

Compendium

Summary results



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1 . Introduction

This report provides a brief summary of the results of the 2014-based national population projections for the UK and provides additional charts and summary tables illustrating the results of the projections. For discussion of the results see the [statistical bulletin](#).

Included are sections on:

- results, which can also be examined using the [interactive population pyramids](#), which allow comparisons of the projected age structure up to mid-2039
- the role of migration in population growth
- comparison with the results of the 2012-based national population projections
- charts for the UK and constituent countries, which are available in the appendices, showing:
 - estimated and projected total population, year ending mid-1971 to year ending mid-2089
 - estimated and projected births and deaths, year ending mid-1971 to year ending mid-2089
 - percentage age distribution for the period, year ending mid-1971 to year ending mid-2089
 - estimated and projected total population for the principal and key variant projections, year ending mid-1981 to year ending mid-2039
 - change in the projected population at 2039 by age and sex compared with the 2012-based projections

2 . Summary of results

Results

The UK population is projected to increase gradually from an estimated 64.6 million in mid-2014 to reach 74.3 million by mid-2039. Of the projected 9.7 million increase between mid-2014 and mid-2039, approximately 4.7 million (49%) is due to projected natural increase (more births than deaths) while the remaining 5 million (51%) is the assumed total number of net migrants.

Summary results tables

Table 2.1 presents a summary of the projection results by components of change from mid-2014 to mid-2039, for the UK. The equivalent tables for the constituent countries of the UK, England and Wales, and Great Britain can be found in the data download of this table.

Table 2.1: Components of change: summary (annual average), UK, mid-2014 to mid-2039

	Thousands					
	2014-15	2015-20	2020-25	2025-30	2030-35	2035-39
Population at start	64,597	65,097	67,360	69,444	71,353	73,044
Births	776	796	810	803	801	815
Deaths	605	566	578	606	648	690
Natural change	171	229	232	197	153	125
Migration	329	223	185	185	185	185
Total change	500	453	417	382	338	310
Population at end	65,097	67,360	69,444	71,353	73,044	74,284

Source: Office for National Statistics

Note:

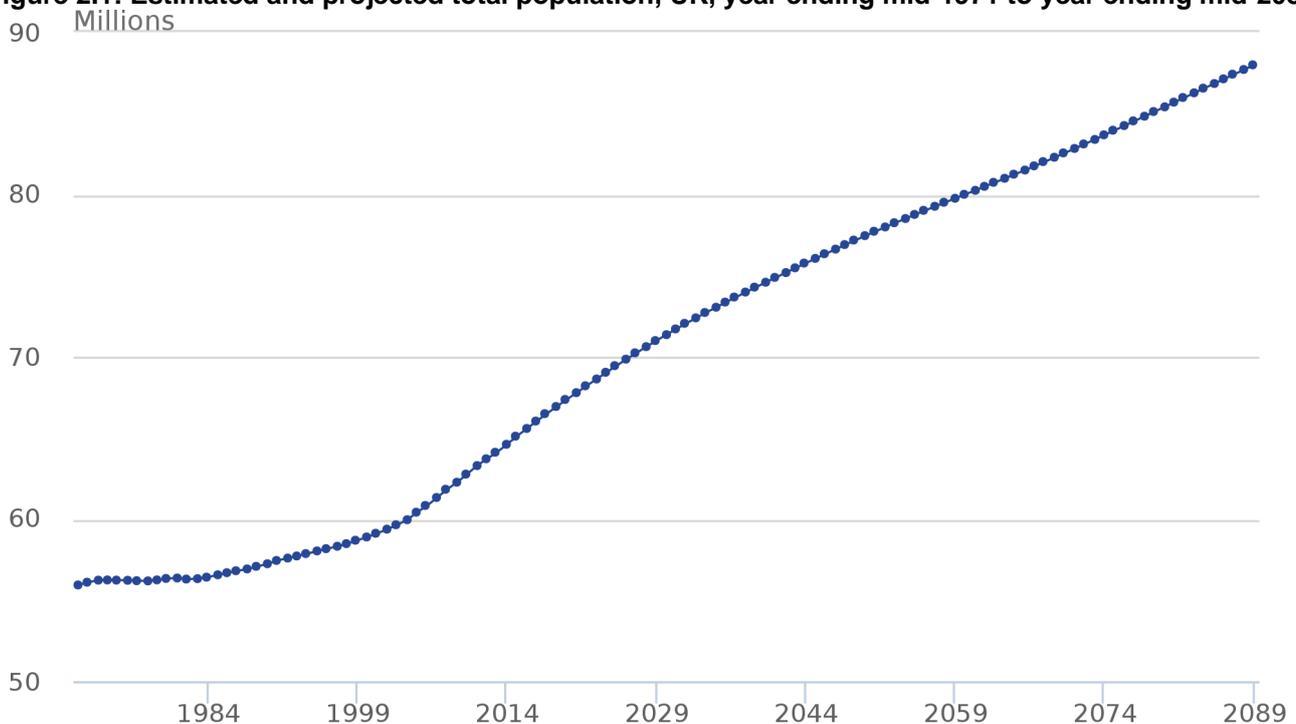
1. Figures may not sum due to rounding

Charts of summary results

This section presents charts for the UK for the year ending mid-1971 to the year ending mid-2089. The equivalent charts for the constituent countries of the UK are available in the appendices A to D.

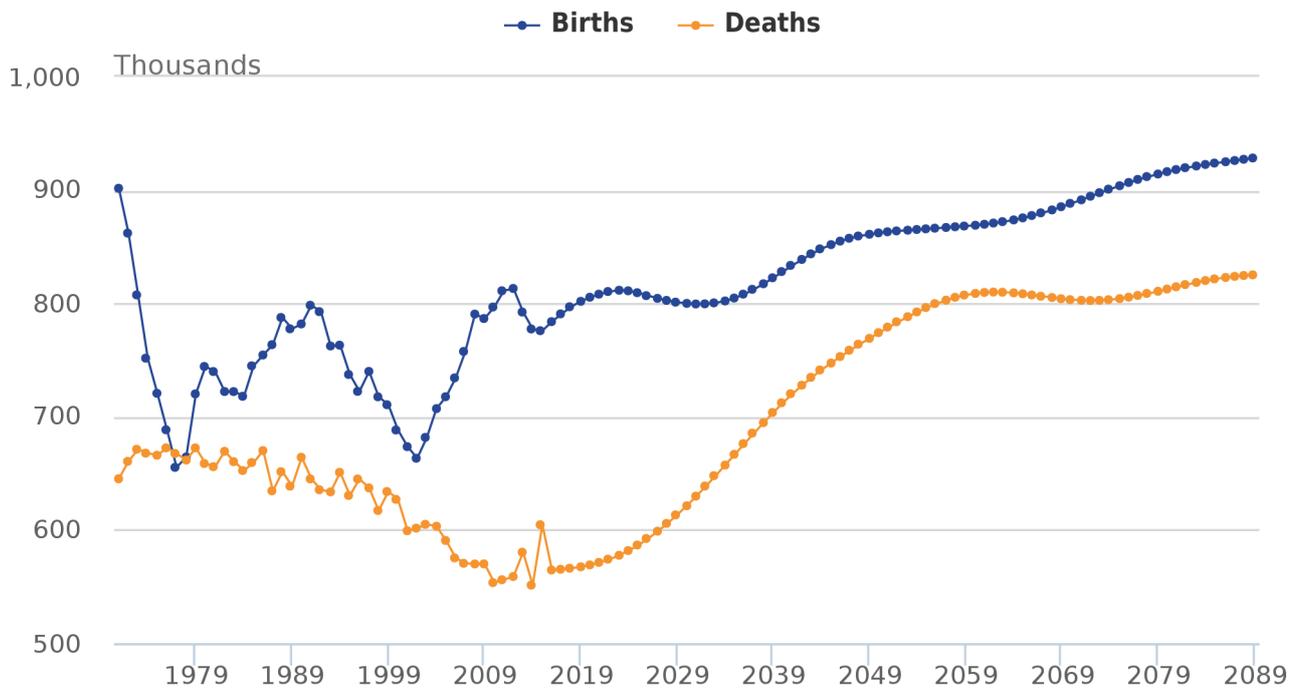
Figure 2.1 presents the estimated and projected total population in the UK between mid-1971 and mid-2089 and shows that the population is projected to continue to rise gradually over the period to mid-2089.

Figure 2.1: Estimated and projected total population, UK, year ending mid-1971 to year ending mid-2089



Source: Office for National Statistics

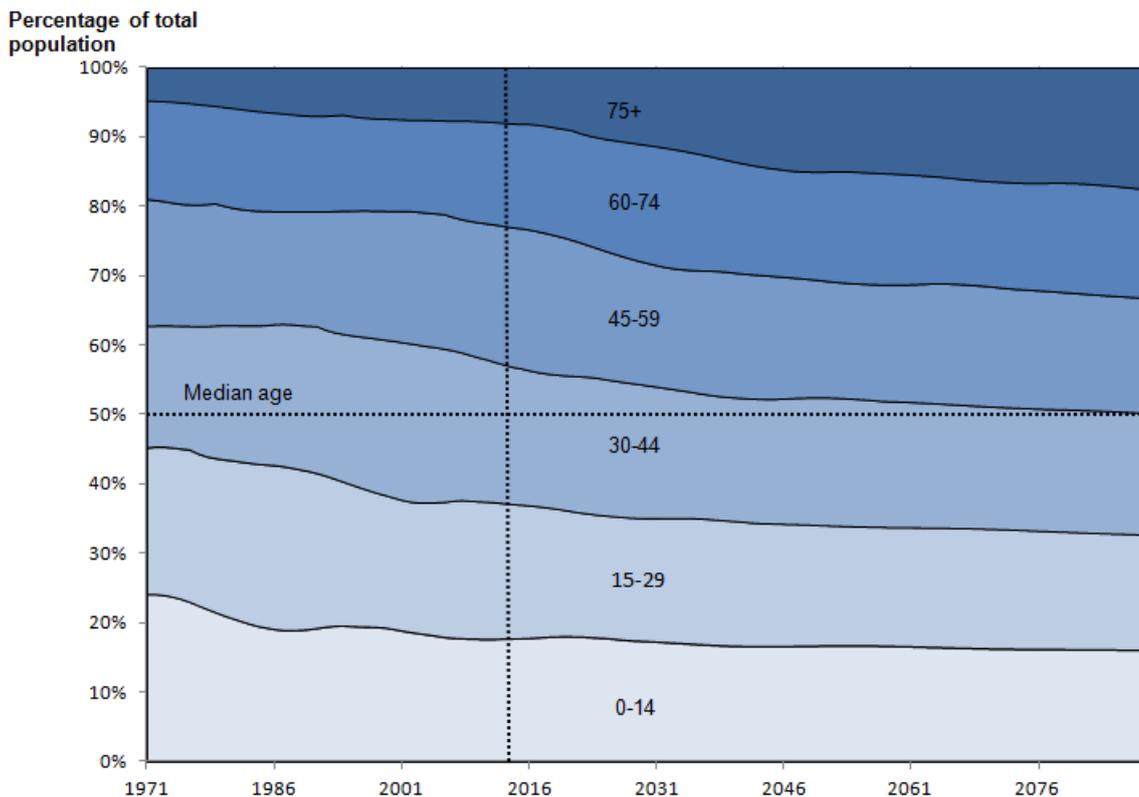
Figure 2.2: Estimated and projected births and deaths, UK, year ending mid-1971 to year ending mid-2089



Source: Office for National Statistics

Figure 2.3 shows how the age distribution of the UK is projected to change, illustrating how the median age of the population increases through the projection period.

Figure 2.3: Percentage age distribution, UK, year ending mid-1971 to year ending mid-2089



Variant projections

Table 2.2 presents projections of the total population under the principal projection, standard variant projections and special case scenarios for the UK and its constituent countries in mid-2039. Three additional measures are also included: the percentage of the population under 16, percentage of population 65 and over, and dependants per 1,000 persons of working age.

