Insight Team Briefing Note

June 2025

Hull City Council

Release of 2022 Based Sub-National Population Projections

1. Introduction

1.1 The Office for National Statistics (ONS) has published 2022 based sub-national population projections, which give an indication of future trends in the local population for the 25-year period from 2022 to 2047.

1.2 Subnational population projections are produced across all areas in England, using a consistent methodology, so that they are relevant to all types of users. They are used in a number of ways, including:

- for local planning of health, education and other service provisions
- as a basis for household projections
- as a basis for projections produced by other organisations

1.3 Dependent on timing of central government planning rounds, they are also sometimes used in the assessment of local authority needs and the funding formula.

1.4 Since projections are produced in a consistent way, they can be used, together with local level information, as a common framework for informing local-level policy and planning.

2. Methodology and Limitations

2.1 Projected population change is calculated based on assumptions about future births, deaths and migration (also known as components of change).

2.2 For each local authority in England, ONS collected data on these components over the period 2018 to 2022 and projected these trends forward for 25 years, using the national population projections for England to constrain the projections.

2.3 The principal projections simply provide the population levels and age structure that would result if the underlying assumptions about future fertility, mortality and migration were to be realised.

2.4 **Subnational population projections are not forecasts and do not attempt to predict potential changes in international migration. There is uncertainty over future directions and levels of international migration.**

2.5 **At the local level, population change is influenced by economic development and housing policies, factors that are not included in these projections.**

2.6 **Demographic assumptions for future fertility, mortality and migration are based on observed demographic trends. Resulting projections will differ to some extent from future releases of population estimates.**

2.7 ONS have produced a number of variant population projections which show scenarios based on alternative assumptions of future fertility, mortality or migration.

2.8 **As per ONS guidance, the analysis in this paper uses the migration category variant projection in place of the principal projections.**

2.9 Unlike the principal projections, which are based purely on a continuation of past trends, the migration category variant includes specific variant migration assumptions and projections to show what could arise from short-term change in international migration, based upon different types of immigration.

2.10 These assumptions and projections have been developed in consultation with an independent advisory panel of experts working in the field of demography.

2.11 In recent years, international migration to the UK has been high in the context of historical levels. While, in general, the expert advisory panel expects lower levels of international migration in the future, there is uncertainty about the timescales that a lower level will be reached. When estimated international migration is high, there is a higher degree of uncertainty in the short-term, including around potential future levels of emigration.

3. Actions

3.1 Detailed information will be shared with all services to ensure that council documents, policies and strategies use revised population data.

3.2 This includes updating the council's data observatory with the revised population projection data.

3.3 Services should consider the impacts on business planning, current and future policy development.

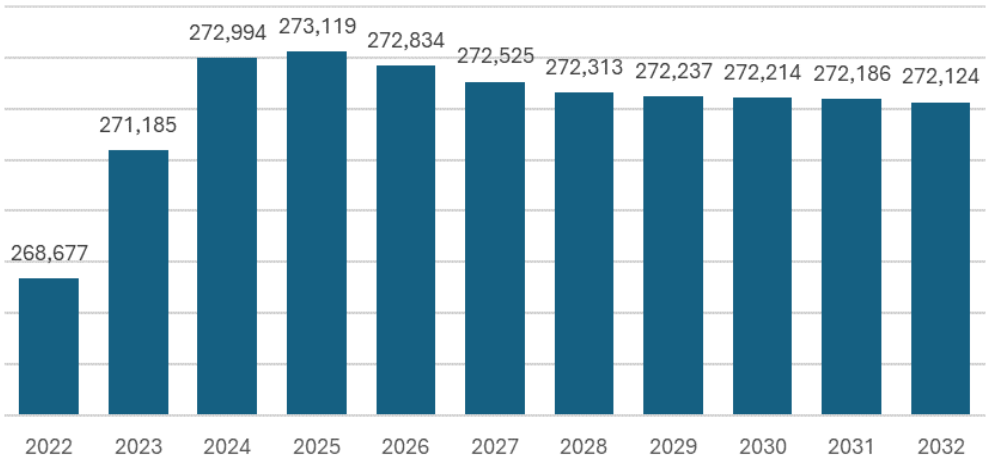
3.4 Consideration should also be paid to the inaccuracy of the population projections in previous years (see Section 13) and the potential impact this may have had both in the past and in the future; including on the cities' ability to accurately plan for, and respond to, need, and access to funding to which it is entitled.

