

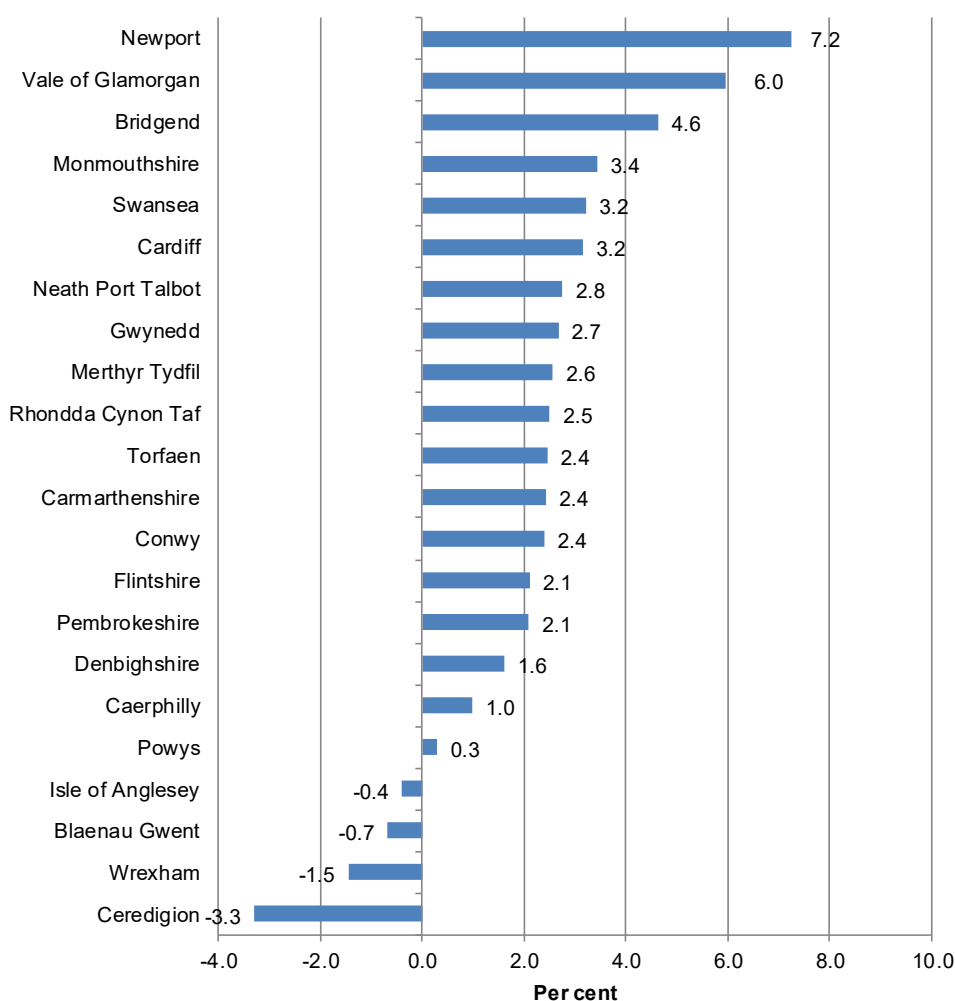


Local authority population projections for Wales: 2018-based (revised)

4 August 2020
SFR 14/2020(R)

These projections revise those originally published on 27 February 2020. You can find further information about the revision in the section [About these projections](#).

Chart 1: Percentage change in the principal population projections by local authority, 2018 to 2028



During the period 2018 to 2028:

- the population is projected to increase in the majority of local authorities
- the largest percentage increases in the population are projected to be in Newport (up 7.2%), the Vale of Glamorgan (up 6.0%) and Bridgend (up 4.6%)

About this release

This release presents the results of the revised 2018-based local authority population projections for Wales for the 25-year period from 2018 to 2043.

They are based on the [mid-year population estimates](#) for 2018 published by the Office for National Statistics (ONS).

Population projections provide estimates of the size of the future population and are based on assumptions about births, deaths, and migration. The assumptions are generally based on trends in recent years.

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About these projections

The Office for National Statistics (ONS) publishes national population projections for the UK and its constituent countries. The Welsh Government publishes subnational population projections for Wales, which are based on the ONS' national population projections. The subnational population projections include projections for local authorities and for national parks.

On Monday 18 May 2020, [the ONS issued a notice on its website informing users that they had identified an error affecting the 2018-based national population projections](#). The error was caused by incorrect processing of cross-border flows between Wales and England, resulting in the projected mid-2028 population for Wales being approximately 65,000 too low, and that for England being approximately 65,000 too high.

Having consulted with our expert group about the implications for our statistical products that were based on the 2018-based national population projections, we decided to withdraw the 2018-based local authority population projections and household projections.

The ONS published corrected national projections for Wales on Thursday 11 June. These local authority projections are based on the corrected 2018-based national population projections for Wales. Further information about the corrections can be found in the [Annex](#), as well as an analysis of how these corrected projections compare with the previously published projections.

2018-based local authority population projections

The 'principal' projection is the main projection, and is based on assumptions about future fertility, mortality and migration considered to best reflect demographic patterns at that time. It can be considered to be a 'central' projection.

Two other projections, or 'variant' projections, are also available alongside the principal projection. They are based on alternative future scenarios of fertility, mortality and migration compared with the principal projection. Variant projections include a 'high population' variant (based on high fertility, life expectancy and migration assumptions), and a 'low population' variant (based on low fertility, life expectancy and migration assumptions). These provide an indication of uncertainty, but do not represent upper or lower limits of future demographic behaviour.

We are also planning to make variants based on alternative migration assumptions available in the future. This includes a variant based on zero migration (i.e. no international or internal migration, only natural change in the population as a result of births and deaths), and a variant based on 10-year migration patterns (i.e. using 10 years of data for both international and internal migration, rather than 5 years of data).

Projections are available for the 25-year period, from 2018 to 2043. However, this release focusses on the first 10 years of the projection period, as projections tend to become increasingly uncertain in the longer-term, as much may change over that timescale.

It is important to note that these projections are not forecasts, and do not attempt to predict the impact that future government policies, changing economic circumstances, or other factors such as the coronavirus pandemic might have on demographic behaviour.

Unlike the original projections published in February, these revised projections are no longer constrained to the [2018-based national population projections](#), produced by the ONS. This is similar to the method used for calculating the 2014-based local authority population projections, and previous projections. Further information can be found in the [Comparisons with the 2014-based local authority population projections](#) section.

What this means is that users should continue to use ONS' national population projections for Wales-level projections, and not sum the local authority population projections. A comparison of the national population projections and local authority population projections can be found in the [Annex](#).

Principal projections

Chart 1 shows that during the period 2018 to 2028:

- the population is projected to increase in 18 of the 22 local authorities in Wales
- the largest percentage increases in the population are projected to be in Newport (up 7.2%), the Vale of Glamorgan (up 6.0%) and Bridgend (up 4.6%)
- the population is projected to decrease in four local authorities
- the local authorities whose populations are projected to decrease are Ceredigion (by 3.3%), Wrexham (by 1.5%), Blaenau Gwent (by 0.7%) and the Isle of Anglesey (by 0.4%)

The projected trends seen here broadly reflect the trends seen in the ONS' [mid-year estimates of the population](#). The local authorities that saw the greatest percentage increases in population estimates between 2014 and 2018 are Newport, the Vale of Glamorgan and Cardiff. Conversely, the local authorities that saw decreases in population estimates during the same period are Ceredigion, the Isle of Anglesey and Powys.

Over the full 25-year projection period up to 2043, the projected trend is the same – the same 18 local authorities are projected to increase in their population, and the same 4 local authorities are projected to decrease.

