

Distribution Sub-Group (2021) Paper 10 – Population data for the 2022-23 settlement

This discussion paper has been written by officials of the Welsh Government. Ministers have not had an opportunity to comment on the contents. Exemplifications of changes are provided simply to inform discussion by DSG members. They are not Welsh Government proposals or statements of Government policy for or against changes.

Population data for the 2022-23 settlement

Summary

1. Due to the Covid-19 pandemic, this paper investigates the population data to be used within the 2022-23 local government settlement.

Views sought

2. DSG are asked to discuss both population datasets and agree the most appropriate dataset to be used in the 2022-23 settlement.

Related papers

3. Distribution Sub-Group (2020) Paper 11 - 2018-based subnational population projections and 2019 mid-year estimates

Background

4. Population data is used across the UK by national and local government to plan and fund services. The most authoritative population estimates come from the census, which takes place every 10 years in the UK.
5. The latest published Census data for England and Wales is for 2011, with the 2021 Census data to be published in 2022.
6. Between Census years, the population data are updated yearly by the Office for National Statistics (ONS) to produce the Mid-Year Estimates (MYEs). Simply this update process takes the previous year's resident population, as at 30 June by single year of age, and ages everyone by one year and then adjusts for births, deaths, immigration, emigration and people entering and leaving "special populations" (people in prisons or the armed forces).
7. Due to the MYEs taking account of births and deaths, the population figures are always one year behind the current year i.e. in 2021, the population data for 2020 was published.
8. Once the Census is updated, the ONS usually revise the MYEs. For example after the 2011 Census was published the ONS revised the MYE between 2002 and 2010 to reflect the better estimates of migration possible from the Census.
9. Whilst the MYEs data provides a retrospective view of the population it does not allow Governments to plan ahead on how the population will change going forward.
10. Therefore population projections have been developed to provide estimates of the size of the future population, to enable Ministers, policy makers and various others to make informed decisions.
11. The Welsh subnational projections are developed from a MYEs specific year. The MYE base year populations are projected forward based on a series of assumptions about

Distribution Sub-Group (2021) Paper 10 – Population data for the 2022-23 settlement

births, deaths, and migration. These assumptions are generally based on trends during the most recent five years. These projections indicate what may happen should these previous trends continue.

12. The latest set of local authority population projections were based on the 2018 MYEs. The assumptions and the data used within these are therefore based on the trends prior to the pandemic.
13. The latest MYEs are as at 30 June 2020, therefore these figures will include the first wave of the pandemic (March to the end of June 2020), the first lockdown in March and the Foreign and Commonwealth Office advising against overseas travel, fewer people joining the special populations in the months up to June 2020.
14. In the 2021-22 local government settlement the pure population data (i.e. not combined with other datasets) was used to distribute over 25% of total SSA. This excludes were population data is used within the calculation of another indicator based assessment (IBA) i.e. Enhanced population and Primary school pupils and modelled nursery school pupils indicators.
15. Therefore updating the population data within the settlement has a large bearing on the overall change in funding allocations. This paper investigates the difference between the latest MYE data and the population projection data compared to what was used in the current settlement year, for DSG to recommend their preferred data source for the 2022-23 settlement.

Analysis

16. Previously the DSG had agreed to use the population projection data within the local government settlement as this provides an estimate of the population within the settlement year of interest. Updating the projection year of interest each year reflects the estimated population in the settlement year.
17. The 2018-based population projections are the latest set of local authority projections produced by the Welsh government. The 2021-22 local government settlement used the projections for the year 2021 to distribute the available funding.
18. Note that during the production of the 2021-22 settlement the latest MYE data available was for 2019, therefore this would not have covered the pandemic period.
19. The following section will investigate the impact of updating the 2018-based population projection from 2021 to 2022. Note these figures do not update the adjustment made to Wrexham's prisoner population as this data is not yet available.

Population Projections

20. Table 1 in Annex A shows the relative change of updating the projection year of interest (2022 vs. 2021). This largely reflects a similar pattern as shown last year where larger positive changes are observed in Newport, Bridgend and the Vale of Glamorgan, with decreases seen in Wrexham and Ceredigion across age groups.

MYEs

21. As a result of the pandemic, there might have been some divergence of the projections from the latest MYEs. This section compares the relative change between the latest MYEs (2020) compared to the population projection for 2021 (as this data was used in the 2021-22 settlement).

Distribution Sub-Group (2021) Paper 10 – Population data for the 2022-23 settlement

22. This data shows a different trend to the previous population projection data, with Newport seeing some decreases across age groups and Cardiff general seeing a relative increases across age breakdowns.

