

# NISRA STATISTICAL BULLETIN

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Date: 29 June 2023 (9.30am)

Geographical Area: Northern Ireland

Theme: Population

Time period: mid-2011 to mid-2021

## Rebased Population and Migration Estimates Northern Ireland (2011-2021)

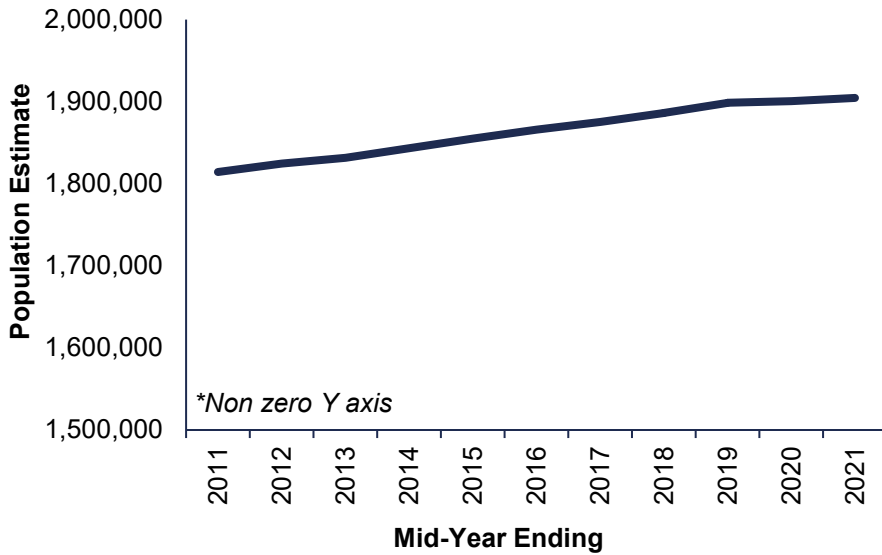


This statistical report provides population estimates for Northern Ireland and its Local Government Districts by age and sex relating to the time period from mid-2011 to mid-2021. This new series reflects the results of Census 2021 and the figures are referred to as **Census 2021-based estimates**. This replaces the old rolled-forward series which was based on the 2011 Census, referred to as the **rolled-forward 2011-based estimates** or **rolled-forward estimates**.

Overall, the new Census 2021-based estimates for mid-2021 show that the Northern Ireland population was **0.26 per cent higher** than the rolled-forward 2011-based estimates (an increase of 4,900 people). The equivalent comparison for England and Wales shows that the Census 2021-based estimates were **0.45 per cent lower** than the rolled-forward estimates (a decrease of 268,500 people).

At Local Government level, the differences between the Census 2021-based estimates and the rolled forward estimates for mid-2021 vary from -2.00 per cent for Causeway Coast and Glens (a decrease of 2,900 people) to +1.37 per cent for Antrim and Newtownabbey (an increase of 2,000 people). The average absolute difference over the 11 Local Government Districts is 0.80 per cent.

# 2011 Mid-year to 2021 Mid-year Population Estimates for Northern Ireland - Summary

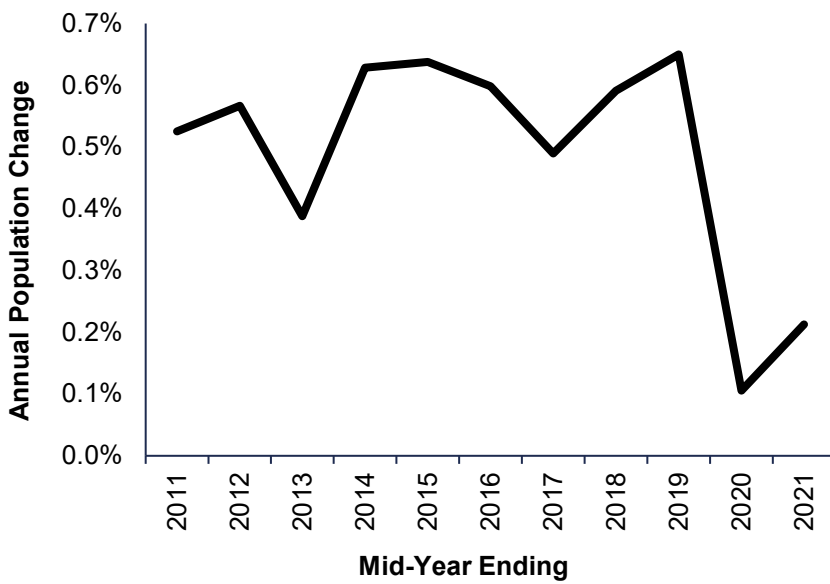


**Northern Ireland population grows from 1.814 in mid-2011 to 1.905 million in mid-2021**

Northern Ireland's population (30 June 2021) was 1,904,600.

The population increased by 90,200 people or 5.0 per cent between mid-2011 and mid-2021.

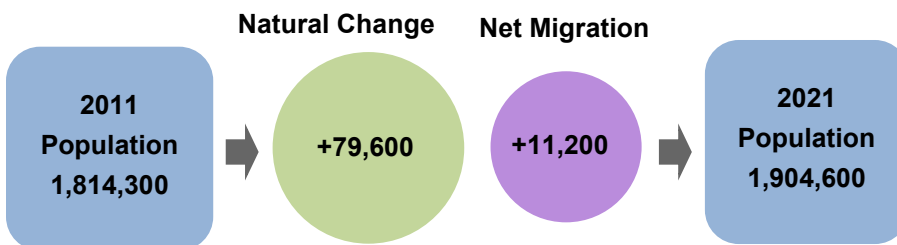
The graph shows the trend from 2011-2021.



**Population growth was not uniform over the decade**

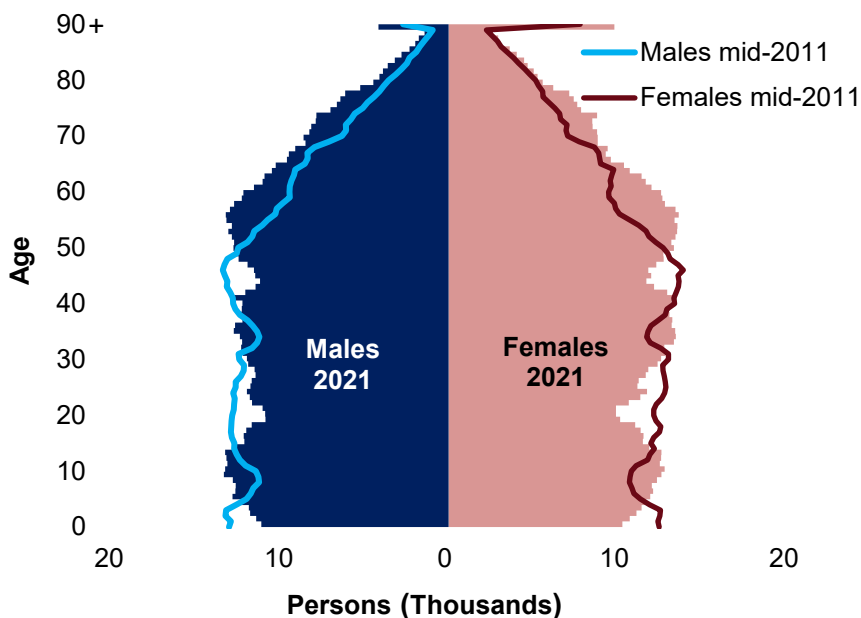
The annual rate of population increase has not been uniform in the ten year period between mid-2011 and mid-2021.

Particularly in the period between mid-2019 and mid-2021, the average annual rate of population increase was 0.2 per cent, due to decreased net migration to Northern Ireland. This was just over a quarter of the average annual rate of increase in the period mid-2011 to mid-2019 (0.6 per cent).



**Natural change is the main driver of population growth**

Natural change (births minus deaths) accounted for 88 per cent of the total population growth over the ten year period (+79,600 people) with migration contributing the remaining 12 per cent (+11,200 people).



