Tasmania small area population projections

Methods & assumptions

This paper explains the process of producing the Tasmania (TAS) projected enrolment counts at 08 April 2030 by Statistical Area Level 1 (SA1).

1. Disclaimer

It is important to recognise that the projection results in this report reflect the assumptions made about future fertility, mortality and migration trends. While these assumptions are formulated on the basis of an objective assessment of historical demographic trends and their likely future dynamics, there can be no certainty that they will be realised.

The ABS takes responsibility for the method employed, however in accordance with ABS policy regarding small area population projections, the assumptions used are the final responsibility of the client, and the projections are not official ABS population statistics.

The projections may be referred to as "...projections prepared by the ABS according to assumptions reflecting prevailing trends agreed to by the Australian Electoral Commission".

No liability will be accepted by the ABS for any damages arising from decisions or actions based upon this population projection consultancy service.

2. Projection Method

The base population for the TAS cohort-component projections was preliminary estimated resident population (ERP) by age and sex as at 30 June 2023, as released by the ABS in *National, state and territory population* on 19 June 2025. The base population for SA1 projections was final ERP by age and sex as at 30 June 2023, as updated by the ABS in *Regional population by age and sex*, 2023 on 28 August 2025.

Annual fertility rates, mortality rates, internal migration, and overseas migration by age and sex were applied to the base population to produce a projected population, which then became the base population for projecting the next year and so on. This cycle was repeated until the projection horizon was reached.

For each SA1 in TAS, total population aged 18 years and over was projected using average historical growth from 01 July 2021 to 30 June 2023. Projected enrolment counts at the SA1 level was derived by applying enrolment ratios to the projected over-18 population The projected SA1 enrolment counts were constrained to the projected total enrolment count of their parent Statistical Area Level 2 (SA2).

Complete process:

- 1. State projections. The total TAS population at 30 June 2023 to 30 June 2030 was projected by single year of age and sex, from a base (observed) population at 30 June 2023.
- 2. Greater Capital City Statistical Area (GCCSA) projections. The total population of both GCCSAs in TAS at 30 June 2025 to 30 June 2030 was projected by single year of age and sex, from a base (observed) population 30 June 2023, and constrained to the state level.
- 3. Statistical Area Level 2 (SA2) projections. The total over-18 population of all SA2s in TAS at 30 June 2025 to 30 June 2030 was projected by single year of age and sex, from a base (observed) population 30 June 2023, and constrained to the GCCSA level.

- 4. Projected population at the enrolment count date, 12 August 2025, and the enrolment projection date, 8 April 2030, was calculated by linear interpolation between the projected populations at 30 June 2023 and 30 June 2030.
- 5. SA1 population is derived as a percentage share of the parent SA2 population. The share of TAS SA1 over-18 population by SA2 at 30 June 2025 and 30 June 2030 was estimated by extrapolating the average annual growth between 01 July 2021 and 30 June 2023. Forecasted SA1 shares were calculated using dampened average annual growth, with recent years weighted more heavily to better reflect current SA1-level trends within the SA2 out to 08 April 2030
- 6. The enrolment count at 12 August 2025, by SA1, was calculated by applying a ratio to the total over-18 population. The ratio assumed no change over the projection timeframe and was the projected enrolment counts at 08 April 2030 divided by the projected over-18 population at 12 August 2025 for each SA1. The enrolled population at 08 April 2030 was then constrained to the total projected electors in the parent SA2 at 08 April 2030, which was calculated by applying the same enrolment ratio calculation at the state level.

3. Assumptions at the State level

Assumptions for the state-level projection were based on both recently observed and long-term trends for given components of population change. Assumptions for the components of natural increase (births and deaths) were taken from previously published *National*, *state and territory population* data. Assumptions for both net internal and overseas migration were developed by combining observed, forecasted, and extrapolated data for the timeframe from 30 June 2023 to 30 June 2030. To project future migration outcomes, the annual weighted average from 01 July 2010 to 30 June 2019, and 01 July 2023 to 30 June 2024 was calculated ¹.