Rescaled approach

23. As previous papers have referenced, the rescaled approach uses the latest MYE and adjusts these with the future trend data from the population projections (this year this would be 2020 MYE + 2022 population projections - 2020 population projections).
24. This method crudely re-bases the population projections to the latest MYEs to account for any changes in births, deaths and migration compare to the original assumptions used in the projections. The differences between the projected population of the year of interest and the projected population of the new base year are added to give a rescaled population projection.
25. As DSG have previously not considered this approach, this analysis has not be included but we can provide further analysis if DSG would like to see this option.

Re-distributional effect

26. This section looks at the re-distributive financial impact of updating the population data; by updating the projections year to 2022 or by using the 2020 (latest) MYEs in the 2021-22 settlement (annex C).
27. By updating the year of interest in the population projection data from 2021 to 2022 we see that Newport and Bridgend see the largest monetary increases of £650k (0.3%) and £354k (0.2%) respectively. Wrexham and Ceredigion see the largest monetary decrease down £314k and £231k respectively.
28. By using the 2020 MYEs we see Cardiff getting the largest monetary increase of £1.0m followed by Carmarthenshire up £644k. Swansea would see the largest monetary decrease £1.6m, followed by Newport down £760k.

Discussion

29. DSG are asked to consider both the population projections and the MYEs and to consider how they would like proceed ahead of the 2022-23 settlement given the Projections are based on assumptions prior to the pandemic.
30. Further investigation will take place next year, once the Census data becomes available.

Local Government Finance Policy and Sustainability Welsh Government

**Distribution Sub-Group (2021) Paper 10 –
Population data for the 2022-23 settlement**

Annex A

Table 1: Relative change in population projection data between 2022 and 2021 by age breakdown

	Total	Aged 3 Aged 3	Aged 3 to 11	Aged to 16	Aged 11 to 15	Aged 11 to 20	Aged 16 and over	Aged 16 to 18	Aged 0 to 17	Aged 18 to 64	Aged 18 and over	Aged under 60	Aged 60 and over	Aged 85 and over
Isle of Anglesey	-0.01%	-0.02%	-0.01%	0.00%	0.00%	0.00%	-0.01%	0.00%	-0.01%	-0.01%	-0.01%	-0.01%	-0.02%	-0.01%
Gwynedd	0.00%	0.06%	-0.01%	-0.01%	-0.09%	-0.03%	0.00%	0.11%	0.01%	0.00%	0.00%	0.00%	-0.02%	-0.04%
Conwy	0.00%	-0.03%	-0.01%	0.00%	0.00%	0.01%	0.00%	0.04%	-0.01%	0.00%	0.00%	-0.01%	0.00%	-0.03%
Denbighshire	0.00%	-0.02%	-0.01%	0.00%	0.02%	0.02%	0.00%	0.01%	0.00%	-0.01%	0.00%	-0.01%	0.01%	0.03%
Flintshire	0.00%	0.02%	-0.03%	-0.01%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.12%
Wrexham	-0.02%	-0.07%	-0.05%	-0.03%	-0.01%	0.02%	-0.01%	0.08%	-0.02%	-0.02%	-0.01%	-0.02%	-0.01%	0.01%
Powys	-0.01%	-0.05%	0.01%	-0.01%	-0.01%	-0.02%	-0.01%	-0.06%	-0.01%	-0.02%	-0.01%	-0.02%	-0.01%	0.01%
Ceredigion	-0.02%	-0.02%	-0.01%	0.00%	0.04%	0.00%	-0.02%	-0.05%	-0.02%	-0.02%	-0.02%	-0.02%	-0.01%	0.01%
Pembrokeshire	0.00%	-0.05%	-0.03%	-0.02%	-0.01%	-0.01%	0.00%	0.03%	-0.02%	0.00%	0.00%	-0.02%	0.02%	-0.01%
Carmarthenshire	0.00%	-0.05%	0.00%	0.01%	0.04%	0.02%	0.00%	-0.05%	0.01%	-0.01%	0.00%	-0.01%	0.01%	0.01%
Swansea	0.00%	0.04%	0.04%	0.01%	-0.03%	-0.05%	0.00%	-0.14%	-0.01%	0.01%	0.00%	0.02%	-0.03%	-0.06%
Neath Port Talbot	0.00%	0.01%	0.04%	0.00%	-0.02%	-0.01%	0.00%	0.07%	0.01%	0.00%	0.00%	0.01%	-0.01%	-0.01%
Bridgend	0.01%	0.07%	0.06%	0.02%	0.05%	0.02%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.05%
Vale of Glamorgan	0.02%	0.04%	0.02%	0.02%	0.01%	0.00%	0.01%	-0.03%	0.03%	0.01%	0.01%	0.01%	0.02%	0.00%
Rhondda Cynon Taf	0.00%	0.03%	-0.01%	-0.02%	-0.03%	0.00%	0.00%	-0.01%	0.00%	0.01%	0.00%	0.01%	-0.01%	-0.02%
Merthyr Tydfil	0.00%	-0.03%	0.02%	0.02%	0.01%	0.01%	0.00%	-0.03%	0.01%	0.00%	0.00%	0.00%	0.01%	0.00%
Caerphilly	-0.01%	0.01%	-0.05%	-0.01%	-0.06%	-0.04%	0.00%	-0.13%	-0.04%	0.00%	0.00%	-0.01%	-0.01%	0.01%
Blaenau Gwent	-0.01%	-0.02%	-0.01%	0.00%	-0.04%	-0.01%	0.00%	0.07%	0.00%	-0.01%	-0.01%	-0.01%	0.00%	0.01%
Torfaen	0.00%	0.02%	0.00%	-0.01%	-0.02%	0.01%	0.00%	0.07%	0.01%	0.00%	0.00%	0.00%	0.00%	-0.02%
Monmouthshire	0.00%	0.07%	0.00%	-0.01%	0.01%	-0.02%	0.00%	-0.08%	-0.01%	0.00%	0.01%	-0.01%	0.03%	0.02%
Newport	0.02%	0.10%	0.09%	0.06%	0.08%	0.03%	0.02%	-0.05%	0.05%	0.03%	0.02%	0.04%	0.00%	0.04%
Cardiff	0.00%	-0.13%	-0.05%	0.01%	0.07%	0.06%	0.01%	0.15%	0.00%	0.01%	0.00%	0.02%	0.00%	-0.11%