Chart 2: Projected population by local authority, 2028

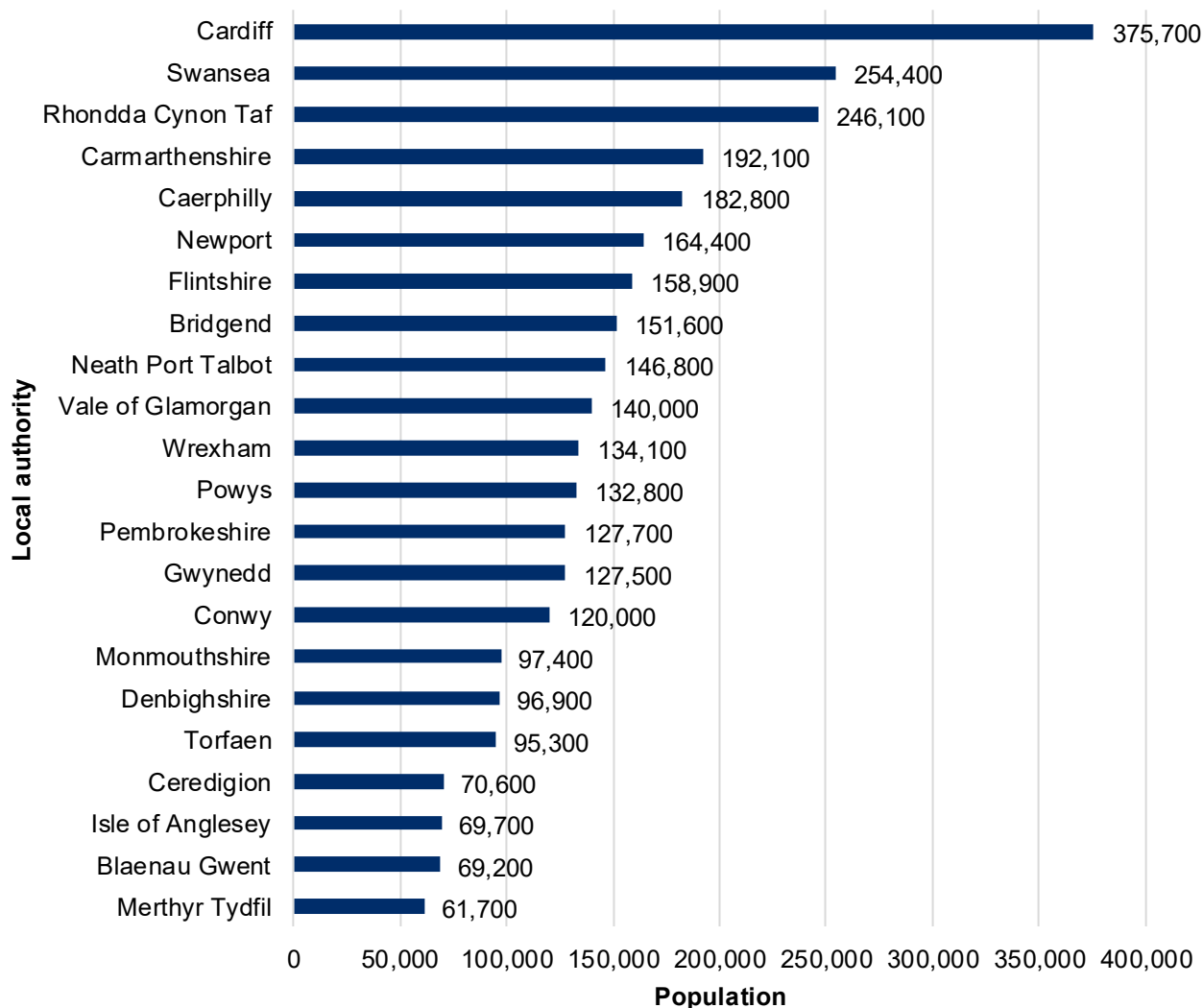


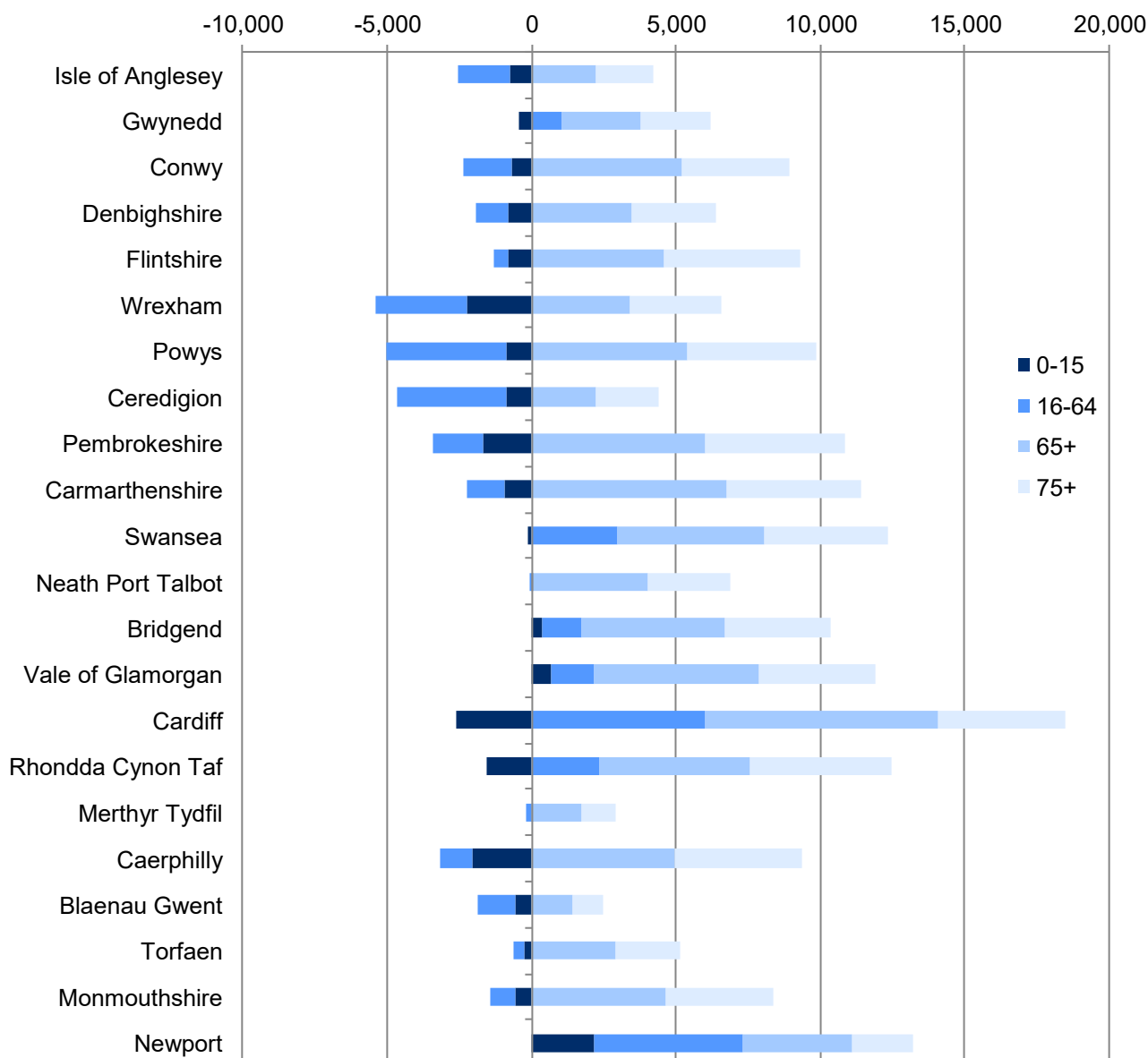
Chart 2 shows the projected populations for each of the 22 local authorities in Wales by 2028. Cardiff is projected to continue to have the largest population of all the local authorities in Wales by 2028, at over 375,700 people. This is over 121,000 more people than the second largest local authority, Swansea, and is projected to account for almost 12% of the population in Wales.

