 2022 and mid-2022, there were:

- 12,900 births,
- and 17,100 deaths in Scotland.

This resulted in a natural change of -4,200.

Between Scotland's Census 2022 and mid-2022:

- 25,800 people moved to Scotland; and
- 13,900 people moved out of Scotland.

This resulted in total net migration being +11,900.

There are two types of migration flows which add to Scotland's population:

- **Rest of the UK** – moves between Scotland and other countries in the UK
- **International** – moves between Scotland and countries outside of the UK.

International moves in and out

Between Scotland's Census 2022 and mid-2022:

- international immigration into Scotland was 14,300.
- international emigration from Scotland was 4,900.

Census Day in
Scotland was on
20 March 2022

This resulted in net international migration being +9,300. Note that, due to rounding, migration figures may not add up exactly.

Moves between Scotland and the rest of the UK

Between Scotland's Census 2022 and mid-2022, more people moved to Scotland from the rest of the UK than moved to the rest of the UK from Scotland:

- 11,600 people moved from the rest of the UK to Scotland.
- 9,000 people moved from Scotland to the rest of the UK.

This resulted in net migration from the rest of the UK being +2,600.

There have also been 32,200 moves between council areas in Scotland since Census Day. However, this does not affect Scotland's total population.

Other changes

'Other changes' include:

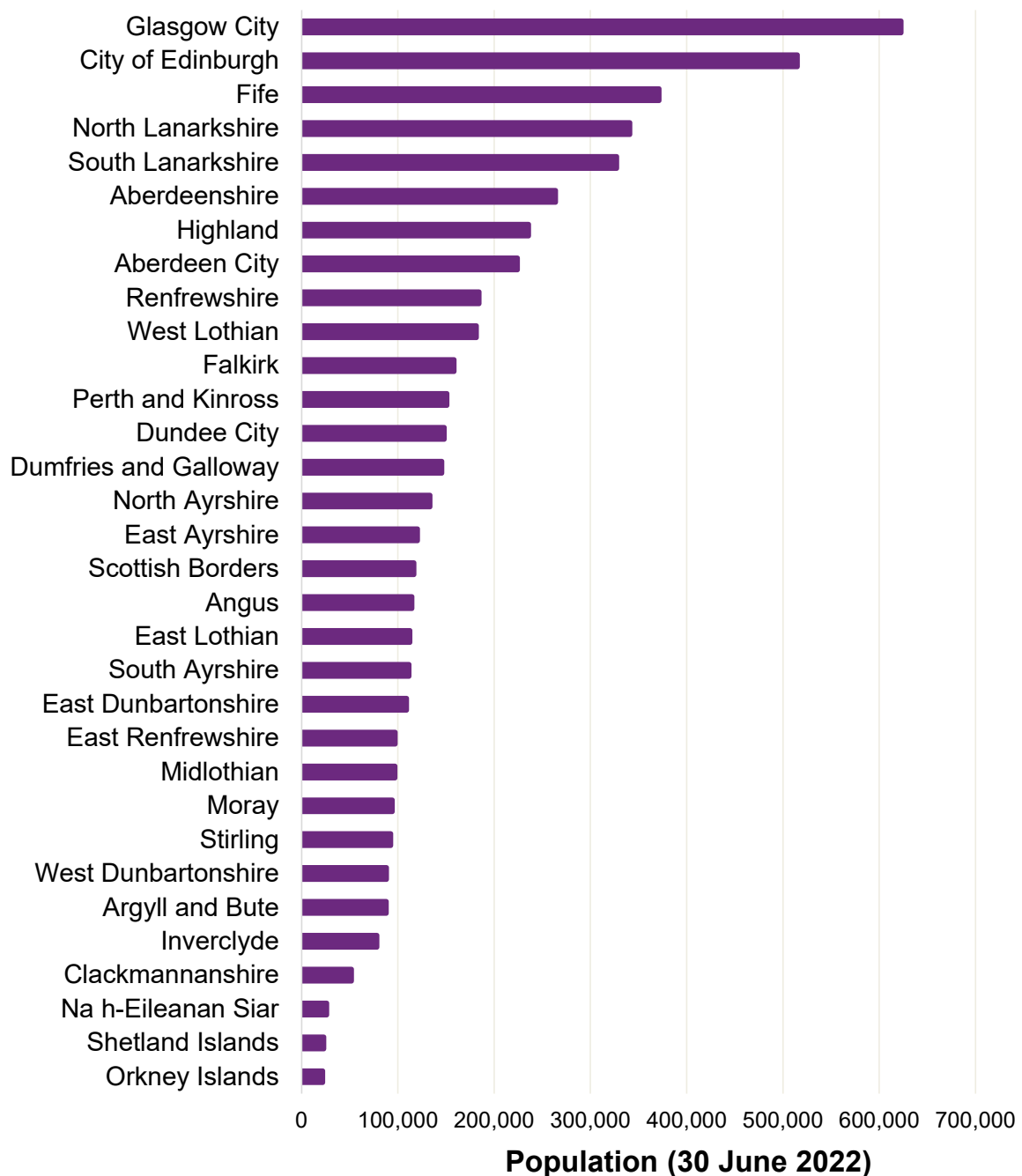
- Small changes due to further census data processing since September 2023;
- Adjustments to reflect differences in the definitions used for the armed forces in the census and the mid-year population estimates;
- Small changes since Census Day in the number of prisoners and armed forces stationed in Scotland;
- The effects of rounding.

