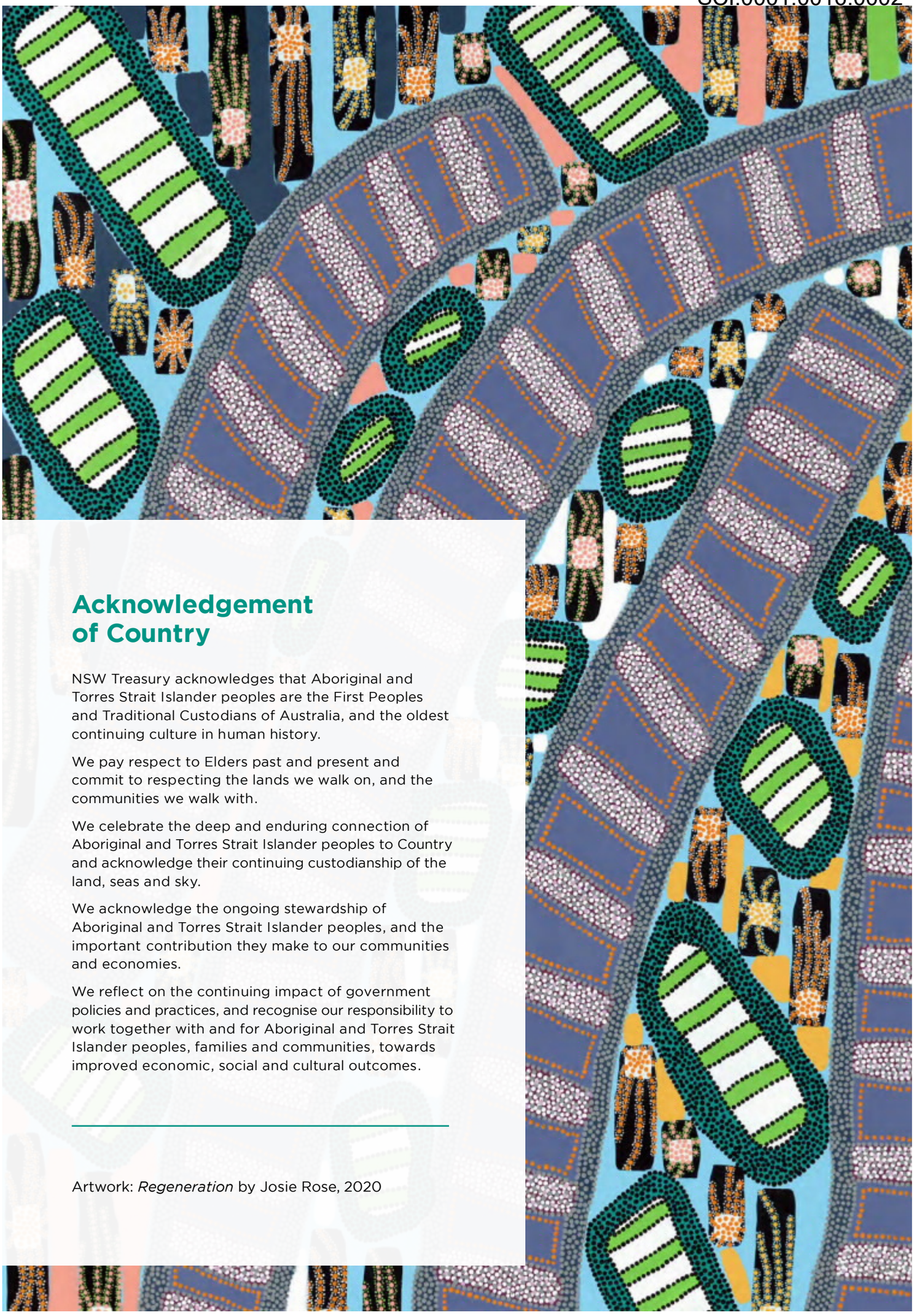
NSW GOVERNMENT

2021-22 NSW INTERGENERATIONAL REPORT

TOWARDS 2061 – *planning* FOR THE FUTURE



Acknowledgement of Country

NSW Treasury acknowledges that Aboriginal and Torres Strait Islander peoples are the First Peoples and Traditional Custodians of Australia, and the oldest continuing culture in human history.

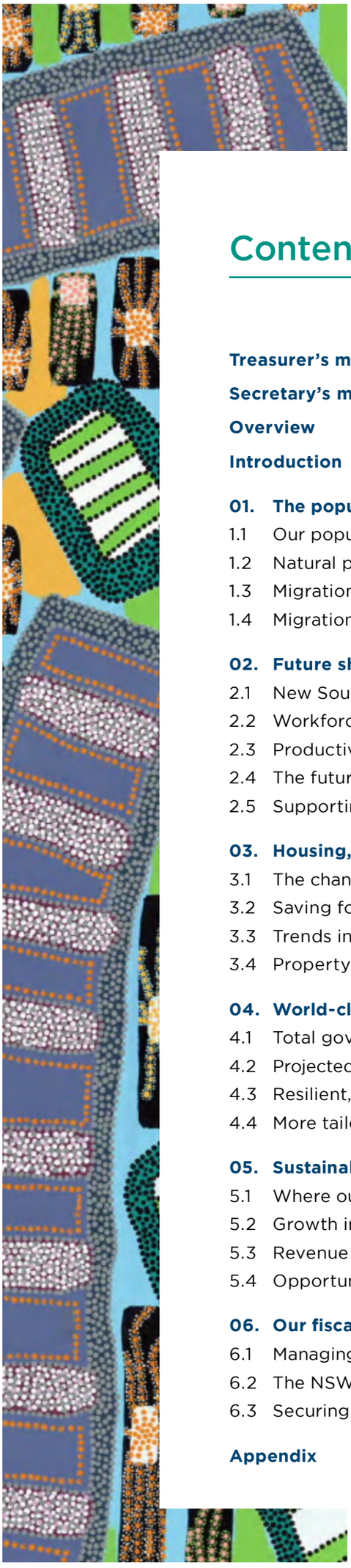
We pay respect to Elders past and present and commit to respecting the lands we walk on, and the communities we walk with.

We celebrate the deep and enduring connection of Aboriginal and Torres Strait Islander peoples to Country and acknowledge their continuing custodianship of the land, seas and sky.

We acknowledge the ongoing stewardship of Aboriginal and Torres Strait Islander peoples, and the important contribution they make to our communities and economies.

We reflect on the continuing impact of government policies and practices, and recognise our responsibility to work together with and for Aboriginal and Torres Strait Islander peoples, families and communities, towards improved economic, social and cultural outcomes.

Artwork: *Regeneration* by Josie Rose, 2020



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Treasurer's message

As New South Wales emerges from the COVID-19 pandemic in a world-leading position, I am pleased to present the 2021 NSW Intergenerational Report (the Report), a timely snapshot of our future State to inform the policies that will continue to make New South Wales the best place anywhere in the world to live, work, run a business and raise a family.

Five years since the publication of the 2016 NSW Intergenerational Report, one word is conspicuously absent from that document: pandemic. It's an omission that reflects the obvious limitations of forecasting even a few years into the future, let alone forty years.

But it also demonstrates the absolute necessity of regularly refining a model of what the New South Wales we live in today might look like in the decades to come. An intergenerational report is an essential tool for sizing up the challenges current and future generations are likely to face, enabling NSW governments to proactively address them.

This Report comes at an important time, incorporating the significant impact of the pandemic on our State's economic, fiscal and demographic makeup, and capturing other significant changes too, such as new data showing that, despite our citizens living longer, they are also living more years in good health, easing the projected strain on the health system.

These updates refine the picture of the future we face. Yet despite all that has changed, the fundamental challenges remain largely the same: an ageing population, a widening "fiscal gap" between declining government revenues and growing expenditure pressures, and rapid transformation in an economy that will increasingly rely on improved productivity for growth.

In some cases, the Report demonstrates practical policies already implemented in response to the 2016 NSW Intergenerational Report, such as the establishment of the NSW Generations Fund, a future debt retirement fund launched by the Government in 2018, without which net debt would be projected to be larger by 20 per cent of Gross State Product (GSP) by 2061.

Elsewhere, the Report strengthens the case for sound policy ideas whose time has come, from property tax reform to improve home ownership and economic mobility, to genuine GST reform that addresses a shrinking tax base and secures the services future generations will rely on – one of the major issues demanding urgent attention from the states and the Commonwealth.

Above all, the 2021 NSW Intergenerational Report provides a raft of informative insights that will compel policy makers both inside and outside Government to cast their imaginations wide and develop new and better solutions to the future challenges our State will face.

The following chapters outline projections of our State's future in terms of its demography, economy and finances, and discuss opportunities for supporting a modern, diversified economy that will deliver prosperity for generations to come.

Chapter 1: The population of New South Wales in 2061

New South Wales' population is projected to reach 11.5 million by 2061, 40 per cent more people than today. Into the future, families will have less children and live longer lives, including more years in good health. Together this will drive up the median population age from 38 to 44 by 2061. As natural population growth slows, migration will become

increasingly important for population growth and for slowing population ageing.

Chapter 2: Future shape of the NSW Economy

The New South Wales economy is projected to more than double in size to be $1.4 trillion-dollars by 2060-61 and average full-time wages are projected to grow from $86,000 in 2018-19 to $139,000 (measured in today's dollars). The economy is projected to grow by 2.0 per cent per year, below that experienced between 2007-08 and 2018-19, and productivity will replace population as the key driver of growth. Reforms that support stronger productivity growth and workforce participation are key to securing rising living standards.

Chapter 3: Housing, home ownership and household savings

New South Wales will require 1.7 million more homes by 2060-61, equivalent to one new home for every two existing homes, and 42,000 new homes every year. Home ownership rates have been declining over generations. The 40 year challenge is to build enough homes for people to live in, to support access to housing that is more affordable, and to ensure that the housing market is flexible enough to respond to people's changing needs and preferences.

Chapter 4: World-class services and infrastructure

Expenditure growth will continue to face the pressures of an ageing and growing population, and evolving technological, societal and environmental changes. Recurrent expenses are projected to grow faster than nominal economic growth. This largely reflects projected strong growth in health expenses over this period. Government infrastructure investment is projected to soften over the next 40 years following unprecedented investment in recent years.

Chapter 5: Sustainable revenue

Sustainable revenue growth is needed to manage growing expense pressures. New South Wales' revenue growth is projected to be slower than both expense growth and nominal economic growth over the next 40 years. There are also growing risks to the revenue base from declining GSTable consumption, increasing reliance on Commonwealth tied grants and declining royalties associated with the global shift away from coal.

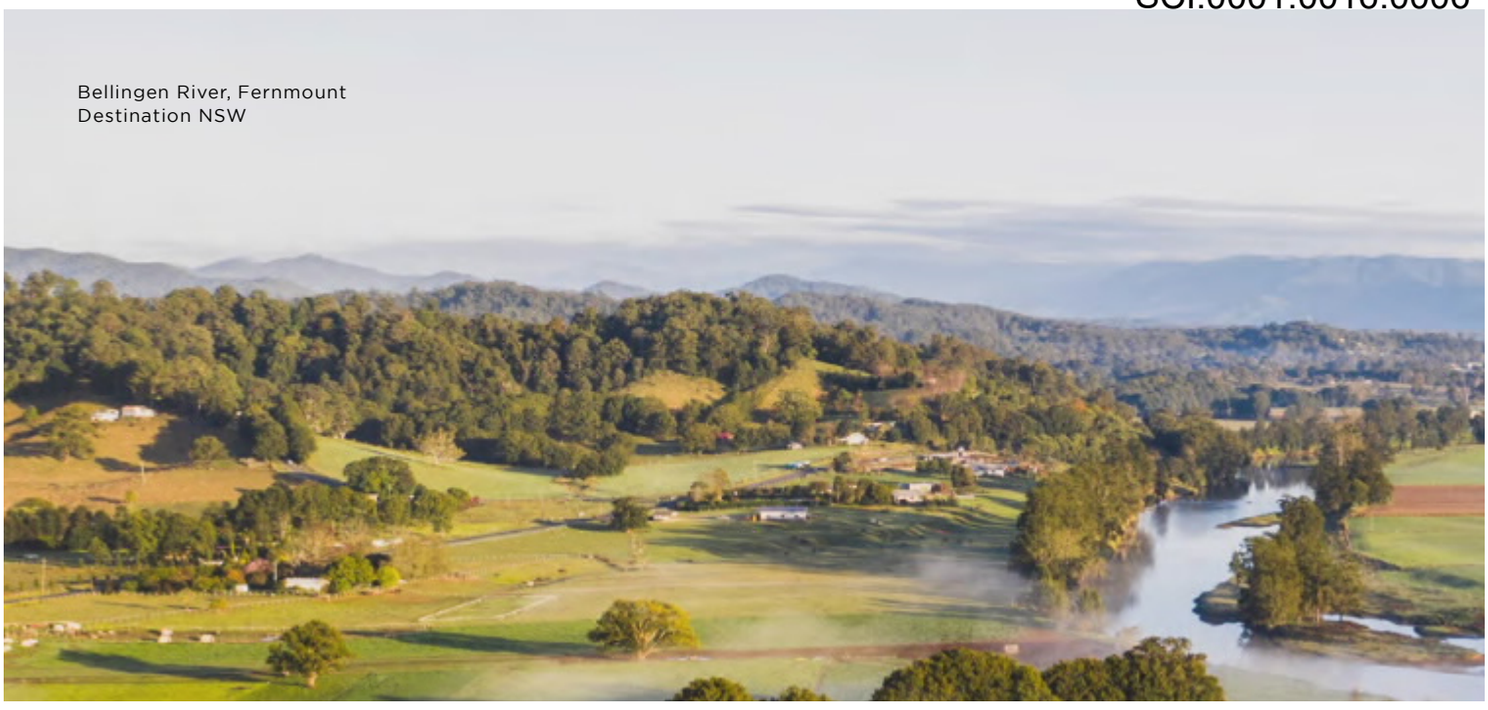
Chapter 6: Our fiscal challenge

Unless corrective measures are taken, the fiscal gap is expected to reach 2.6 per cent of GSP by 2061. Although this is smaller than estimated in the 2016 Report (a fiscal gap of 3.4 per cent in 2056) this would still see net debt levels reaching 100 per cent of GSP or $125,000 per person by 2061 (in today's dollars). The NSW Generations Fund is projected to reach $430 billion by 2061 (in today's dollars) and will help future generations manage debt. There are also a range of policy opportunities for NSW governments to secure greater balance in our long-term fiscal position, underpinned by a prosperous and growing economy.

This Report will be used as a living document and its findings will help to inform future policy development.

Dominic Perrottet
NSW Treasurer

7 June 2021



Bellingen River, Fernmount
Destination NSW

Secretary's message

As the Treasury Secretary of the largest sub-national economy in Australia, representing around 32 per cent of the national economy, I see it as imperative that we do world-class long-term planning to ensure New South Wales remains the economic and fiscal engine of the country for generations to come. The State has experienced strong growth for the past 30 years and is well-diversified across sectors. New South Wales is recovering quickly from the initial impacts of the public health and economic crisis caused by the COVID-19 pandemic. Employment has nearly fully recovered and our economy is expected to be back above its pre-COVID-19 level within 2021-22. The 2021 NSW Intergenerational Report provides a key tool for governments to ensure the sustainability of New South Wales' economic growth and State finances remain key pillars for government decision making well into the future.

New South Wales needs to maintain a modern, diversified economy to ensure continued prosperity for generations to come. A strong economy, supported by productivity-raising reform, high-quality services and responsible fiscal management allows governments to build the collective wealth of the people of New South Wales and create resilience to shocks and uncertainty.

The 2021 NSW Intergenerational Report looks forward 40 years to 2060-61 to understand how the State's population, economy and finances may change based on current trends and policies. It allows governments to better understand what is required to improve living standards with each new generation.

The NSW economy is projected to be worth $1.4 trillion in today's dollars by 2060-61, which is around 2.3 times its current size. Our diverse economic base will be strengthened over time by activity in multiple service sectors, high-value manufacturing and primary production. This will require adapting to major structural shifts such as advances in technology, the rise of social and business services, an energy transition including the Government's commitment to net zero emissions, and changing global trade and investment dynamics. NSW governments will face pressures to keep housing affordable and ensure people gain the skills they need for the high-quality jobs of the future. Governments will also need to be able to adapt and respond to the economic and fiscal impacts of climate change.

The needs and expectations for services will change, especially as the State's population ages and the economy evolves. By 2061, the median age in New South Wales will be 44 years, up from 38 in 2020 and 30 in 1981. The population will be living longer, driving up the demand for health and other services. Natural population growth will slow, and net migration will become an increasingly important driver of population growth. The combination of slower population growth and an ageing population will place a greater reliance on productivity to grow the economy.

Combined, these trends challenge government's future expense and revenue streams. Unless action is taken, the State's overall financial position will

deteriorate. The continuing gap between projected expenditure and revenue growth would result in increasing fiscal pressures over time and is represented by the fiscal gap — the projected change in revenues less recurrent and capital expenditures (excluding interest) as a percentage of Gross State Product (GSP) between 2018-19 and 2060-61. This gap would need to be funded by borrowing money, adding to public debt that would burden future generations.

By 2060-61, the fiscal gap is projected to be 2.6 per cent of GSP. This compares to the fiscal gap of 3.4 per cent by 2055-56 projected in the 2016 NSW Intergenerational Report. This improvement reflects a combination of factors including modelling refinements and extensions — particularly around health-related expenses and revenue — and updated economic and demographic projections.

The NSW Generations Fund (the NGF) was established in 2018 as the State's sovereign wealth fund to guard against intergenerational budgetary pressures and keep debt sustainable in the long term. In the absence of any intervention to address the fiscal gap, total net debt would reach 100 per cent of GSP by 2060-61, even after taking the substantial assets of the NGF into account. This accumulation of debt would expose the State to risks of future increases in State borrowing costs, leading to a greater share of government revenues being used to pay interest costs rather than deliver services and infrastructure. This would also reduce the capacity of NSW governments to respond to known fiscal pressures and future unexpected events, reducing the State's resilience.

The 2021 NSW Intergenerational Report examines the consequences of underlying economic and fiscal trends continuing and assuming no changes to current policies. Therefore, this Report is not a prediction of the future, rather, it demonstrates the path the State is currently on and offers a number of policy areas that, if successfully addressed, could improve New South Wales' long-term economic and fiscal outlook. These include creating the right environment for investment and innovation to drive productivity growth; improving health outcomes through the early intervention and prevention of chronic illness; and supporting women's workforce participation, potentially through improving the affordability of, and access to, childcare, ensuring flexibility in the workplace, and reducing gender segregation within industries and occupations. **By continuing to invest in the State's future now, governments can improve the prosperity of the people of New South Wales for generations to come.**

Michael Pratt AM
Secretary, NSW Treasury

7 June 2021

Overview

Towards 2061 – planning for the future

Changes expected in the NSW population and economy

New South Wales will change significantly over the next 40 years. Our population will grow by 40 per cent, with people older on average than today, as the fertility rate declines and life expectancy increases.

Our economy will evolve, with new opportunities created by structural shifts including advances in technology, the transition towards net zero greenhouse gas emissions, and changing global dynamics.

The prosperity of New South Wales over the next 40 years will depend on three factors:

- The size and age structure of our **population**.
- The degree of workforce **participation** – the proportion of people actively engaged in or looking for work.
- The level of **productivity** – how efficiently we produce goods and services given resources and effort invested.

The NSW population is projected to grow by 0.8 per cent a year on average to 2061. This is slower than the 1.0 per cent long-run projected annual growth rate in the 2016 NSW Intergenerational Report to 2055-56. By 2061, we project there will be 11.5 million people living in New South Wales, 3.3 million more than in 2020. Natural increases in population (births minus deaths) will account for 40 per cent of this growth. The other 60 per cent of population growth will come from people moving to New South Wales.

Short-term migration losses and lower fertility rates resulting from the COVID-19 pandemic will have ongoing impacts on the NSW population over the long term. By 2061, the NSW population will be older and around half a million people smaller than it would have been without COVID-19.

Trends in natural population growth will see the NSW population age over the next 40 years. Advances in health care and medicine will see people living longer into the future and living more years in good health. Life expectancy at birth is projected to reach 91.7 years of age for women and 89.4 for men by 2061, compared to 85.9 for women and 82.2 for men in 2020. The NSW fertility rate is expected to decline from 1.67 currently to 1.63 by 2032, reflecting the trend towards forming families later in life and having fewer children overall.

NSW population

8.2M 2020

11.5M 2061

Additional 3.3 million people in 2061, made up of

40% from natural increase

60% from net migration

Life expectancy

Female

85.9 2020

91.7 2061

Male

82.2 2020

89.4 2061

One third of the NSW population lives in regional areas, where population growth will be slower and ageing faster than in metropolitan locations. The population in regional New South Wales is projected to grow at 0.4 per cent a year on average over the next 20 years, compared to 1.5 per cent for metropolitan locations (Sydney, Newcastle and Wollongong).

We need continued productivity growth to drive our economy

By 2060-61, the NSW economy is projected to reach $1.4 trillion (2019-20 dollars). This is more than twice the size of New South Wales' present economy.

Overall, people in New South Wales will enjoy higher incomes over the next 40 years, with average full-time real wages projected to grow from $86,000 in 2018-19 to $139,000 by 2060-61, measured in today's dollars.

This growth, however, is not guaranteed. A number of risks, including those associated with our ageing population, climate change, geopolitical shifts, and technological changes increase the uncertainty of our projections relative to five years ago when the 2016 NSW Intergenerational Report was published.

One thing we can be certain of is that improved productivity drives our prosperity. Productivity measures how efficiently we produce goods and services given the resources and effort invested. Over the long run, productivity is the key driver of wages growth. Over the next 40 years, productivity is projected to become the biggest contributor to our economic growth.

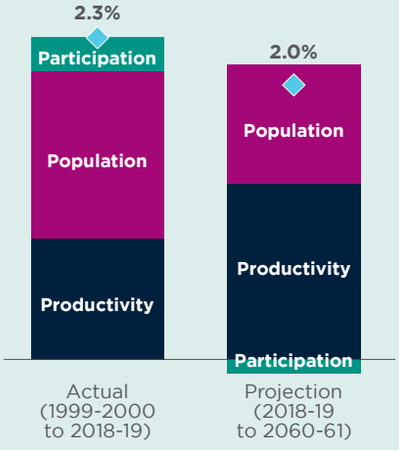
Productivity is expected to grow by 1.2 per cent per year over the next 40 years in line with the average growth rate of the past 30 years. This is a downward revision from the 2016 NSW Intergenerational Report, reflecting continued softness in productivity growth over the past five years. Achieving even 1.2 per cent productivity growth would therefore be an improvement on the average annual growth rate achieved since 1999-2000.

Our response to improving productivity growth matters. If we could increase growth in labour productivity by 0.1 percentage points to 1.3 per cent per year over the next 40 years, for example through modernising the tax system or improving educational outcomes, the NSW economy would be $53 billion larger by 2060-61, measured in today's dollars. This is the equivalent of $11,000 more annual income per household.

The participation rate, which measures the proportion of people aged 15 years and over seeking or in employment, is projected to decline over the next 40 years from 65.3 per cent in 2018-19 to 61.6 per cent by 2060-61 as our population ages. This decline will occur despite increasing participation amongst working age women and those over the traditional retirement age of 65 years. For example, participation amongst women aged 15-64 years is projected to grow from 73.1 per cent in 2018-19 to 75.8 per cent in 2060-61. Participation amongst those aged over 65 is also projected to increase from 15.0 per cent to 19.4 per cent over the same period.

"Over the next 40 years, productivity is projected to become the biggest contributor to our economic growth"

Drivers of NSW economic growth



Contribution to average annual NSW GSP growth

Participation rate projection for NSW

65.3% 2018-19

61.6% 2060-61

Although women's participation is projected to increase, it is nonetheless expected to remain below that of men. If women's participation increased to be the same as men's over the next 20 years, the economy in 2060-61 would be 8 per cent larger (measured in today's dollars), the equivalent of $22,000 more annual income per household.

An ageing population also means that there are more non-working people for each working person.

The aged dependency ratio measures the ratio of those aged 65 and older to those of traditional working age (15 to 64). This ratio is projected to increase from 26 per cent today to 42 per cent in 2061. This means that 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.

This shift underscores the importance of migration to the NSW economy. People coming to the State from overseas are typically younger and of prime working age. Having more people migrating to live in New South Wales acts as a balance to support rising costs and health care needs of people as they age.

The NSW economy will change over the next 40 years, with advances in technology supporting a more productive economy

Having in-demand skills will be especially critical in attracting the industries of the future. We project a relative increase in the proportion of jobs utilising social, cognitive, creative and analytical skills and a relative decline in the proportion of jobs which utilise more routine and manual skills (Box 1).

Our schools, TAFEs and universities must be able to equip young people entering the workforce, as well as workers seeking to retrain and develop the skills needed to drive higher productivity and wages. This issue of national significance will require State-Commonwealth collaboration.

We also model some of the economic and fiscal risks of climate change. More frequent and severe natural disasters could cost New South Wales between $15.8 billion and $17.2 billion per year on average by 2060-61. There could also be significant costs from rising sea levels, heatwaves and the impact of changing climatic conditions on agricultural production.

"Migration will become increasingly important for population growth and for slowing population ageing"

People of working age for every person aged 65 years or older

3.9	2.4
2020	2061

"Having a NSW workforce with in-demand skills will be especially critical in attracting the industries of the future"

Box 1: Jobs and industries of the future

Services will continue to be the main source of employment in New South Wales. Employment in social and business services are projected to grow to 52 per cent of jobs by 2035. Demand for services is associated with wealthier economies with high quality health, education and recreational sectors, and this continued growth in service jobs signals NSW's high living standards and productivity levels. New technologies driving productivity include process automation, decision generation, fixed robotics and navigation robotics.

In line with demand, people's skills are transitioning towards those valued in service industries, that is, skills needed for higher value-add, non-routine, cognitive and social tasks. This transition is evident in jobs growth in the Health Care and Social Assistance, and Professional, Scientific and Technical Services sectors. By 2035, these sectors together are projected to increase to almost 30 per cent of total jobs in New South Wales.

Modelling from the NSW Innovation and Productivity Council indicates that the industrial, mechanical, and production engineer workforce will grow by almost 16 per cent over the next 15 years. These projections are in the absence of any additional demand created by a rapid introduction of artificial intelligence.

Technology-enabled industries, such as fintech, medtech, agritech and cybersecurity are expected to be key drivers of economic growth.

As a global city, Sydney will continue to attract skilled talent and highly productive industries such as finance and insurance services. Areas such as Sydney's west (Westmead and Parklands for example) and coastal areas such as Newcastle and Wollongong will continue to attract high growth industries, including advanced manufacturing, aerospace, healthcare and film.

"People's skills are transitioning towards higher value-add, non-routine, cognitive and social tasks"

Projected share of jobs in social and business services by 2035

52 per cent

of total jobs, up from

36 per cent

in 1989-90

Sophia: how life may be in 2061

Sophia is a 40-year-old woman living near Bradfield, and one of 11.5 million people who call New South Wales home.

Like many 40-year olds, Sophia works for a business in one of the popular tech hubs in Western Sydney, an agritech startup. She studied applied AI at university and has worked in a few different fields using advanced IOT sensor analysis. With her broad experience and a later micro-degree from TAFE on agritech, she has been able to stay creative about applying ever-evolving sensor techniques for her clients. Social services and business service industries like hers (professional and technical services) now account for the majority of overall employment.

Sophia's work is roughly a third face-to-face and two-thirds working with colleagues remotely. When she does go into the hub, her commute is brief but productive – she uses her favourite electric autonomous vehicle service which whisks her into work in under 30 minutes as traffic congestion has eased thanks to the latest smart roads infrastructure.

Like many professionals, Sophia follows her jobs and has moved four times since buying her first home in her 20s. Sophia prefers to live where she can bike to local parks along the shaded, tree-lined cycleways and to have a home that fits her growing family.

This weekend, Sophia is looking forward to a trip to the South Coast with her family. Sophia is confident that she can take the trip without worrying about her mum's routine ongoing kidney treatment. Her mother manages the treatment at home and shares the doctor's updates with Sophia digitally, and Sophia can join video conference calls with the leading specialist in Newcastle whenever she is needed.

Investing in housing to secure future living standards

Stable, affordable housing is critical to economic security, physical and mental wellbeing, and facilitates access to jobs and services. Consequently, housing is essential to support rising living standards.

A period of very high housing construction combined with a slowdown in population growth due to COVID-19-related international border closures has led to inroads being made into the housing undersupply outlined in the 2016 NSW Intergenerational Report. We project that 1.7 million new homes will be needed by 2060-61 to support population growth and demographic trends. This is equivalent to around 42,000 new homes every year over the next 40 years. This will be a significant challenge.

Housing is typically the biggest investment a person makes in their lifetime, the largest form of savings, and the foundation for a secure and independent retirement.

"Stamp duty typically adds 1.8 years to the time it takes to save for a deposit"

Additional new homes in NSW required by 2061

1.7 million

that's one new home for every two existing homes today

On average, 57 per cent of household net wealth is in housing, and 17 per cent in superannuation. Households approaching retirement (aged 50-64) who do not own their own home typically have just $78,000 in net household wealth compared with $1.4 million for homeowners of the same age.

For over 25 years, the deposit barrier has increased relative to household income in line with rising house prices. This is a key barrier to home ownership and has occurred alongside a long-term decline in interest rates and not enough houses being built for our growing population. Lower interest rates increase house prices because households are able to borrow more money without increasing their monthly repayments. Over the coming decades we expect interest rates to increase from their current historic low. If we are able to build enough new homes for our growing population, rising interest rates are expected to slow the growth in house prices to below household income growth, and therefore reduce the deposit barrier to home ownership.

Reform of the State's property tax system could further lower the deposit barrier by removing the need to pay upfront stamp duty, which typically adds 1.8 years to the time it takes to save for a deposit. This would also make it easier for people to move home, whether for a new job, to be closer to friends and family, or to move into housing more suitable for their stage of life.

Projected number of people per NSW household

2.5
2018-19

2.3
2060-61

Implications for services, infrastructure and state government income

NSW governments will continue to face growing expense pressures on the services and infrastructure that they fund. These pressures are driven by population growth, population ageing, and increasing public expectations for services and infrastructure that reflect evolving societal preferences and technological advances.

Over the next 40 years, recurrent spending — the annual amount of money spent on delivering the services funded by NSW governments — is projected to grow by an average of 4.7 per cent each year. In real terms, this is around 80 per cent more per person by 2060-61 than in 2018-19.

As a share of the economy, recurrent spending is projected to grow to 14.5 per cent by 2060-61, up from 12.5 per cent in 2018-19.

Health, education and transport are projected to remain the three largest areas of recurrent spending over the next 40 years.

Capital expenditure reflects investments in schools, hospitals, public transport, roads, and other infrastructure. Following a period of record infrastructure investments over the ten years to 2019-20, capital expenditure is projected to return to around 1.8 per cent of GSP by 2060-61. This compares to 2.6 per cent of GSP in 2018-19.

To continue supporting outcomes that matter to people in an increasingly constrained fiscal environment, governments will need to continually rethink and redesign services and infrastructure to achieve outcomes efficiently and effectively. This must also be done whilst remaining resilient and adaptive to unforeseen natural disasters and other events.

There remain several opportunities for governments to better leverage advances in technology, support more connected services, embed resilience in service delivery and infrastructure, and more effectively prioritise investments using evidence and outcomes. Together, these can improve the quality and accessibility of services and infrastructure and support improved living standards for the people of New South Wales.

Share of total NSW recurrent spending by 2061

Health

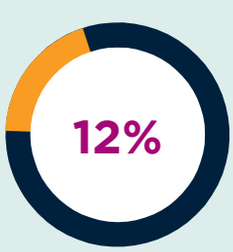
↑

from 29%
in 2018-19

Education

↓

from 22%
in 2018-19



Transport

↓

from 13%
in 2018-19

> "A strong education system requires a world-class teaching workforce and a flexible and relevant vocational education and training system"

Health

Health is expected to remain the biggest category of recurrent spending, rising at an annual rate of 5.4 per cent on average, and growing from 29 per cent of total expenses in 2018-19 to 38 per cent by 2060-61. This growth reflects our ageing population, the burden from growing rates of chronic health conditions, expenses associated with the rapid medical and technological advances in health care, and expectations for higher quality healthcare.

A national focus on keeping people healthy and effective management of chronic conditions is needed to reduce demand for hospital care and keep health spending sustainable, whilst improving health outcomes.

This will require Commonwealth and state cooperation, including to continue to improve the detection and management of health conditions before they become acute, maintain an adequate and skilled health workforce, and improve healthcare accessibility. For example, through digitally-enabled solutions and better targeting of cohorts with higher risks of developing chronic diseases.

Education

Education is the second largest share of recurrent spending. The education system helps to equip people with the tools and habits to upskill and reskill throughout their lifetime, supporting a skilled workforce for the future. Education expenses are projected to grow at an average annual rate of 4.2 per cent over the next 40 years and represent 18 per cent of total recurrent spending by 2060-61. Expense pressures reflect growing demand for schools as the population grows.

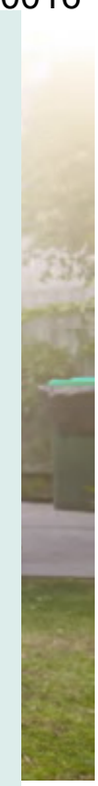
A strong education system requires a world-class teaching workforce and a flexible and relevant vocational education and training (VET) system. Developing the right incentives to attract good quality teachers, as well as ensuring our VET system aligns to future jobs, will ensure future generations are equipped with the right skills.

Transport

Transport is the third largest share of recurrent spending, allowing more people to move more effectively around our cities and regions, supporting changing population centres, greater urbanisation and integrating new technologies to improve liveability, productivity and accessibility. Transport expenses are projected to grow on average by 4.4 per cent per year to 2060-61. Expense growth pressures include ongoing operational and maintenance costs associated with the recent transport network infrastructure investments. Transport infrastructure made up 63 per cent of total capital expenditure in 2018-19. This is projected to return to lower levels over time.

Opportunities to better utilise the capacity of our transport system will reduce reliance on building large scale physical infrastructure to meet the needs of our growing population.

This includes better integration of our planning and transport networks. Unlocking development and housing closer to jobs, shops and key public transport corridors will mean shorter commutes and reduced congestion. This will help make our '30-minute cities' vision a reality.



Revenue will grow more slowly than total spending on average each year to 2060-61

4.0%
Revenue growth (excl. NGF)

4.5%
Spending growth

In the absence of revenue reform, our ability to fund services and infrastructure will become less sustainable

Revenue growth is projected to fall from an average rate of 5.4 per cent a year over the past 20 years, to 4.0 per cent a year over the period to 2060-61.