The majority of local authorities in Wales are projected to have a population of between 100,000 and 200,000 by 2028. The local authorities projected to have the smallest populations continue to be Merthyr Tydfil (around 61,700), Blaenau Gwent (around 69,200), the Isle of Anglesey (around 69,700), and Ceredigion (at around 70,600).

Projections by age

The population is projected to continue to age in all local authorities in Wales.

Chart 3: Change in the principal population projections by local authority and age, 2018 to 2028



During the period 2018 to 2028, for children and young people aged 0 to 15 years old:

- it is projected that all local authorities, other than Newport, the Vale of Glamorgan, Bridgend, Neath Port Talbot and Merthyr Tydfil, will see a decrease in the number of children and young people aged 0 to 15 years old
- the greatest percentage decreases in 0 to 15 year olds are projected to be seen in Wrexham (down 8.6%), Ceredigion and Pembrokeshire (both down 7.9%)

For the working-age population aged 16 to 64 years old:

- it is projected that there will be a decrease in all local authorities other than in largely urban local authorities along the M4 corridor in south Wales (Newport, Cardiff, Swansea, the Vale of Glamorgan, Rhondda Cynon Taf, Bridgend) and in Gwynedd

- the greatest percentage decreases in 16 to 64 year olds are projected to be seen in mainly rural areas - namely Ceredigion (down 8.6%), Powys (down 5.5%) and the Isle of Anglesey (down 4.5%)

For people aged 65 or over:

- it is projected that there will be an increase in all local authorities in Wales, with the greatest percentage increases seen in the Vale of Glamorgan (up 20.5%), Monmouthshire (up 19.8%) and Pembrokeshire (up 18.8%)
- the number of local authorities where over a quarter of the population will be aged 65 or over is projected to double from four in 2018, to eight in 2028
- it is projected that over 30% of the population will be aged 65 or over in Conwy (31.1 %) and Powys (31.0 %) in 2028

For people aged 75 or over:

- it is projected that there will be an increase in all local authorities in Wales, with the greatest increases seen in Monmouthshire (up 34.8%), Flintshire (up 34.0%) and Pembrokeshire (up 33.1%)

Components of change

The local authority population projections broadly consist of the following 'components of change':

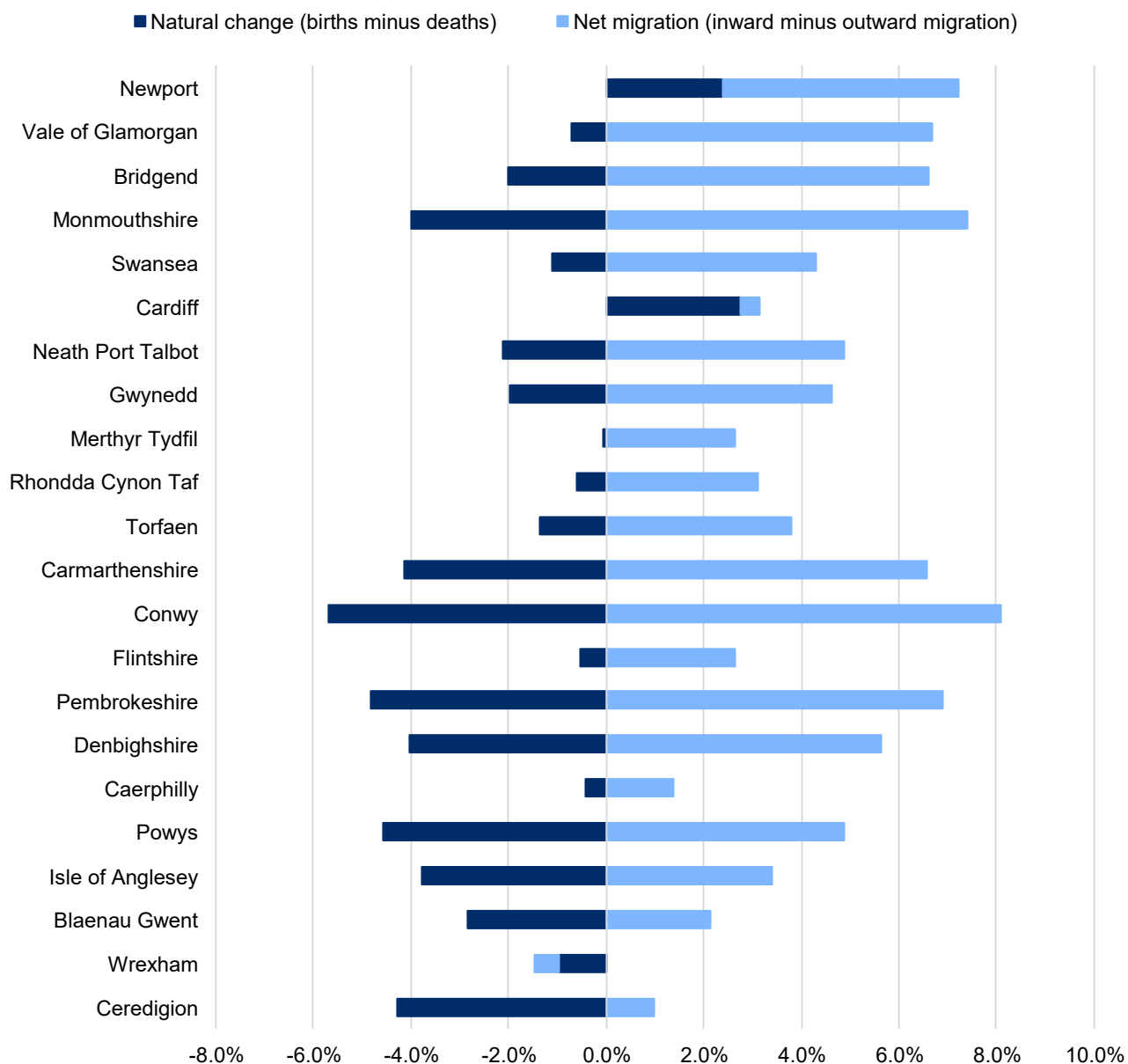
1. births
2. deaths
3. international migration
4. internal migration (i.e. migration between local authorities in Wales and other parts of the UK)

Natural change, which is the difference between the number of births and the number of deaths, is negative when there are more deaths than births. It is positive when there are more births than deaths.

Net migration is the difference between the number of people moving in to an area, and the number of people moving out of an area. It is negative when more people move out of an area than move in. It is positive when more people move into an area than move out.

Migration is projected to add to the population of all local authorities in Wales except for in Wrexham in the period 2018 to 2028. The majority of local authorities are also projected to see negative natural change (in this case, more deaths than births). However, for most local authorities, net positive migration will more than offset the negative natural change resulting in overall population increases.

Chart 4: Change in the principal population projections by local authority and component of change, 2018 to 2028



For the local authorities that are projected to see the greatest population increases, this is mainly driven by positive net migration, i.e. more people moving in to the area than moving out. Cardiff is an exception – it is projected that positive natural change, i.e. more births than deaths, will have the largest influence on population growth in that local authority.

For the local authorities that are projected to see population decreases, this is mainly driven by negative natural change, i.e. more deaths than births, and lower levels of net migration. Wrexham is the only local authority that is projected to see both negative natural change and negative net migration between 2018 and 2028.

The following table shows how the components of change are projected to vary by local authority during the period 2018 to 2028.

