

Distribution Sub-Group (2022) Paper 05 – Population data for the 2023-24 settlement

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Population data for the 2023-24 settlement

Summary

1. Following the publication of the 2021 census, this paper investigates the population data to be used within the 2023-24 local government settlement.

Views sought

2. DSG are asked to discuss the population datasets and agree the most appropriate dataset to be used in the 2023-24 settlement.

Related papers

3. Distribution Sub-Group (2021) Paper 10 - Population data
4. Distribution Sub-Group (2020) Paper 11 - 2018-based subnational population projections and 2019 mid-year estimates

Background

5. Population data is used across the UK by national and local government to plan and fund services. The most authoritative population estimates are derived from the census, which takes place every 10 years in the UK.
6. The latest published [Census](#) data for England and Wales is for 2021 published in June 2022, with further [demography breakdowns](#) published later in October/November later this year.
7. Between Census years, the population data are updated annually by the Office for National Statistics (ONS) to produce the Mid-Year Estimates (MYE's). In simple terms 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). The release date for [2021 mid-year estimates](#) will be based on the 2021 census and will be published in November 2022. This will mean that the data will be too late to feed into the provisional settlement and would require a change for the final settlement.
8. Due to the MYE's 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.
9. Once the Census is updated, the ONS usually revise the MYE's. Therefore, following the publishing of the 2021 Census the ONS is due to revise the MYE's between 2012 and 2020 to reflect the better estimates of migration from the Census.
10. Whilst the MYE's data provides a retrospective view of the population it does not allow Governments to plan ahead on how the population will change going forward.

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11. 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.
12. The Welsh subnational projections are developed from a specific year of MYE's. The MYE base year populations are projected forward based on a series of assumptions about 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.
13. The latest set of local authority population projections were based on the 2018 MYE's. The assumptions and the data used within these are therefore based on the trends prior to the pandemic. The timetable for ONS publishing [2021-based population](#) projections for Wales is likely to fall in late 2023 and local authority projections will be available in 2024.
14. The latest MYE's 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.
15. In the 2022-23 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 where 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.
16. 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 census 2021 data and the population projections based on the 2018 MYE's population projection data used in the current settlement year, for DSG to recommend their preferred data source for the 2023-24 settlement.

Current Analysis

17. 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.
18. The 2018-based population projections are the latest set of local authority projections produced by the Welsh government. The 2022-23 local government settlement used the projections for the year 2022 to distribute the available funding.
19. 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.
20. The following section will investigate the impact of using the aggregated census 2021 data as an exemplification for the 2022-23 local government settlement and the population projections for 2023-24. Note that currently the Census 2021 data is rounded and aggregated, and more detailed Census data will be published soon. As a result, we can only update the indicators for total population, population aged 0 to 59, population aged 60 and over, population 85 and over and the enhanced population. These population indicators contribute 60% to the SSA associated with the pure population data. In particular they are used in the IBAs listed in table 4 in ANNEX D.

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Census 2021 and population projections 2023

21. Table 1 in Annex A shows the change in population of updating the projection year of interest 2022 with the 2021 Census data applied to the year 2022. The most notable differences in population estimates can be seen in Swansea and Gwynedd where the population projections for 2022 are significantly greater than the 2021 Census estimates. In contrast, populations projections for Newport are less than the 2021 Census estimates. Table 2 in Annex B shows the changes in population of updating the year of interest from 2022 to the 2023 population projections.

Re-distributional effect

22. Table 3 in Annex C looks at the re-distributive financial impact of using the population projections for 2023 and a hybrid with the latest available Census 2021 population data. By updating the year of interest in the population projection data from 2022 to 2023 and include the available Census 2021 data it can be seen that Newport, Carmarthenshire and Denbighshire have the largest monetary increases of £1,902k (0.7%), £1,106k (0.4%) and £1,100K (0.6%) respectively. Gwynedd, Conwy and Swansea have the largest monetary decreases of £1,723k (0.8%), £1,233 (0.7%) and £1,155k (0.3%) respectively.

Discussion

23. DSG are asked to consider the current population projections data and the effects of applying the Census 2021 aggregated data. Further analysis will be carried out following the publication of the demography and detailed age breakdowns and be sent out in correspondence.