In the absence of reform, governments will need to borrow more to meet their spending needs.

State revenue sources are projected to grow more slowly than the broader economy. As state-based revenues decline as a share of our revenue base, New South Wales will become more reliant on Commonwealth revenue sources to fund our services and infrastructure. Revenues from the Commonwealth are projected to increase from 38.7 per cent in 2018-19 to 46.6 per cent of the State's total revenue base by 2060-61 (excluding the NSW Generations Fund).

Under current Commonwealth-State arrangements, such as the National Health Reform Agreement, New South Wales will also rely more heavily on tied forms of Commonwealth funding over the period to 2060-61. Greater reliance on tied payments will make it harder for state governments to innovate and provide services that produce the best outcomes for their citizens.

Measures that lift productivity and participation will grow our economy and state government revenues without increasing the burden on the taxpayer.

In relation to tax reform, one of the biggest opportunities that we have as a state is to move away from stamp duty towards an annual property tax, discussed in Chapter 3. Another major opportunity is to reform the design and distribution of the GST. Working together, Australian jurisdictions can modernise the GST to make it more robust, and improve funding arrangements to support a stronger, fairer federation. There are other opportunities to modernise our tax system, such as how we design road user charges as we transition from fossil fuels to electric vehicles.

Share of revenue from state sources (excl. NGF) is declining

61%
2018-19

53%
2060-61

Keeping our fiscal position resilient and economy strong

A strong economy underpinned by solid fiscal management prepares us, our children and grandchildren to deal with future challenges, while maintaining a high quality of life and intergenerational equity. Our economy's successes in managing the crises brought about by COVID-19 and bushfires highlight the importance of having a strong fiscal position to respond to such events. If we do not maintain a sustainable fiscal position, we erode our capacity to deliver high-quality services into the future, respond to unexpected events and maintain manageable debt levels for future generations.

Unless corrective measures are taken, government expenditure is projected to grow faster than government revenues by around 0.5 percentage points on average each year. By 2060-61, the fiscal gap is projected to be 2.6 per cent of GSP.

This is smaller than estimated in the 2016 NSW Intergenerational Report, which projected a fiscal gap of 3.4 per cent in 2055-56.

This fiscal gap projection excludes the growing portion of revenues over this period that will come from NGF earnings. The NGF is New South Wales' sovereign wealth fund established to guard against intergenerational budgetary pressures and keep debt sustainable in the long-term. Although NGF investment earnings will increase as the Fund grows, these earnings are retained within the Fund for future retirement of the State's debt.

In the absence of measures to address this structural imbalance between revenue and government spending, the State's overall debt position would deteriorate as deficits continue to build year on year. Unchecked, the State's gross debt would reach 133 per cent of GSP by 2060-61, including the NGF.[1] Taking into account the significant assets held in the NGF, net debt in 2060-61 would still be equal to 100 per cent of the economy. At this level, net debt in 2060-61 would represent around $125,000 per person in New South Wales (in today's dollars). This would leave future generations significantly exposed to risks and uncertainty, including rising borrowing costs, that may challenge the ongoing delivery of quality government services and infrastructure.

[1] The diversion of revenues into the NGF (SOC dividends and coal royalties) also contributes to the accumulation of gross debt. Without these borrowings, gross debt is projected to reach 122 per cent of GSP by 2060-61.

"If we do not maintain a sustainable fiscal position, we erode our capacity to deliver high-quality services into the future, respond to unexpected events and maintain manageable debt levels for future generations"

Key fiscal projections in 2061
(as a share of GSP)

Fiscal gap

2.6%
(excl. NGF)

Fiscal gap

0.6%
(incl. NGF)

Gross debt

133%
(incl. NGF)

Net debt

100%
(incl. NGF)

These pressures and risks arise from government spending on services and infrastructure growing faster each year than revenue – a trend reflecting a range of structural economic and demographic factors. An ageing population and falling workforce participation will dampen growth in state-owned revenue sources, such as payroll taxes and transfer duties, and result in faster growth in health related expenses. Slower growth in other revenue sources also contribute to the State's growing fiscal gap, including reduced royalties from declining coal production. The nature of our federal system of government and our growing reliance on Commonwealth government funding also contributes to this gap, with a fall in GST revenues relative to the size of the economy over the projection period.

It is important to note that these projections are based on the assumption of no changes to current policy settings. In reality, the *Fiscal Responsibility Act 2012* requires that governments take corrective measures to prevent these outcomes from occurring and ensure debt levels are maintained at sustainable levels. This ensures debt servicing costs do not undermine the ability to pay for quality government services and infrastructure. The NGF also provides a substantial pool of funds that future generations can use to help manage any build up in debt.

By 2060-61, the NGF is projected to have a balance of $430 billion (in today's dollars), amounting to 31 per cent of GSP.

The NSW Government has a range of options to maintain our strong fiscal position with sustainable debt levels that enable a growing, prosperous and resilient economy.

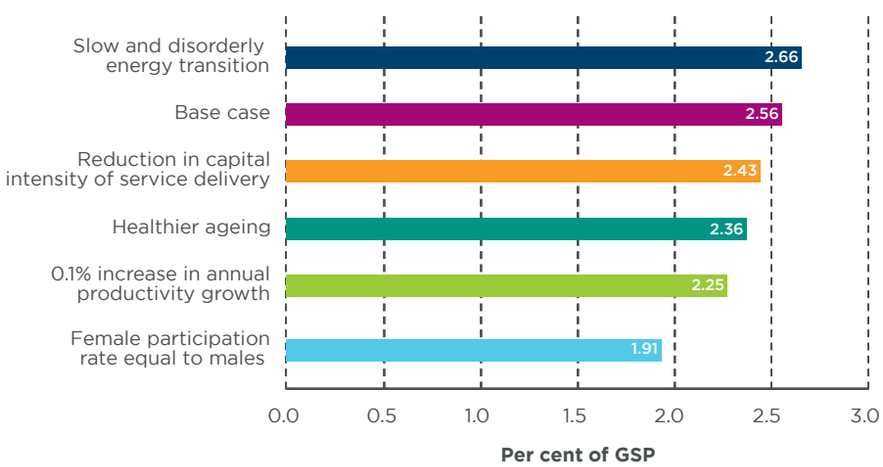
A number of reforms, such as those driving greater economic participation by women, and boosting productivity growth would have considerable impacts on both living standards and in reducing the fiscal gap (Chart A1). For example, lifting the rate of women's participation in paid work to be equal to men's over the next 20 years would also increase employment growth and lead to an economy that is 8 per cent larger by 2060-61, the equivalent of $22,000 more income per household (in today's dollars).

At a state level, we can boost productivity and workforce participation, lift education and training standards, modernise the revenue base, and shift to more efficient user charges. We can continue delivering efficient outcome-oriented services and also take opportunities to support the increasing participation of women and older people.

With support from the Commonwealth, New South Wales can focus health services on early intervention and prevention and provide lifelong learning opportunities to the workforce. In full cooperation with the Commonwealth, we can achieve a more sustainable state revenue base through tax reform, attracting skilled people from overseas to support growth, improving service funding agreements, and achieving a fairer and more reliable flow of GST revenues to the states.

In taking these reform opportunities, the economy will be strongly placed to grow and adapt, providing prosperity and improved living standards for generations to come.

CHART A1: IMPACTS OF POLICY AND STRUCTURAL CHANGES ON THE FISCAL GAP (MUTUALLY EXCLUSIVE)



Source: NSW Treasury.

George Street, Sydney
Laura Cros

"A strong economy underpinned by solid fiscal management prepares us, our children and grandchildren to deal with future challenges, while maintaining a high quality of life and intergenerational equity"

Introduction

Long-term planning to support a resilient NSW

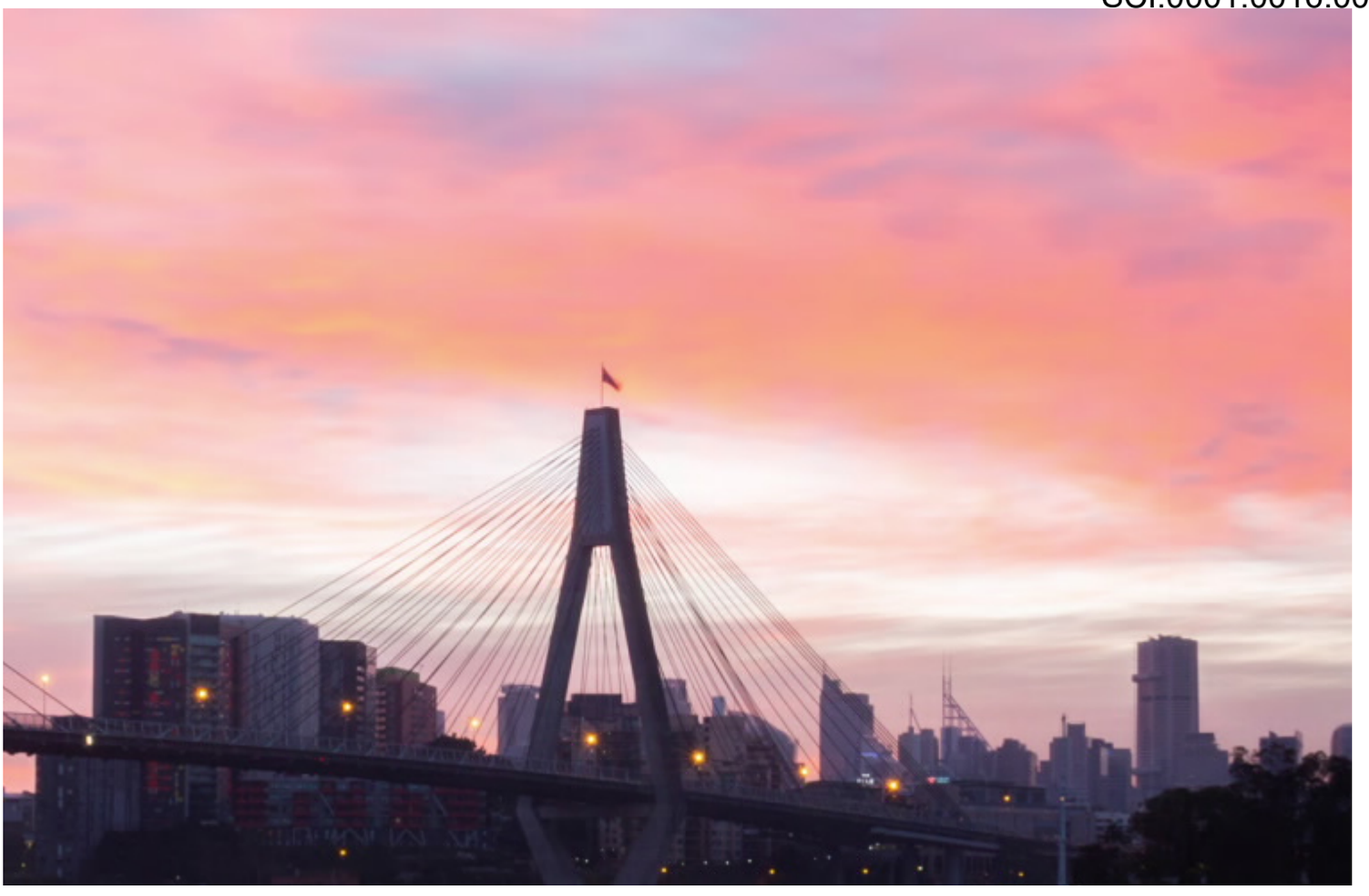
In 2021 the world seems less certain. We find ourselves in the aftermath of a significant global shock. 2020 was a year of dramatic change. We faced unanticipated limitations on our day-to-day lives, on our ability to move around our cities, travel across our country and to go overseas. We saw the rapid mobilisation of health and economic responses to the COVID-19 pandemic and the extraordinary development of multiple effective vaccines to guard against further spread of the virus.

Events of 2020 also showed us the strength of cohesive communities, an effective public sector, an adaptable private sector, and having the fiscal capacity to support people and businesses through a sudden recession. Our management of this health and economic crisis has been among the best in the world (Box 2).

Global uncertainty reached historic levels at the start of the COVID-19 outbreak and remains elevated.[2] We have been reminded that a pandemic, just like a financial crisis or geopolitical event, can change the world quite rapidly and in unexpected ways. We will continue to experience shocks over the next 40 years from global and local risks, like the drought, 2019 bushfires and this year's once-in-a-generation floods. It is likely, indeed, that they will occur more frequently. Some of these challenges are predictable from trends that we have observed to date; others are unpredictable in timing and in impact.[3]

[2] Ahir H. et al., From COVID-19 to Brexit, *This Is How Uncertainty Effects the Global Economy* , World Economic Forum, 25 January 2021, https://www.weforum.org/agenda/2021/01/global-uncertainty-index-economics-us-uk-covid-coronavirus-pandemic-brexit-china

[3] Internationally, the Organisation for Economic Cooperation and Development, (OECD) the World Economic Forum and others are recognising that the scope of possible global shocks is expanding, and there is room for improvement in how we plan for complex systemic risks: OECD, *Future Global Shocks: Improving Risk Governance* , 4 August 2011, World Economic Forum, *The Global Risks Report 2021*, 25 January 2021, http://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2021.pdf.



Strong economic and fiscal foundations make New South Wales more resilient

In recent years, New South Wales has withstood extraordinary challenges to return to economic growth. We remain the dominant economy in Australia and we have been the fastest to bounce-back in the wake of the COVID-19 pandemic. New South Wales entered 2020 in a strong economic position with economic activity reaching almost $630 billion in 2018-19 (in real terms) reflecting an above-trend average annual growth rate of 2.8 per cent over the preceding five years.

The COVID-19 pandemic brought a shock to the NSW economy. By May 2020, nearly 273,000 fewer people were employed in the State, compared to February 2020 and the unemployment rate hit a peak of 7.2 per cent in July 2020. The most significant employment losses in the three months to May 2020 were in arts and recreation (down 46.9 per cent), followed by hospitality (down 28.6 per cent) and manufacturing (down 18.2 per cent).

The high calibre of government services and health systems enabled the NSW Government's strong health response, while our robust fiscal position supported our operational and economic response, including billions of dollars in economic stimulus.

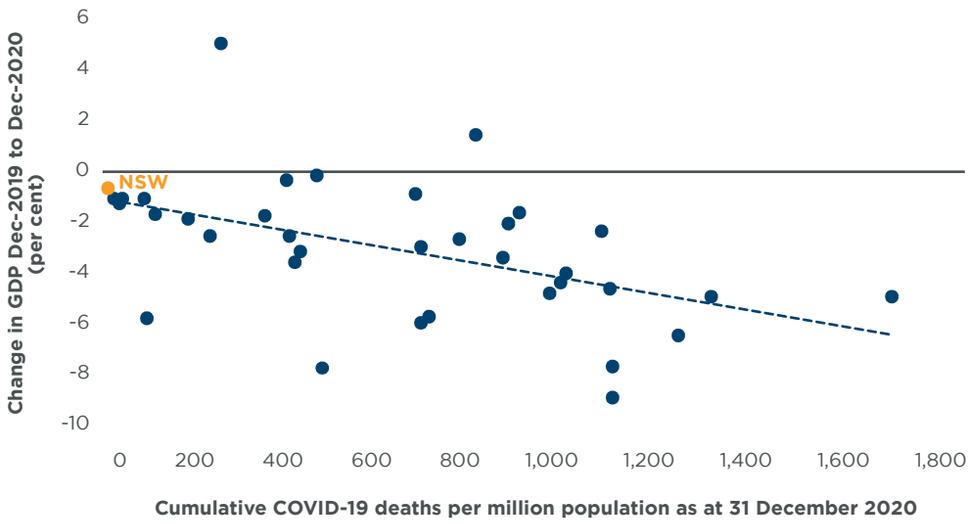
Challenges remain particularly in sectors of the economy exposed to international movement of people such as tourism and among certain groups of people, such as the young and those in casual work. There are opportunities for New South Wales to build back better, to adapt to the challenges and undertake reforms that will keep us a resilient and wealthy State where all citizens, including future generations, will continue to share in our prosperity.

Box 2: Economic recovery enabled by effective pandemic management

The COVID-19 pandemic saw New South Wales, and Australia, enter our first recession in almost 30 years. New South Wales has bounced back relatively quickly and strongly. Key economic performance indicators such as workforce participation rates, unemployment rate and consumer confidence are already at or near pre-COVID-19 levels. Globally, there is clear evidence that those jurisdictions with the best economic outcomes were those with the best health outcomes. Our swift and effective management of the health crisis underpinned economic recovery in New South Wales as consumers and businesses began to regain confidence (Chart A2).

We also saw the pandemic turbocharge certain trends, such as flexible working practices, and online collaborative working and service delivery. These trends could generate long-term productivity improvements across the economy. Economic challenges remain, however, from border closures and significant downturns in important sectors such as aviation, international education, tourism and industries dependent on skilled migrant workers. We are yet to see the long-run effects of the COVID-19 pandemic on social and economic outcomes for different groups of people. There is growing evidence that economic shocks have long-lasting impacts on the skills and workforce outcomes for younger cohorts, potentially affecting their wealth accumulation over their lifetimes. [4] The success of the vaccine rollout will also affect the extent of our economic recovery.

CHART A2: BETTER HEALTH OUTCOMES ARE CORRELATED WITH BETTER ECONOMIC OUTCOMES



New South Wales and OECD countries.
Source: OECD; Our World In Data; NSW Treasury.

[4] Daley J. et al., *The Recovery Book: What Australian Governments Should Do Now* , Grattan Institute, June 2020; Furlanetto F. et al., *Estimating Hysteresis Effects*, VoxEU.org, 9 November 2020, https://voxeu.org/article/estimating-hysteresis-effects; de Fontenay, C. et al., *Climbing the jobs ladder slower: Young people in a weak labour market*, Productivity Commission Staff Working Paper, July 2020.

Commitment to long-term fiscal and economic planning

The NSW Government is committed under the *Fiscal Responsibility Act 2012* to report every five years on long-term fiscal pressures. This gives us a picture of how our economy, public spending and revenue will look based on existing trends and current policies. This is not a prediction of the future, but it does provide information on New South Wales' strengths and vulnerabilities. This report shows us how long-term risks and fiscal pressures may affect our living standards and our ability to afford current levels of public services and infrastructure. This information can be used to inform policy decisions that make us more adaptable and resilient to future uncertainties and challenges, for the benefit of future generations (Box 3).

Box 3: Intergenerational equity is a core principle of the *Fiscal Responsibility Act 2012*

The *Fiscal Responsibility Act 2012* sets out intergenerational equity as a core principle underpinning government finances in New South Wales. 'Intergenerational equity' can be viewed and evaluated from a range of perspectives such as wealth accumulation, household incomes, and health, education, employment and housing outcomes.

Intergenerational outcomes are affected by economic factors intertwined with social factors, such as opportunity, equity and social mobility, and the natural environment that we all share. At its core, intergenerational equity concerns the quality of life that future generations can expect and this turns on choices we make today.

Long-term economic and fiscal reporting by government plays an important role in informing those choices. Intergenerational reports in New South Wales examine long-term trends in the economy, population, workforce participation and the natural environment, which reflect the various factors that not only affect the State's future fiscal position, but also factors that shape the legacy we create for generations to come. This work helps inform policy decisions to support people to experience a better quality of life, build resilience in our communities and create opportunities for future generations to access the State's growing prosperity.

The legislative requirements underlying long-term fiscal reporting in New South Wales – for government to ensure that spending decisions today will not be transferred as debt to the next generation – plays a vital role in supporting intergenerational equity. Growing debt will need to be managed by lower spending or higher taxation in the future, leaving generations to face difficult choices unless we act effectively now to support long-term fiscal sustainability.

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. [5] 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

[5] 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.[6]

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.

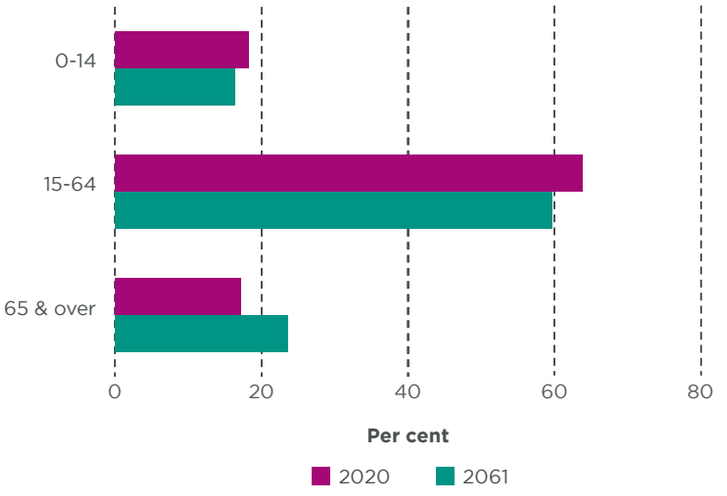
In 2061, 25 per cent of the population will be aged 65 or over, up from 17 per cent today (Chart 1.1). The proportion of the population aged 80 and over will increase from 4 per cent today to 10 per cent by 2061. We project a 15-fold increase in those aged 100 and over, up to almost 33,000 people in 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.[7] 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.

[6] The 'baby boomer' generation are defined as those born between 1946 and 1964 and 'generation X' are those born between 1965 and 1979.

[7] This ratio is interpreted as 42 people of retirement age to every 100 people of traditional working age.

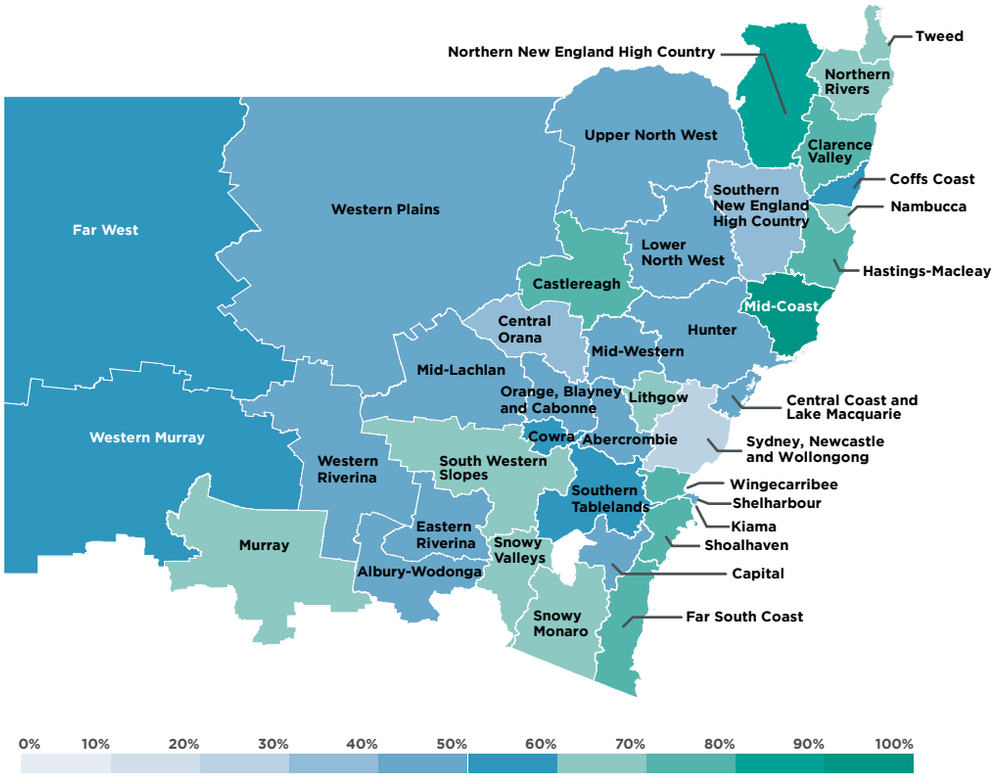
This ageing challenge has implications for government revenues and expenses and for our economy, including impacts on productivity and workforce participation. These challenges are discussed further throughout the report.

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.[8]

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.

[8] 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.

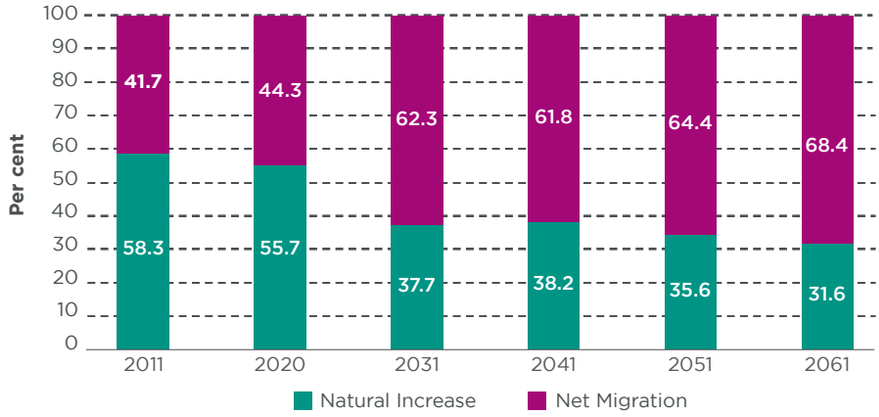
Declining fertility rates

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.[9] 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.[10] This rate is broadly consistent with the Organisation for Economic Co-operation and Development (OECD) average fertility rate of 1.60.[11]

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.

[9] 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.

[10] 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.

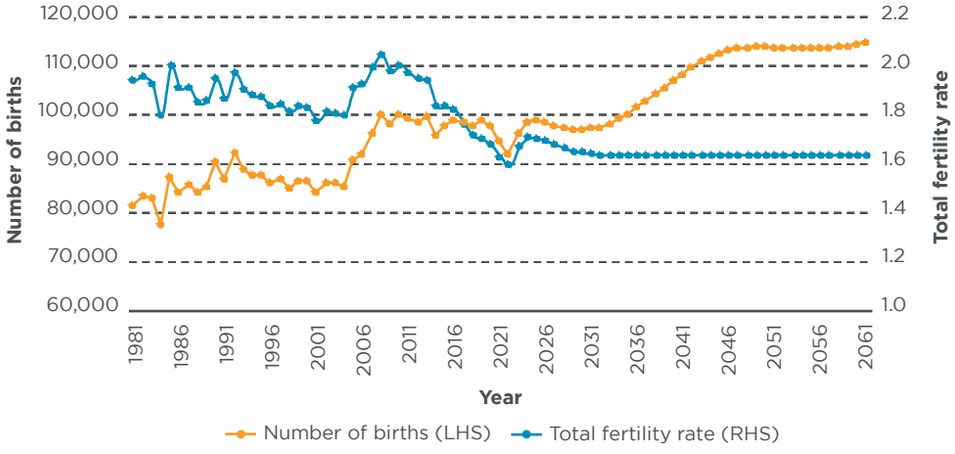
[11] OECD 2019, Fertility Rates (indicator), https://data.oecd.org/pop/fertility-rates.htm, November 2020.

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.

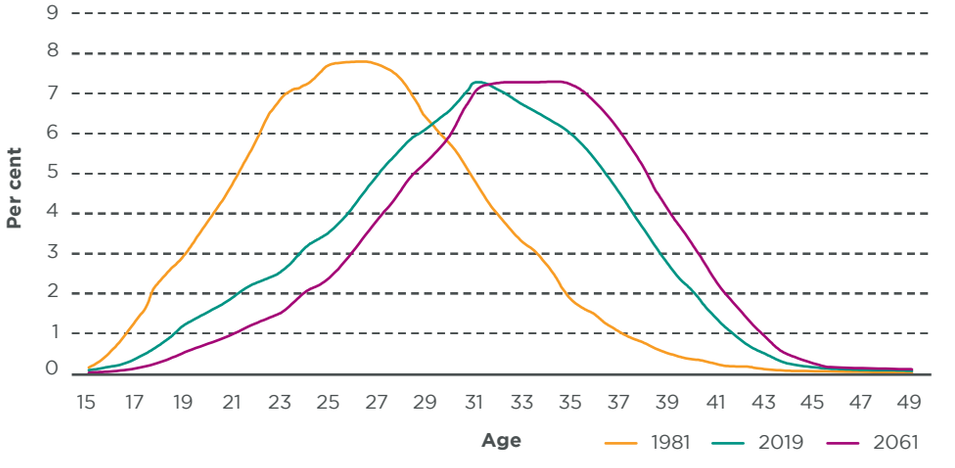
Fertility rates are higher in regional areas than in metropolitan areas, averaging 2.2 babies per woman over the last 5 years.[12] Western Plains and Western Murray have the highest average fertility rates (2.7 and 2.6 respectively), while fertility rates in regions such as Snowy Monaro and Shellharbour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

[12] 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).

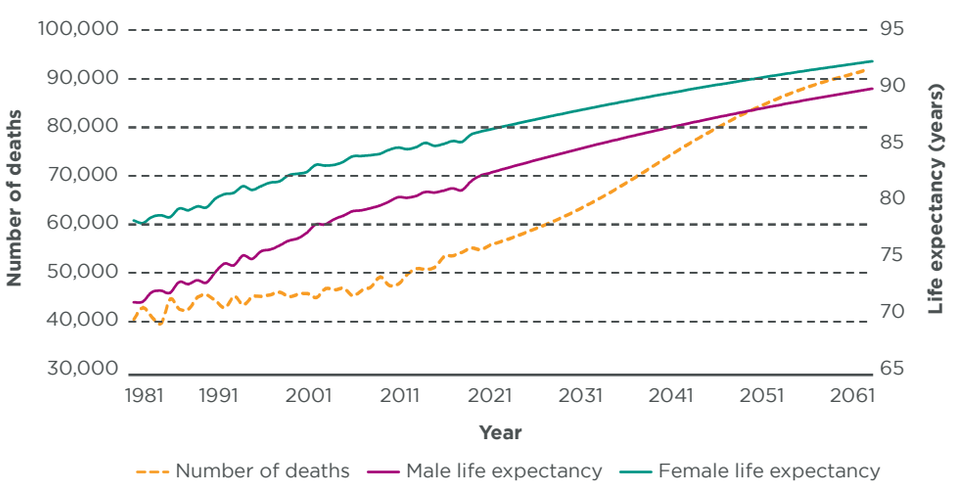
Improvements in life expectancy have been driven by general improvements in living standards, hygiene and nutrition, notable reductions in infant mortality, advances in medical technology, lower rates of smoking, control of infectious disease, and increased transport safety. These advances have improved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

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).[14]

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.

[13] 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.

[14] 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.

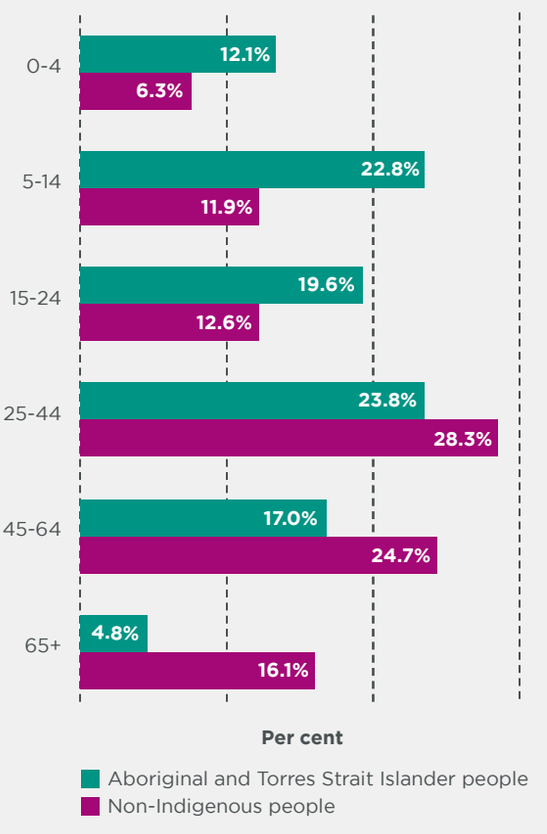
This difference in population growth is driven by comparatively higher birth rates, with Aboriginal and Torres Strait Islander mothers having children earlier in life and having more children on average than non-Indigenous mothers.

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.

Bulli Beach, Bulli
Destination NSW

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. [15]

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

[15] 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

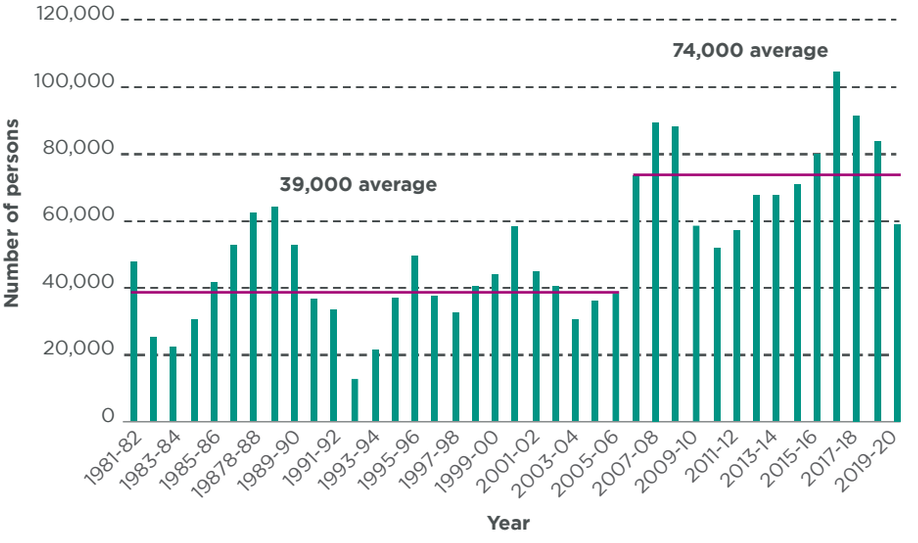
Net overseas migration is a key driver of population growth in New South Wales, with around 30 per cent of NSW residents born overseas.[16]

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.

