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**Peter Abelson**
Applied Economics P/L

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# Intergenerational Well-Being: Baby Boomers, Generation X and Millennials in Australia

Peter Abelson*                                        Applied Economics P/L

"The object of government in peace and in war is not the glory of rulers or of races, but the happiness of the common man". William Beveridge, 1942, *Social Insurance and Allied Services* (The Beveridge Report).

**Abstract**

This paper discusses the relative well-being of three generations: baby boomers (born 1946 to 1964), generation X (born 1965 to 1980) and millennials (born 1981 to 1996). Drawing on the OECD well-being framework, the paper examines income and wealth, housing, working conditions, health, education, environmental quality, social connections, safety and inequality. These domains of well-being are examined principally with respect to national averages in the 1970s, 1990s and 2010s. The paper also references lower income groups, and males and females, where data are readily available. To round off this discussion, the paper discusses some of the unprecedented global, and national, changes that we are currently experiencing in Australia and their potential impacts on well-being. The findings are mixed. Relative to the earlier generations, millennials score highly on some well-being criteria and poorly on others. The final parts of the paper address possible causes of these well-being findings and some public policy responses, including well-being budgets and improved governance.

## 1       Introduction

In recent years there has been increasing international interest in the concept and measurement of individual and community well-being. Since 2011, the OECD has been producing annual reports on the well-being of people in 41 countries. And, since 2012, a group of world-renowned economists have been producing a *World Happiness Report* for over 150 countries (Helliwell *et al.*, 2020).  In 2019, our closest neighbour (New Zealand Treasury, 2019) was the first country in the world to adopt a well-being budget, that is a designed explicitly to respond to well-being objectives.

What is well-being? Traditionally, economists used the term individual, or social, welfare. But welfare is essentially synonymous with well-being. Indeed, the *Oxford Dictionary of Economics* (Black *et al.* 2012) defines welfare as "the state of well-being of an individual or a society". To-day, many agencies and people discuss and report on happiness, the quality of life, or the subjective well-being of individuals in many countries. Again, our take is that these are essentially equivalent concepts. Thus, in this paper I use the concept "well-being", in principle, to embrace all these concepts.[1] In the next section, I discuss how this concept is applied in practice.

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[1] Well-being is sometimes written as wellbeing. Our understanding is that well-being is more usual.

In Australia, the Commonwealth Treasury (1964, 1973) showed some early interest in the relationship between economic growth and well-being. However, before the early 2000's there had been no detailed articulation of what well-being meant or how an institution such as the Treasury should incorporate consideration of well-being in its policy advice. In the 2000's, under Treasury Secretaries Ken Henry and Martin Parkinson, there was a major upturn in interest leading to publication of a detailed *Treasury's Wellbeing Framework* (Gorecki and Kell, 2012). This paper concluded that it reflected both "the mission it had been given by the Australian Government" and "the need for a central policy agency of government to have an informed understanding and debate as to the objectives of public policy, how those objectives relate to its work and responsibilities, and the trade-offs that must often be faced".

However, this interest did not last for long. In 2016, economic commentator, Peter Martin (2016), reported that the then Treasury Secretary, John Fraser, had tossed aside the well-being framework that had been developed, declaring that all that really mattered was jobs and growth. "We are talking about living standards. And if living standards are not about wellbeing, then I do not know what is."

It should also be noted that, in 2002, the Australian Bureau of Statistics started an annual report (*Measuring Australia's Progress*), built around economic, social and environmental indicators. The aim was to help Australians assess whether life in Australia was getting better. The indicators included health, education and training, social attachment, crime, natural capital (air, inland waters, land and biodiversity). Data were provided where possible for each indicator from the early 1990s up to the year of publication. However, the ABS discontinued the report in 2013 for lack of resourcing. As described by Halderen and Baker (2015), the reports provided key milestones for Australia, adding significantly to understanding Australian's aspirations for whether life in Australia was getting better.

This paper subscribes to the view that public policy should be concerned with well-being rather than just with the mantras of "jobs and growth" or national output. Accordingly, our main aim in this paper is to provide an inter-temporal perspective on the well-being of three generations in Australia: baby boomers (born 1946 to 1964), generation X (born 1965 to 1980) and millennials (Generation Y, born 1981 to 1995).[2]

Section 2 outlines our approach to assessing intergenerational well-being, drawing on the OECD well-being framework. Sections 3 to 11 discuss nine domains of well-being with respect to the 1970s, 1990s and 2010s: namely income and wealth, housing, working conditions, health, education, environmental quality, social connections, safety, and inequality. Section 12 discusses some of the extraordinary technological and social changes that are currently affecting social welfare and are likely to continue to do so. Section 13 summarises our main findings on intergenerational well-being. Sections 14 and 15 briefly address the major causes of these findings and some policy responses. The final section provides some brief conclusions.

## 2      Methodology

OECD (2020) identifies 11 domains of well-being.[3]  In this paper, we discuss 8 of these domains: income and wealth, housing, working conditions, physical and mental health, education knowledge and skills,

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[2] Minor variations in the years ascribed to generations can be found in the literature. For completeness, we note that generation Z is generally viewed as born between 1996 and 2010. Generation Alpha follows.
[3] https://www.oecd.org/statistics/measuring -well-being-and-progress.htm. The report adds four forms of capital for future well-being: natural, economic, human and social.

safety, social and personal connections, and environmental quality. We also discuss inequality separately, whereas OECD (2020) discusses how inequality affects each of its 11 categories of well-being. Table 1 shows our nine domains of well-being along with the major metrics that we draw on.

The paper does not address in detail generational changes in the other three OECD well-being domains: work-life balance, civic engagement with government, and overall life satisfaction as relevant historic measures do not exist in Australia.[4] However, under working conditions in Section 5, the paper briefly discusses work-life (time use) matters drawing on 1996 and 2006 ABS time use surveys. And, in Section 12 on current perspectives, the paper references some findings of the annual Melbourne University HILDA surveys of life satisfaction that started in 2001.[5]

These nine domains of well-being (shown in Table 1) are examined principally with respect to national averages in the 1970s, 1990s and 2010s. This provides indications of the comparative well-being of these three generations around their early 30's. Importantly, the paper also distinguishes, where possible, between impacts by birth cohorts. This is done explicitly for income and wealth, home ownership, life expectancy, and physical and mental health, and implicitly for education.

**Table 1  Measures of Well-Being**

| Well-being domains | Main Metrics |
|---|---|
| 1.Income and wealth | • Real net national disposable income per capita<br>• Net wealth per household |
| 2. Housing | • Housing rents<br>• Household ownership and cost of home ownership |
| 3. Working conditions | • Participation rates, hours worked, unemployment rates<br>• Quality of working conditions (qualitative) |
| 4. Physical and Mental Health | • Life expectancy at birth<br>• Other physical health metrics<br>• Mental health: various metrics |
| 5. Education | • Persons with tertiary qualifications |
| 6. Safety: domestic and international | • Domestic murders and other crime rates per head of population<br>• Road fatalities, rate per 100,000 population<br>• International deaths |
| 7. Social and personal connections | • Community memberships<br>• Personal connections |
| 8. Environmental quality | • Climate change<br>• Biodiversity (threatened species)<br>• Access to green space and urban congestion |
| 9. Inequality | • Gini coefficient<br>• P90/ P10 ratio |

[4] One of the OECD metrics under civic engagement is voting numbers. Given universal compulsory voting in Australia, Australia today scores highly on this metric. Importantly, Aboriginals obtained voting rights only in 1962, although voting became effectively compulsory only in 1984. But we lack data on other forms of civic engagement with government.
[5] HILDA is the acronym for the annual *Household, Income and Labour Dynamics in Australia* survey. This survey covers most of the domains discussed in the paper.

Following the discussion of these nine well-being domains drawing on past data, Section 12 provides further observations on some current and future circumstances that may have strong impacts on future well-being, especially for millennials.

We believe that the findings reported below are illuminating. But we also recognize some limitations.

First, while the OECD well-being domains are empirically based (related to life satisfaction) and widely used, they are ultimately subjective. By contrast, the six domains in the World Happiness Reports (*ibid*.) include only three OECD-like categories (GDP per capita, social support and healthy life expectancy) and three different categories: freedom to make life choices, generosity (donations) and perceptions of corruption. This may be explained partly by the different subject groups (mainly developed OECD countries versus many less developed countries included in the World Happiness Reports).

Second, the results cannot be readily combined to obtain one overall well-being result. People may agree with the "score" for each domain but disagree about the weight to be given to that domain (or an overall well-being score).

Third, averages may disguise important differences.[6] Where data are readily available, we look briefly at the well-being of males and females separately and at some equity issues. Ideally, we would address well-being at much more disaggregate geographical and cultural levels.

Fourth, the underlying premise is that, if life is better on average in some domain in the 2010s than in the 1990s or 1970s, millennials are likely to be better off in that domain than previous generations. Ideally, we would distinguish between birth cohorts rather than averages. As emphasized above, this is done for several domains, explicitly for income and wealth, housing and physical and mental health, and implicitly for education. And, arguably, averages are usefully indicative of intergenerational well-being in most other domains under consideration. A contrary view, strongly expressed in a Grattan report (Wood and Griffith, 2019), is that older generations are currently benefitting disproportionately from the growth in national income and millennials are experiencing little, if any, net income benefit. This important issue is taken up in the discussion of income and wealth in the next section.

Fifth, several of the well-being domains are correlated, for example income and education or mental health and poor social connections and loneliness. So, there is no clear, total, well-being metric. In any case, as mentioned, such a metric would be based on subjective value judgements.

Notwithstanding these important caveats, we believe that this paper provides some quite strong indications of, at least, the main elements of inter-generational well-being in Australia.

## 3 Income and Wealth

In this section, we discuss the trends in income, the quality of goods and services over time, trends in wealth, and the Grattan Report critique that the major benefits of the growth in income and wealth have disproportionately benefited older generations.

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[6] Averages can be misleading. As Robert Muldoon, Prime Minister of New Zealand from 1975-1984, once infamously claimed: "Every time a New Zealander moves to Australia it raises the IQ of both countries". In the Australian context, both migrants and local residents could experience an increase in (say) income, but average Australian income could fall.

**Income**

Table 2 shows average annual GDP per capita and average annual net national disposable income per capita over three decades (the 1970s, 1990s and the 2010s) in 2018-19 prices.

Net national disposable income per capita (NNDIC) is based on the GDP figure but includes current transfers receivable by resident units from the rest of the world and deducts current transfers (such as royalties, dividends and interest payments) payable to non-resident units. These NNDIC figures are significantly lower than the GDP figures reflecting the net outflow of income from Australia.

**Table 2: Average GDP per capita and real net national disposable income per annum over 10 years (chain volume measures), 2018-19 prices**

| Years | Average annual GDP per capita | Index: 1971-80 = 100 | Average annual net national disposable income per capita | Index: 1971-80 = 100 |
|---|---|---|---|---|
| 1971-1980 | $38,032 | 100.0 | $31,272 | 100.0 |
| 1991-2000 | $53,520 | 140.7 | $39,664 | 126.8 |
| 2011-2020 | $74,980 | 197.2 | $59,800 | 191.2 |

Source: ABS 5206.0 *Australian National Accounts: National Income, Expenditure and Product.*

Drawing on the net national disposable income per capita figures, with the decades broadly representing the three generations between ages of 25 and 35, Generation X had 27% more real income than baby boomers. In turn, millennials were 51% better off than Generation X and 91% better off than baby boomers.

Table 3 shows real average weekly average earnings (AWE) and real minimum wages from 1967 to 2017. Over these 50 years, real average weekly earnings rose by 95% while the real minimum wage rose by 70%. Given the longer period covered in Table 3 than Table 2, average wage earnings rose by slightly less national disposable income per capita.  The final column in Table 3 shows a slight decline in the ratio of the real minimum age to median weekly earnings of full-time employees.[7]  But, overall, these data strongly support the substantial rise in material living standards over these years shown in Table 2.

Importantly, relating specifically to age cohorts, the Productivity Commission (PC, 2018, Figure 3.15) shows that average household income up was in every income decile since mid-1980s.[8] And the PC (2018, p.60) reported that: "*On average, each new generation has earned more income than the last at a given age, and reaches the same level of income earlier in life*. This is true for both equivalised household income and individual income (Figure 3.16)."

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[7] Note that these are not precise comparisons of hourly wage differences as the AWE varies with hours of work whereas the real minimum wage is based on a standard 35-hour week. Thus, the final column is a more representative comparator.
[8] However, between 2009-10 and 2015-16, the equivalised disposable income fell marginally for persons between 24 and 35,

**Table 3: Average and Minimum Wages from 1967 to 2017**

| Year | Real average weekly earnings (AWE) ($2017) | Real minimum wage ($2017) | Real minimum wage as % of AWE | Ratio of minimum wage to median weekly earnings of full-time employees (%) |
|------|------|------|------|------|
| 1967 | 600 | 409 | 68.1 | |
| 1977 | 869 | 594 | 68.3 | 67.0 |
| 1987 | 911 | 615 | 67.5 | 66.2 |
| 1997 | 955 | 598 | 62.5 | 61.9 |
| 2007 | 1069 | 660 | 61.7 | 54.5 |
| 2017 | 1167 | 695 | 59.5 | 54.9 |

Sources: https://www.fwc.gov.au/waltzing-matilda-and-the-sunshine-harvester-factory/historical-material/100-years-min-wage-stat-compare

ABS 6302.0 *Average Weekly Earnings*, *Australia*.

Whiteford (2018) makes similar findings.