Ten Year Population Projection

Note: Population projections become increasing unreliable the further into the future they predict. Therefore this report will first focus on population change over the next ten years, over which period the projections are likely to be most accurate.

4. Total Population Change

Chart 1: Total Annual Population Projection for Hull, 2022 – 2032



4.1 Between 2022 and 2025, the population of Hull is projected to increase; growing by 4,442 residents (1.7%), from 268,677 to 273,119.

4.2 However after 2025, the population is projected to decrease slowly during every year, falling 995 residents (-0.4%) by 2032, from 273,119 to 272,124.

4.3 In total, this is an increase of 3,447 residents over 10 years, equivalent to a 1.3% rise (compared to 6.4% across England).

5. Age Structure Changes

5.1 Table 1 (overleaf) shows the projected change in Hull's age structure over the period 2022 to 2032.

5.2 The most significant change is in the 65 and over population which is projected to **increase** from 41,738 in 2022 to 49,080 in 2032; an increase of 7,342 or 18%.

5.3 Children aged under 16 are projected to **decrease** in number from 53,493 to 45,973; a decrease of 7,520 (14%).

5.4 The working age population (aged 16 – 64) is expected to **increase** a small amount by 3,625 (2%) from 173,446 to 177,071.

5.5 Whilst there is projected to be an **increase** in 35 – 49-year-olds (+7,045) this will be offset by **reductions** in both 25 – 34.year olds (--4,162) and 50 – 64 yar olds (-4,920)

5.6 Population growth amongst working age residents' is therefore reliant on 16 – 24-year-olds who are projected to **increase** in number by 5,662 (18%) from 31,037 to 36,699.

Table 1: Population Change 2022 to 2032 by Age

	Hull (2022)	Hull (2032)	Change	
Age	**Number**	**Number**	**No**	**%**
0 - 4	15,814	13,576	-2,238	-14.2%
5 - 9	17,078	13,935	-3,143	-18.4%
10 - 15	20,601	18,462	-2,139	-10.4%
16 - 19	12,919	14,621	1,702	13.2%
20 - 24	18,118	22,078	3,960	21.9%
25 - 29	20,227	18,412	-1,815	-9.0%
30 - 34	21,390	19,043	-2,347	-11.0%
35 - 39	19,313	20,729	1,416	7.3%
40 - 44	16,603	20,125	3,522	21.2%
45 - 49	15,607	17,714	2,107	13.5%
50 - 54	16,957	15,243	-1,714	-10.1%
55 - 59	17,015	14,053	-2,962	-17.4%
60 - 64	15,297	15,053	-244	-1.6%
65 - 69	12,554	14,655	2,101	16.7%
70 - 74	10,908	12,468	1,560	14.3%
75 - 79	8,228	9,295	1,067	13.0%
80 – 84	5,053	6,842	1,789	35.4%
85 – 89	3,252	4,021	769	23.6%
90 +	1,743	1,799	56	3.2%

6.2 The Dependency Ratio is an age-population ratio of those typically not in the labour force (the dependent part) and those typically in the labour force (the productive part). It can be used to measure the pressure on the productive population.

6.3 It is made up of two component parts; the Child Dependency Ratio (the ratio of residents aged 0 – 15 to those aged 16 – 64) and the Aged Dependency Ratio (the ratio of residents aged 65 + to those aged 16 – 64).

Table 2: Dependency Ratios 2022 and 2032

	Hull		Y & H		England	
	2022	**2032**	**2022**	**2032**	**2022**	**2032**
Total DR	54.91	53.68	60.52	60.93	59.02	59.28
Child DR	30.84	25.96	29.74	25.95	29.42	25.64
Aged DR	24.06	27.72	30.78	34.98	29.60	33.64

6.4 As Hull currently has a relatively youthful population it follows that, in 2022, the Child Dependency Ratio is higher that the Aged Dependency ratio.

