Actuaries Institute research shows equity gap growing between generations

17 August 2020

- **Intergenerational Equity Index shows the gap between generations at a 20-year peak.**
- **Wealth impacts and government spending favour 65-74 year olds.**
- **Younger people ahead on health, education and social but lag on economic, housing, and environment measures.**

Falling rates of home ownership, government spending that skews to older Australians and deteriorating environmental factors are some of the factors that have driven a wider gap in equity between Australia's young and old.

The Actuaries Institute's latest Green Paper, *Mind the Gap – The Australian Actuaries Intergenerational Equity Index* (AAIEI), launched today, takes a broad view across six domains to track how wealth and wellbeing for different generations have been changing over time.

The Index was commissioned by the Actuaries Institute and compiled by actuaries Hugh Miller, Ramona Meyricke and Laura Dixie. Dr Miller has a PhD in statistics, and he sits on the Actuaries Institute's Public Policy Council Committee. Dr Meyricke has a PhD in financial economics and has produced papers for the Actuaries Institute including on the impact of climate change on mortality and retirement incomes. Dr Dixie has a PhD in physics and has been a consultant to the Government in the social services sector.

"The Australian Actuaries Intergenerational Equity Index indicates that the relative wealth and wellbeing of those aged 25-34 sits lower than at any other time in the past two decades," the Green Paper states.

"The wealth effects of the housing boom, plus rapid increases in government payments on pensions and services for older people are key reasons that young Australians today have relatively lower wealth and wellbeing index scores than that of their parents at a similar age." Deteriorating environmental conditions have also had a significant negative impact on intergenerational equity.

The AAIEI tracks 24 indicators across six domains that relate to wealth and wellbeing, over nearly two decades from 2000-2018. The Index shows that since 2012, there has been a marked widening of generation gaps.

The report states: "The results are striking; from 2012 onwards, there was a marked increase in the Index for the 65-74 age band, while over the same period, there was a pronounced drop in the index for the 25-34 age band. This period coincides with the Baby Boomers entering the 65-74 bracket and Millennials entering the 25-34 bracket, so suggests a wider gap between these generations than has been present for previous cohorts."

A similar gap exists between those aged 45-54 and those aged 65-74. Those in the older cohort are pulling away from both younger groups.

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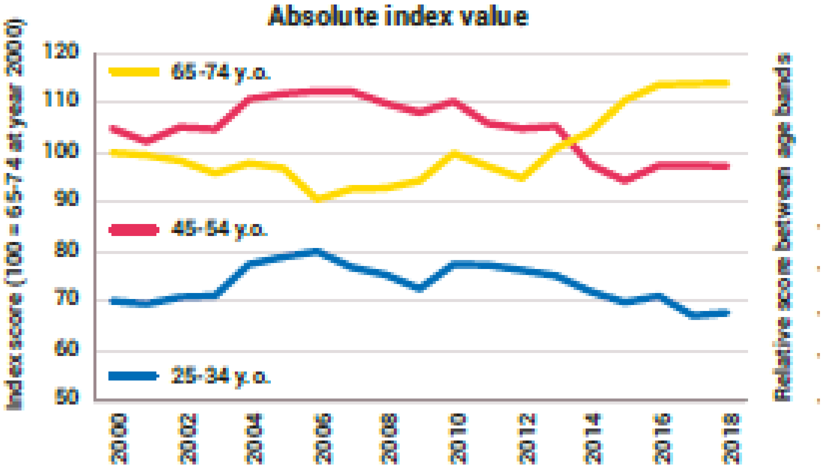
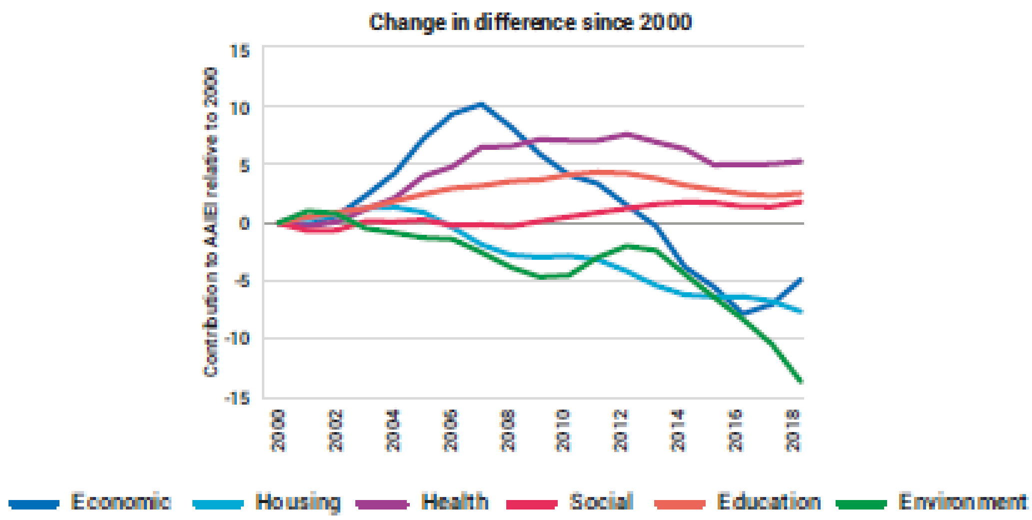
The Australian Actuaries Intergenerational Equity Index (AAIEI) for the last ten years shows diverging differences by age group.