Annex B

**Distribution Sub-Group (2021) Paper 10 –
Population data for the 2022-23 settlement**

Table 2: Relative change in population between the 2020 MYEs and the population projections for 2021 by age breakdown

	Total	Aged 3 Aged 3	Aged 3 to 11	Aged 3 to 16	Aged 11 to 15	Aged 11 to 20	Aged 16 and over	Aged 16 to 18	Aged 0 to 17	Aged 18 to 64	Aged 18 and over	Aged under 60	Aged 60 and over	Aged 85 and over
Isle of Anglesey	0.02%	0.01%	0.04%	0.02%	-0.02%	0.05%	0.02%	0.09%	0.01%	0.02%	0.02%	0.02%	0.05%	0.15%
Gwynedd	0.00%	-0.19%	0.03%	0.01%	0.11%	-0.11%	0.00%	-0.09%	-0.02%	-0.01%	0.00%	-0.01%	0.05%	0.19%
Conwy	0.00%	0.01%	-0.02%	-0.04%	-0.08%	0.04%	0.00%	-0.11%	-0.04%	0.03%	0.00%	0.02%	-0.02%	0.05%
Denbighshire	0.02%	0.15%	0.01%	0.00%	-0.03%	0.04%	0.02%	0.04%	0.03%	0.04%	0.02%	0.04%	-0.02%	-0.09%
Flintshire	-0.01%	0.04%	0.04%	0.02%	0.00%	0.04%	-0.01%	-0.05%	-0.01%	0.00%	-0.01%	0.00%	-0.04%	-0.28%
Wrexham	-0.01%	0.11%	0.07%	0.04%	0.00%	-0.04%	-0.02%	-0.10%	0.02%	-0.03%	-0.02%	-0.03%	0.02%	0.01%
Powys	0.02%	-0.12%	0.01%	0.03%	0.04%	0.12%	0.02%	0.10%	0.02%	0.04%	0.01%	0.04%	0.00%	-0.24%
Ceredigion	0.06%	-0.06%	0.00%	0.02%	-0.04%	-0.18%	0.06%	-0.01%	0.03%	0.09%	0.06%	0.07%	0.03%	0.00%
Pembrokeshire	0.02%	0.15%	0.07%	0.06%	0.04%	0.08%	0.00%	-0.11%	0.06%	0.04%	0.00%	0.06%	-0.05%	-0.18%
Carmarthenshire	0.02%	-0.01%	-0.05%	-0.03%	-0.08%	0.01%	0.03%	0.12%	-0.02%	0.03%	0.03%	0.02%	0.06%	0.36%
Swansea	-0.08%	-0.30%	-0.11%	-0.02%	0.07%	-0.30%	-0.08%	0.08%	-0.04%	-0.15%	-0.09%	-0.14%	0.04%	-0.07%
Neath Port Talbot	0.00%	-0.08%	-0.06%	-0.01%	0.10%	0.29%	0.00%	-0.04%	-0.04%	0.01%	0.01%	-0.01%	0.04%	0.10%
Bridgend	-0.01%	-0.13%	-0.12%	-0.05%	-0.03%	0.07%	0.00%	0.04%	-0.06%	0.01%	0.00%	0.00%	-0.03%	-0.01%
The Vale of Glamorgan	-0.01%	0.12%	-0.01%	0.00%	0.03%	0.07%	0.00%	0.01%	-0.03%	0.02%	0.00%	0.00%	-0.03%	0.03%
Rhondda Cynon Taf	-0.03%	-0.06%	0.08%	0.05%	0.10%	-0.11%	-0.04%	-0.16%	0.04%	-0.07%	-0.04%	-0.05%	0.01%	-0.11%
Merthyr Tydfil	-0.01%	0.03%	-0.05%	-0.05%	-0.02%	0.00%	-0.01%	0.06%	-0.03%	-0.02%	-0.01%	-0.02%	-0.02%	-0.05%
Caerphilly	-0.01%	-0.06%	0.06%	0.06%	0.03%	0.08%	-0.01%	0.26%	0.06%	-0.01%	-0.02%	0.00%	-0.03%	-0.05%
Blaenau Gwent	0.02%	-0.20%	0.01%	-0.01%	0.02%	0.02%	0.01%	-0.11%	0.01%	0.01%	0.02%	0.01%	0.02%	0.03%
Torfaen	0.02%	0.10%	0.02%	0.01%	0.05%	0.02%	0.02%	-0.13%	0.00%	0.03%	0.03%	0.03%	0.00%	0.09%
Monmouthshire	-0.01%	0.11%	-0.01%	0.00%	-0.01%	0.06%	-0.01%	0.11%	0.00%	0.00%	-0.01%	0.01%	-0.04%	-0.09%
Newport	-0.05%	-0.17%	-0.21%	-0.16%	-0.13%	-0.05%	-0.03%	0.06%	-0.11%	-0.05%	-0.03%	-0.07%	-0.04%	-0.14%
Cardiff	0.04%	0.54%	0.20%	0.07%	-0.14%	-0.22%	0.02%	-0.06%	0.11%	-0.01%	0.02%	0.01%	0.00%	0.28%