6.5 In 2022 around 31 dependent children per 100 working age population in Hull compared to around 24 dependent older people per 100 working age population.

6.6 The effects of projected population change will see more equalised dependency ratios in Hull in 2032.

6.7 Due to shrinking numbers of children under 16, the Child Dependency Ratio will **fall** to around 26 dependent children per 100 working age population in Hull.

6.8 Conversely, due to increased numbers of older people aged 65 plus, the Aged Dependency Ratio will **increase** to around 28 dependent older people per 100 working age population.

6.4 In Hull in 2032, whilst the Child Dependency Ratio will be similar to the regional and national figures, the Aged Dependency Ratio will continue to be significantly below the regional and national average.

7. Components of Population Growth

7.1 Overall, more births than deaths mean that the population in Hull is projected to **increase** by 1,051 as a result of **natural change**, with 28,208 births and 27,157 deaths in between 2022 and 2032.

7.2 However, due to the rate at which births are projected to fall over this period, then net natural change is actually negative by the last year of this period.

7.3 **Net internal migration (people moving to and from other local authorities in England)** is projected to **reduce** the population in Hull by 17,784, with 120,702 people moving to the area and 138,485 people moving from the area between 2022 and 2032.

7.4 Net internal migration remains relatively static during each year of this period.

7.5 **Net cross-border migration (between UK nations)** is projected to **reduce** the population in Hull by 777, with 2,557 people moving to the area and 3,333 people moving from the area between 2022 and 2032.

7.6 Net cross-border migration remains relatively static during each year of this period.

7.7 **Net international migration** is projected to **increase** the population in Hull by 20,839, with 36,722 people moving to the area and 15,883 people moving from the area between 2022 and 2032.

Table 3: Projected Components of Change, 2022 to 2032

	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Population at Start	268,677	271,185	272,994	273,119	272,834	272,525	272,313	272,237	272,214	272,186
- Births	2,902	2,914	2,915	2,885	2,845	2,784	2,766	2,749	2,732	2,716
- Deaths	2,805	2,714	2,692	2,682	2,686	2,685	2,699	2,714	2,730	2,751
Natural Change	**97**	**200**	**224**	**203**	**160**	**98**	**67**	**34**	**3**	**-35**
- Internal In Migration	11,697	11,804	11,923	11,986	12,060	12,108	12,168	12,255	12,331	12,370
- Internal Out Migration	13,420	13,598	13,773	13,853	13,900	13,911	13,936	13,986	14,035	14,072
Net Internal Migration	*-1,722*	*-1,794*	*-1,850*	*-1,868*	*-1,840*	*-1,803*	*-1,768*	*-1,731*	*-1,705*	*-1,703*
- International In Migration	5,725	5,231	3,480	3,181	3,183	3,184	3,184	3,184	3,184	3,184
- International Out Migration	1,521	1,758	1,661	1,732	1,746	1,629	1,495	1,447	1,447	1,447
Net International Migration	4,204	3,473	1,819	1,449	1,437	1,555	1,689	1,738	1,738	1,738
- Cross Border In Migration	248	252	254	255	256	256	257	258	259	261
- Cross Border Out Migration	323	329	332	334	334	334	335	336	338	339
Net Cross Border Migration	-75	-77	-78	-78	-78	-78	-78	-78	-78	-79
All Migration Net	**2,407**	**1,601**	**-109**	**-497**	**-481**	**-326**	**-156**	**-71**	**-45**	**-43**
Total Change	**2,508**	**1,809**	**125**	**-284**	**-309**	**-213**	**-75**	**-23**	**-28**	**-62**
Population at End	271,185	272,994	273,119	272,834	272,525	272,313	272,237	272,214	272,186	272,124

	2022 - 2023
Population at Start	268,677
- Births	28,208
- Deaths	27,157
Natural Change	**1,051**
- Internal In Migration	120,702
- Internal Out Migration	138,485
Net Internal Migration	*-17,784*
- International In Migration	36,722
- International Out Migration	15,883
Net International Migration	*20,839*
- Cross Border In Migration	2,557
- Cross Border Out Migration	3,333
Net Cross Border Migration	*-777*
All Migration Net	**2279.3**
Total Change	**3448**
Population at End	-272,124

7.8 However, there is a significant **decrease** in net international migration after 2024; the direct result of a significant reduction in international in migration.