## The Northern Ireland population continues to age

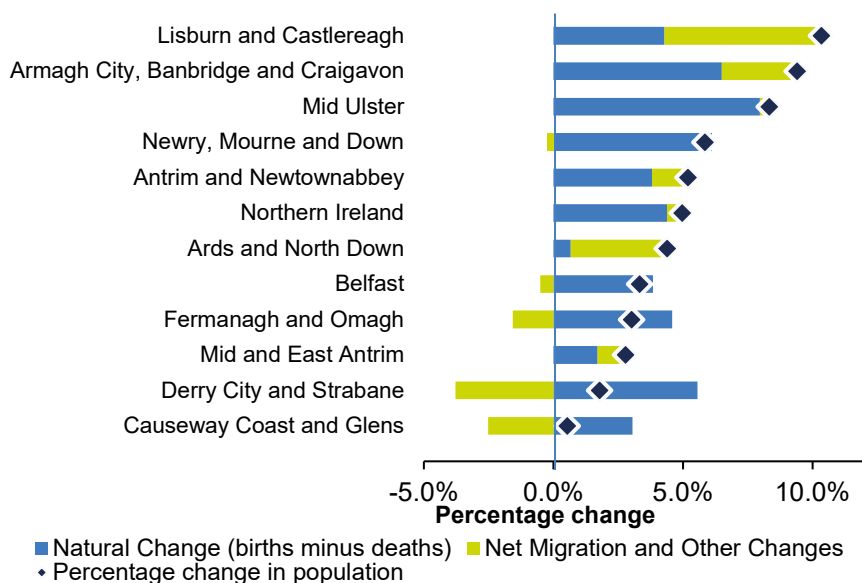
The population pyramid (left) shows the population structure.

The ageing of the population from 2011 to 2021 can be seen from the increasing population amongst the older ages. This is evident by the pyramid beginning to broaden around age 50.

Over the ten years to mid-2021, the number of people aged 65 or more increased by 23.9 per cent to 329,200 people.

## Every Local Government District experienced population increase over the ten years

Lisburn and Castlereagh LGD had the largest population growth over the ten years (10.3 per cent) with net migration being the main contributor to population change (6.7 per cent) in this LGD.



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**Note:** Throughout the report figures have been presented in a rounded form to ease readability. For example population figures have been presented to the nearest 100 and percentages have been presented to 1 decimal place. However, all calculations have been undertaken on the basis of unrounded numbers which will, in some instances, give rise to apparent discrepancies.

# 1 Introduction

The first results of the Census 2021 were published in May 2022. The release of the 2021 Census results offers the best opportunity to review the population estimates and to consider the methodology; this is to ensure the most efficient methods are being used effectively.

This report outlines some of the main findings in the mid-year estimates of population each year in the period 2011 to 2021 for Northern Ireland. All the statistics presented are available on the [NISRA website](#). Also available on the website is a detailed methodology report on population estimates and a report on the sources used to estimate migration in Northern Ireland.

Population statistics are used to allocate public funds to the Northern Ireland Executive through the Barnett formula<sup>1</sup>. Population estimates are also widely used by Northern Ireland government departments for the planning of services, such as health and education. These statistics are also of interest to those involved in research and academia. They are widely used to express other statistics as a rate, and thus enable comparisons across the United Kingdom and other countries. Furthermore, population estimates form the basis for future population statistics such as population projections<sup>2</sup>.

# 2 Background

The population estimates refer to the number of people in the population at 30 June each year. Population estimates for Northern Ireland, sub-national levels and small geographical areas are published annually and approximately one year in arrears. Population estimates are based on the most recent Census of population: each year, the population is 'aged-on' by one year with the number of births in the year added and the number of deaths in the year subtracted. An adjustment is also made for migration. Subsequent mid-year population estimates then use the previous year's figures as the base.

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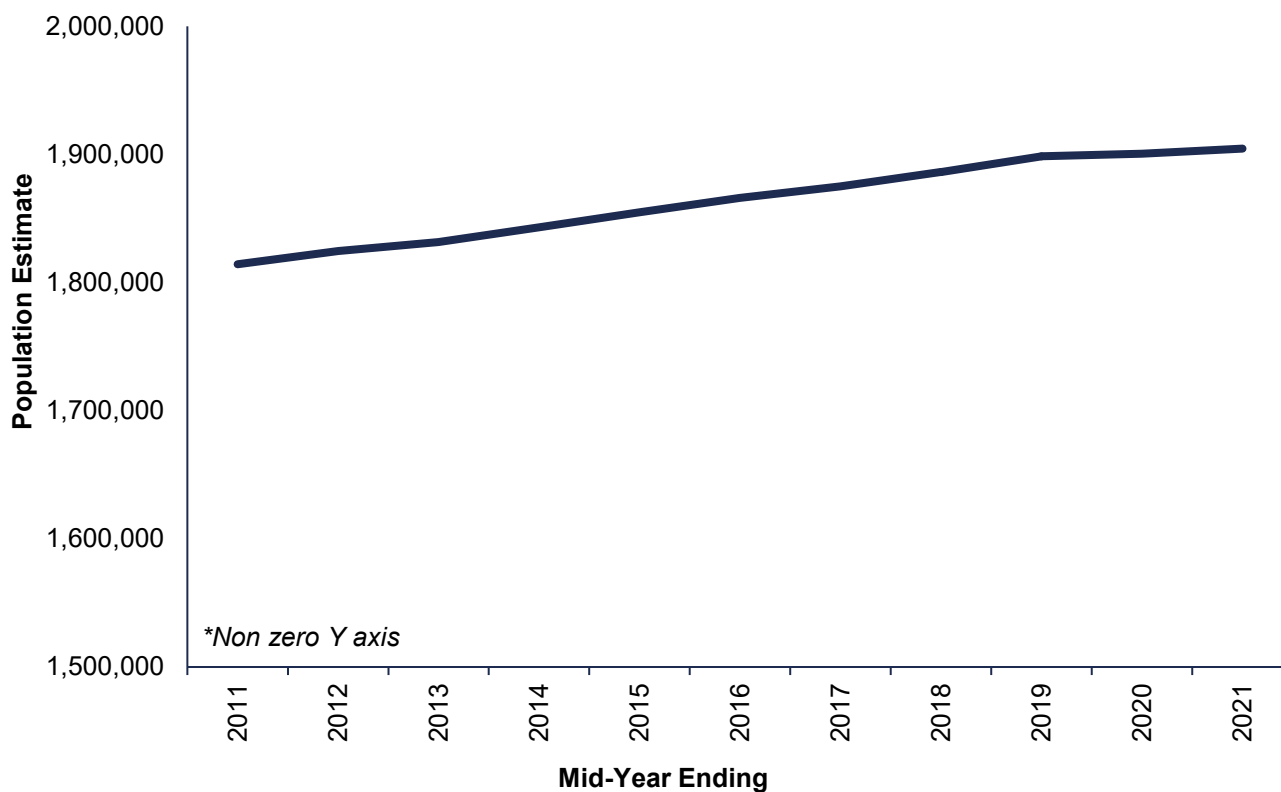
<sup>1</sup> A mechanism used by Her Majesty's Treasury to adjust the amounts of public expenditure allocated to the Devolved Administrations. See [NI Assembly website](#)

<sup>2</sup> For the latest Northern Ireland population projections see the [NISRA website](#)