The domains measured, and relative weightings, are economic and fiscal (30%), housing (10%), health and disability (20%), social (15%), education (10%) and environment (15%). The work includes reviewing indicators as diverse as poverty, average wages, teen pregnancy rates, changes in average rainfall and temperature, under-employment, home ownership, and the proportion of Australians completing a bachelor's degree. Each indicator provides nuance to measure impacts on the lives of three distinct age groups: those 25-34, 45-54, and 65-74. The impacts of the COVID-19 pandemic, while not yet visible in the data underlying the AAIEI, are also discussed; in many ways the pandemic has accentuated intergenerational issues.

"We are all very used to the idea our children will live better lives than we do," Dr Miller said. "We expect continuous improvements in government services, better products, higher incomes, and improved health. But an increasing majority of parents fear that as today's children grow up, they will be worse off financially than their parents. There are a broad range of economic, housing and environmental issues that appear to be worsening."

The graph below shows the change in difference since 2000 across six domains: Economic, Housing, Health, Social, Education and Environment.



"It is very important to understand how equity is changing between generations over time," said Elayne Grace, Chief Executive of the Actuaries Institute. "It helps inform public debate, and government policy, to deliver the best and fairest outcomes for all Australians. We need policy and outcomes that are sustainable."

Ms Grace said the Index, designed by the Actuaries, is the most detailed of its kind in Australia and is intended to provide an objective foundation for important public policy discussions. In their report, the authors outline a number of policy options to address inequity issues including reviewing the rate of unemployment benefits, tightening superannuation tax concessions and greater action to mitigate climate change.

"Actuaries are well placed to unpack the underlying domains and indicators that drive the numbers," said Actuaries Institute President Hoa Bui. "Our skill set allows us to examine large data sets, weigh risks and outcomes and deliver evidence-based reports," Ms Bui said, launching the Index.

The Index shows today's young people have significantly better health, education and social outcomes than older cohorts. "But we can see large deficits for economic, housing and the environmental domains," Dr Miller said. "When focusing on change, particularly over the past five years, it is the movement of economic, housing and environment components that causes the slide in relative score."

He said the findings gel with modern concerns prominent for young people. "Wage growth has been weak, often negative in real terms recently, and low unemployment (prior to the pandemic) masked under-utilisation that was particularly prominent for younger workers."

The AAIEI's absolute values show the gap between the 25-34 year olds and 65-74 year olds has increased from -10 around 2006, to -46 in 2018. "This suggests that younger people have been relatively disadvantaged across a range of measures," the Green Paper states.

The gap between those aged 25-34 and those who are 45-54 has remained relatively steady. But the absolute index for the 65-74 year old age band has pulled away. "We regard this as a material and adverse shift for younger and middle-aged Australians and an indication of worsening intergenerational equity."

The Green Paper states one relative driver of better outcomes for older Australians is a rise in government spending from 3.7% of GDP to 4.5% on those aged 65-74. This compares to a flat share over time for those aged 25-34 or 45-54.

Not all indicators point to worse outcomes for Australia's young. "Poverty rates are high for certain groups, with single pensioners who rent a major issue," the Green Paper states. "Obesity rates are growing, with higher rates in older Australians."

Older people may be more vulnerable to the health implications of COVID-19, but the economic impacts of the pandemic have bought many intergenerational issues into even sharper relief, the paper states.

"Young workers have been more likely to lose income and less likely to qualify for government payments such as JobKeeper. Significant increases in government debt will take decades of fiscal restraint to reduce as a fraction of gross domestic product (GDP)," the Green Paper states.

The report adds that for decades to come, today's government spending will be a claim on the future earnings of the younger generation.

The implications of growing inequity are widespread and are felt across all communities. The Green Paper doesn't make detailed policy recommendations, but states: “While the current global focus is on COVID-19, climate change and the environment remain urgent and important areas requiring policy attention.