7.9 This has the effect of lowering the amount of net international migration to a level that is entirely negated by the level of population loss due to net internal migration,.

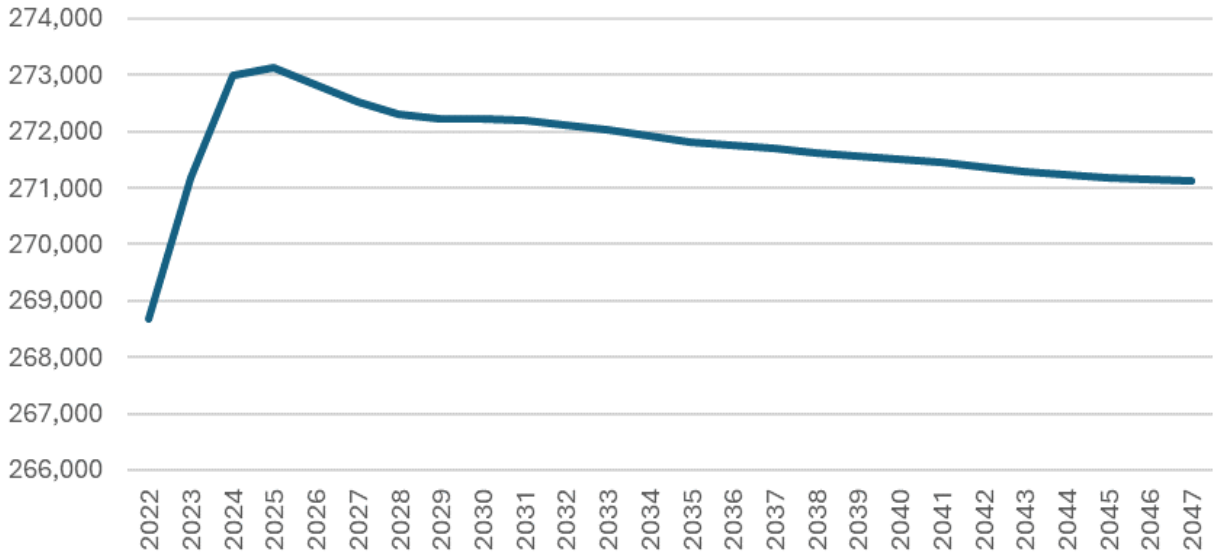
7.10 This, combined with the impact of the projected falling birth rate on net natural change, is then responsible for the much slower population growth post 2024; as identified in Section 4.

Twenty-Five Year Population Projection

Note: Population projections are available for a twenty-five-year period. However, these figures should be used with cautions since the population projections become increasing unreliable the further into the future they predict.

8. Total Population Change

Chart 3: Total Annual Population Projection for Hull, 2022 – 2047



8.1 Chart 3 shows a continuation of the trend, identified in Section 4. for a declining population during each year after 2025.

8.2 Between 2022 and 2025, the population of Hull is projected to increase; growing by 4,442 residents (1.7%), from 268,677 to 273,119.

8.3 However, between 2025 and 2047 the population of Hull is expected to decrease by 1,984 residents (-0.7%), from 273,119 to 271,135; averaging a decrease of 90 residents per year.

8.4 In total, this is an increase of 2,458 residents over the 25 years from 2022 to 2047, equivalent to a 0.9% rise (compared to 12.7% across England).