### 3 Population Estimates for Northern Ireland

#### 3.1 Northern Ireland's population continues to increase

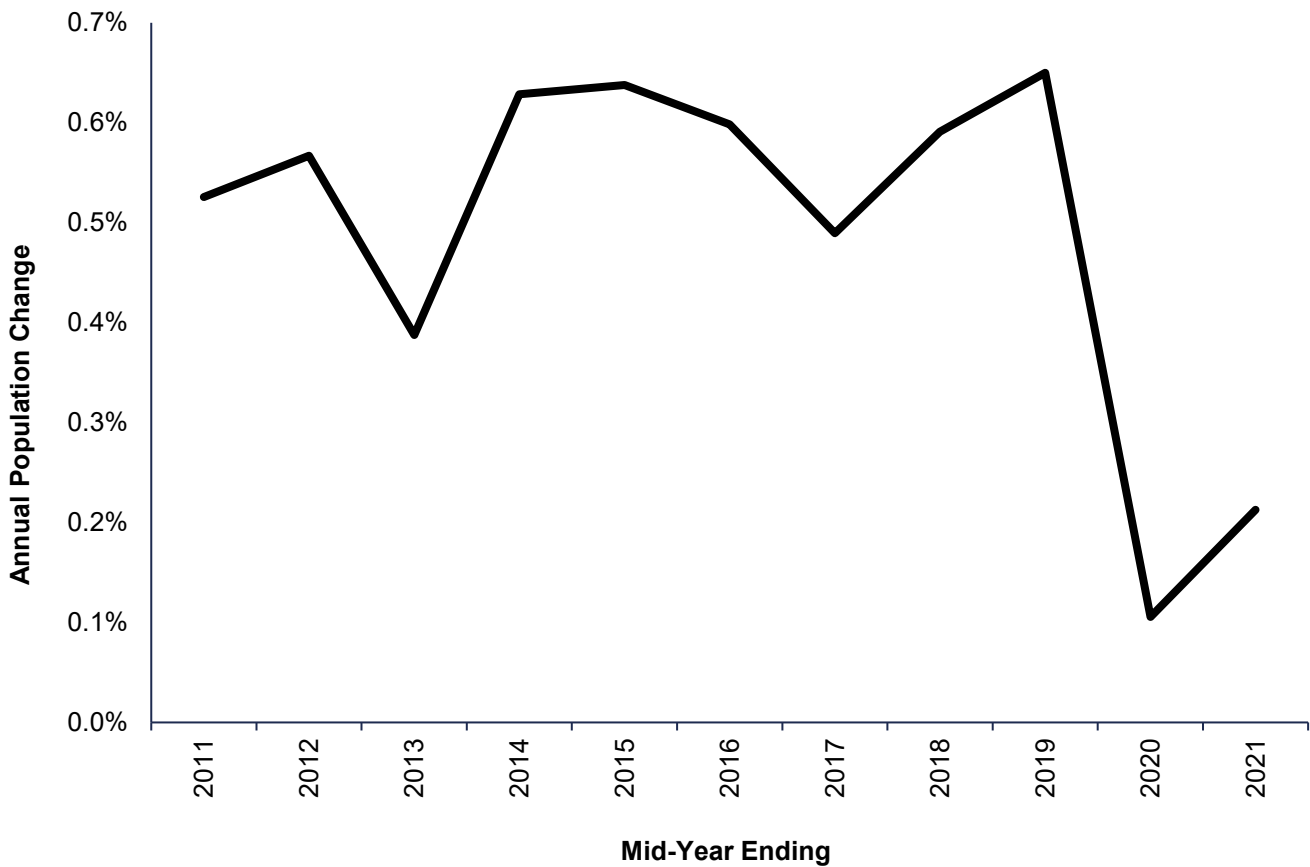
Figure 1: Estimated Population of Northern Ireland, mid-2011 to mid-2021\*



[Figure 1](#) (XLSX format – 91 Kb)

At 30 June 2021, Northern Ireland's population was estimated to be 1.905 million people. Between mid-2011 and mid-2021, the population of Northern Ireland increased by 90,200 people (5.0 per cent). Just over half of the population (50.8 per cent) were female, with 967,800 females compared with 936,800 males (49.2 per cent).

**Figure 2: Annual population change for Northern Ireland, mid-2011 to mid-2021**



[Figure 2](#) (XLSX format – 90 Kb)

Over the last ten years, the annual rate of population growth in Northern Ireland has fluctuated between a high of 0.6 per cent from mid-2018 to mid-2019 and a low of 0.1 per cent from mid-2019 to mid-2020 due to a drop in net migration. Over the decade mid-2011 to mid-2021, the population of Northern Ireland increased by a total of 90,200 people.

### 3.2 Why is the population increasing?

The two main components of population change are **natural change** and **net migration**. Natural change is the difference between the number of births and deaths, while net migration is the difference between the number of people entering and leaving Northern Ireland. **Other Changes** is a third minor component which includes changes in the number of armed forces stationed here.

The change over the decade to 2021 in the Northern Ireland population was a result of (see Figure 3):

1. Positive natural change of 79,600 people (235,300 births minus 155,700 deaths);
2. An estimated gain of 11,200 people due to net migration (237,000 people came to live in Northern Ireland and 225,900 people left).
3. A slight reduction of 500 people due to other changes.

Figure 3: Contribution of components of change to population increase, mid-2011 to mid-2021

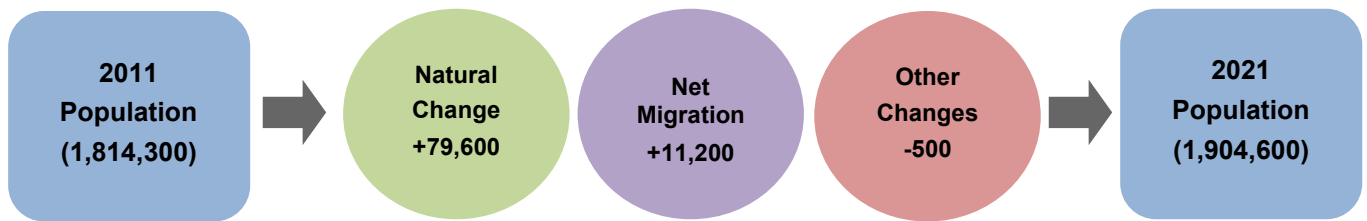


Figure 4: Components of population change (year ending mid-2011 to year ending mid-2021)

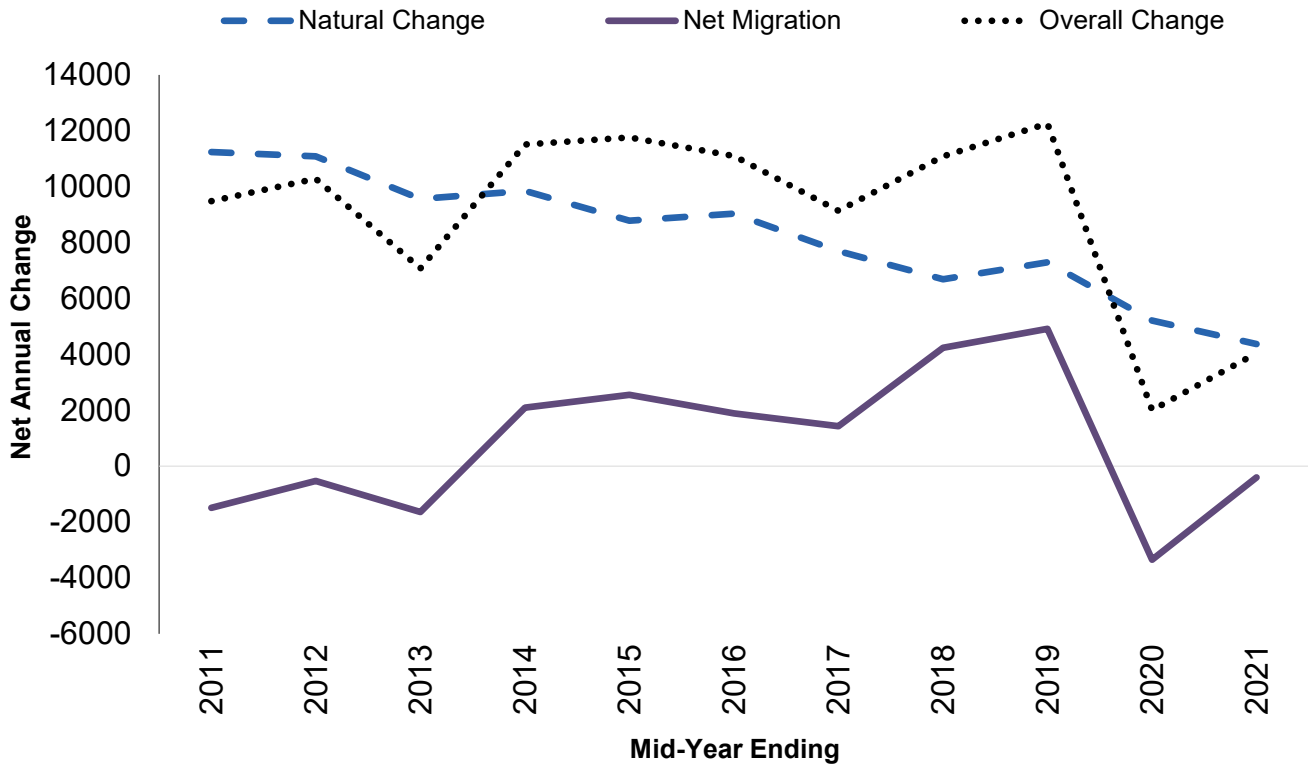


Figure 4 (XLSX format – 93 Kb)