“A key question around all of this is how much of the recent change will persist in the ‘new normal’, and how much will prove a temporary change to Australian society. Any crisis also represents an opportunity to make policy reforms that will provide lasting benefits.

"Put simply, policies that advance the needs of older Australians while those of working age go backwards are not sustainable.

"We need not live in a country where most people believe their children will be worse off; such a system is not sustainable."

A copy of the Green Paper: *Mind the Gap - The Australian Actuaries Intergenerational Equity Index* is available **here.**

Hugh Miller and Ramona Meyricke are available for interview.

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About the Actuaries Institute
As the sole professional body for Members in Australia and overseas, the Actuaries Institute represents the interests of the profession to government, business and the community. Actuaries assess risks through long-term analyses, modelling and scenario planning across a wide range of business problems. This unrivalled expertise enables the profession to comment on a range of business-related issues including enterprise risk management and prudential regulation, retirement income policy, finance and investment, general insurance, life insurance and health financing.

Detailed Findings, Policy Options

The Australian Actuaries Intergenerational Equity Index identifies six domains:

- economic & fiscal;
- housing;
- health & disability;
- social;
- education;
- environment.

It tracks 24 indicators across the six, to show absolute change and, relative change, between three distinct age groups over the period 2000-2018.

Those age groups are 25-34, 45-54 and 65-74.

1. Economic and fiscal

Economic and fiscal indicators are given the greatest weight in the Index. These are: employment underutilisation, average wages, poverty, net worth, government per capita spending, and government net debt.

"Economic issues drive outcomes across all domains," Dr Miller said. "While young people have seen small to moderate improvements on some measures older generations have seen large gains in wealth, income and a growing share of government spending."

Findings

- For unemployment and underemployment, the most interesting story is for the 15-24 age group; they have seen a marked rise in employment underutilisation since 2012, driven by increasing under-employment, suggesting a lack of stable full-time positions.
- Income inequality is moderate, but wealth inequality has widened. The richest quintile of households has 90 times the wealth of the poorest quintile, up from 59 times over the period.
- The wealth of households headed by those aged 65 and over has increased faster than any other age group. Wealth increased by 87% for those aged 65-74, from 2003-04, compared to 20% for the 25-34 age band. This ratio is increased from 2.8 to 4.4 times.
- Poverty rates for single people and renters over the age of 65 have risen.

Dr Miller said wealth varies over the course of a person's life. In absolute terms, wealth for young people is increasing slowly. But the increasing gap is concerning, particularly if there are reduced opportunities for young people to change their circumstances.

- The share of employed young people actively looking for more work has risen to 20% from 12% over the last decade. Researchers know that the impacts of an economic downturn are clear decades later: higher ongoing benefit payments remain visible for those who entered the workforce at that time, and who are now in their late 40s. This may be an issue as the implications of COVID-19 become clearer.
- The rise of the gig economy and continued casualisation of Australia's workforce may contribute to higher underutilisation rates for young Australians.
- There are significant challenges to ongoing growth in real incomes. Wage growth has been tepid for a decade and relies on productivity increases for growth.
- There is more government spending (social security, health, education etc) on those aged 65-74, up $7,500 per capita to $37,750; compared to a $4,000 rise to $16,250 for those 25 to 34 years.
- Total government spending is flat for the 25-34 and 45-54 bands at around 3.5% of GDP; but has risen to 4.5% of GDP from 3.7% for those 65-74 (due to demographics and more spending on aged care, health care and pensions.)
- Government net debt, even before the COVID-19 pandemic, was at a 50-year high at 19% of GDP at the end of 2018-19. Government net debt is currently over 30% of GDP, at historically unprecedented levels, which is a significant burden for younger generations.

Figure 7 – Contribution of economic indicators to the intergenerational equity difference between 25-34 and 65-74 (3-year moving average)