9.0 **Age Structure Changes**

Table 4: Population Change 2022 to 2047 by Age

	Hull (2022)	Hull (2047)	Change	
Age	**Number**	**Number**	**No**	**%**
0 - 4	15,814	11,637	-4,177	-26.4%
5 - 9	17,078	11,837	-5,241	-30.7%
10 - 15	20,601	14,514	-6,087	-29.5%
16 - 19	12,919	11,370	-1,549	-12.0%
20 - 24	18,118	17,775	-343	-1.9%
25 - 29	20,227	16,471	-3,756	-18.6%
30 - 34	21,390	17,980	-3,410	-15.9%
35 - 39	19,313	17,962	-1,351	-7.0%
40 - 44	16,603	16,490	-113	-0.7%
45 - 49	15,607	16,348	741	4.7%
50 - 54	16,957	17,271	314	1.8%
55 - 59	17,015	16,874	-141	-0.8%
60 - 64	15,297	14,762	-535	-3.5%
65 - 69	12,554	12,470	-84	-0.7%
70 - 74	10,908	10,915	7	0.1%
75 - 79	8,228	10,782	2,554	31.0%
80 – 84	5,053	8,892	3,839	76.0%
85 – 89	3,252	5,547	2,295	70.6%
90 +	1,743	3,038	1,295	74.3%

9.1 Similar to the 10-year projection, population growth over the 25-year projection is focussed on older people. In particular the 75 and over population which is projected to **increase** from 18,276 in 2022 to 28,258 in 2043; an increase of 9,982 or 55%.

9.2 Also similar to the 10-year projection, children aged under 16 are projected to **decrease** in number over the 25-year projection, from 53,493 to 37,988; a decrease of 15,505 (29%).

9.3 The notable difference to the 10-year projection, is the **decrease** in the working age population over the 25-year projection.

9.4 Over the 10-year projection the working age population is expected to **increase** a small amount by 3,625 (2%).

9.5 However, over the 25-year projection the working age population is expected to **decrease** by 10,144 (-6%); with only a small increase (+1,054) focussed specifically on 45 – 54-year-olds.

9.6 Table 5 (overleaf) shows that despite the reduction in the working age population, the large decrease in under 16's has the effect of significantly lowering the Child Dependency Ratio from around 31 dependent children per 100 working age population in 2022 to around 24 dependent children per 100 working age population in 2047.

Table 5: Dependency Ratios 2022, 2032, and 2047

	Hull		
	2022	**2032**	**2047**
Total DR	54.91	53.68	54.89
Child DR	30.84	25.96	23.26
Aged DR	24.06	27.72	31.62

9.7 Conversely, the reduction in the working age population compounded with the increase in over 70-year-olds has the effect of significantly increasing the Aged Dependency Ratio from around 24 dependent older people per 100 working age population in 2022 to around 32 dependent children per 100 working age population in 2047.

9.8 Overall, however, the Total Dependency Ratio, remains unchanged.

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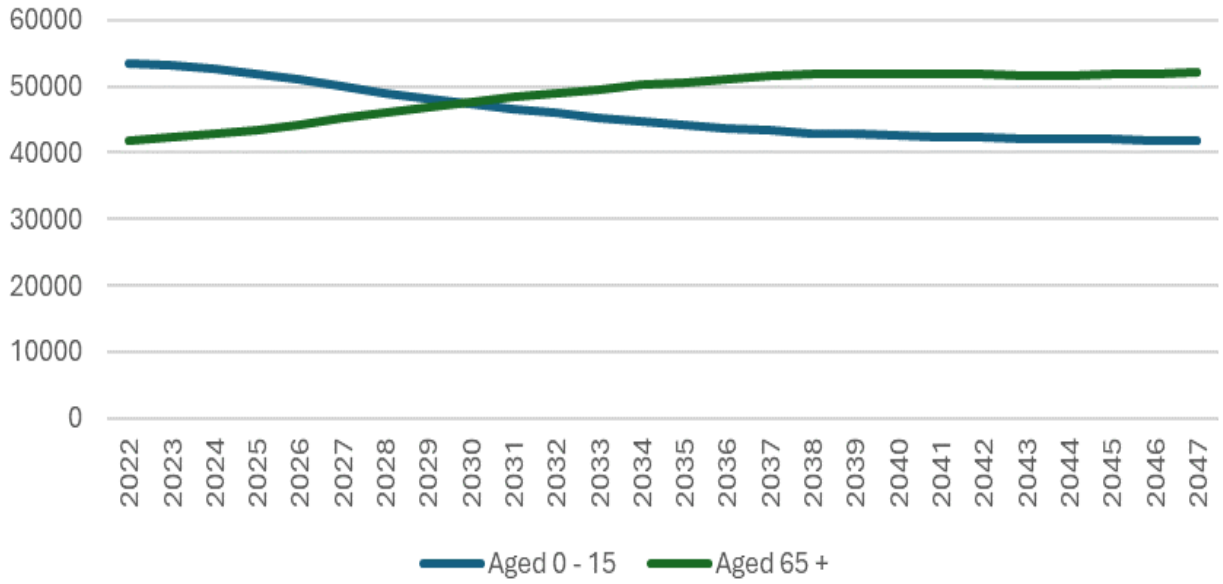
Chart 4: Number of Children and Older People, Hull, 2022 – 2047