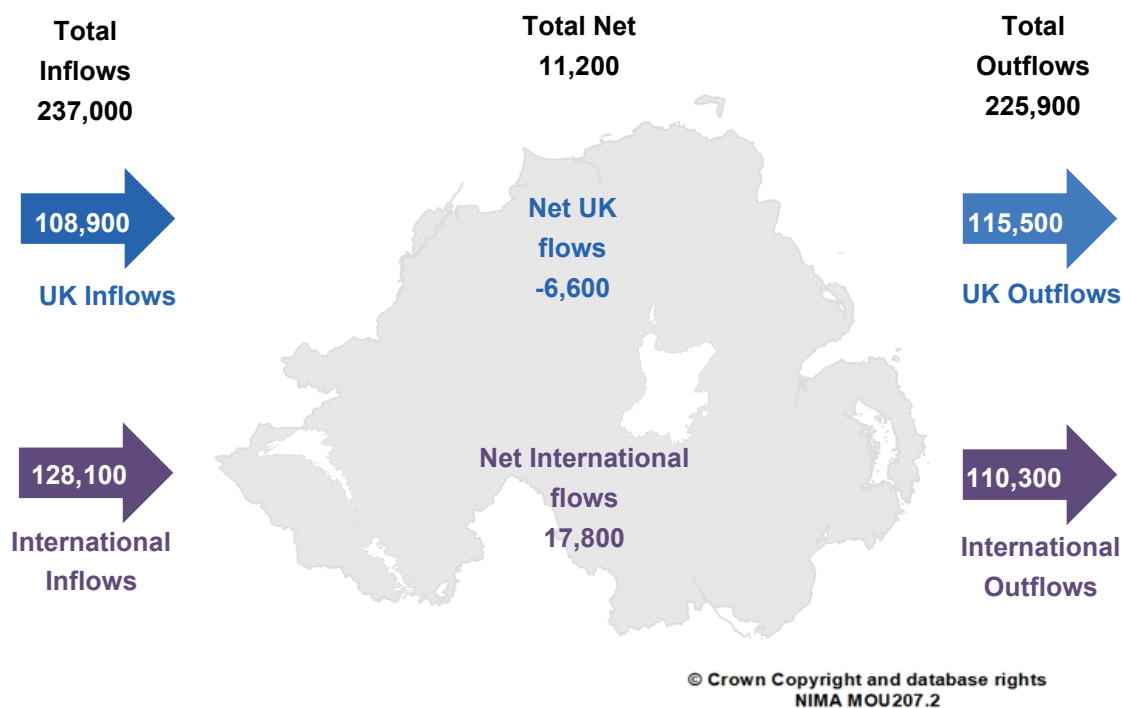
## 4 Where do migrants come from and go to?

Migration into and out of Northern Ireland can be analysed in two groups, namely:

- UK migration – Flows of people between Northern Ireland and the rest of the UK
- International migration – Flows of people between Northern Ireland and outside the UK

Figure 5 below shows the number of people migrating into and out of Northern Ireland by type (i.e. whether to/from the UK or International) between mid-2011 and mid-2021.

**Figure 5: Migration to and from Northern Ireland by type between mid-2011 and mid-2021**



[Figure 5](#) (PDF format – 92 KB)

Over the decade to mid-2021 there was a net gain of 11,200 people entering Northern Ireland (237,000 in and 225,900 out).

Figure 6 shows a time series of net migration by type from year ending mid-2011 to year ending mid-2021.

Figure 6: Estimated net migration by type (year ending mid-2011 to year ending mid-2021)