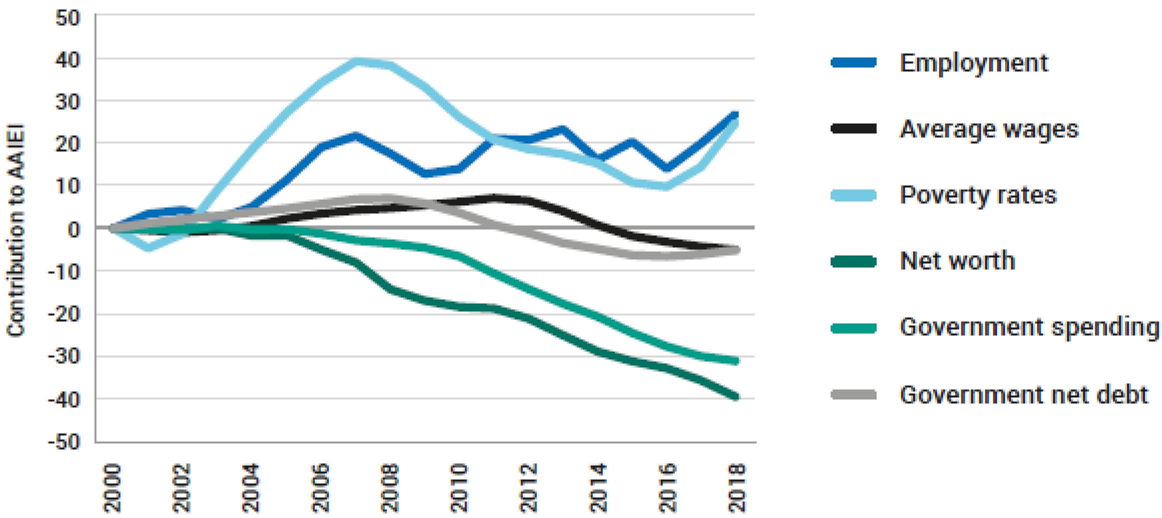
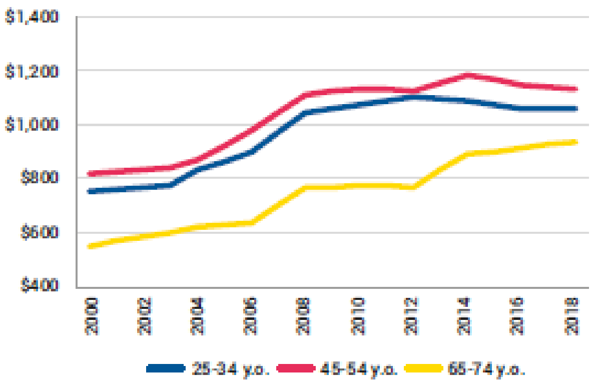
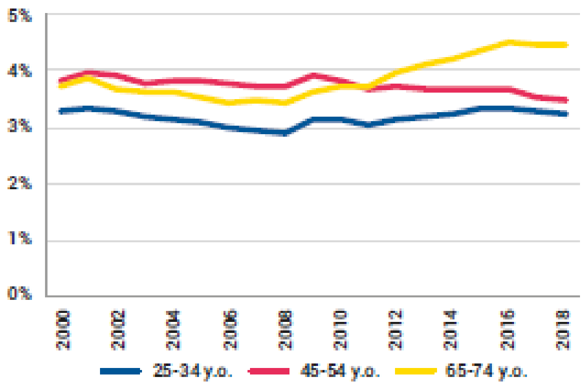


Figure 12 – Indicator: Real household net wealth ($000)



Source: ABS 6523.0 - Household Income and Wealth

Figure 13 – Indicator: Government expenditure by age band as a percentage of GDP



Source: Authors' calculations

2. Housing

"Housing is often touted as the single biggest issue that faces younger people making their own way in Australia," Dr Miller said. The Index looks at both home ownership and rental costs across age groups.

Findings

Home ownership has worsened considerably for young people. The rate of ownership has dropped to 37% in 2018, for those aged 25-34, from 51% in 2001. "Some falls are visible in other generations but on nowhere near the scale seen for young people," Dr Miller said.

Levels of home ownership are naturally higher for older generations who have had time to accumulate the money for a deposit. Ownership is often closely linked to other events such as marriage and starting a family. However:

- home prices have grown significantly faster than incomes, making it harder to save for a deposit;
- there have been particularly steep price rises in Sydney and Melbourne over the past seven years;
- lower interest rates hinder those trying to save a deposit and have directly increased the demand for housing. When higher rates exist, the impact is felt less in the later stages of a mortgage because households generally have higher incomes and can repay debt faster.

