



01.

# The population of New South Wales in 2061

## By 2061, 11.5 million people will be living in New South Wales, 40 per cent more people than today.

In 2061, New South Wales will be home to an additional 3.3 million people, up from 8.2 million today.<sup>5</sup> Natural increase – births minus deaths – will account for 1.3 million additional people, and 2 million are projected to arrive through net migration. This represents a net inflow of 2.7 million people from overseas, offset by a net outflow of 0.7 million people moving to other states and territories.

Migration losses in the short-term resulting from the COVID-19 pandemic, as well as a structural decline in the fertility rate over the long-term, will reduce projected population growth to 0.8 per cent a year on average to 2061. This is slower than historical population growth, which has averaged 1.1 per cent a year over the past 40 years and is slower than projected in the 2016 NSW Intergenerational Report.

The NSW population will also grow more slowly than the 1.1 per cent average annual growth rate projected for the rest of Australia. As a result, New South Wales' share of the Australian population is expected to fall from 32 per cent today to 29 per cent by 2061. This is in line with a trend which has seen New South Wales' population declining as a proportion of the total Australian population since the Second World War.

In the future, our population will be older on average. By 2061, one quarter of people living in the State will be aged 65 or over, up from 17 per cent today. Ageing projections vary across New South Wales, with regional areas expected to grow more slowly and age faster on average compared to metropolitan locations.

Population ageing is the result of the combined effects of increasing life expectancy and declining fertility rates. The ageing of the population is slowed by people migrating to New South Wales from overseas, since people typically move during working age (15-64 years).

### By 2061:



An additional

**3.3 MILLION**

people will be living  
in NSW



**25 PER CENT**

of NSW's residents  
will be 65 or older



NSW's population  
will make up

**29 PER CENT**

of the Australian  
population



There will be

**2.4 people**

of traditional working  
age to support each  
person aged 65 and over

<sup>5</sup> In this chapter, data is quoted as at 30 June unless otherwise stated. References to 'today' relate to the population as at 30 June 2020.



## 1.1 Our population is ageing

By 2061, the median age in New South Wales is expected to be 44 years. This compares to a median age of 38 today, and 30 in 1981. Declining fertility rates, increasing life expectancy and effects associated with the ageing of the 'baby boomer' and 'generation X' generations contribute to this rise.<sup>6</sup>

Generations immediately preceding the baby boomers were smaller as a proportion of the total population. As such, the ageing of the baby boomers has had a large impact on the ageing of the overall population. Increases in life expectancy will also see baby boomers and the generations that follow live longer than previous generations and transition into a comparatively longer retirement period. As a result, the relative share of people of working age will fall compared to those who are aged 65 and over.

In 2061, 25 per cent of the population will be aged 65 or over, up from 17 per cent today (Chart 1.1). The proportion of the population aged 80 and over will increase from 4 per cent today to 10 per cent by 2061. We project a 15-fold increase in those aged 100 and over, up to almost

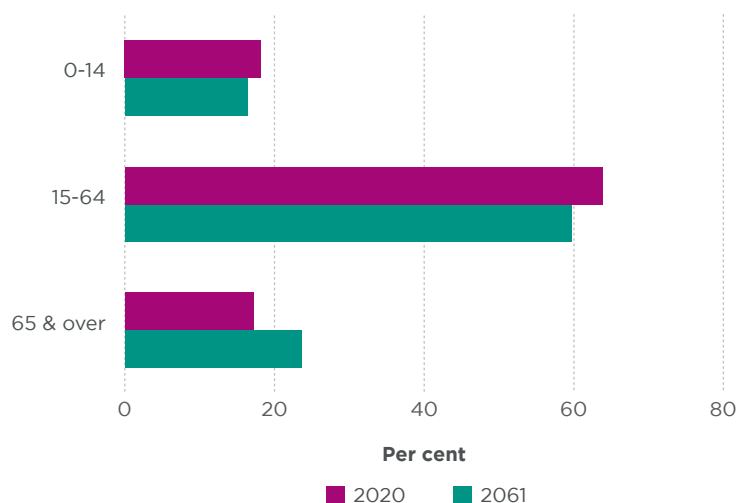
33,000 people in 2061. This is compared to 2,000 centenarians today, and 143 centenarians in 1981.

The key demographic measure that helps us to understand the impact of the ageing population is the *aged dependency ratio* which shows the ratio of those aged 65 and over to working age people.

This ratio attempts to portray the financial dependence (through proportionally larger use of government services and financial support) of those older than the traditional working age on those of traditional working age (who, through taxes, tend to pay more for government services than they use).

As the population ages, the aged dependency ratio increases (becomes larger). Over the next 40 years, the aged dependency ratio is expected to increase from 26 per cent to 42 per cent by 2061.<sup>7</sup> Put another way, by 2061 there will be 2.4 people of traditional working age to support each person aged 65 and over. This is a significant decline from today's ratio of 3.9 people.