Table 1: Components of change of the local authority population projections by local authority, 2018 and 2028

	Births		Deaths		Net migration	
	2018-2019	2027-2028	2018-2019	2027-2028	2018-2019	2027-2028
Isle of Anglesey	690	640	900	950	170	280
Gwynedd	1,160	1,230	1,420	1,470	510	620
Conwy	1,030	980	1,610	1,730	810	1,000
Denbighshire	950	900	1,250	1,370	460	580
Flintshire	1,590	1,560	1,560	1,750	390	400
Wrexham	1,480	1,370	1,490	1,600	-160	0
Powys	1,150	1,090	1,640	1,800	440	760
Ceredigion	570	500	810	870	-390	340
Pembrokeshire	1,080	1,020	1,540	1,750	760	910
Carmarthenshire	1,810	1,720	2,480	2,620	1,140	1,280
Swansea	2,440	2,490	2,680	2,790	1,000	1,200
Neath Port Talbot	1,470	1,430	1,720	1,790	540	720
Bridgend	1,520	1,450	1,690	1,870	950	980
Vale of Glamorgan	1,350	1,360	1,380	1,540	850	840
Cardiff	4,030	4,060	3,020	3,090	60	380
Rhondda Cynon Taf	2,610	2,570	2,650	2,820	720	750
Merthyr Tydfil	700	650	650	690	150	160
Caerphilly	1,950	1,870	1,880	2,070	220	270
Blaenau Gwent	750	690	900	930	100	190
Torfaen	990	960	1,060	1,140	330	360
Monmouthshire	730	740	1,040	1,200	600	740
Newport	1,960	1,930	1,550	1,630	820	640

In Table 1, both international and internal migration have been combined to provide an overall net figure for migration.

During the period 2018 to 2028:

- the number of births is projected to decrease in the majority of local authorities, with the largest projected percentage decrease in Ceredigion (down 12.3%)
- the number of births is projected to increase in five local authorities: in Gwynedd, Swansea, Monmouthshire, Cardiff and the Vale of Glamorgan
- the number of deaths is projected to increase in all local authorities, with the largest projected percentage increases in Monmouthshire (up 15.4%), Pembrokeshire (up 13.6%), and Flintshire (up 12.2%)
- this means that natural change (the difference between the number of births and the number of deaths) is projected to be increasingly more negative in the majority of local authorities, with only Gwynedd seeing a reduction in its natural change

- overall net migration is projected to be positive for all local authorities by the end of the 10-year period, other than in Wrexham (which is projected to be marginally negative)
- overall net migration is projected to be increasingly more positive in every local authority other than in Newport and the Vale of Glamorgan

Migration

Table 2 shows the projected inward and outward international migration, as well as the projected inward and outward internal migration for all local authorities in Wales during the period 2018 to 2028.

Table 2: Projected inward and outward international migration, and inward and outward internal migration by local authority, 2018 and 2028

	International migration				Internal migration			
	Inward migration		Outward migration		Inward migration		Outward migration	
	2018-19	2027-28	2018-19	2027-28	2018-19	2027-28	2018-19	2027-28
Isle of Anglesey	120	120	60	60	2,400	2,500	2,300	2,200
Gwynedd	1,130	1,130	490	490	5,700	5,900	5,800	5,900
Conwy	280	280	200	200	4,900	5,100	4,200	4,200
Denbighshire	240	240	140	140	4,500	4,600	4,200	4,100
Flintshire	540	540	390	390	5,100	5,100	4,800	4,900
Wrexham	580	580	620	620	4,000	4,100	4,100	4,000
Powys	350	350	280	280	5,600	5,700	5,200	5,100
Ceredigion	620	620	390	390	5,200	5,500	5,800	5,400
Pembrokeshire	300	300	180	180	4,300	4,400	3,700	3,600
Carmarthenshire	530	530	320	320	6,800	6,900	5,900	5,900
Swansea	2,530	2,530	1,130	1,130	10,100	10,400	10,500	10,600
Neath Port Talbot	280	280	120	120	4,900	5,000	4,600	4,500
Bridgend	360	360	190	190	4,600	4,700	3,800	3,800
Vale of Glamorgan	340	340	200	200	5,400	5,400	4,700	4,700
Cardiff	5,450	5,450	3,490	3,490	20,600	21,200	22,500	22,700
Rhondda Cynon Taf	820	820	330	330	7,100	7,200	6,900	6,900
Merthyr Tydfil	180	180	90	90	1,600	1,600	1,500	1,500
Caerphilly	180	180	130	130	4,900	4,900	4,700	4,700
Blaenau Gwent	110	110	70	70	1,900	1,900	1,800	1,800
Torfaen	100	100	70	70	2,800	2,800	2,500	2,500
Monmouthshire	230	230	150	150	4,700	4,800	4,200	4,100
Newport	1,000	1,000	590	590	6,100	6,100	5,700	5,900

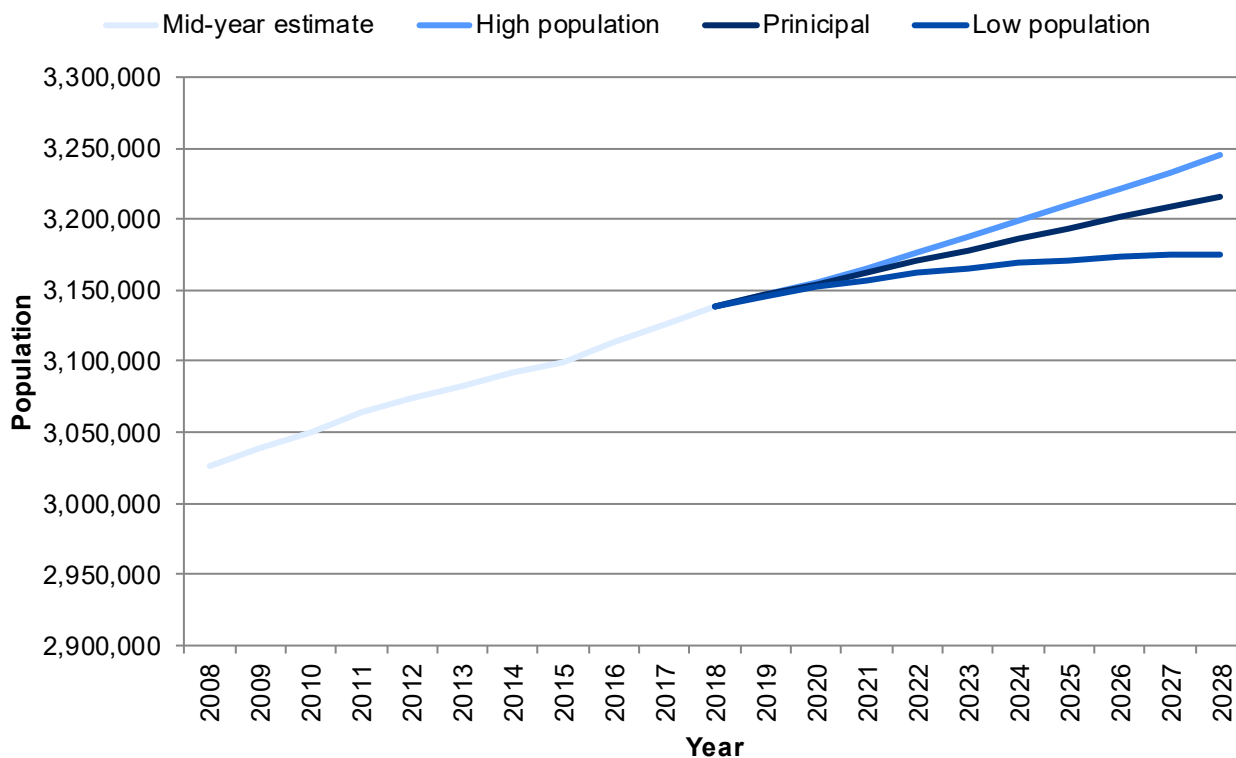
The table shows that the highest levels of projected inward and outward international migration can be seen in Cardiff, Swansea, Gwynedd and Newport.