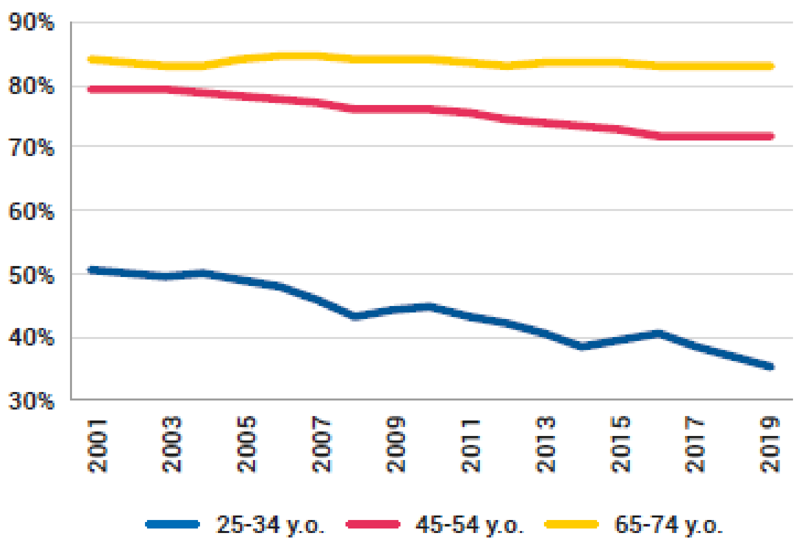
Rental costs as a proportion of gross income are higher for those aged 65-74, but overall are up marginally at 20.2 % from around 18.8% in 2001.

"The housing market and related policy are complex areas," Dr Miller said. "Affordability is driven by many factors including interest rates, investment behavior, population growth and government intervention."

Despite conjecture that young Australians are spending all their money on avocado toast, younger people are spending less on non-essential items such as alcohol, clothing and personal care and more on necessities such as housing, than three decades ago.

"The average young person faces challenges their predecessors did not: wage stagnation and rising underemployment, large government net debt and growing pressure on government budgets driven by increased government spending on pensions and healthcare for older households."

Figure 17 – Indicator: Home ownership rates



3. Health and disability

Indicators of health and disability include life expectancy, disability rates, obesity and suicide rates. Health and disability have a significant Index weighting (20%) because physical and mental health play a significant role in wellbeing.

"Overall, the health domain contributed positively to the Index," said Ramona Meyricke. "In terms of health, things are getting better for young people relative to older generations."

Findings

- Life expectancy, the ultimate expression of health, continues to increase with those born today expected to live an additional 20 years compared to those born in 1920.
- But increases have not been uniform, with a slowing of improvements in the 1960s.
- The risk of outliving your savings in retirement must be addressed.

The report finds that older people are much more likely to suffer a disability than the young: less than 4% of those aged four and under have a disability with this proportion rising steadily with age to nearly 75% of those aged 85-89.

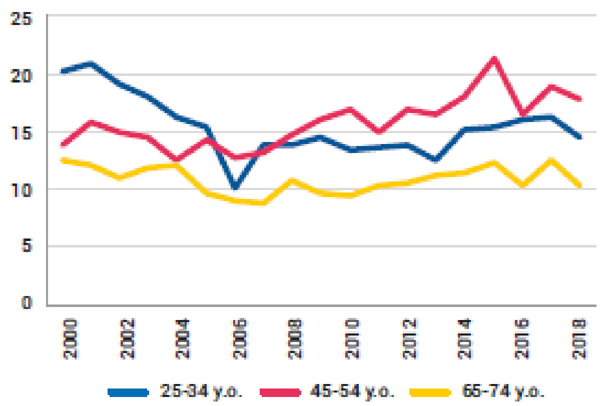
- For all ages, disability rates have fallen: the proportion of those aged 25-34 with a disability has fallen to 8% in 2018, from 10% in 2003. However, obesity is on the rise.
- Levels of obesity have almost doubled since 2001 from 16.7% in 2001 to 30.8% in 2018. The increase has been largest in the older age groups: 38% of those aged 65-74 are obese.

Poor mental health is an increasingly pressing problem, with one in five Australians suffering from a mental health condition in any given year. For inclusion in the Index, the Actuaries needed an indicator that is comparable over an extended period of time, unaffected by increased reporting prevalence. The suicide rate was chosen as a robust indicator. Suicide is the leading cause of death among Australians aged 15-44.

- For those aged 25-34, suicide rates have declined from 20.2 per 100,000 in 2000, to a low of 10.1 in 2006, before rising to 14.5 in 2018.
- The trend is similar for those aged 65-74.
- For those aged 45-54, the rate has increased from 13.8 per 100,000 in 2000 to 17.8 in 2018.

"While Australia's suicide rate is not high by international standards, the slow drift up observed in the past decade is concerning," Dr Meyricke said.

Figure 25 – Indicator: Annual suicide rate per 100,000 people



Source: ABS catalogue 3303

4. Social

Social indicators reflect community life and cohesion and include factors such as incarceration rates, robbery victimisation, homelessness, teenage birth rates, the gender pay gap and the number of children who are in out-of-home care. Some indicators have improved; others have not.