A further 7 variant projections (2 standard variants and 5 special case scenarios) are due to be released on 26 November 2015.

Table 2.2: Measures of population structure under the principal projection, standard variant projections and special case scenarios, UK, mid-2039

Projection	Total population (000s)	% of population aged under 16	% of population aged 65 & over	Dependants per 1,000 persons of working age*
Principal projection	74,284	17.8	24.3	666
SINGLE COMPONENT VARIANTS				
High fertility	75,765	19.0	23.8	689
Low fertility	72,504	16.4	24.9	642
High life expectancy	75,051	17.6	25.0	680
Low life expectancy	73,488	18.0	23.6	652
High migration	76,786	18.0	23.7	654
Low migration	71,783	17.6	25.0	679
COMBINATION VARIANTS				
Largest/smallest total population size				
High fertility, High life expectancy, High migration	79,090	19.0	23.8	691
Low fertility, Low life expectancy, Low migration	69,273	16.4	24.9	640
SPECIAL CASE SCENARIOS				
Zero migration (natural change only)	67,658	16.8	26.3	690

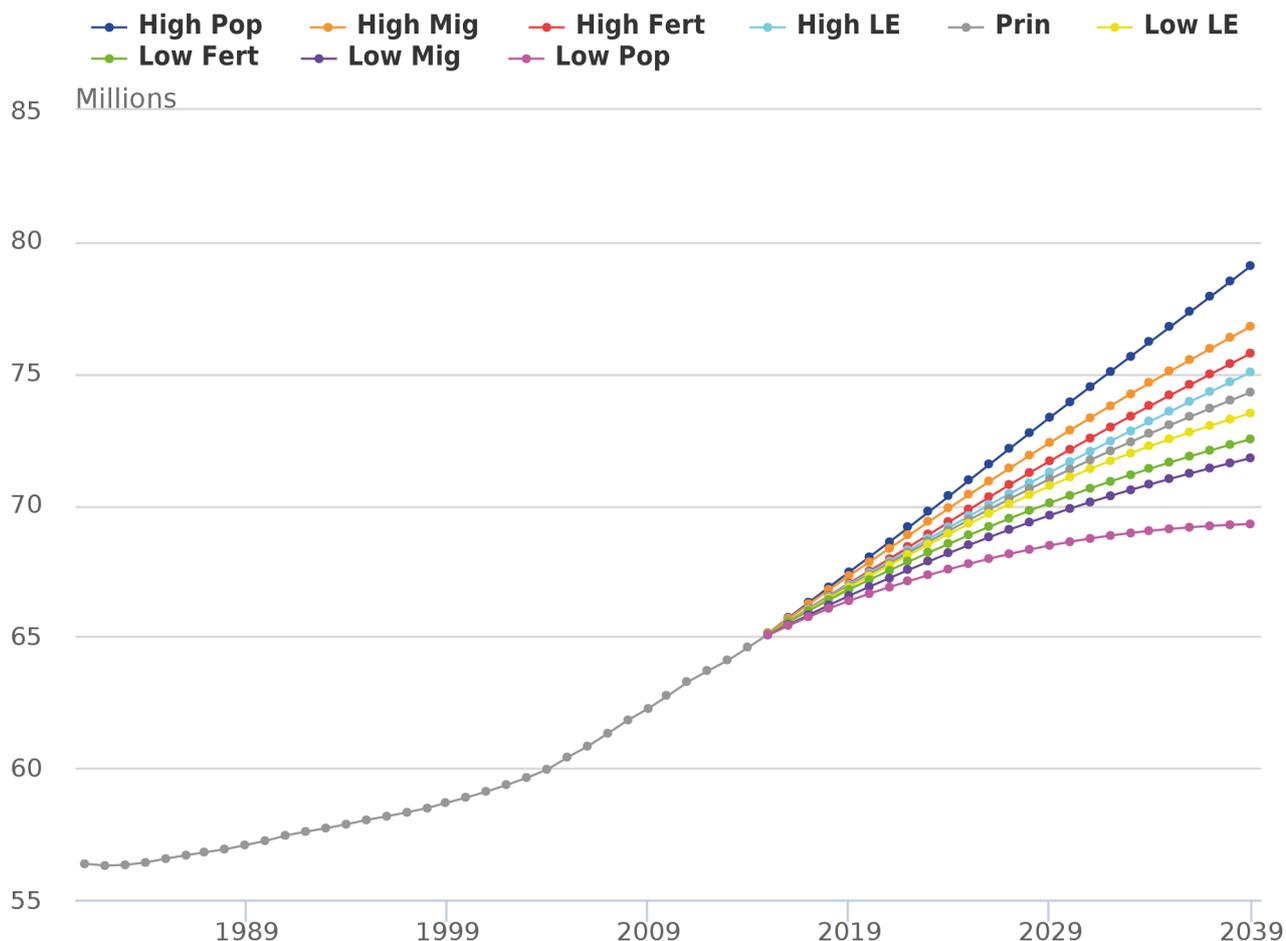
Source: Office for National Statistics

Notes:

* Dependants are children under 16 and people of state pensionable age and over. Working age and pensionable age populations are based on state pension age (SPA) for given year. Between 2012 and 2018, SPA will change from 65 years for men and 61 years for women, to 65 years for both sexes. Then between 2019 and 2020, SPA will change from 65 years to 66 years for both men and women. Between 2026 and 2027 SPA will increase to 67 years and between 2044 and 2046 to 68 years for both sexes. This is based on SPA under the 2014 Pensions Act.

Figure 2.4 shows the actual and projected population for the UK between mid-1981 and mid-2039, by principal projection and selected standard variants.

Figure 2.4: Estimated and projected total population, UK, year ending mid-1981 to year ending mid-2039



Source: Office for National Statistics

The equivalent charts for the constituent countries of the UK can be found in the relevant appendices.

3 . Migration and population growth

deaths and because of positive net migration. However, the components of population change are not independent of each other. In particular, the projected numbers of future births and deaths are themselves partly dependent on the assumed level of net migration.

An understanding of the overall effect of migration on population growth can be obtained by comparing the results of the principal and main variant projections with those of the zero net migration ("natural change only") variant projection. The zero net migration variant assumes that net migration will be zero at all ages in future, but makes the same assumptions about fertility and mortality as the principal projection. In this analysis, the effect of net migration on population growth in the period to mid-2039 is considered.

If annual net inward migration to the UK was to average 185,000 a year (the long-term assumption in the principal projection) this would lead to a total net inflow of 4.625 million migrants in the period between mid-2014 (the base year of the projections) and mid-2039. In fact, the projected total number of net migrants during this period in the principal projection is slightly higher (4.96 million) due to the higher migration assumptions for the first few years of the projection.

The assumed fertility and mortality rates are the same in the principal projection, the zero net migration variant projection and the high and low migration variants. However, because migration is concentrated at young adult ages, the different assumed numbers of migrants affect the number of women of childbearing age and hence the future number of births.

There is no comparable effect on deaths, at least in the period to mid-2039. At ages over 35, assumed net migration flows fall considerably in the principal projection and the high and low migration variants so the projected number of deaths over the period to mid-2039 is similar under all the migration variants.

Table 2.3 shows the projected components of population change in the period to mid-2039 in the principal projection, the high and low migration variants (which assume long-term annual net inward flows of 265,000 and 105,000 a year respectively), and the zero net migration variant projection.

Table 2.3: Projected population change, UK, mid-2014 to mid-2039

	Thousands			
	High migration variant	Principal projection	Low migration variant	Zero net migration variant
Population at mid-2014	64,597	64,597	64,597	64,597
Population change (2014-39)				
Births	20,677	20,087	19,498	18,304
Deaths	15,408	15,360	15,312	15,242
Natural change	5,269	4,727	4,186	3,061
Net migration	6,920	4,960	3,000	0
Total change	12,189	9,688	7,186	3,061
Population at mid-2039	76,786	74,284	71,783	67,658

Source: Office for National Statistics

Table 2.4 shows how the projected population growth is broken down between the assumed level of net migration and projected natural change.

Table 2.4: Projected population growth by component, UK, mid-2014 to mid-2039

	Thousands		
	High migration variant	Principal projection	Low migration variant
Total population increase between 2014 and 2039	12,189	9,688	7,186
Resulting from:			
Assumed net migration	6,920	4,960	3,000
Natural change assuming zero net migration	3,061	3,061	3,061
Additional natural change from assumed level of net migration	2,207	1,666	1,124

Source: Office for National Statistics

In the principal projection, the population of the UK is projected to grow by 9.7 million between mid-2014 and mid-2039. Some 5 million of this increase is directly due to the assumed number of net migrants. Natural change accounts for a further 4.7 million — the difference between 20.1 million births and 15.4 million deaths. Just over 3 million of this natural change (increase) would occur with zero net migration. The remaining 1.7 million is the net effect of the assumed annual level of net migration on natural change (almost entirely the effect on births).

Some 51% of population growth in the principal projection is therefore directly attributable to the assumed number of net migrants. The remaining 49% is attributable to projected natural change (of which 32 percentage points would occur with zero net migration and 17 percentage points arise from the effect of net migration on natural change). In total, therefore, some 68% of population growth in the period to mid-2039 in the principal projection is attributable, directly or indirectly, to future net migration.

It should be emphasised that these calculations are based on comparing alternative projections which make the same assumptions about future fertility and mortality rates irrespective of the assumed level of net migration. In practice, fertility and mortality rates for new migrants are likely to differ, to some extent, from those for the existing population.

Note that the principal projection and the zero net migration variant projection for the UK are calculated by aggregating equivalent projections for the 4 constituent countries of the UK. The resulting UK level fertility and mortality rates are therefore effectively weighted averages of those for the individual countries. This leads to some very small differences at UK level between the effective fertility and mortality rates used in the principal projection and the zero net migration variant. This has no significant effect on the analysis in this section.

4 . Comparisons with previous projections

Base population

Overall, the published mid-2014 population estimate for the UK is 86,000 (0.1%) higher than the 2012-based projection of the population at mid-2014.

Projected future population

The projected population of the UK at mid-2039 is about 419,000 (0.6%) higher than in the 2012-based projections. This is because the population of the UK is projected to grow at a faster rate in the 2014-based projections than the 2012-based projections. This is mainly due to the 2014-based projections assuming higher levels of international migration.

At mid-2039, populations are projected to be lower than in the 2012-based projections for Scotland and Wales but slightly higher for England and Northern Ireland. The percentage difference by mid-2039 is greatest for Scotland (1.8% lower) where the projected levels of births and net migration have fallen. The projected population of Wales is 1.5% lower than in the 2012-based projections. Conversely, the populations of England and Northern Ireland are projected to be 0.9 and 0.5% higher, respectively, than previously projected.

Compared with the previous projections, the UK population at mid-2039 is higher in all broad age groups apart from those aged 75 and over, where it is 164,000 lower than the 2012-based projections.

Comparisons with the previous (2012-based) projections are given in Tables 2.5 and 2.6 and illustrated in Figure 2.5.