24. DSG to consider the two options exemplified in the use of population data for the 2023-24 settlement, and if there are other approaches to be considered:

i) the 2018 based population projections for 2023-24 only as per the last settlement due to limited 2021 census data being available;

ii) the 2018 population projections together with the available elements of the 2021 Census data, with the aim of moving part-way towards the full re-adjustments of the formula data with the 2021 census in due course.

Further investigation will take place as each of the 2021 Census datasets become available.

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Annex A

Table 1: Comparison in population projection data for the year 2022 and 2021 Census

UA	2022-23 Population projections - 2018					2021 Census rounded					Difference Population Projections vs Census				
	Total population	Population aged 0 to 59	Population aged 60 and over	Population aged 85 and over	Enhanced Population	Total population	Population aged 0 to 59	Population aged 60 and over	Population aged 85 and over	Enhanced Population	Total population	Population aged 0 to 59	Population aged 60 and over	Population aged 85 and over	Enhanced Population
Isle of Anglesey	69,864	45,838	24,025	2,298	86,898	68,900	45,600	23,300	2,200	85,934	964	238	725	98	964
Gwynedd	125,220	88,111	37,109	4,060	190,742	117,400	81,900	35,300	3,800	182,922	7,820	6,211	1,809	260	7,820
Conwy	118,320	75,529	42,791	5,188	168,573	114,800	75,000	39,900	4,500	165,053	3,520	529	2,891	688	3,520
Denbighshire	96,021	65,020	31,000	2,779	128,513	95,800	65,500	30,500	3,000	128,292	221	-480	500	-221	221
Flintshire	157,264	112,833	44,431	3,993	176,029	155,000	111,600	43,200	3,800	173,765	2,264	1,233	1,231	193	2,264
Wrexham	136,535	99,823	36,711	3,460	144,043	135,100	99,400	35,600	3,300	142,608	1,435	423	1,111	160	1,435
Powys	132,538	84,277	48,261	5,013	165,703	133,200	85,600	47,400	4,700	166,365	-662	-1,323	861	313	-662
Ceredigion	71,151	46,964	24,187	2,662	95,171	71,500	48,000	23,500	2,400	95,520	-349	-1,036	687	262	-349
Pembrokeshire	126,301	82,518	43,783	4,613	171,845	123,400	81,900	41,200	4,000	168,944	2,901	618	2,583	613	2,901
Carmarthenshire	189,525	129,449	60,076	5,560	208,753	187,900	129,100	58,800	5,600	207,128	1,625	349	1,276	-40	1,625
Swansea	249,275	184,857	64,418	6,749	272,681	238,500	175,100	63,400	6,700	261,906	10,775	9,757	1,018	49	10,775
Neath Port Talbot	144,447	103,872	40,575	3,544	150,107	142,300	102,700	39,600	3,600	147,960	2,147	1,172	975	-56	2,147
Bridgend	147,892	107,275	40,617	3,540	163,567	145,500	106,200	39,400	3,600	161,175	2,392	1,075	1,217	-60	2,392
The Vale of Glamorgan	135,617	96,757	38,860	3,535	151,794	131,800	94,300	37,500	3,600	147,977	3,817	2,457	1,360	-65	3,817
Rhondda, Cynon, Taff	242,784	180,290	62,494	5,494	250,609	237,700	176,400	61,100	5,200	245,525	5,084	3,890	1,394	294	5,084
Merthyr Tydfil	60,919	45,184	15,736	1,297	65,607	58,800	43,900	14,900	1,200	63,488	2,119	1,284	836	97	2,119
Caerphilly	182,060	133,848	48,212	4,037	188,506	175,900	129,600	46,500	3,800	182,346	6,160	4,248	1,712	237	6,160
Blaenau Gwent	69,548	50,702	18,846	1,572	72,265	66,900	48,900	18,000	1,500	69,617	2,648	1,802	846	72	2,648
Torfaen	94,111	68,067	26,044	2,536	97,834	92,300	67,300	25,000	2,400	96,023	1,811	767	1,044	136	1,811
Monmouthshire	95,489	63,337	32,151	3,479	104,428	93,000	62,300	30,700	3,200	101,939	2,489	1,037	1,451	279	2,489
Newport	158,154	121,578	36,576	3,458	173,426	159,600	123,700	36,200	3,400	174,872	-1,446	-2,122	376	58	-1,446
Cardiff	368,090	295,805	72,285	7,285	434,075	362,400	291,900	70,500	7,100	428,385	5,690	3,905	1,785	185	5,690
Wales (Data Total)	3,171,125	2,281,934	889,192	86,153	3,661,169	3,107,500	2,246,000	861,600	82,500	3,597,744	63,625	35,934	27,592	3,653	63,425

