National Records of Scotland

Mid-2021 Small Area Population Estimates, Scotland

Published on 1 September 2022

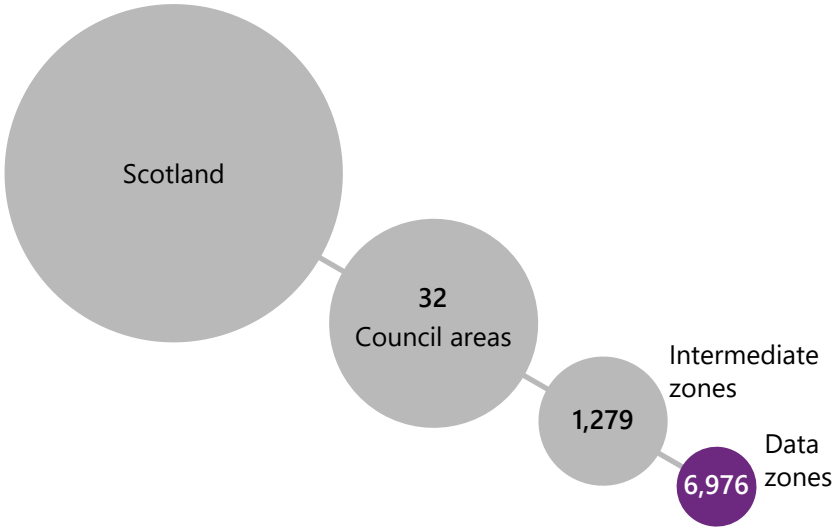
This statistical report provides population estimates for data zones and other geographies across Scotland

Scotland is split into 6,976 small areas called data zones

Data zones are a small area geography used to provide statistics at a local level.

Data zones nest within council areas.

Most data zones contain between 500 and 1,000 people.



The patterns of population change were different to previous years

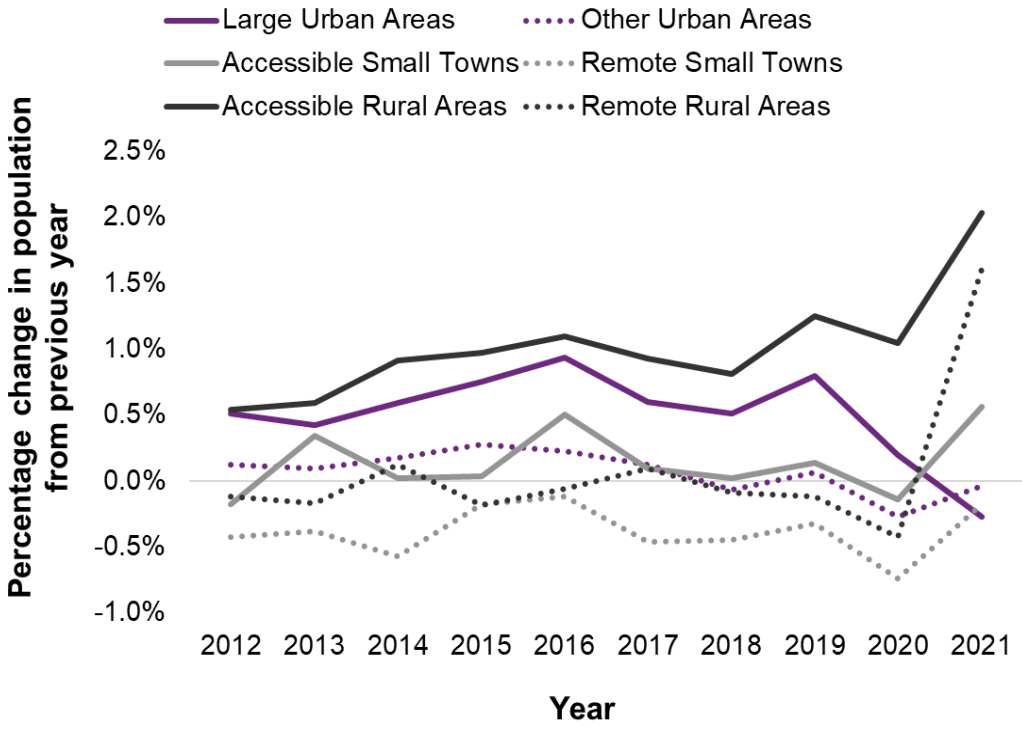
Each data zone can be categorised according to the Scottish Government's Urban Rural classification.

Over the year to mid-2021, the percentage of Scotland's population living in large urban areas fell by 0.3%. This marks a change from recent years.

The percentage living in accessible rural areas increased by 2.0% - the largest increase of any type of area.

View changes in population on our interactive map: https://scotland.shinyapps.io/nrs-small-area-population-estimates-map/

Annual percentage change in population by Scottish Government's Urban Rural classification, mid-2012 to mid-2021

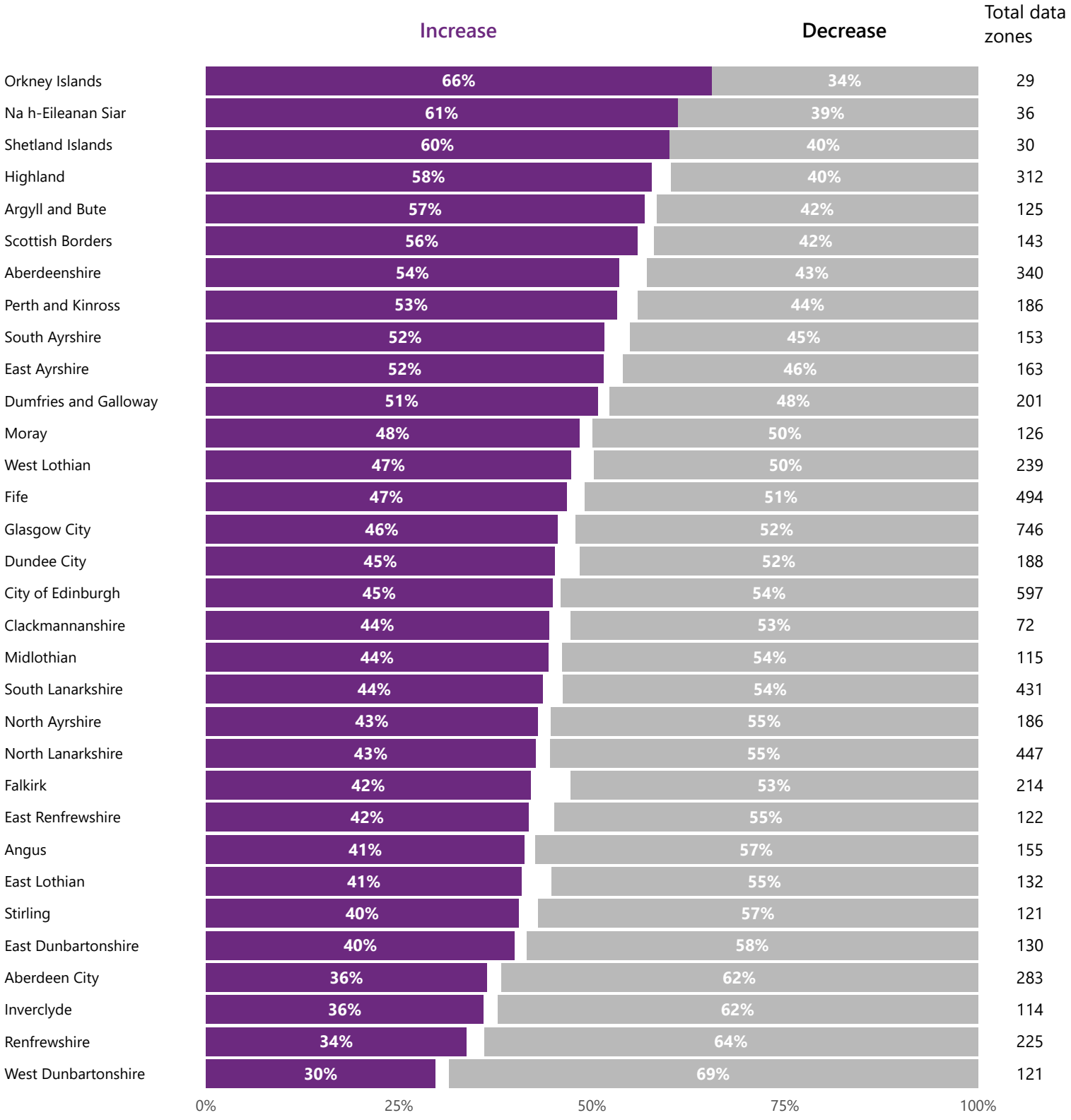


National Records of Scotland

Every council area has pockets of population growth and depopulation

Over the year to mid-2021, councils which saw the largest proportion of their areas increase in population were mainly island and rural councils. Nineteen out of thirty-two council areas (59%) experienced population decrease in over half of their data zones.