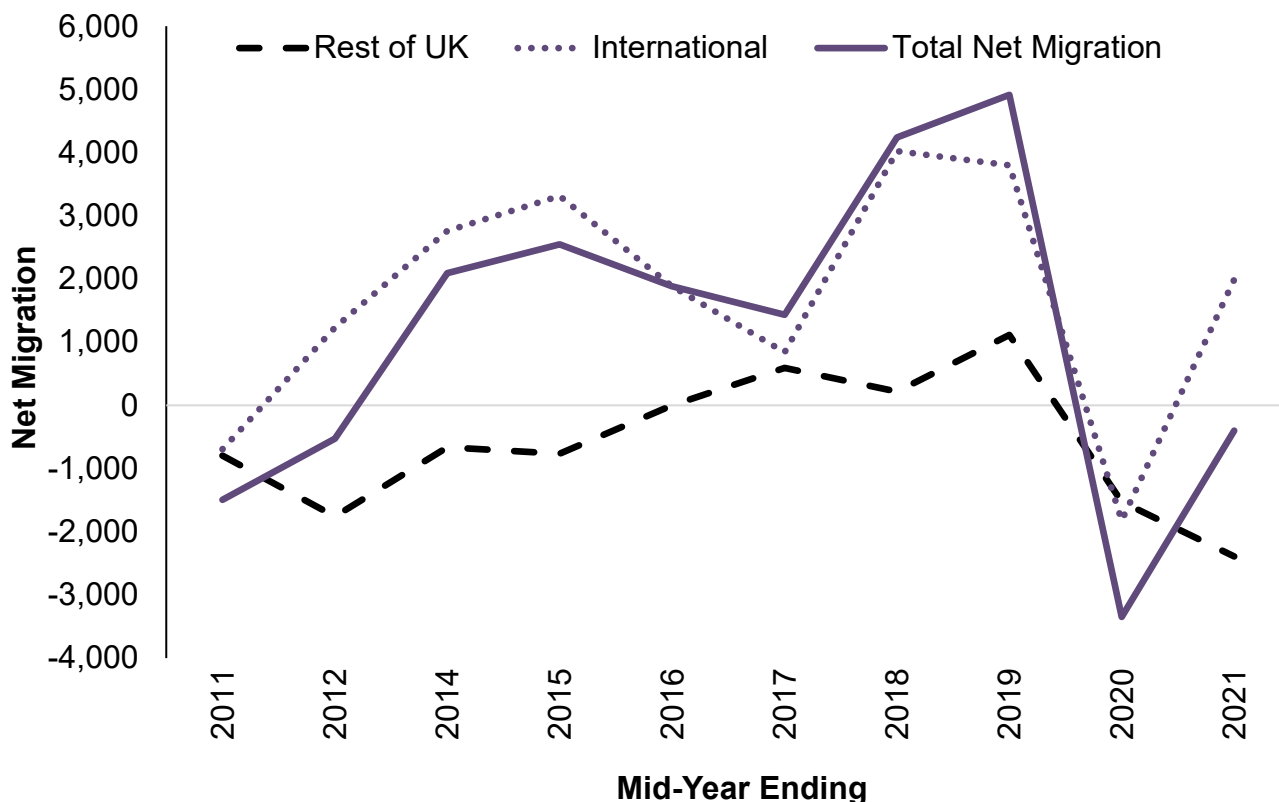


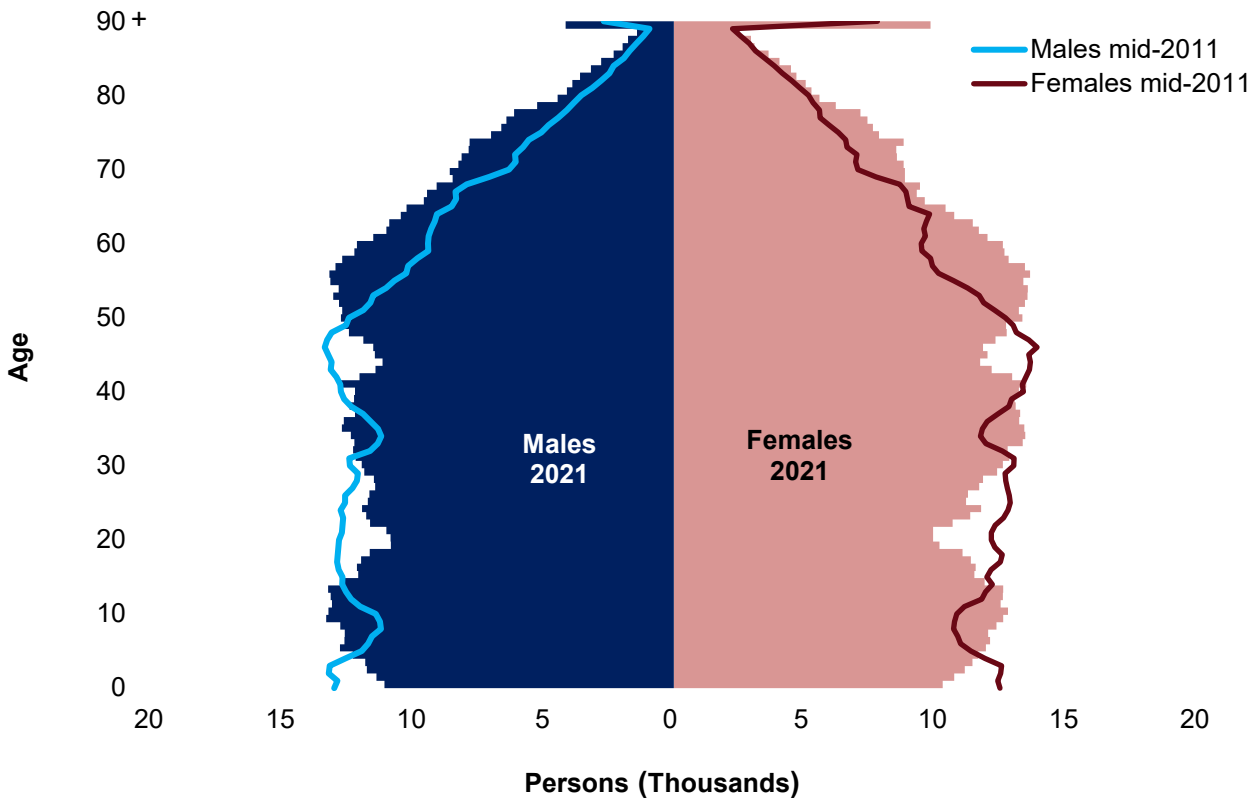
Figure 6 (XLSX format – 92 Kb)

It is important to note the figures for UK Inflows have been validated against the results of [Census 2021](#). Between the year ending mid-2020 and the year ending mid-2021, 26,500 people came to live in Northern Ireland from either the rest of the UK or from outside the UK. This compares with a figure of 27,200 people aged 1 and over who lived outside Northern Ireland one year before the census according to the [address one year ago topic](#) in Census 2021.

## 5 The age structure of Northern Ireland's population

### 5.1 The population of Northern Ireland is ageing

Figure 7: Population by age and sex (mid-2011 and mid-2021)



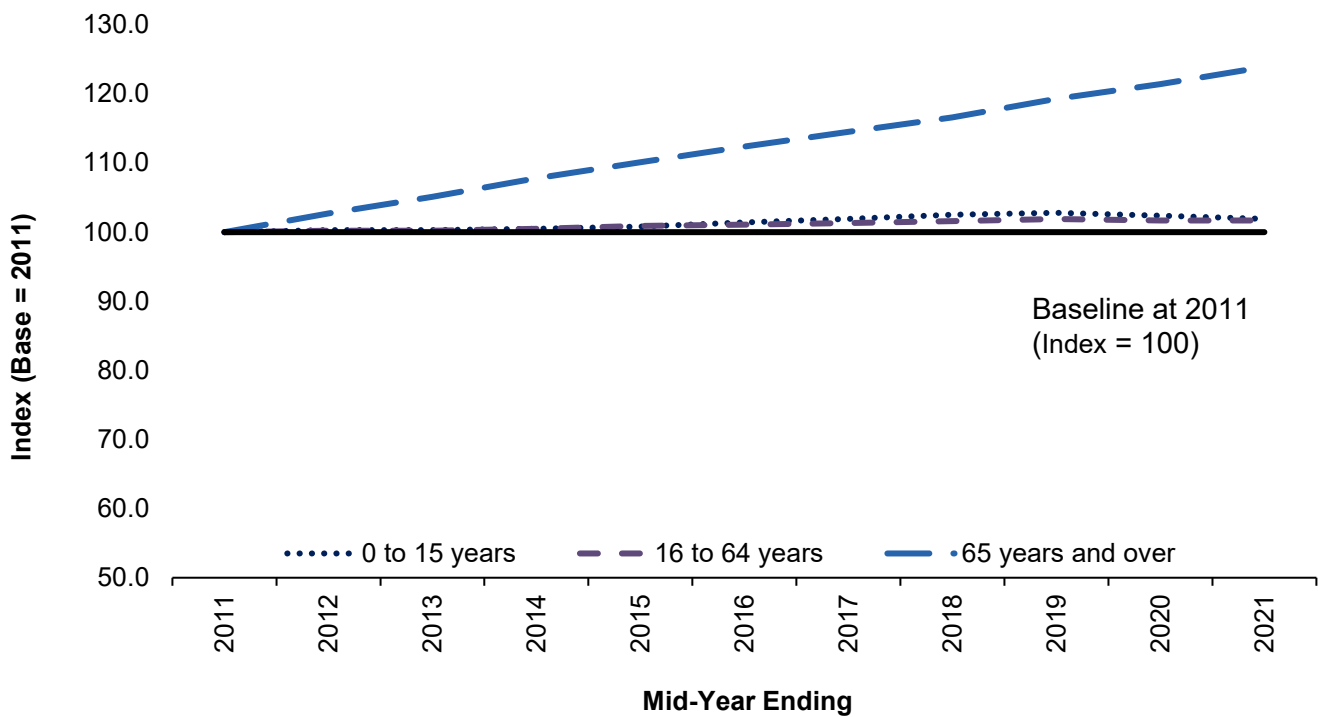
[Figure 7](#) (XLSX format – 103 Kb)

Age composition is one of the most important aspects of the population since changes in different age groups will have varied social and economic impacts. Figure 7 shows the population split by age and sex for mid-2011 and mid-2021 in the form of a population pyramid. This particular data representation allows for a more visual idea of how the numbers of people have 'aged on' in the decade to the year ending mid-2021 with the pyramid beginning to broaden around age 50 and over.

Over the decade from year ending mid-2011 to year ending mid-2021 the median age (i.e. the age at which half the population is older and half is younger) of the Northern Ireland population has increased from 37.4 to 39.8 years. It is projected that from mid-2027 onwards the older population (people aged 65 and over) will be larger than the number of children (i.e. people aged 0 to 15 years).