Findings

- Robbery victimisation rates and teenage birth rates have dropped, improving intergenerational equity, but incarceration rates and the number of children in out-of-home care have increased.
- The number of young robbery victims (aged 25-34) has decreased nearly three-fold, from a high of 1.4 victims per 1,000 people in 2001, to 0.5 victims in 2018.
- Despite falling crime rates, the rate of incarceration has risen, with the base rate for those jailed aged 25-34 about three times that for those aged 45-54. Most of those in jail are male. Aboriginal and Torres Strait Islanders are over-represented by a factor of about 10.

Homelessness indicates people are experiencing extreme social disadvantage. "It is often intertwined with at least one other factor: unemployment, financial hardship, mental illness and domestic or family violence," Dr Miller said.

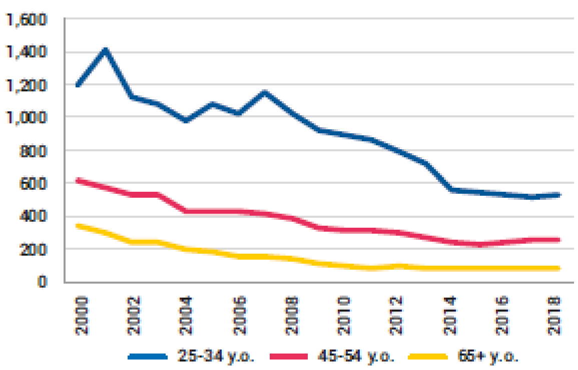
- Among young people, the rate has increased from 57 per 100,000 people in 2001 to 78 per 100,000 in 2018
- Over the last few years, the increases have been fastest for the 65-74-year age group.
- Multiple factors drive homelessness including income levels, poverty and affordability.
- The number of social housing dwellings has decreased over time and wait-lists are long.
- More than half of all public housing has a main tenant aged over 55, and tenure is increasing, suggesting social housing may not be meeting the needs of young homeless people.

The gender pay gap shrank for those aged between 45-55 but remained constant for those 25-34 and 65-74. Women have lower superannuation balances at all ages, although the differences are smaller at the youngest age groups.

Out-of-home care and the teen birth rate affect only young people so can't be compared across the Index. Young people with a history of out-of-home care are believed to be at increased risk of poor social outcomes. The rate has increased from 360 children per 100,000 to 870 in 2017, before dropping slightly to 820 in 2018.

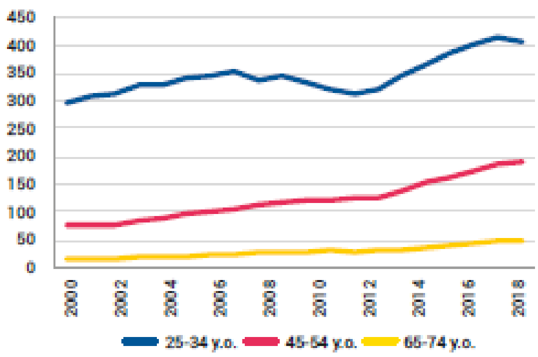
The rate of teen births has almost halved since 2000.

Figure 28 – Indicator: Robbery victimisation rates per 100,000



Source: ABS Catalogue 4510

Figure 30 – Indicator: Incarceration rates per 100,000



Source: ABS Prisoners in Australia, catalogue 4517

5. Education

"It is good news that education outcomes have improved greatly over the past 20 years," said Dr Meyricke. "Education at all levels is important for a modern economy and cohesive society. Better access to childcare and education boosts workforce participation, productivity and living standards over the medium to long term."

Findings

The proportion of individuals with at least a Year 12 education has risen to 70% in 2019, from 56% in 2000. Completion rates were much lower when the current cohorts, aged 45-54, and 65-74, were school age.

The proportion with a bachelor's degree or higher tertiary education qualification has increased 50% over 15 years, from 23% in 2004 to 34% in 2019.

Increasing rates of education are regarded as a positive in the Index. "A knowledge economy requires good access to higher education," Dr Meyricke said. There is debate about the right mix of higher education (vocational as opposed to university sector) but increasing rates of university qualifications are a positive in the Index.