Percentage of data zones that increased, stayed the same (in white), or decreased in population by council area, mid-2020 to mid-2021



Contents

Main Points

- The number of people living in large urban areas has fallen. This marks a change from previous years. In contrast, the populations of rural areas, small towns, and other urban areas have either increased or fallen more slowly than the previous year.

- Most people still live in large urban areas (38%) and other urban areas (34%), compared with accessible rural areas (12%), accessible small towns (9%), remote rural areas (5%), and remote small towns (3%).

- Compared with the previous year, net migration into large urban areas decreased, whereas it increased in all other areas. In mid-2021, 2,360 more people moved out of large urban areas than moved in, while 6,170 more people moved into remote rural areas than left.

- Scotland's population is ageing. Rural and island areas experienced more ageing than cities. The percentage of data zones in which the median age increased over the last decade varied from 55% in Dundee City to 97% in Na h-Eileanan Siar.

- Every council area has pockets of population growth and decline. Areas which saw the largest proportion of data zones increase in population were mainly rural and island council areas in the year to mid-2021. Population growth in these areas was substantially higher than the growth observed in the previous year.

How has COVID-19 affected these figures?

These statistics account for changes in the population from 1 July 2020 to 30 June 2021 meaning that the entire year covered by this publication was affected by the COVID-19 pandemic. The pandemic has led to increased deaths across Scotland and impacted movement within the UK and internationally.

The pandemic has also affected some data sources that feed into the population estimates. More information about the impact on data sources can be found at the end of this document.

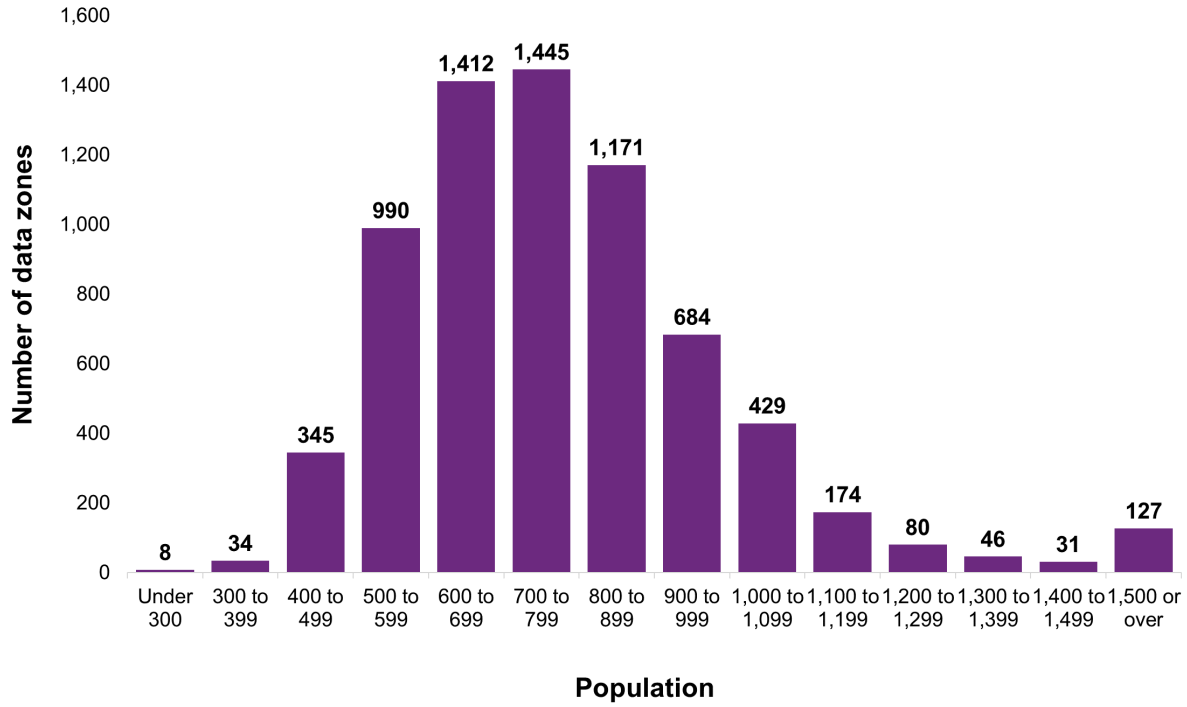
Overview of data zone populations

Data zones are a small unit of geography which help summarise population data at a local level. They are designed to contain a population of around 500 to 1000 household residents and they nest within council areas.

There are 6,976 data zones in Scotland. In mid-2021 their populations ranged from 0 to 4,662 people[1]. Together they summed to the population of Scotland which was 5,479,900.

Figure 1 summarises the frequency of data zones by population size. Most data zones (82%) have between 500 and 999 people living in them.

Figure 1: Number of data zones by population size, mid-2021



The mean data zone population was 786 people. This is greater than the median[2] population (748) because there are several very large data zones and fewer very small data zones.

[1] Three data zones – Petershill - 04, Sighthill - 02, and Sighthill - 03 – had zero populations in mid-2021. There have been major flat demolitions in these areas in recent years. The data zone with the largest population was Renfrewshire Rural North and Langbank - 03 (4,662 people).

[2] The median is the value which splits the data into the highest 50% of values and the lowest 50% of values. In this example, a median of 748 means that half of the data zones have a greater population than 748 and half have a smaller population than 748.

The presence of large communal establishments like armed forces bases, prisons, and student accommodation can result in high data zone populations. For example, Currie West - 01 contains student halls of residence for Herriot Watt University and was the fifth most populated data zone in Scotland.

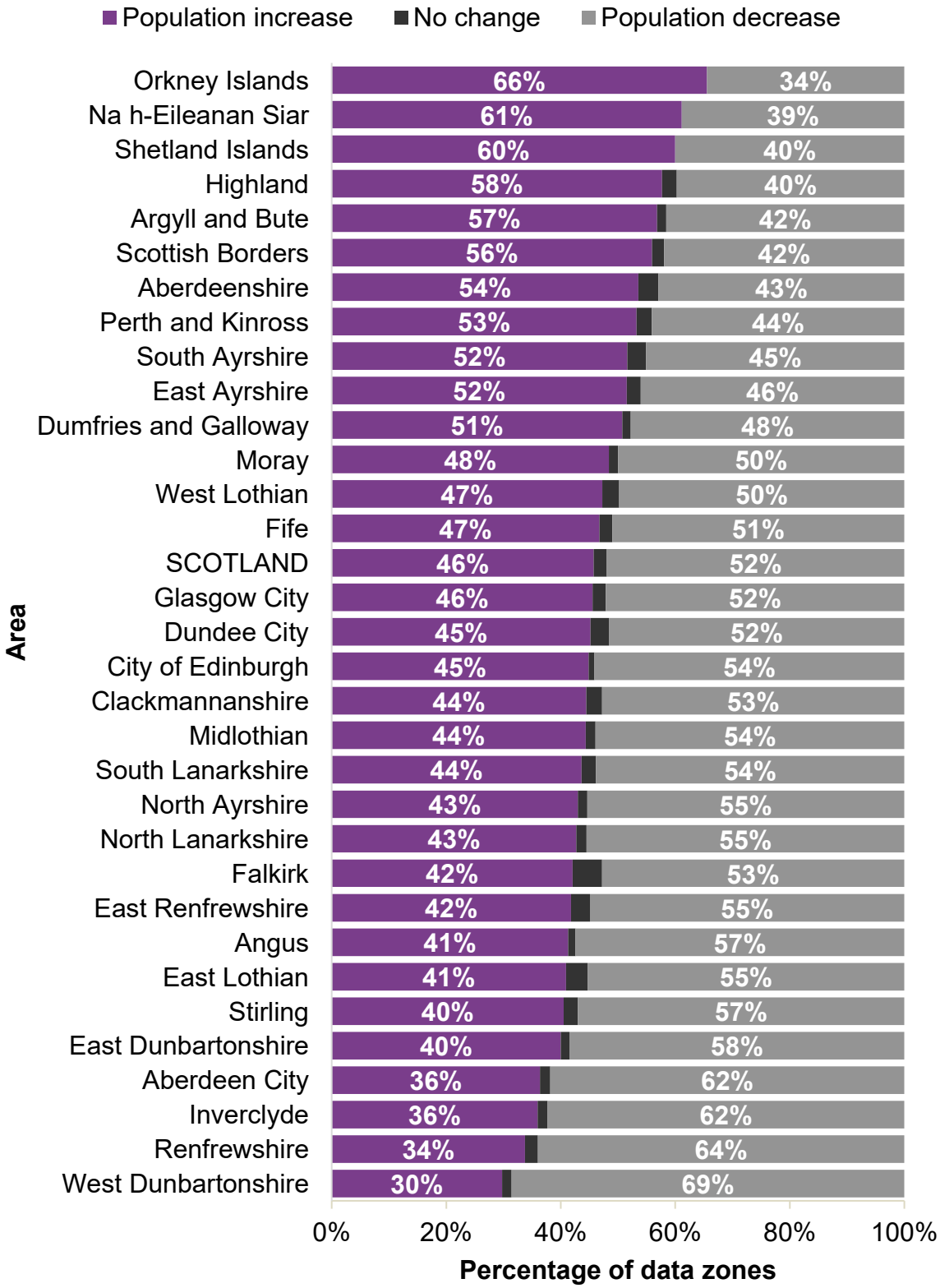
In 2011, an average of 760 people lived in each data zone. This number increased to 786 by mid-2021, reflecting the overall increase in Scotland's population.