## 5.2 How is the age structure of the population changing?

Figure 8: Index of population change for key age groups in Northern Ireland, mid-2011 to mid-2021



[Figure 8](#) (XLSX format – 94 Kb)

- Between 2011 and 2021 the number of children aged 0 to 15 years old has increased by 1.9 per cent (from 380,800 to 388,200). The increase in this age group is in part due to the number of babies born in this period (235,300) outnumbering the number of children who “aged out” of this age group (231,500).
- Between 2011 and 2021 the working age<sup>3</sup> population has increased by 1.7 per cent (from 1,167,800 to 1,187,200).
- Between 2011 and 2021 the number of persons aged 65 and over has increased by 23.9 per cent (from 265,800 to 329,200). At these ages, there is minimal migration; the increase is the result of a surplus of persons ageing into this population over those leaving through mortality. The highest increase can be found in the population aged 90 and over, which increased by 33.3 per cent (from 10,400 to 13,900) between mid-2011 and mid-2021.

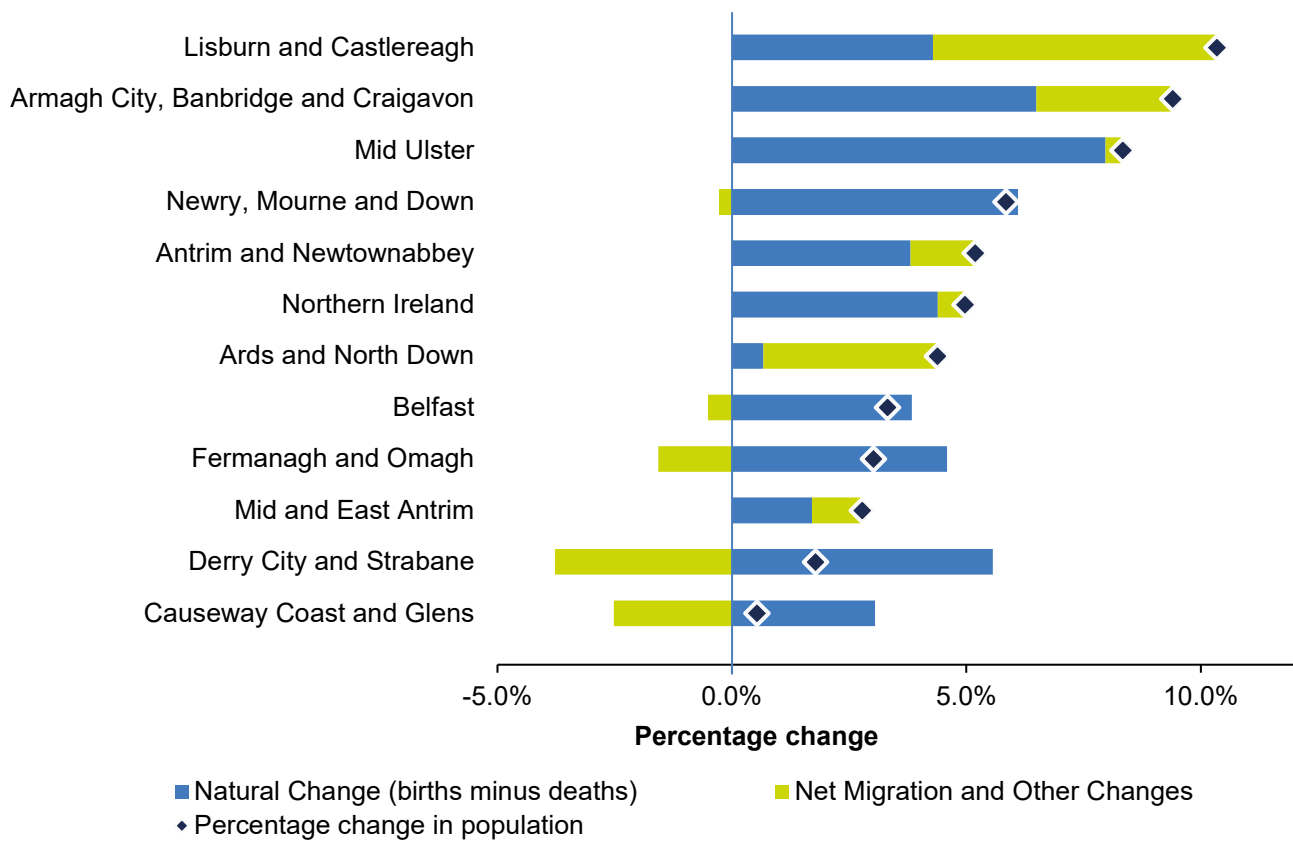
<sup>3</sup> Working age population is defined as the population aged 16-64.

## 6 Population Estimates for areas within Northern Ireland

### 6.1 Population change in Local Government Districts over the decade

Figure 9 presents the overall percentage population change for Local Government Districts (LGDs) and the effect the components of change have had on the population. Lisburn and Castlereagh LGD had the largest percentage increase in population (10.3 per cent) which was mainly driven by a gain net migration over the decade (6.7 per cent) and positive natural change (4.3 per cent).

**Figure 9: Components of population change by Local Government District, mid-2011 to mid-2021 (ordered by population change)**



[Figure 9](#) (XLSX format – 95 Kb)

## 7 Total difference between estimates

### 7.1 Difference between the Northern Ireland level estimates

Overall, the new Census 2021-based estimates for mid-2021 show that the Northern Ireland population was 4,900 people higher than the rolled-forward 2011-based estimates for mid-2021, with 4,300 more females and 700 more males (Table 1).

The main components that could contribute to this difference for Northern Ireland are:

- births
- deaths
- net migration
- variability in Census 2021 estimates
- cross border flows between Northern Ireland and the other countries of the UK
- the 2011 Census population base

As the registration of births and deaths that occur in the UK is compulsory, and the data quality is high overall, any attribution of differences to these causes will be relatively small. There is no evidence to show that there is any substantial error in the cross-border flows to and from the rest of the UK.

At Northern Ireland level, net international migration is likely to be the main contributor to the difference seen between the rolled-forward estimates for mid-2021 and the Census 2021-based estimates. In addition, both Census 2021 and the 2011 Census provided estimates of the population that are subject to statistical error, accounting for some of the difference.

**Table 1: Comparison of the rolled-forward 2011-based estimate for mid-2021 and the Census 2021-based estimates**

	<b>Rolled-forward 2011-based estimates for mid-2021</b>	<b>Census 2021-based estimates for mid-2021</b>	<b>Difference to explain</b>
<b>Total</b>	1,899,600	1,904,600	4,900
<b>Female</b>	963,500	967,800	4,300
<b>Male</b>	936,200	936,800	700

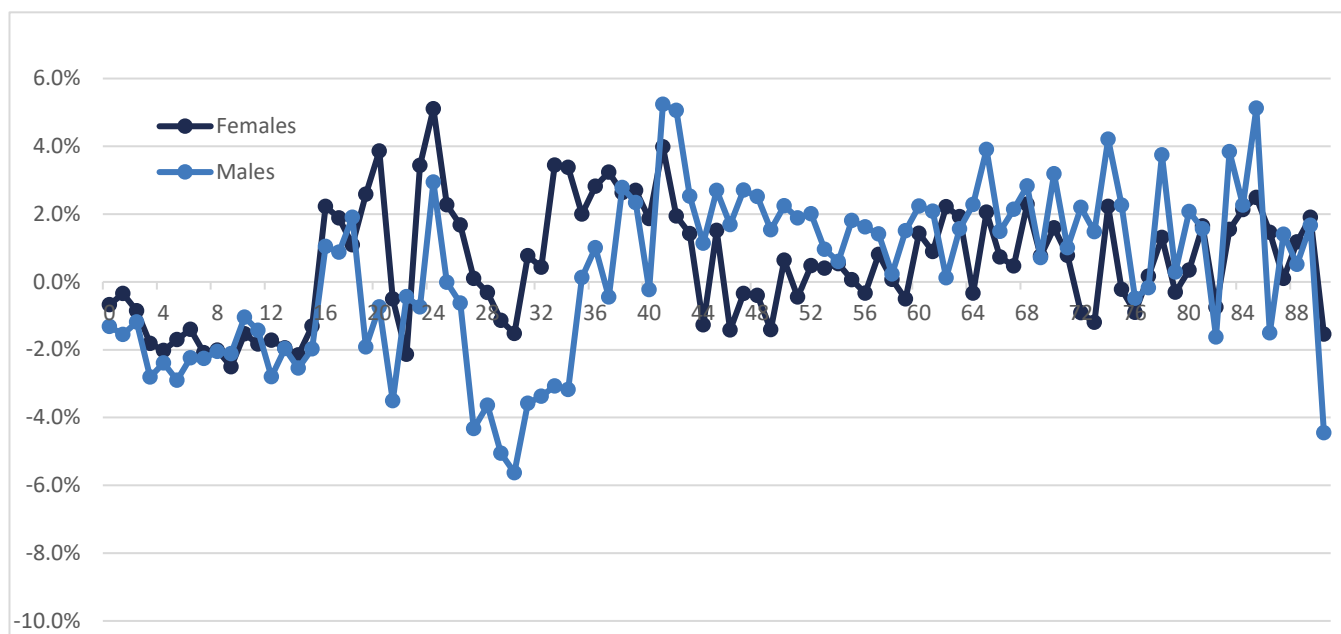
[Table 1](#) (XLSX format – 84 Kb)