CHART 1.1: NSW POPULATION BY AGE GROUP



Source: ABS 3101.0; NSW Treasury.

<sup>6</sup> The 'baby boomer' generation are defined as those born between 1946 and 1964 and 'generation X' are those born between 1965 and 1979.

<sup>7</sup> This ratio is interpreted as 42 people of retirement age to every 100 people of traditional working age.

This ageing challenge has implications for government revenues and expenses and for our economy, including impacts on productivity and workforce participation. These challenges are discussed further throughout the report.

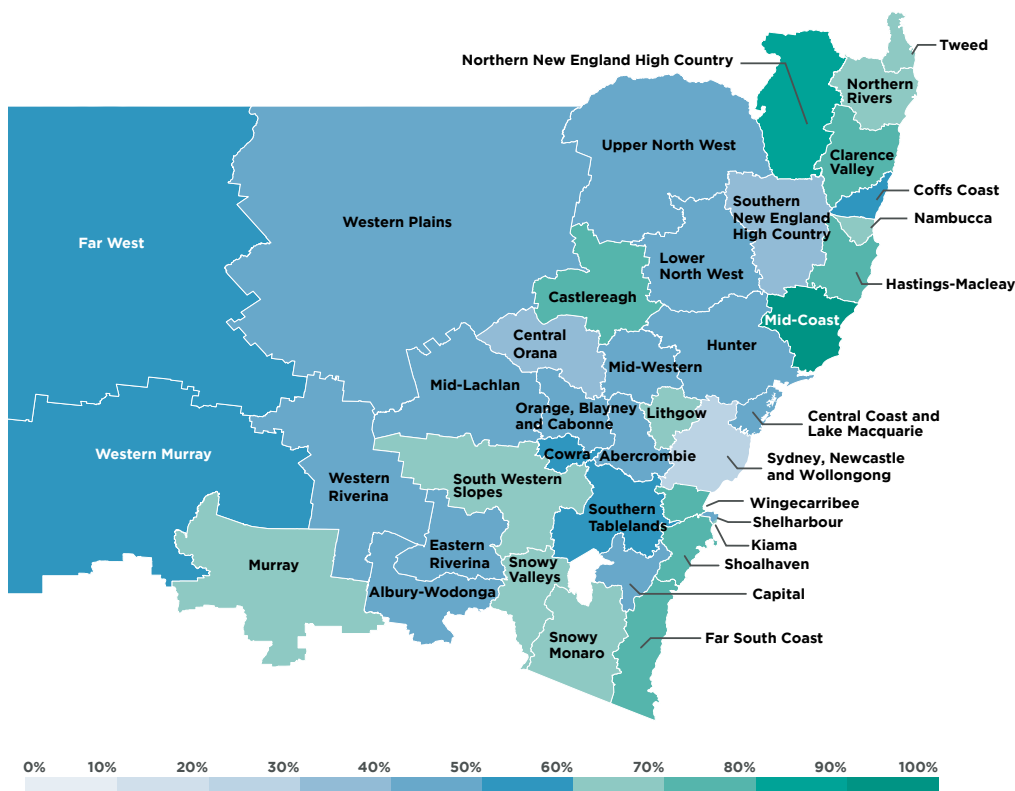
Around one third of the NSW population lives in regional areas, where 'regional' refers to all areas outside of Greater Sydney, Newcastle and Wollongong. Regional areas of New South Wales are older on average and are projected to grow slower and age faster than metropolitan locations. Between 2021 and 2041, regional New South Wales will grow at 0.4 per cent a year on average, compared to 1.5 per cent projected for metropolitan locations.<sup>8</sup>

Differences also exist across regional areas, with population growth as high as 1.1 per cent in Shellharbour, while the

population in areas such as the Far West, Castlereagh and Northern New England may decline.

As a result, projections show the regional aged dependency ratio increasing faster than in metropolitan areas. By 2041, many coastal areas in the north and south of the State will have aged dependency ratios of 70 per cent or over (see Chart 1.2). This trend is driven by the movement of retirees relocating to desirable coastal locations. Inland regions are also ageing faster than the state average, as young people move to metropolitan areas to pursue education and employment opportunities. In Sydney, Newcastle and Wollongong the aged dependency ratio is growing more slowly as net arrivals through migration increases the number of working age people.

**CHART 1.2: AGED DEPENDENCY RATIOS FOR REGIONS OF NSW IN 2041**



Source: NSW Department of Planning, Industry and Environment; NSW Treasury.

<sup>8</sup> Based on 2019 projections for Regional NSW developed by the NSW Department of Planning, Industry and Environment. Note that these projections do not account for the population impacts of COVID-19.