Population changes can be broken down by council area. **Figure 2** shows the percentage of data zones within each council area that either increased, remained the same, or decreased in population over the year to mid-2021.

Areas which saw the largest proportion of data zones increasing in population were mainly rural and island council areas. Orkney Islands experienced the most population growth with 66% of its data zones increasing, followed by Na h-Eileanan Siar (61%) and Shetland Islands (60%).

Nineteen out of thirty-two council areas (59%) experienced population decrease in over half of their data zones. Three areas in the west of Scotland were among the areas seeing the largest proportion of data zones decrease from mid-2020. West Dunbartonshire had 69% of its data zones decreasing in population, followed by Renfrewshire (64%), and Inverclyde (62%) over the latest year.

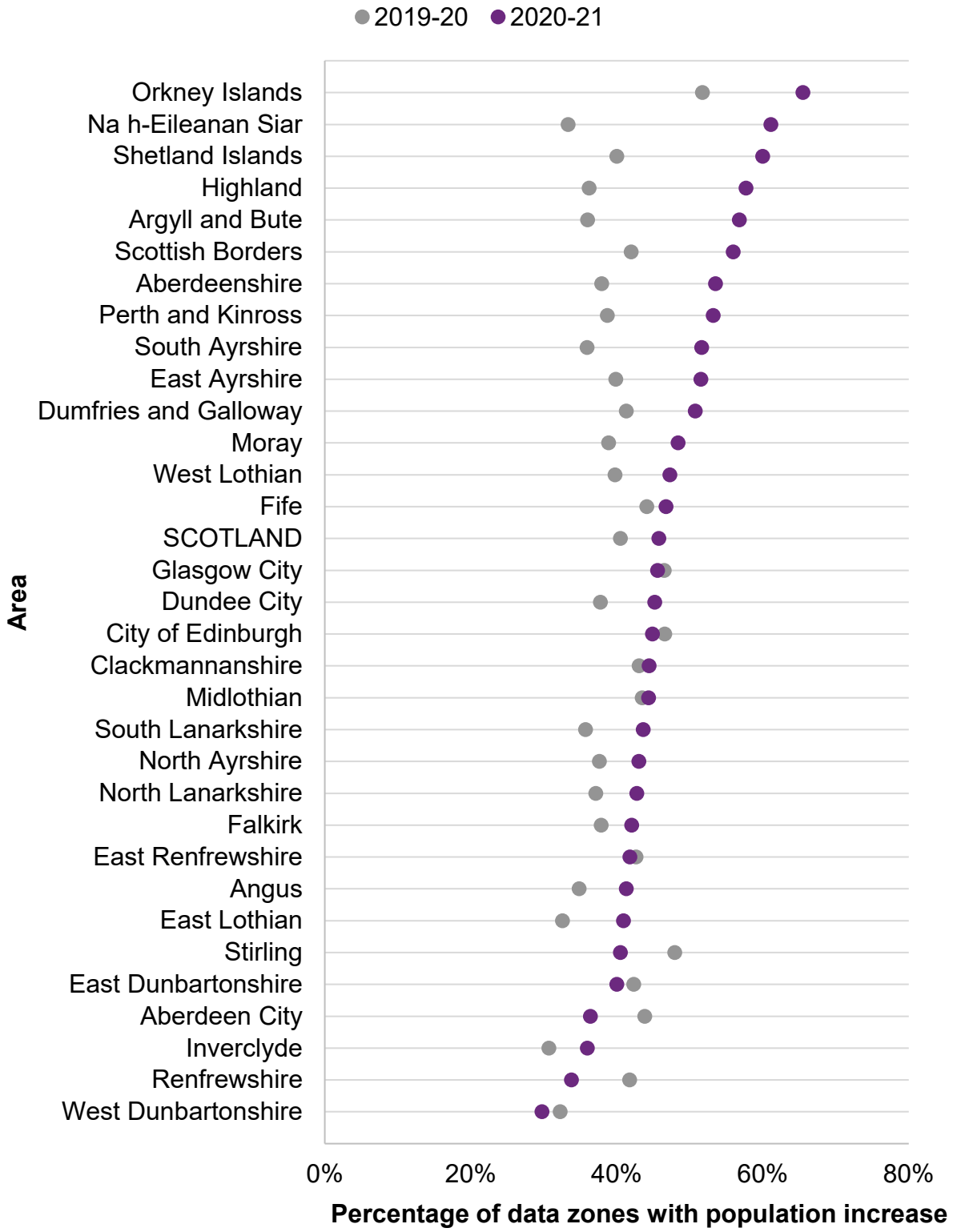
Figure 2: Percentage of data zones by population change and council area, mid-2020 to mid-2021



These trends are different to the previous year. As **figure 3** shows, the proportion of data zones that increased from mid-2019 to mid-2020 was smaller in island and rural areas than in the year to mid-2021.

The area with the biggest change was Na h-Eileanan Siar. Over the year to mid-2020, 33% of its data zones increased in population. Over the following year, 61% of its data zones increased in population. Population change in different areas is explored in more detail in the section on urban rural populations.