Table 2.5: Changes in projected births, deaths and net migration compared with the 2012-based projections, UK

	2014 to 2015		2015 to 2025		2025 to 2035		2035 to 2039	
	000s	%	000s	%	000s	%	000s	%
Births	-34	-4.2	-105	-1.3	24	0.3	6	0.2
Deaths	57	10.3	154	2.8	104	1.7	44	1.6
Net migration	165		358		200		80	
Total change	74		99		120		41	

Source: Office for National Statistics

Note:

1. Net migration and total change can be positive or negative and hence it is not possible to express change in percentage terms

Table 2.6: Changes in projected population by age compared with 2012-based projections, UK

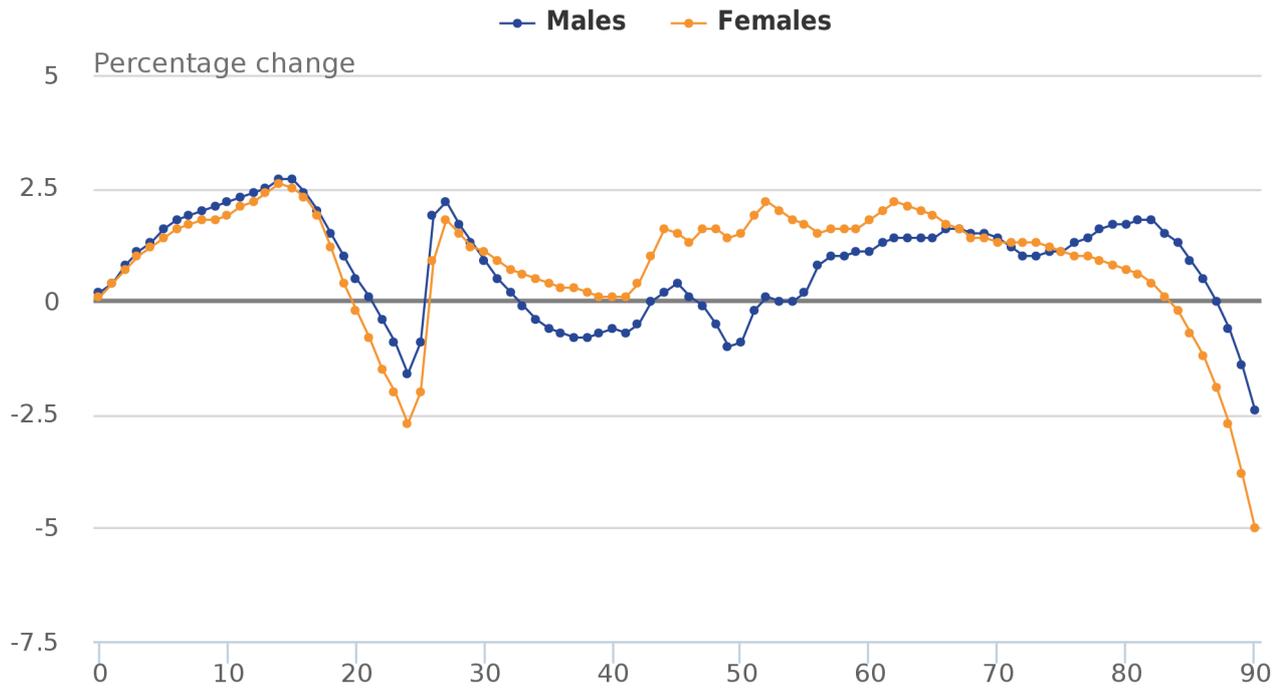
Age group	mid-2014		mid-2025		mid-2035		mid-2039	
	000s	%	000s	%	000s	%	000s	%
0-14	48	0.4	17	0.1	181	1.5	194	1.6
15 - 29	-40	-0.3	115	0.9	70	0.5	79	0.6
30 - 44	29	0.2	66	0.5	18	0.1	19	0.1
45 - 59	33	0.3	122	1.0	124	1.0	116	0.9
60 - 74	19	0.2	93	0.8	151	1.2	175	1.5
75 & over	-4	-0.1	-155	-2.1	-165	-1.8	-164	-1.6
All ages	86	0.1	259	0.4	378	0.5	419	0.6

Source: Office for National Statistics

The equivalent tables for the constituent countries of the UK can be found in the Excel download.

Figure 2.5 shows change in the projected population for the UK at mid-2039, compared with the 2012-based projections.

Figure 2.5: Change in projected population at mid-2039 by age and sex compared with the 2012-based projections, UK



Source: Office for National Statistics

Notes:

1. Where the percentage change is greater than 0, the 2014-based projection is greater than the 2012-based projection.
2. Where the percentage change is less than 0, the 2014-based projection is less than the 2012-based projection.

The equivalent charts for the constituent countries of the UK can be found in the relevant appendices.

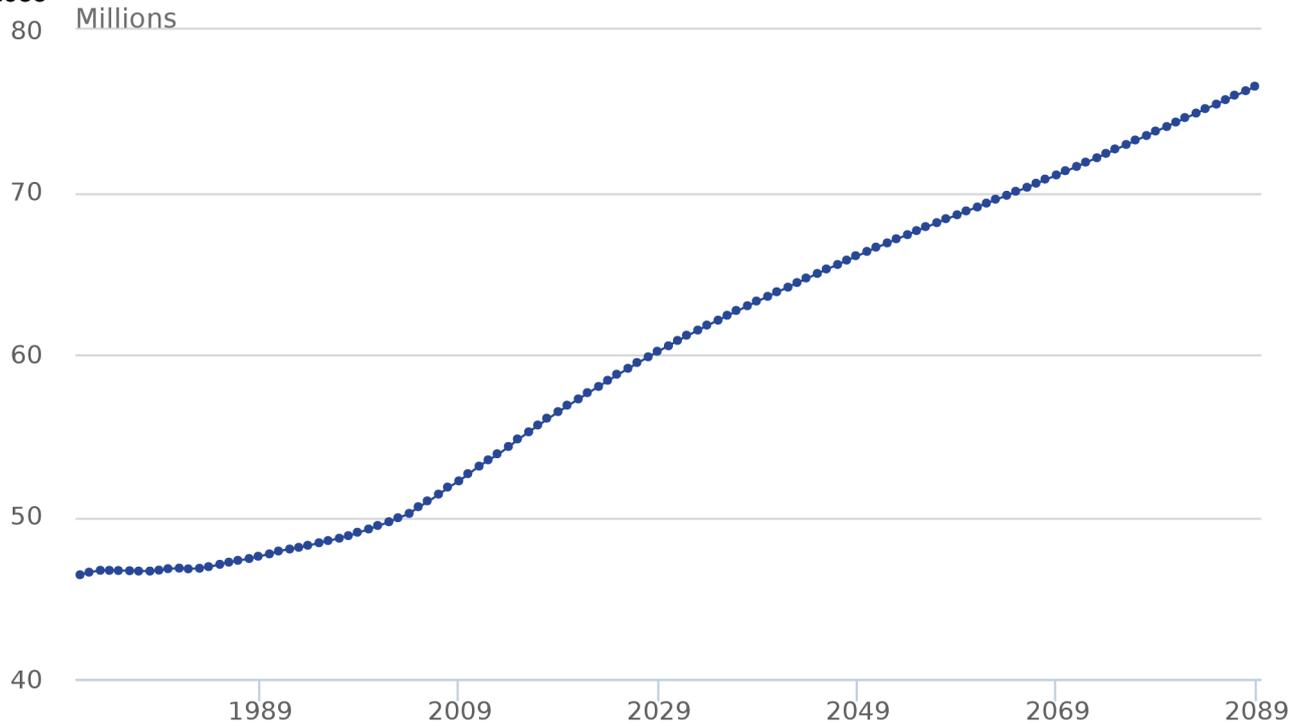
5. Background notes

1. 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

These National Statistics are produced to high professional standards and released according to the arrangements approved by the UK Statistics Authority.

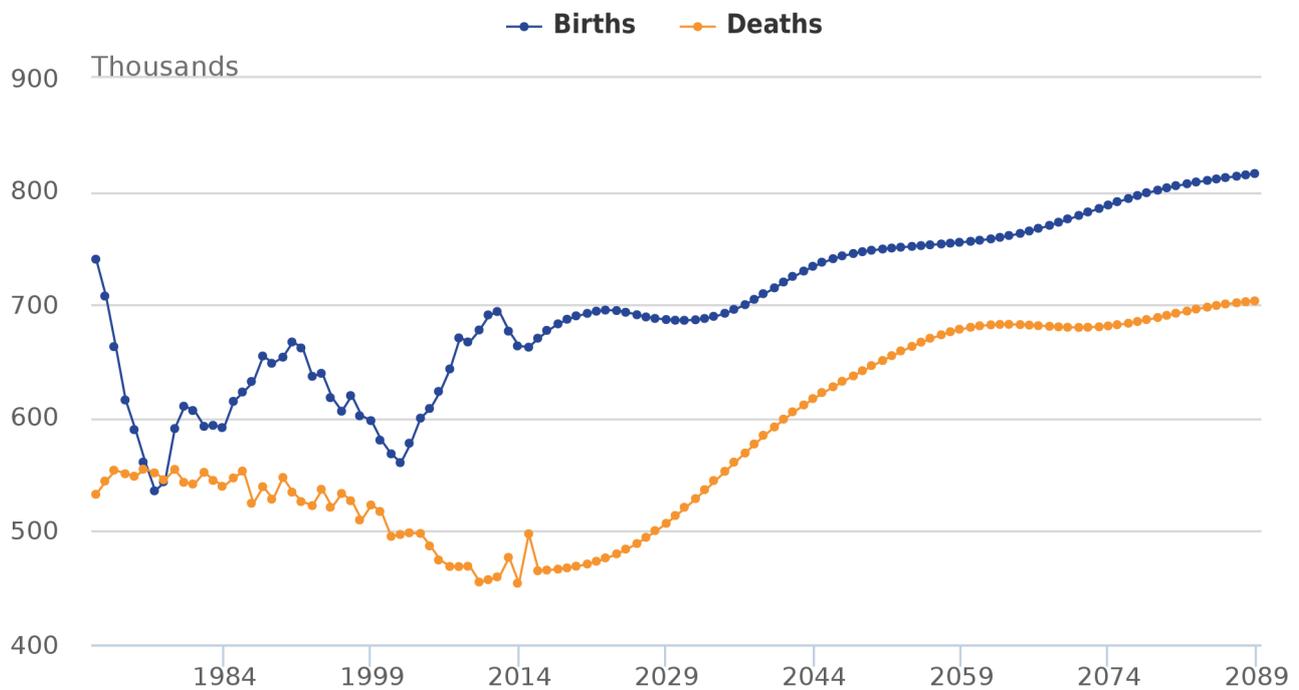
6. Appendix A: England charts

Figure 2.1a: Estimated and projected total population, England, year ending mid-1971 to year ending mid-2089



Source: Office for National Statistics

Figure 2.2a: Estimated and projected births and deaths, England, year ending mid-1971 to year ending mid-2089



Source: Office for National Statistics

Figure 2.3a: Percentage age distribution, England, year ending mid-1971 to year ending mid-2089