**Distribution Sub-Group (2021) Paper 10 –
Population data for the 2022-23 settlement**

Annex C

Table 3: Exemplification on the 2021-22 settlement (AEF) using the population data outlined

	2021-22	2022	2020	Difference			
	Actual (1)	Projections (2)	MYE (3)	(2)-(1)	(3)-(1)	(2)/(1)-1	(3)/(1)-1
Isle of Anglesey	104,825	104,721	105,248	-104	423	-0.1%	0.4%
Gwynedd	194,793	194,721	194,869	-72	76	0.0%	0.0%
Conwy	166,906	166,837	166,866	-69	-40	0.0%	0.0%
Denbighshire	158,632	158,621	158,916	-10	285	0.0%	0.2%
Flintshire	206,778	206,923	206,541	145	-237	0.1%	-0.1%
Wrexham	188,856	188,542	188,506	-314	-350	-0.2%	-0.2%
Powys	191,897	191,700	191,686	-197	-211	-0.1%	-0.1%
Ceredigion	109,658	109,427	110,221	-231	563	-0.2%	0.5%
Pembrokeshire	179,387	179,255	179,553	-132	166	-0.1%	0.1%
Carmarthenshire	284,820	284,819	285,465	-1	644	0.0%	0.2%
Swansea	352,642	352,655	351,007	13	-1,635	0.0%	-0.5%
Neath Port Talbot	236,680	236,708	236,859	28	179	0.0%	0.1%
Bridgend	212,192	212,546	212,265	354	74	0.2%	0.0%
The Vale Of Glamorg.	168,316	168,578	168,703	262	386	0.2%	0.2%
Rhondda Cynon Taf	404,375	404,359	403,812	-16	-564	0.0%	-0.1%
Merthyr Tydfil	101,476	101,505	101,144	29	-332	0.0%	-0.3%
Caerphilly	292,367	292,239	292,197	-129	-170	0.0%	-0.1%
Blaenau Gwent	120,361	120,250	120,316	-111	-45	-0.1%	0.0%
Torfaen	146,340	146,306	146,887	-34	546	0.0%	0.4%
Monmouthshire	101,483	101,578	101,467	95	-16	0.1%	0.0%
Newport	240,796	241,447	240,037	650	-760	0.3%	-0.3%
Cardiff	487,913	487,757	488,928	-156	1,016	0.0%	0.2%