Population across Scotland

Figure 1 shows the total estimated population at mid-year (30 June 2022) in each council area in Scotland.

Figure 1: The population of council areas in Scotland ranged from 622,820 in Glasgow City to 22,020 in Orkney Islands.

Population by council area, mid-2022



Glasgow City had the highest population (622,820), followed by City of Edinburgh (514,990). Council areas which are mainly rural tend to have lower estimated populations than mainly urban ones. However, Aberdeenshire had the sixth highest estimated population (263,750) and Highland had the seventh highest (235,710).

The three island council areas had the lowest estimated populations in Scotland: Na h-Eileanan Siar (26,120), Shetland Islands (23,020), and Orkney Islands (22,020).

The age structure of the population

Figure 2 shows the number of females and males for each year of age, from 0 to 90 and over. The effect of a lower birth rate in recent decades can be seen at younger age groups, with the effect of the high birth rate following the Second World War showing around ages 71 to 75. At older ages, the number of females is much higher than the number of males due to higher female life expectancy.

Figure 2: There are more females than males in older age groups

Population by single year of age and sex, mid-2022

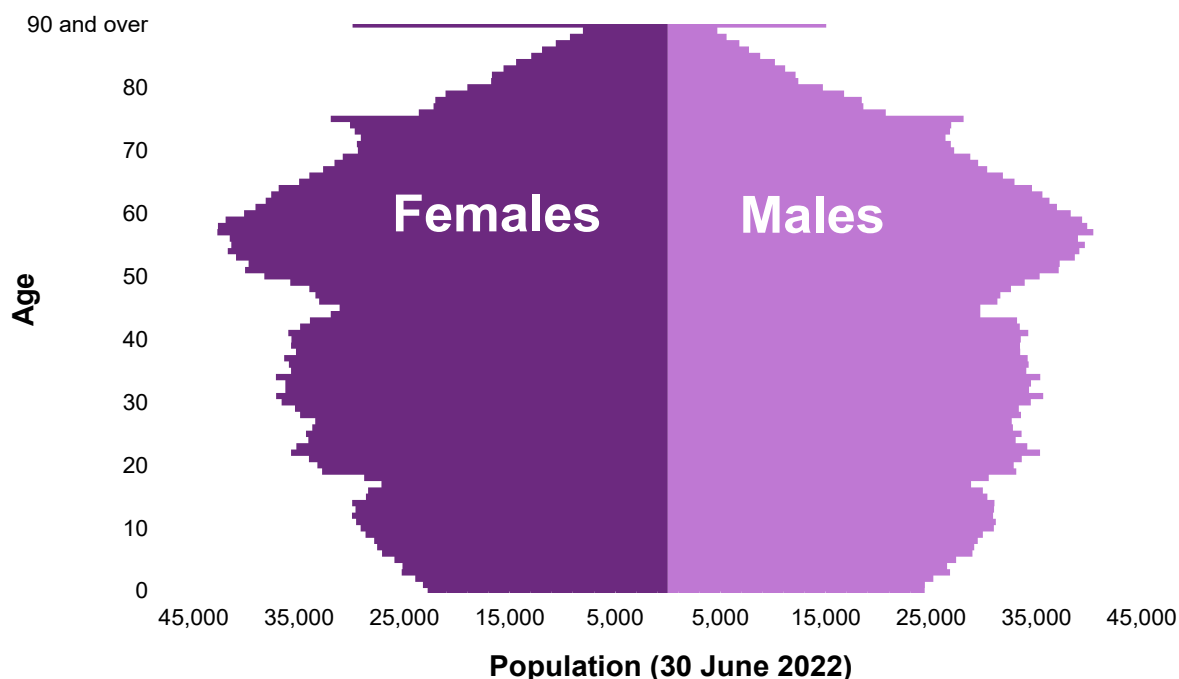


Figure 3 shows the percentage of the population in three age groups in each of Scotland's council areas.

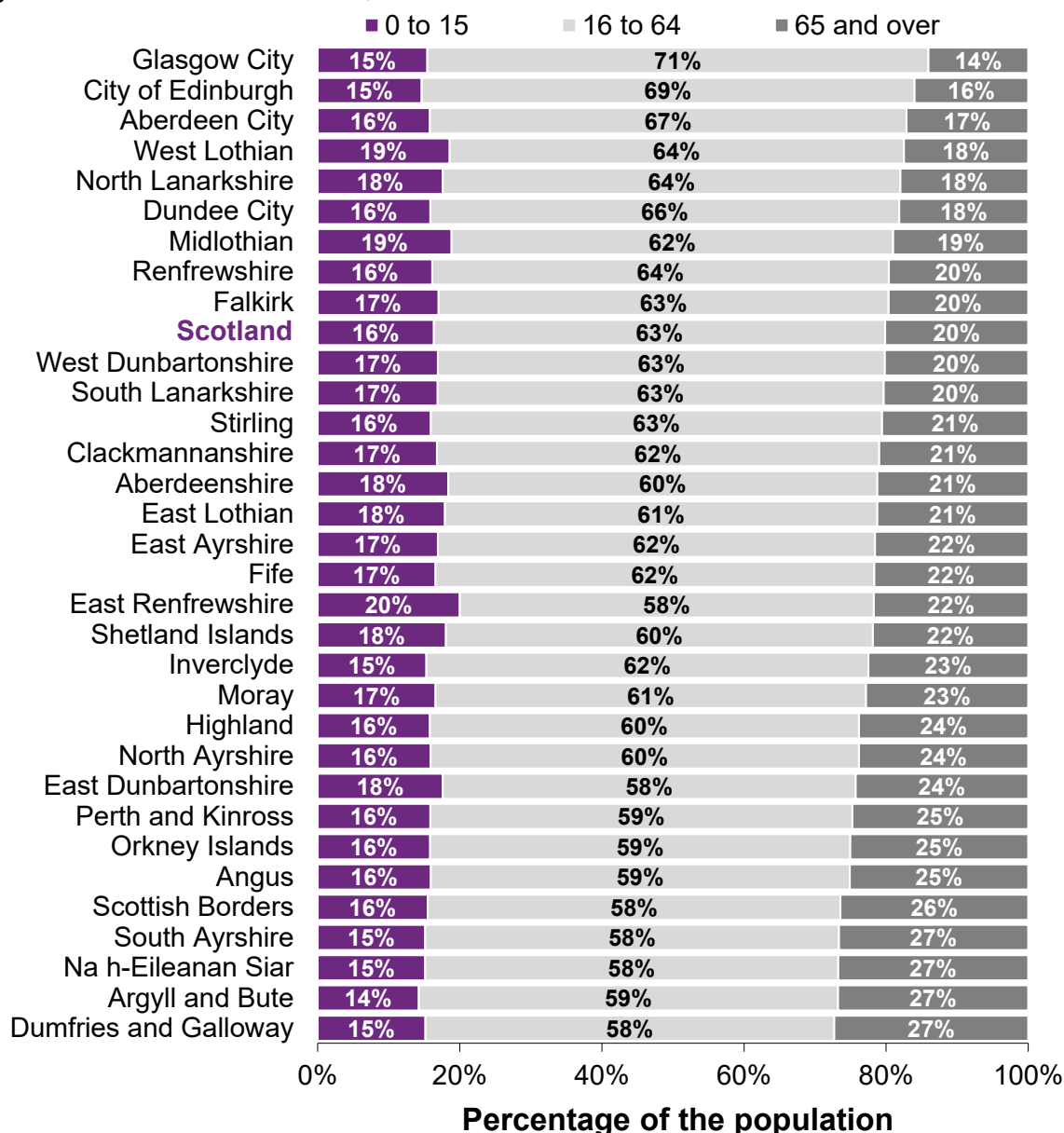
In mid-2022, the four largest cities in Scotland (Glasgow City, City of Edinburgh, Aberdeen City and Dundee City) had the highest percentages of population aged 16 to 64 years, as well as some of the lowest percentages of people aged 65 and over.