- The real mean, equivalized, household disposable income of the 24-35 age cohort was about 10% higher in 2015-16 than in 2005-06 and around double that in 1995-96. (See Figure 5, p. 101).
- "Between 1986 and 2010 younger households have experienced household income growth that is 27 per cent higher than the national average, while households with a head aged 70–74 enjoyed growth only two per cent higher than the national average." (p. 100)
- "In summary, analysis of Australian income surveys tends to support the conclusion … that younger Australian households have continued to enjoy increases in real incomes over time". (p. 102)

**Changes in the quality and variety of goods**

Further, the above indicators underestimate the changes in real income that occurred because the CPI does not fully reflect the extraordinary increase in the quality and variety of goods and services that have occurred over the last 50 years and especially over the last 20 years. Examples abound from basic foods to motor vehicles, medical services, computers, television services, internet services, mobile phones with cameras and so on.

The ABS uses a range of techniques to adjust for changes in quality, with quality adjustments being applied to 2-3 per cent of sampled items each quarter. This equates to around 2,000 quality adjustments out of the 85,000 items priced in the CPI each quarter.[9] However, the ABS acknowledges that some quality changes are not captured in the CPI. Also, traditionally weights in the CPI were changed around only every five years. In so far as this underweights new products, this may also overestimate the real CPI. [10]

We are not aware of any recent efforts to quantify the implicit over-estimation of the CPI that occurs due to underestimation of changes in the quality of goods and services over time. But the effect is likely

[9] ABS, 18 December 2019, *Quality change in the Australian CPI.*
[10] From 2018, the weights in the CPI are updated annually.

significant.[11] In our context, this means that comparisons of national income per capita over time underestimate the full real income (material) benefits of later generations.

**Household Wealth**

Since both income and wealth support consumption, economic well-being depends on both types of resources. Some people with low incomes may have considerable wealth, allowing them to maintain their consumption of goods and services at levels that would not be possible from their incomes alone.

Table 4 shows estimated mean net wealth per household from 1990 to 2020. This draws on what appears to be the longest set of estimates on net household wealth in Australia (the RBA source shown below). This net wealth includes housing, consume durables, financial assets and any associated liabilities. The author converted these data to 2020$ and, for consistent comparability, allowed a constant 2.6 persons per household across the relevant national population.

These figures are broadly consistent with ABS data shown in Table 5 for mean and median household net worth in 2003-04 and 2017-18 in 2017-18 dollars. Here, "household net worth is the value of all the assets owned by a household less the value of all its liabilities".[12] The disparity between mean and median household wealth indicates the asymmetric distribution of wealth, with the high amounts of wealth held by the top (wealth) quintile of households.

Clearly, mean household wealth grew substantially (by around 180%) between 1990 and 2020. At face value this would very likely imply a benefit to current generations.

**Table 4   Estimated Mean Net Wealth per Household:  1990 to 2020 (2020 $s)**

| Year | 1990 | 1995 | 2000 | 2005 | 2010 | 2015 | 2020 |
|---|---|---|---|---|---|---|---|
| Net wealth | 387,000 | 418,000 | 541,000 | 721,000 | 821,000 | 905,000 | 1,080,000 |

Sources: RBA, https://www.rba.gov.au/statistics/tables/  Table E.1 and author calculations.

**Table 5 Household Net Wealth:  2003-04 and 2017-18 (2017-18 $s)**

| | Household net worth | | % Change |
|---|---|---|---|
| | 2003-04 | 2017-18 | |
| Mean household net worth | 657,000 | 1,022,000 | 55.5 |
| Median household net worth | 414,000 | 559,000 | 35.0 |

Source: ABS 6523.0, *Household Income and Wealth, Australia.*

However, a large amount of this increase is due to increases in property values. The ABS (*Survey of Income and Housing, 2017–18*) reported that between 2003-04 and 2017-18, average total property

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[11] In the US, the Boskin Commission (1996) concluded that it's "best estimate of the size of the upward bias looking forward is 1.1 percentage points per year. The range of plausible values is 0.8 to 1.6 percentage points per year."
[12] Assets include financial assets, ownership of businesses and non-financial assets, such as dwellings and their contents, land and vehicles. Liabilities include value of loans, credit card debt and borrowings from other households.

value increased by $709,100 for high-wealth households, by $158,300 for middle-wealth households and by $10,100 to $18,100 for low-wealth households. Since housing ownership is correlated with age, the increase in household wealth over these years may not represent generational change over time.

In a Grattan Institute report, Wood and Griffith (2019) point out that gap between the wealth of the older and younger cohorts has risen greatly. They estimate that the older generation (65+) had on average two and a half times the wealth (net assets) of the younger (25-34) households around 1990 and nearly four times the wealth in 2016. But they also show that the average household net wealth *increased in real terms for all age cohorts* between 1994 and 2016. Wealth for an average household headed by someone aged 25-34 increased from an average of $190,000 in net assets in 1994 to $300,000 today (*ibid.* p12).

The issue of generational benefit is further complicated by the passing on of inheritance. Vickovich (2021) reported that Australians "are set to inherit an estimated $3.5 trillion over the next 20 years, growing at 7% each year, with each recipient inheriting an average of $320,000".[13]

**Conclusion**. Overall, between 1990 and 2020, all groups of age cohorts became more wealthy than comparable previous cohorts. But inequalities grew, with the major benefits accruing to older age groups, notably homeowners and owners of lightly taxed large superannuation holdings (and their children).

**Grattan Report (2019) and the Actuaries Institute (2020): Who gains most from economic growth?**

The Grattan report (Wood and Griffith, 2019, p.3) acknowledges that "Australia's population is healthier, wealthier and better housed than 100 or even 20 years ago. Generation-on-generation economic progress has been the norm for the past century."

But the report argues that, nevertheless, today's young Australians are in danger of falling behind. Older people are enjoying disproportionate wealth from housing ownership, capital gains and generously treated superannuation income. Younger generations have taken less part in the increase in wealth, find first homeownership costly and difficult, and are experiencing substantial wage stagnation. The overall effect (*ibid*. p.3) is that "Working-age Australians are underwriting the living standards of older Australians to a much greater extent than the Baby Boomers did for their forebears, straining the 'generational bargain' to breaking point."

This paper agrees with many of these points. Elderly high wealth families are treated disproportionately favourably by the tax system. But many elderly baby boomers and generation X do not have high wealth or high incomes. Interest income is miserly. Whiteford (2018, Figure 3, p.98) shows that, in 2015-16, persons between 25 and 34 years of age had substantially higher average (mean) private income and higher mean equivalised household disposable income than persons in the 65-74 age group. And the disparity grows for persons 75 years and over.

As we have seen, young adults to-day are better off materially than they were pre-2000. And many of the tax and transfer arrangements that benefit older persons are not new: they have been around for the 40 to 50 years. Unless the tax system changes dramatically, millennials will in due course enjoy, at

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[13] Aleks Vickovich, Wealth Editor, AFR, 19 April 2021, *How to get the great wealth transfer right*.

least, some similar tax generosity. And, given ongoing underlying productivity changes and likely economic growth (discussed in Section 12), it is hard to see millennials in old age less well-off materially than baby boomers and Generation X are in old age to-day.

The Actuaries Institute (2020) produces a similar analysis to Wood and Griffith (*ibid*.). It finds that the wealth gap between the 25-34 and 65-74 age bands increased significantly between 2008 and 2018. On the other hand, the income premium of the younger 25-34 age group over the 65-74 age group declined over these years. But both the mean real income and the mean wealth of the 25-34 age-group increased between 2008 and 2018 and even more between 2000 and 2018. Thus the 25-34 age-group was eating significantly more cake in 2020 than in 2000. But it was getting a smaller share of the total cake.[14]

## 4      Housing

Access to housing, and especially to home ownership, is a major element of well-being. Home ownership provides a stable foundation on which we can build our lives and families, and our connections to community, and can enjoy housing security in retirement. In this section we start with a brief review of housing rents over time and then turn to home ownership and first home ownership costs. Most of our data are national, but we also give some Sydney statistics where home ownership is most expensive.

**Housing rents**

Table 6 shows average (mean) private housing rents and household incomes across Australia for five sample years from 1995-96 to 2015-16. As this shows, the mean rent has been remarkably constant at around 18% of mean gross household income. And household occupancy rates have been stable at around 2.6 persons per household.

**Table 6   Average Private Housing Rents and Incomes across Australia**

| Year | Mean rent ($) | Index 1995-96 = 100 | Mean gross household income per week ($) | Index 1995-96 =100 | Mean housing rent as % of mean household income | Average occupancy rates |
|---|---|---|---|---|---|---|
| 1995-96 | 239 | 100 | 1,313 | 100 | 18 | 2.7 |
| 2000-01 | 254 | 106 | 1,430 | 109 | 18 | 2.6 |
| 2005-06 | 287 | 120 | 1,713 | 130 | 17 | 2.5 |
| 2009-10 | 349 | 146 | 1,928 | 147 | 18 | 2.6 |
| 2015-16 | 381 | 159 | 2,109 | 161 | 18 | 2.6 |

Source: ABS 4130.0 *Housing Occupancy and Costs.*

In Sydney, average housing rents were much higher but also broadly constant over time relative to household income. Between 1995 and 2017, mean house rents in Sydney rose by 47.1% and unit rents by 76.1%, while median gross household income grew by 59.7%. Thus, the mean rent for houses fell

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[14] The Actuaries Institute study does not cover the years before 2000.

from 31.3% to 28.9% of median household income. On the other hand, the mean rent for units rose from 29.7% to 32.8%. This reflects the high proportion of new units for rent in central Sydney.

Evidently, housing rents increased broadly with household income over the last 25 years. It may also be noted the national housing stock grew marginally faster than population over this period. Between 1996 and 2016, the national housing stock increased by 38% while the population grew by 33%. In Sydney, the housing stock grew by 30%, while the population grew by 29%. Thus, the increase in real rents broadly with income reflected improved housing rather than housing shortage.[15] In any case, no significant intergenerational effect can be observed.

However, rents are a continuing major problem for low-income households because the distribution of household incomes greatly exceeds the distribution of rents. In Sydney, households at the top of the lowest income quintile have only about 50% of mean disposable household incomes and pay housing rents at around 80% of average rents. But this is not a generational problem. Between 1995 and 2017, housing rents for this low-income group of households were stable at around 30% of household income.

However, for the most disadvantaged households, there is a potential generation problem as public (social) housing has fallen from 5.8% of the national housing stock in 1997-98 to 3.1% in 2017-18.[16]

**Home ownership over time**

Table 7 shows homeownership rates overall and by age group from 1966 to 2017-18. Overall home ownership was around 69-70% in most years between 1966 and 2006 but fell to 66% by 2017-18. And it has reportedly dropped further under the exceptional financial circumstances over the last three years.

**Table 7   National home-ownership rates: 1966 to 2019 (% by age groups)**

| Age | 1966 | 1976 | 1986 | 1996 | 2006 | 2011 | 2017-18 |
|-----|------|------|------|------|------|------|---------|
| 15-24 | 30 | 25 | 26 | 22 | 24 | 25 | 14 |
| 25-34 | 58 | 60 | 58 | 52 | 51 | 47 | 37 |
| 35-44 | 71 | 73 | 74 | 70 | 69 | 64 | 61 |
| 45-54 | 76 | 76 | 79 | 79 | 78 | 73 | 72 |
| 55-64 | 78 | 78 | 82 | 83 | 82 | 79 | 78 |
| 65+ | 80 | 75 | 80 | 82 | 82 | 79 | 84 |
| All | 70 | 68 | 70 | 69 | 70 | 67 | 66 |

Sources: Hall, 2017; ABS, 2019, *Housing Occupancy and Costs, 2017–18*. Cat. no. 4130.0.

[15] It may be further observed between 2016 and 2021, total housing stock in Australia grew by 11% whereas the population grew by 10%.

[16] These findings are supported by the ABS which found that average housing rents across Australia were 20.0% of private rental household income in 1997-98 and 20.2% in 2017-18. On the other hand, average public housing rents rose from 16.7% of occupants' household income in 1997-98 to 22.5% in 2017-18. *Housing Occupancy and Costs*, 2017-18, Australian Bureau of Statistics (abs.gov.au).

Moreover, the overall house ownership rate is propped up by changing age demographics, with a higher proportion of people over 55 years of age who have a higher propensity to homeownership. Of special relevance to this review, the homeownership rate of millennials (ages from 15 to 34) in 2017-18 was **half** the ownership rates of baby boomers in 1966 and 1976, and it may have dropped further by 2021.

The relevant issue for this review of intergenerational well-being is the extent to which these changes are driven by housing costs and/or by other factors which are discussed below.

**Drivers of first homeownership: costs and other factors**

Our focus here is on the costs of acquiring a first home.[17] To do so, we draw on the data and analysis of housing costs by Abelson (2018). This takes us up to year 2017. While we comment on recent changes, formally updating to 2020 is out of scope for this paper.

House prices have risen greatly in nominal and real terms over the last 40 years. The median house price in Sydney rose from $72,000 in 1980 to $989,000 in 2017.  In Melbourne, the second most expensive city, it rose from $42,000 to $716,000.  In real terms, with 2003 = 100, the median house price index in Sydney rose from 45.5 in 1980 to 148.2 in 2017. In Melbourne, it rose by even more from 42.9 to 173.5. Weighting across the eight capital cities for population, the national city real house price index rose from 48.1 to 160.6.  Though house prices vary greatly across Australia, the changes in housing prices are remarkably similar across the country and a national phenomenon (Abelson, 2018).[18]

This rise in house prices has dramatically driven up the average house price / household income ratio. The average national house price / household income ratio (based on national accounts disposable income per household) doubled from about 3:1 in 1970 to 6:1 in 2010 (Fox and Finlay, 2012) and rose to around 7:1 in 2017.