Figure 39 – Indicator: Proportion with Year 12 completion

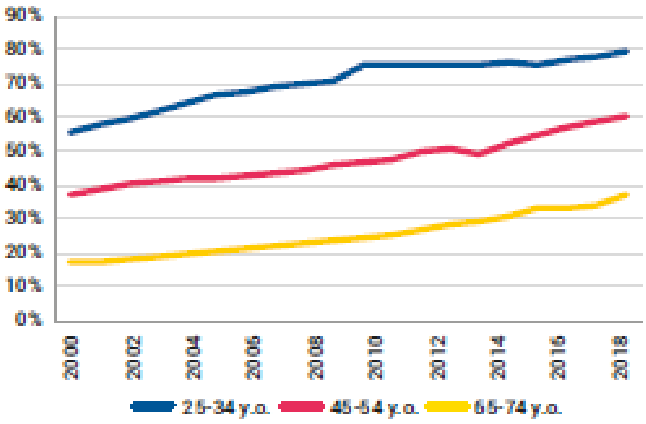
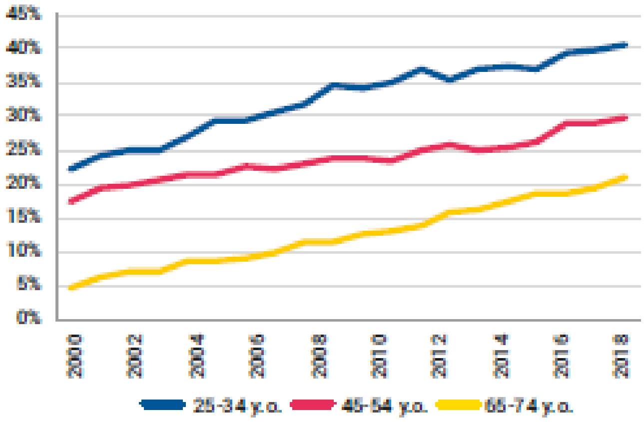


Figure 40 – Indicator: Proportion with a bachelor's degree



Source: ABS Education and Work, Australia, May 2019

6. Environment

Dr Meyricke said the Index compares the experiences of 25-34-year olds today with what current 45-54-year olds experienced 20 years prior, and 65-74-year olds 40 years earlier.

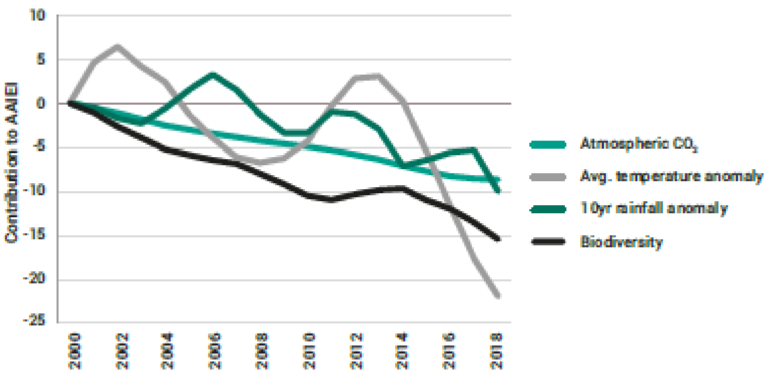
Environmental factors considered are atmospheric CO_2, average temperature anomaly, rainfall anomaly and biodiversity loss (measured by the number of species listed as endangered, threatened or extinct species under the Environment Protection and Biodiversity Conservation Act 1999). All the environmental indicators have worsened over 20 years, which has a significant negative impact on intergenerational equity.

Findings

- The brunt of future temperature changes will be borne by future generations. Co_2 is the lead indicator of future climate changes, and temperature indicators, in the Index, measure different generations' experience.
- The 2019-20 bushfires that burned across significant parts of Australia and resulted in 11.3 million Australians being exposed to hazardous levels of air pollution are between 30 and 80% more likely in the future. Such events highlight the threats posed by climate change to current and future generations.
- A loss of biodiversity, which is crucial to clean air, water, food, medicines, timber, fuels and genetic materials, would negatively impact future generations. There is no evidence that the rise in extinct, threatened or endangered specifies is slowing.

In the environmental domain, all the indicators included (atmospheric Co2, average temperature anomaly, 10-year average rainfall anomaly, and the number of species listed as threatened or extinct) were worsening over time.

Figure 41 – Contribution of environmental indicators to the intergenerational equity difference between 25-34 age band and 65-74 age band (3-year moving average)



The Green Paper states that biodiversity is a core part of Australia's national identity, culture and way of life. "It supports human health as it is integral to clean air and water, food, medicines, timber, fuels and genetic materials."

For example, in economic terms the rivers, wetlands and floodplains of the Murray-Darling Basin are thought to provide $187 billion in ecosystem services annually and terrestrial ecosystems up to $325 billion annually.

Australia's commercial fisheries are worth $2.2 billion annually, bush food production is worth $100 million and wildflower exports $30 million a year.

The Green Paper also states that based on expert scientific findings, climate change is expected to have major environmental, economic and social impacts. "It poses a serious risk to the industries and financial institutions that actuaries advise."

There are opportunities in policymaking to improve outcomes. Transitioning Australia's economy away from a reliance on fossil fuels would improve intergenerational equity outcomes, deliver a healthier future environment and stimulate economic growth. "Government spending on renewable energy and energy efficiency has been shown to create about three times more jobs than spending on fossil fuels," the paper states.