[16] 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

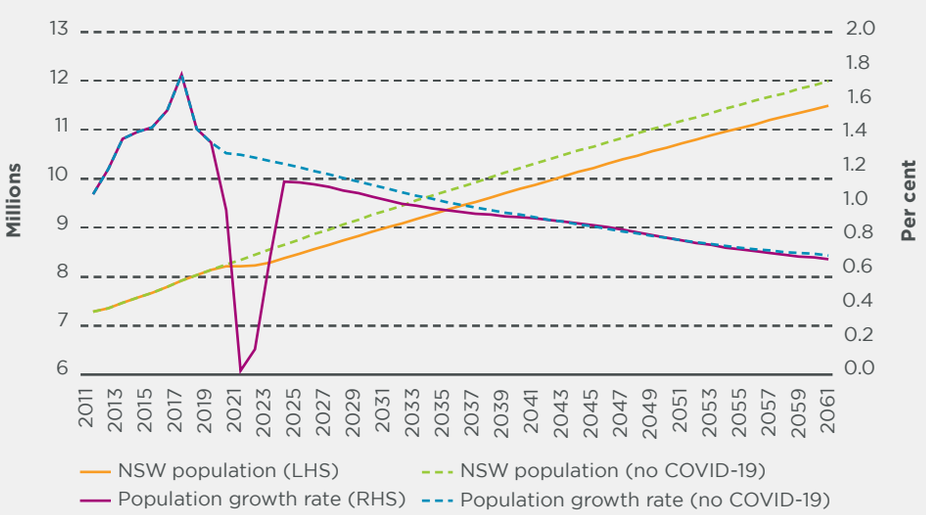
The NSW population is expected to be smaller and older than projected prior to the onset of the COVID-19 pandemic. NSW Treasury modelling indicates that the State's population will be around 4 per cent smaller by 2061 than it would have been in the absence of COVID-19. This is equivalent to around half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

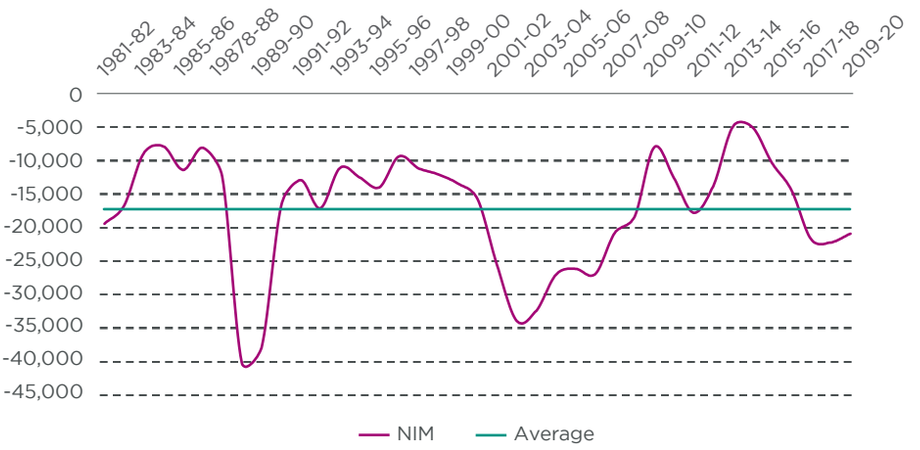
People moving interstate partially offset gains from overseas migration to NSW

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.

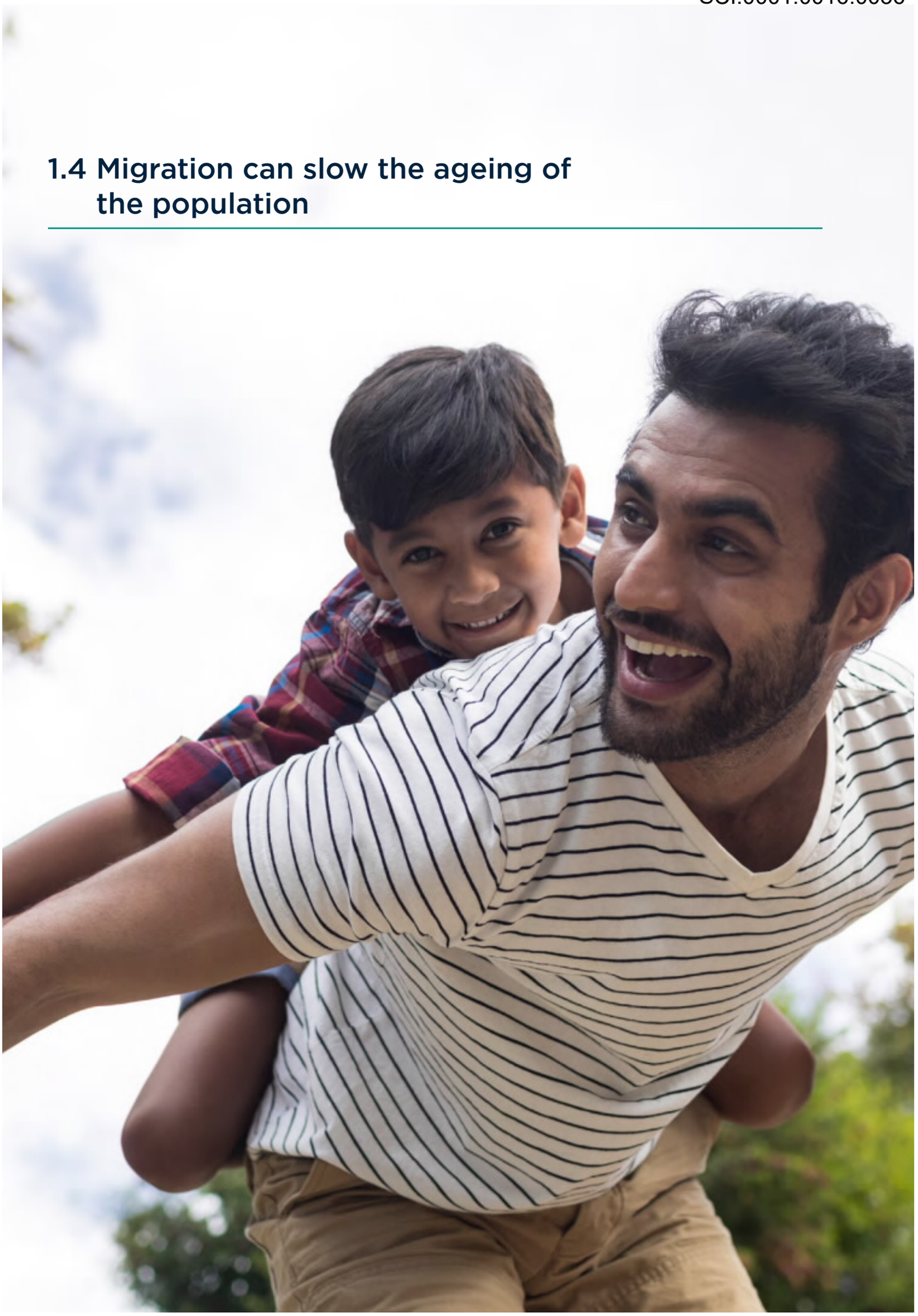
During the 2000s, a combination of high house prices relative to other states and the mining boom saw higher than average outflows of people. Following the Global Financial Crisis and a slowing in the mining sector, New South Wales' labour market strengthened, and the net outflow of people declined to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

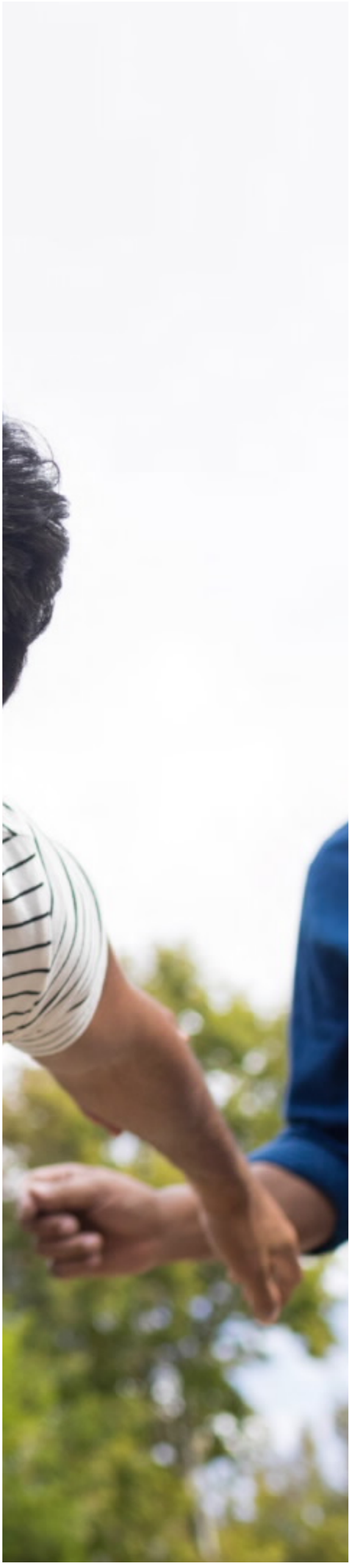
CHART 1.10: NSW NET INTERSTATE MIGRATION



Source: ABS 3101.0; NSW Treasury.

1.4 Migration can slow the ageing of the population





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. [17]

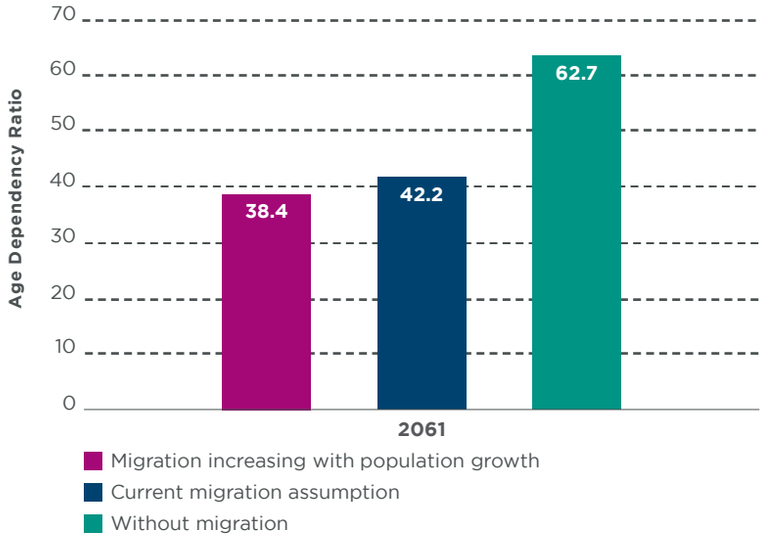
Australian migration policy, including annual caps on permanent visas, is set by the Commonwealth Government. Over the long run, Commonwealth projections assume a flat-rate level of net overseas migration to Australia of 235,000 people per year. This suggests that a smaller share of the population will 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.[18] This compares to an aged dependency ratio of 42.2 per cent under the current flat-line migration assumption.

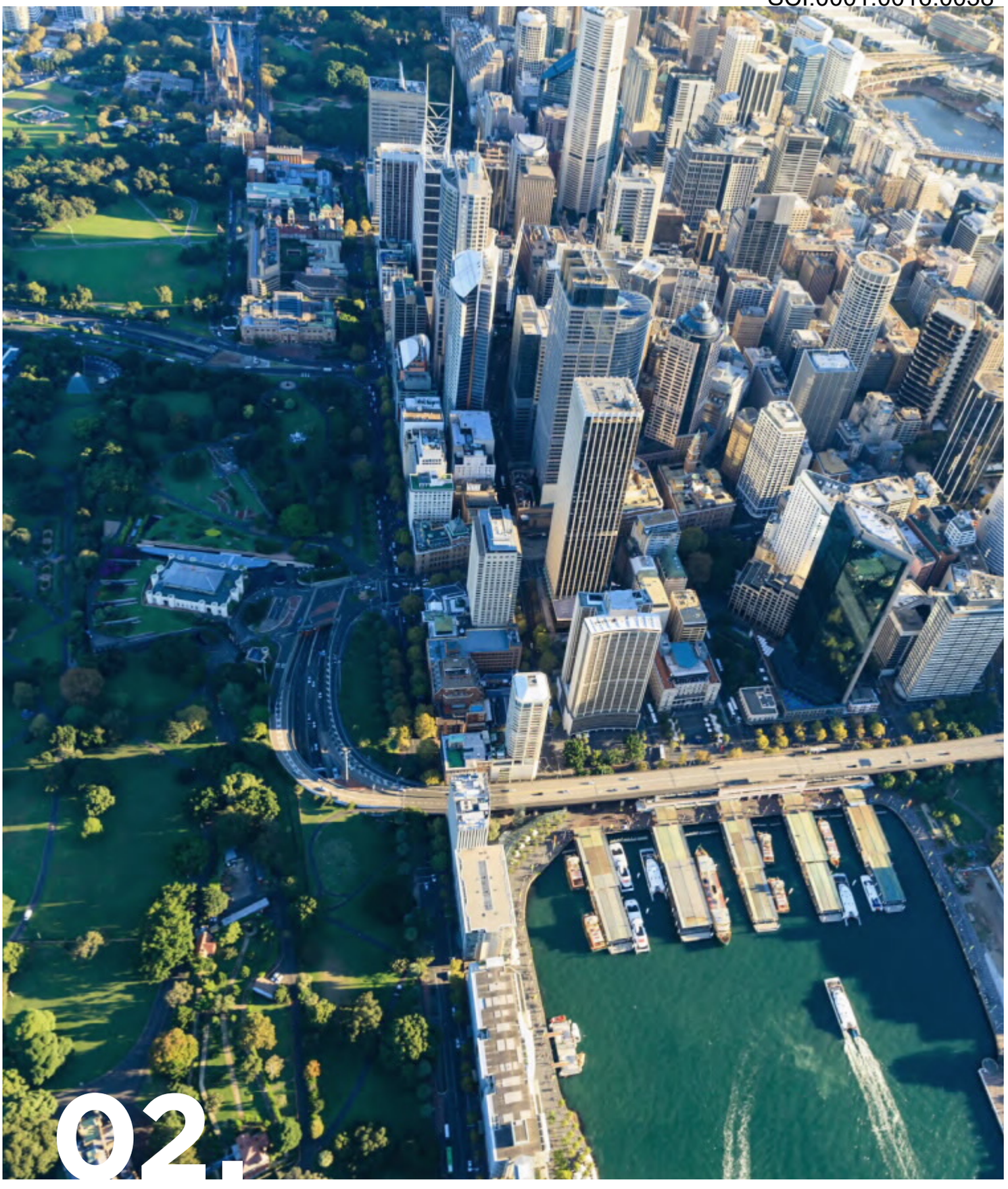
CHART 1.11: NSW AGED DEPENDENCY RATIO



Source: NSW Treasury.

[17] 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.

[18] 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.



02.

Future shape of the NSW economy

New South Wales is projected to have a $1.4 trillion-dollar economy by 2060-61, measured in today's dollars. This represents a more than doubling of the economy in real terms from $629 billion in 2018-19.

Treasury modelling projects that real economic growth will average 2.0 per cent per year to 2060-61. Real Gross State Product (GSP) per person – a measure of average living standards – will grow by 1.1 per cent each year on average. Overall, people in New South Wales will enjoy higher incomes over the next 40 years with average full-time wages projected to grow from $86,000 in 2018-19 to $139,000 by 2060-61, measured in today's dollars.

As outlined in Chapter 1, historically low fertility rates and a slowdown in overseas migration will contribute to slower population growth compared to recent decades. This means that changes in the proportion of adults in work (the participation rate), and the amount each person produces per hour (productivity) become more critical to drive economic growth, support intergenerational equity and improve living standards over time.

The NSW participation rate is projected to decline from 65.3 per cent in 2018-19 to 61.6 per cent by 2060-61 as the population ages. This decline is expected to occur despite an increase in participation amongst working age women and older workers. The proportion of the workforce working part-time is projected to continue rising from 30.7 per cent in 2018-19 to 33.0 per cent in 2060-61.

Productivity growth is expected to average 1.2 per cent each year over the next 40 years. This assumption is based on historical productivity growth over the past 30 years. While productivity is high in New South Wales, productivity growth has dropped below the OECD average (a grouping of 37 advanced economies) and the Australian average. Achieving a productivity growth rate of 1.2 per cent will be challenging and will require microeconomic reforms at the State and Commonwealth level, the development of world class infrastructure, an effective and adaptable education and training system, and the adoption of global and local technological innovations.

Employment is projected to grow fastest in business services and in social services, with these sectors projected to account for 52 per cent of jobs by 2034-35, up from 36 per cent in 1989-90. For example, the number of health care jobs is expected to grow as the population ages and as medical treatments and technologies continue to evolve. The jobs of the future will require a highly skilled workforce as the skills mix continues to shift away from more manual and routine tasks and towards non-routine and analytical activities.

In 2060-61:

Size of NSW economy:

$1.4 TRILLION

The NSW economy will be

2.3 TIMES

larger

Average full time wages:

$139,000

per year

Income per capita will be

59%

higher

2.1 New South Wales will be Australia's first trillion-dollar economy

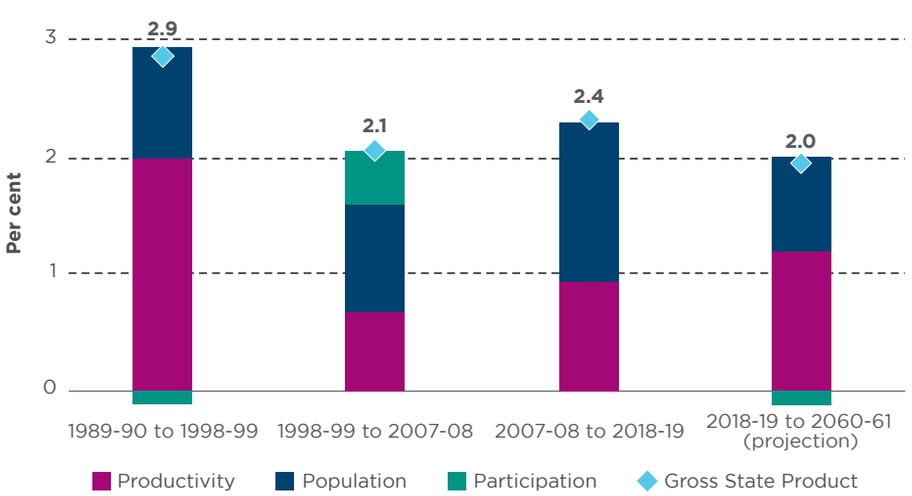
The NSW economy will be worth $1.4 trillion by 2060-61 in today's dollars, which is around 2.3 times the size of the economy today. The economy is projected to grow at an average rate of 2.0 per cent each year between 2018-19 and 2060-61 (Chart 2.1), below the annual average rate of 2.4 per cent growth achieved between 2007-08 and 2018-19 primarily due to slower population growth. Median household income is projected to increase from $97,000 in 2018-19 to $138,000 in 2060-61 in today's dollars (Chart 2.2).

Productivity is expected to become the largest driver of economic growth over the next 40 years. As Chapter 1 outlines, population growth is projected to slow to 0.8 per cent each year, down from the 1.2 per cent per year seen since 2000. The proportion of the working age population engaged in the workforce (the participation rate) is projected to fall as the population ages, subtracting 0.1 per cent from annual economic growth over the next 40 years. For New South Wales to achieve an annual economic growth rate of 2.0 per cent, productivity will need to grow by 1.2 per cent each year, consistent with the 30-year historical average, but higher than the 0.9 per cent experienced between 1999-2000 and 2018-19.

Drivers of economic growth 2018-19 to 2060-61

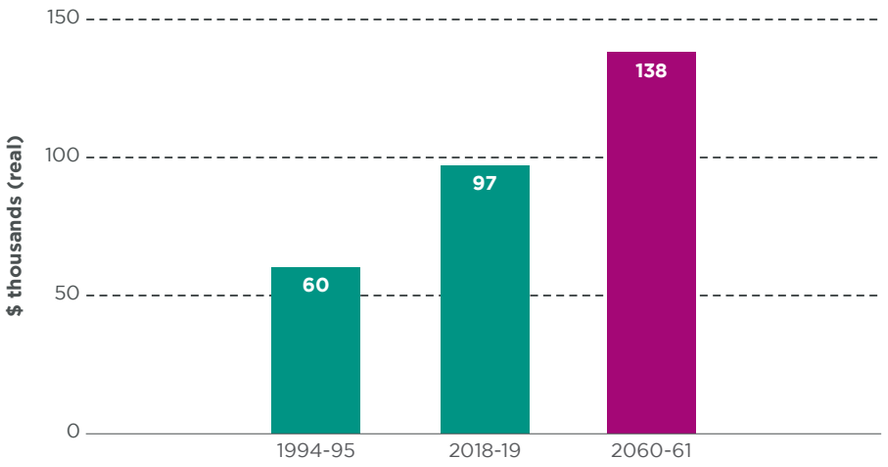
Productivity	Population	Participation
+1.2%	**+0.8%**	**-0.1%**

CHART 2.1: CONTRIBUTION OF POPULATION, PARTICIPATION AND PRODUCTIVITY ('THREE PS') TO REAL NSW ECONOMIC GROWTH



Participation defined as hours worked per capita. Source: ABS 5220.0, 6202.0, 3101.0 and NSW Treasury.

CHART 2.2: NSW MEDIAN HOUSEHOLD INCOME



Median Annual Gross Household Incomes for NSW Households. Source: ABS 6523.0 and NSW Treasury.

2.2 Workforce participation will decline as the population ages

The participation rate measures the proportion of adults aged over 15 who are either employed or seeking employment. Higher participation rates indicate that a greater proportion of the working age population is working, earning income and paying tax. The NSW participation rate is projected to decline from 65.3 per cent in 2018-19 to 61.6 per cent by 2060-61 (Chart 2.3). This is driven by our ageing population – workforce participation is lower for those over the traditional retirement age of 65. In 2018-19, 78 per cent of people aged between 15 and 64 participated in the workforce compared with 15 per cent of people aged 65 and over. By 2060-61, 25 per cent of our population will be over the age of 65, compared to 16 per cent in 2018-19. Chart 2.3 shows that if the age profile of the population remained the same as in 2018-19, the participation rate would be 5.5 points higher than projected by 2060-61. Under this scenario, the economy would grow 0.1 per cent faster each year and would be 4.8 per cent larger by 2060-61.

Participation rate projection for NSW

65.3%
in 2018-19

61.6%
in 2060-61

Participation rate projection (aged 65 and over)

15.0%
in 2018-19

19.4%
in 2060-61

A greater share of the workforce will work part-time

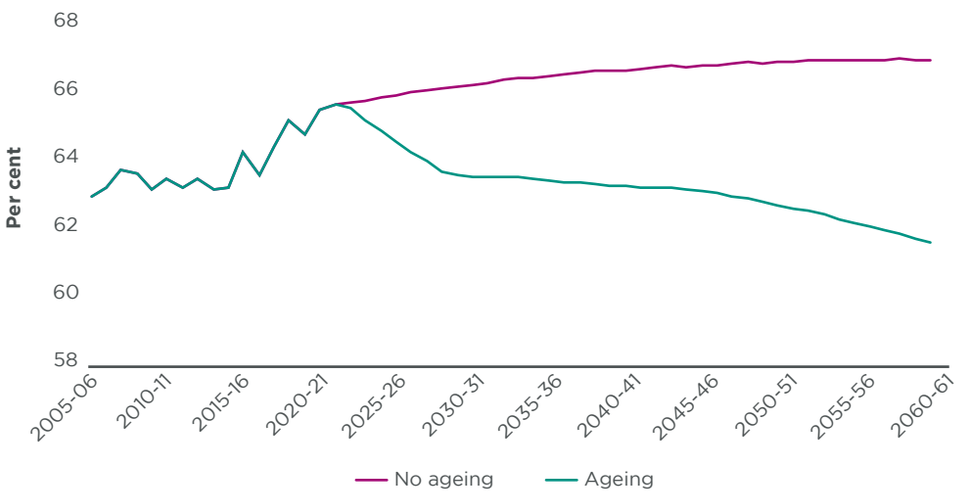
Part-time work will become more common, with 33.0 per cent of the workforce projected to be working part time by 2060-61, up from 30.7 per cent in 2018-19 (Chart 2.4). In 1978-79 part-time workers only made up 14.8 per cent of the workforce. Many advanced economies have seen a similar increase in their part-time share of employment over recent decades. In line with this trend, the average weekly number of hours worked per worker is projected to decline slightly from 31.8 in 2018-19 to 31.2 hours by 2060-61.

Increasing participation amongst working age women and older people

While overall participation is projected to decline, it is expected to remain higher than was projected in the 2016 NSW Intergenerational Report. This is because more working age women and people over 65 are now projected to participate in the workforce. By 2060-61, 19.4 per cent of people aged over 65 are projected to participate in the workforce, around four times the share in 1989-90.

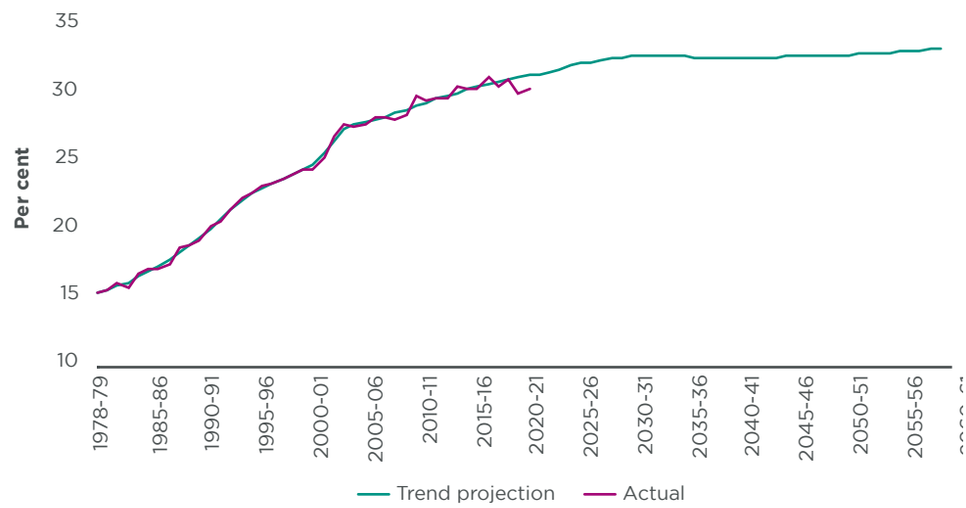
Higher participation amongst older workers has push and pull factors. Push factors include an increase in the pension age, financial constraints related to longer life expectancy, and low interest rates and market volatility that for some create a strong incentive to remain working. Pull factors include healthier ageing (Box 2.1) and a shift in workplace skills towards more cognitive and less manual tasks (see section 2.4).

CHART 2.3: PARTICIPATION AND THE IMPACT OF AGEING



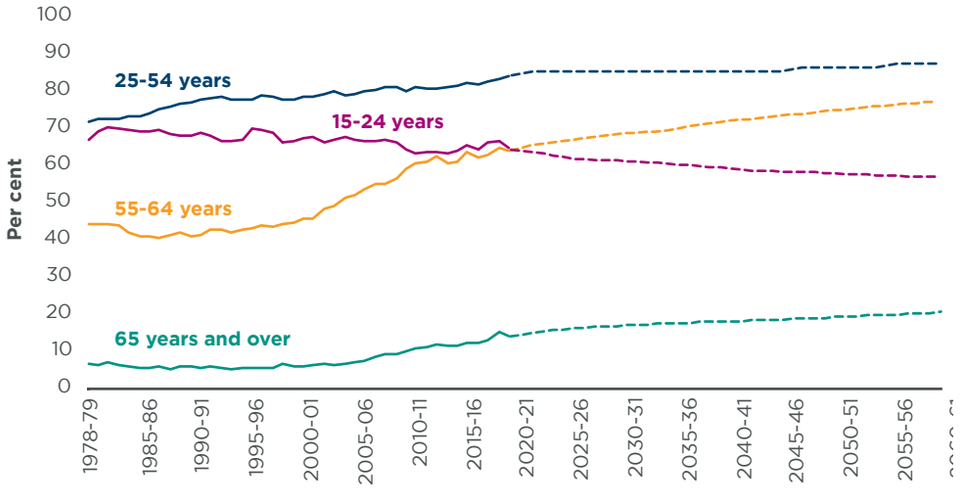
Source: ABS 6202.0 and NSW Treasury.

CHART 2.4: PART-TIME SHARE OF THE NSW WORKFORCE



2020-21 is the 12-month average to March 2021. Source: ABS 6202.0 and NSW Treasury.

CHART 2.5: PARTICIPATION BY AGE



Source: ABS 6291.0 and NSW Treasury.

Box 2.1: Quality health care improves participation throughout life

Good health supports people's ability to participate in and contribute to the economy — whether it be through schooling, employment or in the community.

Almost half of Australians have at least one common chronic health condition, such as diabetes, cardiovascular diseases and mental health conditions.[19] Studies have found people living with chronic disease are 60 per cent more likely not to participate in the workforce and often need additional support from carers. If they are working, they take almost twice as much time off due to sickness.[20] The Australian Productivity Commission's recent inquiry into mental health estimated that poor mental health cost the Australian economy between $5.3 billion to $7.0 billion in lost productivity in 2018-19.[21]

Governments, employers and communities all have a role in creating structures and environments that support people's physical and mental health. This can facilitate workplace participation and contribute to New South Wales' economic productivity. The role of the NSW health system in improving health outcomes is discussed in Chapter 4.

Staying in education longer means younger people join the workforce later

Younger people are remaining in education for longer and so are delaying their entry into the workforce. Between 1989-90 and 2019-20 the percentage of NSW people aged 20-24 in full-time tertiary education nearly tripled from 12 per cent to 34 per cent.[22] Increasing education for those who choose to study longer and obtain higher qualifications is an investment in their future wages and employability.

[19] Australian Institute of Health and Welfare, *Australia's health 2020: in brief* , 2020.
[20] Australian Institute of Health and Welfare, *Chronic disease and participation in work* , 2009.
[21] Australian Productivity Commission, *Mental Health*, Inquiry Report Volume 2, No. 95., 2020.
[22] ABS 6291.0.

Box 2.2: Flexibility in the workplace

The way we work is changing, with fewer jobs today fitting a traditional 'nine-to-five' working week, whether this be through the increased prevalence of part-time work, changes in how people are employed (for example the emergence of the gig economy), or an increase in flexible working arrangements such as working from home.

For many, the availability of less rigid working arrangements has improved their work-life balance, while for others it has been crucial to their participation in the workforce, for instance, those with caring responsibilities. Flexibility is a key driver of rising participation rates even as the population has aged. [23] It has also been a contributing factor in how we have been able to better weather economic shocks such as the Global Financial Crisis and COVID-19 with lower unemployment compared with earlier recessions.

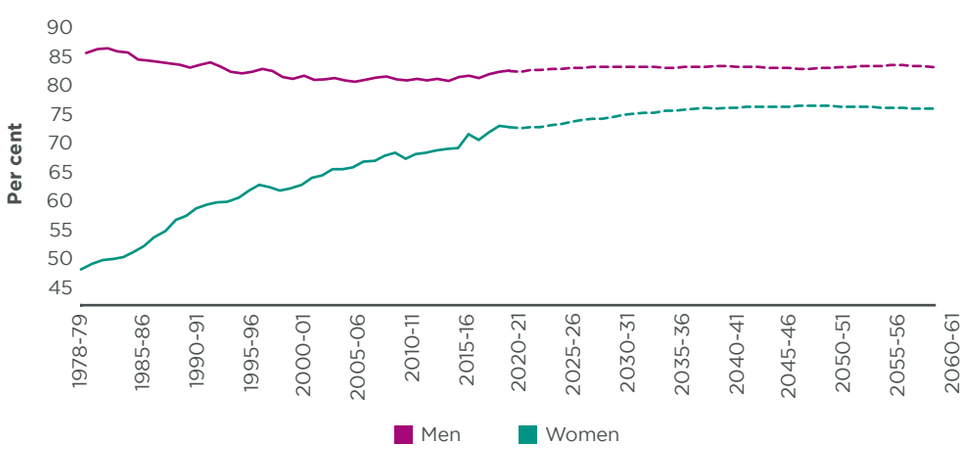
For others, however, these changes have been less beneficial. The underemployment rate, which measures those who want to work more hours than they currently do, has been steadily increasing over recent decades and reached 7.7 per cent in 2018-19. Changing employment practices have also led to some workers missing out on benefits including paid leave and compulsory superannuation contributions.

Balancing the flexibility needs of employers and employees will be an ongoing challenge as more of the workforce works part-time and non-traditional working hours, and as technology introduces even more ways to work flexibly.

More women of working age will participate in the workforce

Women's participation is projected to be higher across nearly all age groups. Amongst working age women (aged 15-64), we project the participation rate to increase from 73.1 per cent in 2018-19 to 75.8 per cent in 2060-61, whereas amongst men of the same age participation is projected to remain stable over the same period (Chart 2.6). Increasing workforce participation amongst women over the past 40 years has occurred alongside dramatic improvements in women's access to education and attainment levels; policies to address gender discrimination; improved access to paid parental leave and childcare; society's evolving attitudes; strong growth in services industries that have traditionally employed a greater share of women; and the greater availability of part-time and flexible work.

CHART 2.6: PARTICIPATION FOR MEN AND WOMEN AGED 15-64



Source: ABS 6202.0 and NSW Treasury.

[23] NSW Treasury, *Preliminary Participation Rate Projections for the 2021 Intergenerational Report*, 2021 Intergenerational Report Treasury Technical Paper Series, TTRP 20-01, 2020.

Greater participation by women in paid work has economic benefits

The participation rate for women is projected to increase over the next 40 years but remain below the men's rate, based on analysis of demographic and historical trends. [24] To show the economic significance of lower workforce participation by women, it is useful to consider the impact if participation rates amongst women were to reach the same level as that of men. If this were to happen gradually over the next twenty years, and be sustained, it would lift the overall participation rate by five percentage points and the economy would be 8 per cent larger by 2060-61. This would translate to an increase of $22,000 (real 2019-20 dollars) per household. This estimate is illustrative only and does not consider any additional costs associated with achieving gender parity in participation rates.

Reform would be required to support increased participation in paid work by women

Participation rates among women in their early twenties are close to being on par with men, but from their late 20s women's participation rates are lower than that of men.

Key levers that can boost women's participation in paid work include measures that support flexible forms of work; improved access to affordable childcare; improved quality and availability of aged care; and parental leave allowances for both women and men. A more even gender mix across occupations and industries, and further improvements in flexibility for women and men across all workplaces would also likely support women's participation.

Impact in 2060-61 of women's participation reaching parity with men

Overall participation rate

+5 PERCENTAGE POINTS

Gross State product

+8%

Employment

+436,000

Income per household

+$22,000

Based on a scenario where the women's participation rate increases to reach the same level as that of men over 20 years and then remains at the same level thereafter. The scenario is illustrative only and does not account for any costs associated with changes in participation.

[24] For more details of participation rate modelling see: NSW Treasury, *Preliminary Participation Rate Projections for the 2021 Intergenerational Report*, 2021 Intergenerational Report Treasury Technical Paper Series, TTRP 20-01, 2020.