On the other hand, the costs of servicing a mortgage, principally interest rates, have fallen equally dramatically. Table 8 shows nominal and real housing mortgage rates since 1991. In real terms, mortgage rates fell by around 80% in 30 years.[19]

**Table 8   Interest and Mortgage rates 1985-2020**

| Year | RBA cash rates | Standard mortgage rate | Discounted mortgage rate nominal | Inflation rate | Discounted mortgage rate real |
|---|---|---|---|---|---|
| 1991 | 10.52 | 13.42 | 13.2 | 3.2 | 10.0 |
| 1995 | 7.50 | 10.00 | 10.3 | 4.6 | 5.7 |
| 2016 | 1.75 | 5.40 | 4.6 | 1.3 | 3.3 |
| 2017 | 1.50 | 5.25 | 4.5 | 1.8 | 2.7 |
| 2020 | 0.25 | | 2.0-3.0 | 0.9 | 1.0 – 2.0 |

Source: RBA various statistics tables.

[17] Ongoing housing costs for homeowners are partly, or even fully, offset by capital gains (Abelson, 2009).
[18] Unit dwelling prices rose slightly less. Between 1980 and 2017, they rose from 47.1 to 138.9 in Sydney and from 36.8 to 137.4 in Melbourne. The average over all cities rose to 139.9 in 2017 (with 2003 – 100).
[19] In the early 1980s, housing mortgage rates were (government) regulated below other commercial rates. This meant that the banks had little incentive to provide mortgages. They got round this by requiring potential borrowers to build up savings for 2 or 3 years in advance while earning low interest on their savings.

House prices and interest rates are deeply linked. At a simple level, asset prices = net recurrent revenues / the relevant discount rate. Equivalently, house prices = net rents / house borrowing rates. This suggests that if rents are stable, changes in house prices reflect principally lower borrowing rates, not shortage of housing supply. As noted above, the national housing stock increased by 5% more than population between 1996 and 2016.

The net effect is that, from 1990 to 2017, annual debt servicing costs stayed broadly constant as a proportion of household income, with lower interest payments fully offsetting the higher loan repayments (Abelson, 2018). As an example, suppose that first homeowners pay an average of 65% of the median house price for their first home and obtain a loan of 80% of the house price, their loan and interest payments consistently averaged around 44% of household income in the 1990s, 2000s and 2010s. And it should be noted that annual loan repayments are a form of savings as they build equity in the home.

However, this does not account for the cost of the deposit for the balance of capital required. This is potentially a much higher proportion of household incomes for millennials than for previous generations. However, some house buyers can now borrow up to 90% and even, in some case, 95% of the property valuation at historically low real interest rates. They may also be assisted by government grants to first homeowners or by the "bank of mum and dad," which was much more fully endowed in the 2010s than in the 1980s or 1970s.[20] For millennials who cannot access these funding sources, the first home deposit requires several more years of saving in 2020 than in 1980.

But some caution is necessary in interpreting causes of changes in homeownership rates. There have been dramatic changes to access to education, age of entry into the workforce and age of marriage over the last 50 years. Perhaps most dramatic, and relevant, the median age of first marriage in 1976 was 24 years for men and 21 years for women. In 2019, the median age was 32.3 years for males and 30.5 years for females.[21] In the 1970s, only 5% of the Australian population had post-school education, implying that around 95 per cent of potential workers joined the workforce before they were age 20. By 2016, around 35% of the Australian population had post-school education, so that only around 65% were earning before the age of 20. All other things equal, one would expect later years of home ownership over time due to these factors.

Another potential factor in housing ownership is migration. In 1976, overseas born made up 20% of the Australian population. By 2016, 28.6% of residents were overseas born and many were young adults. Our conjecture is that people arriving from overseas may become homeowners later than those born in Australia, especially since many of them come to Australia to study at our universities.

**Conclusions**

In general, current housing renters are no worse off relative to their income than previous generations. Nor are homeowners worse off in terms of loan and interest payments relative to income. And both renters and homeowners are likely living in higher quality housing than 20 or 40 years ago.

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[20] Support from the "bank of mum and dad" is often viewed as a necessary and undesirable consequence of high house prices. Arguably it is a driver of high house prices!

[21] This change reflects *inter alia* dramatic changes in culture, virginity and the pill, and opportunities for women.

However, millennials must find a significantly higher first home deposit relative to their income than baby boomers and Gen X had to find.  While there are various sources for these deposits, they are not available to all millennials. Thus, home ownership among millennials under the age of 44 has fallen significantly (refer Table 7) and is a source of anxiety and a decline in well-being. This is especially the case in Sydney where house prices are nearly 40% higher than in the next priced city (Melbourne).

## 5   Working Conditions

There is no single or overriding measure of the quality of working conditions. In this section, the paper addresses basic employment data and working time, the move from blue-collar to white collar work, industrial accidents, digitization of work, and the move away from standard to non-standard employment conditions.

Table 9 shows average participation rates, work hours, and unemployment rates from 1966 to the 2010s. It shows a mixed picture.

Over these four decades, workforce participation rates for males fell marginally, likely due to starting work at a later age.[22]  On the other hand, female participation rates doubled due to greatly more work choices, income opportunities and childcare services, which presumably implies more millennial well-being.

Another likely positive, the average hours per working week have fallen by around 10% for males and 20% for females since the 1976. This may have reflected in part an increase in the share of part-time employment as participation by older workers has increased.

On the other hand, unemployment rates have been fluctuating. In the 2010s, they were higher than in the mid-1960s or mid-1970s.  But they were lower than the remarkably high unemployment rates in the 1990s.

**Table 9   Average participation rates, hours and unemployment rates**

|  | Participation rates (15-64 years of age) | | Average hours worked / week[a] | | Unemployment rates | |
|---|---|---|---|---|---|---|
|  | Males | Females | Males | Females | Males | Females |
| 1966 | 84.0% | 36.3% | 41.3 | 34.1 | 1.6% | 1.6% |
| 1976 | 86.6 % | 50.2% | 40.0 | 34.4 | 4.1 % | 5.0 % |
| 1991-2000 (average) | 83.3 % | 63.4 % | 39.1 | 28.2 | 9.1 % | 8.4 % |
| 2011-2020 (average) | 82.6 % | 71.8 % | 36.2 | 27.5 | 5.8 % | 5.8 % |

(a)       Paid work, not work at home.

Sources: ABS, 2021, *Labour Force, Australia*. ABS, *Labour Force Historical Time Series*.

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[22] One reviewer suggested that the male participation rate fell mainly due to easy access to rising levels of disability pensions before the eligibility criteria were tightened in the Prime Minister, Howard, years.

The ABS has also addressed working time in three surveys (ABS, *How Australians Use Their Time*) in 1992, 1997 and 2006. The surveys divide time use into four categories: necessary time (for sleeping, eating and personal hygiene); contracted time for paid work and regular education; committed time for household management, childcare etc.; and residual free time.

In 2006, men spent, on average, 4 hours 33 minutes a day on employment related activities. This was similar to the average work times recorded in 1992 and 1997. On the other hand, women spent 2 hours 21 minutes a day on employment related activities in 2006, which was up 12% on the time measured in the 1992 survey. This aligns with increased participation.

Turning to the nature of work, since the mid-1960s, there has been a major shift from "blue-collar" to "white collar" work. Between 1966 and 2011, workers in manufacturing fell from 26% of the workforce to 8%.[23] As reported by Commonwealth Treasury (2021, *Intergenerational Report*, p.43), in 1966, machinery operators and drivers comprised around 11 per cent of the labour force and technicians and tradespersons around 21%. Today, these classes of workers have almost halved to around 6 and 14% of the labour force respectively. Meanwhile, as a share of the workforce, professionals have doubled while community and personal service workers have nearly tripled. Arguably these changes represent pleasanter working conditions than for earlier generations.

Another beneficial change has been a decline in worker fatalities and injuries with changes in both the nature of work occupations and changes in safety standards. Fatalities have fallen from 3 per 100,000 workers in 2004 to under 1.5 in 2019.[24] However, we are not aware of industry fatality rates before 2000.

Along with the change in work occupation has been the widespread introduction of digitisation, which has changed greatly work cultures over the past 20 years. In a recent review of working conditions and technology, *The Economist* (*Riding High*, 10-16 April 2021) argues strongly that modern technology has given workers greater autonomy and more options of working flexibly (including avoiding commuting to work). And the article provides evidence that workers in many countries are more satisfied to-day than in the 1990s. The journal concludes that technological changes are helping workers, not displacing them.

So far, the changes in working conditions described above appear to have increasingly benefited workers over time. We now turn to the nature of employment. Has the nature of employment has changed? If so, have these changes affected worker welfare?

As observed by the OECD (2015), jobs are widely put into two broad categories – standard and non-standard employment. Standard employment is usually defined as full-time salary or wage employment on a permanent contract. Non-standard employment covers multiple alternatives. These include self-employment, part-time work, fixed-term contracts, casual employment, and temporary agency work. In Australia, casual employment is the most common form of non-standard employment. Its main feature is the absence of any advance commitment by the employer regarding the duration of employment and the number of days or hours to be worked. Additionally, casual employees are usually not entitled to paid annual or sick leave.

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[23] ABS 6105.0 - Australian Labour Market Statistics, Oct 2011.
[24] Safe Work Australia, 2020, *Key WHS Statistics Australia* 2020.

In Australia, non-standard employment rose greatly during the last three decades of the 20th century, driven mainly by growth in part-time and casual employment. Drawing on ABS data, Wooden (2002) estimated that employees in non-standard jobs rose from 24% of all employed in 1971 to 34% in 1984 and to 47% of all employed in 2000. On the other hand, drawing on HILDA data, Laß and Wooden (2020) estimate that the share of non-standard employment in total employment was 54.9% in 2001 and rose only slightly to 55.6% by 2017.  Clearly, over our period of interest, from the mid-1960s to the present, there has been a huge increase in non-standard employment. Of the various classes of non-standard employment, casual employment at about 20% of total employment in 2017 is the largest class. According to the OECD (2015, p.140), in 2013 Australia ranked third highest in the OECD for non-standard employment.

Judging the welfare effects is complicated because there is, to some extent, a trade-off between job security and job autonomy and there are numerous credible papers on the subject. Quinlan (2015) describes the changes to non-standard employment as unhealthy and unsafe. Campbell and Burgess (2018) describe them as precarious. Markey and McIvor (2018) find that, while some employees prefer casual status, many would benefit from protective regulations, and that most casuals support such regulation (in some sense achieving the best of both standard and non-standard employment models). More forcefully, the Australian Council of Trade Unions (2011, 2018) describes the levels of non-standard employment as having reached 'crisis' proportions— as an attack on worker rights.

On balance, our take is that the major shifts away from standard employment conditions have reduced worker well-being. But doubtless many workers would prefer the autonomy of the modern employment conditions.

**Conclusions**

There is no universal summative measure of job quality.  Job quality is a multidimensional concept with many attributes, including compensation adequacy, job security, job demands and stresses, autonomy, safety and job satisfaction.

Changes that have generally improved job quality over the last 50 years are greatly improved workforce opportunities for females, improvements in working conditions with the move from blue-collar to white-collar work, greater workplace safety, greater autonomy and working opportunities with digitisation and, to some extent, with the variety of employment conditions now available.

On the other hand, job security has fallen. In their detailed review of work quality in Australia, Ribar and Wooden (2020) find that work quality tends to rise with job tenure and employment stability and to fall with involuntary job change. This suggests that the large rise in non-standard employment over the last five decades has lowered work quality at least for some, possibly many, workers.

## 6      Physical and Mental Health

As cited by the Australian Institute of Health and Welfare (2020, p.ix), "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".[25]

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[25] World Health Organization (1946), *Preamble of the Constitution of the World Health Organization* as adopted by the International Health Conference, New York, 19–22 June 1946. New York: WHO.

**Physical Health**

Health can be measured in many ways. For example, as reported by the ABS[26], "On average, Australians are growing taller and heavier over time. Between 1995 and 2011-12, the average height for men increased by 0.8 cm and for women by 0.4 cm, while the average weight for men increased by 3.9 kg and for women by 4.1 kg." There also appears to be a correlation between height and health reflecting better health and nutrition in youth.

On the other hand, Huse et al. (2017) report that in 2014-15, 63% of Australian adults and 28% of children were overweight or obese. By 2014-15, 1 in 10 more adults were obese than 20 years earlier in 1995.

Despite obesity, life expectancy has risen greatly over the last 60 years. Table 10 shows life expectancy at birth and at age 65 for a sample of typical birth years for our three generations.

**Table 10: Life expectancy at birth and age 65 by sex**

| Age (years) | Birth 1953-54 Baby Boomers | | Birth 1975-77 Generation X | | Birth 1994-1996 Millennials | | Birth 2014-2016 | |
|---|---|---|---|---|---|---|---|---|
| | Males | Females | Males | Females | Males | Females | Males | Females |
| 0 | 67.1 | 72.8 | 69.6 | 76.6 | 75.2 | 81.1 | 80.5 | 84.6 |
| 65 | 12.3 | 15.0 | 13.1 | 17.1 | 15.8 | 19.6 | 19.6 | 22.3 |

Source: Australian Institute of Health and Welfare, 2020, *Australia's Health 2020 Data Insights*. Australia's Health Series no. 17. Cat. no. AUS 231.