Figure 3: Percentage of data zones by population change and council area, mid-2019 to mid-2020 and mid-2020 to mid-2021



Population and age

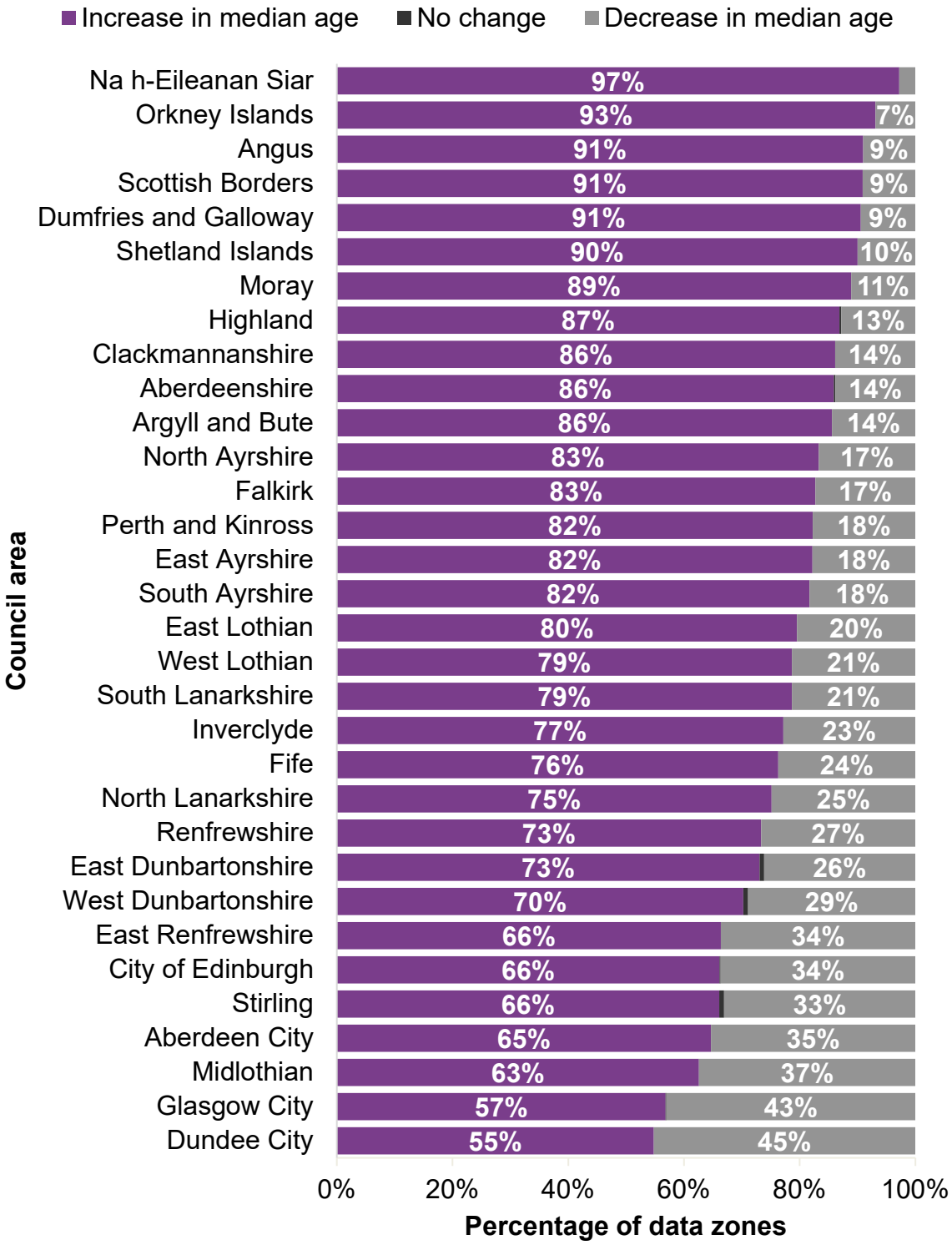
In mid-2021 the median age in Scotland was 42, but this varied considerably across data zones:

- The “youngest” data zone was Newington and Dalkeith Road - 03 in the City of Edinburgh council area with a median age of 20 years. This area contains student accommodation for the University of Edinburgh.

- The “oldest” data zone was Falkirk - Town Centre and Callendar Park - 02 in the Falkirk council area with a median age of 73 years. This area contains many developments aimed at older residents. Both of these findings are unchanged from the previous year.

The ten-year change in each data zone’s median age by council area is highlighted in **figure 4.**

Figure 4: Percentage of data zones by change in median age and council area, mid-2011 to mid-2021



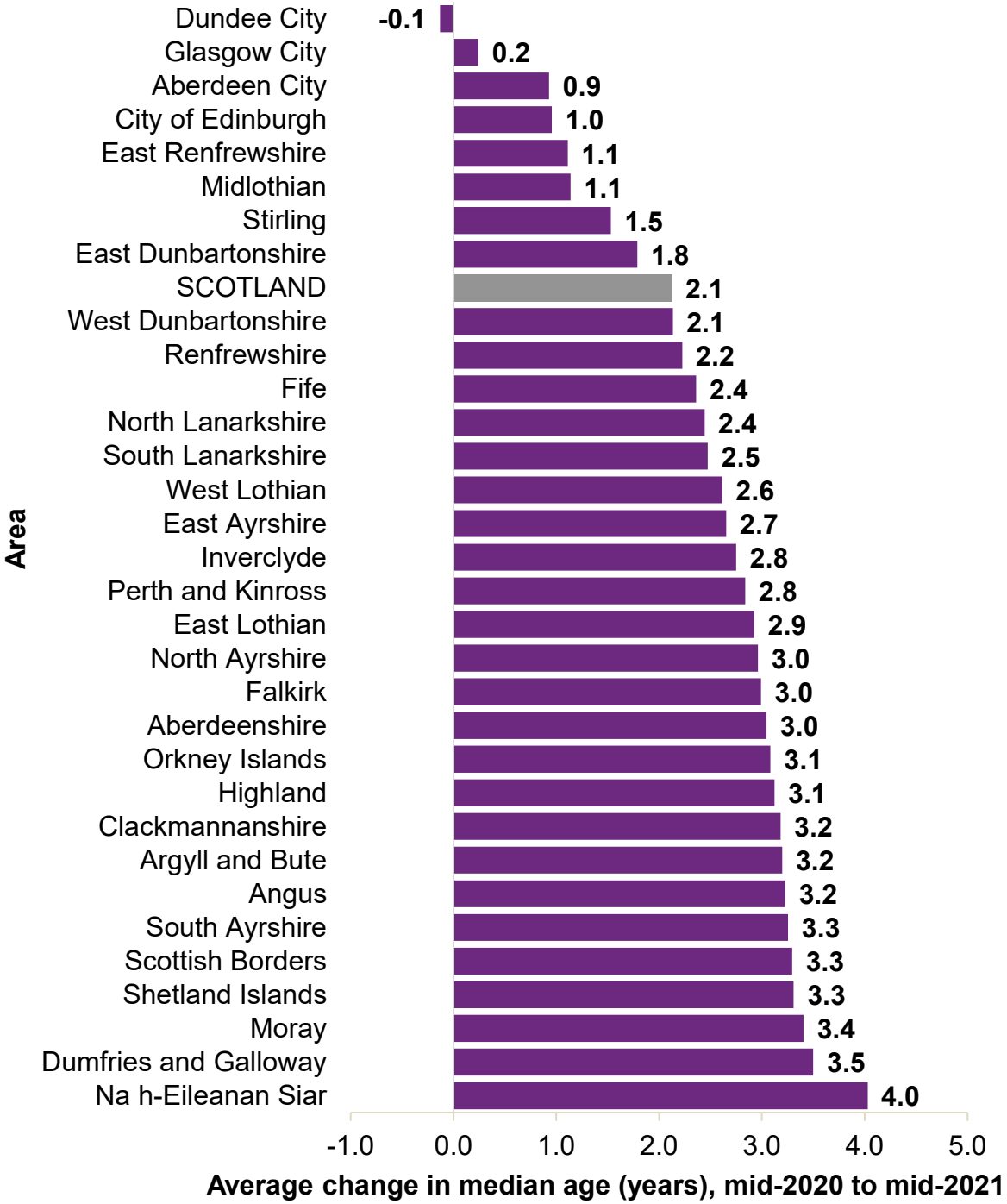
In all council areas, more than half of data zones saw an increase the median age. Na h-Eileanan Siar had the highest percentage of ageing data zones between mid-2011 and mid-2021. The median age increased in 97% of its data zones over this

period. Dundee City had the lowest percentage of data zones that had increased in median age (55%).

Rural and island council areas tend to experience more ageing than cities. This reflects the trend among younger generations of moving to cities for higher education or employment opportunities. Rural areas are generally more popular for people to retire to. However, it is important to note that rural areas have fewer data zones so relatively small changes will cause large effects on percentages.

Another way to look at changes in age structure is to compare the average change in median age between mid-2011 and 2021, as illustrated in **figure 5**.

Figure 5: Average change in median age across data zones between mid-2011 and mid-2021 by council area



The median age for an average data zone in Scotland increased by 2.1 years over ten years. It increased the most in Na h-Eileanan Siar (4.0 years), Dumfries and Galloway (3.5 years), and Moray (3.4 years).