2.3 Productivity is key to rising living standards

Labour productivity measures the value of economic output per hour of work. It is the main driver of material living standards since higher productivity supports higher wages and household incomes. High productivity growth also means more innovative goods and services that better meet our needs and at a more affordable price.

Productivity growth is expected to average 1.2 per cent per year over the next 40 years

Productivity is assumed to grow in line with the average annual growth rate over the past 30 years, which included a period of very rapid productivity growth through the 1990s, followed by much slower growth since around 2000.

Productivity growth will rely on a number of factors: increasing skill levels of workers; better use of advanced technologies; more efficiently organised businesses and government; and investment in buildings, machinery, equipment and infrastructure.

'Multifactor productivity' is the overall efficiency with which workers and capital are used together in the production process, while 'capital deepening' refers to an increase in capital per worker. In general, variations in multifactor productivity growth have been closely associated with variations in labour productivity growth in New South Wales. [25]

Productivity growth leads to higher wages and lifts living standards

For most households, wages are the main source of income. This means that wages growth is the most important driver of increased material living standards.

The most important driver of higher average wages over the long term is productivity. If people are able to produce higher value goods and services in their time at work, there is more money available to lift wages. The average full-time wage is projected to grow from $86,000 in 2018-19 to $139,000 by 2060-61 (in 2019-20 dollars).

CHART 2.7: GROWTH IN PRODUCTIVITY AND REAL WAGES

Productivity is GSP per hour worked. Real wages are compensation of employees per hour worked. Includes salaries, wages and employer superannuation contributions. Both indices are deflated using the implicit GSP deflator. 2019-20 data includes wages supported by Commonwealth JobKeeper payments and is also impacted by compositional effects associated with COVID-19

Source: ABS 5220.0, 6202.0 and NSW Treasury.

[25] These trends are detailed in: NSW Treasury, *Projecting Long Run Productivity Growth Rates for the 2021 Intergenerational Report*, 2021 Intergenerational Report Treasury Technical Research Paper Series, TTRP 21-02, 2021.

Chart 2.7 maps the relationship between wages and productivity growth in New South Wales over the past 30 years. This relationship is not perfect. Average wages do not reflect everyone's experience and there will be those who have enjoyed high wages growth and others who are doing it tough. More generally, over recent decades average real wages have not grown as fast as productivity. This is due to an increase in the share of economic income accruing to the owners of housing, and to an increase in measured profits in the mining and financial sectors. [26] *Nominal* wages growth (that is without adjusting for inflation) remains around its lowest level on record.

Productivity growth

Average annual growth in productivity since 1999-2000

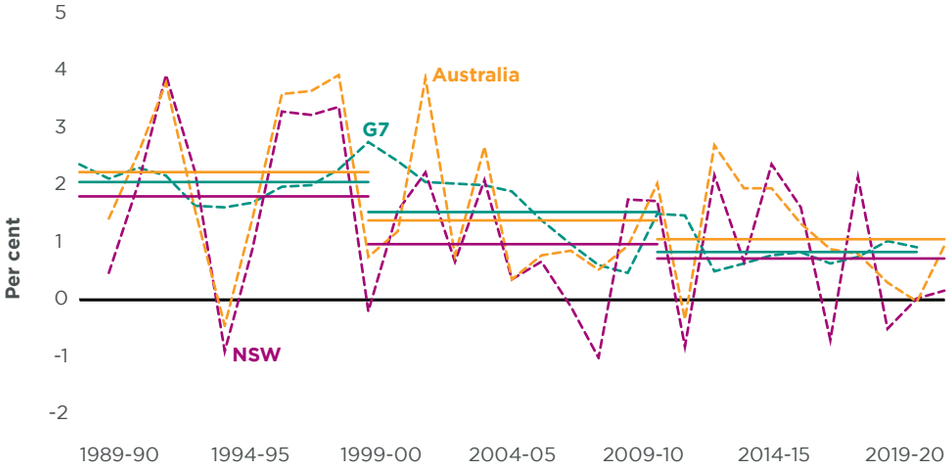
+0.9%

New South Wales is a highly productive economy, but there is scope to improve

Productivity *levels* in New South Wales (as opposed to productivity growth) position the state as equivalent to around the 15th most productive country in the OECD, which includes 37 of the world's most advanced economies. Within Australia, New South Wales' productivity levels are second only to resource-rich Western Australia. New South Wales' relatively high productivity level is based on it being home to some of Australia's most productive knowledge based industries, a diverse, skilled and globally connected workforce, relative economies of scale, advanced infrastructure and productive agricultural land.

Sluggish productivity growth over the past 20 years has been a concern for many advanced economies, including Australia (Chart 2.8). Within New South Wales, productivity growth has averaged just 0.9 per cent per annum between 1999-2000 and 2018-19, significantly lagging the national average of 1.2 per cent, the

CHART 2.8: PRODUCTIVITY GROWTH IN NSW, AUSTRALIA AND THE G7



G7 includes the United States, Japan, Germany, the United Kingdom, France, Italy and Canada. Solid lines represent the average annual growth rate over selected periods.

Source: OECD, ABS 5220.0, 6202.0, and NSW Treasury.

[26] The uptick in 2019-20 should be treated with caution given significant compositional changes in the workforce associated with COVID-19 as well as the impact of JobKeeper. This relationship is examined in detail in La Cava, G., "The Labour and Capital Shares of Income in Australia", Reserve Bank of Australia Bulletin, March 2019.

[27] US and G7 measured by calendar years 2000 to 2019.

[28] This is explored in further detail in: NSW Treasury, *Secular Stagnation, the Long-Term Real Bond Rate Outlook and Policy Issues for NSW and Australia* , 2021 Intergenerational Report Treasury Technical Research Paper Series, TTRP 21-06, 2021.

Box 2.3: Impacts of climate change on the NSW economy

New South Wales has experienced the impact of climate extremes recently, including drought, the 2019-20 bushfires and, more recently, widespread flooding. Climate change related extreme weather events are likely to persist in the future and these will have a significant impact on the livelihoods of our communities. This will also impact the State's productivity growth and the global economy in the coming decades, although it is uncertain to what extent.

Natural disasters

$15.8B-$17.2B

total economic costs on average every year by 2060-61 (real 2019-20 dollars)

Bushfires

2%-24%

Increase in risk

Floods

0%-12%

Increase in risk

Storms

2%-5%

Increase in risk

Modelling for this Report has considered the sensitivity of the economic and fiscal outlook to a range of climate scenarios, developed and assessed as plausible by the United Nation's Intergovernmental Panel on Climate Change. The projections in this Report are consistent with a baseline assumption of moderate warming, with an average global surface temperature increase of 2.0°C by 2060-61 compared with the pre-industrial average. However, there is considerable uncertainty in this assumption because the actual extent of global warming will depend on both the future trajectory of global greenhouse gas emissions and the way they impact the global and local climates.

Treasury modelling considered the economic impact of four key climate risks: natural disasters; sea level rise; heatwaves; and the effect of climate change on agricultural production. In reality, climate change will impact a wider range of factors and this should not be considered a comprehensive assessment of the total cost of climate change on the State.

Chart 2.9 shows that, if warming is more severe than expected and temperatures increase by 2.8°C by 2060-61, the NSW economy would lose $4.5 billion in annual income by 2060-61 compared to the moderate warming scenario. If warming is limited to a 1.5°C increase, total economic income in New South Wales would be $3.8 billion higher every year by 2060-61.[30]

Sea level rise

39,000-46,000

NSW properties exposed to coastal erosion or inundation by 2060-61

Heatwaves

700,000-2.7M

working days lost by 2060-61

Agricultural production

$750M-$1.5B

in lost production every year by 2060-61 (real 2019-20 dollars)

CHART 2.9: SENSITIVITY OF NSW ECONOMY TO DIFFERENT WARMING SCENARIOS

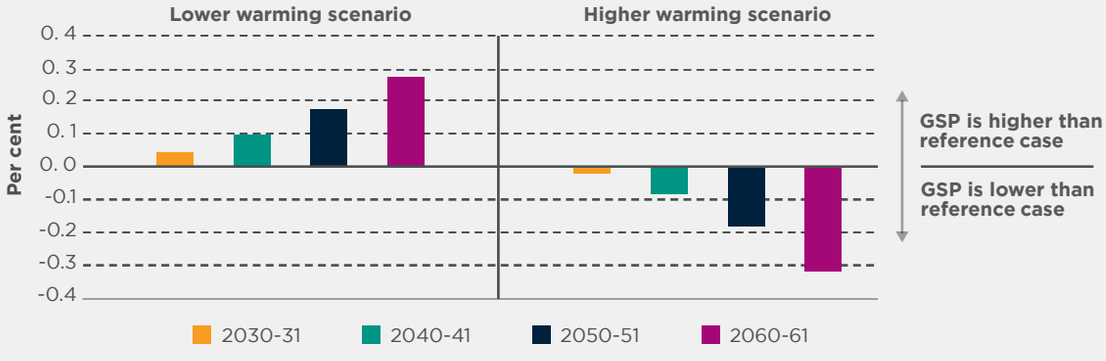


Chart displays deviations in NSW Gross State Product under lower warming (RCP2.6) and higher warming (RCP8.5) scenarios compared to the reference case of moderate warming (RCP4.5). Economic impacts are limited to the four key risks included in modelling.

Source: NSW Treasury, *An indicative assessment of four key areas of climate risk for the 2021 NSW Intergenerational Report*, 2021 Intergenerational Report Treasury Technical Research Paper Series, TTRP 21-05, 2021.

[29] This modelling is outlined in detail in: NSW Treasury, A *n Indicative Assessment of Four Key Areas of Climate Risk for the NSW Intergenerational Report*, 2021 Intergenerational Report Treasury Technical Research Paper Series, TTRP 21-05, 2021.

Nelson Bay, Port Stephens – Destination NSW

United States (1.5 per cent), and the G7 (1.2 per cent).[27] This has led to concerns that the world may be entering a period of 'secular stagnation', characterised by low interest rates and economic growth. If this slowdown persists, the productivity outlook in New South Wales is likely to weaken further, and interest rates would be expected to remain low for an extended period.[28]

Productivity can be difficult to measure, particularly in non-market sectors such as health care and education. This is because where services are provided to consumers either free of charge or heavily subsidised there is less information on how consumers, or society more broadly, values those services relative to other parts of the economy, or how their quality changes over time. As these sectors grow, this will impact measured productivity growth.[29]

Predictions of future productivity growth are inherently uncertain

Key drivers of productivity growth include the education and training system; infrastructure; regulatory and tax settings; demographic, savings and investment patterns; and global factors largely outside the direct control of governments including the pace of technological development.

A range of additional risks are likely to emerge over the coming decades including impacts of climate change and the transition toward renewable energy (see Box 2.3 and Box 2.5); risks associated with wealth and income inequality; geopolitical tensions which could impact trade; as well as the potential for future shocks similar to COVID-19 or the Global Financial Crisis which have both acute and enduring impacts.

2.4 The future of work

The demand for social and business services will increase

The future NSW economy will be increasingly concentrated in the services sector, continuing a centuries-long trend where more repetitive and manual tasks are automated, freeing up workers to do jobs that are more creative and analytical. Increased automation does not reduce employment overall but allows the economy to grow by reducing the cost of producing and distributing goods and services – in 2018-19, a higher proportion of the NSW population was employed than ever before. Industries more exposed to automation will likely see faster productivity growth, but slower employment growth, while industries less exposed to automation will see the reverse. These processes work side by side to create a modern and productive economy based on advanced technology and quality services.

Most new jobs will emerge in services industries. Business services and social services have seen the strongest growth in jobs and are projected to account for 52 per cent of total employment in New South Wales by 2034-35, an increase from 36 per cent in 1989-90 (Chart 2.10). In contrast employment in the production and distribution of goods is projected to decline from 53 per cent to 36 per cent over the same period.[31]

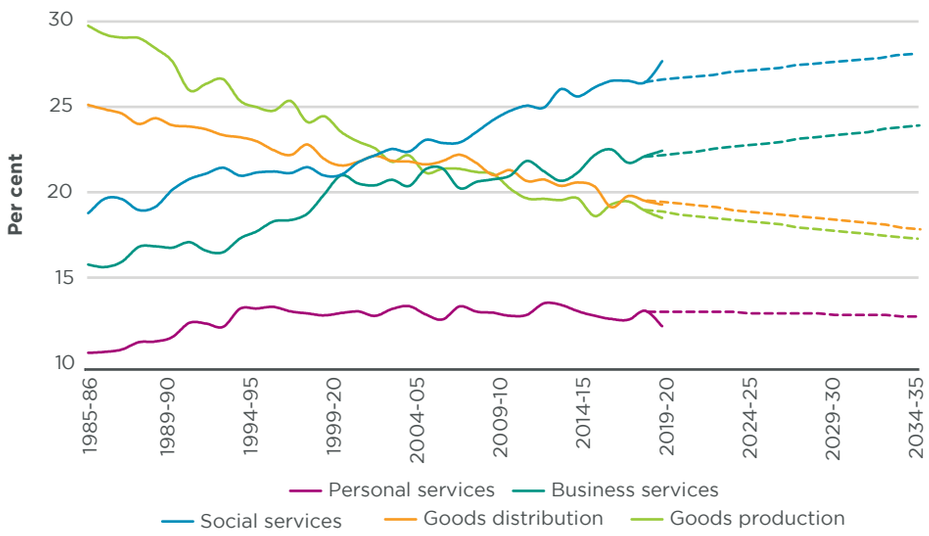
Employment growth in services

There is strong employment projected in social services, such as Health Care and Social Assistance

[30] This is explored in further detail in: Productivity Commission *Things you can't drop on your feet: An overview of Australia's services sector productivity*, PC Productivity Insights, Canberra, April 2021; and Australian Bureau of Statistics, *Enhancing measures of non-market output in economic statistics: Progress paper*, 2019.

[31] Modelling in this section has been developed by the NSW Innovation and Productivity Council, powered by Faethm AI. Projections are limited to the next 15 years (i.e. 2035) given significant uncertainty in technological development and industry trends thereafter.

CHART 2.10: SHARE OF NSW EMPLOYMENT BY SECTOR



Source: NSW Innovation and Productivity Council (powered by Faethm AI); NSW Treasury. Employment is measured in headcount. Social Services includes Education and Training, Health Care and Social Assistance and Public Administration and Safety. Business services include Administrative and Support Services, Financial and Insurance Services, Information Media and Telecommunications, Professional, Scientific and Technical Services and Rental, Hiring and Real Estate Services. Goods Production includes Agriculture, Forestry and Fishing, Construction, Manufacturing and Mining. Goods Distribution includes Electricity, Gas, Water and Waste Services, Retail Trade, Transport, Postal and Warehousing, and Wholesale Trade. Personal Services includes Accommodation and Food Services, Arts and Recreation Services and Other Services.

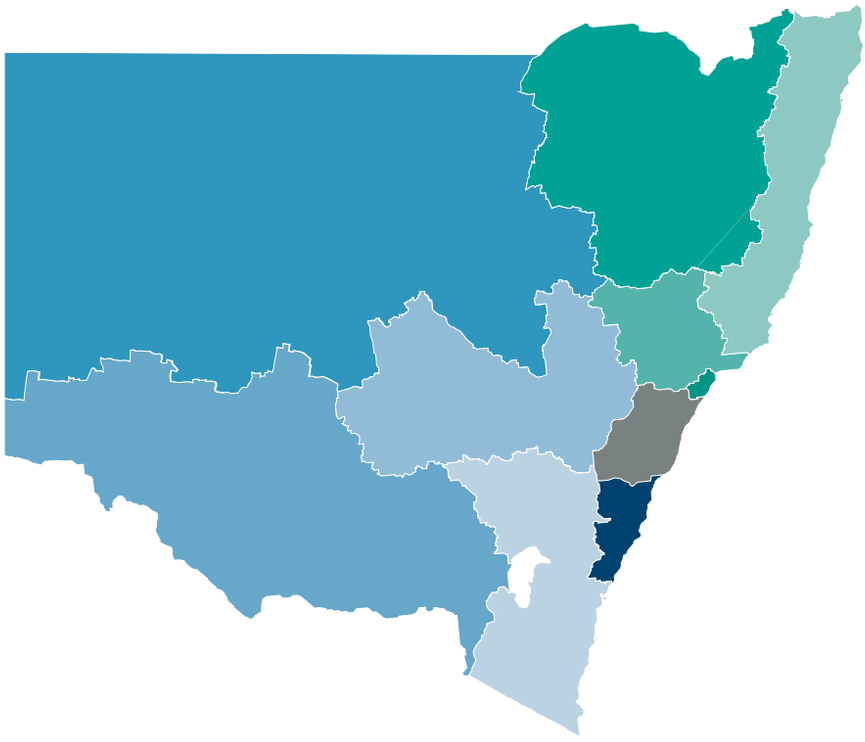
Services industries will also drive employment growth in regional and rural New South Wales

Nearly one million people were employed across regional and rural New South Wales in 2019-20, with an additional 0.5 million in Newcastle, Wollongong and the Central Coast. Services industries such as Health Care and Social Assistance, Education and Training; and Accommodation and Food Services are the largest employers in the regions along with Construction and Retail Trade (Chart 2.11). In line with the statewide trend, employment in services industries is projected to grow the fastest in rural and regional New South Wales over the next 15 years, while employment in goods production and distribution (for example agriculture and mining) is expected to grow more slowly (Chart 2.12).

The most in demand skills will be those least exposed to automation

Over the coming decades, the proportion of jobs that involve more routine and manual tasks will fall, and the share of jobs that mostly utilise more complex, analytical, and social skills will grow. Over the past 30 years, jobs that need more non-routine and cognitive skills — such as nursing, teaching and engineering — have grown by 3.0 per cent per year. In contrast, jobs which utilise more manual skills, such as labouring, machine operating and driving, have grown at just 0.5 per cent per year. These trends could accelerate in the coming decades. Modelling by the NSW Innovation and Productivity Council (powered by Faethm AI) indicates that demand will grow fastest for skills and abilities such as mental processes, interacting with others and complex problem solving skills. Skills where demand is likely to relatively decline include physical and psychomotor (that is, finer physical perception and control) abilities, and technical skills such as repairing and maintaining equipment and machinery (Chart 2.13). The modelling also indicates the potential for artificial intelligence to automate up to 30 per cent of all work tasks currently performed in New South Wales.

CHART 2.11: HIGHEST EMPLOYING INDUSTRIES IN NSW REGIONS (2019-20)



Far West and Orana
Health Care and Social Assistance
Public Administration and Safety
Education and Training

New England and North West
Agriculture, Forestry, Fishing
Health Care and Social Assistance
Education and Training

North Coast
Health Care and Social Assistance
Construction
Retail Trade

Newcastle and Hunter
Health Care and Social Assistance
Construction
Retail Trade

Central Coast
Health Care and Social Assistance
Construction
Retail Trade

Illawarra Shoalhaven
Health Care and Social Assistance
Retail Trade
Construction

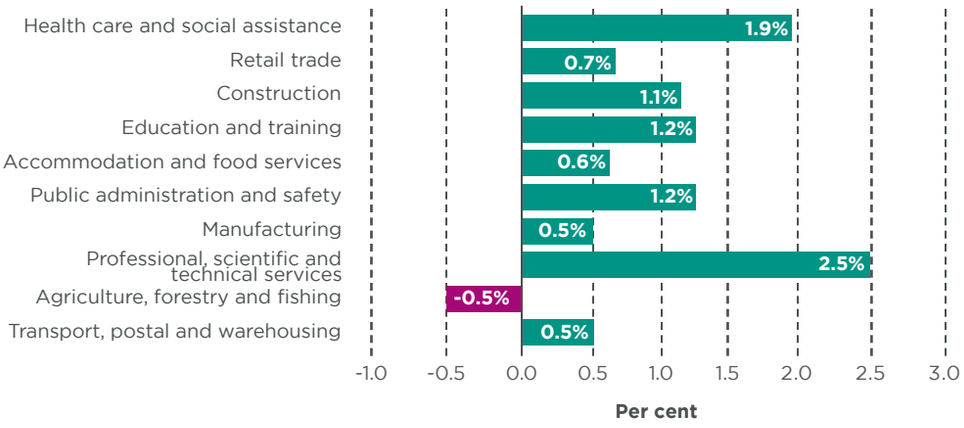
Central West
Agriculture, Forestry, Fishing
Health Care and Social Assistance
Retail Trade

Riverina Murray
Health Care and Social Assistance
Retail Trade
Agriculture, Forestry, Fishing

Capital Region and South Coast
Public Administration and Safety
Retail Trade
Health Care and Social Assistance

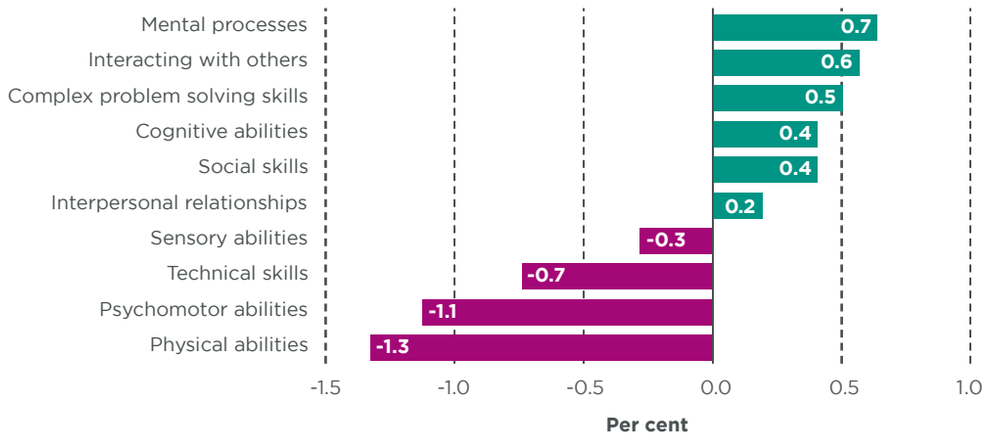
Source: ABS 6291.0 and NSW Treasury.

CHART 2.12: PROJECTED ANNUAL EMPLOYMENT GROWTH 2019-20 TO 2034-35 FOR TOP TEN EMPLOYING INDUSTRIES IN NSW REGIONS



Source: NSW Innovation and Productivity Council (powered by Faethm AI) and NSW Treasury.

CHART 2.13: PROJECTED CHANGE IN RELATIVE DEMAND FOR SKILLS AND ABILITIES 2019-20 TO 2034-35



Each occupation is scored for specific skills and abilities. The chart reflects the relative change in the share of total skills and abilities using projected changes in employment by occupation.

Source: NSW Innovation and Productivity Council (powered by Faethm AI) and NSW Treasury.

The workforce will be increasingly skilled

The jobs of the future will require an increasingly skilled workforce. Improving educational outcomes in our schools, including in science, technology, engineering, and maths (STEM) subjects is critical to ensuring the future workforce is equipped with the skills necessary for an advanced and productivity economy.

Skills development will not end with school, or even at university or TAFE, but will entail lifelong learning. According to the World Economic Forum, job skills lose around half their value every five years.[32] Given the increased pace of change of valued skills as industries evolve, we can expect workers will need to update their skillsets more frequently in the future than they do today. Increased educational attainment will also have knock-on effects throughout the economy. The participation rate amongst those aged 15-24 declined by around four percentage points between 1980-81 and 2018-19 and is projected to decline by a further 11 percentage points by 2060-61. This has likely been a contributing factor to lower home ownership rates, living at home for longer and lower fertility rates.

A more educated workforce will improve living standards and quality of life

The benefits of a more highly skilled workforce will be realised through higher wages and improved living standards. Modelling by the NSW Innovation and Productivity Council (powered by Faethm AI) indicates that employment in the highest paying occupations will grow 30 per cent faster than employment in the lowest paying occupations over the next 15 years.[33]

The automation of work tasks can also have benefits beyond economic growth. Manual and routine tasks are often the most dangerous and in line with trends described, the proportion of Australian workers experiencing a work-related injury or illness declined by a third between 2005-06 and 2017-18.[34]

[32] World Economic Forum, Skill, re-skill and re-skill again. How to keep up with the future of work, 2017. https://www.weforum.org/agenda/2017/07/skill-reskill-prepare-for-future-of-work/

[33] Highest paying occupations are those with typical incomes over $100,000 as reported in the 2016 Census. The lowest paying occupations are those with typical incomes below $40,000.

[34] Source: ABS 6324.0.

2.5 Supporting productivity growth and employment

Economic reforms can boost productivity growth and participation rates to lift living standards

To improve the productivity of New South Wales, the NSW Productivity Commission was established in 2018 to identify a new productivity reform agenda for the state. The NSW Productivity Commission recently released its Productivity White Paper: Rebooting the Economy, recognising that lifting the State's productive capacity is about practical changes to how we do things.

The pandemic created unprecedented opportunities for trying new ways of doing things and showed that we can quickly and successfully adapt to rapid change. Recognising this opportunity, the NSW Government progressed a number of recommendations from the Productivity Green Paper (released in 2020) in the 2020-21 Budget, including:

- Implementing a suite of planning reforms aimed at maximising the productivity and flexibility of our employment lands, and further reducing assessment timeframes, including through the NSW Government's Planning Reform Action Plan.
- Establishing a new Training and Skills Recognition Centre (commencing in the construction sector) to develop and pilot new, flexible trades pathways.
- Accepting the Commission's reforms to the infrastructure contributions system, unlocking up to $12 billion in productivity benefits through changes to how public facilities and services are funded through the planning system, as well as developing an integrated digital tool to make it easier for stakeholders to understand and interact with the infrastructure contributions system.
- Implementing a new nation-wide scheme for the automatic mutual recognition of state based occupational licences to overcome skills shortages.

The NSW Government is also exploring options to overhaul the State's inefficient property tax system, which would represent the most significant reform of the NSW tax system in a generation (see Chapter 3). The NSW Government is also proactively managing risks to productivity, such as the transition to low emissions energy generation technologies (Box 2.5).

The NSW Government has also taken steps to help equip NSW businesses with the skills, talent, partners in innovation and pathways to crucial global markets, as outlined in the 2040 Economic Blueprint and the Global NSW Strategy (Box 2.4).

Five fastest growing skills

1. Science

2. Programming

3. Operations analysis

4. Systems evaluation

5. Technology design

Five slowest growing skills

1. Repairing

2. Equipment maintenance

3. Installation

4. Operation and control

5. Equipment selection

Infographic source: NSW Innovation and Productivity Council (powered by Faethm AI). A full list and description of skills is available at www.onetonline.org

Box 2.4: Global NSW Strategy and NSW 2040 Economic Blueprint

The Global NSW Strategy is working to accelerate the creation of new, resilient jobs in advanced industries and assisting priority sectors to be truly world-leading.

Advanced manufacturing supports jobs, productivity, and growth across several industries. The field encompasses technologies including additive and precision manufacturing, advanced materials, robotics, artificial intelligence, virtual and augmented reality, advanced sensors, data analytics and quantum technology. Annual salaries in advanced manufacturing tend to be well in excess of $100,000 a year, reflecting higher education levels of the workforce (over 85 per cent of workers have bachelor's degrees or higher).

New South Wales is home to the largest medical technology industry of any state, employing over 7,000 people in highly skilled, high-paying jobs. It is estimated that the medical technology industry has the potential to create an additional 28,000 jobs and generate $18 billion in GDP nationally by 2025. The industry is nimble, with manufacturers recently swiftly adjusting production offerings to produce essential medical technologies. The industry is also expanding through services such as telehealth, e-health and remote-area health.

The renewable energy industry in New South Wales is developing significant capacity for wind and solar energy generation. Hydrogen is also emerging as an economic opportunity for Australia to reduce emissions through new energy sources. For example, Australia has the potential to build a hydrogen export industry worth $1.7 billion annually by 2030, supporting 2,800 jobs, many in regional areas. [35] New South Wales is well-positioned to produce and export hydrogen through its access to abundant renewable energy resources, existing transport and export infrastructure, and a skilled workforce and strong research capabilities.

Higher productivity growth has significant economic benefits

There are significant benefits to boosting productivity. If productivity grows by 1.3 per cent per year instead of the 1.2 per cent expected in this report, the NSW economy will be $53 billion larger in 2060-61, measured in today's dollars. This is the equivalent of $11,000 more income per household. Higher productivity growth would also lead to a significant improvement in the NSW Budget outlook, explored further in Chapter 5.

Faster Productivity Growth

If productivity grew 0.1 per cent faster every year

the economy would be

$53 BILLION

larger by 2060-61 (2019-20 dollars)

[35] NSW Treasury, *NSW 2040 Economic Blueprint: Investing in the state's future* , 2020.

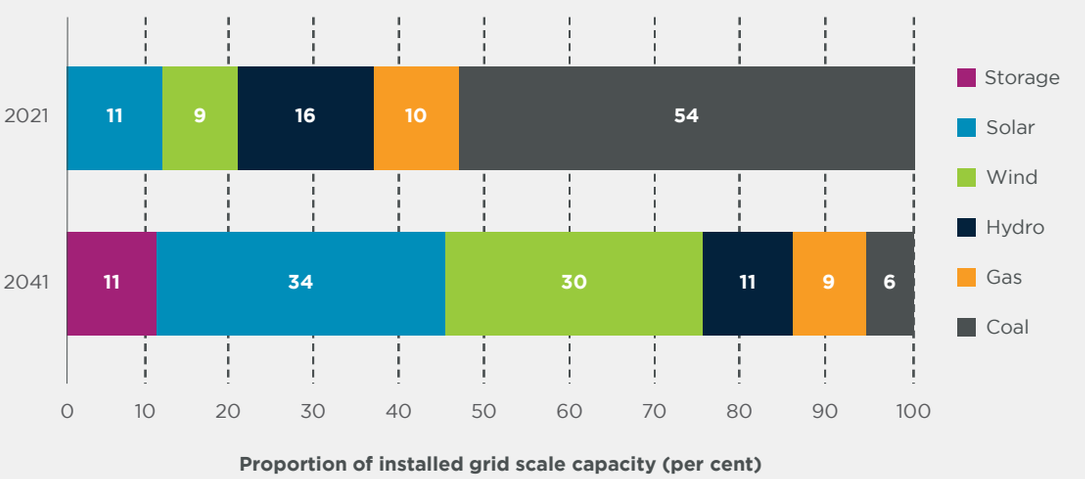
Box 2.5: The energy transition

The way we generate energy is set to change as the State's coal generators progressively reach the end of their useful lives and are replaced with new generation and storage infrastructure. By 2040-41, domestic energy generation will likely mostly be sourced from renewable energy sources (Chart 2.14). At the same time, the proportion of electric vehicles on our roads is expected to grow considerably.

The NSW Electricity Infrastructure Roadmap addresses a key risk in this transition with a framework to ensure new forms of electricity generation are in place in time for the retirement of the State's coal generators. The experience of other states indicates that electricity prices can spike significantly in the wake of such retirements if adequate replacement generation is not in place.

Modelling conducted for this report indicates that the wider economic impacts of a slow and disorderly energy transition would leave the economy 0.9 per cent, or $13 billion smaller by 2060-61 with this being primarily driven by higher and more volatile electricity prices. [36]

CHART 2.14: GRID-SCALE ELECTRICITY GENERATION CAPACITY IN NSW



Excludes rooftop solar. Source: Australian Energy Regulator, NSW Department of Planning, Industry and Environment and NSW Treasury.

[36] This modelling is outlined in further detail in: NSW Treasury, *The sensitivity of the NSW economic and fiscal outlook to global coal demand and the broader energy transition for the 2021 NSW Intergenerational Report*, 2021 Intergenerational Report Treasury Technical Research Paper Series, TTRP 21-07, 2021.

03.

Housing, home ownership and household savings

The housing market plays an important role in the living standards of the people of New South Wales. It impacts the State's economic growth and individuals' quality of life.

Stable and affordable housing is critical to economic security and to our physical and mental wellbeing. It provides the physical structure of our communities and can impact access to jobs and services. An efficient housing market strikes a balance between providing people with a secure home and allowing them to move easily when they want to. Housing is also typically the biggest investment a person makes in their lifetime, the largest form of savings, and the foundation for a secure and independent retirement.

Up to 2060-61 we project New South Wales will need 1.7 million additional homes for a growing population, equivalent to one new home for every two existing homes. This is a significant task and will require an average of 42,000 additional homes to be added to the housing stock every year.

Housing deposits have become less affordable over recent decades, with the typical time it takes to save for a home deposit increasing from 6.6 years in 1995-96 to 11.5 years in 2019-20. Along with declining workforce participation amongst younger people, this has contributed to a decline in homeownership rates for all but those aged over 65. If enough new housing is built, the deposit barrier is projected to decline over the coming decades as interest rates increase from record low levels.

The housing challenge over the coming decades is to build enough homes for people to live in, to support access to housing that is more affordable, and to ensure that the housing market is flexible enough to respond to people's changing needs and preferences.

By 2060-61, NSW will need

1 NEW HOME

for every 2 current homes

By 2061:

NSW will need

1.7 MILLION

additional homes

NSW needs an average of

42,000

additional homes every year over the next 40 years

Number of people per household:

2.3

(down from 2.5 today)

29%

of households will be single people (up from 25% today)

3.1 The changing shape of the housing market

Housing matters for the economy and people's living standards

Housing is a basic human need and a key component of our quality of life. Where people live impacts their access to work, education, and community. NSW households spend nearly a third of their disposable income on housing, more than on any other single item.[37] Housing also directly supports employment, with building construction and real estate accounting for around one in every ten jobs.[38]

When there is not enough housing, it becomes less affordable. This puts pressure on household budgets, increases demand for social housing and can lead to an increase in homelessness. If housing is not available in the right places, it becomes more difficult for people to access jobs and can increase the length of the daily commute.

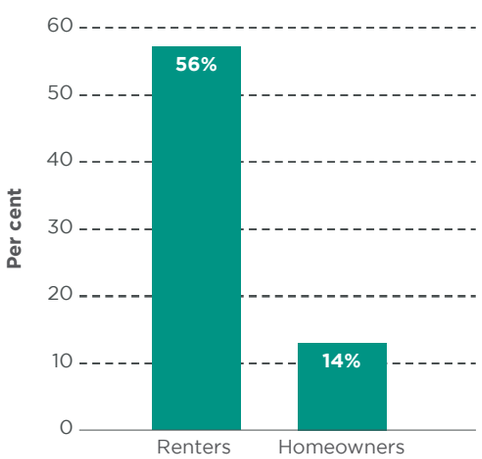
The structure of our housing market has a significant impact on our lives. Chart 3.1 shows that the majority of renters have moved at least once in the past two years, compared with 14 per cent of homeowners. Renters also move for work-related reasons at three times the rate of homeowners,[39] indicating that some homeowners may be forgoing job opportunities or participating in the workforce at all.

