

In defence of population projections... and a story...

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Date: Thursday, 23 November 2023 at 02:56 pm AEDT

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ABS Population Projections - 2022 to 2071

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NOV 23



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Last week I had a meeting with the President of a community association for a regional town in Tasmania; he greeted me with, “So, you’re a demographer, why do you get population projections so wrong?”.

Today, the Australian Bureau of Statistics released their [population projections](#) for Australia and each state and territory, a five yearly process following every ABS Census of Population and Housing.

Given this I thought I would write about what population projections are, what they are not, and why robust population projections matter, particularly in an era in which migration – both overseas and internal – is the dominant component of population change influencing the size, growth rate and shape of our populations and age structures at a national and sub-national level.

What are population projections?

Population projections are predictions of the future growth rate, size and shape of populations given assumptions made regarding the fertility rate (the number of children being born), life expectancy (the number of people dying and at what age) and migration (the movements of people by age and sex internally and overseas). The assumptions made are informed by recent

historical trends in these components of population change and the expectation that the trends will continue (or not) into the near future. These assumptions are largely informed by findings from the Census and change over time as well as an in-depth understanding of what influences decision-making in relation to the components of population change, whereby the components of population change are natural increase (births minus deaths), net overseas migration and net interstate migration.

What population projections are not

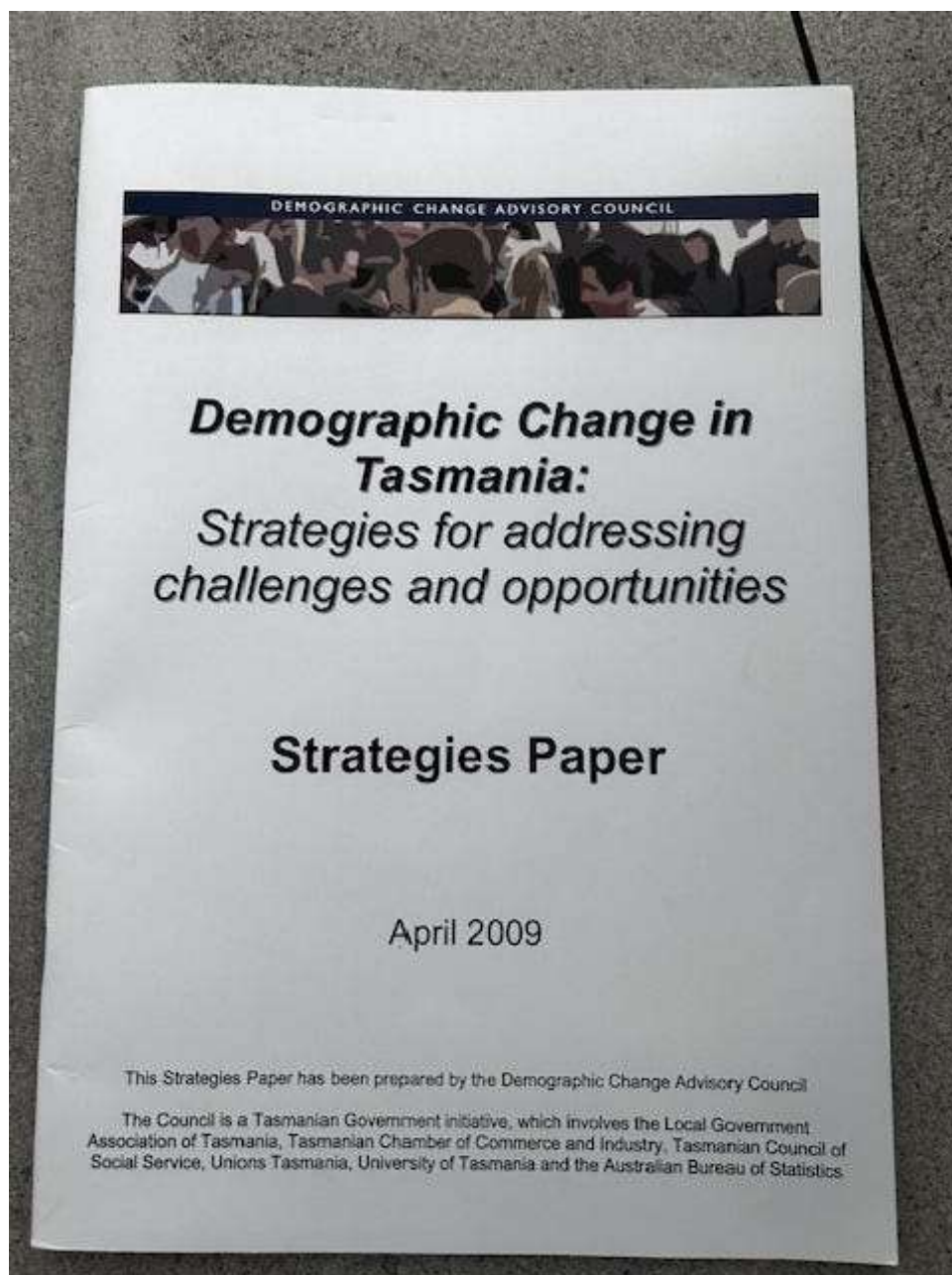
Population projections are not forecasts or what-if scenarios. They do not take into account the potential outcomes of future policy decisions on the components of population change nor do they predict future relativities between states and territories and their potential impact on the components of population change, nor do they make assumptions about land availability and potential dwelling construction and associated household composition as an input to population projections. They are also not aspirations or desired population sizes (or shouldn't be!).