At birth, life expectancy for male and female millennials is some eight years longer than for baby boomers and some five years longer than for Generation X. At age 65, life expectancy for male and female millennials is around four years longer than for baby boomers and some 2.5 years longer than for Generation X.

The Australian Institute of Health and Welfare (AIHW, 2020) report also analyses how much of the additional life years are spent in good health or in serious disabilities. The analysis is based on 21st century data and so we can draw only rather generalised findings. The report finds (p.263) that between 2003 and 2015, males gained 1.8 years of life expectancy—with 1.5 of these years in full health and 0.3 years in ill health. Females gained 1.2 years of life expectancy—with 0.8 of these years in full health and 0.4 years in ill health. The report concludes (p.264) that "while increasing life expectancy is associated with some extra time in ill health, the proportion of people's lives spent in full health at age 65 was similar at each time point (around 75% and 76% for both males and females)".

Not surprisingly, the AIHW (p.260) attributes the large reductions in mortality rates in large part to major advances in disease prevention and treatment over the last 60 years. Treatment improvements include vaccinations for measles, mumps and other diseases, artificial hearts and other heart surgery techniques, laser treatments, various cancer therapies, genomics which is a data-rich field of research and a rapidly developing area with potential for improving risk detection, diagnosis, treatment and

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[26] ABS 4338.0 - *Profiles of Health, Australia, 2011-13.*

patient outcomes. New drugs, including statins, anti-diabetic and blood pressure reducing drugs, have also been a major factor in the decline in morbidity.

In addition, there has been a huge increase in the availability of public health services in Australia since Medicare was introduced in 1974. And, more recently, digital health technology is removing barriers to service access, providing specialist care to more remote communities, and improving continuity in patient care through use of electronic health records (such as My Health Record).[27]

**Mental Health**

In this review of mental health, we first report some historic and contemporary suicide rates, then cite some detailed results of ABS and HILDA surveys of mental health and conclude with some insights from the Australian Psychological Society.

Table 11 shows average annual suicide rates in the 1970s, 1990s and 2010s. Evidently men are three times more likely to commit suicide than women. But it is hard to see any major generational trends in these aggregate figures.

**Table 11: Average annual suicide counts and rates in Australia**

| Decade | Males | | Females | |
|---|---|---|---|---|
| | Count | Rate (per 100,000) | Count | Rate (per 100,000) |
| 1971-1980 | 1112 | 18.3 | 474 | 7.8 |
| 1991-2000 | 1902 | 21.5 | 481 | 5.3 |
| 2010-2018 | 2126 | 18.0 | 692 | 5.7 |

Source: Australian Institute of Health and Welfare, *National Morbidity Database, Suicide and self-harm monitoring: Birth cohort analysis of deaths by suicide*.

Disaggregating by age groups, the AIHW has found that, among females, the suicide rate at age 15–19 for those born between 1999 and 2003 was 1.8 times higher than for the cohort born in 1954–58. For females born in 1999–2003, the suicide rate reached 6.4 deaths per 100,000 cohort members at age 15–19 compared with 3.6 deaths per 100,000 cohort members for females born in 1954–58. On the other hand, suicide rates across male cohorts compared at the same age show no clear pattern. Rates at younger ages of death (15–19 and 20–24) tended to be higher for those born prior to 1979–83 than in those born from 1984–1988 onwards.[28]

Table 12 shows estimated prevalence rates of mental health disorders, by sex and major disorder group in 1997, 2007 and 2017-18. The 2017-18 data come from a national health survey while data for the other two years come from mental health and wellbeing surveys. The prevalence rate is the proportion of people who met the criteria for diagnosis of a mental disorder at a point in time.

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[27] Of course, other factors, such as reduced smoking, also increased longevity.

[28] Birth cohort analysis of deaths by suicide - Australian Institute of Health and Welfare (aihw.gov.au)

**Table 12 Prevalence rates of mental health disorders, by sex and major disorder group**

| Disorders | 1997 | | 2007 (a) | | 2017-18 (b) | |
|---|---|---|---|---|---|---|
| | Males (%) | Females (%) | Males (%) | Females (%) | Males (%) | Females (%) |
| Anxiety disorders[c] | 7.1 | 12.1 | 10.8 | 17.9 | 10.6 | 15.7 |
| Affective disorders[d] | 4.2 | 7.4 | 5.3 | 7.1 | 9.5 | 12.0 |
| Substance use disorders[e] | 11.1 | 4.5 | 7.0 | 3.3 | 1.4 | 0.6 |
| Any mental disorder | 17.4 | 18.0 | 17.6 | 22.3 | 17.9 | 22.3 |

(a) "Persons who met criteria for diagnosis of a lifetime mental disorder and had symptoms in the 12 months prior to interview. A person may have had more than one mental disorder".
(b) 2017 stats are based on response of long-term health conditions which have lasted or expected to last for at least 6 months.
 (c) Anxiety disorders include panic disorder, agoraphobia, social phobia, generalised anxiety disorder, obsessive-compulsive disorder, and post-traumatic stress disorder.
(d) Affective disorders include depression, dysthymia, and bipolar affective disorder.
(e ) Substance use disorders include: alcohol harmful use, alcohol dependence, and drug use disorders.

Sources: ABS 4326.0, 1997: *Mental Health and Wellbeing: Profile of Adults*; ABS 4326.0, 2007: *National Survey of Mental Health and Wellbeing: Summary of Results*; ABS 4364.0, 2017-2018: *National health Survey: First Results*.

The key finding is that there were major increases in anxiety and affective disorders for males and females between 1997 and 2017. On the other hand, there has been a substantial reduction in substance abuse disorders, especially by males.[29]  This latter result may be partially explained by the difference in the survey methodology across different years and surveys. Our overall take would be that the reported increases in anxiety and affective disorders are not related to the decline in substance abuse and that there have been major increases in (reported) mental health issues since the 1990s.

However, a note of caution is necessary. Previous generations may have lived with many anxieties, domestic violence, sexual assault and abuse, extreme poverty and so on, without explicitly acknowledging them. Mental health was recognised for Medicare support only in the 1990s.

Table 13 (next page) shows average prevalence rates by major disorder and age group in 1997 and 2007. Corresponding figures do not appear to be available for 2017.

Drawing conclusions from these data is a little problematic. But we would venture two general hypotheses: (1) that, of our three generations, millennials have the largest propensities to anxiety and affective disorders and (2) baby boomers have the least.  The first hypothesis is supported by the significant increases in anxiety and affective disorders among the younger age groups (between 16 and 34 years) between 1997 and 2007.  The second hypothesis is supported by the significantly lower anxiety and affective disorders among the older age groups (over 54 years of age) in both surveys. However, whether lesser anxiety with age is generational or a factor of age is unproven.

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[29] The mid-1990s were a period of high heroin use.

**Table 13   12-month prevalence rates of mental health disorders, by sex, age and major disorder group, 1997 and 2007**

| Age group | Anxiety disorders | | | | Affective disorders | | | | Substance use disorders | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1997 | | 2007 | | 1997 | | 2007 | | 1997 | | 2007 | |
| | M (%) | F (%) | M (%) | F (%) | M (%) | F (%) | M (%) | F (%) | M (%) | F (%) | M (%) | F (%) |
| 16-24[a] | 8.6 | 13.8 | 9.3 | 21.7 | 2.9 | 10.7 | 4.3 | 8.4 | 21.5 | 10.6 | 15.5 | 9.8 |
| 25-34 | 7.1 | 12.4 | 11.5 | 21.2 | 4.9 | 8.4 | 7.0 | 8.7 | 15.6 | 7.0 | 11.3 | 3.3 |
| 35-44 | 8.3 | 14.5 | 14.9 | 21.2 | 6.0 | 8.5 | 8.4 | 8.3 | 12.0 | 4.5 | 6.5 | 2.6 |
| 45-54 | 8.0 | 15.9 | 13.9 | 21.2 | 5.4 | 7.3 | 6.3 | 7.8 | 7.4 | 3.2 | 4.4 | 3.2 |
| 55-64 | 6.1 | 9.5 | 8.9 | 13.8 | 3.2 | 6.9 | 2.6 | 5.9 | 5.2 | 1.2 | 1.6 | 0.6 |
| 65 and over[b] | 3.5 | 5.4 | 8.1 | 12.2 | 0.8 | 2.4 | ? | ? | 2.1 | 0.2 | ? | ? |

(a)   1997 statistics are for 18-24 year age group.
(b)   1997 includes anyone who is 65 and over. 2007 statistics for this age group include 65-85 year olds.

Sources: As for Table 11.

These findings are supported by two Melbourne University studies. Butterworth *et al.* (2020) report that HILDA Survey data demonstrated an increasing trend over time, with the prevalence of very high distress rising from 4.8% in 2007 to 7.4% in 2017. This increase was present for both men and women and was evident for younger and middle-aged adults but not those aged 65 years or older. Sensitivity analyses showed that this increase was notable in the upper end of the Kessler Psychological Distress scale (K10) distribution. Wilkins *et al.* (2019) also note that since the early 2000s, there has been a substantial increase in reported rates of depression and anxiety among people living in Australia. Depression and anxiety are serious illnesses that make it hard to cope with daily life.

The Australian Psychological Society (APS, 2015) also provides evidence for the stresses of recent generations. The report found (p.4) that:

- Younger people (18-25) have consistently reported lower levels of wellbeing than older Australians.
- Retirees report the highest levels of well-being; the unemployed report the lowest levels.
- Well-being levels rise with education and income.
- 35 per cent of Australians report having a significant level of distress in their lives.
- 26 per cent of Australians report moderate to extremely severe levels of depression symptoms.

It should be acknowledged that the APS report does not provide explicit comparisons of wellbeing or anxiety over time and arguably the findings in the report relate more to Generations Z and Alpha rather than to millennials.

However, our overall take from these various data sources is that mental health issues have risen significantly over time and have become significantly greater for millennials, and for more recent

generations, than they were for Generation X or Baby Boomers. Further support for this view is given in our discussion of the growth in loneliness in Section 9 below.

## 7    Education: Knowledge and Skills

In this section we look at the proportions of the population with post-school qualifications as an indicator of the knowledge and skills in the population. The main message is that millennials have much higher educational qualifications than baby boomers or Generation X.[30]

The 2016 Census of Population and Housing recorded that 56 per cent of Australians aged 15 years and over (9.6 million people) held some form of post-school qualification, up from 46 per cent in 2006.

The year 2016 was the first time that the Census reported that more than half the population aged 15 and over in each state and territory held a post-school qualification, with the Australian Capital Territory leading the way with the highest proportion of qualified people (65 per cent). Tasmania had the lowest proportion with 51 per cent.

Drawing on longer data series from the ABS five-yearly household census is tricky because non-qualified persons include people who did not state their educational qualifications or who stated qualifications that were not part of the list of qualifications provided in the survey questionnaire. Thus, the percentages of the population with a tertiary education reported in Table 13 below are under-stated.

However, drawing on the ABS results, Table 14 shows that there have been dramatic changes in educational qualifications of Australian residents over the last 50 years. In 1975, under 4% of males and under 2% of females over 15 held a tertiary education qualification. By 2012, 20% of males and 24% of females over 15 held a tertiary education qualification. In both cases, the numbers are supported by the higher proportion of overseas born residents with tertiary education, but the rise in the share of Australian born citizens is striking.[31]

**Table 14   Persons aged 15 and over reporting a tertiary education qualification - a graduate diploma, BA and a postgraduate degree (%)**

|  | Males | | | Females | | |
|---|---|---|---|---|---|---|
|  | All residents | Australian born | Overseas born | All residents | Australian born | Overseas born |
| 1976[a] | 3.7 | 3.5 | 4.3 | 1.7 | 1.6 | 2.1 |
| 1996[b] | 10.7 |  |  | 10.0 |  |  |
| 2016[c] | 19.9 | 16.8 [d] | 30.7 [d] | 24.0 | 22.46 [d] | 32.5 [d] |

Source: ABS, 1976, 1996 and 2016 *Censuses: Population and Dwellings*.

(a) Persons reporting a BA, a graduate diploma and a higher degree.
(b) Persons reporting a BA, a post-graduate diploma and a higher degree. Includes overseas visitors.
(c) Persons reporting a BA, a graduate diploma and a graduate certificate, and a higher degree. Excludes overseas visitors.
(d) Excludes persons who did not state their country of birth.

[30] Digitisation of information has also greatly increased millennial access to knowledge.
[31] It should be noted, however, that these qualifications have often come with much higher student debt.

Further, Hughes (2021) reports that, over the past 20 years, the share of the Australian population with a degree at a bachelor level or above has more than tripled, reaching 39 percent in 2020. This means that more young people are obtaining more education and training with each generation.

In concluding here, we also note that, drawing on HILDA surveys, Tran *et al*. (2021) found significant non-monetary benefits of education with higher education levels leading to a higher level of eudaimonic well-being, hedonic well-being, positive affect, and reduced psychological distress. Additionally, they found that education lifts well-being via healthy behaviors, such as engaging in physical activity, abstaining from drinking and smoking, and social interactivity, as well as via higher income.

## 8      Safety: Domestic and International

In this section we report statistics on domestic crimes, motor vehicle fatalities and international deaths over the 1970 to 2020 period and add some observations about international threats over this period.

**Domestic safety**

Table 15 shows recorded the total numbers and rates per 100,000 persons for some core domestic crime statistics for 1996 and 2016.[32]  These data broadly reflect the annual trends over these years. The rates per allows for the 31% increase in population from 17.9m to 23.4m between 1996 and 2016.