## 1.2 Natural population growth will slow

Growth in the population of New South Wales is the result of natural increase (births minus deaths) and net migration (overseas and interstate arrivals minus departures). Over the next 40 years, 40 per cent of population growth is expected to come from natural increase and 60 per cent from net migration on average (Chart 1.3). This is compared to the average of the last 10 years where 44 per cent of population growth came from natural increase and 56 per cent from net migration.

### Natural increase is expected to slow

Over the projection period the rate of natural population increase is expected to slow to an average of 32,000 persons a year, reflecting an average gain of 106,000 per year in births and a loss of 74,000 per year in deaths.

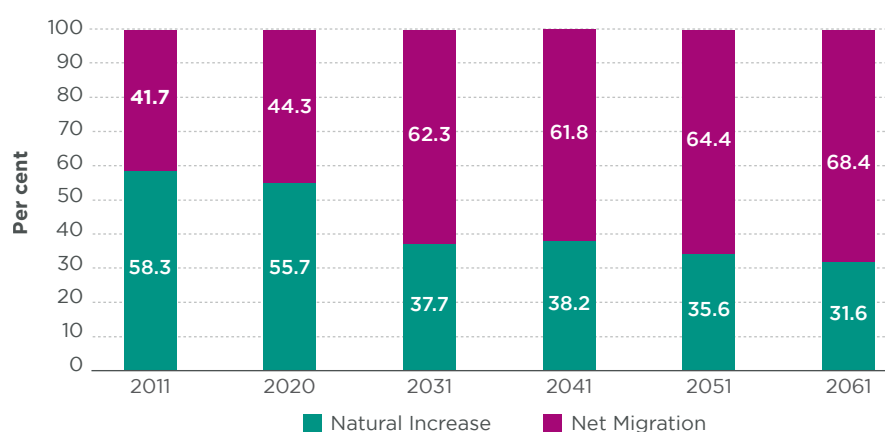
### Declining fertility rates

The number of births over time is driven by population size and the fertility rate.

The fertility rate is defined as the number of births the average female will have over her lifetime.<sup>9</sup> The NSW fertility rate is expected to decline from 1.67 currently to 1.63 by 2032. This projection is lower than the 2016 NSW Intergenerational Report long run fertility rate assumption of 1.95, and reflects ongoing declines in the observed fertility rate, as well revisions to State and Commonwealth projection methodologies.<sup>10</sup> This rate is broadly consistent with the Organisation for Economic Co-operation and Development (OECD) average fertility rate of 1.60.<sup>11</sup>

While people will be having fewer babies on average, the total number of births will continue to grow as the population increases (Chart 1.4). By 2061, the number of births is expected to reach around 115,000 per year, compared to 98,000 today, growing the population by 4.4 million people by 2061.

**CHART 1.3:** PROPORTIONAL CONTRIBUTION OF NATURAL INCREASE AND NET MIGRATION TO POPULATION GROWTH



Source: ABS 3101.0; NSW Treasury.

<sup>9</sup> The fertility rate represents the average number of children born to a woman over her lifetime, assuming current age specific fertility rates were experienced for every year of her reproductive life.

<sup>10</sup> For further information on the methodology for NSW fertility rate projections see: 'NSW Treasury, *Preliminary Fertility Rate Projections for the 2016 NSW IGR*, 2021 Intergenerational Report Treasury Technical Research Paper Series, TTRP 21-01, 2021.

<sup>11</sup> OECD 2019, Fertility Rates (indicator), <https://data.oecd.org/pop/fertility-rates.htm>, November 2020.

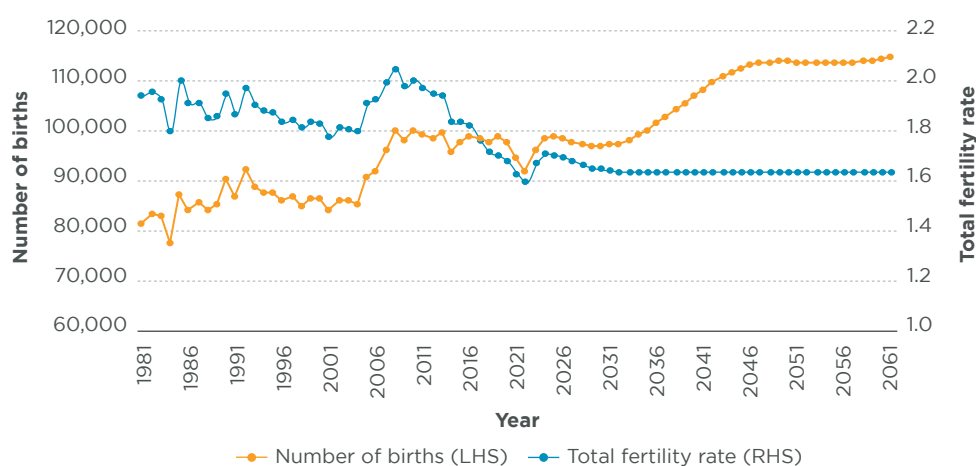
Lower fertility rates primarily reflect a trend away from having children early in adulthood, and towards having a smaller number of children later in life. The median age of mothers in New South Wales in 1981 was 26.8. This has increased to 31.5 years in 2020 and is expected to rise to 33.6 years by 2061 (Chart 1.5).