Table 1: Assumed components for TAS, 2025-2030

Population component	Year ending 30 June						
	2025	2026	2027	2028	2029	2030	
Fertility – total fertility rate ^A	1.49	1.49	1.49	1.49	1.49	1.49	
Mortality – Standardised Death Rate	5.4	5.4	5.4	5.4	5.3	5.3	
Net interstate migration – persons ^B	-2,200	-1,900	-1,500	-1,100	700	-300	
Net overseas migration – persons ^B	4,200	2,900	2,400	2,400	2,400	2,400	

^A Rounded to two decimal places.

4. Assumptions at the Greater Capital City Statistical Area (GCCSA) level

A similar process was used for determining migration assumptions at the GCCSA level, with a weighted time period of 01 July 2010 to 30 June 2019, and then 01 July 2023 to 30 June 2024 considered, selected for the most recently available data as well as to remove years affected by the Covid-19 pandemic². Total internal and overseas movements up to 30 June 2023 were used from <u>Regional population</u>, 2023-24 financial year data published on 31 March 2025.

^B Rounded to the nearest hundred.

¹ This involves giving increasingly greater weight to the years closer to the projection base year.

² RIME at the GCCSA level does not add up to NIM at the state level, as RIME also considers inter-GCCSA movements that aren't captured by inter-state movements in NIM.

Table 2: Assumed components for Greater Hobart, 2025-2030

Population component	Year ending 30 June					
	2025	2026	2027	2028	2029	2030
Fertility – total fertility rate ^A	1.42	1.41	1.42	1.42	1.42	1.42
Mortality – Standardised Death Rate	4.8	5.0	5.0	4.9	4.9	4.9
Regional Internal Migration Estimates – persons ^B	-800	-700	-500	-400	-200	-100
Regional Overseas Migration Estimates – persons ^B	2,500	1,800	1,400	1,300	1,300	1,300

A Rounded to two decimal places.

Table 3: Assumed components for Rest of TAS, 2025-2030

Population component	Year ending 30 June						
	2025	2026	2027	2028	2029	2030	
Fertility – total fertility rate ^A	1.55	1.55	1.56	1.56	1.56	1.56	
Mortality – Standardised Death Rate	5.9	5.8	5.8	5.8	5.7	5.7	
Regional Internal Migration Estimates – persons ^B	-1,400	-1,100	-900	-700	-500	-300	
Regional Overseas Migration Estimates – persons ^B	1,500	1,200	1,000	900	900	900	

A Rounded to two decimal places.

5. Assumptions at the Statistical Area Level 2 and below

Migration profiles at the SA2 level were based on internal and overseas migration data by age and sex from 01 July 2022 to 30 June 2023 that were validated for the <u>Digital Atlas Projections</u> published by Geoscience Australia 14 June 2024. This data was selected as best for this jurisdiction due to it having been custom validated for a longer time series than a single year of historical data.

SA1 population assumptions were average annual historical growth in the share of total over-18 population of corresponding SA2 population from 01 July 2021 to 30 June 2023, extrapolated to 30 June 2030.

The ratio of enrolled population to total over-18 population at 12 August 2025 was assumed to be constant up to 08 April 2030, except for some outliers.

6. Data and method quality

The relationship between the projected enrolment counts and the projected population at 08 April 2030 maintained a consistent relationship across the projection horizon. However, other quality issues may persist as they are unable to be isolated and so cannot be accounted for. As such, anomalous SA1s could be subject to further adjustments.

Other SA1s with anomalous ratios of roll count to population can be explained. These include areas with

- Prisons
- Secondary and tertiary student accommodation

^B Rounded to the nearest hundred.

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- Hobart CBD areas with a lower proportion of Australian citizens
- Areas with recorded enrolments but no or little ERP prior to 12 August 2025

7. Geography

SA1 boundaries are from the <u>Australian Statistical Geography Standard (ASGS)</u>: <u>Edition 3 – Main Structure and Greater Capital City Statistical Areas, July 2021</u>.