Whilst the cities tended to have lower percentages of children aged 0 to 15 years, the areas neighbouring the cities had some of the highest. The highest figures were all in areas which border cities - East Renfrewshire (20%), Midlothian (19%), West Lothian (19%) and Aberdeenshire (18%).

Rural and island areas tended to have an older age profile. They had some of the highest percentages of people aged 65 and over.

Figure 3: Rural areas tend to have the highest percentages of people aged 65 and over

Age structure of council areas, mid-2022



Figures are rounded so may not add up to 100%. Ordered by percentage aged 65 and over.

Background notes

How are population estimates calculated?

A detailed [methodology guide](#) for this publication is available from the NRS website. The 2022 mid-year population estimates are based on Scotland's Census 2022 and updated to account for population change over the time period between Census Day (20 March 2022) and 30 June 2022. They are based on the usually resident population, which covers people living in Scotland for a period of at least 12 months, whatever their nationality.

The three elements of population change are:

- **Natural change** - births minus deaths
- **Net migration** - the difference between long-term moves into and out of Scotland
- **Other changes** - small changes due to further census data processing since September 2023; adjustments to reflect differences between the definitions used in the census and the population estimates; small changes since Census Day in prisoner and armed forces populations; and rounding effects.

International migration

The estimates of international migration into and out of Scotland which inform these population estimates are produced by the Office for National Statistics (ONS). They align with the revised [long-term international migration](#) estimates for the year ending June 2022, published by ONS in November 2023, which are classed as being official statistics in development. They are based on administrative and survey data using a range of data sources, and are part of an ongoing programme of work to transform population and migration statistics.

Special Populations

In the mid-year population estimate method, adjustments to the population estimates are made for those population groups that are not captured by the data used to estimate internal or international migration, namely: members of the armed forces and prisoners. These 'special populations' have very specific age structures that remain stable over time, so they are treated differently from the rest of the population when producing mid-year estimates. The rules used to update the population estimates for these special populations for mid-2022 were slightly different from those normally used to produce mid-year estimates, in years in which a census is not held. The rules used for mid-2022 are described as follows.

For the armed forces population:

- adjustments were made to census data to reflect the definition of 'usual residence' used in the mid-year population estimates: members of the armed forces were counted as usually resident at the address where they spend most of their time.

- aggregate data obtained from Defence Statistics (part of the Ministry of Defence) was combined with census data. The address of a subset of armed forces personnel was adjusted to their place of work, in order to reflect the definition of 'usual residence' used in the mid-year population estimates.

For the prisoner population:

- aggregate data on the prisoner populations on Census Day and at mid-year was obtained from Justice Analytical Services. The difference between the prisoner population on Census Day (aged on to mid-year) and the prisoner population at mid-year was allocated to Local Authorities (this is the "prisoner adjustment").
- Prisoners were counted as usually resident in the prison estate if they had a sentence length of 12 months or more. This is different to previous mid-year population estimates, where the definition was consistent with a sentence length of 6 months or more.

How are population estimates used?

Population estimates are used for a variety of purposes including:

- Resource allocation
- Planning of services such as education and health
- Informing local and national policy
- Modelling the economy
- As a base for demographic projections
- Incorporating into a range of other official statistics

Population estimates are also used to measure progress of the population indicator in Scotland's [National Performance Framework](#).