The move towards forming families later in life reflects broader changes to key life transitions such as finishing education, moving out of the family home and forming partnerships. It also reflects greater opportunities available to women,

with increased female education and workforce participation. These trends are expected to continue to influence lower fertility rates into the future.

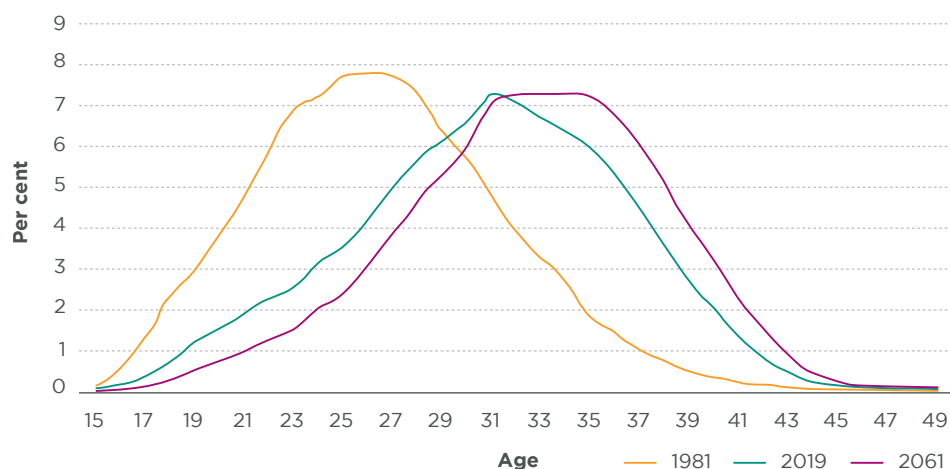
Fertility rates are higher in regional areas than in metropolitan areas, averaging 2.2 babies per woman over the last 5 years.<sup>12</sup> Western Plains and Western Murray have the highest average fertility rates (2.7 and 2.6 respectively), while fertility rates in regions such as Snowy Monaro and Shellharbour are closer to the metropolitan average.

**CHART 1.4: NUMBER OF BIRTHS AND TOTAL FERTILITY RATE**



Source: ABS 3105.0; ABS 3302.0; NSW Treasury.

**CHART 1.5: NSW PROBABILITY DISTRIBUTION OF BIRTHS BY AGE OF MOTHER**



Source: ABS 3301.0; NSW Treasury.

<sup>12</sup> Note that this figure is not adjusted for the proportional population size of each region.

### Longer life expectancy

Life expectancy is the most commonly used measure to describe population health and reflects overall mortality levels within a population. Life expectancy measures how long on average a person is expected to live based on current age and sex-specific death rates. It is expressed as the number of years of life, from birth, a person is expected to live.

In New South Wales, by 2061 life expectancy at birth is projected to increase to 91.7 years for women and to 89.4 years for men. This is higher than life expectancy at birth in 2020, which was 85.9 years for women and 82.2 years for men. Life expectancy has been steadily rising over recent history and has improved dramatically compared to 40 years ago, when life expectancy at birth was 78.0 years for women and 70.9 years for men (Chart 1.6).

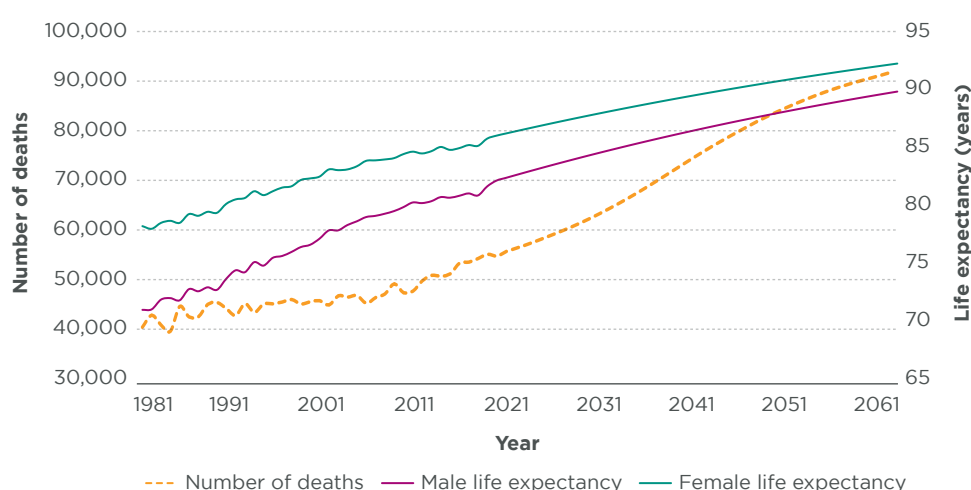
Improvements in life expectancy have been driven by general improvements in living standards, hygiene and nutrition, notable reductions in infant mortality, advances in medical technology, lower rates of smoking, control of infectious disease, and increased transport safety. These advances have improved life expectancy for people of all ages.<sup>13</sup>