As shown, there were substantial falls in the rates of homicide and related offences, robbery and motor vehicle theft. Victims of homicide and related offences fell by 50%.[33] Victims of robbery fell by 56%. Victims of motor vehicle theft fell by 65%. And victims of other theft fell by 21%.[34]

**Table 15   Recorded crime statistics, Australia**

|      |                      | Victims of homicide and related offences[a] | Victims of robbery | Victims of motor vehicle theft | Victims of other theft[b] | Sexual assault (rate per 100,000) |
|------|----------------------|---------------------------------------------|--------------------|--------------------------------|---------------------------|------------------------------------|
| 1996 | Total                | 686                                         | 16,371             | 122,915                        | 522,222                   | 14,302                             |
| 2016 | Total                | 453                                         | 9,412              | 56,048                         | 537,278                   | 22,300                             |
|      |                      |                                             |                    |                                |                           |                                    |
| 1996 | Rate per 100,000     | 3.8                                         | 91                 | 687                            | 2917                      | 80                                 |
| 2016 | Rate per 100,000     | 1.9                                         | 40                 | 239                            | 2296                      | 95                                 |

(a) Homicide and related offences include murder, attempted murder and manslaughter.

(b) Other theft includes offences such as theft from a person and theft from retail premises.

Source: ABS Article: *27 years of Recorded Crime - Victims Data* (https://www.abs.gov.au/articles/27-years-recorded-crime-victims-data).

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[32] These statistics are available annually from 1993 to the present. Comparable statistics for earlier years do not appear to be available.

[33] The largest recorded number of victims for this offence was 809 in 2001. From 2002 the number of victims declined across most years.

[34] Wedderburn and Rahman (2021, *The Vanishing Criminal*) report similar findings across Australia and across all jurisdictions.

The exception to these trends was reported sexual assaults, which increased by 19% per 100,000 persons over these two decades. Since 1993 the number of victims of this offence has more than doubled, reaching the largest number recorded nationally in 2019 (26,892 victims), a rate of 106 victims per 100,000 persons. Of these 83% victim were female and 17% male, usually boys. The victimisation rate increased across all states and territories between 1993 and 2019, except in South Australia.[35]

Another countervailing observation is the dramatic rise in internet fraud with the growth in electronic banking. Wedderburn and Rahman (2021) report that the percentage of Australians falling victim to credit card theft rose from 2.4% in 2007 to 5.9% in 2014/15.  While this occurs across all age groups and doubtless older people are more vulnerable, over a lifetime this will be more a millennial problem than a baby boomer one.

**Road fatalities**

As we can see from Tables 15 and 16, road fatalities are about three times homicides. However, the rate of road fatalities fell by nearly 80% over the 40 years from 1976 to 2016. Much of this reflects the increases in the quality and safety of motor vehicles and roads over time, along with changes in driving laws (including alcohol testing).

**Table 16   Road fatalities in Australia[a]**

|        | Count | Rate per 100,000 |
|--------|-------|------------------|
| 1976   | 3,583 | 25.5             |
| 1996   | 1,970 | 10.8             |
| 2016   | 1,293 | 5.3              |

(a) includes all road users such as drivers, passengers, pedestrians, motorcyclists and cyclists.

Source: https://en.wikipedia.org/wiki/List_of_motor_vehicle_deaths_in_Australia_by_year

**International dangers**

War creates numerous adverse effects, including injuries and deaths in service, post-service suicides and serious mental health issues, economic costs, and numerous concerns for those at home.

Table 17 shows Australia military fatalities in overseas wars excluding events were 3 or fewer soldiers were killed. The principal event for Baby boomers was the Vietnam war. Generation X experienced no major war. For Millennials, the principal events have been the Iraq and Afghanistan wars.

Based on fatalities, the worst experience was the Vietnam war. In addition, to obtain soldiers for this war, from 1965 to 1972 the Australian government ran special conscription lotteries. Siminski and Ville (2012) found that this conscription had a large negative effect on lifetime earnings for the conscripted servicemen– mainly older Baby Boomers and their predecessors.

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[35] Part of this reported increase may have reflected increased reporting but, if this is so, this is significant in itself.

**Table 17  Deaths in service with Australian units**

| Conflict | Period of conflict | Number of deaths |
|---|---|---|
| First World War | August 1914 to March 1921 | 61,620 |
| Second World War | September 1939 to June 1947 | 39,654 |
| Papua and New Guinea | 1947-75 | 13 |
| Malayan Emergency | June 1948 to July 1960 | 39 |
| Korean War | June 1950 to July 1953 | 340 |
| Southeast Asia (SEATO) | 1955-75 | 10 |
| Indonesian Confrontation | December 1962 to August 1966 | 22 |
| Vietnam War | August 1962 to April 1975 | 521 |
| East Timor | 1999 – 2013 | 4 |
| Afghanistan | October 2001 to present | 43 |
| Iraq | July 2003 to December 2013 | 4 |
| Indonesia (Operation Sumatra Assist) | 2005 | 9 |
| **Total** | | **102,275** |

Source: https://www.awm.gov.au/articles/encyclopedia/war_casualties

More generally, these statistics mirror the nature of the times. Baby boomers had some concerns (in the author's experience, generally not strong concerns) about aggressive communist regimes. The Australian Government established diplomatic ties with China in 1972 (following US Secretary Kissinger's visit to China in 1971). Generation X experienced the security of the breakdown of the Berlin Wall, the dominance of the Western alliance and the temporary weakness of the major communist countries. Millennials have experienced less security with the growth of international terrorism, the related wars in Iraq and Afghanistan, the increase in nuclear armed countries around the world, and the increasing power of China across south-east Asia.

Section 12 below adds some observations on current and future international threats that would particularly affect millennials.

## 9      Social and Personal Connections and Loneliness

There is substantial evidence that social networks have a strong positive effect on well-being and a strong effect in reducing loneliness (Tani *et al*., 2020). In this discussion of social and personal connections, we draw principally on Leigh (2010, *Disconnected)* in which he "crunches the numbers on Australian Social Capital since World War Two" and the follow-up Leigh and Terell (2020, *Reconnected).* The theme of both books is the systemic decline in physical social connections over the last 50 to 60 years.

However, we also note the contrary perspective that many people are more connected in other ways these days via social media. As one reader of an earlier draft commented: "It would be hard to argue that there has been a decline in online connections over that period!"

Following a discussion of social and personal connections, we look at some trends in loneliness.

23

**Social and personal connections**

At a high level, the number of community associations cited in the *Directory of Australian Associations*, the bible for community associations, fell from around 7000 in 1970 down to around 4300 in 2010 while the population had increased by about 60%.

Table 18 shows that the proportion of persons actively engaged in a community organisation fell steadily from 33% in 1967 to 18% in 2004.

At a national level:

- In the 1960s, around 25% attended a church service weekly, and around 35% monthly. By 2007, these numbers had halved to 13% and 17% respectively.
- Membership of unions fell from 40% of workers in 1960 to 14% by 2018.
- Membership of political parties has fallen from 1 in 100 in the 1950s to 1 in 300 today.
- Participation in organised sport fell from 32% in 1993 to 27% in 2007. But attendance at sport overall has been roughly a constant proportion of the population.

**Table 18        Membership of community organisations**

| Year | Persons who are active members of an organisation (%) | Persons who are active members of wo or more organisations (%) |
|------|------|------|
| 1967 | 33 | 14 |
| 1979 | 30 | 10 |
| 2001 | 22 | 6 |
| 2004 | 18 | 4 |

Source: *Directory of Australian Associations* as reported by Leigh (2010).

Turning to personal relationships as reported by Leigh and Terrell (2020):

- In 1984, people had an average of 9 trusted friends (people that they can talk to frankly about personal difficulties). In 2018, they had 5 trusted friends.
- In 1984, people could drop in on 10 neighbours. By 2018, they had only four such neighbours.
- Over the same period, the share of people who could not drop in on a single neighbour rose from 7% to 17%.

Of course, explanations for these changes can be found. People became less religious. Women now spend more time in the workforce away from home. Work has become more casualised. And as Leigh (2010, p.149) observed: "Australian neighbourhoods where more languages are spoken tend to have lower levels of social capital". At the end of World War 2, only 10% of Australian residents were born overseas with just 2% from a non-english speaking country. By 2016, 28.6% of all Australian residents were born overseas with a high proportion from a non-english speaking country.

However, as Leigh and Terrell (2020) also observe, other forms of social support and communications have developed. There is evidence of substantial community work, for example in the massive volunteer work to support people and property in the extraordinary bushfires and floods in the two most recent years. And many local councils provide increasing social support services, with much voluntary

assistance, that they did not provide 20 or 30 years earlier. Moreover, as discussed below, many people today communicate intensively over online social media.

Our overall conclusion is that, on balance, there has been a decline in social capital and personal connections over the last 50 years, but it would be hard to put metrics on this. A key issue is whether the well-being lost from the decline in physical social interactions has been partially or fully compensated by the explosion of online connections. Views may well differ on this.

**Loneliness**

Another way to view community and personal connections is to assess whether people are more (or less) lonely to-day than in earlier generations. Despite our ability to connect to many people instantly via our internet or phone, many studies have reported a major increase in feelings of loneliness among current generations. Noreena Hertz's (2020) book, *The Lonely Century*, is a leading and widely acclaimed example. She argues that lives are now profoundly atomized, missing many of the casual and deeper human connections that used to be commonplace.

Reporting on a national survey of loneliness among adults in 2018, Abbott *et al*. (2018) found that:

- One in four (27%) Australian adults reported feeling lonely,
- One in two reported feeling lonely at least one day in the previous week,
- One in four (28%) reported feeling lonely for 3 or more days.
- Younger adults reported were significantly more lonely than were adults over 65 years.
- Australians reporting higher levels of loneliness have significantly poorer mental and physical health than less lonely Australians.
- Loneliness increases the likelihood of depression by 15% and social interaction anxiety by 13%.

Unfortunately, pre-2000 Australian longitudinal data on loneliness do not appear to be available. Drawing on HILDA data from 2001 to 2019, Kung *et al*. (2021) discuss trends in loneliness in Australia in this century. As they point out, loneliness is complex. Loneliness is not just about the availability or frequency of social interactions; it also reflects a discrepancy in what an individual perceives as their current situation, relative to their desired combination of the frequency and quality of their interactions.

These authors conclude that, while much is written that suggests that the prevalence of loneliness is increasing, evidence on this matter has been mixed. Their paper (Figure 1) tracks changes in loneliness in Australia between 2001 and 2019 for females and males for four age groups: 15-24, 25-44, 45-64 and 65-85. Their findings can be broadly summarized as follows. Over this period, an average of around 20% of females and 15% of males experienced loneliness. Among females, the youngest cohort was generally most lonely. Among, males the 45-64 cohort was most lonely on average, but the 15-24 cohort was most lonely in 2019. In general, for most cohorts, loneliness fell between 2001 and 2009 and then rose back to initial 2001 levels in 2019.

However, these findings are based on a much smaller sample than the national survey reported by Abbot *et al.* (2018).  Combining the Abbot et al. findings reported above along with international findings, and HILDA results post 2009, and noting the greater prevalence of loneliness among younger age groups, our conclusion is that loneliness is greater among millennials than among previous generations.

## 10       Environment

Turning to the environment, some introductory remarks need to be made. First, environment is multidimensional. It contains many natural elements, including air, water, soil, vegetation, climate, and other animals (biodiversity). And some of these elements, such as air quality, have in turn many constituent elements. There is also the built environment, including such impacts as noise and congestion and access to green spaces.

Second, there is ample evidence of the relationship between environmental quality and physical and mental health, and therefore well-being. The Australian Institute of Health and Welfare (2020) documents the effects of natural disasters on post-traumatic stress disorder, other mental health conditions and longer-term health outcomes, adding to the immediate effects of death and trauma from extreme events. And, as the Australian Psychological Society (2015) observed, younger people (age 18-25) are significantly more likely than the older age groups to cite 'environmental issues' as a cause of stress.

Thirdly, consistent longitudinal data on many environmental variables are not readily available. And, of course, there are many and large geographical variations across Australia.

Given these constraints, and including paper scope, we focus here on three key issues: climate change, biodiversity and built urban density. As it happens, in each of these cases the environment is deteriorating significantly. To add some balance, in our conclusions below, we add some very brief comments on other environmental attributes, such as air and water quality, where there have been significant improvements, albeit they are not readily quantifiable.

### Climate change

The *Guardian Weekly* (p.19, 23 July 2021) reported that the world's seven hottest years in recorded history have all come since 2014. In July and August 2021, unprecedented heatwaves and wildfires causing massive devastation and disruption were experienced on both the west coast of the United States (in California and Oregon) and on the other side of the world in Turkey and Greece.  On the other hand, also in July, extraordinary flooding and landslides occurred in long-established towns and villages in Germany and Belgium with over 100 dead and major damages to housing and infrastructure. And massive floods trapped Chinese in underground transport, with over 300 dead.

Turning to Australia, CSIRO (2020) reports that Australia's climate has warmed on average by 1.44 ± 0.24°C since national records began in 1910. And CSIRO (*ibid*.) states that "Our science clearly shows that, due to increasing greenhouse gases, such as carbon dioxide, in the atmosphere, Australia's climate is continuing to warm, and the frequency of extreme events such as bushfires, droughts, and marine heatwaves is growing."

Figure 1 (next page) shows the number of days in each year where the mean Australian temperature was in the warmest 1% of records and the dramatic increase in these heat events over the last 100 years, especially since 2000.