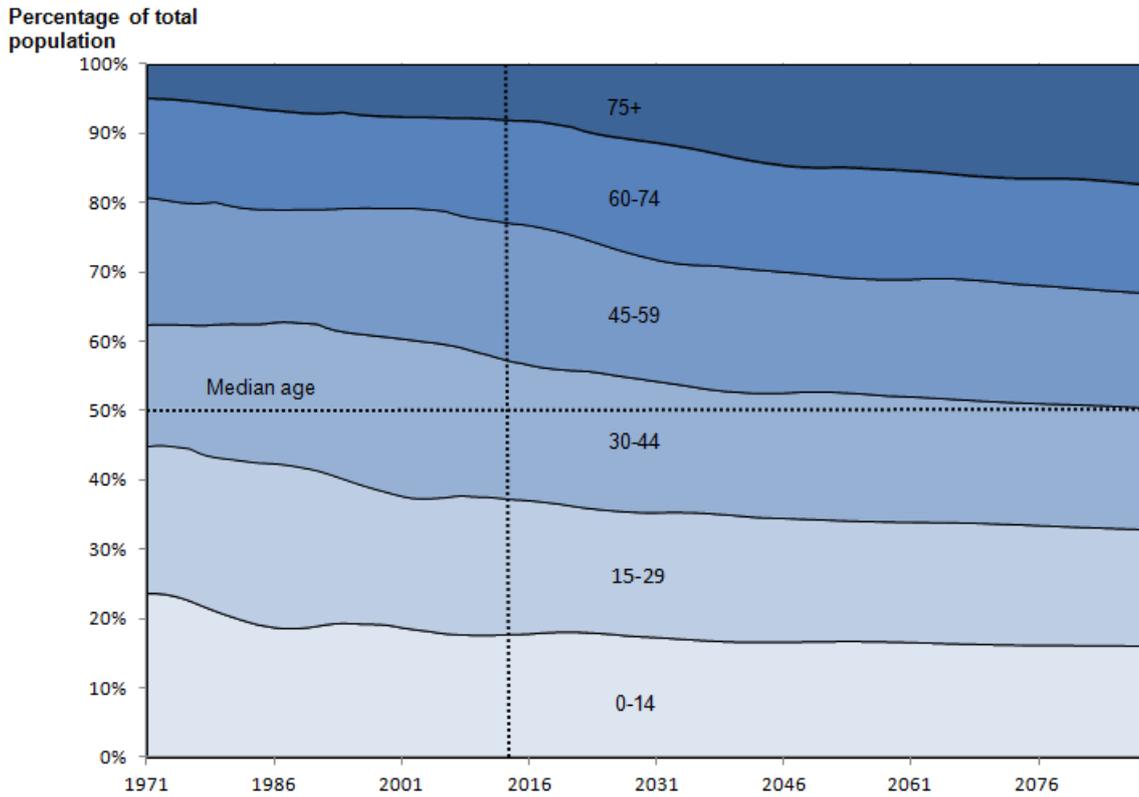
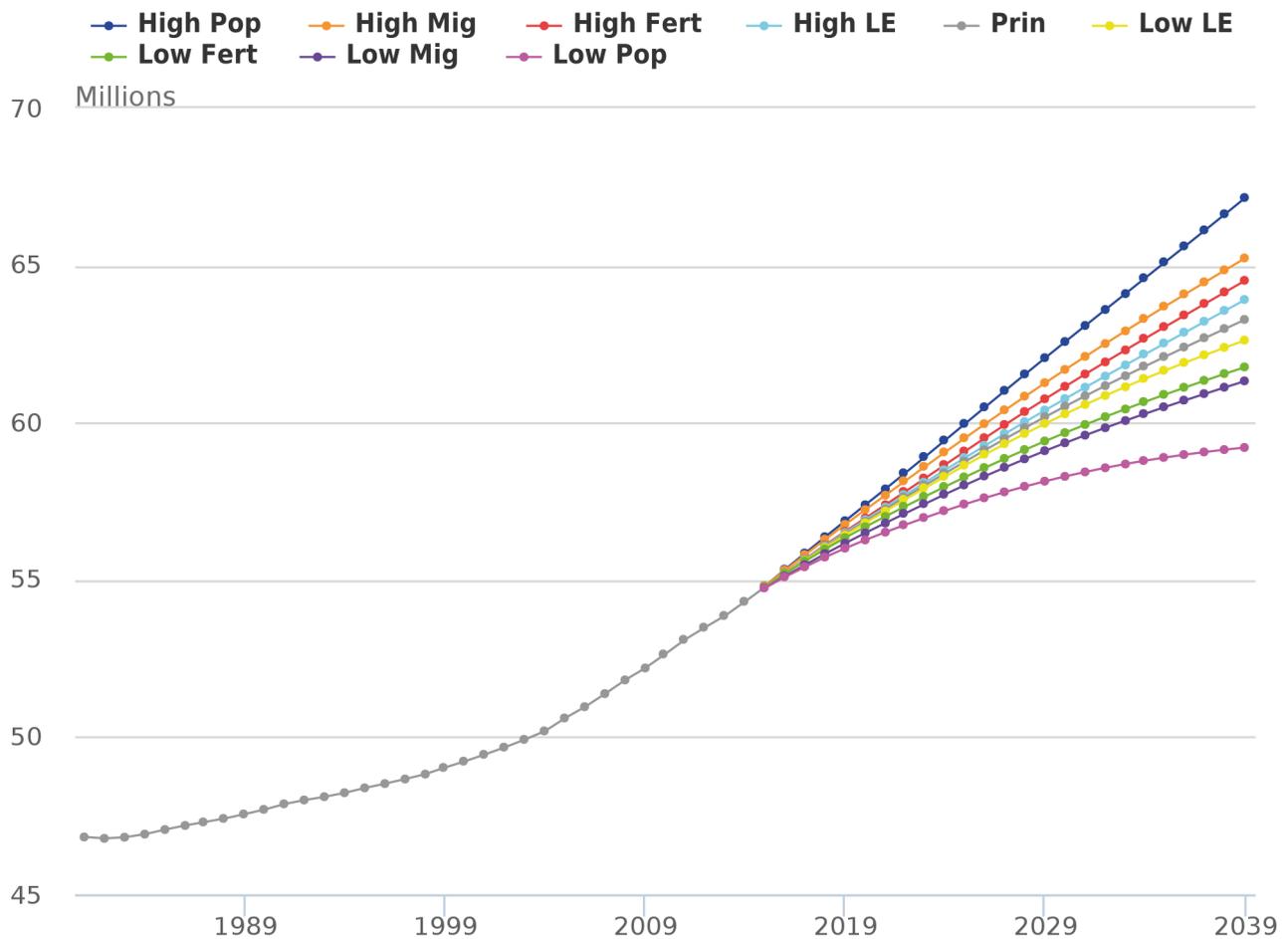
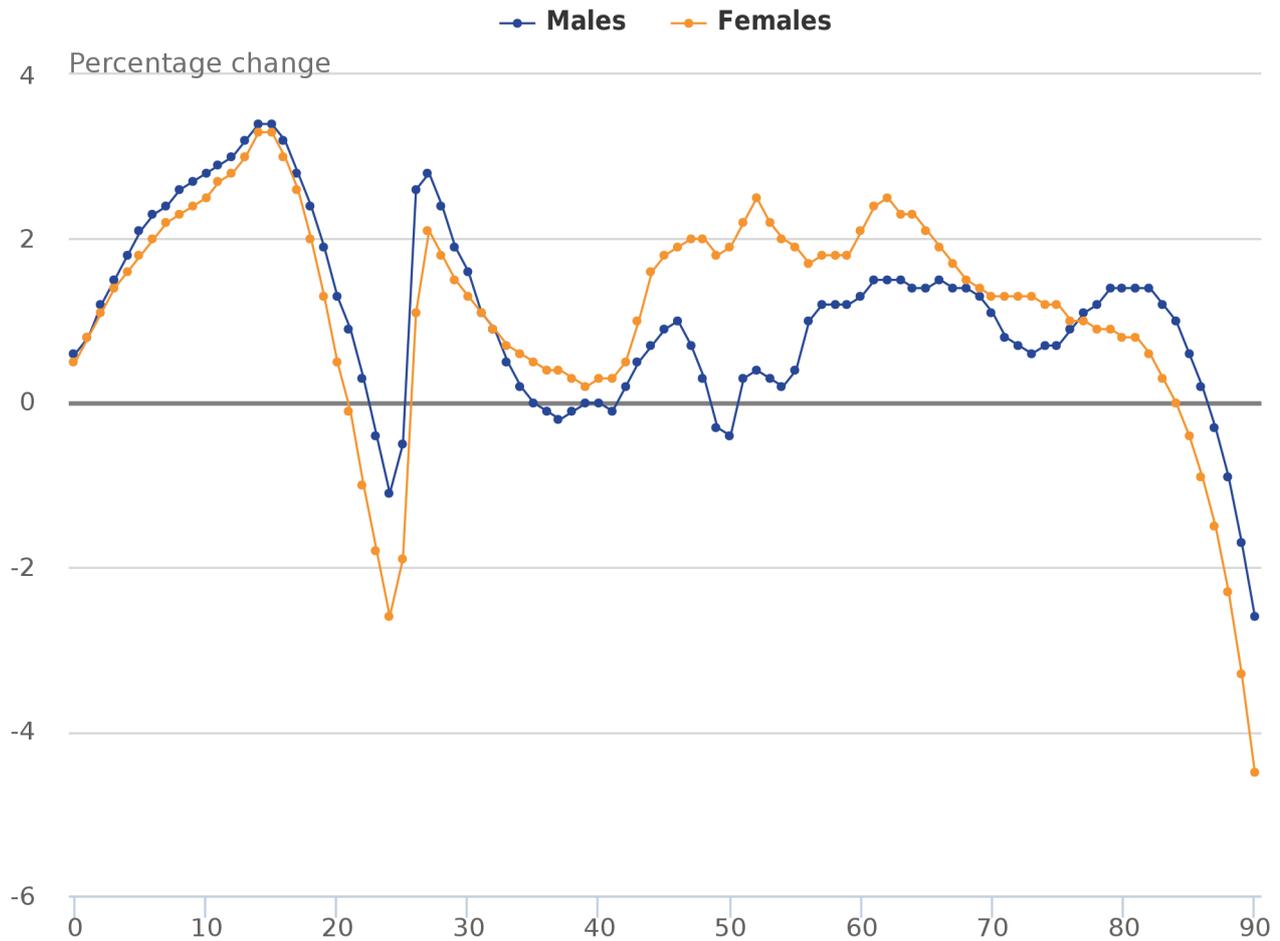


Figure 2.4a: Estimated and projected total population, England, year ending mid-1981 to year ending mid-2039



Source: Office for National Statistics

Figure 2.5a: Change in projected population at mid-2039 by age and sex compared with the 2012-based projections, England



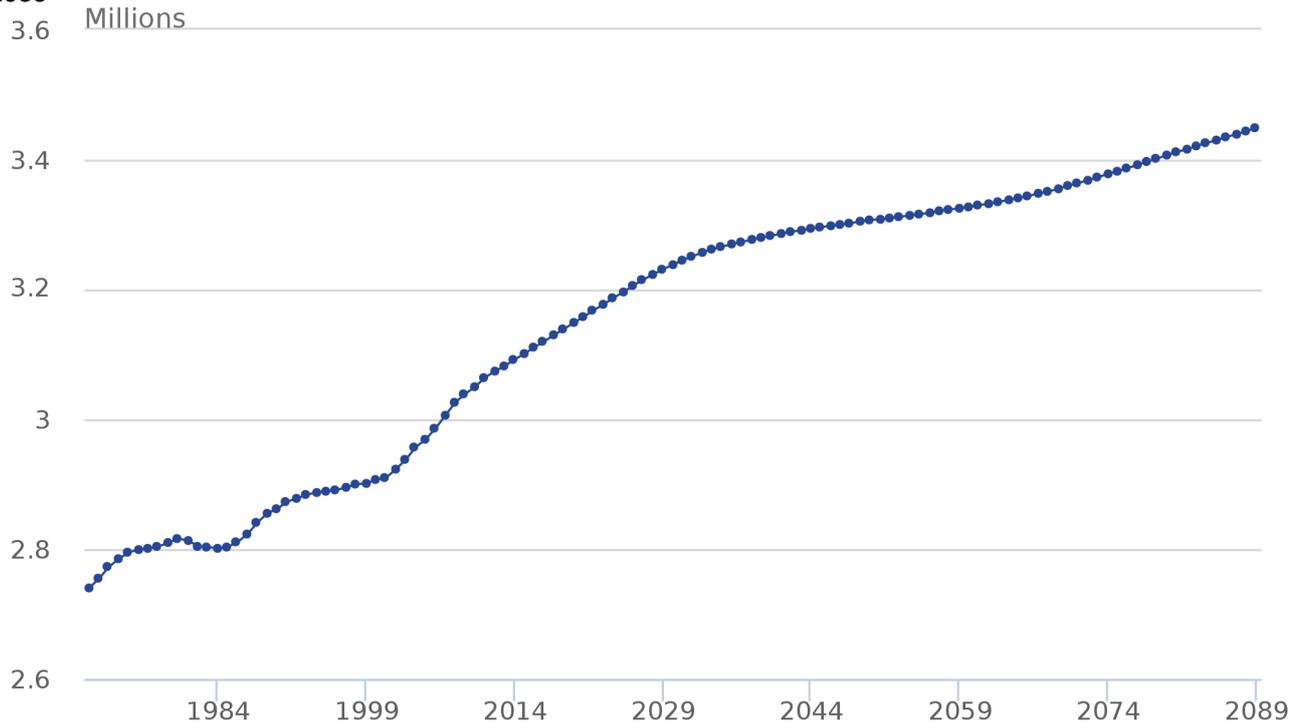
Source: Office for National Statistics

Notes:

1. Where the percentage change is greater than 0, the 2014-based projection is greater than the 2012-based projection.
2. Where the percentage change is less than 0, the 2014-based projection is less than the 2012-based projection.