Strengths and limitations

It is important to have high quality statistics on the latest population (mid-year population estimates). NRS produces detailed annual estimates on the resident population of Scotland using a range of data gathered from statistical censuses and surveys, as well as administrative data. There are processes in place to check the suitability of these sources.

Quality assurance takes place throughout the production of population estimates, with checks in place to ensure consistency and completeness. More information on the [quality assurance arrangements](#) for administrative data used in population estimates is available on the NRS website, along with information on the suitability of each data source used in the production of the population estimates.

It is important to consider the **limitations** when using population estimates. The population estimates use the census as the base population. Population change is applied to the base population each year to create the annual population estimates.

Migration is the most difficult part of the population estimates to estimate precisely, as migratory moves are not registered in the UK, either at the national or local level. The best proxy data available on a consistent basis, such as patient registers, other administrative data and surveys, are used to estimate migration. NRS are part of a cross-government transformation programme, being led by the Office for National Statistics, to [improve population and migration statistics](#) through greater use of administrative data sources.

Scotland's Census 2022 provides a new base population and as a result, the population estimates for mid-2011 to mid-2021 will be rebased to bring them in line with the 2022 Census population.

Future developments

The methodology used in the mid-year estimates changes as different methods and data sources become available to NRS. Any improvements to the data sources and methodology of these statistics are discussed and assessed with the [Population and Migration Statistics Committee \(Scotland\)](#).

Transformation of population and migration statistics

NRS are working with the Office for National Statistics, and other Government Statistical Service partners, as part of the [transformation programme](#) to improve population and migration statistics.

NRS administrative data based population and household estimates project

One goal of the census programme is to make recommendations for future censuses. This is supported by NRS' Administrative data based population and household estimates project. An aim of the project is to investigate administrative data collected by public bodies and services, which could be used to augment, complement or replace NRS' data collected by a traditional census. The most recent sets of [administrative data based population estimates for 2016 to 2018](#) were published by NRS in August 2023. These are not Official Statistics – they have been created to allow a discussion with users about the use of administrative data within the field of demographic statistics.

Links to related statistics

The first results from Scotland's Census 2022 were published on 14 September 2023. The [Scotland's Census](#) website contains census results, information, and planned dates for future publications.

[Population projections](#) for Scotland and sub-national areas are available from the NRS website.

[Population estimates for the UK](#) and its constituent countries are available from the Office for National Statistics website.

Population estimates for [small areas and other areas](#) within Scotland for mid-2022 will be released later in 2024.

The [Vital Events Reference Tables](#) including calendar year births and deaths are available on the NRS website.

Population estimates of [centenarians and people aged 90 and over](#) at Scotland and sub-national levels for mid-2022 will be published later in 2024.

Notes on statistical publications

Accredited Official Statistics

The United Kingdom Statistics Authority (UKSA) has designated these statistics as Accredited Official Statistics, in line with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics (available on the [UKSA](#) website).

Accredited Official Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with all aspects of the Code of Practice for Official Statistics. They are awarded Accredited Official Statistics status following an assessment by the Authority's regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is National Records of Scotland's responsibility to maintain compliance with the standards expected of Accredited Official Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. Accredited Official Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.

Information on background and source data

Further details on data source(s), timeframe of data and timeliness, continuity of data, accuracy, etc. can be found in the [metadata](#) that is published alongside this publication on the NRS website.

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Preserving the past – We look after Scotland’s national archives so that they are available for current and future generations, and we make available important information for family history.

Recording the present – At our network of local offices, we register births, marriages, civil partnerships, deaths, divorces and adoptions in Scotland.

Informing the future – We are responsible for the Census of Population in Scotland which we use, with other sources of information, to produce statistics on the population and households.

You can get other detailed statistics that we have produced from the [Statistics](#) section of our website. Scottish Census statistics are available on the [Scotland’s Census](#) website.

We also provide information about [future publications](#) on our website. If you would like us to tell you about future statistical publications, you can register your interest on the Scottish Government [ScotStat website](#).

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Enquiries and suggestions

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