The largest cities (Glasgow, Aberdeen, and Edinburgh) had the slowest increase in median age under this measure and were below the Scottish average. Dundee City

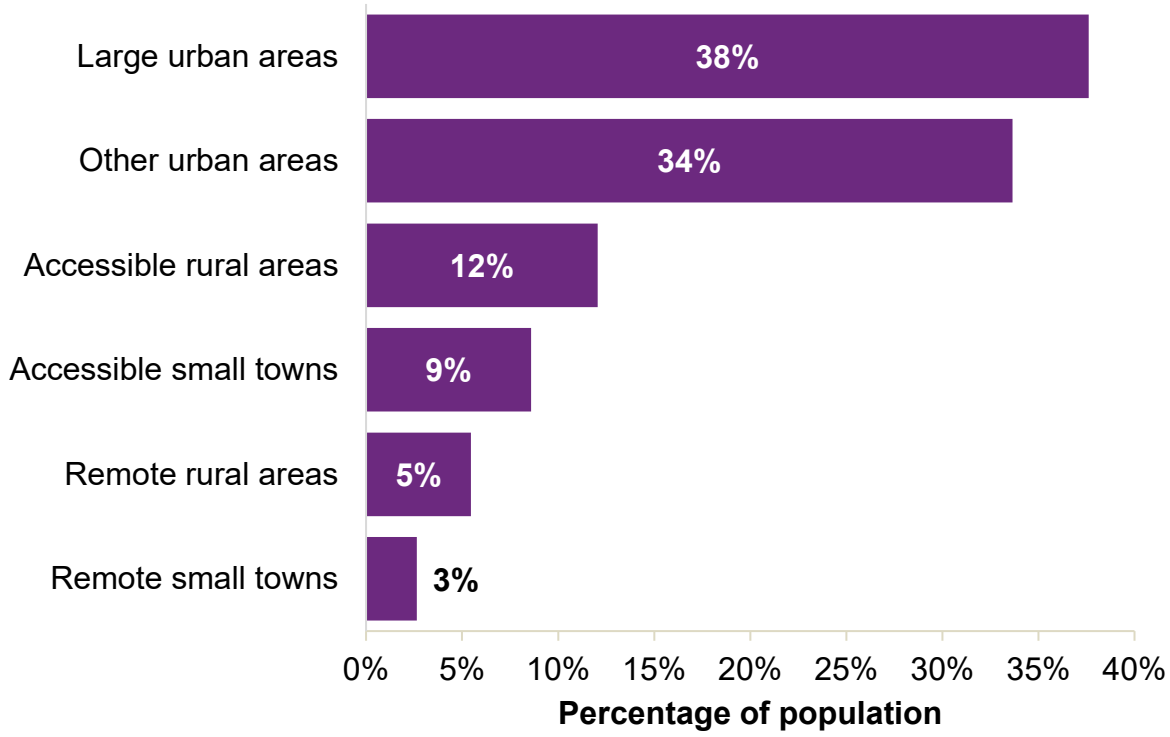
had a slight decrease in the median age of an average data zone (-0.1 years) over this period.

Urban-rural populations

The Scottish Government's Urban Rural Classification categorises each data zone in terms of how urban or rural, and how accessible the land area is. This helps us understand demographic patterns by area type. More information about the methodology underlying the Urban Rural Classification can be found on the Scottish government website. The data can be downloaded for the years 2001 to 2021 from the NRS website.

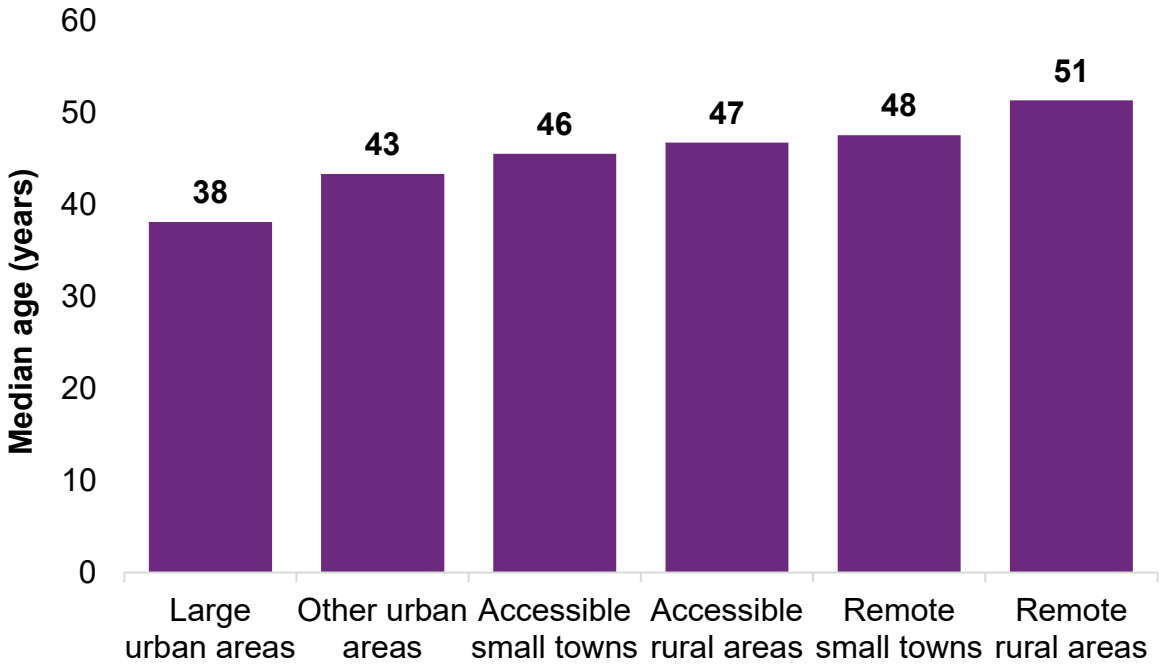
Using the 6-fold classification system, **figure 6** highlights the percentage of the population who lived in each area type in mid-2021. It shows that 38% (2,061,049) of people lived in large urban areas, while just 3% (144,514) lived in remote small towns. The majority of Scotland's population lived in urban areas (71%).

Figure 6: Scotland's population by 6-fold Urban Rural Classification, mid-2021



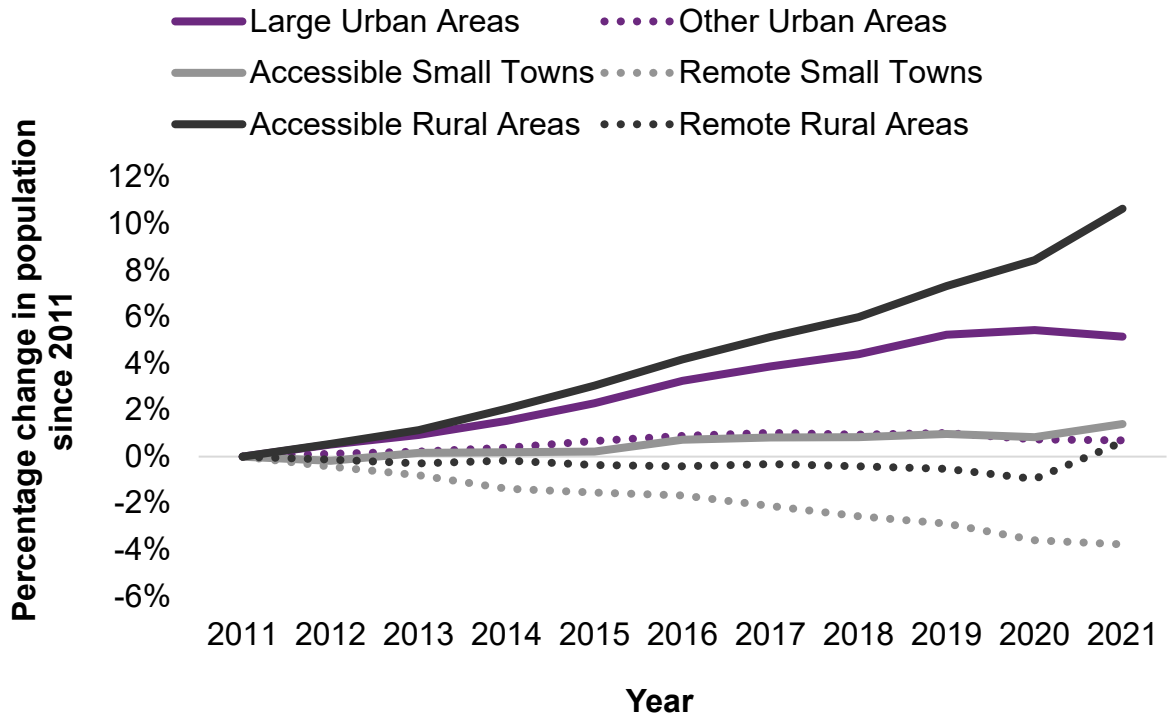
On average, people in cities tend to be younger and people in rural areas tend to be older. **Figure 7** shows that remote rural areas had the highest median age at 51 years, whereas large urban areas had the lowest at 38 years.

