

## Conversion of Australian Bureau of Statistics (ABS) Population Projections to Enrolment Projections

The Australian Bureau of Statistics (ABS) have calculated projections of the population of Australian residents aged 18 years and over for each Statistical Area 1 (SA1) starting with a base at 30 June 2014 annually through to 30 June 2021. To allow baseline comparison with latest electoral roll counts, interpolation was used to derive 15 October 2015 population. The 7 August 2020 population projections were also calculated by interpolating between 30 June figures.

For most SA1s it was assumed that the proportional relationship between electoral enrolments and resident population aged 18 and over will continue. Accordingly, the population projections were converted to enrolment projections as follows:

$$\begin{aligned} P_{2015} &= \text{ABS projection of residents aged 18 and over at 15 October 2015} \\ P_{2020} &= \text{ABS projection of residents aged 18 and over at 7 August 2020} \\ E_{2015} &= \text{Enrolled persons at 15 October 2015} \\ E_{2020} &= \text{Projected enrolled persons at 7 August 2020} \\ \\ E_{2020} &= (E_{2015} / P_{2015}) * P_{2020} \end{aligned}$$

For example, a Statistical Area 1's figures may be:

$$\begin{aligned} P_{2015} &= 479 \\ P_{2020} &= 493 \\ E_{2015} &= 363 \\ \\ E_{2020} &= (363 / 479) * 493 \\ &= 374 \end{aligned}$$

Some SA1s with very high growth have low enrolment to population ratios due to lags in occupancy and/or change in enrolment address. These ratios were adjusted upwards as the lags work out over time, adjusting to the degree necessary to maintain the overall Territory enrolment ratio.

Where a SA1 crosses existing electoral boundaries, the projected enrolment has been allocated to electoral divisions in the same proportion as current enrolments.

In a minority of SA1s where enrolments were greater than the baseline population projection, it was assumed that electoral enrolments will grow by the same amount as the population of Australian residents aged 18 and over, ie:

$$E_{2020} = E_{2015} + (P_{2020} - P_{2015})$$

For example, a Statistical Area 1's figures may be:

$$\begin{aligned} P_{2015} &= 1,125 \\ P_{2020} &= 1,390 \\ E_{2015} &= 1,192 \\ E_{2020} &= 1,192 + (1,390 - 1,125) \\ &= 1,457 \end{aligned}$$

Thereafter the Redistribution Committee may amend the enrolment projections for certain SA1s based on specific local knowledge of the area.

The SA1 is a relatively new geographic unit and AEC have undertaken a conversion process to code the electoral roll to the SA1 as a replacement unit for the CCD.