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Annex B

Table 2: Difference in population projection data for the year 2022 and 2023

UA	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	0.0%	0.7%	-1.5%	-0.3%	1.4%	1.7%	0.1%	2.1%	0.1%	-0.6%	-0.1%	-0.8%	1.4%	2.9%
Gwynedd	0.3%	2.8%	-0.8%	-0.7%	0.6%	1.7%	0.4%	5.2%	0.2%	0.0%	0.3%	-0.1%	1.2%	0.1%
Conwy	0.3%	1.2%	-1.2%	-0.1%	1.8%	2.0%	0.4%	1.5%	0.0%	-0.3%	0.3%	-0.6%	1.7%	0.9%
Denbighshire	0.2%	1.2%	-1.6%	-0.2%	0.8%	1.5%	0.3%	3.4%	-0.1%	-0.2%	0.3%	-0.5%	1.7%	2.4%
Flintshire	0.2%	1.6%	-0.8%	0.2%	-0.1%	1.6%	0.4%	4.6%	-0.1%	0.0%	0.3%	-0.3%	1.5%	4.1%
Wrexham	-0.1%	0.6%	-2.1%	-0.7%	0.0%	1.5%	0.2%	3.9%	-0.6%	-0.4%	0.1%	-0.7%	1.5%	1.7%
Powys	0.0%	1.3%	-1.1%	-0.1%	-0.5%	0.2%	0.1%	1.4%	-0.3%	-0.5%	0.1%	-0.9%	1.7%	1.9%
Ceredigion	-0.3%	0.3%	-2.5%	-0.3%	0.5%	1.6%	-0.3%	0.3%	-0.3%	-1.1%	-0.3%	-1.2%	1.3%	1.4%
Pembrokeshire	0.2%	1.3%	-1.9%	-0.7%	1.9%	2.0%	0.4%	1.4%	-0.4%	-0.3%	0.4%	-0.8%	2.1%	2.7%
Carmarthenshire	0.3%	1.4%	-1.3%	0.1%	0.8%	1.7%	0.4%	4.2%	0.1%	-0.2%	0.3%	-0.4%	1.7%	0.8%
Swansea	0.3%	2.1%	-0.4%	0.2%	2.2%	1.8%	0.3%	1.1%	0.3%	0.0%	0.3%	0.1%	0.9%	1.1%
Neath Port Talbot	0.3%	1.5%	-0.3%	0.2%	2.1%	2.1%	0.4%	2.3%	0.1%	0.0%	0.4%	-0.1%	1.5%	1.0%
Bridgend	0.5%	1.5%	-0.8%	0.4%	2.4%	2.1%	0.5%	1.9%	0.4%	0.1%	0.5%	0.0%	1.8%	2.5%
The Vale of Glamorgan	0.6%	2.0%	0.1%	0.8%	1.4%	2.2%	0.7%	4.2%	0.5%	0.2%	0.6%	0.1%	1.8%	2.8%
Rhondda,Cynon,Taff	0.3%	1.8%	-1.2%	-0.3%	1.6%	1.9%	0.4%	2.6%	-0.1%	0.0%	0.3%	-0.1%	1.2%	2.2%
Merthyr Tydfil	0.3%	0.9%	-0.3%	0.6%	1.8%	2.5%	0.3%	5.2%	0.5%	-0.4%	0.2%	-0.1%	1.4%	2.6%
Caerphilly	0.1%	1.4%	-1.0%	-0.3%	0.1%	0.7%	0.2%	0.6%	-0.2%	-0.2%	0.2%	-0.4%	1.4%	3.0%
Blaenau Gwent	-0.1%	1.0%	-1.0%	-0.7%	0.0%	1.3%	0.0%	2.4%	-0.2%	-0.3%	0.0%	-0.6%	1.5%	-0.2%
Torfaen	0.3%	1.6%	-0.8%	-0.2%	1.1%	1.8%	0.3%	4.1%	-0.2%	-0.1%	0.4%	-0.3%	1.6%	1.3%
Monmouthshire	0.4%	2.1%	-1.1%	0.1%	-1.0%	0.9%	0.6%	3.4%	0.0%	-0.2%	0.4%	-0.5%	2.1%	1.9%
Newport	0.7%	1.8%	0.4%	1.3%	2.7%	2.3%	0.7%	2.1%	1.0%	0.4%	0.6%	0.4%	1.8%	0.4%
Cardiff	0.3%	1.6%	-1.7%	-0.3%	1.6%	2.5%	0.5%	4.9%	0.2%	0.0%	0.3%	0.0%	1.5%	0.8%