For internal migration, inward migration is projected to increase in all local authorities during the period 2018 to 2028. Conversely, outward migration is projected to decrease in the majority of local authorities. This explains the projected increase in net migration for the majority of local authorities seen in Table 1.

Variant projections

Chart 5 shows the differences in the projected population size at the Wales level for the principal projection, and under the high population and low population variant scenarios for the period 2018 to 2028. It also shows the mid-year estimates of the population for Wales for the period 2008 to 2018.

Chart 5: Mid-year estimates of the population and variant population projections, 2008 to 2028



- Under the high population variant, during the period 2018 to 2028, the population is projected to increase by 3.4% at the Wales level (compared with 2.5% for the principal projection over the same period)
- Under the low population variant, during the period 2018 to 2028, the population is projected to increase by 1.2% at the Wales level

Table 3 shows how the projected population varies between the principal projection, the low population variant projections and the high population variant projections during the period 2018 to 2028.

Table 3: Variant projections by local authority, 2018 and 2028

	2018	Principal	2028	
			Low population	High population
Isle of Anglesey	70,000	69,700	68,800	70,300
Gwynedd	124,200	127,500	125,900	128,600
Conwy	117,200	120,000	118,600	121,000
Denbighshire	95,300	96,900	95,600	97,800
Flintshire	155,600	158,900	156,900	160,300
Wrexham	136,100	134,100	132,400	135,300
Powys	132,400	132,800	131,300	134,000
Ceredigion	73,000	70,600	69,800	71,200
Pembrokeshire	125,100	127,700	126,200	128,700
Carmarthenshire	187,600	192,100	189,700	193,800
Swansea	246,500	254,400	251,200	256,600
Neath Port Talbot	142,900	146,800	145,000	148,100
Bridgend	144,900	151,600	149,700	152,900
Vale of Glamorgan	132,200	140,000	138,200	141,300
Cardiff	364,200	375,700	370,700	379,300
Rhondda Cynon Taf	240,100	246,100	243,000	248,300
Merthyr Tydfil	60,200	61,700	60,900	62,300
Caerphilly	181,000	182,800	180,500	184,400
Blaenau Gwent	69,700	69,200	68,400	69,900
Torfaen	93,000	95,300	94,100	96,200
Monmouthshire	94,100	97,400	96,200	98,200
Newport	153,300	164,400	162,000	166,000

During the period 2018 to 2028, under the principal projection:

- the population is projected to increase in the majority of local authorities
- projected population growth varies between 7.2% in Newport and -3.3% in Ceredigion

During the period 2018 to 2028, under the low population projection:

- the population is projected to decrease in six local authorities
- the largest projected percentage decreases are in Ceredigion (down 4.4%), Wrexham (down 2.7%) and Blaenau Gwent (down 1.9%)
- projected population growth varies between 5.7% in Newport and -4.4% in Ceredigion
- projected population growth is around 1-2 percentage points lower than the principal projection for all local authorities

During the period 2018 to 2028, under the high population projection:

- the population is projected to increase in all local authorities other than in Ceredigion (down 2.5%) and in Wrexham (down 0.6%)

- projected population growth varies between 8.3% in Newport and -2.5% in Ceredigion
- projected population growth is around 1 percentage point higher than the principal projection for all local authorities

Comparisons with the 2014-based local authority population projections

The Chief Statistician published an [update](#) in February 2020, giving an overview of the methodological changes that had been made to the local authority projections since the [2014-based local authority projections](#). This included:

- changing the assumptions for internal migration, so that they were based on migration rates rather than fixed numbers
- constraining the sum of the local authority population projections, and some of the component parts, for the 22 local authorities in Wales to the 2018-based national population projections published by the ONS

Another [update](#) was issued in July 2020, announcing the publication date for the revised local authority population and household projections, and the decision to revert to not constraining the local authority population projections.

Following discussions with the Wales Subnational Projections (WaSP) group, we made the decision to revert, in part, to the previous methodology for calculating local authority population projections by removing the constraining to the national population projections. The decision to constrain to the national population projections initially was made as a result of the incorrect national population projections showing a different trend to the local authority population projections. However, as this is no longer the case, we have reverted to the original methodology of not constraining in order to provide better continuity with previous local authority population projections, so that they are mainly driven by local trends for births, deaths and migration.

We have, however, retained the change made to the assumptions for internal migration so that they continue to be based on migration rates rather than fixed numbers. Further information can be found in the update.

The differences between the 2014-based and 2018-based local authority population projections therefore reflect not only the change in demographic trends seen during this time period, but also the change in the methodology between the two sets of projections, as well as the change in the base year of the projection.

There have been some underlying demographic changes to note in the intervening four years. At a Wales level, the birth rate has continued to fall (with the total fertility rate falling from 1.78 in 2014 to 1.63 in 2018), and improvements in life expectancy have stalled, while migration patterns have been fluctuating. These changes resulted in Wales's population in 2018 being estimated at 3.14 million, 8,800 (0.3%) higher than was projected for 2018 by the 2014-based national population projections.

Chart 6: Percentage difference between projected 2028 population using 2014-based and 2018-based projections, by local authority