This 'mobility gap' between homeowners and renters in Australia is the highest in the OECD[40] and is driven by many factors: stamp duty increases the cost of moving for all homeowners; selling the family home can impact eligibility for the age pension; and the regulations and structure of the rental market can sometimes lead to renters being required to move more frequently than they would prefer. Renters also tend to be younger and younger people move more often.[41]

This 'mobility gap' between homeowners and renters in Australia is the highest in the OECD.

Reducing the barriers to moving for homeowners, for example through reforming the State's property tax system, would allow people to more easily pursue new job opportunities, be closer to friends and family, and ensure their property best suits their stage of life.

CHART 3.1: PROPORTION OF NSW HOUSEHOLDS WHO HAD MOVED IN PREVIOUS 2 YEARS



Source: HILDA 19.0 and NSW Treasury.

[37] 29 per cent of household disposable income in 2015-16 (latest data release). Source: ABS 6530.0.

[38] Includes employment in construction (excluding heavy and civil engineering construction); and property operators and real estate services. Source: ABS 6291.0.

[39] ABS 4130.0.

[40] Kelly, J-F., Hunter, J., Harrison, C., Donegan, P., *Renovating Housing Policy*, Grattan Institute, Melbourne, 2013.

[41] There is still a substantial mobility gap after controlling for age and household composition. Source: HILDA 19.0 and NSW Treasury.

Record housing construction and COVID-19-related international border closures have reduced the housing undersupply

There have been significant changes in the NSW housing market in recent years. The 2016 NSW Intergenerational Report showed that a housing undersupply had developed in Sydney. For an extended period through the late 2000s and early 2010s, the amount of new housing being built was not enough to keep pace with population growth. This occurred alongside rapid increases in the price of housing and the reversal of a decades-long trend toward fewer people per household.

Since that time, however, the rate of housing construction has been high, with the total number of homes in the State increasing by an average of 57,000 each year. These new homes, combined with reduced population growth from COVID-19-related international border closures, have made inroads into the housing undersupply.

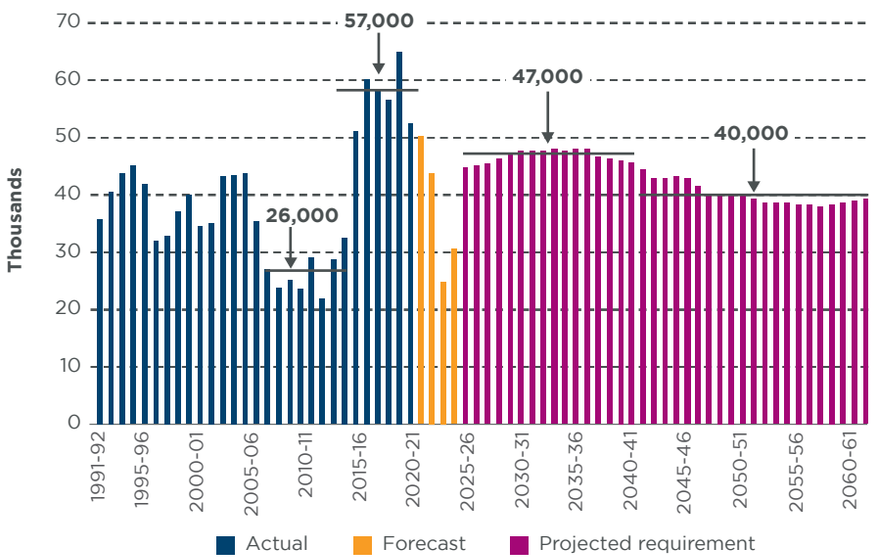
Despite recent inroads into housing undersupply, the housing task in New South Wales remains large with an additional 1.7 million homes needed by 2060-61

New South Wales will need to build another 1.7 million homes by 2060-61 equivalent to one new home for every two existing homes. This increase is the amount required to meet the needs of a growing population where fewer people will live in each home because of ageing and lifestyle changes. To meet housing demand, we will need to add an average of 42,000 homes every year for the next four decades. In the short term, we expect construction to slow, since border closures have slowed population growth and economic activity. However, population growth will bounce back, and we will need to add an average of 47,000 homes over the 15 years to 2040, and an average of 40,000 over the following two decades (Chart 3.2).

This construction rate will be a significant challenge. The record high construction activity of recent years has been a result of a concerted effort to increase planning approvals and build enabling infrastructure in priority precincts. Developers were also incentivised by strong housing price growth, which was itself partly driven by the accumulated undersupply. A similar focus could be difficult to sustain over the coming decades, particularly as vacant land becomes more scarce which increases the need for development in areas that have already been built up. Without this focus, however, the State would risk declining housing affordability, increasing household size and an increase in the number of people leaving for more affordable housing in other states.

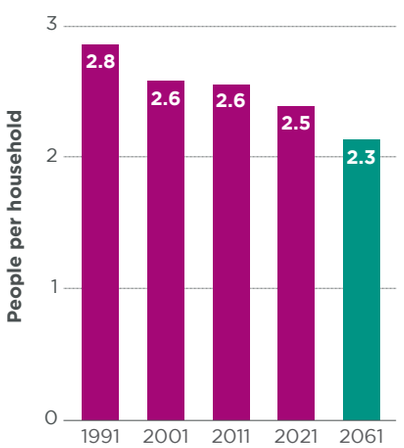
By 2060-61, we project the average number of people per household to fall to 2.3, down from 2.5 today (Chart 3.3). There are projected to be more people living by themselves and fewer families with children (Chart 3.4). This is being driven by the ageing of the population, declining fertility rates and increasing household incomes.

CHART 3.2: NET ADDITIONS TO NSW HOUSING STOCK: ACTUAL AND PROJECTED REQUIREMENT



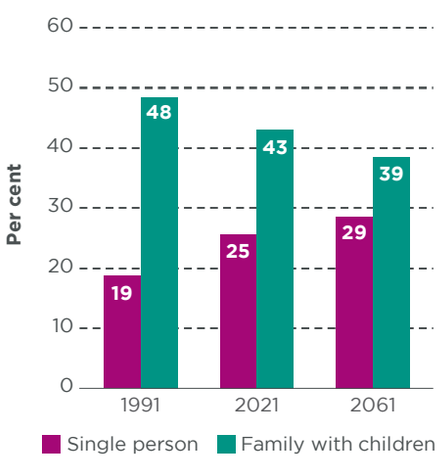
Source: ABS Census, ABS 8752.0 and NSW Treasury.

CHART 3.3: AVERAGE NUMBER OF PEOPLE PER NSW HOUSEHOLD



Source: ABS Census and NSW Treasury.

CHART 3.4: COMPOSITION OF NSW HOUSEHOLDS – SELECTED HOUSEHOLD TYPES



Source: "Family with children" includes single parent and two parent households with children.
Source: ABS Census and NSW Treasury.

Most housing will be built in Sydney, Newcastle, Wollongong and the Central Coast

The challenge of building enough homes will be concentrated in the cities where nearly three quarters of the State's population live and which have 70 per cent of the housing stock. We expect 86 per cent of New South Wales' population growth over the next 20 years will be in Greater Sydney, with an additional 8 per cent in Newcastle, Wollongong, the Central Coast and Lake Macquarie. Around one third of new housing is projected to be in the form of apartments as the typical number of people living in each home decreases, and undeveloped land in our cities becomes more scarce. This compares with the current 20 per cent share of homes that are apartments.

Strategic planning will play a key role in meeting the housing supply challenge

The Greater Sydney Commission's Metropolis of Three Cities, published in 2016, sets out the NSW Government's strategic planning framework to build 725,000 new homes across Sydney by 2036. Strategic planning helps to ensure that we can accommodate population growth by building sufficient houses with the right infrastructure, including schools, hospitals, and green space for our communities. There is a need for ongoing commitment by both the NSW and local governments to ensure that these housing targets are identified and met, and that the broader objectives of the plan to create a connected and liveable city are achieved.

Meeting this housing challenge will also require a planning system that is responsive and can provide timely approvals. This is why the 2020-21 Budget included $570 million to support the delivery of the NSW Government's Planning Reform Action Plan to reduce assessment timeframes and provide greater transparency to the community.

Across the State, planning for 1.7 million new homes will also need to account for climate risks. Modelling for this report indicates that by 2060-61 between 39,000 and 46,000 homes will be exposed to inundation and coastal erosion due to rising sea levels. It also shows that the risk of floods could increase by up to 12 per cent (see Box 2.3 in Chapter 2).[42]

Box 3.1: The impact of flexible working on urban structure

The increasingly flexible nature of work could affect where people choose to live and the type of property they live in. In response to the COVID-19 pandemic, 46 per cent of the NSW workforce were working from home by May 2020.[43] For many, this change has since morphed into a hybrid model of work, with work conducted both at home and in the office.

The NSW Innovation and Productivity Council suggests that up to 30 per cent of all work could be done remotely in the future, up from 18 per cent prior to the pandemic. Employers in Sydney are more likely to come under pressure to offer remote work, given that Sydney businesses offer high wages while living expenses such as house prices are lower in regional, rural and outer suburban areas.

Modelling for this report indicates that if a greater proportion of people continue to work from home after the pandemic, more people may choose to live further away from the CBD. This would partially soften the price premium associated with living close to the CBD and increase demand for property in the outer suburbs and regions such as the Central Coast and Illawarra. In an illustrative scenario where half the workforce shifts to working from home two days per week, average housing costs would be 22 per cent lower compared with a baseline where nobody works from home.[44]

[42] NSW Treasury, *An Indicative Assessment of Four Key Areas of Climate Risk for the NSW Intergenerational Report, 2021 Intergenerational Report* Treasury Technical Research Paper Series, TTRP 21-05, 2021.

[43] NSW Innovation and Productivity Council, *NSW Remote Working Insights: Our experience during COVID-19 and what it means for the future of work*, Council Research Paper, Sydney, 2020.

[44] These results are explored in further detail in: NSW Treasury, *Sensitivity Analysis on Sydney's Urban Structure and House Prices for the 2021 Intergenerational Report, 2021 Intergenerational Report* Treasury Technical Paper Series, TTRP 21-04, 2021.

3.2 Saving for a secure and independent retirement

Household savings peak around retirement age

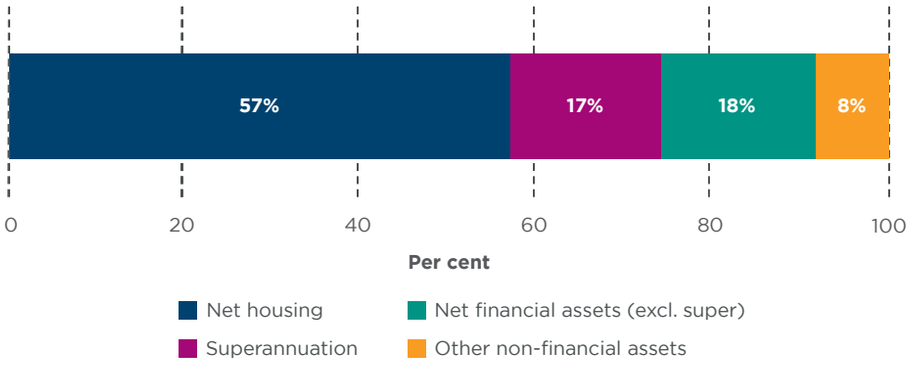
As set out in Chapter 1, the NSW population is ageing and the age dependency ratio is increasing — over the next 40 years there will be more people aged over 65 years for each working age person. Boosting household saving puts individuals in a better financial position for retirement and reduces their reliance on government support such as the age pension and social housing.

Most people save throughout their working lives and household wealth peaks around retirement age. From this point households use these savings to support living expenses in retirement. A key driver of household wealth is how much we earn through our working lives, with those earning more generally experiencing more financial independence in retirement.

Housing is the main source of wealth for most households

Home ownership is the main source of wealth for households in New South Wales, comprising 57 per cent of average net wealth (assets minus debts). In contrast, superannuation comprises just 17 per cent of net household wealth, less than a third of housing (Chart 3.5).

CHART 3.5: COMPOSITION OF NSW HOUSEHOLD WEALTH



Source: Housing includes owner occupied and investment housing assets less housing-related debt. Financial assets includes bank account balances (including offset accounts), incorporated and unincorporated businesses, shares and trusts less non-housing related debt. Non-financial assets includes home contents and motor vehicles.

Source: ABS 6523.0 and NSW Treasury.

Non-homeowners have significantly lower incomes in retirement compared with homeowners

On average, retirees who own homes have higher material living standards than renters. This group tends to have higher incomes and the added advantage of homeownership lowers their living costs — 84 per cent of homeowners over 65 have paid off their mortgage,[45] while non-homeowners over 65 renting in the private market typically paid $14,000 per year in rent.[46] This is a large share of retirement income, particularly for those without much superannuation to supplement the aged pension and Commonwealth rental assistance. Due to these pressures, 37 per cent of households over 65 who are not homeowners live in social or community housing.[47] The disparity in disposable income between homeowners and non-homeowners over 65 is stark, with homeowners of this age typically having more than two and a half times the income of non-homeowners (Chart 3.6).

CHART 3.6: MEDIAN HOUSEHOLD INCOME LESS HOUSING COSTS BY HOMEOWNERSHIP STATUS (HOUSEHOLDS WITH REFERENCE PERSON AGED 65 AND OVER)

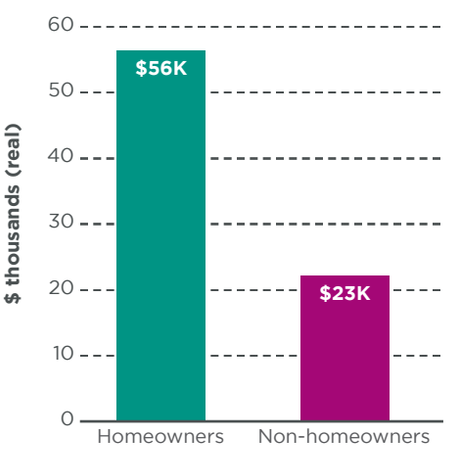
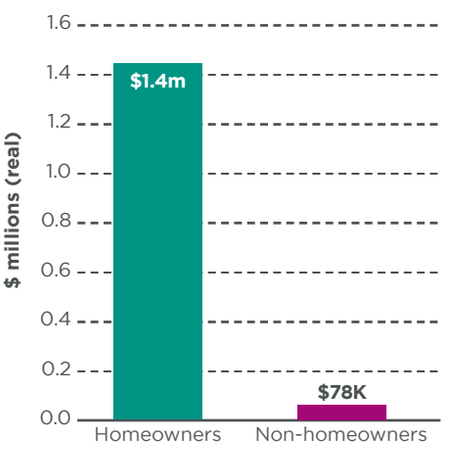


CHART 3.7: MEDIAN HOUSEHOLD WEALTH BY HOMEOWNERSHIP STATUS (HOUSEHOLDS WITH REFERENCE PERSON AGED 50-64)



Incomes and wealth for NSW households in 2018-19 expressed in real 2019-20 dollars. Income is gross household income less taxes and housing costs. Source: HILDA 19.0 and NSW Treasury.

[45] NSW households with reference person aged over 65. Source: ABS Census 2016.

[46] Median rent for NSW households with reference person aged over 65 renting in the private market in 2018-19. Source: HILDA 19.0

[47] ABS Census 2016.

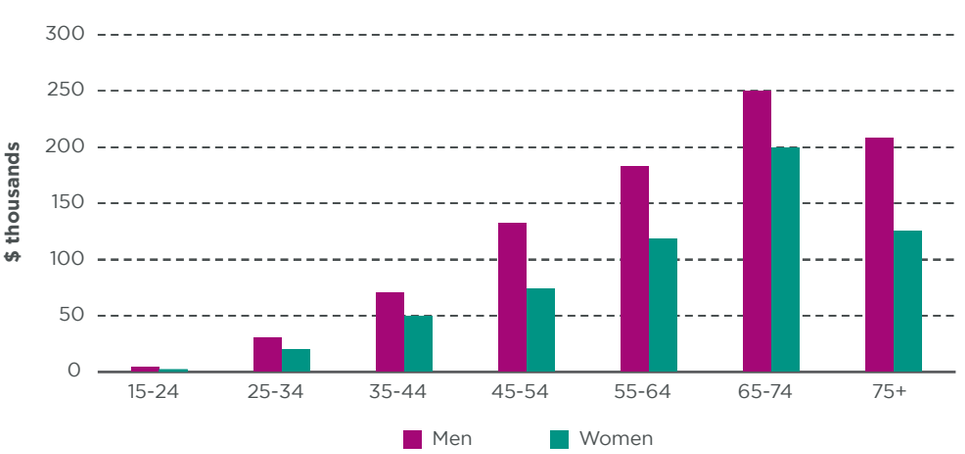
Superannuation can provide additional disposable income but is not evenly distributed

Owning a home outright in retirement provides financial security and significantly reduces housing costs, but owner-occupied housing does not generally provide additional cash income. In contrast, superannuation savings provide cash income to retirees, instead of, or in addition to the pension. At present, superannuation is not commonly used as an alternative source of wealth to homeownership — non-homeowners generally have lower superannuation balances than homeowners. For households aged 50-64, the median household wealth of homeowners was $1.4 million in 2018, compared with just $78,000 for non-homeowners (Chart 3.7). This disparity reflects that homeownership is closely associated with wealth inequality. This age cohort has not benefited from compulsory employer superannuation contributions throughout their entire working lives, which suggests the potential for this gap to narrow in the future.

Superannuation balances also differ significantly between men and women. Lower average wages and workforce participation have resulted in women having around two thirds the superannuation savings as their male peers (Chart 3.8).

More generally, the same factors which impact homeownership also impact superannuation balances. Those on lower incomes throughout their lives are less likely to own their own home by retirement and will generally have lower superannuation savings as well.

CHART 3.8: MEDIAN SUPERANNUATION BALANCES BY AGE AND GENDER (AUSTRALIA)



Balances as of 2017-18. Source: ABS 6523.0 and NSW Treasury.

3.3 Trends in housing affordability and home ownership

Deposits have been growing faster than incomes, while mortgage repayments have grown in line with incomes

Saving for a deposit is one of the biggest barriers to home ownership. In 1995-96, a median income household took 6.6 years to save for a deposit on a typical home, including 0.7 years to pay stamp duty. By 2019-20, this had nearly doubled to 11.5 years, including 1.8 years to pay stamp duty, as house prices grew much faster than incomes over this period (Chart 3.9). This is why the NSW Government has supported 136,000 first home buyers to enter the housing market through exemptions to stamp duty since 2017, as well as providing 33,000 first homeowner grants.[48]

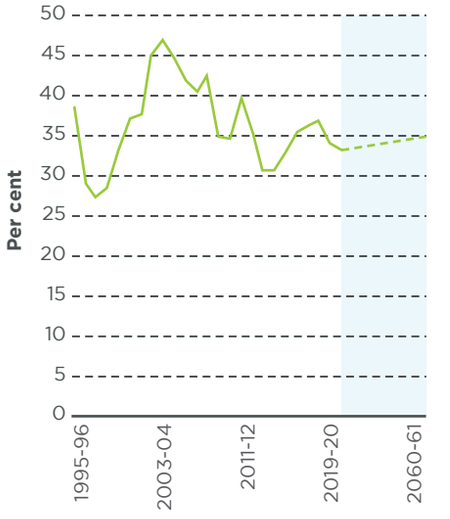
In contrast to deposits, mortgage repayments — another key indicator of housing affordability — have not grown faster than household incomes.

In 1995-96, a median income household would have spent 38 per cent of their income on mortgage repayments on a newly purchased median priced home, where by 2019-20 this had actually declined to 33 per cent (Chart 3.10). Over the same period, the discounted variable mortgage rate declined from 10.2 per cent to 4.1 per cent, which was more than enough to offset the increase in house prices over the same period.

Declining interest rates alongside a supply-constrained housing market such as New South Wales', have been the primary drivers of the strong housing price growth experienced over recent decades. This is because, in a supply-constrained market, households are generally willing to spend as much as they can afford on housing and lower interest rates increase the amount households can afford to repay.

CHART 3.9: YEARS TO SAVE FOR A DEPOSIT

CHART 3.10: NEW MORTGAGE REPAYMENT TO HOUSEHOLD INCOME RATIO



Deposit based on a median income household saving 15 per cent of income for a 20 per cent deposit on the median priced NSW home. Mortgage repayments based on repaying a 30-year mortgage at an 80 per cent loan to valuation ratio on a newly purchased median priced NSW home at the discounted variable interest rate, expressed as a proportion of the median gross household income.

Source: CoreLogic, RBA, ABS 6523.0 and NSW Treasury.

[48] As of March 2021.

Future housing price growth will depend on interest rates as well as housing supply

Interest rates are projected to increase over the coming decade as the economy recovers from the second major global economic shock in under 15 years. This will have significant implications for the housing market. By 2060-61, we project the deposit barrier to be slightly lower than today at 10.0 years, while mortgage repayments on a new home are projected to account for around a third of household income, similar to current levels. This projection is highly sensitive to interest rates and to housing construction activity being sufficient to meet underlying demand.[49]

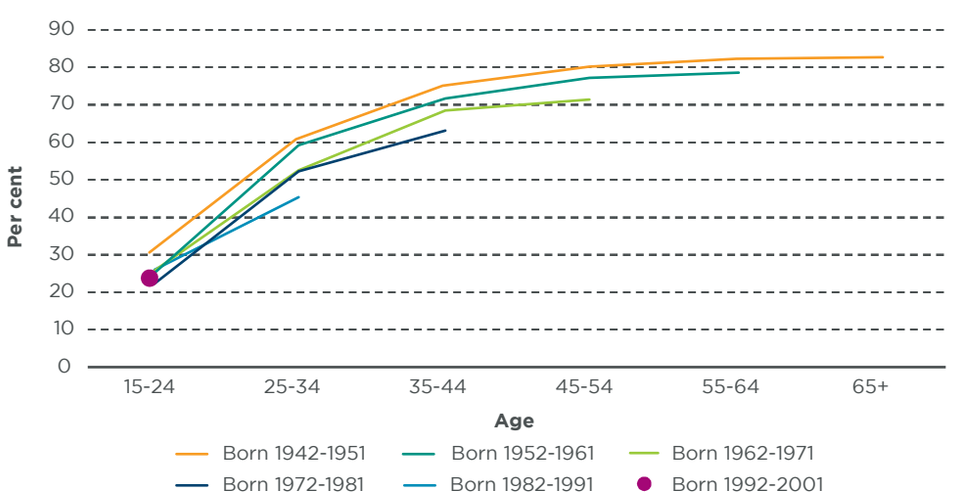
Trends in home ownership

The share of people who owned a home in New South Wales peaked at 70 per cent in 1966 following a significant expansion after World War II. In the 50 years since 1966, the home ownership rate in both New South Wales and Australia remained relatively stable, although over the past decade it has started to decline and was lower at the 2016 Census than at any time since 1954.

The overall trend has also masked some more dramatic underlying trends in home ownership across generations. The homeownership rate has declined for each generation since the baby boomers (Chart 3.11). For example, 60 per cent of people born between 1942 and 1951 (early baby boomers), owned homes by age 25-34. This dropped by 15 percentage points to 45 per cent for those born 1982 to 1991. Furthermore, the decline in home ownership rates at younger ages has persisted through life, suggesting that the decline may not represent a delay but could instead be a permanent shift. This decline has been driven by the increasing deposit barrier, as well as other social and demographic trends.

The outlook for home ownership rates is uncertain. Our forty-year projections include a return to higher interest rates, which would result in a lower deposit barrier if housing supply keeps up with underlying demand (as set out in Chart 3.2). However, lower workforce participation for those aged 15-24 (as outlined in Chapter 2) will make it harder for young people to save for a deposit early in life and there are a range of possibilities around the adoption of remote working capability which could impact house prices (Box 3.1).

CHART 3.11: HOMEOWNERSHIP RATES BY AGE AND BIRTH YEAR COHORT (AUSTRALIA)



Homeownership rates by age of household reference person. Rate shown for 1942-51 birth year cohort aged 65+ includes those born earlier than this cohort.

Source: ABS Census, Yates J., "Trends in home ownership: causes, consequences and solutions", Submission to the Standing Committee on Economic Inquiry into Home Ownership, June 2015; and NSW Treasury.

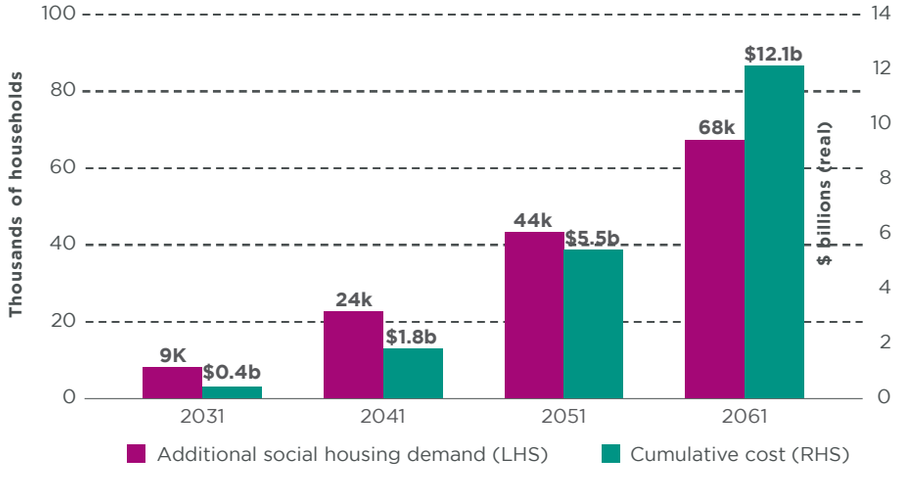
[49] The interest rate outlook is explored in more detail in: NSW Treasury, *Secular Stagnation, the Long-Term Real Bond Rate Outlook and Policy Issues for NSW and Australia* , 2021 Intergenerational Report Treasury Technical Research Paper Series, TTRP 21-06, 2021.

The relationship between social housing demand and home ownership

Further declines in the homeownership rate would impact the wellbeing of those who miss out on owning their own home. It would also have potential to impact the NSW Budget. If the trends of the past four decades were to continue over the next four, the homeownership rate would decline from 66 per cent today to 58 per cent by 2060-61. Amongst those over 65 who have traditionally had very high home ownership rates, the home ownership rate would decline 10 percentage points to 70 per cent.

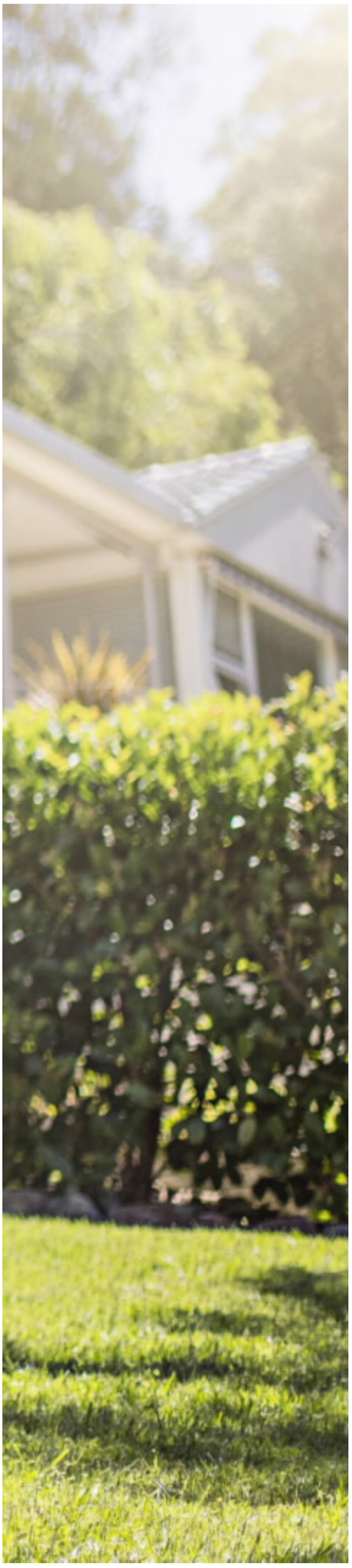
If those who retire without owning a home require social housing at a similar rate to today's retirees, this would increase demand for social housing by 68,000 households by 2060-61. Meeting this demand would cost an additional $12.1 billion (real 2019-20 dollars) between 2020-21 and 2060-61 (Chart 3.12). There would also be consequences if this demand is not met, with those on the social housing waiting list typically experiencing acute housing stress.

CHART 3.12: ADDITIONAL SOCIAL HOUSING DEMAND IF HOMEOWNERSHIP CONTINUES TO DECLINE (HOUSEHOLDS AGED 65+ ONLY)



Demand for social housing from households with a reference person aged over 65 under scenario where homeownership continues to decline in line with historical trends (per Chart 3.11) and the same proportion of non-homeowners over 65 demand social housing (37%). Chart shows additional demand for social housing dwellings and cumulative cost of provision from 2020-21 if demand is met compared to a baseline scenario with no change in homeownership rates.

Source: NSW Treasury.



3.4 Property tax reform

The problems with stamp duty

Stamp duty is a form of taxation that discourages people from buying a home and from moving home. Stamp duties are expensive, with homebuyers typically needing to pay around 4 per cent of the property price, which is over $40,000 for a median priced Sydney property. Stamp duty also distorts the commercial property market, which means that the economy is not making the best use of land.

Moving away from stamp duty would provide benefits to individuals and the wider economy. For individuals, removing stamp duty would make it much easier to move home, whether it be for a new job, to be closer to friends and family, or to move into housing more suitable for their stage of life. Increased labour mobility would reduce geographical barriers to employment, resulting in improved participation and productivity and lower unemployment. The reduction in stamp duty would lower housing deposits, which are a key barrier to home ownership, and would therefore support higher homeownership rates. Home ownership is the foundation of a secure and independent retirement and also reduces reliance on government support, for example social housing.

A proposed way to rethink property transactions

The discussion paper *Creating Jobs And Securing Our Future*, released after the 2020-21 Budget, outlines a reform option for consultation that would replace stamp duty and land tax with a much smaller annual property tax. Buyers would be able to choose to pay property tax or stamp duty. To manage the impact on NSW Government revenues, those purchasing the most expensive properties would not be able to opt into the new property tax system immediately.

In the initial years, the reform would be costly for the NSW Government, forgoing significant amounts of stamp duty and acting as a form of economic stimulus. Revenue from the increasing numbers of people paying property tax would in time replace the stamp duty forgone.

TFNSW

04.

World-class services and infrastructure

The NSW Government delivers and commissions services and infrastructure to make New South Wales a great place to live, work and invest.

Access to healthcare and schooling, affordable and quality housing, and a safe and convenient transport network allow individuals to live healthy lives and engage in work that they value. Low crime rates, green space and other community amenities contribute to quality of life. Rail lines, roads, utilities and ports make it possible for businesses to efficiently produce and transport goods and services.

Together, and with the right regulatory environment, these services and infrastructure help to achieve overall wellbeing for the people of New South Wales and secure a strong economic future.

Over the next 40 years, technology will continue to advance and people's needs and preferences will evolve. Geopolitical shifts, climate change and other external events will continue to present challenges to the economy.

A world-class government will adapt to rapidly evolving societal changes, advances in technology and a changing climate, to support the liveability of New South Wales in a fiscally sustainable way.

This requires embracing new and innovative ways of thinking and delivering services and infrastructure that best support the economy and achieve outcomes that matter to people.

A focus on affordable and innovative service delivery will also reduce the need for government to borrow from future generations to deliver services for the people of today.

Total government expenditure

Sum of recurrent expenses and net capital expenditure

4.5 PER CENT

average annual growth to 2060-61

In the next 40 years

Average annual recurrent expenses are projected to grow at

4.7 PER CENT

This is faster than projected nominal economic growth

Recurrent expenses per person are projected to increase by

80 PER CENT

between 2018-19 and 2060-61, in today's dollars

Health spending is expected to contribute almost

40 PER CENT

of the growth in recurrent expenses to 2060-61

Gross capital expenditure growth is expected to slow, following record levels of infrastructure investment.

As a share of GSP, this will be

1.8 PER CENT

in 2060-61 compared to 2.6 per cent in 2018-19

4.1 Total government spending is projected to grow faster than the economy

Recurrent expenses growth is expected to be higher than economic growth

Government recurrent spending funds the non-capital expenses required to deliver, maintain and improve services. Examples include; salaries for teachers, doctors, nurses and our emergency services; grants and subsidies to local government, community groups and non-profit organisations for service delivery and infrastructure projects; and other day-to-day costs incurred in delivering services and programs.

In 2018-19, total government recurrent spending represented 12.5 per cent of Gross State Product (GSP). Assuming no changes to government policies, this is projected to rise at an average rate of 4.7 per cent a year — faster than nominal growth of the economy at 4.3 per cent — to 14.5 per cent of GSP in 2060-61. This translates to an increase of over 80 per cent in government recurrent spending per person from around $10,000 in 2018-19 to $18,000 in 2060-61, in today's dollars.

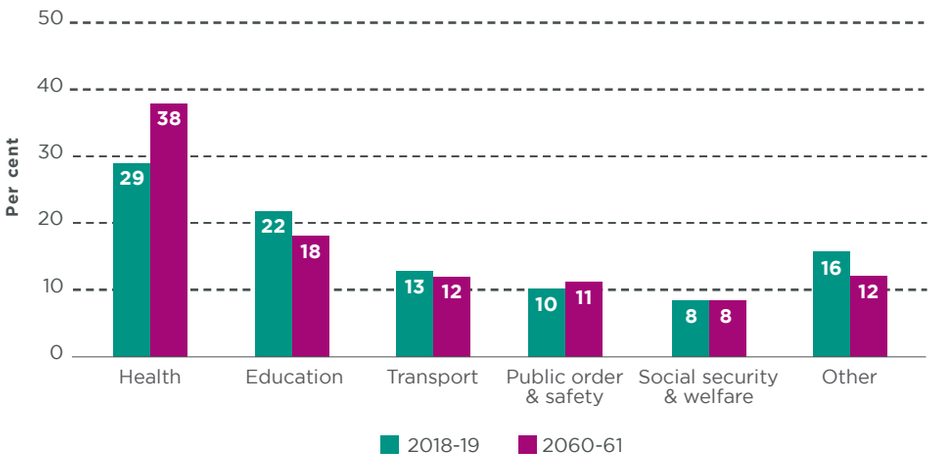
The projected growth accounts for inflation, population growth and rising incomes. It also reflects pressures on government to deliver better services and infrastructure, that support a higher quality of life and keep up with continually evolving societal changes and technological advancements. Without efficiency improvements, an increasing rate of expense growth means that services will need to compete against each other to maintain the same standards as today.