**Figure 1   A Record of Heat Events**
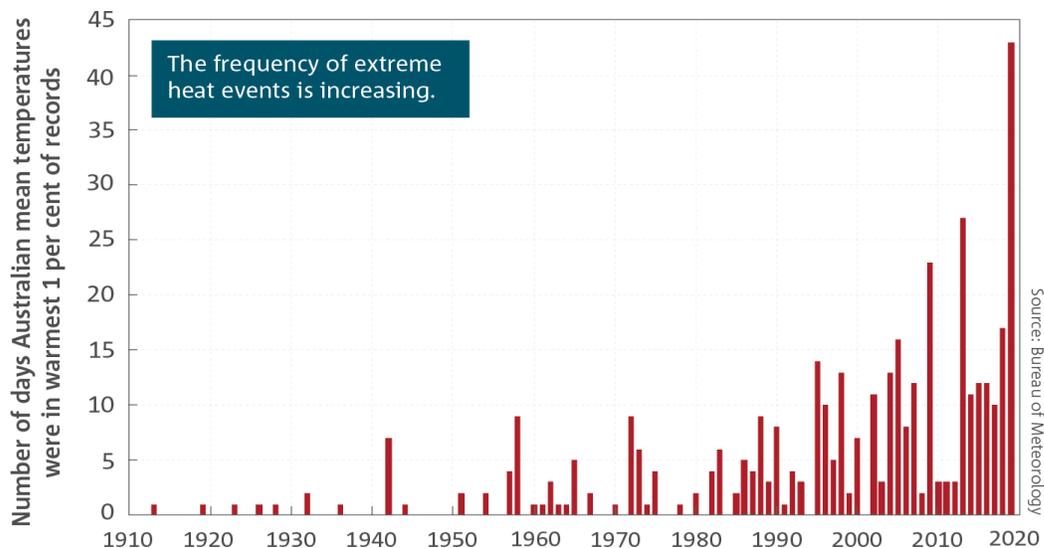


**Figure notes**: Extreme daily mean temperatures are the warmest 1 per cent of days, calculated for the period from 1910 to 2019.

Source: CSIRO and Bureau of Meteorology, 2020.

The CSIRO report (*ibid*.) also found that rainfall between April to October has declined by 12% to 16% in most of Australia, there has been a fall in streamflow at the majority of streamflow gauges across southern Australia since 1975, the oceans around Australia are acidifying and have warmed by around 1°C since 1910, contributing to more frequent and longer marine heatwaves, and sea levels are rising around Australia with increasing risk of inundation and damage to coastal infrastructure and communities.

Undertaking work for the Australian Bureau of Agriculture and Natural Resources, Hughes *et al*. (2021) found that climate change has had a major impact on farm productivity. Changes in seasonal conditions from 2001 to 2020 (relative to 1950 to 2000) reduced annual average farm profits by an estimated 23%, or around $29,200 per farm. These impacts were most pronounced in south-western and south-eastern Australia, with northern Australia and the coastal higher rainfall zones tending to be less affected. But it should be noted that, despite this, due to improved technology, average farm productivity has actually risen over time.

And, as I write this, the Intergovernmental Panel for Climate Change (2021) has predicted that climate warning will almost certainly worsen, and that Australia will experience longer, hotter summers, more bush fires and coastal erosion, than the rest of the world. Millennials will bear the greatest burden.

**Biodiversity**

Biodiversity is constituted by the variety of plants, animals, micro-organisms and ecosystems that constitute our living environment. It is constantly changing. The key threats to species are loss, degradation and fragmentation of habitat, invasive species and altered fire regimes. Other threats include unsustainable use and management of natural resources, changes to the aquatic environment and water flows and climate change.[36]

Australia's biodiversity is in decline. In Australia, more than 1,700 species and ecological communities are threatened and at risk of extinction. To obtain a measure of this change, we adopt the red list index metric for measuring changes in threatened species over time (used in the OECD well-being framework). "The index shows trends in the overall extinction risk of species. It is a combined indicator of extinction risk for birds, mammals, amphibians, cycads and corals. A value of 1.0 implies that all species qualify as Least Concern (i.e., not expected to become extinct in the near future), while a value of 0 equates to all species having gone extinct." Table 19 shows the steady decline in biodiversity since 2000.

**Table 19   Threatened species: Red list index, Australia**

| Year | Red list index |
|------|----------------|
| 2000 | 0.880 |
| 2006 | 0.862 |
| 2011 | 0.847 |
| 2016 | 0.831 |
| 2020 | 0.819 |
| 2021 | 0.816 |

Source: UN DESA Global SDG Indicator Database, 2020-2021.

**Green space, urban density and traffic congestion**

Many researchers, for example Townsend and Henderson-Wilson (2017) and Houlden *et al*. (2018), report a positive relationship between access to green space and physical and mental health. In a national Australian study, Astell-Burt et al. (2021) found that achieving urban-greening targets of 30% total area could lower the odds of cumulative incident loneliness by up to 26% among adults. Also, many papers, (for example Hennessy and Wiesenthal, 1997) have described the negative impact of traffic congestion on mental health and well-being. Here we can make only a few high-level observations relating mainly to Australian capital cities.

Between 1966 and 2020, the national population increased by 122% from 11.6m to 25.7m. Around 60% of the population lived in the five mainland cities over this period. Initially these additional populations were housed mainly through taking up green space on the urban fringes. But increasingly development occurred within existing residential areas. Between 1991 and 2016, the number of occupied flats and units (excluding townhouses) in Australia increased by 78% from 706,030 to 1,214,372. Evidently the populations in the major cities experienced both some loss of green space and increased urban density.

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[36] Source: https://www.environment.gov.au/biodiversity/threatened/species

There has also been a three-fold increase in motor vehicle ownership from 6.6m motor vehicles in 1976 to 19.8m in 2020, equal to 49% of the total population in 1976 and 85% in 2020. This has created significant traffic congestion and resident stress in Sydney and possibly in other major cities. But changes in urban density and traffic levels may be viewed positively in other areas.

Drawing on HILDA surveys, Wilkins *et al*. (2019) reported that in 2019 Australians spent, on average, 4.5 hours a week, or just below one hour per workday, travelling to and from work. This was 23 per cent higher than in 2002. And, importantly, these trends are impacting the wellbeing and job satisfaction of Australian workers. The HILDA Survey reveals that a long commute to work impacts people's satisfaction with their jobs. Those who spend a long time in commuting are more likely to be dissatisfied with their job overall, as well as with their working hours, flexibility to balance work and non-work commitments, and salaries. In addition, they are more likely to expect to leave their jobs in the next 12 months than those who spend less time getting to and from work.

**Conclusions**

On the three major environmental elements of well-being discussed here, climate change, biodiversity and loss of green space and increased traffic in urban areas, there are substantial and growing threats to well-being which are a major threat to the millennial and later generations. To some extent these are results of increased material well-being, but this does not change these real threats to well-being.

Also, relevant here are the various ways in which the environment has improved that have not been discussed above. Most urban areas in Australia have significantly less air and water pollution than 50 years ago. Waste and sewerage standards have improved. And environmental standards of buildings have also improved significantly.

Our take would be that the climate threat is the dominant generational issue, but climate sceptics would disagree.

**11      Inequality**

As Stillwell (2019) and others before him, notably Easterlin (1985), have pointed out, well-being is in part a relative issue. Inequality of income, or consumption, may be a larger driver of well-being than average income. Does Australia have "left-behinds" like those in the United States who voted for Trump or in the UK who voted for Brexit?

The issue is complex because of the various ways in which income, and income inequality, may be measured. The base may be individual or household; income, wealth or consumption; before or after tax and other transfers of income (in dollars or in kind). Comparisons may be made over the whole distribution as with the Gini coefficient or over parts of the distribution, such as over deciles or quintiles. Also, timing may be important, with significant variations in equality sometimes occurring over a few years.

In this section, we start by briefly citing two studies which indicate trends in income inequality pre-2000. We then provide the core income and wealth results from the comprehensive review of income distribution by the Productivity Commission (PC, 2018), focusing on the Gini coefficient and the 90/10 income ratio. Finally, we briefly provide two further recent supporting references and results.

Many studies have found a rise in *market inequalities* in Australia over time. For example, Borland (1999) estimated that, between 1975 and 1997, the real weekly earnings of a male worker at the 75th percentile (ranked from the bottom) rose by 15.8% whereas the real earnings at the 25th percentile increased by only 1.3%. For female workers, the comparable figures were rises of 31.2% and 15.8%, reflecting both an increase in market inequality but some intergenerational catch up.

Working with income percentiles, Atkinson and Leigh (2007) also found a significant rise in market inequalities: the income shares of the top 1% and 10% of income earners were higher at the start of the 2000's than at any time over the past 50 years.

Turning to the PC (2018, p.19), the detailed analysis "is based on equivalised household measures of income, consumption and wealth". This measure accounts for differences in household composition and 'economies of scale' when sharing living costs. Note also that the principal measures of household income in the PC report are based on *household disposable income after taxes and transfers*. Overall, the report found (p.37) that "income inequality has increased modestly since the late 1980s, but the extent of the increase is contested, and since the global financial crisis the trend indicates a slight decline."

Table 20 shows some summary results for the Gini coefficient and the P90/P10 ratio since 1982. The P90/P10 ratio is the income of the unit at the 90th percentile relative to that at the 10th percentile, with a higher ratio implying greater inequality. The results shown here are qualified as "about" as they are interpreted from graphs in the two cited source reports. The Gini coefficient indicates a slight increase in inequality between 1982 and 2016. The P90/P10 ratio is little changed.

**Table 20   Gini Coefficients and P90/P10 ratios for disposable household income**

| Period | Gini coefficient (About) | P90/P10 ratio (About) |
|---|---|---|
| 1982 – 1990 | 0.28 | 3.8 |
| 1991 – 2000 | 0.29 | 3.8 |
| 2000 – 2009 | 0.31 | 3.9 |
| 2010 – 2016 | 0.32 | 4.0 |

Sources: PC (2018); Fletcher and Guttman (2013) for 1982-1990.

Other core findings of the PC (2018) report were:

- Income tax and transfers (included in Table 20) reduce income inequality by around one-third.
- Allowing for transfers in kind, final consumption inequality is another 30% lower than that of disposable income (*ibid*., Figure 3.2).
- And inequality of private consumption is slightly lower than inequality of disposable income (*ibid*., Figure 3.2).

It should be noted that, as PC (*ibid*.) observes, these results are sensitive to the data sources. Based on HILDA data, the Gini coefficient post-2000 is lower than that shown in Table 20. Also, other income ratios, such as the P80/P20, are more flatlined than the P90/P10 ratio.

Turning to wealth, which is much more unevenly distributed than income, PC (2018) reports only on changes since 2002-03 and the results vary significantly with data source. The ABS Survey of Income and

Housing data suggests that the Gini coefficient rose from 0.56 to around 0.60 between 2002-03 and 2015-16. The HILDA data suggests a much smaller increase from about 0.61 to 0.62. In terms of deciles, the top decile's share of wealth has been fairly constant over these 12 years, while the share of those in the bottom half of the wealth distribution has trended down slightly (*ibid.* Figure 4.5).

The PC report also found that average wealth has grown substantially in this century (up by 43% between 2003-04 and 2015-16) with gains across the whole distribution, but marginally greater in the top half. However, as noted in section 3 above, on average each new generation has accumulated more wealth than the last at a given age and reached the same level of wealth earlier in life.

There is also significant mobility between deciles. The PC (*ibid*.) found that, between 2000-01 and 2015-16, nearly 90% of people spend time in at least three deciles.[37] Mobility smooths out inequality. Over this 15-year period, the average Australian was classified in five different income deciles. Australia's Gini coefficient for income falls by 18 per cent when calculated incomes are averaged over 16 years.

But, while life course mobility affects households across the entire distribution, the ends of the distribution are 'stickier' than the middle. Households in the top and bottom two income deciles at the beginning of the period were the most likely to be in the same decile fifteen years later. About 3% of households were stuck in one of the bottom two deciles throughout the period. Stickiness at the ends of the distribution is indicative of some entrenched inequality.

PC (2018) also provides a perspective on the extent of deep and persistent disadvantage in Australia. Using the common poverty metric of income of less than half of median disposable income, which rises in real terms of over time, in 2015-16, 9% of the adult population lived below the relative income poverty line. This was close to the average level over the previous 30 years.

On the other hand, using a constant median real income level anchored to the 1988-89 real median income, the rate of poverty fell from 9% of the cohort in 1988-89 to 3% of that cohort in 2015-16. The most critical factor for stickiness in poverty is jobless households.

The PC (*ibid*.) also uses deprivation metrics to show the balance between resources available and basic needs to be met. The report finds that material deprivation affects a slightly higher proportion of Australians (a little under 12%) than does income poverty. And the two often do not overlap; many people experience deprivation without being in poverty, and vice versa. Children, lone parents, those with a disability, the unemployed and indigenous Australians are most at risk of multiple deprivation.

The PC also found that material deprivation is linked to social exclusion, which makes it difficult to participate economically. The report concludes that the prevalence of marginal social exclusion was relatively steady between 2006 and 2015, but deep social exclusion showed a small and sustained rise after 2012.

In more recent work, drawing on HILDA data and including imputed rents in income, Kaplan *et al*. (2018) find that, consistent with other developed economies, consumption inequality in Australia is lower on average than income inequality. However, both inequalities have increased since the early 1990s, with income inequality increasing by more.[38]

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[37] Corak (2020) also finds much intergenerational mobility despite the inequality in society.
[38] Including imputed rents lowers estimates of the level of inequality in Australia but has negligible effect on the trends.