A story

Many years ago, when I first started getting interested in demography (early 2000s), the head of the Economics Analysis Unit at the Tasmanian Department of Treasury and Finance would often respond to the issues raised in relation to population ageing by saying that there was nothing we could do in terms of policy development to influence the size, growth rate or shape of Tasmania's population. He would then proceed to claim that there was also little that we could do to grow the economy either given our socio-economic profile as there is only ever the same size bucket of money going around. His advice was that we needed to attract other people's money to the state, largely in the form of consumption through tourism, if we were to grow our economy in any meaningful way (this was also at a time in Tasmania when if Incat sold a vessel, it would positively shift the state's GDP by around 10%). From my angle, this was the most senior economic advice the Tasmanian Government was receiving and it didn't sit well with me. So starteth my journey as a demographer...

To their credit, the then Tasmanian Labor Government did establish the Demographic Change Advisory Council (DCAC) in the mid 2000s and proceeded to undertake quite extensive research and planning for population

change. Many of their reports still sit on my shelf today. Unfortunately, an outcome of the then Tasmanian Government's response to the Global Financial Crisis (GFC) was the demise of the DCAC.



Almost a decade later, the new Tasmanian Liberal Government's response to the challenges of population ageing was the 2015 Population Growth Strategy: 650,000 by 2050, and its 2023 refreshment (yet to be released at time of blog writing). Then, earlier this year, in his State-of-the-State address, the Premier announced the appointment of a State Demographer:

"To ensure that we can effectively plan for growth and provide the essential services, supports and infrastructure Tasmanians need, we must better understand growth projections in every region of our State.

That's why we'll be turbo-charging targeted regional demographic work, including appointing a State Demographer, to ensure that we effectively plan for the needs of the Tasmanian population over the long term.

So every region of Tasmania can benefit”.

Hoorah! This was a very welcome, surprise announcement, but I am yet to hear anything further about this critical appointment.

Why robust population projections matter

Once upon a time, before migration was the dominant component of population change, population change was more predictable and projections were more accurate over a longer period of time. This is because natural increase – the difference between births and deaths – was the primary driver of population growth and changes in the age structure. Age-specific-fertility rates and life expectancy (at birth and by age) could be rigorously investigated and estimated to inform projections and the effect that these components of population change had on the population could be planned for over the lifespan of the respective cohorts.

Over the past few decades, the contribution of migration as a component of population change has increased considerably. This has a substantial impact on producing reliable population projections. While some policy settings are able to control for both the number and age of overseas migrants, other policy settings do not, while interstate and internal migration is not controlled for at all (through policy).

Overseas migrants can be temporary or permanent. They can be here as a student, a graduate, a skilled worker, a partner, parent or family member, for family reunification, a seasonal worker or labourer, a visitor, a working holiday maker, a refugee or humanitarian entrant, a Kiwi or an Australian leaving or returning to Australia as well as a number of other special categories.

Overseas migration is volatile, uncertain and ever-changing depending on policy settings at a point/period in time.

Internal migration is even more unknown.

The uncertainty of the volume and age and sex of overseas and internal migration movements contributes considerable challenges to developing the assumptions to inform population projections. At the same time, the growth and change that migration contributes to a population is changing the demand for infrastructure, services (e.g. health, education, transport), housing and amenities. Without a good, reliable understanding of the future composition of the population, it is difficult to plan.

In Tasmania, migration contributed to over 80% of all population growth in the state between 2016 and 2019. Given Tasmania's ageing population, and that natural decline is projected to occur within the next decade, if the state is to experience population growth into the future, it will be sourced from migration – both from interstate and overseas.

To appropriately plan for the changing demands resulting from migration, and ensure that the provision of infrastructure and services meets the needs of the population, robust population projections are critical.