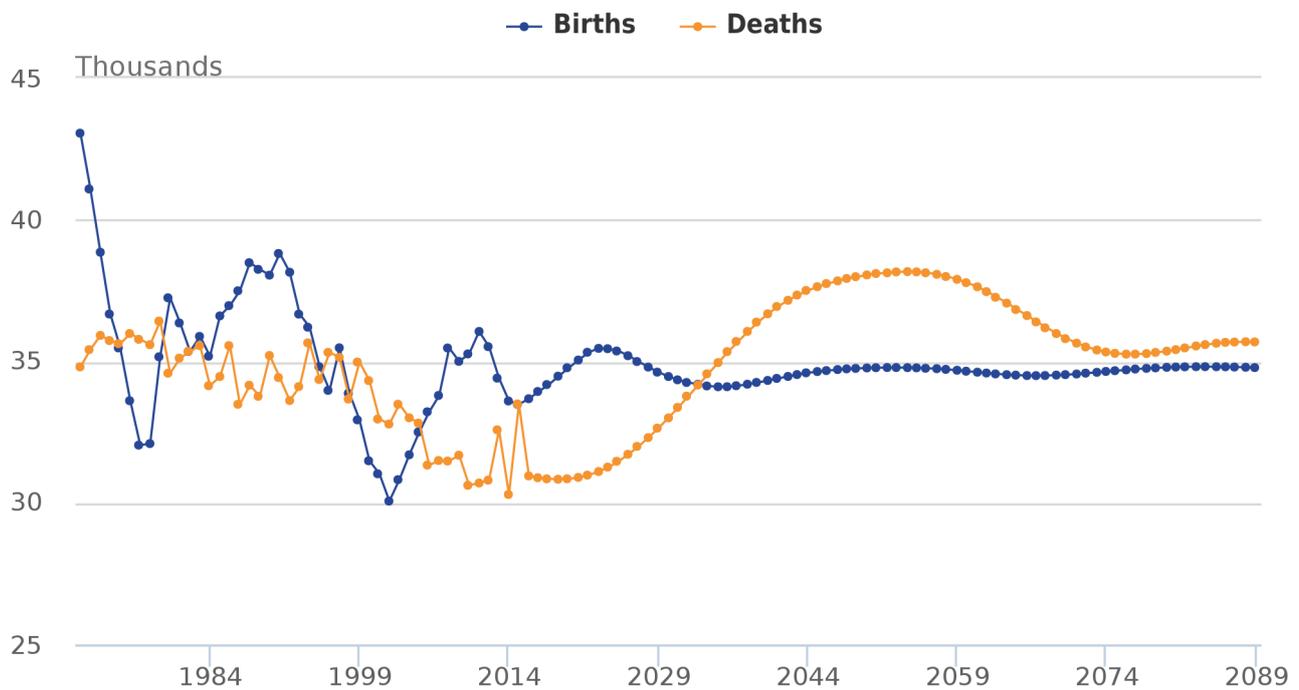
7. Appendix B: Wales charts

Figure 2.1b: Estimated and projected total population, Wales, year ending mid-1971 to year ending mid-2089



Source: Office for National Statistics

Figure 2.2b: Estimated and projected births and deaths, Wales, year ending mid-1971 to year ending mid-2089



Source: Office for National Statistics

Figure 2.3b: Percentage age distribution, Wales, year ending mid-1971 to year ending mid-2089

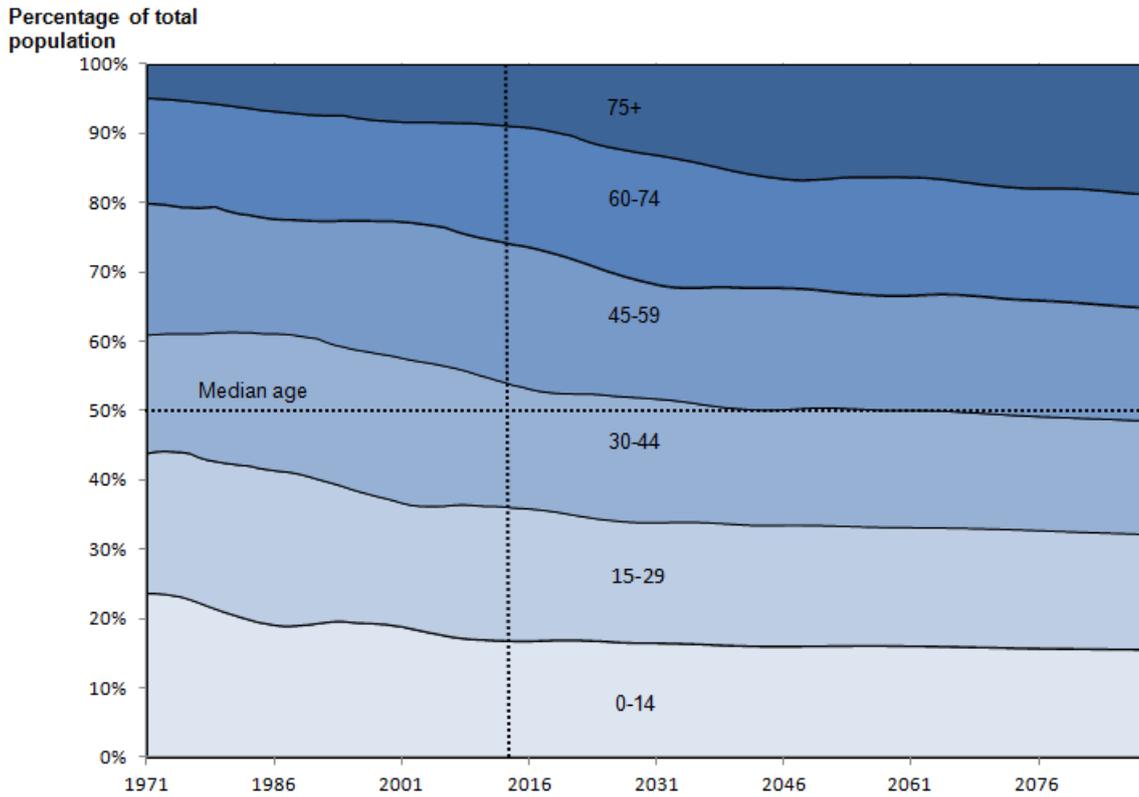
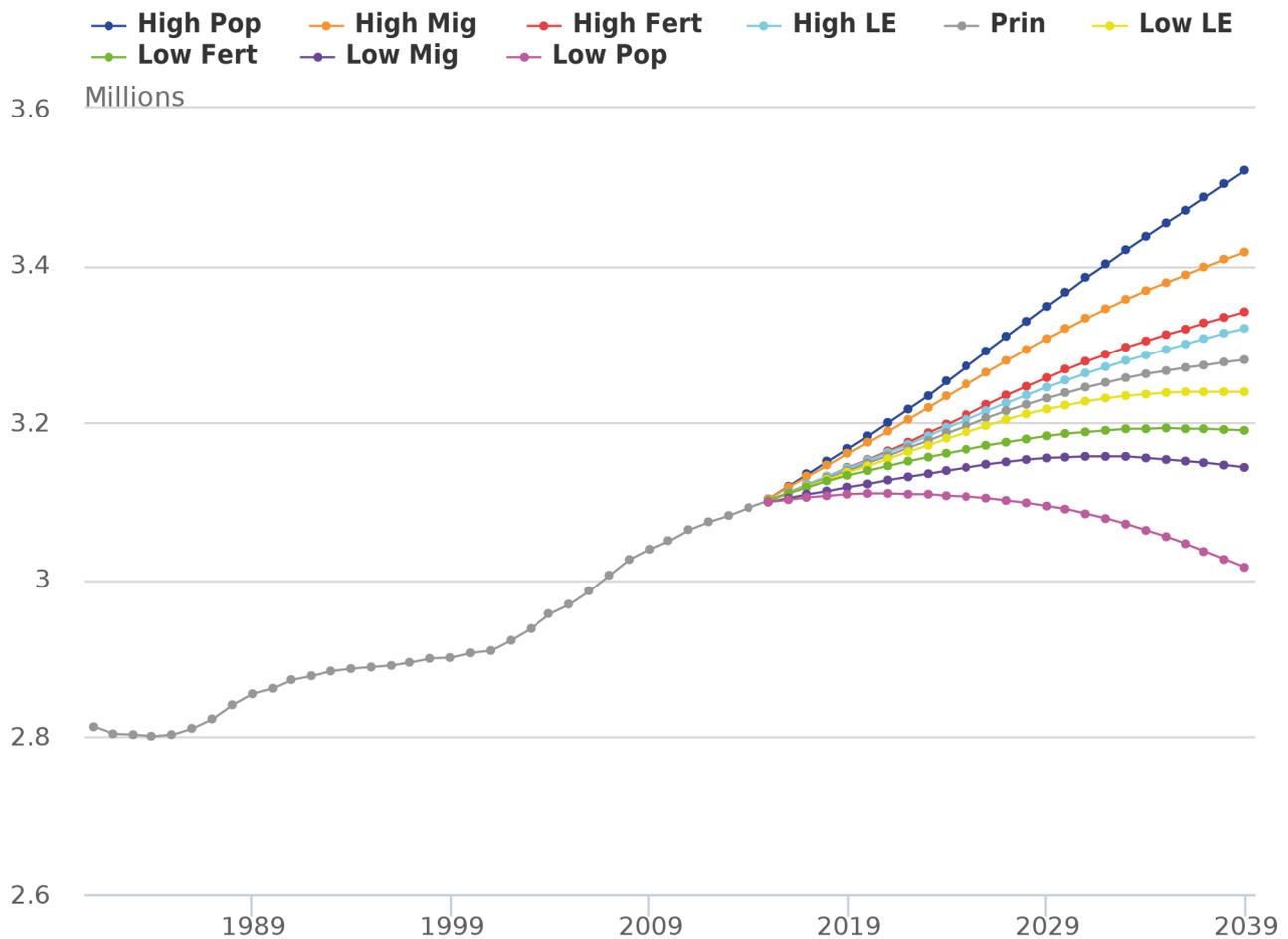
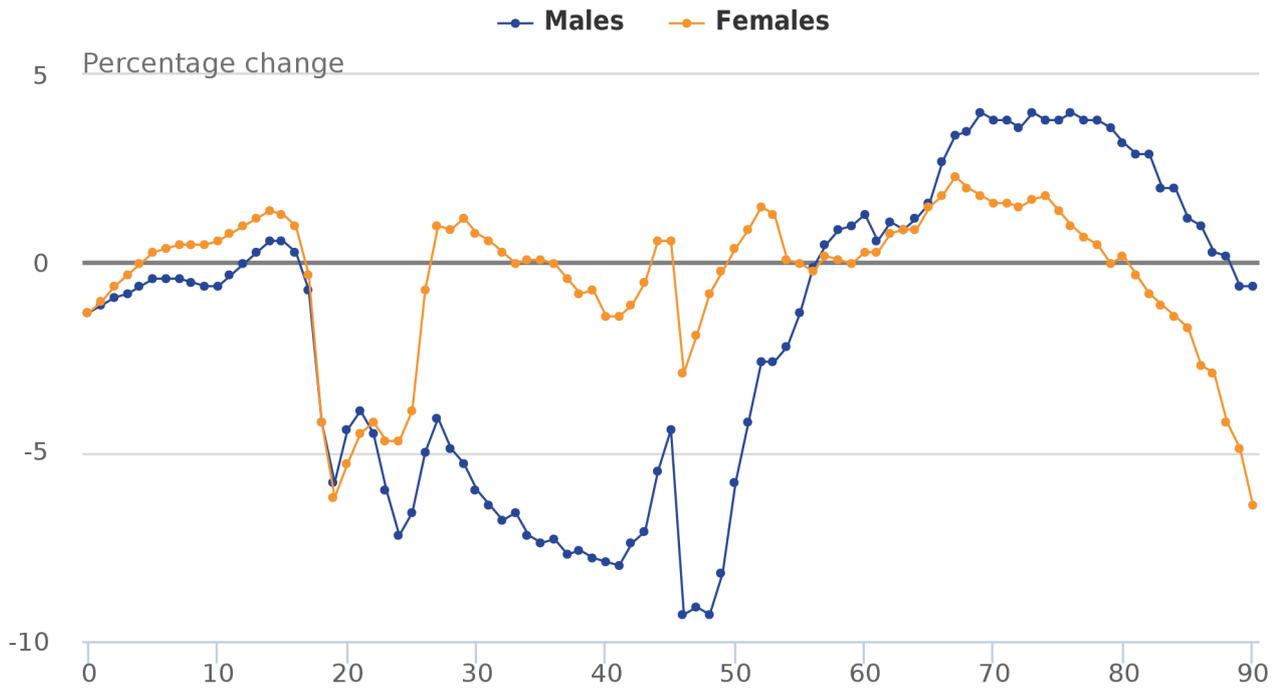