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Annex C

Table 3: Exemplifications on the 2022-23 settlement (AEF) for both options (i) and (ii)

	<i>£000s</i>								
	(a)	(b)	(c)	(b) - (a)	(c) - (a)	(b) - (a)	(c) - (a)	(b) - (a)	(c) - (a)
Unitary authority	2022-23 Settlement	(i) Population Proj 2023	(ii) Hybrid inc Census 2021	Change (£000)	Change (£000)	Change (%)	Change (%)	Rank	Rank
Isle of Anglesey	114,551	114,466	114,604	-85	52	-0.1%	0.0%	18	12
Gwynedd	213,214	213,081	211,492	-134	-1,723	-0.1%	-0.8%	17	22
Conwy	183,311	183,202	182,078	-109	-1,233	-0.1%	-0.7%	16	21
Denbighshire	173,640	173,610	174,740	-30	1,100	0.0%	0.6%	13	2
Flintshire	232,179	232,359	232,407	180	229	0.1%	0.1%	4	10
Wrexham	207,064	206,733	207,200	-331	136	-0.2%	0.1%	21	11
Powys	210,261	210,080	210,950	-181	689	-0.1%	0.3%	19	4
Ceredigion	119,421	119,142	119,539	-279	118	-0.2%	0.1%	22	9
Pembrokeshire	196,257	196,236	195,292	-22	-965	0.0%	-0.5%	12	20
Carmarthenshire	311,603	311,504	312,708	-98	1,106	0.0%	0.4%	14	3
Swansea	386,592	386,696	385,437	104	-1,155	0.0%	-0.3%	6	15
Neath Port Talbot	258,073	258,123	258,717	50	644	0.0%	0.2%	8	6
Bridgend	232,368	232,629	233,025	261	657	0.1%	0.3%	3	5
The Vale Of Glamorgan	186,015	186,409	186,249	394	234	0.2%	0.1%	1	8
Rhondda Cynon Taf	441,441	441,513	441,245	72	-195	0.0%	0.0%	9	14
Merthyr Tydfil	110,617	110,650	110,272	32	-345	0.0%	-0.3%	5	16
Caerphilly	317,459	317,342	316,429	-117	-1,030	0.0%	-0.3%	15	17
Blaenau Gwent	130,797	130,610	130,325	-187	-471	-0.1%	-0.4%	20	18
Torfaen	160,120	160,105	160,069	-15	-51	0.0%	0.0%	10	13
Monmouthshire	112,278	112,301	111,826	23	-452	0.0%	-0.4%	7	19
Newport	265,617	266,141	267,519	524	1,902	0.2%	0.7%	2	1
Cardiff	544,726	544,672	545,477	-53	752	0.0%	0.1%	11	7
Total Unitary Authorities	5,107,603	5,107,603	5,107,603	0	0	0.0%	0.0%		