An important factor when considering the benefits of living longer is how many of those years we are in good health. Healthy life expectancy can be measured by the number of years people are expected to live without a disease or injury. Between 2003 and 2015, healthy-life expectancy at birth increased by 2 years for males and 1.3 years for females. However, this has been accompanied by a proportionate increase in unhealthy life expectancy (years lived with disease or injury).<sup>14</sup>

These results suggest that as we live longer, we expect to enjoy more years in good health – allowing us to continue to participate in the workforce. However, we will also experience increases in years lived in ill-health – adding pressure to health expenses in later years of life (see Chapters 2 and 4 for further discussion on workforce participation and health expenses).

While life expectancy is increasing and people are living longer, the number of deaths each year also continues to increase as the population grows. Over the next 40 years the number of deaths is expected to average around 75,000 per year.

CHART 1.6: NUMBER OF DEATHS AND LIFE EXPECTANCY



Source: ABS 3302.0; NSW Treasury.

<sup>13</sup> Australian Institute of Health and Welfare, *Mortality over the twentieth century in Australia: Trends and patterns in major causes of death*, Mortality Surveillance Series no. 4, AIHW cat. no. PHE73, Canberra, 2005.

<sup>14</sup> Australian Institute of Health and Welfare, *Australian Burden of Disease Study: impact and causes of illness and death in Australia 2015*, Australian Burden of Disease series no. 19. Cat. no. BOD 22, Canberra, 2019.





### Box 1.1: How is the NSW Aboriginal and Torres Strait Islander population changing?

New South Wales is home to one-third of all Aboriginal and Torres Strait Islander people, more than any other state or territory.

In 2016, there were approximately 265,000 Aboriginal and Torres Strait Islander people living in New South Wales, representing 3.4 per cent of the total NSW population. The Australian Bureau of Statistics estimates that the number of Aboriginal and Torres Strait Islander people in New South Wales will increase to 4.0 per cent of the State's population by 2031, or over 350,000 people.

The Aboriginal and Torres Strait Islander population has been growing faster than the non-Indigenous population, nationally and in New South Wales. Between the 2011 and 2016 census, the Aboriginal and Torres Strait Islander population in New South Wales rose by 27.4 per cent, compared with 6.5 per cent for the non-Indigenous population.

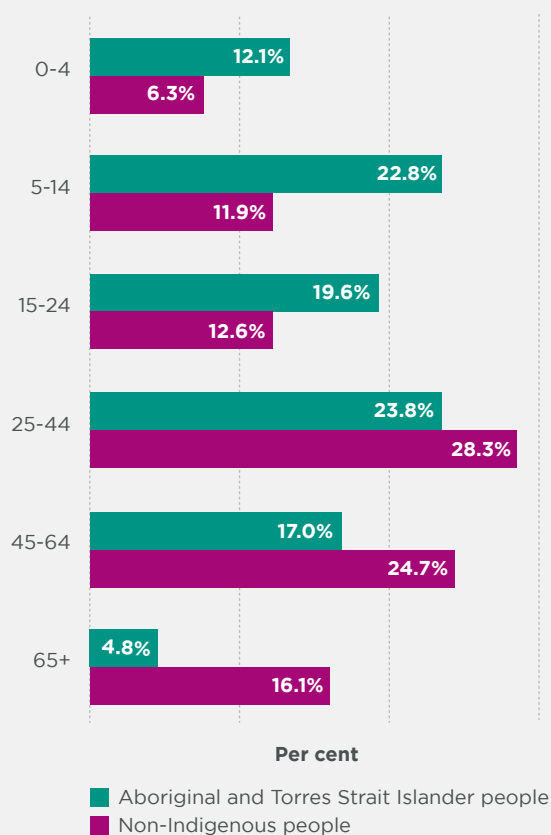
This difference in population growth is driven by comparatively higher birth rates, with Aboriginal and Torres Strait Islander mothers having children earlier in life and having more children on average than non-Indigenous mothers.