Figure 2.4b: Estimated and projected total population, Wales, year ending mid-1981 to year ending mid-2039



Source: Office for National Statistics

Figure 2.5b: Change in projected population at mid-2039 by age and sex compared with the 2012-based projections, Wales



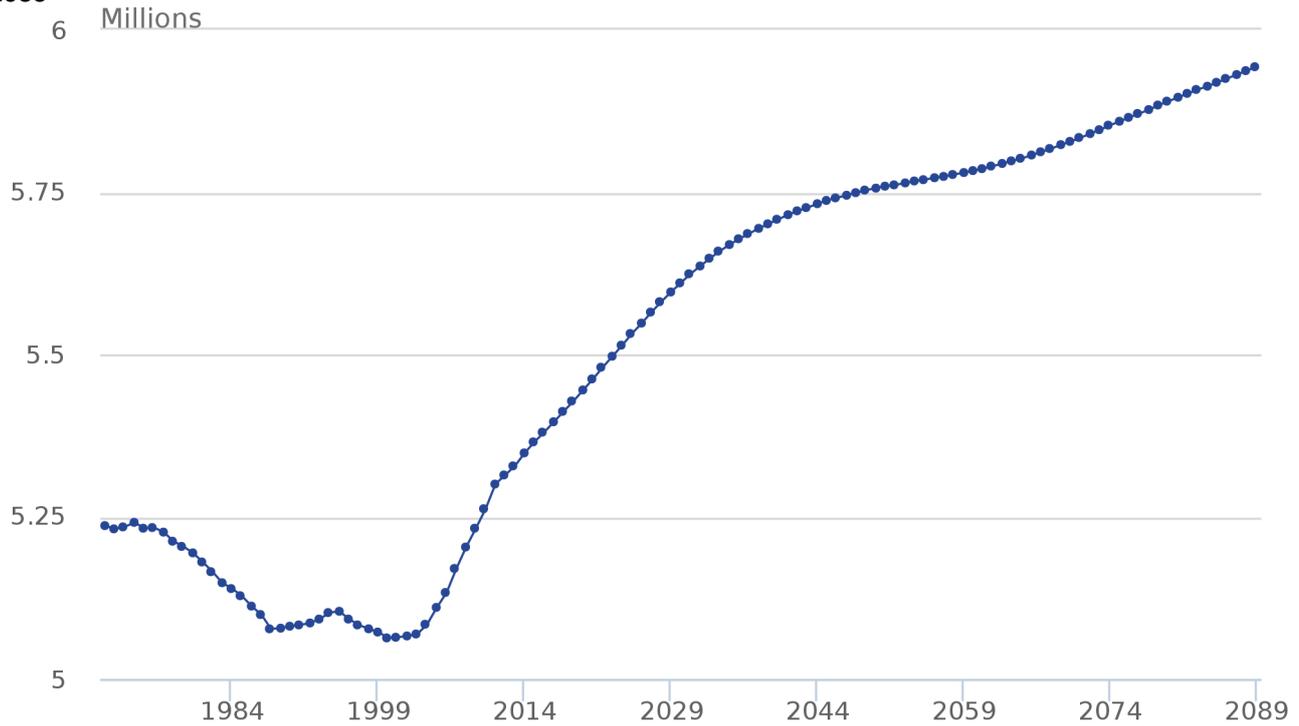
Source: Office of National Statistics

Notes:

1. Where the percentage change is greater than 0, the 2014-based projection is greater than the 2012-based projection.
2. Where the percentage change is less than 0, the 2014-based projection is less than the 2012-based projection.

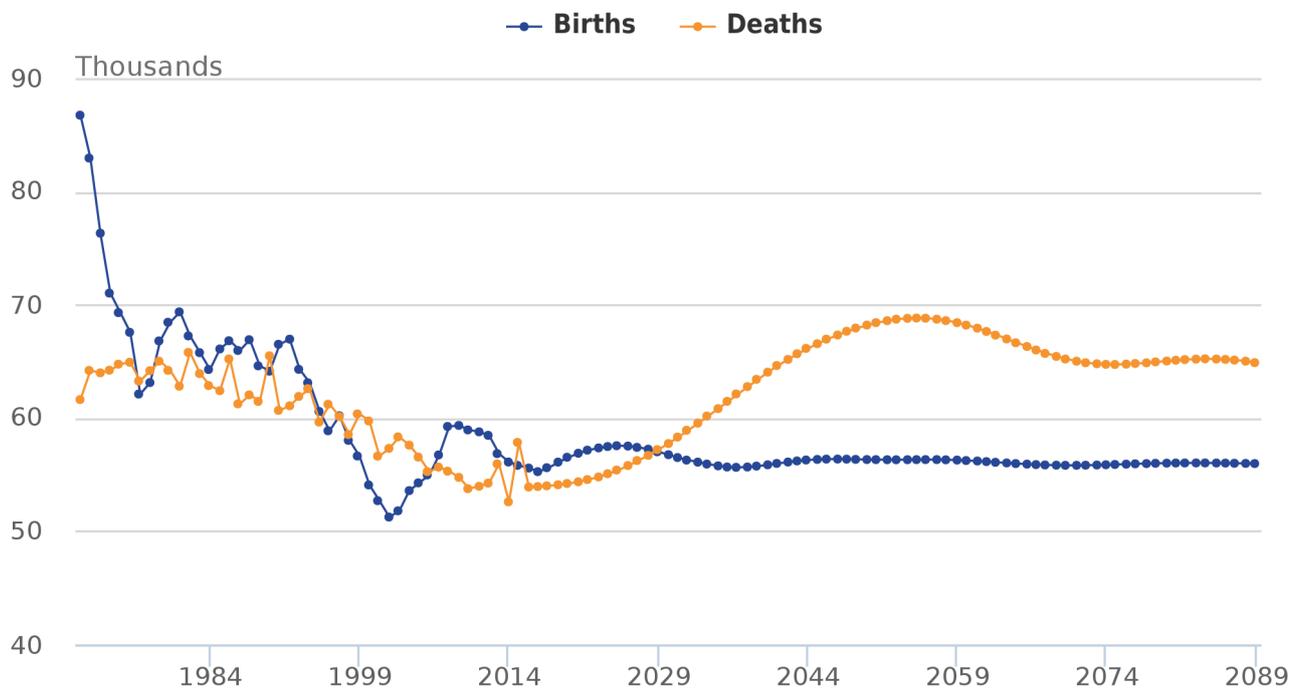
8. Appendix C: Scotland charts

Figure 2.1c: Estimated and projected total population, Scotland, year ending mid-1971 to year ending mid-2089



Source: Office for National Statistics

Figure 2.2c: Estimated and projected births and deaths, Scotland, year ending mid-1971 to year ending mid-2089



Source: Office for National Statistics, National Records of Scotland

Figure 2.3c: Percentage age distribution, Scotland, year ending mid-1971 to year ending mid-2089