Health, education and transport services comprise the bulk of recurrent spending (see Chart 4.1). By 2060-61, they will represent a 69 per cent share of total recurrent spending, up from about 65 per cent in 2018-19.

Spending on health is the largest single driver of projected growth in recurrent spending

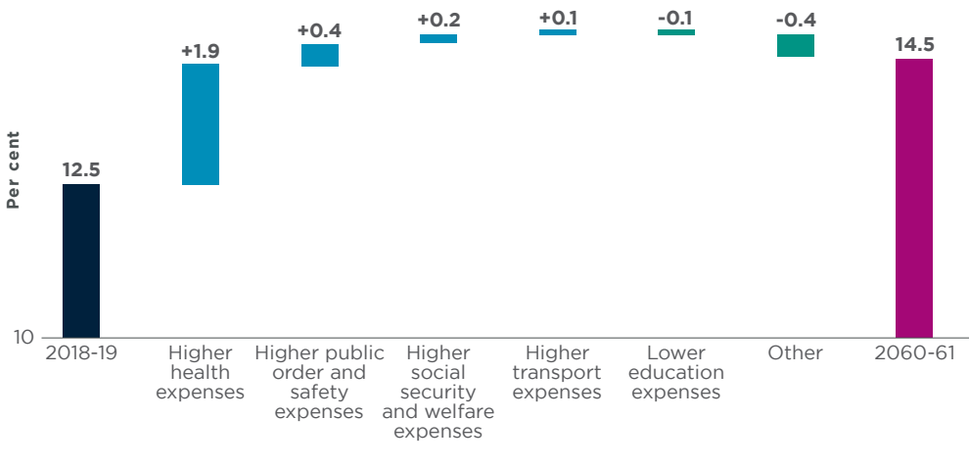
Not only is health spending the largest component of expenses, but it is also projected to grow faster than any other service area, at an average rate of 5.4 per cent per year. This projected rate of growth means that health spending is expected to contribute almost 40 per cent of the projected overall growth in recurrent spending to 2060-61. (Chart 4.2).

CHART 4.1: RECURRENT EXPENSES BY SERVICE AREA AS A SHARE OF TOTAL RECURRENT EXPENSES



Source: NSW Treasury.

CHART 4.2: RECURRENT EXPENSES AS A SHARE OF NOMINAL GSP



Source: NSW Treasury.

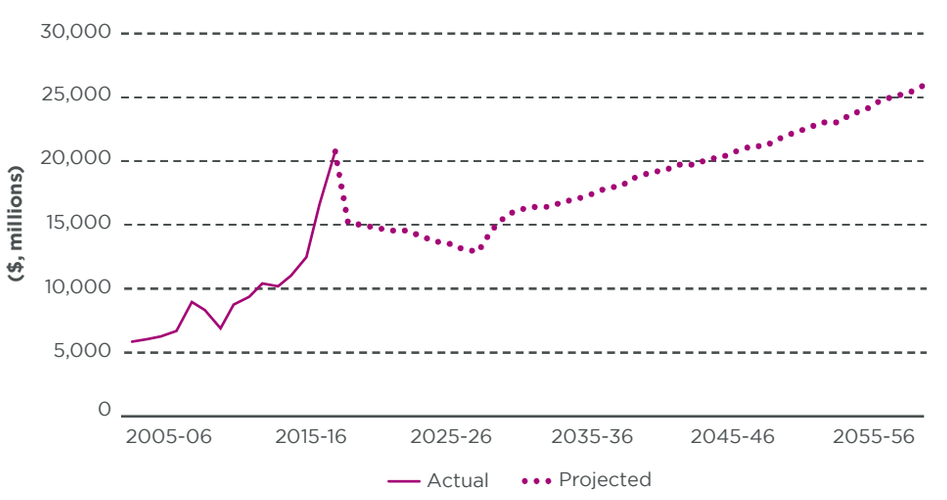
Capital expenditure growth is projected to return to lower levels of investment

Gross capital expenditure refers to infrastructure investments in schools, hospitals, public transport, roads and other infrastructure. Infrastructure investments create jobs, enable the effective and efficient delivery of public services and support economic activity.

Over the ten years to 2019-20, New South Wales has seen a period of record infrastructure investments, which has significantly expanded the capacity and improved the condition of the State's infrastructure. This has been driven by investments into transport and road projects, representing 63 per cent of the government's capital spend in 2018-19. These large-scale transport infrastructure investments — enabled by the State's asset recycling strategy — will help shape the city and support the State's growing population and productivity for decades to come.

Infrastructure investments are projected to return to a lower growth trajectory over the next 40 years, averaging 3.4 per cent a year (Chart 4.3). As New South Wales increasingly benefits from returns on record infrastructure investment over the coming decades, with the completion of major projects, capital expenditure as a share of GSP is projected to fall gradually from 2.6 per cent in 2018-19, to 1.8 per cent by 2060-61. Robust project planning, selection and delivery processes informed by appraisals and evaluations will help to prioritise the right infrastructure investments that maximise benefits to the State.

CHART 4.3: GROSS CAPITAL EXPENDITURE IN REAL TERMS, 2005 TO 2061



Source: NSW Treasury.

4.2 Projected expenditure by service area

Health expense growth to average

5.4%
a year to 2060-61

38 per cent of total recurrent expenses in 2060-61

Health: Keeping people healthy and out of hospital

Good physical and mental health is integral to wellbeing. It enables people to participate in education and employment, thus contributing to the State's productivity.

Health will remain the biggest category of recurrent government spending and is projected to grow at 5.4 per cent a year on average until 2060-61. As a share of all recurrent spending, health is projected to increase from 29 per cent in 2018-19 to 38 per cent by 2060-61.

As the economy grows and incomes rise, the community expects higher levels of health care.[50] At the same time, advances in treatment, technological changes and the shifting disease profile are changing how care is provided, including towards more types of care being delivered outside hospitals. In particular, the pandemic has accelerated the adoption and demonstrated the benefits of digital health technologies that complement in-person care. The government will need to keep up with how patients and clinicians interact, the services that people want and need, and the skills and infrastructure needed to deliver them. Investments will need to be targeted towards those that deliver the most value to health outcomes.

The ageing profile of the population puts pressure on our health system, as people tend to require more complex and costly health services as they age. Without an ageing population, the projected average long-term health growth rate would be lower at 4.9 per cent. Government policies to keep people healthy can help to alleviate the pressures from an ageing population (see Box 4.1). A healthier population also brings social and wellbeing benefits, and economic dividends as people have the choice to remain in the workforce for longer.

[50] Oxley, H and MacFarlan, M, *"Health Care Reform: Controlling Spending and Increasing Efficiency"* , Economics Department Working Papers No. 149, (1994), Organisation for Economic Co-operation and Development OCDE/GD(94)101.

BOX 4.1: HEALTHY AGEING CAN EASE PRESSURE ON THE STATE BUDGET CAUSED BY THE AGEING POPULATION

Good health	Chronic disease
If people live more of their older years in good health, the projected long-term growth in annual health spending will:	If people live more of their older years with chronic disease, the projected long-term growth in annual health spending will:
Fall by	Increase by
0.13 PERCENTAGE POINTS	**0.22 PERCENTAGE POINTS**
reducing the fiscal gap by 0.20 percentage points	increasing the fiscal gap by 0.38 percentage points

Source: NSW Treasury modelling.[51]

Central to this is tackling one of Australia's biggest health challenges — the increasing rate of chronic disease. Almost half of Australians are estimated to have one or more of the 10 most common chronic conditions in 2017-18, with this percentage increasing to 80 per cent for Australians aged 65 and over.[52] In 2018-19, 84,281 hospitalisation in New South Wales could potentially have been avoided if appropriate and timely preventative care and early management of chronic conditions had been provided.[53]

More prevention, early intervention and effective ongoing management of chronic diseases require coordinated reforms across governments and beyond the health system. Reforms should support a skilled health workforce and a health system that focuses on keeping people healthy and supporting access to effective primary care so that conditions are detected and managed before they become acute and require hospital admission. Targeted policies that address cohorts with higher rates of chronic disease — for example those experiencing socioeconomic disadvantage and those living in remote areas — can bring significant gains.

Mental health is another critical health challenge. Of the eight million people living in New South Wales in 2017-18, approximately 1.3 million will have experienced a mental health challenge and an additional 1.8 million are at risk. [54] Supporting people to recognise and manage their mental health requires different parts and levels of government to work together. This includes the health system, schools, emergency services and homelessness services, to enable a holistic management of social and environmental determinants and each individual's clinical needs.

[51] NSW Treasury, *Ageing and health expenses in New South Wales – revisiting the long-term modelling approach* , 2021 Intergenerational Report Treasury Technical Research Paper Series TTRP21-03, 2021.

[52] AIHW, 2020, *Chronic conditions and multimorbidity*, https://www.aihw.gov.au/reports/australias-health/chronic-conditions-and-multimorbidity.

[53] Centre for Epidemiology and Evidence, *"Potentially preventable hospitalisations by sex and category"* , NSW Ministry of Health.

[54] NSW Government, 2019, *NSW submission to the Productivity Commission Inquiry into Mental Health* .

Education expense growth to average

4.2%

a year to 2060-61

18 per cent of total recurrent expenses in 2060-61

Education: Fostering lifelong learning habits for the future

Our education system equips individuals with the knowledge, tools and habits to upskill and reskill throughout their lifetime. Along with a healthy population, a strong education system — across the full spectrum of early childhood education, primary and secondary education, and vocational education and training — is critical to building a skilled workforce for the future.

Education recurrent expenses are projected to grow at an average long-run rate of 4.2 per cent annually, reflecting the spending required to keep up with growing school enrolments as the population grows. Investments in education ensure that school services continue to be delivered in quality, fit-for-purpose, modern environments with appropriate student-teacher ratios and skilled teaching and support staff.

Children who participate in quality early childhood education programs are more likely to develop the social, cognitive and emotional skills that will allow them to engage in meaningful learning during their school years.[55] Under the National Partnership on Universal Access to Early Childhood Education, all states and territories are committed to ensure all children have access to at least 600 hours of high-quality early childhood education in the year before school. Current NSW policy extends this commitment by funding preschool education for children in the two years before school in community preschools.

Primary and secondary schooling provides children with the essential foundational skills for life, such as numeracy and literacy, that lay the foundation for lifelong learning. The NSW Government is the primary funder of government schools, while the Commonwealth is the primary funder of non-government schools. Quality education relies on quality teachers. Yet the attractiveness of teaching as a career has declined, particularly in science, technology, engineering and mathematics. Investing in our teachers is important for building a successful learning experience for all our students. This is complemented by ensuring individuals have a positive home environment that supports their learning.

Investing in our teachers is important for building a successful learning experience for all our students.

Learning is not always a linear progression. With a rapidly changing and globally competitive job market, flexible and relevant vocational education and training (VET) will allow people to adapt and respond to emerging job opportunities. School leavers will increasingly need a blend of theoretical and practical knowledge which will be delivered by a more integrated secondary school approach. An agile, effective and sustainable VET sector will equip the people of New South Wales, increase choice and opportunity, and create a solid foundation for a modern economy.

[55] NSW Department of Education, 2020, *Early education matters* , viewed 9 March 2021, https://education.nsw.gov.au/early-childhood-education/whats-happening-in-the-early-childhood-education-sector/early-education-matters

Transport expense growth to average

4.4%
a year to 2060-61

12 per cent of total recurrent expenses in 2060-61

Transport: Designing a flexible and sustainable transport system to support shorter commutes and liveability

A well-functioning transport system that efficiently connects people, goods and services is integral to increasing productivity in our economy. Recurrent transport expenses are projected to grow at an average annual rate of 4.4 per cent. This growth is partly driven by operational and maintenance costs for infrastructure such as roads and rail.

New South Wales has seen a period of rapid growth of investments in transport infrastructure, at 16.5 per cent a year over the last decade. This report projects a return to lower levels of investment in the future, falling from 1.7 per cent of GSP in 2018-19 to 1.0 per cent of GSP by 2060-61.

A holistic approach to planning and transport can help to optimise overall transport capacity.

There is an opportunity to optimise the use and capacity of our transport infrastructure for decades to come. A holistic approach to planning and transport can help to optimise overall transport capacity. For example, more homes closer to jobs and existing transport corridors means shorter commutes and less congestion on roads and in the public transport system. This can be complemented by agile solutions like intelligent management systems that address congestion bottlenecks and increase service capacity of public transport.

Furthermore, infrastructure that encourages alternative modes of travel such as walking or cycling can contribute to the city's liveability, reduce the cost of living and generate health benefits. These all serve to alleviate the need for more large-scale road and transport infrastructure, minimising community disruption and allowing government to redirect funds to services.

The rapidly changing environment means there needs to be flexibility in our transport network. Technological advances have facilitated innovations in how we travel including rideshare and driverless trains. These offer opportunities for safer, flexible and personalised services. For example, digitisation of the train signalling system under the More Trains More Services program means that people can expect more reliable services and fewer delays on public transport.

The uptake of electric vehicles (EVs) is expected to increase. The Commonwealth Scientific and Industrial Research Organisation (CSIRO) projects that around 40 percent of the vehicle fleet could be electric by 2050.[56] Greater use of public and active transport and transitioning to low-carbon fuels or renewable sources will support a more sustainable transport system. The impacts of this transition, including reduced fuel excise receipts and requirements for electric vehicle charging stations, will need to be managed. (See Box 5.5 in Chapter 5).

[56] Graham, P and Havas, L, 2020, *"Projections for small-scale embedded technologies"*, CSIRO, Australia.

Public order and safety expense growth to average

4.9%
a year to 2060-61

11 per cent of total recurrent expenses in 2060-61

Social security and welfare expense growth to average

4.7%
a year to 2060-61

8 per cent of total recurrent expenses in 2060-61

Public order and safety: Towards a modern and equitable justice system

Recurrent spending on police, law courts and legal and corrective services is projected to increase by 4.9 per cent on average per year over the next 40 years.

While crime rates have fallen for most offences in recent decades, New South Wales has seen growth in the number of people going through the courts and corrective services systems.[57] This growth reflects the use of advanced technology that significantly improves crime detection, as well as changes in law enforcement policies and practices; and a rise in complex crimes such as fraud.

Modernising the system can help improve efficiencies and reduce cost pressures on the justice system. This includes reforms to streamline processes that will help reduce delays (for example, digitisation of court processes) and innovative and targeted ways to address risks of reoffending, prevent crime and support the rehabilitation of offenders. Such reforms will support community safety by reducing future offending, improving lifelong outcomes for individuals and alleviating pressures on the correctives system.

Social security and welfare: Providing stability and better outcomes for children and families

Recurrent spending to support the welfare of children, families, older people and people with disabilities is projected to increase by 4.7 per cent per year on average to 2060-61.

The costs of child protection services and support to those who are unable to live with their families have grown significantly in recent years.[58]

Interaction with these systems can influence a child's future health and educational outcomes, their likelihood of involvement with the criminal justice system and their future employment opportunities. The NSW Their Futures Matter investment model estimates that 7 per cent of people under the age of 25 in New South Wales will account for half of the estimated cost of NSW government social services — across child protection, housing, health, mental health, alcohol and other drugs — by the time they reach the age of 40. Reforms to better identify and support at-risk children and young people early in life can improve lives and support the financial sustainability of NSW's social services systems.

[57] Between 1990 and 2019, crime rates per capita for seven offences related to theft, property damage and murder recorded falls between 54 and 88 per cent whilst three offences related to sexual assault and assault recorded increases between 61 and 184 per cent in that period. Source: BOSCAR, "An update of long-term trends in property and violent crime in New South Wales: 1990-2019", Issue paper no. 144 March 2020.

[58] i) Tune,D, 2016, *"Independent Review of OOHC."*
ii) Auditor General, 2020, *"Their Futures Matter New South Wales Auditor-General's Report."*

Housing and community amenities expense growth to average

3.6%
a year to 2060-61

1 per cent of total recurrent expenses in 2060-61

Environmental services expense growth to average

4.8%
a year to 2060-61

2 per cent of total recurrent expenses in 2060-61

Housing and community amenities: Meeting basic needs

Spending on housing and community amenities — including social housing, short-term accommodation and community amenities such as water supply — is projected to grow at 3.6 per cent a year on average.

Social housing provides accommodation for people who need extended support, such as the elderly, people living with disabilities and people with mental health conditions. As noted in Chapter 3, if home ownership rates continue to decline in line with historical trends, this is projected to increase demand for social housing by an additional 68,000 households by 2060-61 for people over the age of 65 on top of the increase that will occur for remaining age groups.

To ease pressures, government can build more social housing and consider options to reduce demand. This could include supporting social housing tenants to transition into the private housing sector (including providing support and preventative strategies around mental health) and more flexible planning and regulations to help increase the availability of affordable housing at the lowest end of the private market. The property tax reform discussed in Chapter 3, would help to improve housing affordability and reduce barriers to private housing.

By 2061, the projected population of New South Wales will be 11.5 million (up from 8.1 million today). The need to serve more people, higher average temperatures and more frequent extreme weather events will create uncertainty around water supply. Planning for this will be crucial.

Environmental services: Liveability for future generations

Clean air and biodiversity contribute to the liveability of New South Wales. To maintain them, the government funds activities such as biodiversity and landscape protection, pollution abatement, wastewater management and disaster relief.

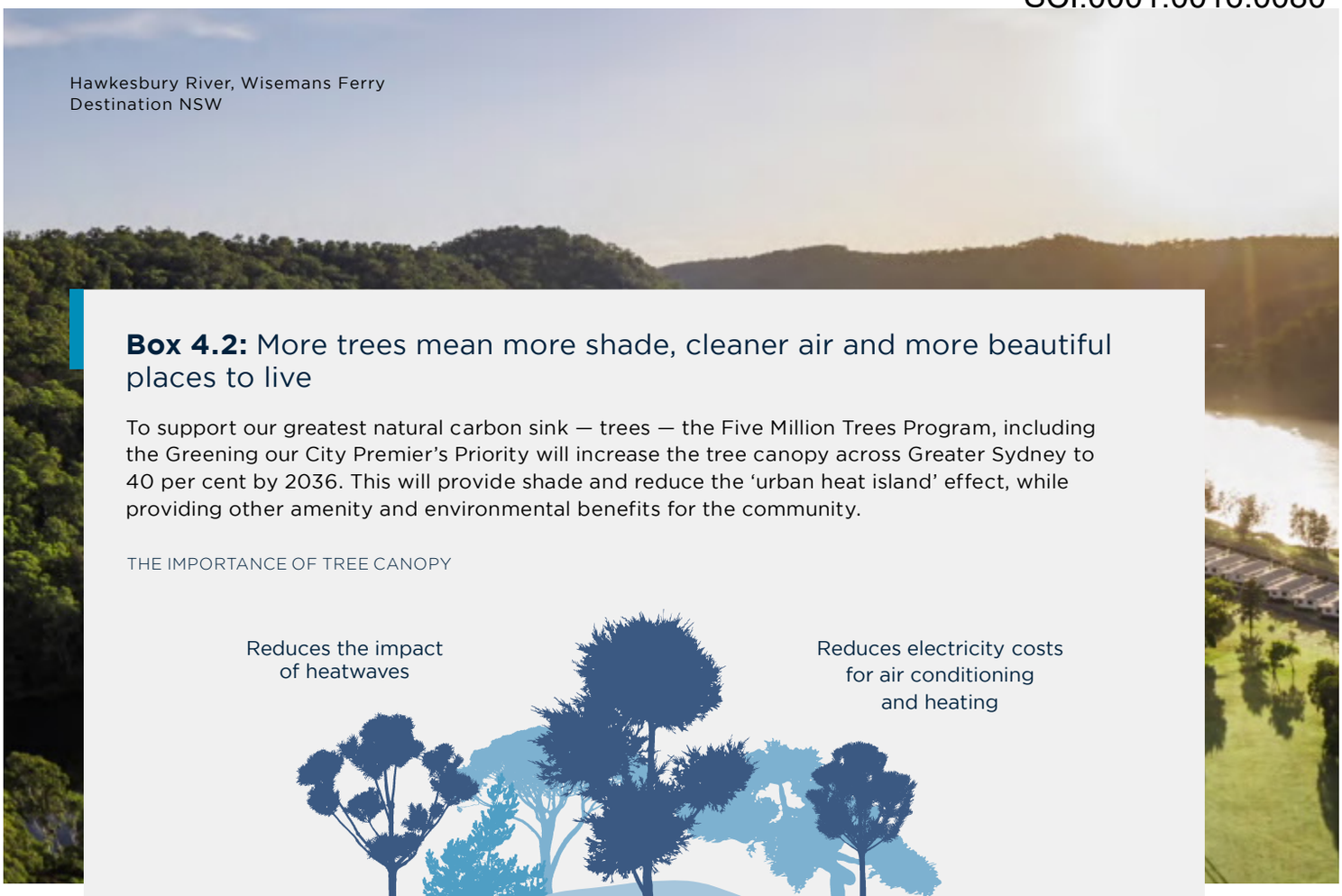
Environmental recurrent expense growth is projected to average 4.8 per cent a year, reflecting the exposure of people and assets to bushfires, floods, storms and other extreme weather events. Such events have become more frequent and intense in recent years and this is expected to continue into the future.[59] This means that governments will need to spend more money to keep the power on, water flowing, roads open and emergency services staffed and equipped. The expected direct costs to the NSW government for natural disasters are projected to increase threefold by 2060-61.[60,61] Historical expenses across the environmental protection category are highly variable. This variability is expected to persist; partially driven by the increased volatility associated with natural disasters.

Effective planning and management will allow for a more agile response to future natural disasters, mitigate risks to biodiversity and land and better prepare our environment for change. This is integral to reducing the cost of crisis management and recovery in the long-term, while preventing irreversible damage to our environment. Reducing emissions to preserve clean air for future generations will also help support liveability in New South Wales. (See Box 4.2).

[59] i) CSIRO, 2020, State of Climate. ii) AdaptNSW, *State of climate extremes research in NSW* , viewed 9 March 2021, https://climatechange.environment.nsw.gov.au/Impacts-of-climate-change/State-of-climate-extremes-research-in-NSW iii) NSW Treasury, *An indicative assessment of four key areas of climate risk for the 2021 NSW Intergenerational Report*, 2021 Intergenerational Report NSW Treasury Technical Research Paper TTRP 21-05, 2021.

[60] This represents estimated costs under the Disaster Recovery Funding Arrangements and does not reflect the likely full cost to Government of natural disaster response due to the modelling of a narrow set of services only.

[61] NSW Treasury, *An indicative assessment of four key areas of climate risk for the 2021 NSW Intergenerational Report*, 2021 Intergenerational Report NSW Treasury Technical Research Paper TTRP 21-05, 2021.



Hawkesbury River, Wisemans Ferry
Destination NSW

Box 4.2: More trees mean more shade, cleaner air and more beautiful places to live

To support our greatest natural carbon sink — trees — the Five Million Trees Program, including the Greening our City Premier's Priority will increase the tree canopy across Greater Sydney to 40 per cent by 2036. This will provide shade and reduce the 'urban heat island' effect, while providing other amenity and environmental benefits for the community.

THE IMPORTANCE OF TREE CANOPY

Source: Department of Planning Industry and Environment.

4.3 Resilient, effective and efficient service delivery

Without action, the pressures outlined in this chapter are projected to increase total government expenditure[62] — the sum of recurrent expenses (excluding interest) and net capital expenditure[63] — from 14.2 per cent of GSP in 2018-19 to 15.3 per cent of GSP in 2060-61. This is driven by an average annual growth rate in total government expenditure of 4.5 per cent. In addition, it is anticipated that external events will continue to present other challenges — such as natural disasters[64] or global crises necessitating significant spending in any one year with little notice.

As these pressures grow, it will be increasingly important to prioritise government spending towards the most effective and efficient ways of delivering services and infrastructure, that are adaptive and resilient to future unforeseen events.

A timely opportunity to rethink and redesign service delivery and infrastructure needs

The pandemic saw society and government embrace change at a scale and pace not previously considered

[62] Expenditure refers to the sum of recurrent expenses (excluding interest) and net capital expenditure. Expenditure is used to calculate the fiscal gap.

[63] Net capital expenditure refers to gross capital expenditure, less sales of non-financial assets and less depreciation.

[64] See Box 2.3 in Chapter 2: Future shape of the NSW economy.

possible. The government can make the most of this openness to change to rethink and redesign the delivery of services and infrastructure. This will encourage innovation, and more effectively deliver outcomes.

Innovations should move towards leveraging advances in technology; supporting more connected service systems; embedding resilience in service delivery and infrastructure; and more effectively prioritising investments based on evidence and outcomes. These will support more flexible, adaptable and accessible services; transitioning away from traditional methods of service delivery through physical infrastructure including hospitals, prisons, and courts. Together with more strategic use of existing infrastructure, this transition can help to free up more funds towards services (Box 4.3).

Leveraging advances in technology to improve services

Changing habits and advances in technology have changed the way government delivers services.

Digital infrastructure can drive efficiency and safeguard the sustainability of critical services. It presents opportunities to exponentially scale up services quickly and cost-effectively in ways that cannot be achieved with physical infrastructure. It also offers opportunities to complement service delivery using physical infrastructure, to deliver more accessible, targeted and tailored services to individuals.

As government moves towards digitisation, it will be important to narrow the digital divide and preserve equity of access for all. Continuing foundational technological investments such as high-speed network infrastructure will also be crucial. (Box 4.4).

Embracing technology

Government can embrace data and technological advancements to enable more targeted and tailored services to individuals in a way that suits their needs and lifestyles

BOX 4.3: MODERNISING SERVICE DELIVERY AND INFRASTRUCTURE CAN HELP REDUCE THE NEED FOR FUTURE LARGE-SCALE CAPITAL INFRASTRUCTURE

Reducing service delivery through physical infrastructure by 10 per cent across health, education, transport and justice

can reduce future annual capital spend by nearly

$4 BILLION

in today's dollars, by 2060-61

Bringing services to people's homes and neighbourhoods

Supporting people outside of hospitals and the justice system

Optimising the use and capacity of our transport network

Source: NSW Treasury.

Box 4.4: NSW Telestroke Service

The NSW Telestroke Service gives patients in rural NSW areas rapid access to life-saving stroke diagnosis and treatment. It does this by connecting local doctors to specialist stroke physicians via video consultation in an emergency department.

Stroke is one of Australia's biggest killers and a major cause of disability. Every year around 19,000 residents in New South Wales will have a stroke. More than a third of these residents live in regional, remote or rural areas.

A $21.7 million NSW Government election commitment for the service was announced in March 2019 and is jointly funded by the NSW and Commonwealth Governments.

The service launched in March 2020. By 7 May 2021 the service was live at nine NSW hospitals: Port Macquarie, Coffs Harbour, Lismore, Dubbo, Orange, Bathurst, Shoalhaven, Grafton and Griffith. During this time the NSW Telestroke Service provided over 700 virtual consults across the State.

Melinda Laverick, a 52-year-old teacher in Coffs Harbour, made a full recovery from her stroke after she woke one morning with trouble speaking and a blinding headache.

"I had brain scans which, via Telestroke, were seen in seconds by stroke specialists in Sydney. They prescribed immediate clot-busting medication which meant that by the time I transferred to John Hunter Hospital in Newcastle, surgery wasn't even necessary. The care I received was extraordinary."

NSW Telestroke Service is hosted by the Prince of Wales Hospital. By June 2022, up to 23 rural and regional hospitals across New South Wales will be connected.

Source: NSW Health.

More connected service systems to holistically improve lives

Many challenges that governments and society face today are complex and systemic. Their causes and effects are often blurred. These complex challenges require a response that identifies and holistically addresses underlying factors.

Well connected services across government and sectors enables government to deliver more effective services. These services can be targeted at prevention and early intervention, and equip people to manage their own learning, health and other needs.

This needs to be supported by a person-centred approach that allows people to access services that are tailored to their needs and circumstances. For example, this includes the provision of culturally appropriate services for Aboriginal Australians.

This reduces costs to government in the long-term, as the future need for acute crisis responses in health, justice and social services is alleviated (see Box 4.5).

More connected service systems

Well-connected services across government and sectors will more efficiently and effectively improve outcomes

Box 4.5: Brighter Beginnings initiative

Many factors can create and exacerbate challenges throughout a child's life, impact their physical and mental health and limit their future opportunities to engage in education and meaningful employment. These include individual, family, environmental and community factors.

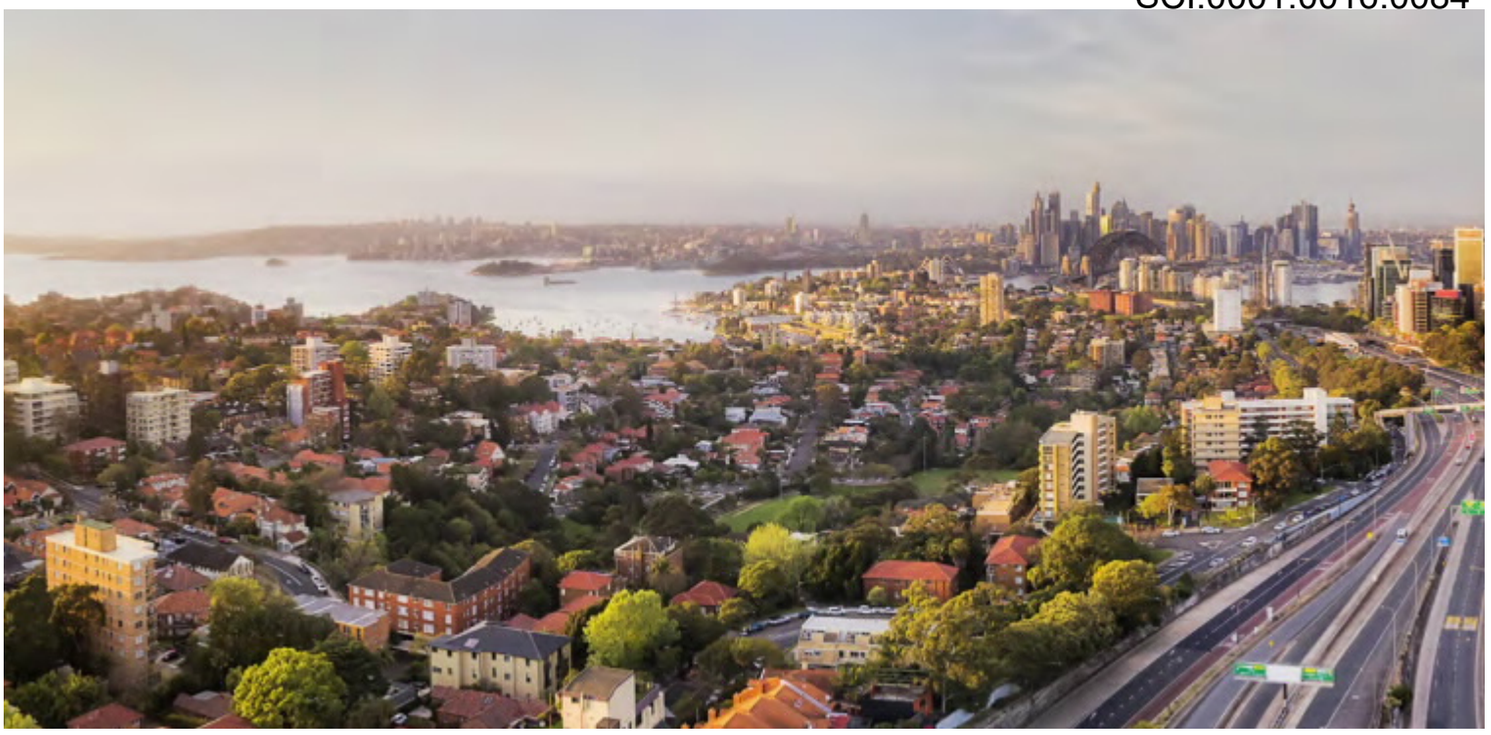
The NSW Government's Brighter Beginnings initiative aims to give every child in New South Wales the best start to life from conception to five years (the first 2000 days of life). This is a critical period for physical, cognitive, social and emotional health; and provides the foundation for health, wellbeing and learning throughout a child's life.

Through this initiative, government agencies are working together to:

- deliver and continuously improve universal services
- ensure every child and family has what they need through the provision of targeted supports, services and timely information.

Preparing children so that they are at the appropriate developmental stage to start learning in school will deliver better outcomes every decade of their lives and across generations.

Source: NSW Department of Premier and Cabinet.



Embedding resilience in services

Immense disruptions of recent drought, bushfires and the pandemic, highlight the need to embed resilience into all levels of government services

Embedding resilience to reduce the impacts of future events

A world-class government anticipates and prepares for the future.

Planning for an uncertain future and putting in place the processes and capacity to adapt will ensure that people, services and infrastructure are resilient to withstand and recover from major events.

The recently established agency, Resilience NSW, will bring a whole of government approach to disaster management, supporting communities to prepare and help to respond to any disaster or event. It will ensure that different parts of government act cohesively to build resilience and support local communities.

Embedding resilience into the State's disaster response capacity goes beyond preparing for how to respond to natural disasters. It can also include examining how we consider the impacts of such events and plan ahead to mitigate their impacts *before* they occur, such as by designing critical infrastructure to withstand shocks and stresses, upgrading data and risk prediction modelling, and reviewing existing disaster response plans (Refer to Box 4.6).

This approach can apply to natural hazard mitigation as well. One area of particular interest are traditional Aboriginal land management methods which have shown significant promise in building more resilient infrastructure and land use practices. For example, 'Cultural Burns' — slow burning fires that restructure vegetation so that there is insufficient fuel load for wildfires to escalate into bushfires — have been trialled in the Bega Valley and other areas in New South Wales. Similarly, recent innovations in New South Wales such as 'Regenerative Agriculture' use traditional Aboriginal knowledge to better manage risks of drought, topsoil erosion and desertification through practices that rehydrate landscapes, regenerate topsoil, increase biodiversity and improve water use while also improving agricultural yields and profits.

Building resilience to unforeseeable events now will limit the impact on current generations and protect future generations against the consequences of actions taken, or not taken, today.

Box 4.6: Embedding resilience into infrastructure design – Sydney Metro

Sydney Metro is Australia's biggest public transport project delivering a new driverless metro railway system across Greater Sydney. Due to the scale of investment and longevity of metro lines, ensuring that the infrastructure can withstand unforeseeable natural disaster events is crucial. This was considered early in the planning and business case development of the project. As part of this, the probability and impact of flooding and other extreme weather events were identified and mitigated through enhancing the design and engineering of the project. This includes:

- designing the station and drainage to be flood resistant to reduce impacts of increased rainfall intensity
- ensuring relevant equipment is located in temperature controlled rooms to prevent impacts from excessive heat
- testing the sensitivity of mechanical cooling systems to increased temperatures, identifying potential additional capacity that may be required within the life of the project and safeguarding space if required
- testing the sensitivity of tunnel and station ventilation systems to increased temperatures and;
- using permeable surfaces to allow for rain to sink into the ground to prevent flooding.