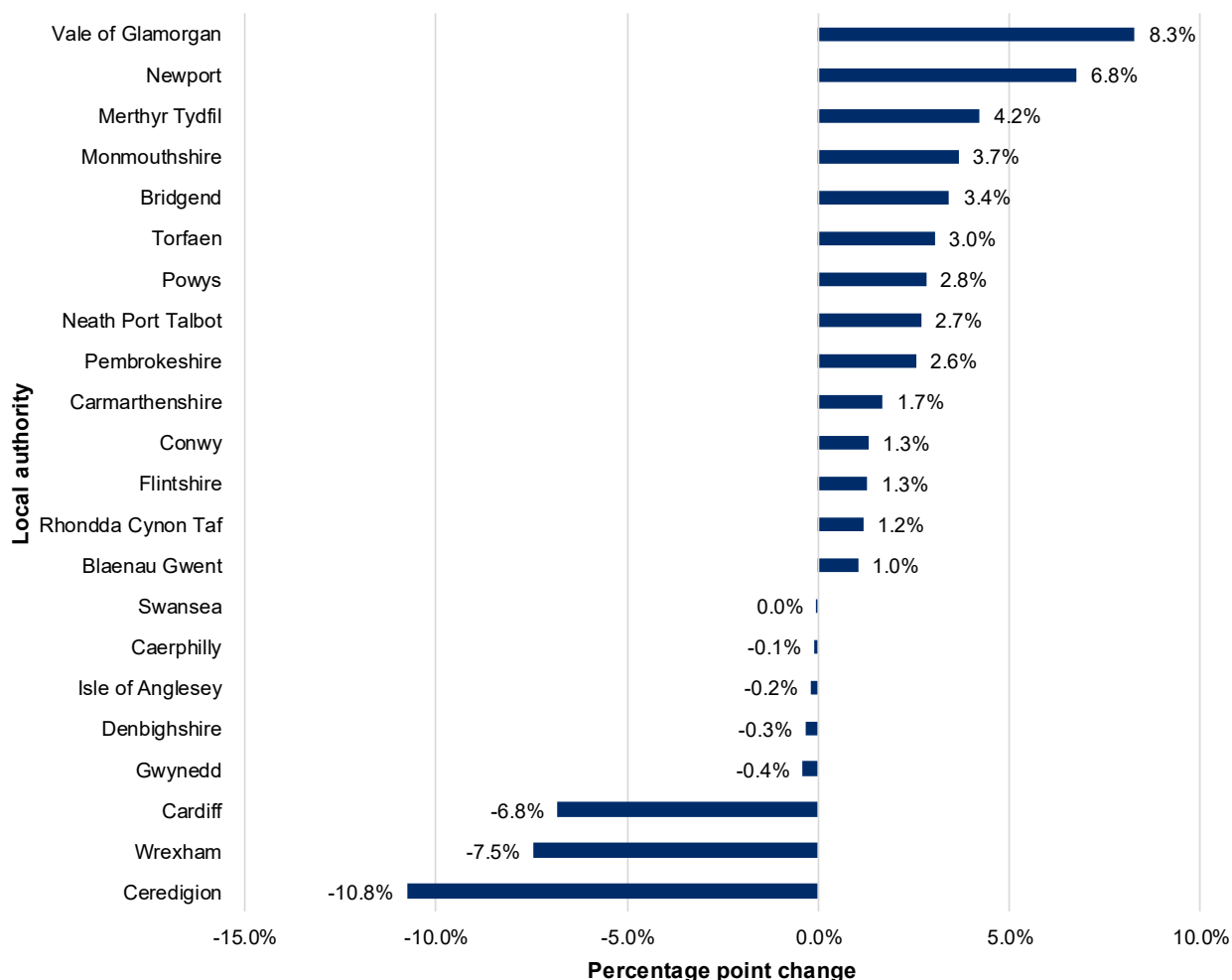


Chart 6 shows that the projected population for 2028 is higher in the 2018-based projections than in the 2014-based projections for the majority of local authorities.

The projections for the Vale of Glamorgan and Newport in 2028 are higher in the 2018-based projections than in the 2014-based projections. These local authorities have seen the greatest percentage increases in the population estimates between 2014 and 2018, therefore this is reflected in the 2018-based projections.

The projection for Ceredigion in 2028 is 10.8% lower in the 2018-based projections than in the 2014-based projections. Ceredigion is the local authority that has seen the greatest percentage decrease in its population estimate between 2014 and 2018. In the 2014-based projections, the population in Ceredigion was projected to be 76,300 in 2018. This compares to 73,000 in the mid-2018 population estimates, which is 4.4% lower.

There are some local authorities whose populations are projected to be lower in 2028 according to the 2018-based projections compared with the 2014-based projections. However, some of these areas are still projected to see an increase in the population from 2018 to 2028. A notable example is Cardiff, whose population in 2028 is projected to be 6.8% lower in the 2018-based projections compared with the 2014-based projections. However, the population is still projected to increase by 3.2% between 2018 and 2028 according to the 2018-based projections. In the 2014-based

projections, the population in Cardiff was projected to be 367,000 in 2018. This compares to 364,200 in the mid-2018 population estimates, which is 0.7% lower.

Annex: Comparisons with the original 2018-based local authority population projections, the national population projections and the mid-year estimates

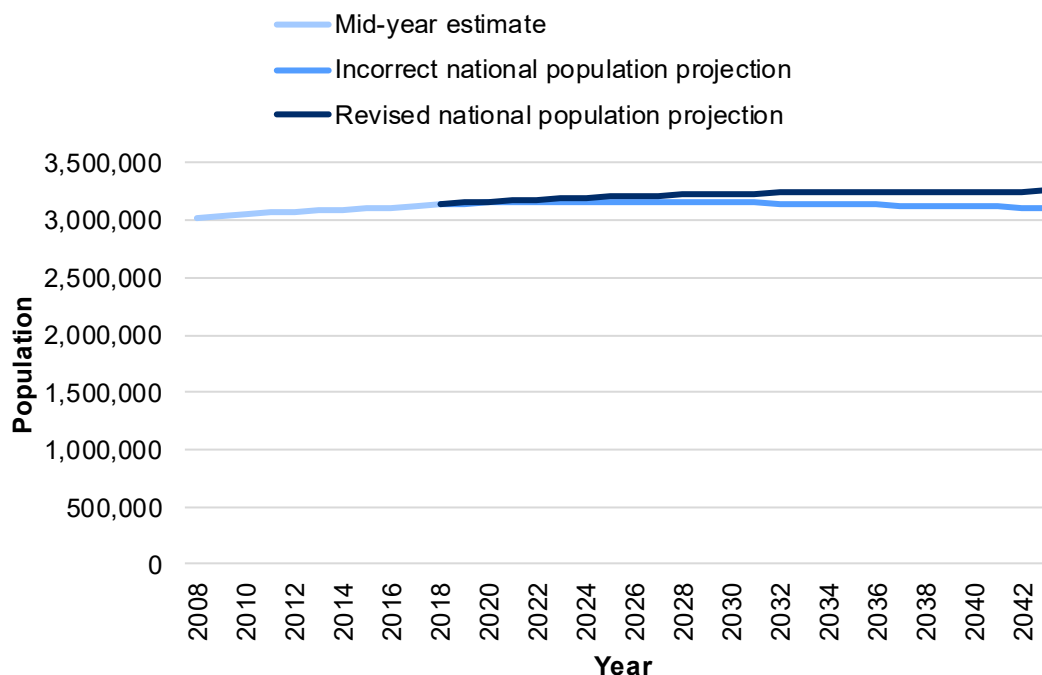
Revision to the 2018-based local authority population projections

As has been mentioned previously, the ONS identified an error affecting the 2018-based national population projections for Wales. The error was caused by incorrect processing of cross-border flows between Wales and England, resulting in the projected mid-2028 population for Wales being approximately 65,000 too low, and that for England being approximately 65,000 too high.

The corrected projection shows that the population of Wales is projected to increase by 2.7% by 2028, and increase by 3.7% by 2043. This compares with a projected increase of 0.6% and a projected decrease of 0.9% during the same periods in the incorrect projections.

Chart 7 shows the difference between the incorrect 2018-based national population projection and the revised 2018-based national population projection for Wales for the period 2018 to 2043, as well as the mid-year estimates since 2008.

Chart 7: Mid-year estimates of the population and the incorrect and revised 2018-based national population projection for Wales, 2008 to 2043



By the end of the 25-year projection period in 2043, the revised projection is over 145,000 higher than the incorrect projection.

Table 4 shows the differences between the original 2018-based local authority population projections published on 27 February 2020 and the corrected projections published here for 2028.

Table 4: Differences between the original 2018-based local authority population projections and the corrected 2018-based local authority population projections, 2028

	2018	2028 (original)	2028 (corrected)	Percentage difference
Isle of Anglesey	70,000	68,100	69,700	2.3%
Gwynedd	124,200	125,200	127,500	1.8%
Conwy	117,200	116,800	120,000	2.7%
Denbighshire	95,300	93,800	96,900	3.3%
Flintshire	155,600	155,900	158,900	1.9%
Wrexham	136,100	131,800	134,100	1.8%
Powys	132,400	128,800	132,800	3.2%
Ceredigion	73,000	68,300	70,600	3.3%
Pembrokeshire	125,100	124,800	127,700	2.3%
Carmarthenshire	187,600	187,900	192,100	2.2%
Swansea	246,500	251,500	254,400	1.1%
Neath Port Talbot	142,900	144,200	146,800	1.8%
Bridgend	144,900	149,100	151,600	1.7%
Vale of Glamorgan	132,200	137,000	140,000	2.2%
Cardiff	364,200	371,700	375,700	1.1%
Rhondda Cynon Taf	240,100	243,300	246,100	1.2%
Merthyr Tydfil	60,200	60,800	61,700	1.5%
Caerphilly	181,000	180,200	182,800	1.4%
Blaenau Gwent	69,700	68,300	69,200	1.4%
Torfaen	93,000	93,900	95,300	1.5%
Monmouthshire	94,100	94,300	97,400	3.3%
Newport	153,300	161,200	164,400	2.0%

Table 4 shows that the corrected projections are higher than the original projections by 2028 for all local authorities, ranging from 1.1% higher to 3.3% higher. The largest differences are for Ceredigion, Monmouthshire and Denbighshire (all with the corrected projections 3.3% higher than the original projections). The smallest differences are for Cardiff and Swansea (both with corrected projections 1.1% higher than the original projections), and Rhondda Cynon Taf (1.2% higher).