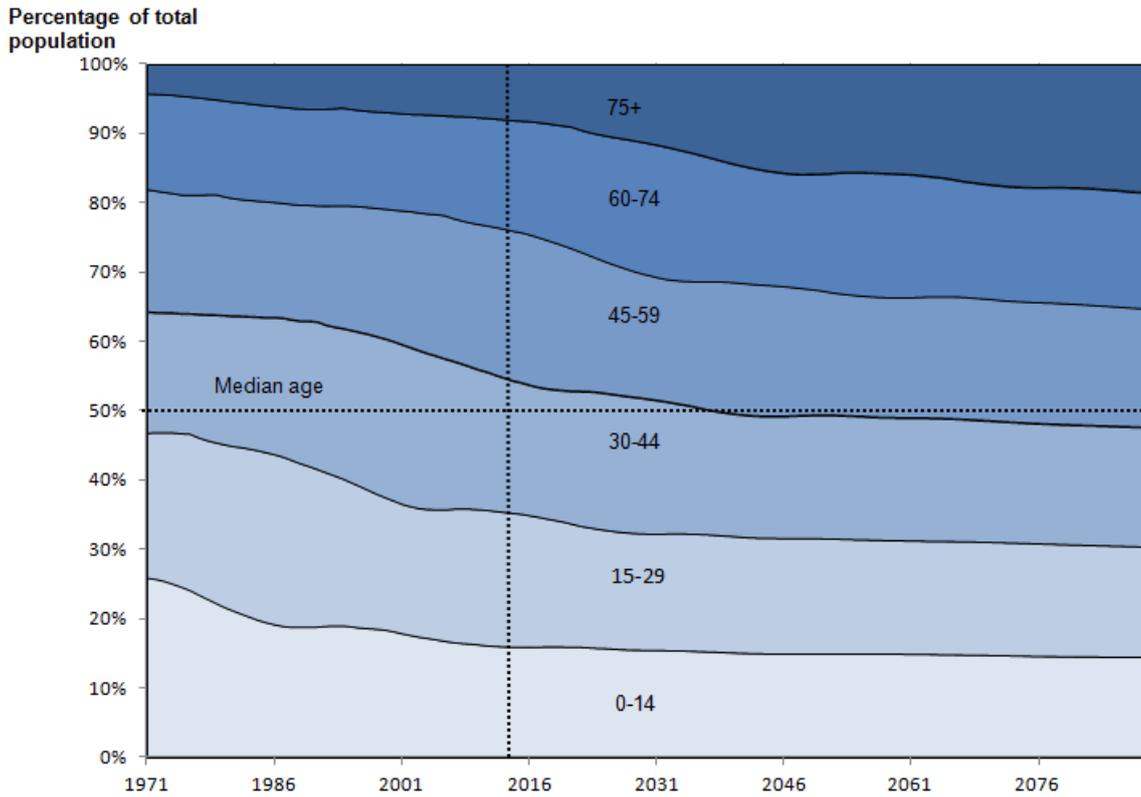
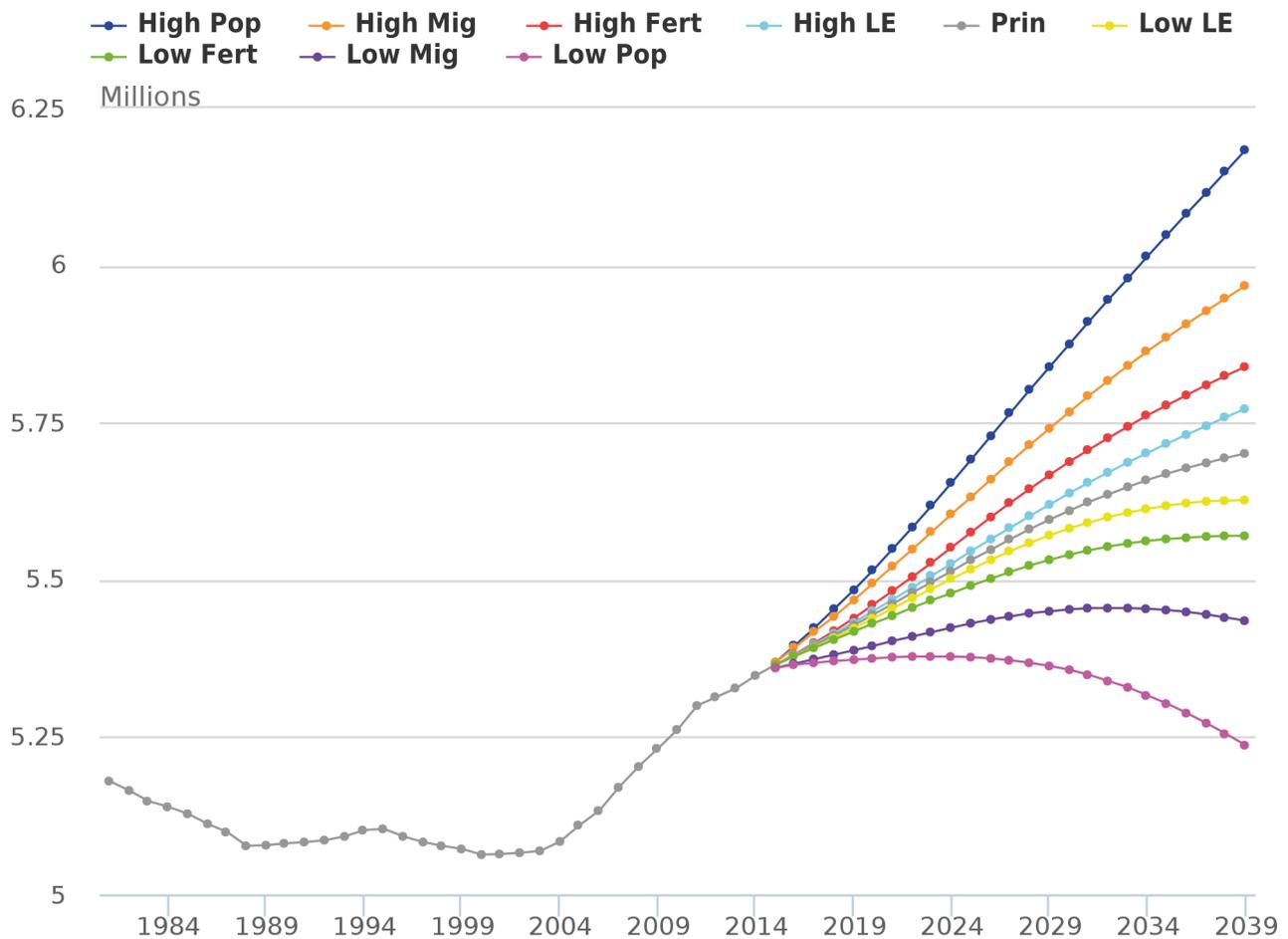
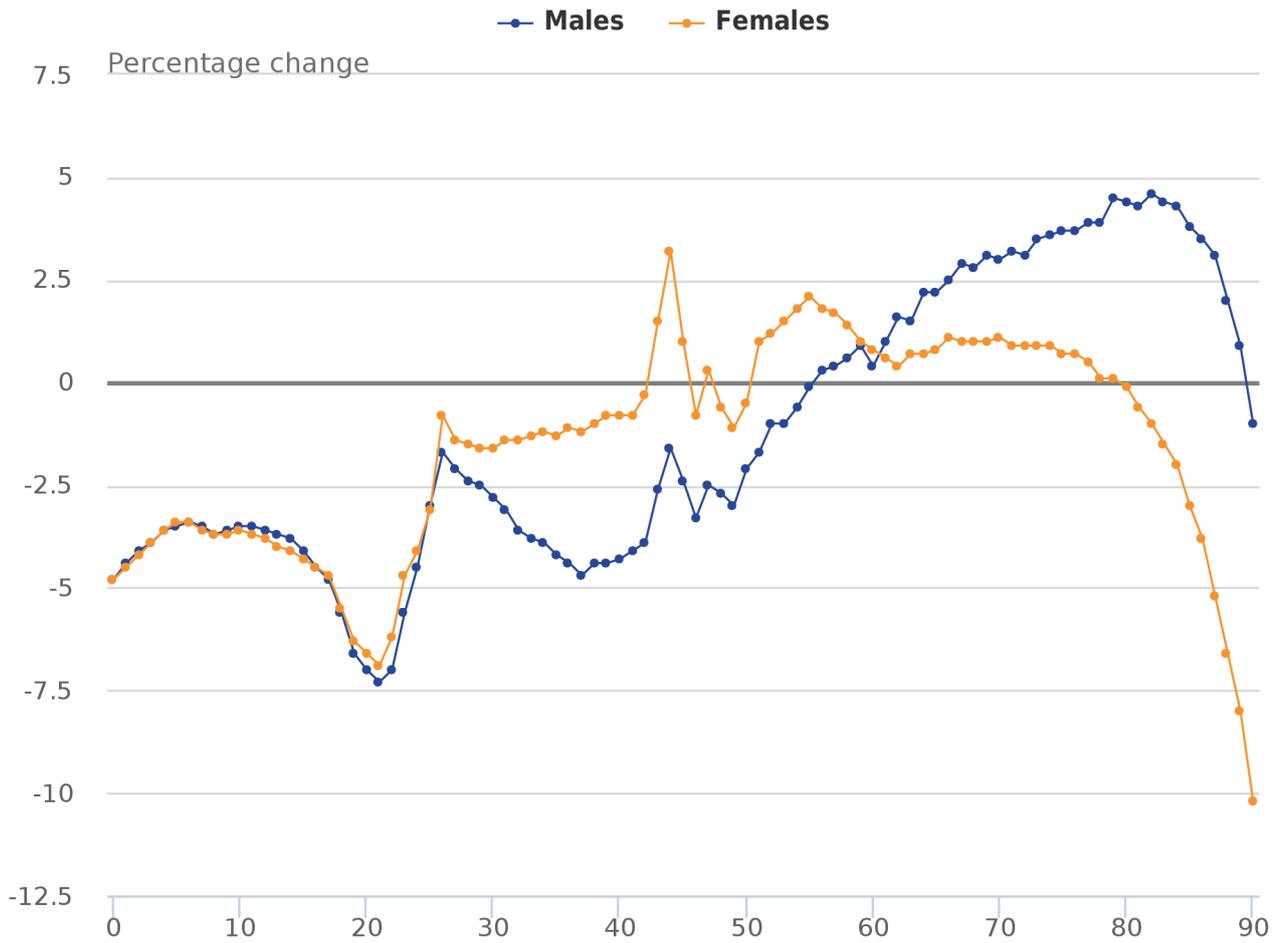


Figure 2.4c: Estimated and projected total population, Scotland, year ending mid-1981 to year ending mid-2039



Source: Office for National Statistics, National Records of Scotland

Figure 2.5c: Change in projected population at mid-2039 by age and sex compared with the 2012-based projections, Scotland



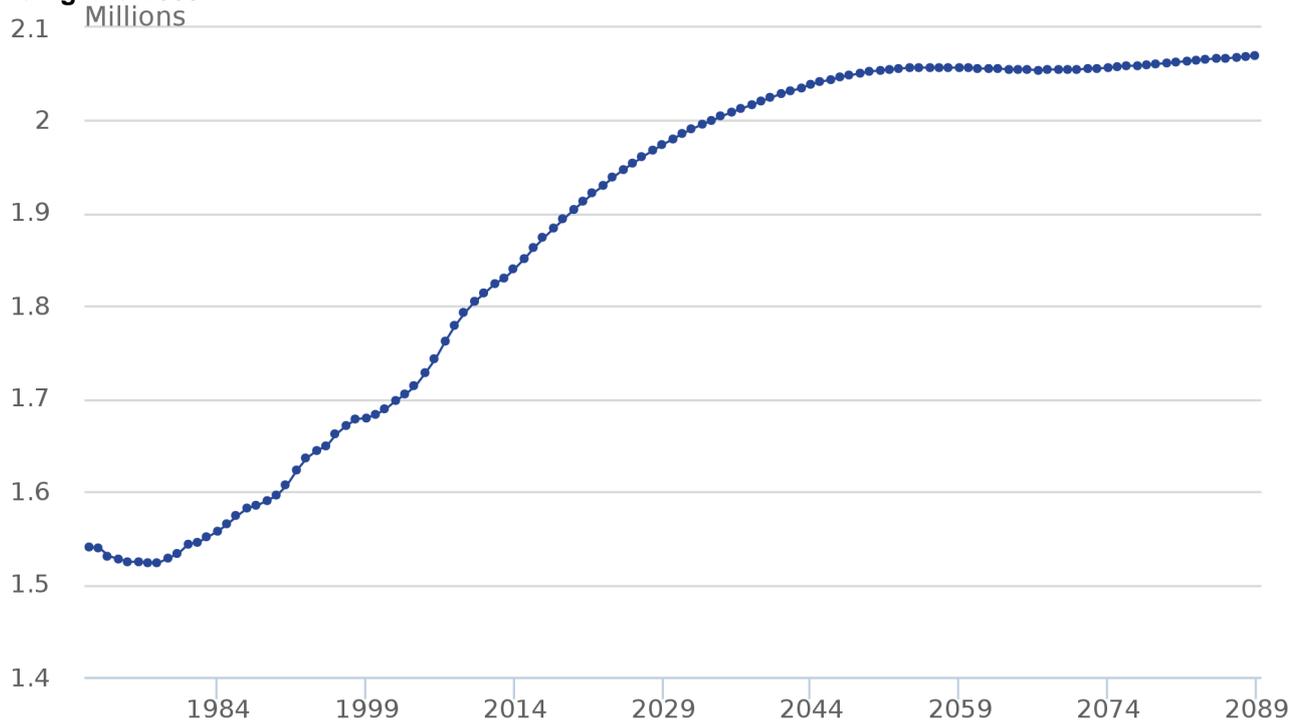
Source: Office for National Statistics

Notes:

1. Where the percentage change is greater than 0, the 2014-based projection is greater than the 2012-based projection.
2. Where the percentage change is less than 0, the 2014-based projection is less than the 2012-based projection.