By understanding the medium and long term risks and vulnerabilities, Sydney Metro has been able to build climate resilience into the rail network and mitigate future costs for government.

Source: Sydney Metro.

Focusing on evidence and outcomes

Public spending should be directed towards services and infrastructure that provide the greatest value

Effective prioritisation informed by evidence and focused on outcomes

Given increasing fiscal pressures and the growing demands for funding across service areas, public spending should be directed towards the right services and infrastructure that provide the greatest value for the people of New South Wales. This means directing funding where it best meets the changing needs of individuals and the community, businesses and the economy.

To achieve this, the NSW Government is continuing to strengthen and apply Outcome Budgeting across the sector to scrutinise and prioritise government spending, and working to build evidence of 'what works' in the delivery of better outcomes for the people, businesses and communities of New South Wales.

4.4 More tailored and accessible services — a vision for New South Wales

In 2061 – managing health through timely and convenient access to health care professionals

Keira is 72. Genetic analysis when Keira was in her 50s indicated that she has elevated risk for some cancers. She can reduce her risk with periodic monitoring and healthy lifestyle choices. Keira chooses to use a personal health assistant, an artificial intelligence tool to monitor her diet and exercise.

Keira notices fatigue and weight loss, and her personal health assistant prompts her to run screening tests using her portable scanning device. Keira opts for the convenience of virtual support from a remote multi-disciplinary health team.

Keira allows a biometric device to measure her pulse, breathing and temperature. The data is shared in real-time with her health team. Together, Keira and the team work to design a health treatment plan, including for her diet and exercise.

Keira's experience working with the health team leaves her feeling informed and in control of her own health.

In 2061 – tailored learning environments help students to reach their potential

Isaac is 10. He attends school at the learning hub, which is co-located with a residental aged care centre and a community hub. The community hub offers services such as immunisations and developmental checks, and other services such as speech therapy.It also hosts a range of extracurricular activities. Isaac is part of the community orchestra, which includes members from the aged care centre.

Isaac's teachers have more time to focus on the learning and developmental needs of each student, as digital technology has automated routine tasks such as basic record-keeping and attendance monitoring.

Isaac shows talent in music but struggles to engage with maths. Using a tool available to all teachers to help identify and access a range of complementary learning programs, his teacher finds a specialised maths-through-music program based at a school in Coffs Harbour. His teacher sets Isaac up to trial the program. Isaac is highly engaged with the trial and his teacher and family can see his rapid progress in real-time via a shared platform.

Isaac now excels at both maths and music, which has also helped with his creativity and critical thinking skills. Isaac feels more confident both inside and outside the classroom.

In 2061 – safe, convenient and environmentally sustainable commuting

Lan is in her 20s. She lives in Penrith and plans to meet up with friends who live in the Blue Mountains.

Lan asks her Nashi (her handheld life-management device) for the best transport options. Nashi uses data analytics and artificial intelligence to predict the factors that matter most to Lan: comfort first, then price. Nashi ranks the options (public and private) by comfort, cost and speed. She chooses a solar-powered, self-driving shared vehicle. As she boards, Lan's Nashi automatically bills the trip to her personal mobility subscription.

The NSW transport network is now zero emissions and the air quality is generally good. Self-driving cars dominate the roads and need less space to navigate safely. Roads are narrower, leaving ample room for trees and the extensive network of footpaths and cycleways that connect the city. Lan walks to her office in Penrith every day. It is free and ensures that she stays active and fit.

Traffic snarls are rare and the combination of intelligent speed adaptation and a connected road and vehicle network eliminated traffic accidents a decade ago.

Lan has come to expect that wherever she travels in New South Wales, it will be quick, safe and hassle-free.

05.

Sustainable revenue

Sustainable government revenues are essential for New South Wales to deliver public services and infrastructure for current and future generations.

As the needs and demands of our population evolve, and our economy changes, the way that government raises revenue will have to adapt.

The social and economic changes projected in this report will slow revenue growth into the future. If we continue to rely on current revenue sources without reform or change, our revenues will grow more slowly than the economy and more slowly than the growth in our spending. If we do not address this, our ability to invest in public services and infrastructure will become increasingly reliant on borrowing and impose a growing burden of debt on future generations.

Over time, the decline in state revenue sources will also lead to New South Wales becoming more reliant on payments received from the Commonwealth Government.

Under Australia's federal system of government, states are responsible for critical services and delivery of around half of the operational services and infrastructure that Australians rely on. However, states do not have the capability to raise sufficient revenue to fund these. The Commonwealth raises around 80 per cent of Australian tax revenue. [65] To bridge this gap, New South Wales receives Goods and Services Tax (GST) revenue and funding under a range of national and state specific funding arrangements with the Commonwealth Government.

Goods and Services Tax is an important source of funding that is "untied", enabling New South Wales to make spending decisions to meet the needs of citizens across different types of services and infrastructure, in a flexible way. However, based on its current design, GST will not grow in line with the economy and New South Wales will become more reliant on 'tied' funding negotiated with the Commonwealth for specific purposes.

Our taxes and other sources of revenue should aim to be efficient, fair and robust, and grow in line with the State's needs. How we design our sources of revenue will need to be responsive to social, economic and technological change in order to continue to meet these principles.

There are a range of opportunities to secure a sustainable foundation for providing government services and infrastructure into the future.

Measures that lift productivity and participation rates will grow our economy and flow through to state government revenues, without increasing the tax burden. In relation to tax reform, one of the most significant opportunities that we have as a state is to move away from stamp duty towards an annual property tax, as discussed in Chapter 3. There are other opportunities to modernise our taxes, such as how we design road user charges as we transition from fossil fuels to electric vehicles.

Working together, Australian jurisdictions can modernise the GST to make it more robust, and improve funding arrangements to support a stronger, fairer federation. Goods and Services Tax reform will ensure states have access to a stable source of revenue that grows in line with the economy and are rewarded for pursuing reforms that grow their economies.

Over the period to 2060-61

Revenue will grow by an average of

4.0 PER CENT

a year to 2060-61

Revenue as a share of GSP will decline from 12.9 per cent to

11.5 PER CENT

by 2060-61

Revenues from the Commonwealth will increase from 38.7 per cent to

46.6 PER CENT

of our revenue base by 2060-61

NSW's share of the national GST pool will decline from 27 per cent to

24 PER CENT

by 2060-61

[65] ABS, *Government Finance Statistics for 2018-19,* cat no. 5512.0, 2020, Canberra.

5.1 Where our revenue comes from and how it is changing

New South Wales collects revenue from a range of sources. Our major state taxes are payroll tax and property-related taxes. The sale of goods and services, such as transport fares, constitutes a major share of non-tax revenues.

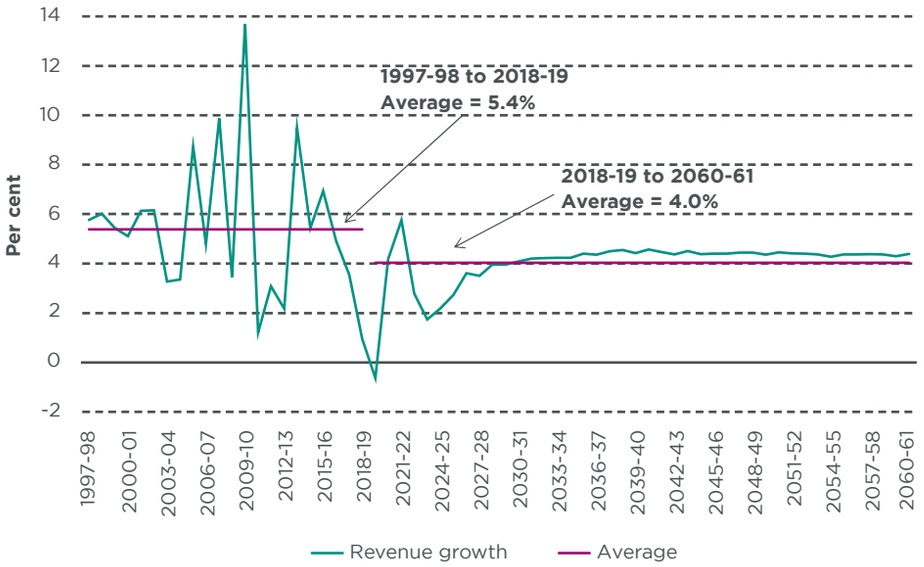
Our federal system of government limits the types of activities that states can tax. Major sources of revenue, such as company tax, excises and personal income tax are only available to the Commonwealth Government.[66] The GST is collected by the Commonwealth, under powers not available to the states and territories, and passed on in the form of grant payments.

Revenue will grow more slowly than previously

Based on the long-run population, productivity and economic growth projections set out in earlier chapters, revenue growth is projected to slow to 4.0 per cent a year on average to 2060-61.[67]

This means that, in the absence of changes to tax settings, or reform which generates higher levels of productivity in the state or nationally, revenues will grow more slowly than the average annual revenue growth seen over the past 20 years, which has been 5.4 per cent (Chart 5.1). Importantly, revenue growth will be lower than projected spending growth (4.5 per cent).

CHART 5.1: NSW ANNUAL REVENUE GROWTH



Source: NSW Treasury.

Note: Revenue projections in this chapter exclude the dividends generated by the NSW Generations Fund unless otherwise stated. The sustainability of state revenues is determined by those revenues that are available to support current spending on government services and investment. For this reason, it is helpful to exclude dividend payments from the Fund. While the Fund will play an important role in supporting the long-run sustainability of government debt (see Chapter 6), earnings from the fund are to be reinvested rather than made available to support public spending.

[66] Under Commonwealth legislation, grants from the Commonwealth to the states are conditional on states not imposing income tax, which in addition to the high costs and burden of a dual system, effectively rules out states levying income taxes.

[67] Note the numbers in this chapter exclude investment returns from the NSW Generations Fund (NGF) unless otherwise stated. The NGF is addressed separately in Chapter 6.

Lake Jindabyne, Snowy Mountains
Destination NSW

Revenues will decline as a share of the economy

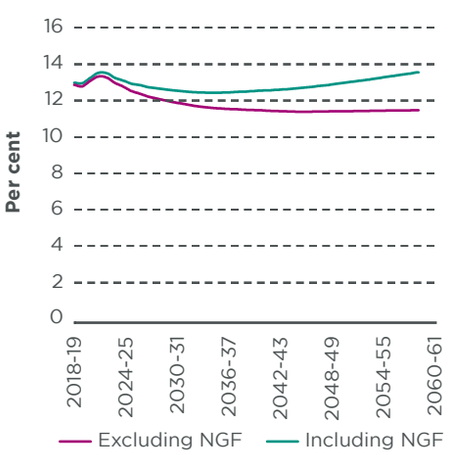
Revenue as a share of the economy (measured as GSP) is projected to decline from 12.9 per cent in 2018-19 to 11.5 per cent by 2060-61 (Chart 5.2). This means the government will have less revenue for delivering services and infrastructure relative to the growing size of the NSW population and economy.

In the next few years, the property cycle is expected to drive growth in property-related taxes before the market moves past its peak and housing activity slows. After this point, economic growth is projected to outpace growth in state taxes and key non-tax revenues, such as mining royalties and sales of goods and services. As population ageing drives increased health-related spending, on the assumption that current national health funding arrangements continue, Commonwealth National Partnership payments will grow and begin to offset further declines in state-based revenues.

If investment returns from the NSW Generations Fund were taken into account, revenue as a share of GSP would increase over the long-run to around 13.5 per cent by 2060-61. Other revenues which are currently diverted into the fund include distributions from the state's Ausgrid and Endeavour investments, other dividends, income tax equivalents and government guarantee fees from State Owned Corporations, as well as mining royalties.

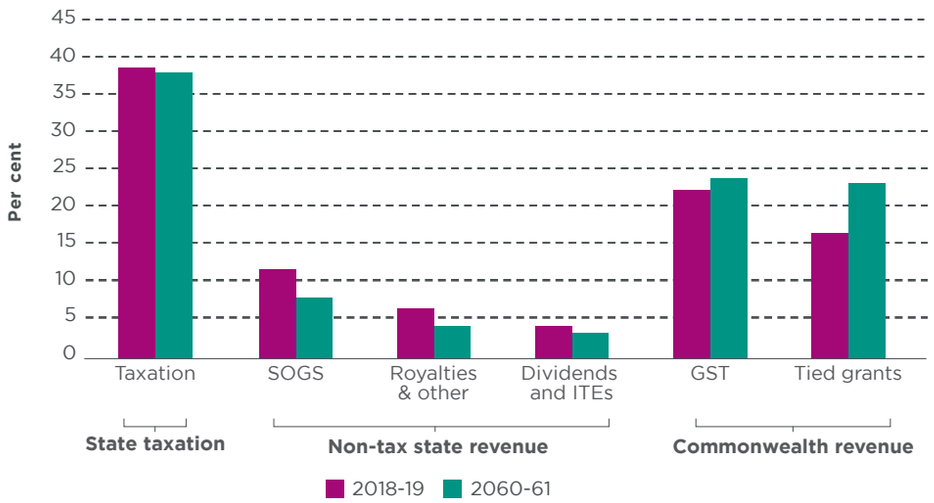
The earnings from the NSW Generations Fund are not a useable source of revenue for general expenditure. Returns from the Fund are reinvested and help to grow the fund over time, with returns set aside for the purpose of debt retirement. This is critical for keeping public debt at sustainable levels, so that future generations are not burdened with unfairly high levels of debt.

CHART 5.2: REVENUE AS A SHARE OF GSP



Source: NSW Treasury.

CHART 5.3: REVENUE SHARES AND CONTRIBUTION TO TOTAL REVENUE BASE



Source: NSW Treasury.

Revenue is becoming increasingly reliant on Commonwealth transfers

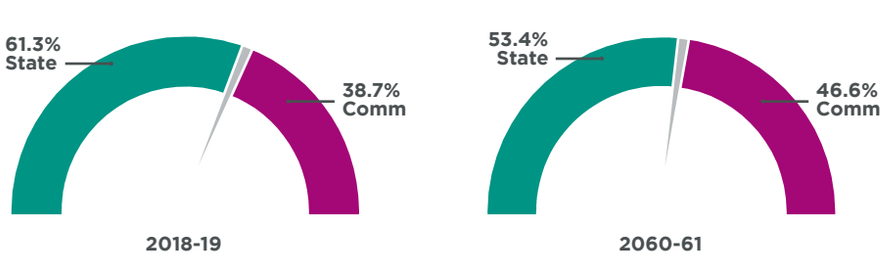
Where our revenue comes from will change over time. Chart 5.3 shows how the composition of our revenue base will change to 2060-61.

State taxation revenues are projected to fall modestly as a share of total NSW revenues, primarily because of slower population growth and faster population ageing. Our other state revenue streams, including the Sale of Goods and Services (SOGS), revenue from royalties and investment dividends (excluding the NSW Generations Fund) are also projected to fall as a share of our revenue base.

As a result of lower growth in state-based revenues, revenues from the Commonwealth will increase as a share of our funding base (Chart 5.4). In particular, Commonwealth tied payments become a greater share of the funds available to the NSW Government.

This assumes that current tied funding arrangements with the Commonwealth continue on the terms set out in existing agreements, in particular Commonwealth payments towards hospital expenses under the National Health Reform Agreement (NHRA).

CHART 5.4: CHANGE IN COMMONWEALTH SHARE OF TOTAL REVENUE



Source: NSW Treasury.

5.2 Growth in NSW state revenue sources will slow

State tax and non-tax revenue sources will fall as a share of our revenue out to 2060-61. This means that a shrinking share of the revenues available to pay for government services will be received from sources over which the NSW Government has direct control (funding received by the state from the Commonwealth Government is addressed separately in section 5.3).

In 2018-19, NSW state revenues totalled $49.6 billion, of which taxation revenues accounted for $31.0 billion and other non-tax sources (excluding the NSW Generations Fund) accounted for $18.6 billion. In 2060-61, NSW state revenues are projected to be $86.8 billion, representing an average growth rate of 3.7 per cent between 2018-19 and 2060-61. This is slower than broader economic growth and growth in spending (Chart 5.5). It is also slower than projected revenue growth in the 2016 NSW Intergenerational Report.

Revenue from state taxation

Slower population growth and population ageing will lead to slower growth in state tax revenues

State taxes are a critical component of our revenue base. They are primarily comprised of property and income-related taxes.

Property-related taxes include stamp duty on property transfers and land tax.

To 2060-61, stamp duty revenue is projected to grow by an average of 3.9 per cent a year, slower than projected in the 2016 NSW Intergenerational Report. This reduced growth rate reflects the fact that population growth is projected to be slower than previously anticipated, which will reduce pressure on house prices as housing stock increases relative to population size. Since older citizens move home less often, the shift towards an ageing population will also reduce the growth in number of property transactions.

CHART 5.5: AVERAGE ANNUAL GROWTH IN STATE REVENUES 2018-19 TO 2060-61

Source: NSW Treasury.
Note: All growth rates, including revenue, spending and economic growth are in nominal terms.

Historically, revenue from stamp duty on property transfers has been highly volatile, reflecting volatility in the housing market in terms of both prices and transaction volumes. As set out in Chapter 3, stamp duty is one of the most inefficient state taxes because it increases the cost for people to move to find a job, to be closer to schools or to match housing size to their family or life situation.

Land tax is far more stable than stamp duty because it is not directly affected by changes in transaction activity, only property stock and price levels. On current tax settings, land tax revenue is projected to increase by an average of 3.7 per cent from 2018-19 to 2060-61. This reflects progressive increases in the housing stock — albeit rising at a slower rate than in recent years, due to slowing population growth — and rising house prices.

Income-related taxes are taxes for which income levels are a primary driver, and include payroll, motor vehicle and gambling taxes. Revenues from these taxes are expected to grow on average by 4.2 per cent per year to 2060-61. The ageing of the population will lower the growth of income-related revenues over this period, in line with a fall in working age population as a share of total population.

Payroll tax is the largest income-related tax, and the largest component of state tax revenue in New South Wales. It is one of the more efficient taxes available to the State,[68] with a low economic cost relative to other state taxes. The amount of payroll tax received is determined by the total wages paid to workers in the broader economy. Growth in total payrolls is expected to slow over time as the share of working-age population declines. Other disruptions not currently accounted for in these projections, such as the rise of the gig economy and a shift towards sole traders, could see the wages of a growing percentage of workers fall below the payroll tax threshold, and lead to lower growth in payroll tax receipts.

Motor vehicle and vehicle weight taxes are expected to grow at an annual average rate of 4.3 per cent to 2060-61. While this is broadly in line with growth in overall economic activity, this estimate could drop lower in the future if ridesharing becomes more mainstream for a new generation of potential car owners.

Gambling and betting revenue is expected to grow at an annual average rate of 2.9 per cent to 2060-61, reflecting long-term expectations for wage growth. Recent innovations in gambling and betting have included internet gaming, strong growth in online betting, and the ability to place bets with online operators not subject to New South Wales betting taxes. In 2019, this trend drove the introduction of a point-of-consumption tax, which taxes online gambling according to where the bet is placed.

Revenue from non-tax state sources

Mining royalties from coal will decline as global demand weakens

Revenues from royalties, fines, regulatory fees and other grants are expected to grow by an average of 2.7 per cent a year to 2060-61, falling as a share of total state revenues. This is primarily driven by a decline in royalties revenues associated with falling global demand for coal.

Most coal produced in New South Wales is exported, and the future of the industry is largely dependent on global demand. In 2020, New South Wales' three top thermal coal export markets — Japan, South Korea and China — all announced their intention to achieve net zero emissions by the middle of the century. Consequently, global demand is projected to be weaker than the long-term estimates presented in the 2016 NSW Intergenerational Report.

Under current projections, coal sales (and production) remain at current levels until 2031 then decline to 44 per cent of current levels by 2061. Since global coal demand depends on factors outside the control of the NSW Government, it is subject to considerable uncertainty (see Box 5.1).

So that future generations benefit from today's non-renewable resources, royalties revenues from coal are invested into the NSW Generations Fund. They will contribute an expected $42 billion in real terms into the fund over the period to 2060-61.

[68] NSW Treasury, *NSW Review of Federal Financial Relations,* Sydney, 2020.

Other non-tax revenues to grow more slowly than broader revenue

Sales of Goods and Services (SOGS), which includes items such as rents, tolls, transport fares and hospital patient fees are projected to grow by an average of 3.1 per cent over the period to 2060-61. Over the projection period SOGS revenues are escalated by CPI and population growth. In some cases, a more appropriate volume or price escalator has been used. For example, patient fees are escalated by private health insurance coverage and health inflation. Overall, these factors are growing more slowly than broader revenues. As a result, SOGS will decline as a share of total revenue, from 11.9 per cent in 2018-19 to 8.2 per cent by 2060-61.

Additionally, state revenues from dividends and income tax equivalent (ITE) payments are expected to grow by an average of 3.4 per cent a year to 2060-61.[69] This is slower than broader growth in revenues and will fall as a share of our revenue base from 4.4 per cent in 2018-19 to 3.3 per cent by 2060-61.

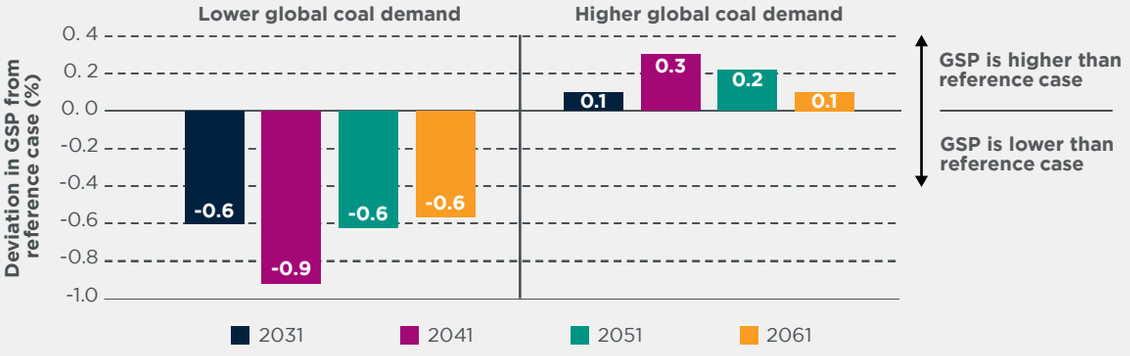
Box 5.1: What will happen to global coal demand?

If the global transition away from coal occurs at a slower or faster pace than projected, there will be impacts on our revenue base and the broader economy.

Under a scenario of higher global coal demand, New South Wales could export up to an additional 1,600 Mt of coal between now and 2061. The cumulative impact of additional revenue and investment returns would result in the NGF balance being $43 billion larger by 2061. This would also see a boost to the wider economy of 0.1 per cent by 2061 (see Chart 5.6).

In contrast, if the global shift to renewable energy is faster than anticipated, coal production in New South Wales could cease by 2042. The cumulative impact of lower revenue and foregone investment returns would reduce the NGF balance by $65 billion by 2061. In this scenario, the economy would be 0.6 per cent smaller by 2061.[70]

CHART 5.6: SENSITIVITY OF NSW GROSS STATE PRODUCT TO GLOBAL COAL DEMAND



Source: NSW Treasury.

[69] Excluding NSW Generations Fund dividends which are set out in Chapter 6.

[70] Refer to the following paper for more information on NSW coal projections: NSW Treasury, *The sensitivity of the NSW economic and fiscal outlook to global coal demand and the broader energy transition* , 2021 Intergenerational Report Treasury Technical Research Paper Series, TTRP 21-07, 2021.

5.3 Revenue from the Commonwealth

In 2060-61, revenues from the Commonwealth are expected to total $75.7 billion, representing an average growth rate of 4.5 per cent a year to 2060-61. Commonwealth payments will grow from 38.7 per cent of the State's total revenue base in 2018-19 to 46.6 per cent in 2060-61.

Commonwealth revenue payments to the states are necessary because there is a mismatch between the Commonwealth's capacity to raise revenue and the responsibility of states and territories to deliver services and infrastructure.

The mismatch in revenue collection and spending responsibilities between the states and the Commonwealth means that the financial capacity of Australian governments is 'vertically imbalanced',[71] with states relying on the Commonwealth to fund essential services. The resulting funding gap between states' revenues and their spending responsibilities totaled $112 billion for all states in 2018-19.

By international standards, Australia has a high level of imbalance: states are significantly more reliant on transfers from the national government than in Canada, Germany and the United States.

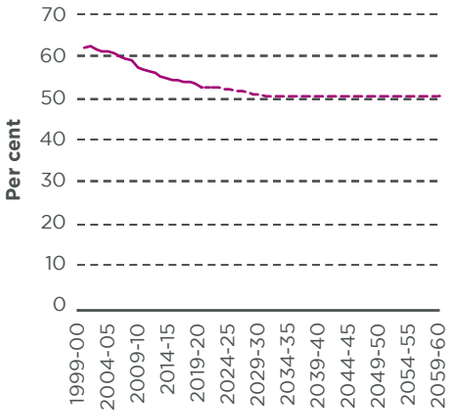
The GST base is declining as the taxable share of household spending falls

The GST is the largest single source of revenue for the NSW Government, providing just over one fifth of total revenue in 2018-19, roughly equal to stamp duty and payroll tax combined. To 2060-61 GST as a share of total revenues will increase marginally, to 24 per cent.

As a consumption-based tax, GST is also one of Australia's most efficient taxes, although in practice the efficiency of GST is diluted by concessions which mean only about half of all consumption is taxed. GST funding to the states is 'untied' — it is revenue that New South Wales can use to deliver services for citizens in a way that is tailored to our circumstances. When introduced in 2000, the GST replaced a range of inefficient taxes with a single, simple, and transparent source of funding.

By putting in place a funding stream that was predictable and would grow with the economy, the GST was designed to improve the way states receive revenues to fund services and infrastructure.

CHART 5.7: SHARE OF TAXABLE CONSUMPTION



Source: ABS Household Expenditure Survey.

Note: Estimates of the share of taxable consumption are constructed using the ABS Household Expenditure Survey to determine the portion of each category in the Household Final Consumption Expenditure (series. 5206008, Table 8) that incurs GST. Changes in the share of spending in each category then determine the aggregate share of household consumption.

[71] Known as vertical fiscal imbalance.

However, over the past 20 years, GST has not grown in line with the economy as was intended and has fallen as a proportion of Gross Domestic Product (GDP). This is largely because consumer spending on goods and services that do not incur GST — health care and education — has outpaced taxable spending.

While demographic factors have played a part, especially in relation to health spending, households in all age groups have contributed to this trend.

The share of consumption that is subject to GST will continue to decline over the next decade, from 54 per cent at 2018-19 to around 51 per cent by 2029-30, before steadying out to 2060-61 (Chart 5.7). This would see GST as a share of NSW GSP fall from 2.8 per cent in 2018-19 to 2.7 per cent by 2060-61.

Into the future, New South Wales' share of the national GST pool is also expected to decline, from 27 per cent in 2018-19 to 24 per cent in 2060-61 (See Box 5.2).

Box 5.2: How the GST is distributed

In November 2018, the Commonwealth made changes to Australia's horizontal fiscal equalisation (HFE) arrangements. This included introducing a GST revenue sharing 'relativity floor', that is, a minimum share of GST that a state receives irrespective of fiscal capacity, and changes to certain standards. These changes reduce New South Wales's share of national GST revenue.

The Commonwealth Government distributes GST with the aim of allowing all state and territory governments to deliver a similar standard of services to residents for a similar tax burden. This is referred to as horizontal fiscal equalisation.

Horizontal fiscal equalisation is a method that shares the GST across states by measuring their relative fiscal capacity (otherwise known as a 'relativity'). It involves looking at various factors that affect the cost of delivering government services and infrastructure, and capacity to raise revenue across states and territories. Some of these factors are geographic and demographic, and include natural resource endowments.

This means GST is not shared between states and territories based solely on their share of Australia's population. Rather, the goal is to assess the relative needs and capacities of each state and territory government to provide comparable services to their residents. As New South Wales has a relatively strong fiscal capacity compared to other states and territories, it receives a lower GST share than if GST were distributed purely based on population share. For example, in 2018-19, New South Wales accounted for 32 per cent of the Australian population but received 27 per cent of national GST revenues.

The 2018 changes made by the Commonwealth improve Western Australia's GST share at the expense of the other states and territories. In recognition of these impacts, temporary support was provided through a legislated 'no worse off' guarantee until the end of 2026-27. Without this guarantee in place, New South Wales stood to lose significant funding: $4 billion from 2021-22 to 2026-27.

The overall impact of the HFE changes and how GST is distributed will leave New South Wales worse off in the long run, with lower GST revenue over the period to 2060-61 than would otherwise be the case. These increasingly complex and unfair HFE arrangements present significant longer term downside risks to the State. Reforms to simplify and improve fairness should be pursued. Permanent adoption of the no worse off guarantee beyond 2026-27 funded by the Commonwealth, or alternatively, unwinding the Commonwealth's changes are two immediate options. However, more broadly, the NSW Government continues to support HFE reform that sees distribution moving towards an equal per capita share, topping up weaker states through other means.

Box 5.3: NSW Review of Federal Financial Relations

Australia is a federation — a system of government that brings power closer to the people and ensures diversity and choice across the country. It allows governments to tailor policy and services to the local needs of communities, while securing national consistency where needed. Done well, federalism can be one of the most effective forms of government, and federal countries have long performed better than unitary countries in delivering economic growth. [72]

New South Wales has taken a leading role in driving a stronger, more effective federation that is fit for the long-term. In 2019, the NSW Government announced an independent review into federal financial relations, appointing a panel of pre-eminent experts to examine the funding arrangements that New South Wales relies upon, and develop options for the state to meet its funding needs sustainably over the long term. The panel, chaired by Mr David Thodey, drew together leading experts in public policy reform, microeconomics and tax, constitutional law and federal financial relations.

The panel found that Australia's model of federation is not best practice, with the large and growing imbalance between the Commonwealth and the State having a centralising effect on the operations of government, with the Commonwealth entering into policy areas not given to it by the Constitution through its influence on funding agreements and grants.

As a result, Australia is not making the most of its federation. The panel concluded that continuing a 'business as usual' approach will create 'a legacy of undesirable choices for the generations of tomorrow'.

The review made a broad-ranging set of recommendations to state and Commonwealth governments to set up our federation for the future, including:

For New South Wales:

- Phase out some of the State's most inefficient taxes, including transfer duties and insurance taxes.
- Transition to the use of broad-based land taxes, to promote a more equitable and efficient tax system.
- Work with other states to address the hollowing out of payroll tax, support harmonisation of the tax base and reduce complexity.
- Work with other states to modernise the way that roads are used and funded.

For states with the Commonwealth:

- Develop projections of national GST revenues to account for the declining tax base (which we do in this report, see GST section over).
- Develop reforms to the GST to offset this decline while also taking measures to maintain equity.
- Develop a personal income tax sharing model, which is revenue neutral for the taxpayer, with revenue distributed to the state in which it is generated.
- Review and reform all Commonwealth-state funding agreements to reduce administrative burdens, clarity roles and responsibilities and ensure programs that need long-term stable funding are funded from an ongoing source rather than short term grants.

[72] NSW Treasury, *NSW Review of Federal Financial Relations,* Sydney, 2020.

Commonwealth tied payments will grow as a share of the state revenue base[73]

Outside of GST, New South Wales receives funding from the Commonwealth under National Agreements and National Partnerships. Funding under these agreements is tied to specific services, such as funding hospitals and schools, and specifics projects or programs, such as the COVID-19 response and distributing essential vaccines.

Between 2018-19 and 2060-61, tied Commonwealth payments are expected to increase as a share of our total revenue base, from 16 per cent in 2018-19 to 22 per cent in 2060-61, and as a share of total Commonwealth revenue to New South Wales. This reflects an average 4.8 per cent a year growth to 2061.

Tied funding for health services, including public hospitals, currently represents over half of tied revenues and is expected to grow to more than 70 per cent of total tied revenues by 2061 (See Chart 5.8).

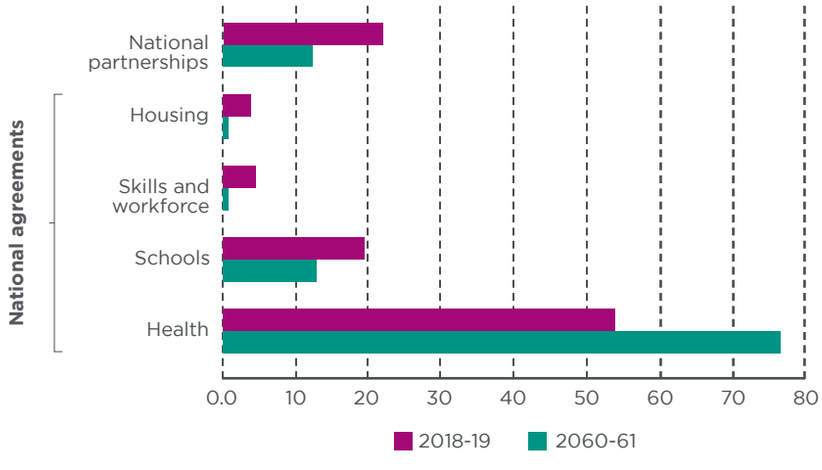
Without reform to either boost state revenues, boost GST revenue or provide another form of untied funding to the states, this greater reliance on tied payments will make it harder for state governments to innovate and provide services that produce the best outcomes for their citizens.

In their current design, tied funding agreements do not give states sufficient funding certainty in areas of long-term need (for example, public dental care). Their sometimes prescriptive requirements limit opportunities for states to be flexible, innovate and adapt. Negotiating and reporting tied funding agreements takes time and resources, and a shared vision of the outcomes sought, or a joint solution to Australia's underlying problems is often lacking.[74] This makes it harder for states and territories to plan for the future and invest money in a way that creates the greatest value for their citizens.

It will also be harder for states to manage the demand for services in situations where cost of service delivery grows more strongly than associated payments from the Commonwealth. For example, should pressures on hospitals continue to build and there is insufficient investment in primary care, there is a risk that state government spending on health will outstrip payments from the Commonwealth, even as Commonwealth payments are growing.

It is important to note that these projections are based on current funding arrangements. Actual future tied Commonwealth revenues will depend heavily on future Commonwealth decisions, and negotiations with the states. Through the National Federation Reform Council, Council of Federal Financial Relations and other intergovernmental forums, New South Wales will continue to advocate for Commonwealth funding on terms that produces the best outcomes for people.