La Cava's (2019) analysis of returns to labour and capital since the 1970s also provides support for the view that inequality in Australia has increased. La Cava reports that the share of total income paid to workers in wages and salaries (the 'labour share') rose over the 1960s and 1970s but has gradually declined since then. On the other hand, the share of income going to owners of capital, including housing, has risen especially since financial deregulation in the 1980s. While the estimates vary with various measurement issues, the paper estimates that the share of labour fell from about 62% in the 1970s to 53% in 2017. On the other hand, the share of capital rose from 24% to 38% over this period. The residual balance, described as "gross mixed income", has fallen marginally.

**In conclusion**, the review in this section supports our earlier finding that recent generations are materially better off than previous generations. However, on most measures, inequality of income and wealth has increased marginally in Australia over the last 40 years. This, albeit modest, increase in inequality is a millennial well-being issue.

## 12      Current and Future Perspectives

In previous sections, we examined data primarily from the 1970s, 1990s and 2010s to compare the well-being of baby boomers, Generation X and millennials around the third decades of their lives. This is informative but far from complete. By 2020, baby boomers born in 1950 and still alive could expect another 10 or so years of life. Millennials born in 1990 could expect another 55 or more years (see Table 10 above).

Moreover, in the last few years, we have been living with some extraordinary seismic changes. Australia has experienced unprecedented bushfires, I in 50-year floods and drought, and a 1 in 100-year global pandemic. And, with the ascendancy of President Xi Jinping in China and the unhinged President Donald Trump in the US, the world has arguably experienced more international stress than at any time since the early 1960s.[39]

On top of these fraught events, in the words of ex-UK Prime Minister Tony Blair in the *New Statesman* (13 May, 2021), the world is facing "the most far-reaching upheaval since the 19th-century Industrial Revolution: A technology revolution of the internet, AI, quantum computing, extraordinary advances in genomics, bioscience, clean energy, nutrition, gaming, financial payments, satellite imagery – every sphere of work, leisure and life is subject to its transformative power."

In the forward to *Living in Australia (*Wilkins *et al.,* 2019*)*, Payne writes: "Living in Australia is fundamentally different today than it was 20, 10 or even five years ago. We are a nation that has been defined by social transformation, driven in part by shifting employment conditions, diverse family structures and changes in our health and wellbeing that affect the opportunities with which we are provided and the decisions we make." So, are we at a tipping point where society is changing fundamentally?

We cannot possibly do full justice to all these issues in this paper. But the paper would lack a critical perspective if we ignored them altogether. We have already briefly discussed climate change, which nearly all scientists expect will have much greater environmental and economic consequences than we have observed to-date. Here we briefly note some recent HILDA findings on life satisfaction, describe

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[39] Some readers have contested this point and argued that life was at least as stressful, if not more so, internationally during the "cold war", which is generally viewed as ending in 1989 with the fall of the Berlin Wall.

the optimistic economic (income) forecasts of the Treasury (2021) *Intergenerational Report,* and then briefly discuss some major challenges facing current generations that previous generations were largely spared. These include cyber warfare, the threat of war including nuclear warfare, the impacts of social media, loss of privacy and internet scams.

**HILDA Life Satisfaction Reports: 2001 to 2020**

In the (most recent) *15th Annual Statistical Report* of the HILDA Survey (Wilkins et al., 2020) found that: "Mean reported life satisfaction has remained relatively stable since 2001, always remaining between 7.85 and 8.05 (out of 10) for both males and females. Also noteworthy is that there has been a slight downward trend in satisfaction with life, and for all groups mean life satisfaction was lower in 2018 than in 2001" (p.106).

Across the period, as shown in Figure 7.3 (p.108), satisfaction was highest for safety and housing and lowest for jobs and finances. In terms of changes over the period, the greatest increases in satisfaction were in safety and finances. The major fall in satisfaction was with health but no distinction is made between physical and mental health.

Turning to age groups, "Mean life satisfaction is highest for the 65 and over sample over the entire period, even though life satisfaction has declined slightly for this age group since 2001. Individuals aged 15 to 24 have reported the second-highest mean life satisfaction since 2003, with a slight upward trend over time. People in the 25 to 34, 35 to 44 and 45 to 54 age groups have the lowest satisfaction with life compared to other age groups, although the averages have remained relatively constant over the 18-year period" (*ibid*. p.107). Overall, it is hard to find intergenerational difference emerging from these results.[40]

**Projected income growth**

The Commonwealth Treasury (2021, *Intergenerational Report*, IGR) forecasts that the Australian economy will continue to grow for the next 40 years at close to past growth rates. Labour productivity is forecast to grow at 1.5% per annum, consistent with the 30-year historical average to 2018-19. GDP is projected to grow at 2.6 per cent per year. Reflecting forecast declining terms of trade, real Gross National Income (GNI) is projected to grow at a slower average annual rate of 2.3 per cent, compared with 3.3 per cent over the past 40 years. Real GNI per person is forecast to grow at an average annual rate of 1.3 per cent, compared with 1.8 per cent over the past 40 years. The report claims that this will be achieved with commitment to a maximum tax to GDP ratio of 23.9 per cent and net debt increasing over the period only marginally to 34.4 per cent of GDP by 2060-61.

Arguably these forecasts are optimistic. Previous IGRs have not necessarily turned out to be accurate – or at least their assumed projections have not been matched by changes since the Great Financial Crisis in 2008. This IGR assumes that productivity growth will return to the average of the past 30 years, but there is little in the way of policies to support this. However, these are minor reservations.

Turning to various forms of capital, the OECD (2020, *How's Life in Australia?)* reports that Australia ranks highly with most forms of economic capital. Scoring from 1 to 3 (high to low), the OECD rates economic

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[40] It should be noted also, as one reviewer observed, that there is evidence that many people are resilient and don't change their life satisfaction responses (scores on a 1 to 10 scale) when their circumstances change.

capital high: produced fixed assets (1), financial net worth of government (1), household debt (3). However, it rates human capital only as moderate: premature mortality (1), education attainment of young adults (2), labour underutilisation rate (3). And social capital is also rated as moderate: trust in government (2), gender parity in politics (2). Further, the OECD scores natural capital low: with each of greenhouse gas emissions per capita, material footprint and Red List index of threatened species ranked as (3). However, this is rather misleading as Australia still has huge natural resources per capita.

Our take overall is that Australia has high forms of economic and natural capital which provides broad support for the IGR's forecast economic growth.

**Cyber warfare**

Cyber warfare has become a major national and international threat over the last few years and these threats are escalating. Over the last 12 months there has been a veritable storm of reports on these threats. Here I cite just a few examples.

In the Sydney Morning Herald (24 May, 2021), Peter Hartcher reported that "Australian intelligence has identified about 500 recent incidents of covert foreign agents interfering in domestic politics or society".

In the New York Review of Books (8 April 2021) Sue Halpern reviewed Nicole Perlroth's investigation into the shadowy world of cyberweaponry which predicts an unsettling future for global security.[41] Halpern also reported that, in 2020, multiple US government agencies and major corporations had been hit with one of the biggest cyberattacks in history. The operation, discovered in December 2020, had been going on for at least nine months. The hackers were believed to be agents of the Russian foreign intelligence service, SVR.

In an article in the *New Yorker ("Rocket Men",* April 26, 2021), Ed Caeser described in detail the intensive, high tech, cyber warfare sponsored by the North Korean government. In another article in the *New Yorker ("The Go-Between: Negotiating with the Hackers and the Hacked*, June 7, 2021), Rachel Monroe described in detail how go-betweens negotiate outcome between the hacked and the hackers.

On 16 July 2021, ABC technology reporter, James Purtill, posted a report saying that there has been a 60 per cent increase in ransomware attacks in Australia in past year and that Australian organisations are quietly paying hackers millions of dollars in a "tsunami of cyber crime".

**The threat of international war and its potential outcomes**

Over the past 12 months, leading Australian politicians have warned regularly of the threat of war in -- Asia and specifically involving China. For example, Sky News (27 April 2021) reported the Defence Minister, Peter Dutton, as stating that Australia cannot discount conflict with China over Taiwan.

In the New York Review of Books (NYRB, 25 February 2021), Jim Holt (*The Power of Catastrophic Thinking)* wrote about the real existential risk of nuclear warfare with the proliferation of nuclear armed countries. And in the 29 April 2021 NYRB edition, Howard French (*Can America Remain Preeminent?)*

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[41] Sue Halpern *Weaponizing the Web* review of *This Is How They Tell Me the World Ends: The Cyberweapons Arms Race* by Nicole Perlroth, 2021, Bloomsbury Publishing.

discussed the unravelling of the American global order which had previously largely ensured protection for Australia as well as for Europe.

These threats and potential catastrophes are unlikely to disappear. In the writer's view, baby boomers and generation X enjoyed a much calmer international world. But correspondence indicates that there are mixed views on this.

**Impacts of the internet and social media**

As noted in Section 6 above, the Australian Psychological Society (2015) provides many insights on the stresses experienced by younger generations post 2000. Much of this is attributed to the new technology of social media. Here are some findings.

- Social media is both a cause of stress and a means of managing stress.
- More than one in 10 Australians (12%) report 'issues with keeping up with social media networks' as a source of stress.
- Almost one in two Australians report visiting social media sites to manage stress.
- Adults were spending 2.1 hours per day and teens 2.7 hours per day connected to social media.
- Over half of Australian teens (53%) connect to social media 15 minutes before bed every night. • Almost two in five connect (37%) in the presence of others and within 15 minutes of waking up. •
- Social media creates sleeplessness. 53% of teens connect to social media 15 minutes before going to bed every night.  57% of teens find it difficult to sleep or relax after spending time on social networking sites.

One in four Australian adults and one in two teens experience Fear of Missing Out (FoMO).

- It is important that I understand my friends' in-jokes (78%);
- Fearing their friends are having more rewarding experiences than them (54%);
- When looking at the relationship between heavy social media use and FoMO, teens are significantly more likely to experience all aspects of FoMO than adults.

On the other hand, the internet and related social media provide social connections that would otherwise be unavailable as well as a host of other benefits to users. Clearly there are trade-offs. It is not clear whether, on balance, millennials loose or gain more life satisfaction.

**Loss of privacy and internet scams**

Another feature of modern technology is the loss of safe private space. As in an Orwellian world (George Orwell, *1984*), we are constantly being surveilled. Our movements can be tracked.

It is an almost daily experience to be subject to a potential scam via our phones or over the internet. Some days, there are multiple scam calls. The scamwatch website ([www.scamwatch.gov.au)](www.scamwatch.gov.au) reports that Australian losses have doubled from less than $10m per month in 2019 to over $20m per month in 2021, with over $100m lost in the first half of 2021.

**Conclusions**

There seems little doubt that current generations will continue to be materially better off than previous generations. However, in the last 20 years, we have moved into a radically different international and domestic society from that which had existed over the previous 50 years. The changes are

environmental, technological and global. Our take on these changes is that they have created more dangerous and stressful living conditions than were experienced in the previous century. We have lost a lot of our safe and comfortable privacy while it seems that we have not found compensatory well-being solutions through improved community connections.

## 13      Overall Findings

Table 21 provides a summary of our previous findings over nine well-being domains. There are several limitations.

**Table 21          Average Well-Being Results by Generation**

| Dimensions | Main outcomes of intergenerational analysis |
|---|---|
| 1.Income and wealth | • Millennials have significantly higher incomes and wealth, and higher prospects, than previous generations and higher quality goods and services. |
| 2. Housing | • Most millennial households have higher quality rental and owned housing for similar proportions of household incomes.<br>• But first home affordability is a serious well-being problem in some places. |
| 3. Working conditions | • Working conditions have generally improved, but with some loss of security. |
| 4. Physical and Mental Health | • Millennials have significantly better physical health and higher longevity expectations than earlier generations.<br>• On the other hand, millennials experience greater mental health problems. |
| 5. Education: Knowledge and skills | • Millennials have much greater post-school education and training qualifications than earlier generations. |
| 6. Safety: domestic and international | • Millennials have a safer domestic environment than previous generations. But cyber warfare and internet scams are major new threats.<br>• Baby boomers, generation X and millennials have experienced generally safe international conditions. Current international conditions are more dangerous. |
| 7. Social connections | • Community memberships and personal connections appear weaker for millennials than for previous generations. And more people feel lonely. |
| 8. Environmental quality | • Millennials are facing substantially increased environmental challenges with climate change, loss of biodiversity and urban density. But air and water quality have generally improved. |
| 9. Inequality | • Inequality and relative deprivation have increased marginally in recent years. |

As noted at the outset, these results are based mainly on national averages. Finding that, say, millennials are on average better off than baby boomers of Generation X on some measure, does not mean that all millennials are. These averages may also hide important differences between urban, regional and rural areas. An important omission is indigenous well-being. Also, the paper provides limited historic data separately for males and females. All of these are potentially important subjects.

Another limitation is that these findings are based primarily on comparisons over three decades (the 1970s, 1990s and 2010s) that are indicative of conditions in youthful adulthood over our three generations rather than their full lives. However, we have added several insights into current and possible future conditions in the previous section, albeit that our views on future conditions are speculative.

A further limitation is the lack of life satisfaction surveys and data pre-2000. The annual HILDA surveys since 2001 suggest a very minor drop in life satisfaction in the 18 years since 2001.