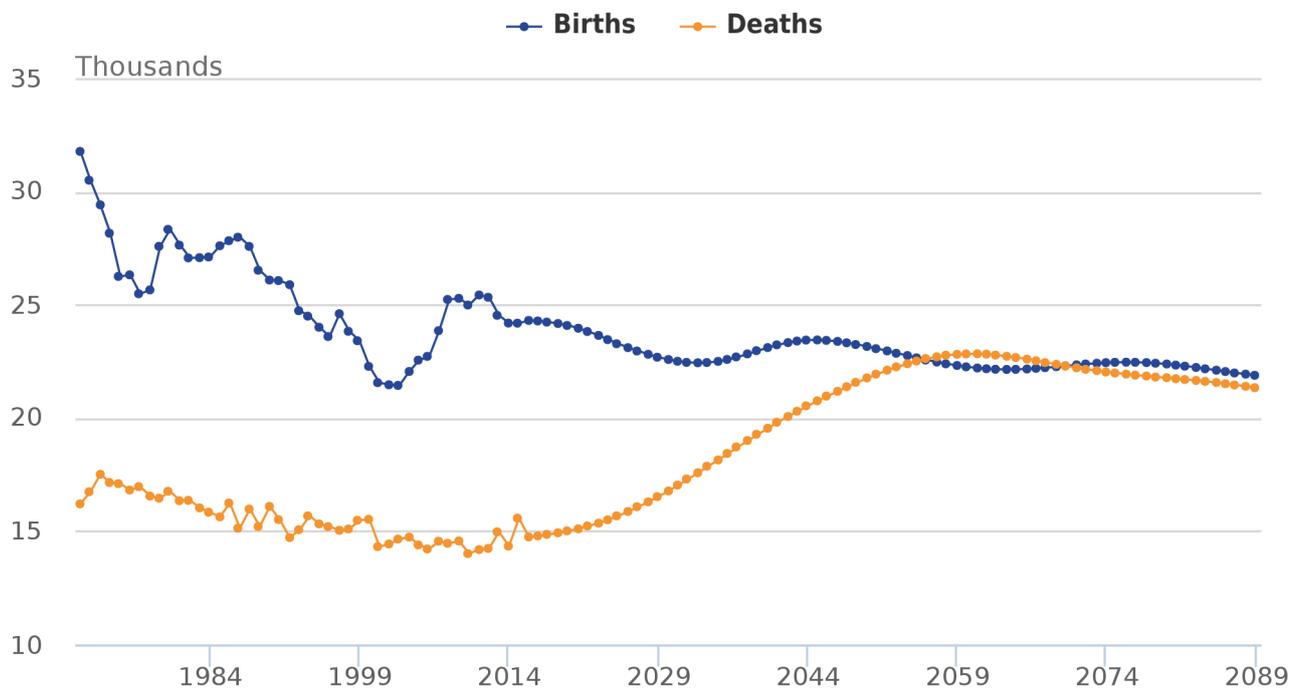
9. Appendix D: Northern Ireland charts

Figure 2.1d: Estimated and projected total population, Northern Ireland, year ending mid-1971 to year ending mid-2089



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

Figure 2.2d: Estimated and projected births and deaths, Northern Ireland, year ending mid-1971 to year ending mid-2089



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

Figure 2.3d: Percentage age distribution, Northern Ireland, year ending mid-1971 to year ending mid-2089

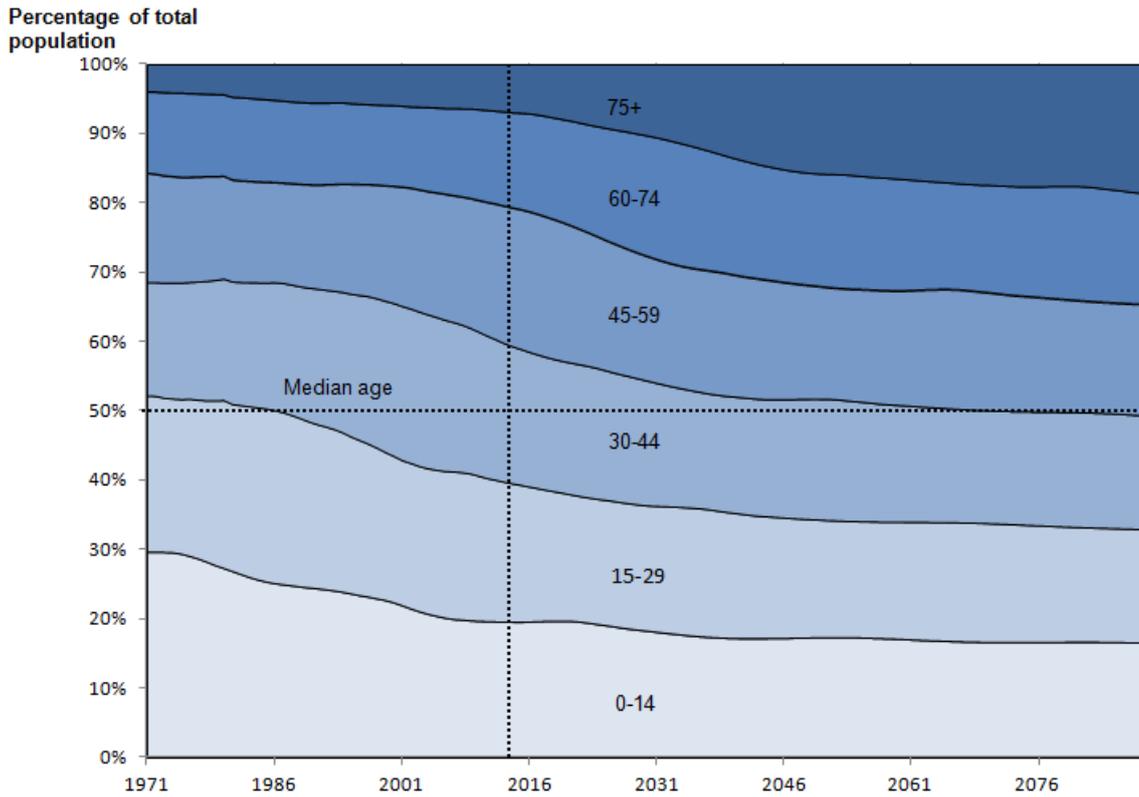
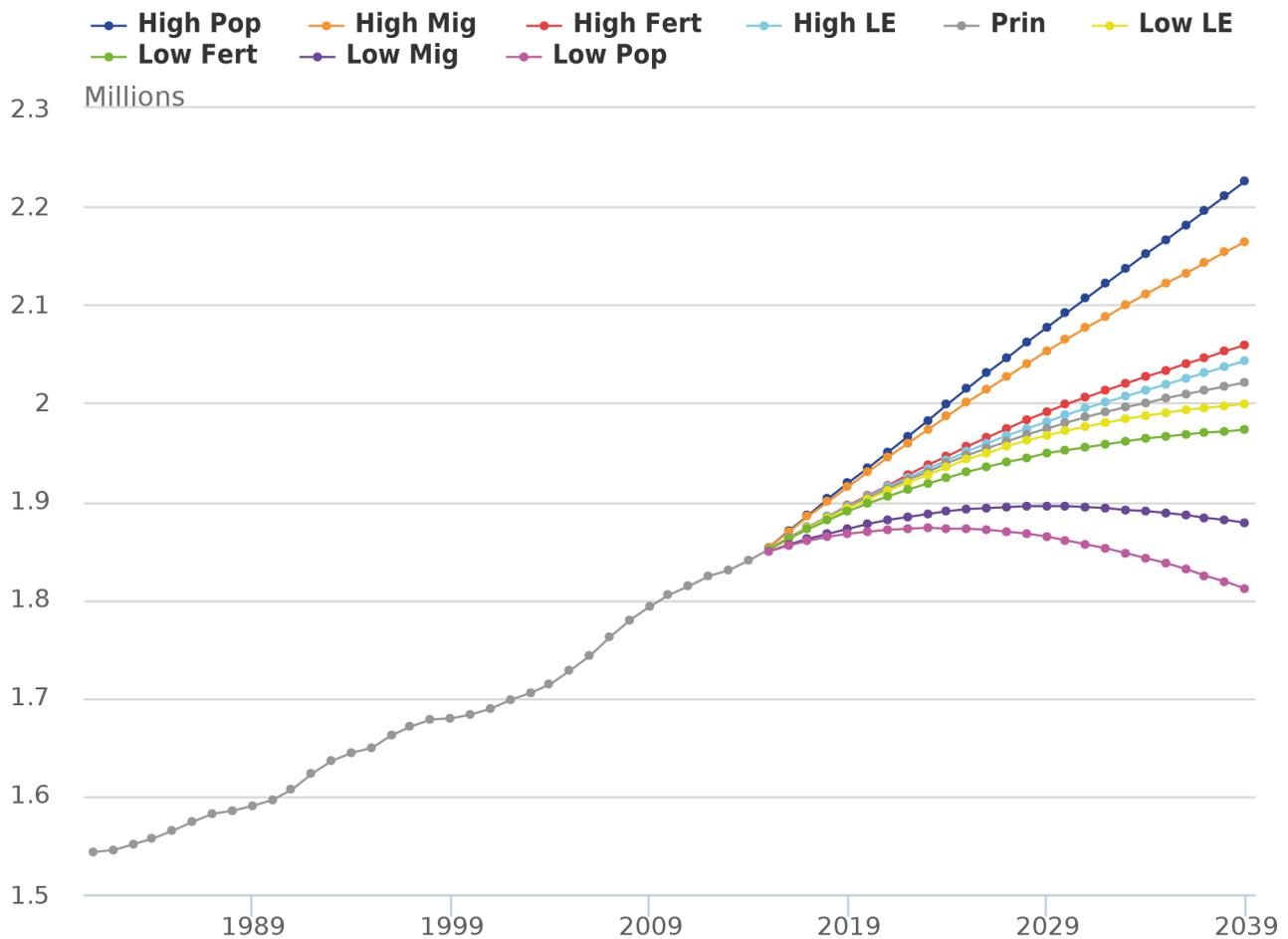
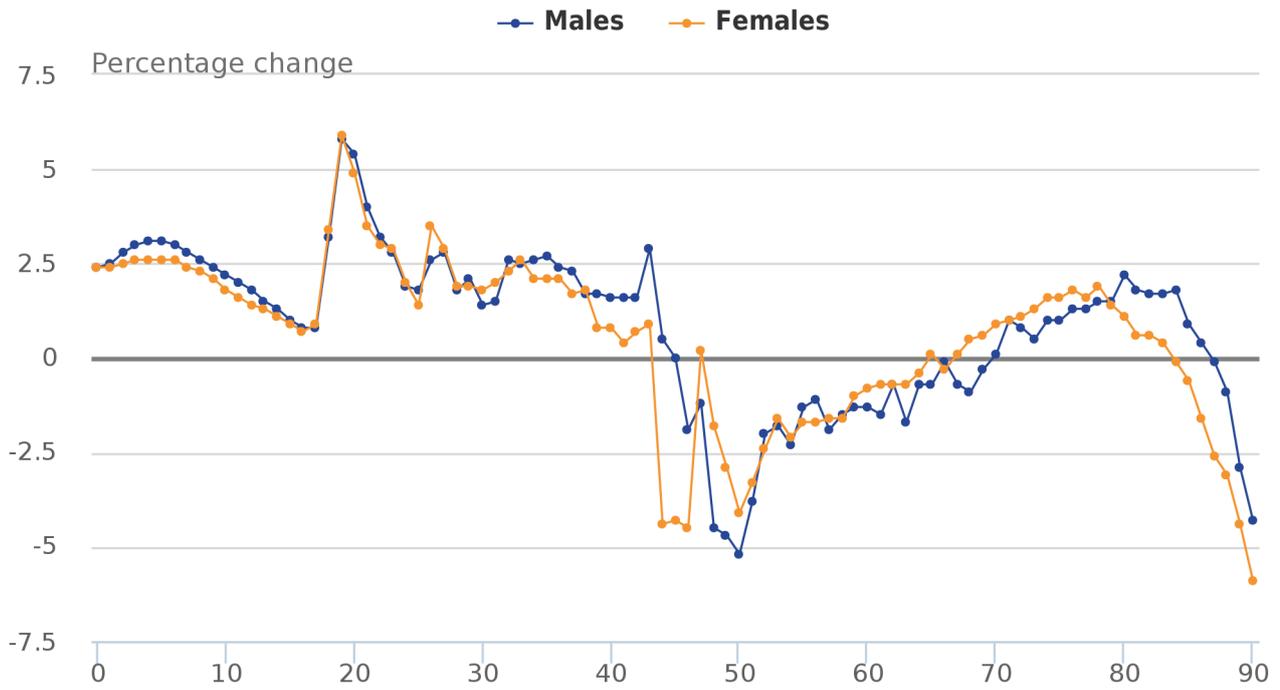


Figure 2.4d: Estimated and projected total population, Northern Ireland, year ending mid-1981 to year ending mid-2039



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

Figure 2.5d: Change in projected population at mid-2039 by age and sex compared with the 2012-based projections, Northern Ireland



Source: Office for National Statistics

Notes:

1. Where the percentage change is greater than 0, the 2014-based projection is greater than the 2012-based projection.
2. Where the percentage change is less than 0, the 2014-based projection is less than the 2012-based projection.