For comparison, the rolled-forward 2011-based estimates for mid-2011 were 7,400 (0.41 per cent) lower than the Census 2011-based estimates for mid-2011.

More detail on the post 2011 reconciliation can be found in the [Mid-Year Population Estimates for Northern Ireland Rebased \(2001-11\) Statistical Bulletin](#).

Generally, at Northern Ireland level there were six main age groups which differed for males and females between the two versions of mid-2021 estimates. Both male and female children (aged 0 to 15 years) were too high in the rolled-forward 2011-based estimates. Females aged 16 to 20 years, 31 to 43 years, and 83 to 89 years, were lower in the rolled-forward estimates. Males aged 19 to 34 years were mainly higher in the rolled-forward estimates, while those aged between 42 and 89 years were generally lower (Figure 10).

**Figure 10: Difference between rolled-forward 2011-based estimates for mid-2021 and Census 2021-based estimates for females and males**



Notes:

1. Positive value means the Census 2021-based estimate is higher, negative value means the Census 2021-based value is lower.
2. Differences are expressed as percentage difference from the rolled-forward 2021 value.

[Figure 10](#) (XLSX format – 109 Kb)

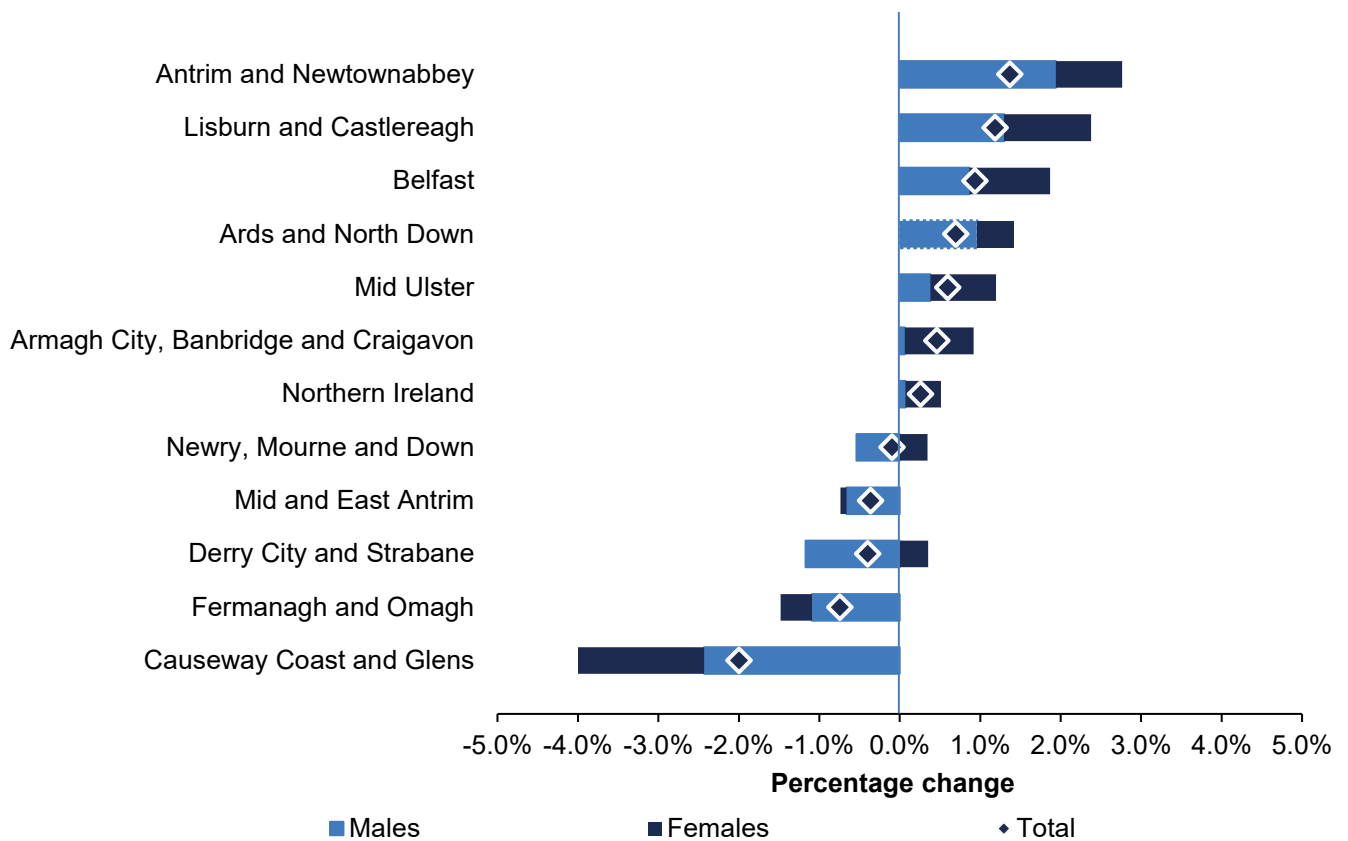
## 7.2 Difference between the Local Government District (LGD) level estimates

The rolled-forward 2011-based estimates for mid-2021 were within positive or negative 2 per cent of the Census 2021-based estimates in all of the Local Government Districts (LGDs). The LGD which saw the biggest percentage decrease between the rolled-forward 2011-based estimates for mid-2021 and the Census 2021-based estimates was Causeway Coast and Glens with a difference of 2.0 per cent (a decrease of 2,900 people in the Census 2021-based estimates). The LGD with the biggest percentage increase between the rolled-forward 2011-based estimates for mid-2021 and the Census 2021-based estimates was Antrim and Newtownabbey with a difference of 1.4 per cent (an increase of 2,000 people in the Census 2021-based estimates).

Newry, Mourne and Down was the LGD where the rolled-forward value for mid-2021 was closest to the Census-2021 based estimate, with the rolled forward value being 0.01 per cent higher. The average absolute difference over the 11 Local Government Districts was 0.80 per cent.



**Figure 11: Difference between rolled-forward 2011-based estimates for mid-2021 and Census 2021-based estimates for Local Government Districts (LGDs)**



**Notes:**

1. Positive value means the Census-2021 based estimate is higher, negative value means the Census-2021 based value is lower.
2. Differences are expressed as percentage difference from the rolled-forward 2021 value.