Policy Options to consider

Table 5 – Summary of policy options that address issues raised in the AAIEI

Issue highlighted	Policy options to address	Evidence base
Economic – Youth underutilisation	• Review rate of unemployment benefits • Better targeting of vocational education to growth areas	ACOSS and UNSW (2020)
Economic – Growth in wealth disproportionately to older generations	• Increase the Age Pension eligibility age to reflect increases in life expectancy (with appropriate carve-outs for people with poor health) • Relatedly, reduce the gap between superannuation preservation age and the Age Pension eligibility age to reflect increases in life expectancy (with appropriate carve-outs for people with poor health) • Tightening and targeting of superannuation tax concessions and/or removing overly generous concessions from wealthy retirees • Include the value of a retiree's principal residence in the Age Pension means tests, whether in its entirety or above a threshold • Consider tax treatment of end-of-life bequests and gifts • Increase the availability of products that efficiently allow retirees to draw down their net wealth (including housing wealth) and also insure retirees against longevity risk, health shocks, long-term care needs etc.	Cowan (2014) Actuaries Institute (2016) Actuaries Institute (2019a) Actuaries Institute (2020a) Dawson and Smith (2018) CEDA (2019) Wood et al. (2019)
Economic – Government expenditure and the dependency ratio	• Increasing childcare rebates would reduce the income 'traps' facing second earners (mainly women) when they increase the number of days a week they work. • Increasing availability of out-of-school hours care to encourage parental labour force participation. • Continued focus on primary and secondary education, teacher training and improving educational outcomes. • Implement tax policies aimed at keeping older people in the workforce. E.g. the Mature Age Worker Tax Offset, Senior Australians Tax Offset.	Wood et al. (2019) OECD (2011) Australian Human Rights Commission (2012) Treasury (2015)
Economic – Productivity and infrastructure	• Continue to consider productivity-enhancing reform, including chronic health management, improving teaching and learning and managing population growth in cities. • Require independent project assessments of government infrastructure investment above a certain threshold to ensure benefits exceed costs.	Productivity Commission (2017) Wood et al. (2019)
Housing – Affordability and ownership for younger Australians	• Replacing stamp duty with a land tax to remove the tax burden of 'right-sizing' a household's home. • Maintain supply of social and affordable housing in line with population growth. • Improve support for low-income renters, such as increasing Commonwealth Rental Assistance in line with increases in average rents. • Review state-based residential tenancy laws to improve certainty of tenure for vulnerable tenants.	Henry et al. (2009) Productivity Commission (2019)
Health – Life expectancy and mental health challenges	• Increased spending on mental illness prevention and intervention. This may include the use of risk-based forecasting tools to help identify those most at risk of mental illness. • The Government consider a role for private health insurers, or another party, to help Australians effectively navigate the health system which is at times complex and disjointed. • Reform private health insurance to improve sustainability.	Productivity Commission (2019b) Actuaries Institute (2019b) Duckett and Cowgill (2019) Obesity Policy Coalition (2018)
Health – Rising obesity	• Continue to monitor international evidence on the effectiveness of sugar taxes. • Consider further enhancement to food star ratings, including treatment of foods with added sugars.	Wilson & Hogan (2017) Duckett et al. (2016)

Table 5 – Summary of policy options that address issues raised in the AAIEI (continued)

Social	• Consider greater use of home detention as an alternative to incarceration. • Housing-first initiatives to tackle chronic homelessness.	Belur et al (2017) Williams & Weatherburn (2019) Baxter et al. (2019) Pleace (2018) AHURI (2018)
Education	• Gonski type funding models for disadvantage. • Improve educational outcomes of school students by addressing out-of-field teaching and continuing reforms to improve the quality and effectiveness of teachers.	Gonski et al. (2011) Gonski et al. (2018) Productivity Commission (2017)

Environment	• Implement a carbon emissions reduction strategy that meets global commitments and provides investment certainty for business, and do so in collaboration with countries to deliver effective mitigation of greenhouse gas emissions on a global basis.
	  • Greater activity to prepare for and adapt to climate change.
	  • Property damage prevention for natural disasters.
	  • Better recognition of natural disasters in land planning decisions and updating building codes.
	  • Maintenance of infrastructure that protects against natural peril damage.
	• Consider increased use of natural environment accounting, to recognise the environment's value to quality of life.
		Garnaut (2008)
		Actuaries Institute (2019c)
		Actuaries Institute (2020b)
		Paddam (2020)
		Interjurisdictional Environmental-Economic Accounting Steering Committee (2018)