9.9 Chart 4 (above) shows that, according to the 25-year projection, the number of residents of Hull aged 65 and over, will exceed the number of Hull residents aged under 16 from 2030 onwards.

10. Components of Population Growth

10.1 Overall, more deaths than births mean that the population in Hull is projected to **decrease** by 2,354 as a result of **natural change**, with 68,171 births and 70,525 deaths in between 2022 and 2047.

10.2 Population **loss** from natural change occurs in each year from 2031/32 onwards, increasing consistently from a loss of 32 residents in 2031/32 to a loss of 374 residents in 2046/2047.

10.3 **Net internal migration (people moving to and from other local authorities in England)** is projected to **reduce** the population in Hull by 40,533, with 305,205 people moving to the area and 345,738 people moving from the area between 2022 and 2047.

10.4 Population loss from net internal migration reduces a small amount over the 25-year projection from a peak loss of 1,329 residents in 2024/25 to a loss of 1,329 residents in 2046/2047.

10.5 **Net cross-border migration (between UK nations)** is projected to **reduce** the population in Hull by 1,957, with 6,442 people moving to the area and 8,400 people moving from the area between 2022 and 2047.

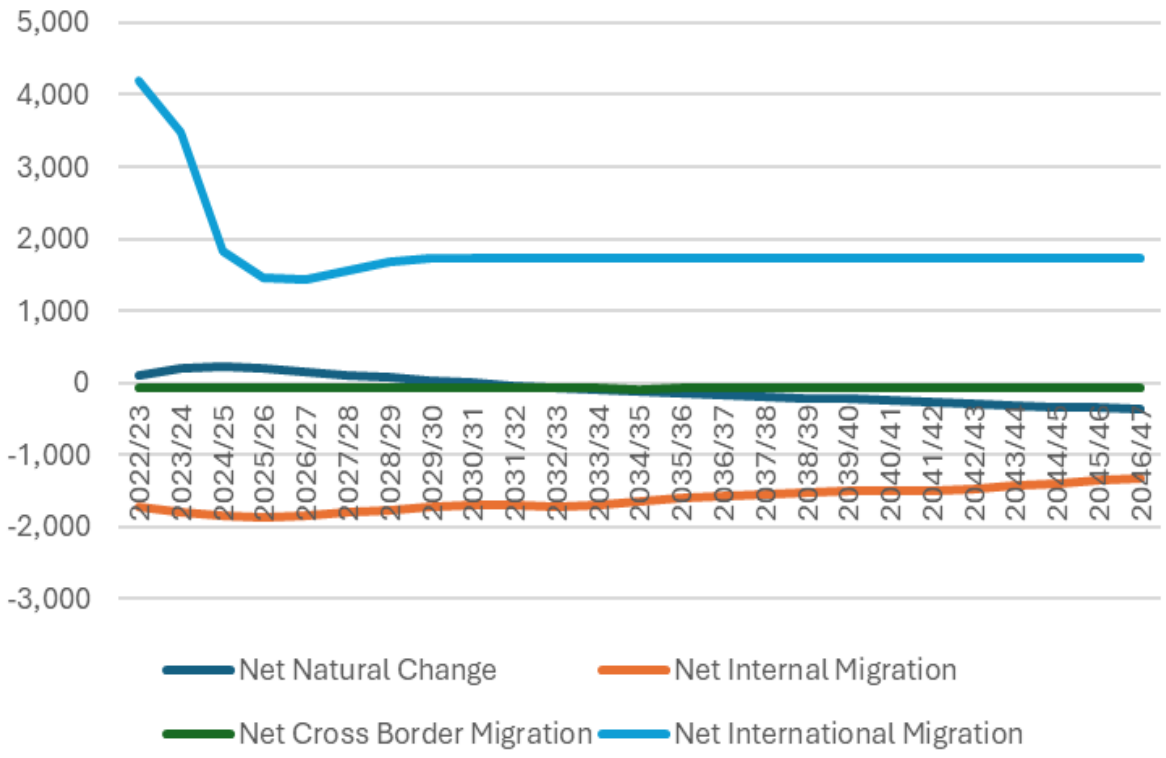
10.6 Net cross-border migration remains relatively static during each year of the 25-year projection