CHART 5.8: SECTOR SHARE OF TIED COMMONWEALTH REVENUES



Source: NSW Treasury.

[73] Payments linked to National Agreements for achieving national objectives in four key areas of state-service delivery: public hospitals, schooling, housing and homelessness and skills and workforce development, and National Partnership and Project Agreements for the delivery of specific projects or policy initiatives.

[74] NSW Treasury, *NSW Review of Federal Financial Relations,* Sydney, 2020, Table 1 pp.24-25.

Box 5.4: National funding agreements on health and education

Health National Agreement — Funding under the Health National Agreement is the most significant driver of growth in tied payments. This reflects the high the pace of growth in projected NSW health expenses. Despite this, projected growth in Commonwealth payments will not keep pace with projected growth in health expenses.

Under the 2020-25 Addendum to the National Health Reform Agreement, the Commonwealth funds 45 per cent of increases in efficient hospital activity, subject to a 6.5 per cent annual growth cap – beyond which all growth in costs will be funded by the state. The agreement brings the projected annual rate of growth in these revenues to 5.7 per cent. These revenues represent around 30 per cent of total NSW health expenses.

To keep health care costs sustainable Commonwealth-state cooperation is needed to support people to manage their health, and ensure they receive the right care in the right place and at the right time. This should include access to timely and appropriate aged care services. Effective investment in early intervention and care outside of hospitals is essential to support better health outcomes and reduce the need for 'acute' care in hospitals.

A significant portion of that investment is a Commonwealth responsibility, as it requires effective primary and preventative care. Yet, under current funding arrangements, the states bear the majority of costs and financial risk from growing demand for public hospitals, while the Commonwealth's exposure to this risk is capped.

School National Agreement – Schools represent just under a quarter of total tied Commonwealth revenues to New South Wales. Commonwealth funding for government schooling is indexed by the projected rate of growth of the student population, plus a Commonwealth legislated school resourcing growth factor. Our ageing population is expected to put downward pressure on growth in Commonwealth funding for schools out to 2060-61. These revenues are projected to grow at an average of 3.8 per cent in the long run, compared to 4.2 per cent in education expenses.

5.4 Opportunities to build a strong and sustainable revenue base

On current policy settings, growth in total revenue will fall short of economic growth in New South Wales and of growth in NSW Government spending. This implies that, over time, governments face a choice between reducing the cost of providing public services and infrastructure, increasing revenues through broader revenue collection or higher rates, or accepting an unsustainable trajectory for public borrowing.

By modernising how we raise revenues we can provide a more sustainable funding base for the delivery of government services and infrastructure for our children and grandchildren.

Reforms to boost productivity increase revenues without imposing additional taxes, by generating higher economic activity and incomes. Increased productivity can also reduce spending on certain government services and reduce government spending relative to the size of the economy. Raising annual productivity growth by 0.1 percentage point out to 2061 — an increase from 1.2 per cent to 1.3 per cent on average over the period – would increase annual revenue growth from 4.0 per cent to 4.1 per cent, resulting in an extra $8.3 billion in revenue each year by 2061.

Opportunities for productivity reform are available within the state tax system and include moving away from economically costly taxes, towards more efficient revenue sources. Chapter 3 discusses a significant opportunity for reform to the way property is taxed in New South Wales. Another example of how our revenue system might change is in response to energy transition and the move towards more environmentally friendly vehicles (Box 5.5). Other options include reducing the state's reliance on transaction-based charges, such as taxes on insurance and motor vehicles.

Further significant reform opportunities would require cooperation between the Commonwealth and states to implement. Broadening the GST base would ensure states have access to a stable source of revenue that grows in line with the economy over time. Reforms to the way that GST is distributed could result in a more equitable and efficient system that incentivises states to pursue reforms that grow their economies. Together these reforms would support productivity growth and ensure the state can continue to fund and deliver high quality services and infrastructure in a sustainable way.

Box 5.5: Electric vehicles and adapting to technological change

Electric vehicles (EVs) are expected to become a significant share of vehicles in Australia within the next 40 years. The CSIRO projects that up to the entire motor vehicle fleet could be electric by 2050.[75]

Treasury modelling indicates the potential for significant economic benefits from the uptake of electric vehicles. Projections indicate that the NSW economy could be $5.3 billion larger by 2061 (0.4 per cent of GSP) if our move to electric vehicles follows the Australian Energy Market Operator's (AEMO's) 'step change' projection instead of the 'slow change' projection.[76] This because electricity is cheaper than petrol, and would be produced in New South Wales rather than imported from overseas or Western Australia.

The pace of transition to electric vehicles depends on factors including price, global supply, ease of charging and battery capacity. There are some levers that governments can use to influence this, for example by supporting the availability of charging infrastructure and targets for government fleets.

The NSW Government is supporting the transition to electric and other low emission vehicles through the NSW Net Zero Plan. As part of this plan, the NSW Government will co-fund the deployment of fast-electric vehicle infrastructure and increase targets for electric and hybrid fleet vehicles.

Associated with the move away from fossil fuel-based cars is the loss of fuel excise revenue collected by the Commonwealth. This revenue was already in structural decline over time as vehicles have become more efficient, but is still substantial: the Commonwealth raised $17.6 billion in excise on diesel and petrol in 2019-20.

While this revenue is not specifically set aside for road-related expenditure, in practice, the Commonwealth contributes to road construction and maintenance in New South Wales, with Commonwealth grants accounting for 31 per cent of the state's road-related revenues.

Electric vehicles do not currently pay an equivalent to fuel excise or a road user charge. As the uptake of electric vehicles increases, a growing cost burden of supporting road infrastructure and maintenance will fall on the general tax payer. This impact could be amplified by broader changes to transport habits and technology, such as increased car and ride sharing, and the introduction of autonomous vehicles.

As more NSW citizens make the shift towards this new technology, the taxation system will need to adapt and modernise to ensure a fair road user charging scheme into the future, while continuing to support environmentally friendly transport options.

The NSW Review of Federal Financial Relations (2020) concluded that the take up of electric vehicles provides an opportunity to pilot a distance-based road user charge, as a step towards a more efficient road funding system that better reflects the social cost of road use.

[75] Graham, P and Havas, L, *Projections for Small-scale Embedded Technologies,* CSIRO, Australia, 2020.

[76] Refer to the following paper for more information on these projections: *NSW Treasury, The sensitivity of the NSW economic and fiscal outlook to global coal demand and the broader energy transition,* 2021 Intergenerational Report Treasury Technical Research Paper Series, TTRP 21-07, 2021.

Martin Place, Sydney
Destination NSW

06.

Our fiscal challenge

The fiscal gap is expected to reach 2.6 per cent of GSP in 2061, smaller than expectations in the 2016 NSW Intergenerational Report of 3.4 per cent in 2056.

NSW Government spending on the services and infrastructure that the people of New South Wales need is expected to grow faster than the revenue sources that we rely upon to fund public spending. If not addressed, this gap in our finances each year will result in growing public debt. Over time, this will also limit the extra fiscal capacity that the NSW Government has to deal with significant or unexpected events that require a public response.

The fiscal gap of 2.6 per cent is smaller than estimated in the 2016 NSW Intergenerational Report (which projected a 3.4 per cent gap in 2055-56). A number of factors account for this – in particular, changes to modelling methods to better estimate both health expenses as we age, and account for growth in health funding from the Commonwealth (which is now projected to be more in line with hospital expenses). Updated economic and demographic assumptions since the previous Report – including lower productivity growth and fertility rates which reduce both expense and revenue growth – have also impacted the fiscal gap.

The fiscal gap is defined in the *Fiscal Responsibility Act 2012* as the projected change in revenues less expenditures as a percentage of Gross State Product (GSP), including net capital expenditure but excluding interest. The change is measured between the base year, 2018-19, and the end of the projection period in 2060-61.

Fiscal gap projections allow us to estimate how fiscal pressures could build over the long term if current policies do not change.

When the fiscal gap is measured, the cost of servicing debt that has previously built up is not included in the calculation. So, alongside the fiscal gap, we also need to consider how much debt the State is accumulating, as interest payments on growing debt will make operating deficits worse over time.

Chart 6.1 shows how fiscal pressures are projected to build over the longer term relative to the size of the economy, with the fiscal gap projected to reach 2.6 per cent of GSP by 2060-61 (excluding earnings from the NSW Generations Fund (NGF)).

By 2061:

Growth in government spending will exceed growth in revenues (excl. NGF) by

0.5 PERCENTAGE POINTS

on average each year

Fiscal gap if no action is taken

2.6 PER CENT

of GSP (excl. NGF)

Net debt of

$125,000

per person
(in today's dollars)

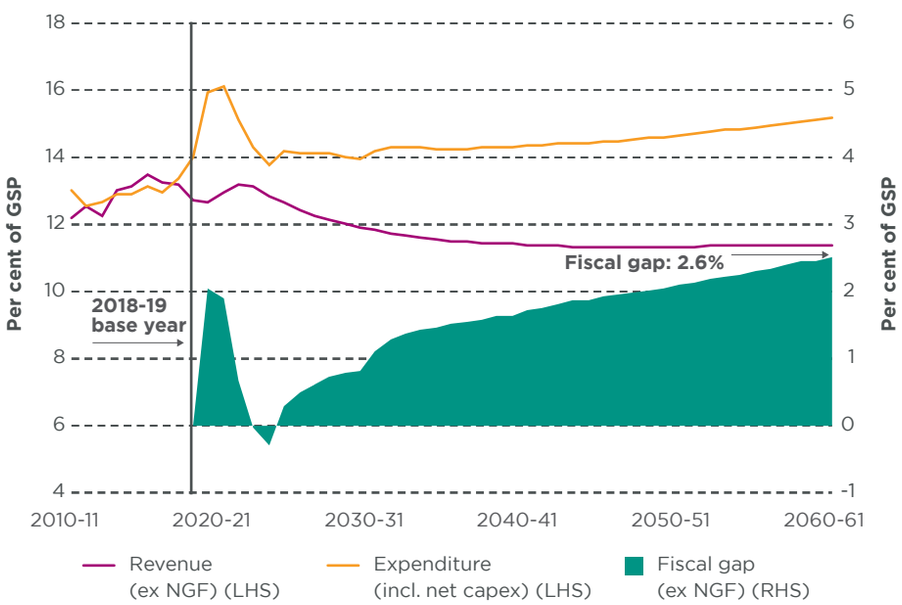
NSW Generations Fund to reach

$430 billion

(in today's dollars)

6.1 Managing our State finances for future generations

CHART 6.1: FISCAL GAP



Source: NSW Treasury.

The fiscal gap of 2.6 per cent of GSP in 2060-61 is the result of government spending on services and infrastructure growing faster each year than revenue is growing. This reflects a range of structural factors including economic and demographic changes, led by an ageing population and falling workforce participation, leading to declining growth in State revenue sources such as payroll taxes and stamp duties, and faster growth in health-related spending. Slower growth in other revenue sources, including sales of goods and service and coal royalties, also contributes to the growing fiscal gap. The nature of our federal system of government and growing reliance on Commonwealth funding is another contributor, with a fall in Goods and Services Tax (GST) revenues relative to the size of the economy over the projection period as a higher proportion of discretionary spending goes towards health and education and the NSW share of the Australian population declines.

The fiscal gap of 2.6 per cent excludes earnings from the NSW Generations Fund. The Fund earns investment returns each year, which are reinvested back into the Fund. These earnings are State revenues, and if we were to include these in our fiscal gap calculations, this gap would shrink to 0.6 per cent of GSP in 2060-61. NSW legislation, however, provides that these funds are to be used for retiring the State's debt, and they are therefore excluded from the fiscal gap projection of 2.6 per cent of GSP. Instead, the reinvested earnings over the projection period are assumed to add to the balance available for future debt retirement.

Fiscal pressures will accumulate over the next 40 years, causing net debt to grow

In the absence of measures to address this structural imbalance between revenue and government spending, New South Wales would face continuing deficits year on year. Without policy interventions, this would

increase debt levels in an unsustainable way. Assuming no policy changes to manage expenditure, NSW Government spending is projected to grow faster than revenues by around 0.5 percentage points on average each year (excluding revenues earned by the NSW Generations Fund). Over 40 years, this modest annual deficit would accumulate into a growing gap between government spending and revenues, forcing government to rely more heavily on borrowings to fund services and infrastructure.

This would significantly impact the State's borrowings, with gross debt projected to reach $1.9 trillion in today's dollars (or 133 per cent of GSP) by 2060-61[77] (Chart 6.2). Our net debt position would reach 100 per cent of GSP by 2060-61 after taking into account the substantial assets held in the NSW Generations Fund.

This would represent, in this scenario, net debt of around $125,000 per person in New South Wales (in today's dollars), leaving future generations significantly exposed to risk – from known trends and future shocks – challenging the ongoing delivery of quality government services. This accumulation of debt also exposes the State to the risk of future rises in our borrowing costs in financial markets, which could lead to a greater share of government revenues being used to pay interest costs rather than to deliver services and infrastructure.

Net debt

Projection for 2060-61

100 PER CENT
of GSP

$125,000
per person in NSW (in today's dollars)

It is important to remember that the projections in this Report assume government takes no action to address the imbalance between revenue and expenditure. In reality, the *Fiscal Responsibility Act 2012* requires corrective measures be introduced to ensure that these projected outcomes do not occur.

The NSW Generations Fund also provides a substantial pool of assets that future generations can use to help manage any build up in debt. We assume for modelling purposes in this Report, however, that while funds are available for debt retirement at any time, the Fund is not used to retire State debt prior to 2060-61.

CHART 6.2: GROSS AND NET DEBT TO 2060-61 (INCLUDING THE NSW GENERATIONS FUND)

Source: NSW Treasury.

[77] The diversion of revenues into the NSW Generations Fund (SOC dividends and coal royalties) also contributes to the accumulation of gross debt. Without these borrowings, gross debt is projected to reach 122 per cent of GSP by 2060-61.

6.2 The NSW Generations Fund will help future generations manage debt

The NSW Government established the State's first sovereign wealth fund in 2018, in line with similar decisions taken by several other advanced and resource-rich economies over time. The NSW Generations Fund is a debt retirement fund whose purpose is to reduce the debt of the State, as set out in the *NSW Generations Funds Act 2018*.

The Fund was seeded in 2018 with an initial investment of $10 billion, comprising $7 billion following the sale of a 51 per cent stake in WestConnex, and $3 billion from balance sheet reserves.

The NSW Generations Fund will support the State's credit rating over the long term by helping to keep debt levels manageable and promoting intergenerational equity.

Both major global credit ratings agencies have recognised the Fund as a direct offset to the State's debt levels, with Moody's considering growth in the Fund as key to supporting New South Wales' triple-A credit rating following the increase in debt associated with the COVID-19 pandemic. This is important because it helps to reduce the State's cost of borrowing in normal market conditions and ensure future generations can benefit from the Government's fiscal strength today.

The NSW Generations Fund will grow over time through ongoing contributions from distributions from the State's minority interests in WestConnex, Ausgrid and Endeavour; dividends, income tax equivalents and government guarantee fees received from state-owned corporations; and from the State's mining royalties. Funds in the NSW Generations Fund are "locked away" by legislation for the purpose of future debt retirement. All earnings are reinvested, adding to the Fund's balance over time.

The Fund's expected long-term rate of return is CPI + 4.5 per cent, which is broadly comparable to other sovereign wealth funds. For example, the Commonwealth Government's Future Fund's investment return objective is CPI + 4 per cent to 5 per cent. Since inception, the NSW Generations Fund has returned 8.05 per cent per annum on average,[78] or around $2.0 billion in total.

The balance of the Fund is projected to reach $14.6 billion by June 2021[79] and $430 billion (in today's dollars) by 2060-61 (Chart 6.3). This is equivalent to 31 per cent of GSP in 2060-61.

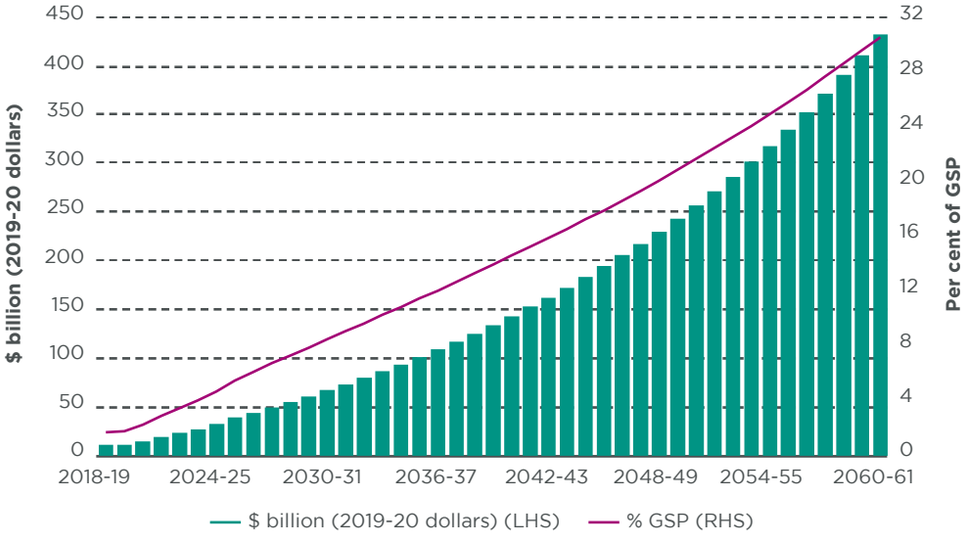
We assume for this Report that the Fund is not used to retire State debt prior to 2060-61. The NSW Treasurer, however, can use the NSW Generations Fund to pay down State debt at any time.[80] In determining whether, and at what point, to pay down debt, a variety of factors would be considered including the Fund's size, the State's debt levels, interest costs, investment margins and all other associated risks.

[78] To 31 March 2021.

[79] Projection as at the 2020-21 Half-Yearly Review.

[80] *NSW Generations Funds Act 2018* (s10).

CHART 6.3: PROJECTED BALANCE OF THE NSW GENERATIONS FUND



Source: NSW Treasury.

6.3 Securing a resilient New South Wales to 2061

The size of the fiscal challenge remains large

Despite the NSW Generations Fund, the underlying structural imbalance between the State's revenue and expense growth and the subsequent debt implications will remain a serious challenge over the coming decades.

State finances also remain vulnerable to uncertainty and volatility — meaning that the gap between revenue and spending growth will vary from these projections. In particular, New South Wales is becoming more vulnerable to funding decisions made by the Commonwealth Government, and volatility in spending to address natural disasters.

A fiscal gap of 2.6 per cent of GSP by 2060-61 is a substantial imbalance; equivalent to around two-thirds of the current health budget or almost all of the current education budget.

However, this assumes we do nothing to address the challenges on the horizon. There are a number of paths available to government to bring greater balance to our long-term fiscal position, such as improving key contributors to sustained economic growth — including participation and productivity — revenue reform, and improving the effectiveness of public spending.

Planning for a prosperous and resilient future

A range of factors largely outside the NSW Government's direct control can influence the size of the fiscal gap. This includes decisions of other levels of government; general economic conditions in the rest of Australia and internationally; international demand for our coal exports as our trading partners transition to greener sources of energy; and the extent of global warming. Government decisions, however, can have a material impact on our long-term economic outcomes and fiscal sustainability. This Report outlines a range of reform opportunities that can either be directly implemented by the NSW Government, or that New South Wales can work with the Commonwealth to introduce, which could drive stronger economic growth and reduce the fiscal gap.

To build a prosperous and resilient future, New South Wales can build on its strong economic foundations and boost its ability to adapt in the face of future challenges and opportunities.

Fundamental policy responses within the direct control of the NSW Government include state measures to boost productivity and workforce participation, lift education and training standards, modernise the State's revenue base, and shift to more efficient user charges. Those that are largely NSW-driven but cannot realise full benefits without co-operation with the Commonwealth Government include skilling the workforce, boosting women's economic participation, and continuing to focus health services on early intervention and prevention. In full cooperation with the Commonwealth Government, New South Wales can achieve a more sustainable State revenue base through tax reform, effective migration policies to grow our population, improved service funding agreements, and fairer and more reliable flow of GST revenues to the states.

These opportunities are explored more fully below. Chart 6.4 compares the potential impact on the fiscal gap of realising some of these opportunities, relative to the projected base case of a fiscal gap of 2.6 per cent of GSP in 2060-61.

Boosting productivity growth and workforce participation would have the most significant impacts on the fiscal gap.

As shown in Chart 6.4, materially lifting productivity growth and achieving parity in women's workforce participation would have the most significant impacts on the fiscal gap. This shows the importance of identifying and implementing reforms that will drive improvements above the current trends in productivity growth and in women's participation in the paid workforce. These are the types of step changes that will enable us to raise living standards over the long-term and to ensure a sustainable future footing for public spending.

Supporting the right environment for investment and innovation to drive productivity

An enabling business environment in New South Wales is more important than ever in today's context of global competition and as countries seek to attract business in the wake of the COVID-19 pandemic. The NSW Government is responding to these challenges by attracting innovative businesses and making public investments through its 2040 Economic Blueprint, R&D Action Plan and the Global NSW Strategy. The NSW Government is also making it simpler to open new businesses and encouraging businesses to launch new products and services through regulatory reforms, precincts and the 24-Hour Economy Strategy.

This Report assumes productivity will grow at 1.2 per cent each year, based on the average pace of growth over the past 30 years. This is lower than the 2016 NSW Intergenerational Report assumption of 1.5 per cent reflecting declines in productivity growth since the last report. Chapter 2 highlights the importance of productivity growth to improve living standards over time. All levels of government can stimulate productivity growth through tax and regulation reform, and with effective investment in education, health and productivity-boosting infrastructure.

Boosting productivity growth has a material impact on the fiscal gap. For example, a 0.1 percentage point increase in annual productivity growth to 1.3 per cent could reduce the fiscal gap to around 2.3 per cent of GSP. An increase in productivity growth to 1.4 per cent could decrease the fiscal gap even further, to 1.9 per cent of GSP.

Productivity growth

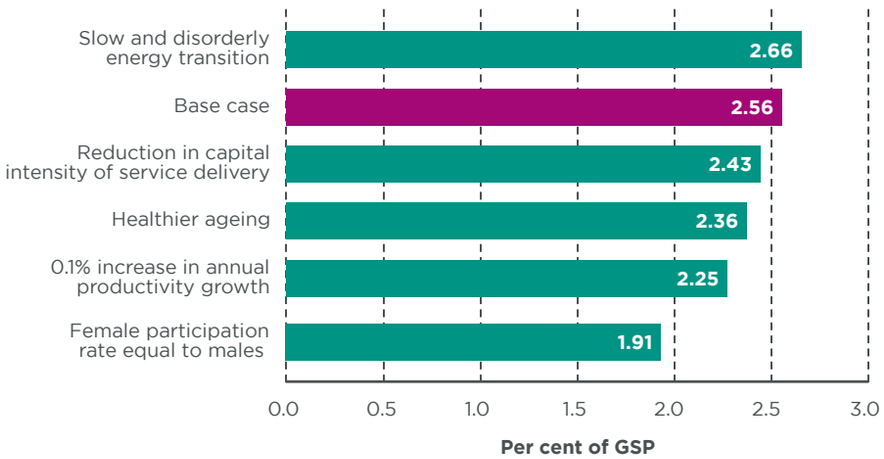
0.1 percentage point increase in annual productivity growth could narrow the fiscal gap to

2.3 PER CENT OF GSP

0.2 percentage points increase in annual productivity growth could narrow the fiscal gap to

1.9 PER CENT OF GSP

CHART 6.4: IMPACTS OF POLICY AND STRUCTURAL CHANGES ON THE FISCAL GAP (MUTUALLY EXCLUSIVE)



Source: NSW Treasury.

A highly skilled and adaptable workforce

Increasing automation, Artificial Intelligence, advancing technologies, growing consumption of services and the shift towards a low carbon economy will continue to change the skills that people need to work. Workers with cognitive, social and collaborative skills will be in greater demand particularly in high-growth industries like health care and social services — such as disability support and aged care — and in hi-tech industries where there will be a shift toward managerial roles.

Lifelong learning will be increasingly important. We can expect workers will need to update their skillsets more frequently in the future. The government can support greater access to lifelong learning through the TAFE system, which will continue to adapt course content, teaching practices and methods (such as using digital platforms) in response to shifts in demand for specific skills, with greater integration between work and education. Skilled migration will also be important in meeting skills gaps and offsetting the impacts on participation rates of an ageing population.

Such improvements will allow more people to participate in the economy. For example, as discussed in Chapter 2, higher workforce participation rates amongst women require addressing the key reasons that women leave the workforce or reduce their participation in paid work, including access to and the cost of childcare. There would also be considerable economic benefits from addressing the gender segregation in occupations and industries, and supporting greater workplace flexibility, contributing to faster growth in incomes and a larger economy.

To indicate the potential size of this opportunity: if we were to close the participation rate gap between women and men over the next 20 years, by 2060-61 the total participation rate would be 66.3 per cent (around 5 percentage points higher than baseline projections) and the fiscal gap lower by around 0.7 percentage points at 1.9 per cent of GSP.

Participation rate gap

Closing the participation rate gap between women and men over the next 20 years could narrow the fiscal gap to

1.9 PER CENT OF GSP

Improving health outcomes

Keeping people healthy is essential for quality of life, enabling people to participate productively at school, work and in their communities. Health spending is projected to remain the largest component of total government spending — contributing almost 40 per cent of overall growth in recurrent spending to 2060-61 – to manage the needs of an ageing population and the burden of chronic health conditions, and to integrate technological advances in health care. In response to these challenges, governments can focus more on prevention of chronic illness and early intervention before people's health needs become acute and require hospitalisation. We can also use technology to streamline service delivery, personalise health service experiences and supplement in-person care with virtual health care services, to make health services more effective and more efficient. Commonwealth-State reforms that support preventative health measures and services that can be accessed virtually will help people lead healthier lives – wherever they live.

The ageing population places substantial pressure on health spending as demand for urgent, complex and costly health services increases, accounting for around 1.2 percentage points of the 2.6 per cent of GSP fiscal gap. As we live longer, we are spending more years in good health but also more years in ill-health. Chapter 4 outlines a range of actions the government could take to improve the health of the population. If we stem the increase in years spent in ill-health, through healthier lives and better targeted health care, the fiscal gap could be reduced to around 2.4 per cent of GSP. [81]

Benefits of digitisation and reduced reliance on physical infrastructure to deliver government services

As Chapter 4 discusses, better use of existing assets and delivery outside of traditional physical infrastructure, such as online virtual service delivery, not only offers direct benefits to the people of New South Wales now, but also benefits future generations by alleviating the need to build new, often costly physical infrastructure such as hospitals, courts, prisons and roads. Innovations that reduce demand and reliance on physical infrastructure can promote better outcomes for citizens and fiscal sustainability for the future. For example, a 10 per cent reduction in the reliance on physical infrastructure for delivery of services across health, education, transport and the justice systems would reduce growth in capital expenditure and improve the fiscal gap to around 2.4 per cent of GSP. [82]

[81] The healthy ageing scenario refers to the compression of morbidity scenario where years spent in healthy life relative to life expectancy increases by 10 per cent for individuals over the age of 65.

[82] Modelling assumes that a total 10 per cent reduction is achieved by the end of the projection period, with the capital intensity of service delivery reducing over time.

Cooperation on migration and GST with the Commonwealth Government

Natural population growth will continue to slow and, in 2020-21 and 2021-22, more overseas migrants are expected to leave than arrive in New South Wales for the first time since World War II.

Overseas migration has been a critical part of the State's strong economic growth. Cooperation with the Commonwealth Government on future migration intakes will be needed as skilled migrants moving into the State help to bridge skills gaps, reduce labour shortages and balance our ageing population.

New South Wales will also become more reliant on Commonwealth Government funding sources as our population ages, consumer preferences evolve and the world changes – such as the transition to greener technology. Increasing reliance on Commonwealth Government funding agreements and specific grants renders the State vulnerable to funding uncertainty and can make it more challenging for government to make the best investments to deliver the outcomes for the people of New South Wales.

New South Wales will continue to advocate for GST reform to address the decline in GST revenues, and reform to the Commonwealth's distribution of GST revenues to states to make it more equitable.

Energy transition plan and electric vehicles

The global community, including New South Wales, is moving towards greener generation and use of energy. An orderly shift in our energy mix will support future productivity growth. Further, New South Wales has an opportunity to be a leader in renewable energy and storage. The NSW Electricity Infrastructure Roadmap lays out the framework for government to ensure an orderly transition from fossil fuel generation to renewables, and by 2040, most energy generated in the State is expected to be from renewable sources.

Consumers and businesses are already choosing to move towards a greener future in transport. The CSIRO projects that almost all vehicles on Australian roads could be electric by 2050.[83] The NSW Net Zero Plan supports this trend by committing to co-funding the roll out of fast-charging infrastructure for electric vehicles, and increasing targets for the government's electric and hybrid fleet vehicles. The tax system will also need to adapt to ensure that all road users contribute to road infrastructure maintenance, while preserving incentives for people to opt for green transport.

The transition to renewable energy generation under the NSW Electricity Infrastructure Roadmap is aimed at ensuring new generation is in place in time for the retirement of New South Wales' existing coal generators over the coming decades. Under a "slow and disorderly" transition scenario, a hypothetical scenario in which the Roadmap is not implemented and replacement generation is not put in place, electricity prices could be higher and more volatile, impacting other sectors in the economy. Over the next 40 years, this would leave our economy smaller by 0.9 per cent, or $13 billion.[84] This is because as coal-fired generators are retired energy prices may spike, potentially disrupting businesses that rely on electricity to serve their customers. This would lead to a deterioration in the fiscal gap to around 2.7 per cent.

[83] Graham, P.W. and Havas, L., *Projections for small-scale embedded technologies, CSIRO* , Australia, 2020.

[84] NSW Treasury, *The sensitivity of the NSW economic and fiscal outlook to global coal demand and the broader energy transition for the 2021 NSW Intergenerational Report,* Treasury Technical Research Paper Series, TTRP 21-07, 2021.

Bowral, Southern Highlands
Destination NSW

Property tax reform

Property tax reform is a significant economic reform opportunity that can boost productivity and workforce participation. As discussed in Chapter 3, a reform option put forward for consultation is to replace stamp duty – an inefficient tax on property transactions that discourages people from moving homes and acts as a barrier to home ownership – with a new property tax that encourages optimal use of property and land.

Housing plays an important role in peoples' quality of life and the State's economic growth. Stamp duty on property purchases impedes the State's economic growth and the benefits of homeownership for individuals. Removing stamp duty would increase mobility for people by making it easier to move homes, whether it be to move closer to job opportunities or move into a home that is more suitable for their stage in life. This increased mobility would reduce geographical barriers to employment, resulting in improved workforce participation and productivity, and reduced unemployment. By supporting economic growth and employment, property tax reform would contribute to a stronger revenue base.

Property tax reform would also support higher homeownership rates, which is a foundation of a secure and independent retirement. For individuals, this would help secure higher material living standards during retirement. For government, it can help manage expenses by reducing the risk of people being dependent on government-funded services such as social housing.

Kayaking, Sydney Harbour
Mads Schmidt Rasmussen

Appendix

Projections summary

	2018-19	2030-31	2040-41	2050-51	2060-61	CAGR[a]
Economic projections (%)						
Nominal GSP ($ billion)	629	984	1,566	2,430	3,706	-
Nominal GSP growth	4.5	4.9	4.7	4.4	4.3	4.3
Real GSP growth	2.6	2.4	2.1	1.8	1.8	2.0
Labour productivity growth	0.1	1.2	1.2	1.2	1.2	1.2
Population growth	1.4	1.0	0.9	0.8	0.7	0.8
Employment ('000)	4,075	4,515	4,984	5,369	5,698	-
Employment growth	3.3	1.2	0.9	0.6	0.6	0.8
Participation rate	65.3	63.6	63.3	62.7	61.6	-0.1
Real GSP per capita growth	1.2	1.3	1.2	1.0	1.1	1.1
Population projections						
Fertility (%)	1.70	1.64	1.63	1.63	1.63	-
Net migration ('000)	62.5	55.5	54.0	52.7	51.3	-
Net overseas migration ('000)	84.5	73.0	71.5	70.2	68.8	-
Net interstate migration ('000)	-22.1	-17.5	-17.5	-17.5	-17.5	-
Female life expectancy (yrs)	85.7	87.8	89.2	90.6	91.7	-
Male life expectancy (yrs)	81.9	84.5	86.4	88.0	89.4	-
NSW population (as at 30 June)						
Total ('000)	8,087	8,960	9,835	10,688	11,463	0.8
Under 65 ('000)	6,767	7,144	7,673	8,201	8,579	0.6
65 and over ('000)	1,321	1,816	2,162	2,487	2,885	1.9
Aged dependency ratio (%)	25.1	32.0	35.3	38.2	42.2	-
Youth dependency ratio (%)	28.5	26.1	25.2	25.9	25.4	-
Total dependency ratio (%)	53.5	58.1	60.5	64.1	67.6	-
Fiscal parameters (per cent of GSP)						
Aggregates						
Revenue[b]	12.9	11.9	11.5	11.4	11.5	4.0
Total expenditure	14.2	14.3	14.5	14.8	15.3	4.5
Expenses	12.5	13.5	13.6	14.0	14.5	4.7
Net capital expenditure	1.7	0.8	0.9	0.8	0.8	2.4
Primary balance[b]	-1.3	-2.4	-3.0	-3.4	-3.8	-
Net debt[c]	-1.7	25.6	50.5	75.4	99.9	-
Expenses by area						
General Public Services	0.6	0.6	0.6	0.6	0.6	4.4
Public Order and Safety	1.3	1.5	1.6	1.6	1.6	4.9
Education	2.8	2.9	2.7	2.7	2.7	4.2
Health	3.6	4.1	4.6	5.1	5.6	5.4
Social Security and Welfare	1.0	1.1	1.1	1.2	1.2	4.7
Housing and Community Amenities	0.2	0.2	0.2	0.2	0.2	3.6
Recreation and Culture	0.2	0.2	0.2	0.2	0.2	4.6
Agriculture, Forestry, Fishing and Hunting	0.1	0.1	0.1	0.1	0.1	3.1
Transport and Communications	1.6	1.9	1.8	1.8	1.7	4.4
Environmental Protection	0.3	0.3	0.3	0.3	0.3	4.8
Other	0.6	0.5	0.4	0.4	0.4	3.1

[a] CAGR: Compound Annual Growth Rate in the levels for the period 2018-19 to 2060-61.
[b] Excludes the NSW Generations Fund.
[c] Includes the NSW Generations Fund.

Charts

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