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Annex D

Table 4: List of settlement 2022-23 indicators

Need Indicator	Indicator value	SSA unit (£)	SSA element (£m)	(i) Population projections 2023 Exemplification	(ii) Hybrid inc Census 2021 Exemplification
Adults aged 18 to 64 in non-white ethnic groups	36,385	250	9		
Dependent children in households where head is in a low occupational classification	205,580	51	10		
Dependent children in lone adult households	141,102	74	10		
Dependent children in overcrowded housing	56,064	1,103	62		
Dependent children in social rented housing	146,568	574	84		
Dispersion threshold 2,500 (1991)	1,478,310,914	0	11		
Dispersion threshold 300 (2001)	3,029,899	11	35		
Dispersion threshold 5,000 (1991)	2,233,291,122	0	40		
Dispersion threshold 7,500 (2001)	14,527,903	1	20		
Households where head is aged 18 to 64 with no carer	954,274	115	110		
Pensioners living alone in households	171,110	1,328	227		
Need Indicator	Indicator value	SSA unit (£)	SSA element (£m)		
Pensioners with a limiting long-term illness	296,925	808	240		
Population aged under 18 in wards with weighted density greater than the Welsh average	286,017	120	34		
Population within settlement threshold 50,000	474,180	21	10		
Settlement threshold 1,000	1,042,119	120	125		
Settlement threshold 7,500	1,477,233	54	79		
Settlement threshold 12,500	1,694,007	5	8		
Settlement threshold 30,000	2,019,764	14	29		

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Settlement threshold 40,000	2,228,457	14	31		
Deprivation Grant	22,000	1,000	22		
Index-weighted working age population	1,406,736	18	25	X	X
Traffic flow	8,172,629,338	0	30		
Total homelessness decisions	15,128	1,373	21		
Dependent children in out of work families	126,900	3,986	506		
Housing Benefit Recipients	231,125	47	11		
Enhanced population (projected)	3,661,169	60	221	X	X
All dwellings	1,454,980	41	59		
Need Indicator	Indicator value	SSA unit (£)	SSA element (£m)		
Area per modelled primary school index	25,204	502	13		
Area per modelled secondary school index	211,399	117	25		
Council Tax Reduction Schemes Caseload	283,004	17	5		
Council Tax Reduction Schemes Expenditure	283,945,586	1	244		
Food premises	42,630	161	7		
Housing General Capital Funding	45,756	337	15		
Income support, job seekers allowance, pension credit or universal credit (not in employment) claimants	131,795	213	28		
Land drainage levies	1,310,559	1	1		
Length of artificially protected coastline	118	16,789	2		
National park levies	3,492,866	1	3		
Number of deaths from all causes	37,399	-78	-3		
Pension credit claimants aged 65 and over	95,063	1,151	109		
Planning applications received	23,938	343	8		

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Need Indicator	Indicator value	SSA unit (£)	SSA element (£m)		
Population aged 3 to 11 (projected)	320,374	81	26	X	X
Population aged 3 to 16 (projected)	506,876	496	251	X	X
Population aged 11 to 15 (projected) and secondary school pupils in year groups 12 to 14	211,324	208	44	X	X
Population aged 11 to 20 (projected)	368,496	48	18	X	X
Population aged 16 to 18 (projected) other than at school	83,672	41	3	X	X
Population aged 16 and over (projected)	2,602,837	5	13	X	X
Population aged 18 to 64 (projected)	1,849,883	228	421	X	X
Population aged 18 and over (projected)	2,531,294	5	13	X	X
Population aged under 60 (projected)	2,281,934	0	1	X	X
Population aged 60 and over (projected)	889,188	11	10	X	X
Population aged 85 and over (projected)	86,152	1,758	151	X	X
Population, all ages (projected)	3,171,125	230	728	X	X
Need Indicator	Indicator value	SSA unit (£)	SSA element (£m)		
Primary school pupils and modelled nursery school pupils	260,454	3,979	1,036		
Primary school pupils eligible for free school meals	48,459	2,283	111		
Secondary school pupils eligible for free school meals	28,711	3,293	95		
Secondary school pupils in year groups 7 to 11	168,413	4,691	790		
Secondary school pupils in year groups 10 and 11	65,179	1,170	76		
Severe disablement allowance or disability living allowance claimants or personal independence payme	146,859	820	120		
Ships arriving at ports	6,176	74	0		
Street lighting units	397,391	88	35		

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Total income support, job seekers allowance, pension credit or universal credit (not in employment)	228,728	138	32		
Trading premises	133,357	24	3		
Urban road length	15,128	1,912	23		
Weighted Road Length	228,728	1,368	54		
Gate Fees	133,357	1	13		
Current SSA			6,596		
Non-current SSA			350		
Total SSA			6,946		