[Figure 11](#) (XLSX format – 96 Kb)

### 7.3 Comparison with England and Wales

Table 2: Comparison of the 2021 rolled-forward mid-year estimate (MYE) and the Census 2021-based MYE

	<b>Rolled-forward 2011-based estimates for mid-2021</b>	<b>Census 2021- based estimates for mid-2021</b>	<b>Difference to explain</b>	<b>Percentage</b>
<b>Northern Ireland</b>	1,899,600	1,904,600	<b>4,900</b>	<b>0.26%</b>
<b>England and Wales</b>	59,910,300	59,641,800	<b>- 268,500</b>	<b>-0.45%</b>

[Table 2](#) (XLSX format – 84 Kb)

The figures show that for Northern Ireland, the Census 2021-based estimates for mid-2021 were 0.26 per cent higher than the rolled-forward 2011-based estimates (an increase of 4,900 people). The equivalent comparison for England and Wales shows that the Census 2021-based estimates for mid-2021 were 0.45 per cent lower than the rolled-forward 2011-based estimates (a decrease of 268,500 people).

## 8 Links to related statistics

The Census 2021 results that underpin the mid-2021 estimates and the rebased series are available on the [NISRA website](#) or via the [Census 2021 Flexible Table Builder](#).

More detailed Census 2021-based population estimates for mid-2021 by Local Government Districts are available on the [NISRA website](#).

[Population projections for Northern Ireland](#) and [sub-national areas](#) (2018-based) are available from the NISRA website. [2020-based National Interim Population Projections](#) were published at the end of 2021. Release dates for all population projection outputs are being reviewed in conjunction with the ONS in light of the revised publication plans for rebased population estimates and mid-year population estimates. Further information and updates will be pre-announced and updated on the [release calendar](#).

How to find data and related documents	
What are you looking for?	Where is it?
The tables and figures used throughout this publication in Excel format.	<a href="#">Tables and figures</a>
Population estimates on NISRA data portal can be exported in CSV, JSON-stat, PX, XLSX formats.	<a href="#">NISRA data portal</a>
Quality Report	<a href="#">Background Quality Report</a>

## 9 National Statistics

National Statistics status means that our statistics meet the highest standards of trustworthiness, quality and public value, and it is our responsibility to maintain compliance with these standards.

Population Estimates for Northern Ireland last underwent a full assessment by the Statistics Authority against the [Code of Practice](#) in July 2015. The assessment report can be found on the [NISRA website](#). Following the Statistics Authority assessment the continued designation of these statistics as National Statistics was confirmed in [August 2016](#).

National Statistics status was confirmed subject to NISRA implementing six specific requirements. An action plan outlining how and when NISRA addressed each of these requirements can be found on the [NISRA website](#).

An action plan checklist with supporting documentation can also be found on the [NISRA website](#).

Since the assessment by the UK Statistics Authority, we have continued to comply with the code of Practice for Statistics, and have made the following improvements:

- Improved clarity and insight by redesigning the statistical bulletin to include a key point's summary for users. In addition, key point headlines have been included throughout the commentary, so users are alerted to key messages.
- The associated data tables for mid-year population estimates are disseminated in a more innovative way by including a flat file and tabular format which users can interact with.
- We improved the accessibility of mid-year population estimates and were publishing data in 3\* open data format on Open Data NI. We will publish the mid-2021 population estimates on the data on the NISRA data portal shortly. We have also included a new 'Links to related statistics' section within the bulletin so users can explore the whole population statistics package, including older person estimates, population projections, small area population estimates and a range of other material.

## 10 Background Notes

### 10.1 Population coverage

Mid-year population estimates relate to the *usually resident* population on 30 June of the reference year and ages relate to a person's age at this mid-year period. Long term international migrants are included in population estimates; however, short term migrants are not. The definition of a long-term migrant which has been adopted from the United Nations is, '*a person who moves to a country other than that of his or her usual residence for a period of at least a year (12 months), so that the country of destination effectively becomes his or her new country*'

*of usual residence*'. Other changes include changes in armed forces personnel stationed in Northern Ireland.

## **10.2 Methodology**

Population estimates contained within this report have been revised in line with the most recent Census 2021 population estimates. This was carried out by examining the difference between the rolled-forward 2011-based estimates for mid-2021 and the Census 2021-based estimates. A weighted cohort model was used to apply changes to the series from 2012 to 2020 at a Northern Ireland level initially. From there we have distributed to Local Government Districts (LGDs). A period adjustment was also applied to people of student age at LGD level. The majority of the adjustment to this series was applied to international outward migration with some other changes applied to within Northern Ireland migration and 'other' unattributable changes.

## **10.3 Quality of administrative data**

Population estimates are produced using a range of administrative data sources, the quality of which have been assessed in detail within the [Population Estimates and Projections Data Quality Document](#). In addition, population estimates are compared to several administrative data sources including, active medical cards, electoral register, benefit claimants and National Insurance Number registrations to assure the quality of outputs. Any significant differences are examined further. NISRA also works closely with colleagues in the Office for National Statistics (ONS) and National Records of Scotland (NRS) to assure the quality of population estimates across the UK. A paper comparing the methodological approaches adopted by producers of population statistics across the UK is available on the [ONS website](#).

## **10.4 Census 2021 and Rebasing Exercise of 2012-2020**

The decennial census population estimate forms the baseline for the mid-year population estimates going forward. As each year from the baseline passes the accuracy of the population estimates slightly diminishes. Following the [2021 mid-year population estimates](#) (published 29 November 2022) which were based on the results of the 2021 census, a reconciliation process, which looked at the intercensal drift between 2011 and 2021 was carried out. The rebased population estimates for this period are included in this publication.

## **11 Limitations**

Migration is the most difficult component of population change to measure due to the absence of an administrative dataset designed specifically for measuring migration. NISRA uses the medical card register as the source in the production of migration estimates, however, there are known deficiencies with this approach. For example, it is recognised that the medical card register is deficient in recording the movements of young adult males; therefore, the age

distribution for movements of young adult males is adjusted to be similar to the age distribution for the movements of young adult females. Furthermore, not all outflows are measured fully by the medical card register and therefore outflows are scaled up by an additional 67 per cent. It is assumed only 3 out of 5 people will de register with their GP if they are leaving Northern Ireland (see [Methodology Report](#) for more detail).

England, Wales and Scotland used International Passenger Survey (IPS) for producing official migration statistics. Office for National Statistics (ONS) announced in August 2020 that they would not return to producing official migration statistics from the IPS and instead shift to a new approach that will rely on administrative data first and foremost (admin-based migration estimates (ABMEs)). This shift means that in future they will be basing their estimates on actual patterns of migration, rather than relying on potential migrants to respond to survey questions about whether they are planning to remain in or out of the UK in the next 12 months. Northern Ireland Statistics and Research Agency (NISRA) works closely with ONS to ensure comprehensive and coherent UK and country level migration statistics.

While this means there is a methodological difference for the international migration estimates of Northern Ireland and the rest of the UK, NISRA and ONS are content that the methods used for Northern Ireland and the rest of the UK yield robust estimates for the UK as a whole. Furthermore, Northern Ireland migration statistics have been previously assessed by UKSA, who found them to be fit for purpose<sup>4</sup>.

Some data sources used in the production of population estimates for small geographical areas (e.g., School Census, Child Benefits, and Pensions data) rely on the use of postcodes to allocate people to specific small geographical areas. In a small number of cases, postcodes can span more than one small geographical area (3-5 per cent of postcodes). Therefore, properties within the same postcode can be in different small geographical areas. However, all properties with a given postcode are allocated to a single small geographical area based on where the “centre of the postcode” is located. This can give rise to some small inaccuracies in the resultant estimates for small geographical areas and is not unique to Northern Ireland statistics.

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<sup>4</sup> For more detail see the [NISRA website](#).

## Enquiries and suggestions

- The revisions policy for Northern Ireland population statistics is available [here](#).
- We welcome feedback from users on the content, format and relevance of this release. Please send feedback directly to [census@nisra.gov.uk](mailto:census@nisra.gov.uk).
- Follow NISRA on [Twitter](#) and [Facebook](#).
- All media inquiries should be directed to the DOF Press Office:

Telephone: 028 9081 6724

Email: [dof.pressoffice@finance-ni.gov.uk](mailto:dof.pressoffice@finance-ni.gov.uk)

- Further statistical information can be obtained from NISRA Customer Services:

Telephone: 028 9025 5156

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