To inform the assumptions underpinning these robust population projections, much greater understanding of the influences, motivations and outcomes of migration decision-making is essential. This is one of the many reasons why Tasmania needs a State Demographer.

Why are population projections so wrong?

To answer the question posed by the President of the community association I met with last week, population projections are not wrong, they are an indication of what is likely to occur into the future, if recent historic trends in the components of population change remain similar, according to the underpinning assumptions, into the future.

Actual population trajectories have deviated from the projections due to changes in the circumstances underpinning the components of population change – fertility rates, life expectancy, and, particularly, migration.

The policy settings relating to overseas migration and international education over the past decade has dramatically changed the composition of Australia's, and Tasmania's, population, directly and indirectly impacting the other components of population change. In terms of internal migration, relativities between and within states such as economic or education

opportunity, housing, financial (think cost of living), and personal (e.g. lifestyle, family, climate, stage in lifecycle etc) affect the composition of a population and its future trajectory in ways that are not necessarily predictable without a greater effort to examine the underlying push and pull factors.

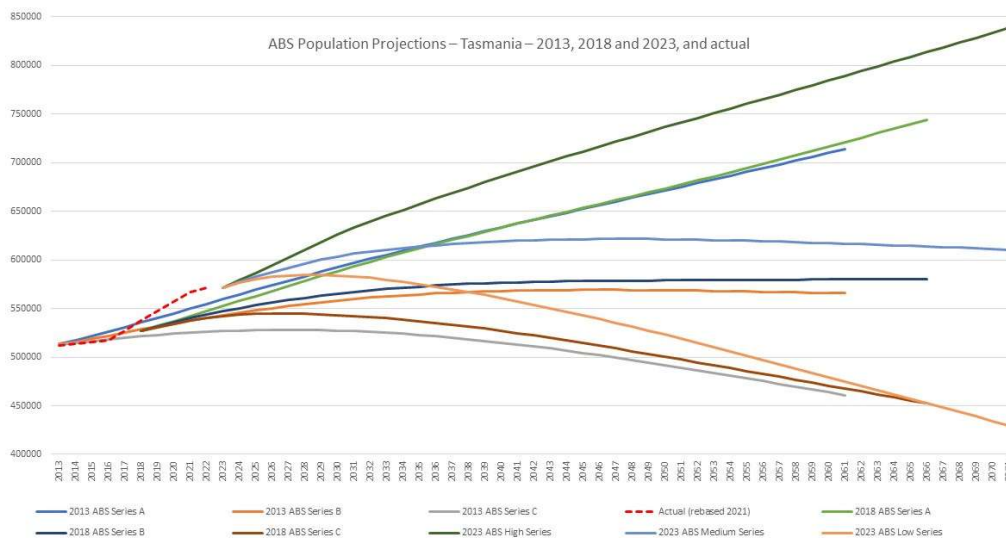
Tasmania's population projections – 2022 to 2071

The ABS produces three series in their population projections – high, medium and low with the medium series assumed to be the most likely. The ABS projects that for Tasmania, by 2071 the population will

- increase to 843,300 and 609,900 respectively in 2071 under high and medium series
- decline to 425,400 under low assumptions
- Natural decrease is projected from 2027 (low series) and 2043 (high series).

Even though the State is projected to continue to grow under the high and medium series, it will also age at a faster rate than any other state or territory. By 2071, the median age of the population is projected to be between 46.3 and 52.2 years and the proportion of the population aged 65 and over will increase to between 29% and 33%.

The below chart shows each of the series for the past three ABS population projections for Tasmania - 2013, 2018 and 2023 and the actual trajectory to 2022 (red dotted line). As is evident, Tasmania's population projections have changed over the decade due to changes in the trends of the underlying components of population change.



While Tasmania’s population has grown at a rate above that which was projected in previous iterations, the State did not effectively plan for that growth strategically. This is having consequences for Tasmanians, the age structure and the potential to attract and retain overseas and interstate migrants to the state into the future.

As migration is projected to be the sole contributor to any future population growth over the long term, a robust understanding of the drivers of migration and population change is critical to informing robust population projections so that the state can effectively plan for the needs of its population.

Cue, State Demographer.

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I understand that the Tasmanian Department of Treasury and Finance will be releasing population projections for Tasmania at the local government area level in due course.

Final Note: Can we influence this trajectory?

Yes, we can shape our future. Our demography today does not have to be our destiny (see [here](#)). Contrary to the previous head of the Economics Analysis Unit at the Tasmanian Treasury, we can influence population change through policy development and other initiatives, admittedly some components of population change are harder to influence than others.

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