Figure 7: Median age by 6-fold Urban Rural Classification, mid-2021



The population of these areas have changed at different rates over time. **Figure 8** illustrates the percentage change in the population by urban rural area over the last decade.

Figure 8: Population change since 2011 by Urban Rural Classification, mid-2011 to mid-2021

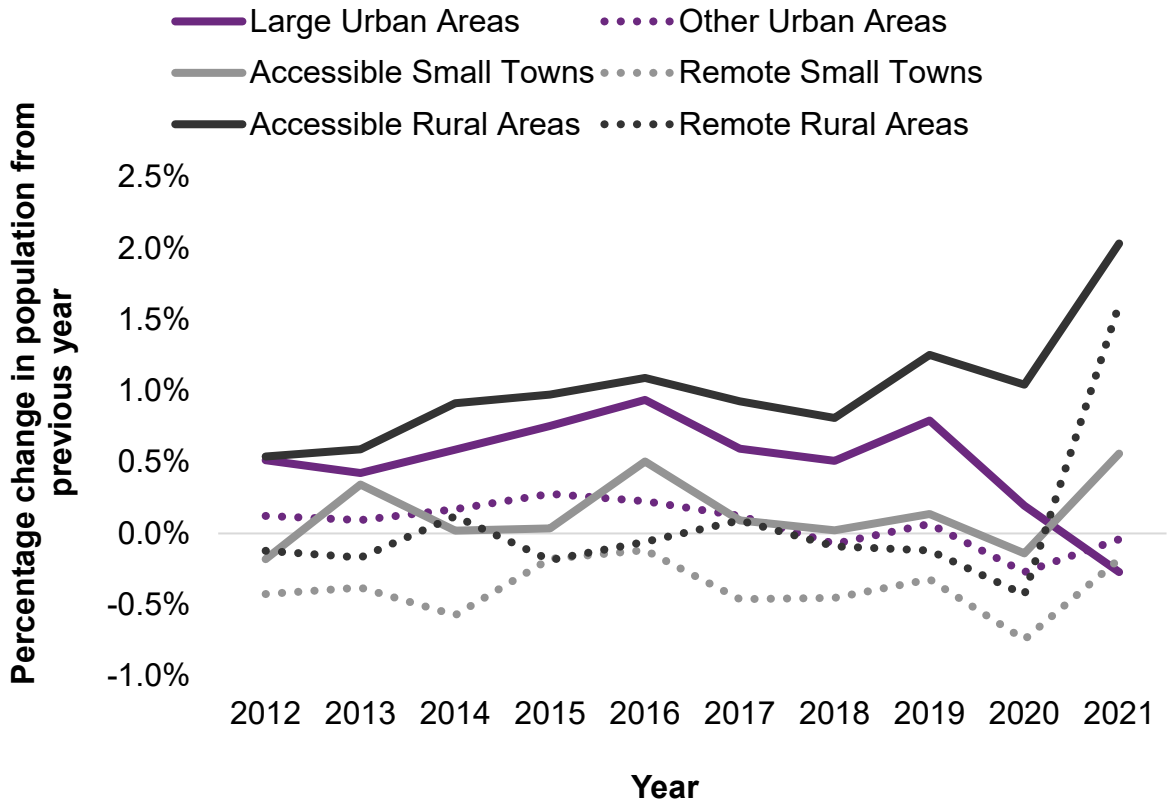


The areas with the greatest population growth over the last decade were accessible rural areas. 10.6% more people lived in these areas in mid-2021 than in mid-2011. The population of remote small towns on the other hand fell by 3.8% over the same period.

We can also look at how these populations have changed year on year. **Figure 9** plots the annual percentage change in population for each urban rural category.

It shows that the population living in large urban areas has fallen over the last year, despite consistent growth in the preceding years. In mid-2021 the population of large urban areas was 2,061,049 which represented a 0.3% decrease from mid-2020.

Figure 9: Annual percentage change in population by Urban Rural Classification, mid-2012 to mid-2021



Every other area either increased in population over the last year, or else their decline in population slowed compared with the previous year. The population of accessible rural areas had the highest percentage increase of any area (2%). **Table 1** summarises the changing population of these areas from mid-2020.

Table 1: Population change by urban rural area, mid-2020 to mid-2021

Urban rural category	Population at mid-2020	Population at mid-2021	Percentage change
Large Urban Areas	2,066,652	2,061,049	-0.3%
Other Urban Areas	1,844,560	1,843,792	0.0%
Accessible Rural Areas	647,721	660,901	2.0%
Accessible Small Towns	467,907	470,529	0.6%
Remote Rural Areas	294,384	299,115	1.6%
Remote Small Towns	144,776	144,514	-0.2%

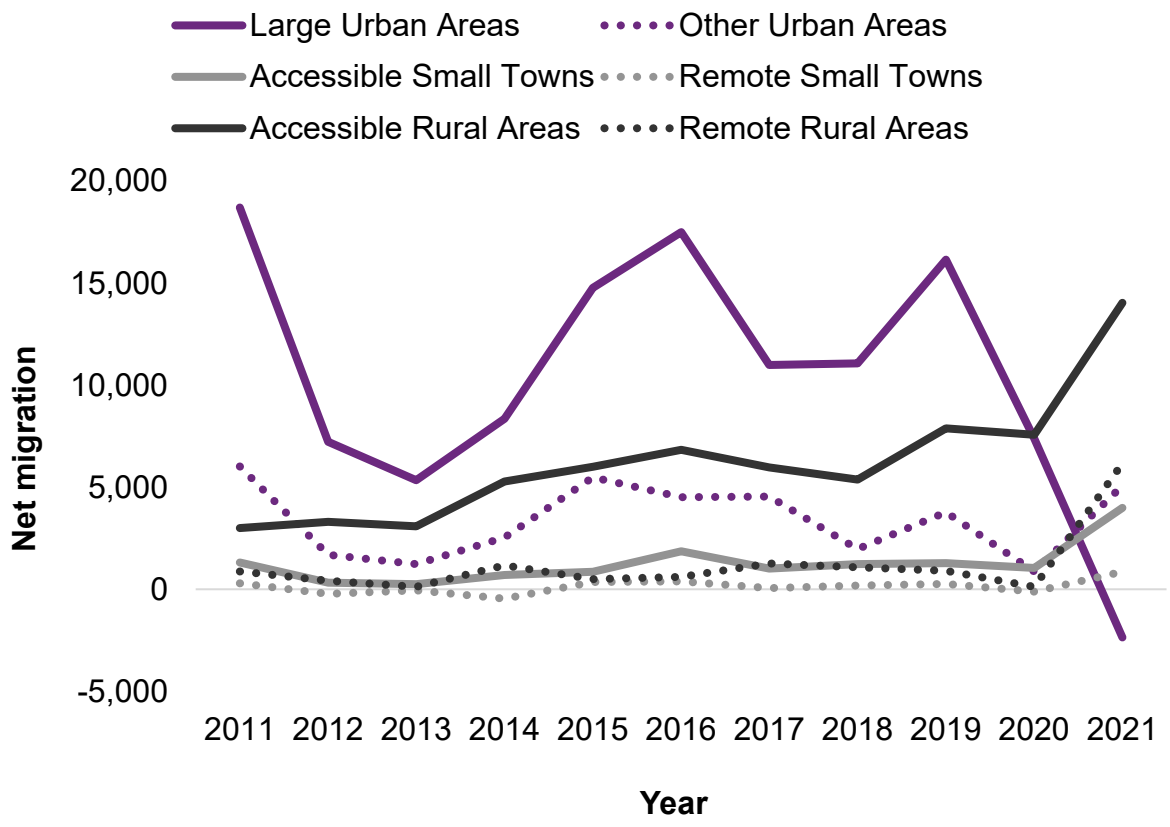
Migration data shows a similar picture. **Figure 10** summarises the net migration[1] into each urban rural category from mid-2011 to mid-2021.