10.7 **Net international migration** is projected to **increase** the population in Hull by 46,904 with 84,488 people moving to the area and 37,583 people moving from the area between 2022 and 2047.

10.8 As previously identified, there is a significant **decrease** in net international migration after 2024; the direct result of a significant reduction in international in migration.

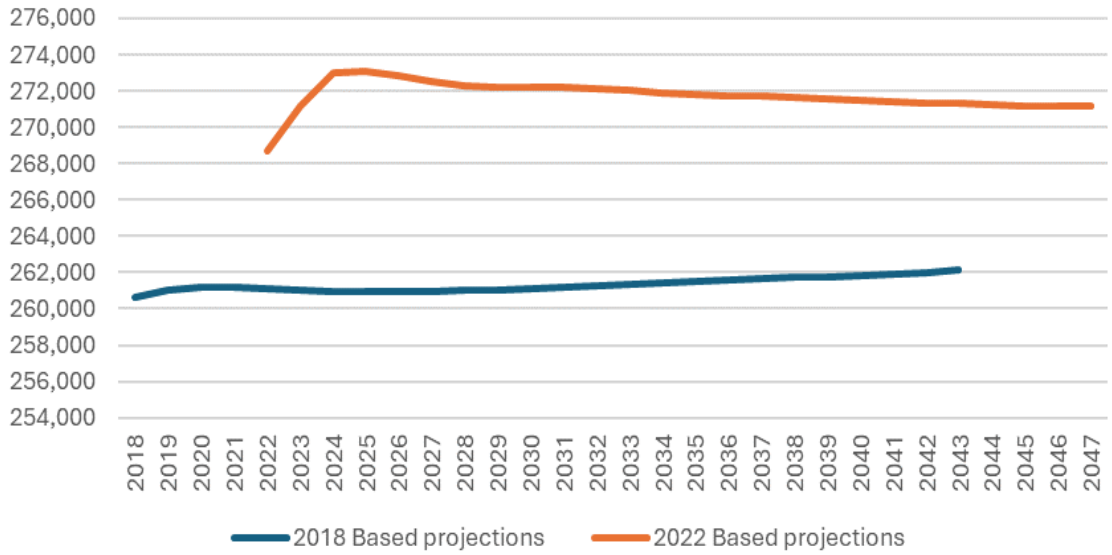
10.9 However, after this initial decrease net international migration remains relatively static during each year of the 25-year projection

Chart 5: Components of Population Change, Hull, 2022 – 2047



11. Comparison With 2018 Based Projections

Chart 6:: Comparison of 2018 and 2022 Based Projections, Hull



11.1 The 2022 based population projections are significantly higher than the previously released 2018 based population projections.

11.2 This is, in the most part, due to the significant undercount of Hull's population in the midyear estimates leading up to the 2021 Census, on which the 2018 projections are based (see next section).