Comparisons with the 2018-based national population projections

The sum of the local authority population projections can be compared with the ONS' national population projections for Wales. Chart 8 shows this comparison.

Chart 8: Comparison of the sum of the local authority population projections with the national population projections, 2018 to 2043

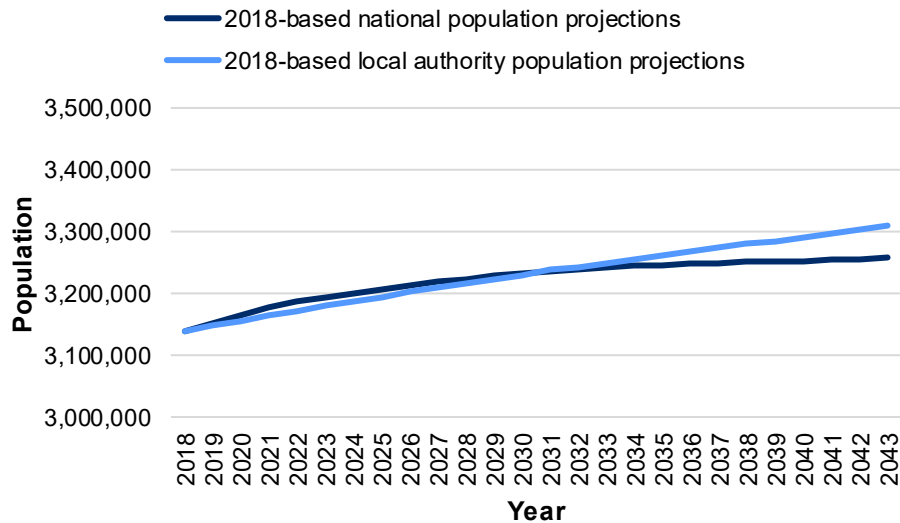


Chart 8 shows that by 2028, the national population projection for Wales is higher than the sum of the local authority population projections, by around 6,800. From 2031 onwards, the sum of the local authority population projections is higher than the national population projections. By 2043, the sum of the local authority population projections are around 53,900 higher than the national population projections.

Comparisons with the mid-year population estimates

The ONS published [population estimates for the UK, England, Wales, Scotland and Northern Ireland for mid-2019](#) on 24 June 2020. It is therefore possible to compare the mid-year estimate for 2019 with the projected population for 2019 for Wales and all local authorities.

Table 5 shows the differences between the mid-year estimates of the population and the projections for 2019.

Table 5: Comparison of the mid-year estimate of the population and the 2018-based national population projections and 2018-based local authority population projections

	2019 mid-year estimate	2019 population projection	Difference
Isle of Anglesey	70,000	69,900	-0.2%
Gwynedd	124,600	124,400	-0.1%
Conwy	117,200	117,400	0.2%
Denbighshire	95,700	95,500	-0.2%
Flintshire	156,100	156,000	-0.1%
Wrexham	136,000	136,000	0.0%
Powys	132,400	132,400	0.0%
Ceredigion	72,700	72,400	-0.5%
Pembrokeshire	125,800	125,300	-0.4%
Carmarthenshire	188,800	188,000	-0.4%
Swansea	247,000	247,200	0.1%
Neath Port Talbot	143,300	143,200	-0.1%
Bridgend	147,000	145,700	-0.9%
Vale of Glamorgan	133,600	133,000	-0.4%
Cardiff	366,900	365,300	-0.4%
Rhondda Cynon Taf	241,300	240,800	-0.2%
Merthyr Tydfil	60,300	60,400	0.1%
Caerphilly	181,100	181,300	0.1%
Blaenau Gwent	69,900	69,700	-0.3%
Torfaen	94,000	93,300	-0.7%
Monmouthshire	94,600	94,400	-0.2%
Newport	154,700	154,500	-0.1%
Wales	3,152,900	3,151,800	-0.03%

Note: the population projection for Wales in Table 5 is from the ONS' 2018-based national population projections, and not the sum of the 2018-based local authority population projections.

Table 5 shows that the national population projection for 2019 is 0.03% lower than the mid-year estimate of the population for Wales for the same year (around 1,100 lower). The sum of the local authority population projections for 2019 is 0.2% lower than the mid-year estimate (at around 6,700 lower).

The largest differences in the first year of the projection can be seen in Bridgend (with the projection 0.9% lower than the mid-year estimate), Torfaen (0.7% lower) and Ceredigion (0.5% lower).

The differences are largely driven by the internal migration component, with actual net internal migration in 2018-2019 higher than that projected for the majority of local authorities. At the Wales level, net internal migration was higher in 2018-2019 than it had been for the five-year period that these projections are based on (2013-2018), other than for in 2017-2018. This may explain some of why the projection for 2019 is lower than the mid-year estimate for 2019.

Key quality information

Relevance

Population and migration statistics are important for policy development, planning, and the provision of public services. There is a high demand for population and migration statistics for a range of uses. These include:

- planning services and estimating future need at national and local level, (for example, schools, health, and social services) including the preparation of Local Development Plans
- contributing to the Local Government Finance revenue settlement
- policy development
- advice to Ministers
- informing debate in the Senedd and beyond
- the calculation of further statistics (for example, household projections)
- denominators in rates (for example, birth rates and mortality rates)
- the production of the weights in some sample surveys
- geographic profiling, comparisons, and benchmarking
- analysis of population cohorts and migration trends
- supporting well-being assessments required under the Well-being of Future Generations (Wales) Act 2015.

There is a range of users of population data from national and local government, charities and voluntary sector organisations, other government departments, students, academics and universities, individual citizens, and private companies. In particular there is a high level of interest in projections at the local authority level. Those who plan for the future to deliver services and to help frame sustainable policies need to consider the population analysed by age and sex. Population projections can identify trends that shape the context for future policy development.

The Planning (Wales) Act 2015 came into force in July 2015. A key element of the Act is to enable local planning authorities to come together and prepare a Strategic Development Plan which transcends local authority boundaries, covering a wider geographical area and dealing with not just local issues. The Local Government Elections (Wales) Bill, when it comes into force, will replace the governance structure of preparing strategic development plans.

Evidence to support plan preparation will include demographic statistics and population and household projections, which will need to be considered in a strategic context. Future iterations of projections will play a role in shaping strategic plans.

All local planning authorities with adopted Local Development Plans (LDPs) have to prepare an Annual Monitoring Report (AMR) which measures how policies have performed and what corrective action may be required. AMRs play a critical role in ensuring that the LDP is kept up-to-date. The progress demonstrated within the AMRs can have a bearing on future population levels

and distribution, demographic profiles, and house prices. These outcomes and their relationship to the key objectives of the plan will form part of the AMR.

Accuracy

Population projections are trend-based projections that provide estimates of the size of the future population, and are based on assumptions about births, deaths and migration. The assumptions are generally based on past trends. Projections done in this way do not make allowances for the effects of local or central government policies on future population levels, distribution, and change.

Population projections have their limitations. These local authority population projections are not policy-based forecasts; they indicate what is expected to happen if the trends on which they are based continue.

As the process of demographic change is cumulative, projections become increasingly uncertain the further they are carried forward. Demographic change affects some populations more rapidly and to a greater effect than others. Due to the size of estimated migration flows, for some local authorities migration assumptions are more critical than fertility and mortality assumptions. Therefore, migration assumptions can have a significant long-term effect on certain areas.