There was a substantial drop in net migration into large urban areas. In the year to mid-2021, an estimated 2,360 more people moved out of large urban areas than moved into them. This marks a notable change from recent years.

Net migration into every other type of area increased, particularly accessible rural areas. In the year to mid-2020 net migration into accessible rural areas was 7,570. In the year to mid-2021 this had increased to 14,040.

[1] Net migration is the difference between people moving in and people moving out of an area. A positive value means more people have moved in than out while a negative value means more people have moved out than in.

Figure 10: Net migration by 6-fold Urban Rural Classification, mid-2011 to mid-2021



There are a few possible reasons for these population changes – some of which are linked to the COVID-19 pandemic.

One explanation is that during the pandemic, people registered a change of address with their GP, when the move itself may have taken place in previous years. This may have been to ensure that their COVID-19 vaccination appointments would be sent to their correct addresses. Migration estimates which feed into these statistics are based on address information from GP registrations.

Some of the changes could reflect moves motivated by the pandemic. One factor is the increase in remote working. This may have prompted more people to move away from cities since they no longer needed to live close to the buildings where they previously worked.

Another explanation is the suspension of face-to-face teaching and increase in online learning. For example, some students may have moved from their term-time addresses to elsewhere, including to their parents' addresses.

To investigate this further, **table 2** lists the five data zones that had the largest drop in the population aged 18 to 25. This age group has been used to approximate areas with a high student population.

All of these data zones contain student accommodation, suggesting that students represent a substantial proportion of the changes in the population aged 18 to 25 in these areas. These data zones also had some of the largest drops in total population.

Table 2: Areas with the largest population decreases in 18-25 year olds, mid-2020 to mid-2021

Data zone name	Population change in 18-25 year olds	Percentage change in 18-25 year olds	Student accommodation
North Haugh	-831	-38%	University of St Andrews
Newington and Dalkeith Road - 03	-697	-38%	University of Edinburgh
Perth Road - 03	-617	-28%	Private student accommodation (Dundee)
Old Aberdeen - 01	-531	-45%	University of Aberdeen
Bridge of Allan and University - 01	-430	-34%	University of Stirling

Population by deprivation

The Scottish Index of Multiple Deprivation (SIMD) measures levels of deprivation across Scotland. Using a combination of different indicators, each data zone can be ranked on a scale from 1 (most deprived) to 10 (least deprived). Each of these deciles contains 10% of Scotland's data zones. By summing the data zone populations in each of these deciles, population estimates by deprivation level can be assessed. More information is available on the Scottish Government's SIMD website. The data tables can be downloaded from the NRS website for years 2001 to 2021.

Figure 11 illustrates the percentage of each council area's population living in the most deprived SIMD decile in mid-2021. Inverclyde contained the highest percentage (30%) of people living in the most deprived areas, followed by Glasgow City (29%), and Dundee City (23%).

In general, it is council areas located in the west of Scotland that had the highest percentages. The three island councils of Na-h Eileanan Siar, Orkney Islands, and Shetland Islands have no data zones in this decile.

Figure 11: Percentage of population in most deprived SIMD decile by council area, mid-2021

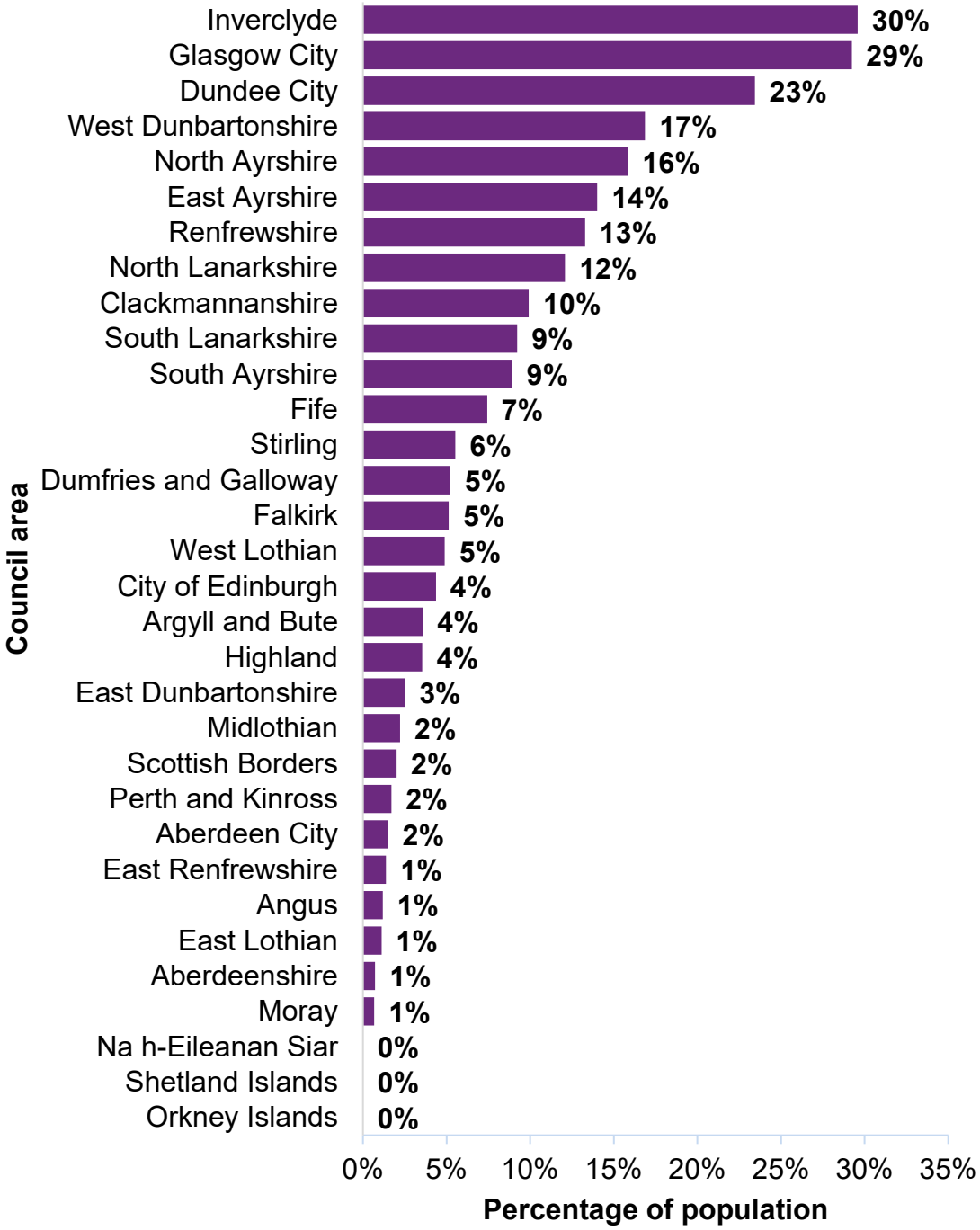


Figure 12 shows the percentage of each council area's population living in the least deprived SIMD decile. East Renfrewshire (38%), City of Edinburgh (30%), and East Dunbartonshire (28%) contained the highest percentage of people living in the least deprived areas. The three island councils of Na-h Eileanan Siar, Orkney Islands, and Shetland Islands have no data zones in this decile.