11.3 In 2043 (the last datapoint in both projections), the 2022 based projections project a population 9,159 (3.5%) **higher** than the previous 2018 based projections.

Table 5: Components of Change, 2018 Based and 2023 Based

	2018 – 2043	2022 - 2047	Diff
- Births	80,931	68,171	-12,760
- Deaths	63,847	70,525	6,678
Natural Change	***17,084***	***-2,354***	***-19,438***
- Internal In Migration	261,916	305,205	43,289
- Internal Out Migration	289,482	345,734	56,252
Net Internal Migration	***-27,566***	***-40,533***	***-12,967***
- Cross Border In Migration	5,947	6,442	495
- Cross Border Out Migration	7,218	8,400	1,182
Net Cross Border Migration	***-1,271***	***-1,957***	***-686***
- International In Migration	53,468	84,488	31,020
- International Out Migration	40,442	37,583	-2,859
Net International Migration	***13,026***	***46,904***	***33,878***

11.4 Table 5 shows that the 2022 projections show a trend for **negative population growth due to natural change**, unlike the positive natural change projected in the 2018 based model; with a significantly lower number of births (-16%) and a higher number of deaths (+10%).

11.5 Whilst the 2022 based projections show a higher level of internal in migration (+17%), they also show a greater level of internal out migration (+19%), and an overall **greater level of population loss due to internal migration (+47%).**

11.6 The 2022 based projections also show a higher level of international in migration (+58%), but in this case a lower level of international out migration (-7%), and therefore an overall **greater level of population growth due to international migration (+260%).**

11.7 Given the overall population decrease in the 2022 based projections from 2025 onwards, this further emphasises the importance of net positive international migration to population stability in Hull; without which population decline would be much more significant.

12. Accuracy of Population Projections

Accuracy of the 2018 Based Projections

12.1 The 2018 based population projections were released in March 2020.

12.2 They use, as their base, the 2018 midyear population estimate for Hull (the latest midyear estimate available in 2020), which is itself an estimate based off the 2011 Census.

12.3 In November 2023, following the release of 2021 Census data, all midyear estimates for 2012 to 2021 were rebased to align with the 2021 Census population figures.

12.4 More recent mid-year estimates for 2022 and 2023 have also since been released.

Table 6: 2018 Population Projections and Rebased 2021 Census Based Mid-Year Estimates, Hull

Year	2018 Population Projection	Rebased MYE Following 2021 Census	Undercount
2018	260,645	268,223	7,578
2019	261,062	268,749	7,687
2020	261,184	267,591	6,407
2021	261,195	266,516	5,321
2022	261,132	268,677	7,545
2023	261,048	271,942	10,894

12.5 The result of this rebasing for Hull is a significant increase in population compared to the 2018 based projections,

12.6 The rebased 2018 midyear estimate is actually over 7,500 higher than the original 2018 midyear estimate on which the projections were based.

12.7 By 2023 (the latest midyear estimate available) the population is now estimated at almost 10,900 higher than the 2018 based projections predicted.

12.8 Notably, the trend predicted by the 2018 based projections for population decrease 2021-22 and 2022-23 did not occur.

Accuracy of the 2022 Based Projections

Year	2022 Population Projection	Rebased MYE Following 2021 Census	Undercount
2022	268,677	268,677	
2023	271,185	271,942	757

12.9 The 2022 based population projections use, as their base, the 2022 midyear population estimate for Hull, which is based off the 2021 Census.

12.10 However, we now also have an updated 2023 midyear population estimate for Hull.

12.11 Comparing the two shows that the 2022 based population projections are already undercounting Hull's population by over 750 people, only one year into the projections.

13. Actions

13.1 Detailed information will be shared with all services to ensure that council documents, policies and strategies use revised population data.

13.2 This includes updating the council's data observatory with the revised population projection data.

13.3 Services should consider the impacts on business planning, current and future policy development.

13.4 Consideration should also be paid to the inaccuracy of the population projections in previous years (see Section 12) and the potential impact this may have had both in the past and in the future; including on the cities' ability to accurately plan for, and respond to, need, and access to funding to which it is entitled.