

**Australian Population Association Eleventh Biennial Conference  
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**Title:**  
**First probabilistic population forecasts for Australia**

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**Abstract:**  
Probabilistic forecasting methods are applied to the Australian population to obtain forecasts to 2050. The components, fertility and mortality, are separately forecast using probabilistic methods and combined using cohort-component projection methodology to produce probabilistic population projections. Migration is forecast deterministically. Mortality is forecast using the Lee-Carter method with modifications previously developed by Booth, Maindonald and Smith. Fertility is forecast using a similar method developed by Lee and Tuljapurkar. The probabilistic population projections are compared with official population projections. The paper presents life expectancy and other indices with confidence intervals. The probabilistic population forecasts are higher than official forecasts and show substantial ageing of the population. Projected dependency ratios and sex ratios are also compared and discussed.