Figure 12: Percentage of population in least deprived SIMD decile by council area, mid-2021

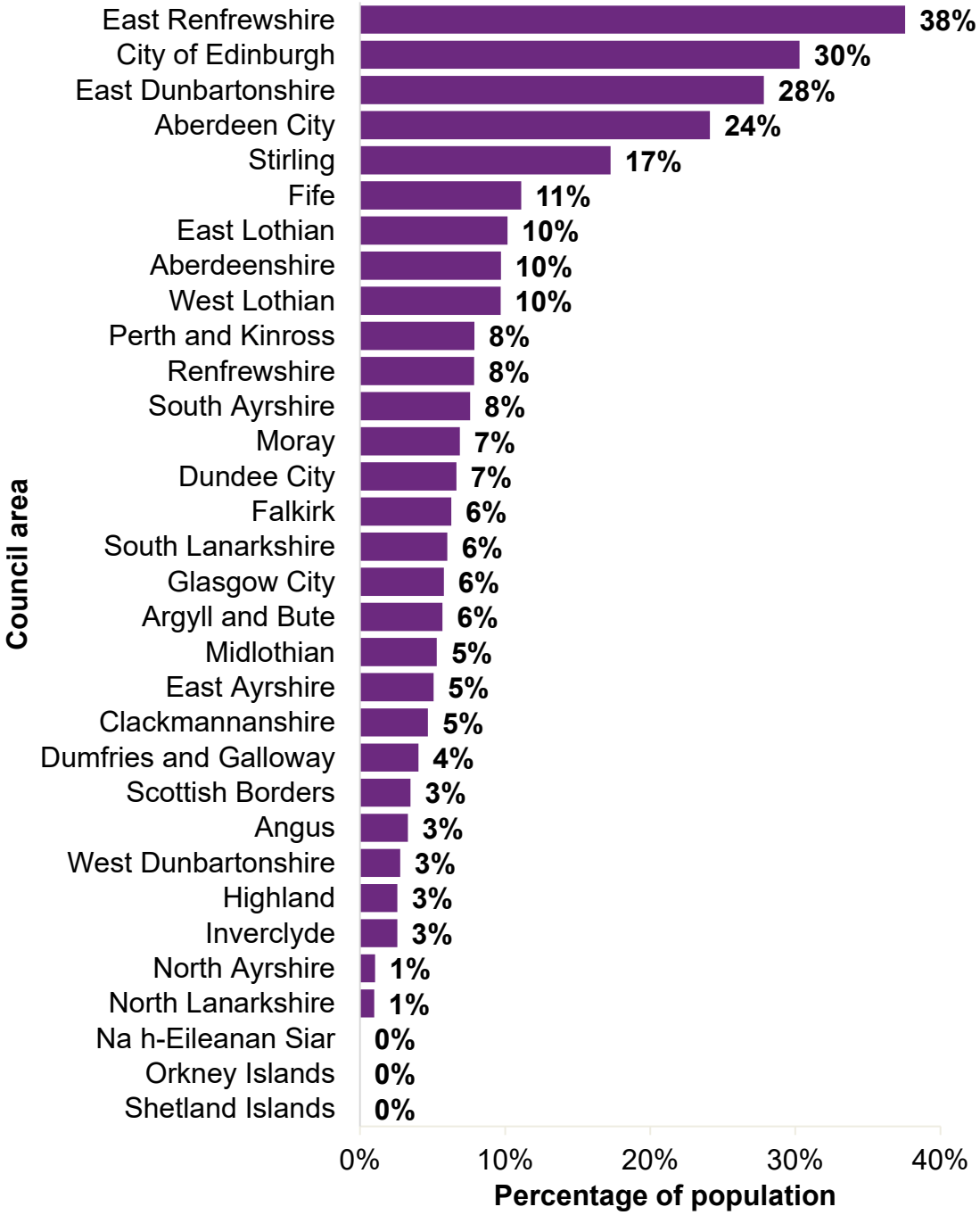
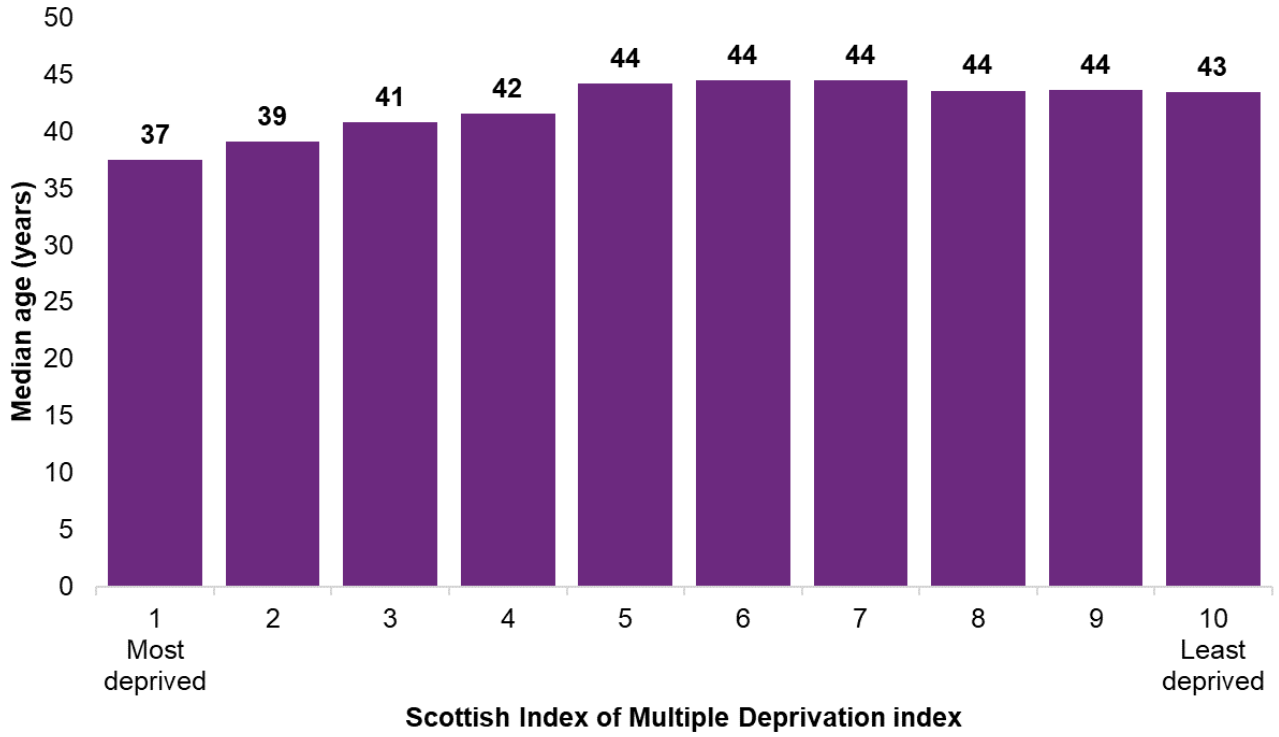


Figure 13 summarises the median age by SIMD decile. In general, more deprived areas have a younger population. The median age was 37 in the most deprived areas and 43 in the least deprived areas.

Figure 13: Median age by SIMD decile, mid-2021



Background notes

How are population estimates calculated?

Data zone population estimates are produced using the demographic cohort component method. They are also adjusted to match the population estimates for Scottish council areas. Further detail can be found in the methodology guide on the NRS website.

Strengths and limitations

The data zone populations are not rounded. However, this does not mean that the estimates are accurate down to the individual person. We use unrounded figures to allow more accurate combination of data zone populations.

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.

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 and other administrative data, 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 will provide a new base population and as a result, the population estimates for mid-2012 to mid-2021 will be rebased to bring them in line with the 2022 Census population.

Changes to data sources

Methodological changes and the COVID-19 pandemic have impacted the availability of a number of data sources which feed into the population estimates. Migration within Scotland and between Scotland and the rest of the UK is estimated based on GP registration data. People who moved before mid-2020 may have not registered a change of address with their GP until the roll out of the COVID-19 vaccine, which began in Scotland in December 2020. NRS have not made any adjustments to the established method to estimate migration within Scotland and between Scotland and the rest of the UK. Therefore, moves which were registered this year will count toward our estimates of migration.

Links to related statistics

What are you looking for?

Figures and data used in this report

Methodology document

Time series data tables

Mid-year population estimates

Explore the population estimates in your local area

Population of settlements and localities

Interactive map of Scotland's data zone populations

Vital events reference tables

Notes on statistical publications

National Statistics

The United Kingdom Statistics Authority (UKSA) has designated these statistics as National 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).

National 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 National 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 National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National 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 document that is published alongside this report on the NRS website.

National Records of Scotland

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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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