However, higher birth rates are combined with lower life expectancy. Life expectancy at birth in 2015-17 for Aboriginal and Torres Strait Islander people in New South Wales was 70.9 years for men and 75.9 years for women, compared with 80.3 years and 84.6 years for all men and women.

Only 54 per cent of the increase in the NSW Aboriginal and Torres Strait Islander population can be explained by demographic factors. The remainder is likely attributable to identification change, suggesting an increased propensity for people to identify as Aboriginal and/or Torres Strait Islander and to identify their children as such.

Aboriginal and Torres Strait Islander people are younger on average, with a median age of 22 compared with 38 for non-Indigenous Australians. Among Aboriginal and Torres Strait Islander people, 35 per cent were aged under 15 (compared with 18 per cent for non-Indigenous Australians) and 5 per cent were aged 65 and over (compared with 16 per cent for non-Indigenous Australians) at the 2016 census (Chart 1.7).

CHART 1.7: NSW POPULATION BY AGE, 2016



Source: ABS 3238.0; ABS 2207.0; ABS 3302.0.



## 1.3 Migration will become increasingly important for population growth

In addition to natural increase, migration is the second driver of population change. Net migration to and from the State comprises of net overseas migration (NOM) and net interstate migration (NIM). Net migration is expected to average around 48,000 people each year to 2061. This reflects a net gain of around 66,000 people moving from overseas to New South Wales and a net loss to interstate migration of 17,000. Migration is variable from year to year and is influenced by economic conditions, government policy and world events, such as the COVID-19 pandemic (see Box 1.2).

Over the projection period to 2061, net migration is projected to contribute 2.0 million people to the NSW population. Around 90 per cent of people arriving into New South Wales from overseas settle in Greater Sydney, Wollongong and Newcastle, with only 10 per cent of people who move to the State settling in regional areas.<sup>15</sup>

People who migrate to New South Wales tend to be younger on average than the general population, with an average age of 32.6. As such, migration reduces the average age of the population, lowers average mortality, and adds to the number of babies born. Migration therefore helps to moderate the ageing of the population.

As migration contributes to population growth, it can also add to the demand for housing and increase housing cost pressures. At the same time, higher relative house prices can deter migration into New South Wales and increase interstate outflows of residents (refer to Chapter 3 for more information on housing).



Net migration to NSW is expected to average

**48,000**

a year to 2061

This is made up of:



A net gain of

**66,000**

people a year arriving from overseas



A net loss of

**17,000**

people a year moving to other states and territories

<sup>15</sup> Australian Bureau of Statistics, Australian Census and Migration Integrated Dataset, Cat. no. 3417.0, 2016; Australian Bureau of Statistics, Australian Census and Temporary Entrants Integrated Dataset, Cat. no. 3419.0, 2016.





### Overseas migration is an important driver of NSW population growth

Net overseas migration is a key driver of population growth in New South Wales, with around 30 per cent of NSW residents born overseas.<sup>16</sup>

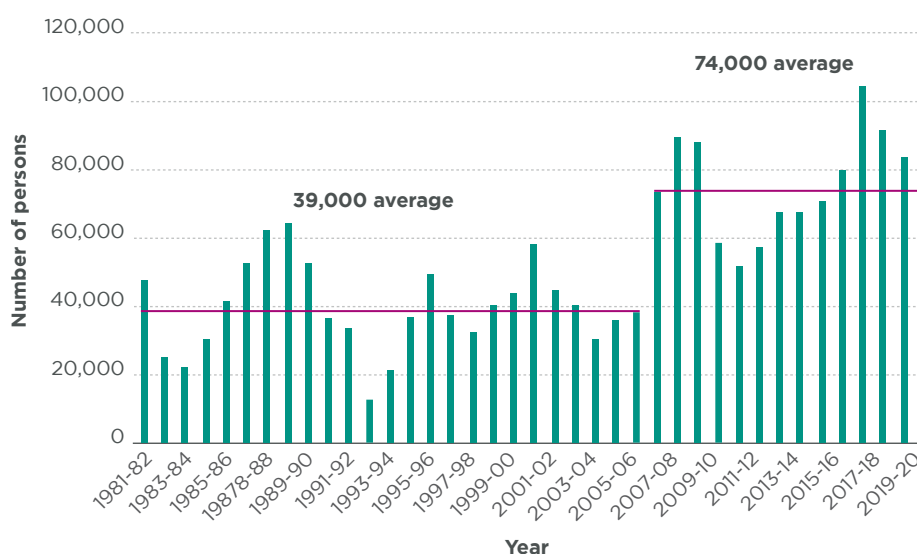
The level of migration into Australia is set by Commonwealth Government policy. The number of net arrivals to Australia from overseas has been variable but has followed an upwards trend over time (Chart 1.8).