Assumptions around birth and death rates are based on historical levels of mortality and fertility and their interaction with the population size at each age. They are subject to variation (for example, through changes in fertility trends, or increases in life expectancy) but such changes are not usually short-term. Migration can also interact with these trends, but the migration assumptions themselves are subject to short-term fluctuations based on economic or social circumstances. So the setting of migration rates for the future using the rates for the previous five years means that the projections are potentially vulnerable to short-term volatility in migration rates. This may be particularly true for current projections, since the assumptions are based on a period which included changes in levels of migration and the referendum for leaving the European Union.

There are factors which can influence the projections and the three main components of population change: changes in the economy; changes in individual, family, and household behaviour; and events outside the UK. In order to illustrate the uncertainty associated with the local authority projections, variant projections have been produced alongside the principal (or main) population projection. These variant projections show how possible variations in the fertility, mortality, and migration assumptions could affect the projections.

Variant projections

In order to illustrate the inherent uncertainty around future demographic change when producing a set of projections, it is possible to produce a principal projection based on an agreed set of assumptions, and a number of variants based on alternative assumptions.

For the 2018-based local authority population projections, two variants have been produced so far (along with the principal projection) for each local authority. These variant projections show how possible variations in the fertility, mortality, and migration assumptions could affect the projections, and how the size of this effect increases the further into the projection period the results are taken. The two variant projections are:

- a 'high population' variant (based on high fertility, life expectancy and migration assumptions)
- a 'low population' variant (based on low fertility, life expectancy and migration assumptions).

These provide an indication of uncertainty, but do not represent upper or lower limits of future demographic behaviour.

We are also planning to make variants based on alternative migration assumptions available in the future. This includes:

- a variant based on zero migration (or natural change only), to illustrate the projected population of each local authority if there were no future inward or outward migration
- a variant based on 10-year migration patterns (i.e. using 10 years of data for both international and internal migration, rather than 5 years of data), which evens out a potentially atypical five-year period, however, it also risks dampening the effect of more systemic changes that have occurred over the 10 years

Methodology

Population projections are based on mid-year population estimates (as at 30 June each year). Mid-year population estimates for England and Wales are produced by the ONS. In order to produce the local authority projections, the population estimates are combined with assumptions about births, deaths, and migration. These assumptions are based on past trends.

For migration, the United Nations definition of an international migrant is used, that is, those changing country of residence for a period of at least 12 months. Short-term migrants (for example, migrant workers from Eastern European countries) are not counted in the population estimates.

These local authority projections are based on the mid-2018 population estimates for local authorities in Wales.

The base data used to make the calculations is produced by ONS for the length of the projection period, usually twenty-five years. In order to produce population projections, assumptions need to be formed to project future levels of fertility, mortality, and migration for each local authority.

Local authority population projections are produced using a well-established demographic approach known as the cohort component method. That is:

- taking the most recent year's population estimate
- taking out special population groups
- ageing every person on one year
- adding births and subtracting deaths
- allowing for inward and outward migration
- adding back in the special population groups

The assumptions are generally based on trends during the most recent five years, and the projections indicate what may happen should these trends continue.

Special population groups include the number of prisoners and armed forces within each local authority. From mid-2011 onwards, prisoners were regarded as usually resident at an institution if they were serving a custodial sentence of six months or more.

The methodology for these projections has been developed in close collaboration with local authorities and key users in Wales through the Wales Subnational Projections (WaSP) group. This group has met on a regular basis during the preparation of the projections and has been a forum for technical discussion on the methodology and the base data used. Members of WaSP include local authority and national park representatives, and others with knowledge of, and experience of, demographic data and population projections.

Regular updates have also been provided at full meetings of the Welsh Statistical Liaison Committee (WSLC).

Guidance on the detailed methodology used to produce the local authority population projections for Wales will be published in a technical report in due course, alongside the publication of national park projections. It will describe how the local authority population projections are calculated, and describe in detail the methodology used to derive assumptions on fertility, mortality, and migration.

Timeliness and punctuality

The local authority population projections are usually calculated and published every three years, in response to user need in Wales.

The last set of local authority population projections were [2014-based projections](#), published in September 2016.

The Welsh Government's Chief Statistician announced in a [blog](#) in October 2019 that the 2017-based subnational population and household projections would be postponed. A [statistical article](#) was also published, setting out the challenges in producing the 2017-based subnational population projections in more detail, and announcing the planned update of the local authority projections to be 2018-based.

The [2018-based local authority population projections](#) were first published on 27 February 2020 and subsequently revised on 4 August 2020.

Proposed timing of next projections

The ONS usually publishes national population projections every two years. However, they are currently proposing not to produce 2020-based projections, which would theoretically be published in autumn 2021. This is because the first 2021 Census results are expected in spring 2022. They are therefore proposing that the next round of projections will be based on the 2021 mid-year estimates, enabling them to use the updated base population that the 2021 Census results will offer.

We are therefore proposing that the next set of subnational population projections for Wales will also be based on 2021. We usually publish subnational projections once every three years, therefore, the next set of projections for Wales would be 2021-based.

We would welcome any feedback on this proposed approach via our mailbox stats.popcensus@gov.wales.

Accessibility and clarity

This statistical release is pre-announced and then published on the [Statistics and Research](#) section of the Welsh Government website. It is accompanied by more detailed tables on [StatsWales](#), a free to use service that allows visitors to view, manipulate, create and download data.

Comparability and coherence

The ONS publishes [subnational population projections for England](#). The 2018-based subnational population projections were published on Tuesday 24 March 2020.

The National Records of Scotland publishes [population projections for Scottish areas](#). The 2018-based subnational population projections were also published on Tuesday 24 March 2020.

The Northern Ireland Statistics and Research Agency publishes [population projections for areas within Northern Ireland](#). The 2018-based subnational population projections were published on Thursday 30 April 2020.

User [guidance](#) is available on the comparison of data sources and methods for the subnational population projections across the UK.

National Statistics status

The [United Kingdom Statistics Authority](#) has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the [Code of Practice for Statistics](#).

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 Statistics. They are awarded National Statistics status following an assessment by the UK Statistics 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 the Welsh Government'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.

The continued designation of these statistics as National Statistics was confirmed in January 2020 following a [compliance check](#) by the Office for Statistics Regulation. These statistics last underwent a [full assessment](#) against the Code of Practice in 2015.

Since the latest review by the Office for Statistics Regulation, we have continued to comply with the Code of Practice for Statistics, and have made the following improvements:

- worked with the Wales Subnational Projections (WaSP) group to make and agree improvements to the methodology for calculating the projections and their variants
- made improvements to the presentation of the statistics, including publishing in html format to meet user needs
- enhanced trustworthiness by reducing pre-release access

Well-being of Future Generations Act (WFG)

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural well-being of Wales. The Act puts in place seven well-being goals for Wales. These are for a more equal, prosperous, resilient, healthier and globally responsible Wales, with cohesive communities and a vibrant culture and thriving Welsh language. Under section (10)(1) of the Act, the Welsh Ministers must (a) publish indicators (“national indicators”) that must be applied for the purpose of measuring progress towards the achievement of the Well-being goals, and (b) lay a copy of the national indicators before the National Assembly. The 46 national indicators were laid in March 2016.

Information on the indicators, along with narratives for each of the well-being goals and associated technical information is available in the [Well-being of Wales report](#).

Further information on the [Well-being of Future Generations \(Wales\) Act 2015](#).

The statistics included in this release could also provide supporting narrative to the national indicators and be used by public services boards in relation to their local well-being assessments and local well-being plans.

Further details

The document is available at: <https://gov.wales/subnational-population-projections>

Next update

To be confirmed

We want your feedback

We welcome any feedback on any aspect of these statistics which can be provided by email to stats.popcensus@gov.wales.

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