Over the projection period, this report assumes a national long-run net migration level of 235,000, which is in

line with the current Commonwealth Treasury assumption outlined in the 2020 *Commonwealth Population Statement*.

New South Wales' share of net overseas migration is assumed to be equivalent to our share of the total Australian population over the longer term. This is expected to decline from around 32 per cent today to 29 per cent by 2061. This is equivalent to a net gain to New South Wales of 66,000 people per year on average over the projection period. This is an upwards revision from the 60,000 assumed at the 2016 NSW Intergenerational Report.

**CHART 1.8: NSW NET OVERSEAS MIGRATION**



Source: ABS 3101.0; NSW Treasury.

<sup>16</sup> Australian Bureau of Statistics, Migration, Australia, Cat no. 3412.0, 2019-20.





### Box 1.2: The COVID-19 pandemic will have an ongoing impact on the size of our population

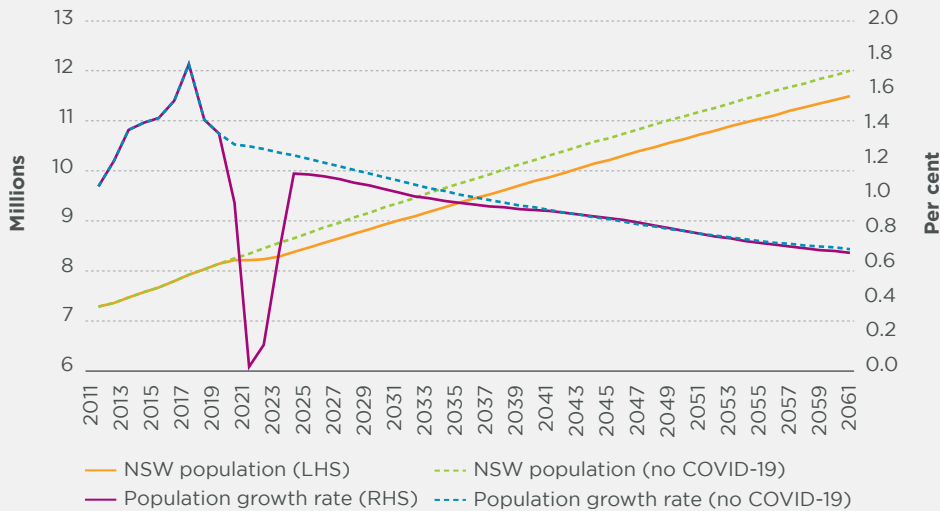
The NSW population is expected to be smaller and older than projected prior to the onset of the COVID-19 pandemic. NSW Treasury modelling indicates that the State's population will be around 4 per cent smaller by 2061 than it would have been in the absence of COVID-19. This is equivalent to around half a million people fewer.

This primarily reflects disruptions to international travel, with boarder restrictions significantly reducing the number of people arriving from overseas into the State. In 2021 and 2022 net overseas migration to New South Wales (and Australia) is expected to be negative, that is, more people departing than arriving from overseas. This is the first time net overseas migration has been negative since the Second World War.

Net overseas migration is expected to return to positive levels in 2023, before returning to pre-COVID-19 levels towards the end of this decade. Prolonged economic and social uncertainty is also expected to result in a period of lower fertility rates, as some people delay the decision to have children until economic conditions recover.

The combined impact of the pandemic on migration and fertility rates will see population growth drop to zero in New South Wales in 2021 and 0.1 per cent in 2022. While the impacts of COVID-19 on migration and fertility are expected to be temporary, this permanently lowers the base for ongoing population growth (Chart 1.9).

**CHART 1.9: NSW POPULATION AND POPULATION GROWTH RATE, WITH AND WITHOUT COVID-19**



Source: ABS 3101.0; NSW Treasury.





### People moving interstate partially offset gains from overseas migration to NSW

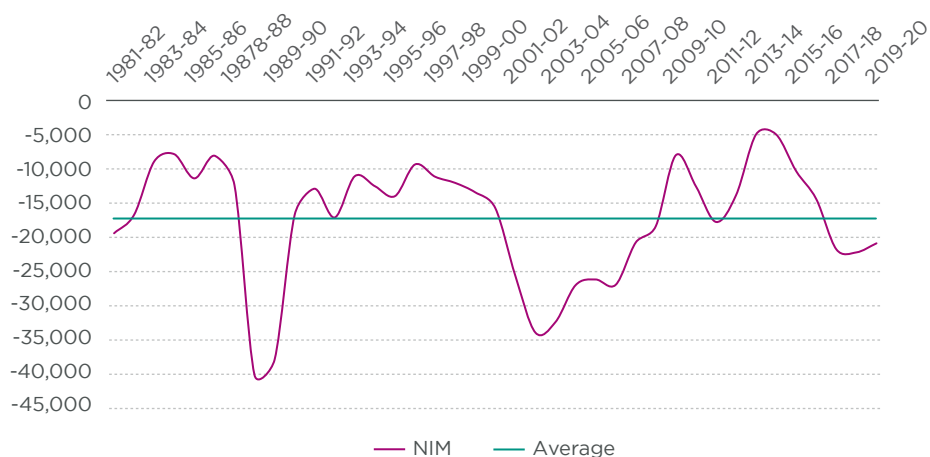
New South Wales is projected to lose an average of 17,500 residents a year to other states over the next 40 years. This is in line with the historical average, which has seen an equivalent net loss as more people move interstate than arrive from other states each year (Chart 1.10). This net loss of people from New South Wales partially offsets the net gain to the State from overseas migration.

While New South Wales has a long-established pattern of more people leaving than arriving from other states,

the extent varies considerably year to year. Fluctuations in interstate migration are largely driven by relative house prices and the performance of the NSW labour market compared to other states.

During the 2000s, a combination of high house prices relative to other states and the mining boom saw higher than average outflows of people. Following the Global Financial Crisis and a slowing in the mining sector, New South Wales' labour market strengthened, and the net outflow of people declined to an average of 15,000 over the past decade.

**CHART 1.10: NSW NET INTERSTATE MIGRATION**



Source: ABS 3101.0; NSW Treasury.



## 1.4 Migration can slow the ageing of the population

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We can lift the proportion of the population that is aged under 65 by welcoming more people from across Australia and the world to live and work in New South Wales. Increasing the fertility rate is another way to balance an ageing population, however, as fertility rates reflect individual choices and circumstances around family planning this is harder to achieve through government policies.<sup>17</sup>

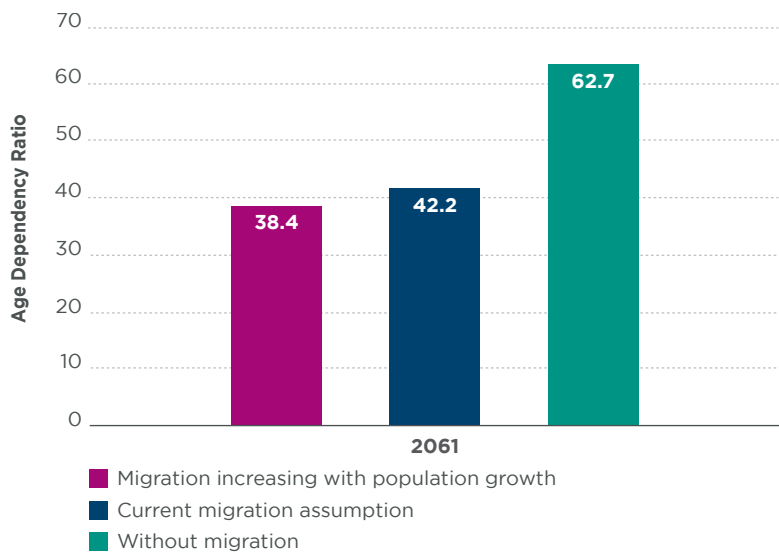
Australian migration policy, including annual caps on permanent visas, is set by the Commonwealth Government. Over the long run, Commonwealth projections assume a flat-rate level of net overseas migration to Australia of 235,000 people per year. This suggests that a smaller share of the population will have moved here from overseas over time. This is reflected in our baseline population projections.

In practice, net migration levels vary from year to year, and have broadly increased in line with population growth. If we changed our projections to reflect a level of net migration that stays stable as a proportion of the Australian population (in line with the 2009-10 to 2018-19 average of 0.9 per cent), then the NSW population would be bigger, younger and have a lower aged dependency ratio.

Under this alternative scenario, the aged dependency ratio would be 38.4 in 2061 (Chart 1.11). This is 3.7 percentage points lower than under the current flat-rate migration assumption. This is roughly the equivalent of delaying the ageing of the population by 10 years when compared to the current baseline projections.

Alternatively, if New South Wales were to have no migration over the projection period, the aged dependency ratio would increase to over 60 per cent by 2061.<sup>18</sup> This compares to an aged dependency ratio of 42.2 per cent under the current flat-line migration assumption.

**CHART 1.11: NSW AGED DEPENDENCY RATIO**



Source: NSW Treasury.

<sup>17</sup> Limitations of government policy in influencing fertility rates in Australia are discussed in: Lattimore, R. and Pobke, C. 2008, Recent Trends in Australian Fertility, Productivity Commission Staff Working Paper, Canberra, July.

<sup>18</sup> This assumes a linear transition after the end of the forward estimates to zero net migration by 2029 and held at zero for the remainder of the projection period.