Given these limitations, we find that:

- On average, millennials are considerably better off than earlier generations in material well-being, physical health, and education. And working conditions have generally improved.
- Millennials are less well-off in mental health, some major environmental conditions, and international security. And it seems that social connections are weaker.
- Housing and domestic safety are mixed issues. Many people live in better-quality housing to-day than 50 years ago, but first home ownership has become harder. While many elements of domestic safety have improved greatly, people now face constant threats from unknown sources.
- There has also been a small increase in inequality of income and a greater increase in inequality of wealth.
- Finally, and perhaps most significantly, major global, environmental and technological changes are currently creating more dangerous and stressful living conditions and a loss of safe and comfortable privacy, arguably without compensatory well-being solutions through improved community connections.

Of course, any judgement on the comparative, overall, intergenerational well-being requires value judgements on the relative importance of the nine dimensions of well-being shown above along with a view of what the future may bring. We leave these judgements for the reader to make!


## 14      Some Causes of Changes in Well-Being

In this section we briefly mention some of the key drivers the results reported above. Understanding these drivers is a prerequisite to developing responses. The four key drivers identified here are: globalisation, technology including social media, competition, and governance. I also briefly mention another hypothesis: that personalities are changing. Of course, globalisation, technology and competition are deeply inter-related. For simplicity, these drivers are discussed separately here.

**Globalisation and international change**

The globalisation of trade, travel, migration and communications has fundamentally changed the world over the last 50 years including the nature of Australian society. As we noted above, in the 1950's only 10% of Australian residents were born overseas. By the mid-2010s, almost one- third of all Australian residents were born overseas including many from non-English backgrounds.[42] And, as this paper is being written, we are in the middle of one of the most explosive global pandemics ever experienced.

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[42] Whether countries with mixed cultures enjoy higher or lower levels of well-being is itself a huge topic that is well beyond the scope of this paper.

Global trade and movement of labour has been a major engine of economic growth and material well-being worldwide. As Luce (2017, p.13) observed: "The emergence of China is the most dramatic event in economic history". In 1978, China accounted for 1% of world trade; by the mid-2010s, China accounted for a quarter of all world trade. "Nothing on this scale or speed has been witnessed before in history." (Luce, *ibid*. p.21). Global trade and immigrant labour have also been major drivers of economic growth in Australia. But they have also reduced wages for lower income groups[43] and created more inequality within developed countries.

As Luce also points out (*ibid*.p.21), the growth of non-Western economies, especially in Asia, "is dramatically reconfiguring the global power structure. And whereas Hertz (2021) is concerned about the power of neo-liberalism in our lives, in *The Retreat of Western Liberalism,* Luce outlines the threats arising from the changes in the traditional power structure.

The globalisation of life and communications has also disrupted local communities. In the 1960s and 1970s, social life and the news were predominantly local. Families largely lived close to each other. Now families are smaller and often scattered across the world. The news is dominated by the story of the international plague.  And many communities now live without local newspapers.

Some readers have expressed an alternative perspective. For example, pointing out that there were large migrations into Australia from Europe after WW2 and that migrants were then very isolated. To-day, technology enables people to stay in touch more easily than ever before.

However, our key takeaway is that Australian well-being is much more subject to global factors over which the community has little control.

**Technology and social media**

As described by Luce (*ibid*., Chapter 1), technology has been a major driver of economic growth. It has also been a major driver of the shares of that growth and of cultural and social change. There have been substantial capital and technological substitution for labour that have affected the nature of jobs and the distribution of income in favour of capital and entrepreneurs.

Households buy increasingly over the internet rather than from their local shops. The technologies are impersonal. As a result, we meet fewer persons every day. And seeking services, we frequently have to talk to robots rather than to people.

And, of course, social media is a creature of technology. Social media encourages interpersonal comparisons (competitiveness) and stress. The Australian Psychological Society (*ibid*. p.5) notes that much of the (observed) stress is related to social media, which is a problem of the 2000's and predominantly a problem for younger persons. "Social media is affecting how Australians behave, with 56 per cent of teens reporting they are heavy social media users (connecting 5+ times per day), with 25 per cent being constantly connected. When we look at the adult population - almost one in four (23%) report being heavy social media users, with six per cent of those being constantly connected."

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[43] "In a speech on the state of the nation's labour market, Dr Lowe said while the hundreds of thousands of migrants that entered the country every year helped boost the economy, in many cases they were "diluting" wages pressure." (Sydney Morning Herald, 8 July 2021).

Commentator Jacqueline Maley put it very well in the *Sydney Morning Herald* (20 June 2021): "the insidiousness of social media means the abuse is in your pocket, on your bedside, in your *sanctum*, in a way that is unprecedented in history."

This writer tends to the views above. But, as usual, there are contrary views. One reviewer wrote "This is just simply not true.  I don't take social media into my bedroom.  I turn my phone off and leave it at home when I ride my bike …  It's all new—we need to learn how to master the tools. But, as a consequence, we now have more time for whatever else we want to do, which could include interacting on social media for instance."

Another reviewer commented that "social media allows millennials to connect in new, cool ways that we could only dream of … I just got off FaceTime with my family in the US and talked to all my nieces and nephews. My ancestors who migrated from Germany to the US never saw or talked to their nieces and nephews".

**Competition**

Over the last 50 years, Australia has become a much more competitive society with the expansion of tertiary education in the 1970s, deregulation of the financial and business sectors, the unlocking of tariffs and other forms of protection in the 1980s, the opening up to large increases in migrants in the 2000's and the general opening up of employment and other opportunities to women over the last 50 years. These changes have been a major engine for the 30 years of continuous economic growth that we have experienced.

But increased competition also has a downside. Competition creates losers as well as winners. It can also be socially harmful and create emotional stress. As Hertz writes in her widely acclaimed book (2021, *The Lonely Century*, p.14), "Neoliberalism has made us see ourselves as competitors not collaborators, consumers not citizens, hoarders not sharers, takers not givers, hustlers not helpers, people who are not only too busy to be there for our neighbours, but who don't even know their neighbours' names." This is a far cry from the Adam Smith view of life, where everyone benefits if we all act in our self-interest.

**Trust in government**

Government is a key instrument in well-being. As Wood and Griffith (2019) and the Institute of Australian Actuaries (2020) point out, public policy plays a key role via the tax and transfer system and in housing and employment policies in increasing or reducing intergenerational equity.

The Australian National University has been conducting the Australian Election Study (a survey of voters), the leading study of political attitudes in Australia, for over thirty years since 1987. Key findings of the latest survey in 2019, (Cameron and Mcallister, 2019) were:

- Satisfaction with democracy is at its lowest level (59%) since the constitutional crisis of the 1970s.
- Trust in government has reached its lowest level on record, with just 25% believing people in government can be trusted.
- 56% of Australians believe that the government is run for 'a few big interests', while just 12% believe the government is run for 'all the people'

Lead researcher, Professor Ian McAllister, said the findings are a clear warning that the nation's politicians need to do better in their efforts to represent and win the confidence of

everyday Australians. "This is a wakeup call…. I've been studying elections for 40 years, and never have I seen such poor returns for public trust in and satisfaction with democratic institutions. There is widespread concern about how our democracy is performing (www. democrats.org.au/trust-wake-up-call/).[44]

John Daley (2021), long-time chief executive of the Grattan Institute, has recently produced a professional analysis of governance in Australia that documents a decline in governance. In the Executive Summary, he writes:

"Australia's governance has deteriorated over recent decades. The formal institutions and the informal norms of behaviour are weaker. Others have written about how this soft corrosion can easily bloom into hard corruption. This report shows how weaker governance also means that governments are adopting less policy reform – changes to policy that would improve the lives of Australians.

Many people hark back to the golden years of policy reform in the 1980s and '90s. This isn't just a rose-coloured view: it is confirmed both by a simple history of reform, and an analysis of OECD recommendations. The more recent gridlock of policy reform can't be explained away as the absence of worthwhile reform to do – governments in Australia have failed to progress many reforms that have sat on the shelf for decades."

It may be observed that this decline in trust in government has been an international phenomenon. Luce (2017, p.12) writes "since the turn of the Millennium … no fewer than twenty-five democracies around the world have failed."[45] And he was not even including Donald Trump in this number.

**Have people changed?**

This is dangerous territory for anyone, and certainly for an economist. Drawing on data over six decades from an extraordinary 11 million respondents in the United States, psychologist Jean Twenge (2019) finds that today's young adults are profoundly different from previous generations. According to Twenge, young people to-day are more tolerant, confident, open-minded and ambitious but also narcissistic, distrustful and anxious.

However, from our perspective, we need to be mindful of cause and effect. Arguably, it is the world that has changed and driven these alleged changes in personalities.


**15      Public Policies and a Policy Process**

As we have discussed, well-being has numerous attributes. The typical government approach is to identify and deal with these issues separately, albeit as Daley (*ibid*.) has pointed out sometimes in a half-hearted way. While various policy reforms may be desirable, discussing these is outside the scope of this paper.[46] Rather we focus here on three structural issues: an overall well-being approach to government embodied in a well-being budget; a more explicit view on the roles and accountability of the three levels of government; and fundamentally improved processes of government.

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[44] Leigh and Terrell (2020, pp. 22-27) provide further documentation on the decline in trust of government.
[45] Meaning: become undemocratic.
[46] The Australian Institute of Actuaries (2020, pp.52-3) suggests many detailed policies to address intergenerational issues.

The key objectives of a well-being budget are to formalize welfare objectives, to produce useful performance metrics of well-being outcomes, and to be accountable to meeting these objectives.

A well-being budget deals with well-being issues explicitly along with micro reforms (of course along with standard macroeconomic inputs and outputs). This focuses the government's core policy statement and allocation of resources (the annual budget) on the key attributes of well-being, and particularly on the well-being of those with lower levels of well-being, not just on jobs and income. There are many ways in which well-being budgets can be developed. Thus, an *outcomes budget* can achieve many of the goals of a well-being budget, although it tends to be less structured to deal with well-being and less socially ambitious. And the structure and content of a well-being (or outcomes) budget will depend on the level and responsibilities of the government.

In 2019 New Zealand developed a Well-being Budget. In the words of the Minister for Finance, Grant Robertson, introducing the budget: "This Budget signals a new approach to how government works, by placing the wellbeing of New Zealanders at the heart of what we do. This approach represents a significant departure from the status quo. Budgets have traditionally focused on a limited set of economic data. Success has been declared on the basis of a narrow range of indicators, like GDP growth. But New Zealanders have questioned that claim of success when they have seen other things that we hold dear – child well-being, a warm, dry home, or being able to swim in our rivers and lakes. The old ways have left too many people behind. It is time to change."

And the ACT Government (2020) has developed an excellent framework for a well-being budget for the Capital Territory. The Framework is intended to help guide whole-of-government priorities and initiatives to lift the quality of life of all Canberrans –with focus on those with lower well-being. The aim is to share the benefits of growth in a more inclusive way. This would be achieved by producing a set of well-being indicators that represent the major different attributes of well-being in the ACT, based on consultation with the local population, that can track progress and help to make policy or investment decisions.

Importantly, a well-being budget should not be a top-down process, as is a common practice in government, especially at Federal and State level. Rather it should be developed with transparent consultation, sometimes described as deliberative democracy. Leigh and Terrell (2020, pp.204-211) provide a helpful description of this process.

Secondly, there needs to be agreement on the roles of the three levels of government in Australia and associated accountability. This is a complex issue where, in our three levels, there is often buck passing of responsibilities – highly evident in our current Covid crisis. In the economics literature, the central government has prime responsibility for provision of social welfare and distributional functions because it is the only level of government that can ensure horizontal equity⸺that like individuals should be treated in a like way across the country. But clearly state governments also have a major well-being role in the provision of education, health and social services. These responsibilities are currently unclear to most Australians. There needs to be an explicit statement on these responsibilities agreed between the Federal and State governments. And, following this, to implement these responsibilities, both these levels of government should have well-being (or outcomes-based) budgets.

Further, under the *subsidiarity principle,* public services should be provided, by the smallest, and least centralized, competent authority.[47] In particular, local councils have the greatest capacity to reverse the decline in social connections described in this paper. The NSW Government's determination to merge local councils into greatly enlarged entities in the 2010s to drive alleged efficiency and facilitate development entirely overlooked this critical function of local government.

Thirdly, this paper agrees strongly with Daley's (2021) plea for improved governance. There is a huge void in federal governance on climate change and, in general, a chronic lack of strategic planning for disability support and many other issues. This is not helped by the Prime Minister's attitude to many high-quality public servants that they must remember that "they are on tap, not on top".[48]

While Daley (*ibid*. p.3) notes that party loyalty and vested interests have blocked reform, there are other culprits. "The growing number and power of ministerial advisers make it harder to pursue reform. The public service has been weakened: often it is not asked to provide policy advice, is not capable of providing it, and is overly pliable in serving the political interests of the government of the day.  Reform is also undermined by political patronage – awarding government contracts, making favourable policy decisions, and granting appointments to partisan friends, made easier as the reasons for decisions become more opaque."

"Institutional changes to ministerial adviser roles, to processes for appointing and dismissing senior public servants, to ministerial influence over government contracts and grants, and to controls over political donations, campaign finance, lobbying, and post-politics careers would all help to break the gridlock in policy reform. These changes would also promote the emergence of champions who are usually crucial to the prospects of reform."

Overall, there is an urgent need for reform of government processes at federal and state levels, with a strengthened professional public service (not run by long-term party loyalists), clearer public accountability, and independent oversight agencies.


## 16      Conclusions

In the last 10 to 15 years, there has been an outpouring of economics and psychological literature on well-being and happiness.[49] As Ben Bernanke (2012) said, while Chairman of the (US) Federal Reserve Bank: "the ultimate purpose of economics … is to understand and promote the enhancement of well-being … Doing so requires a concern for more than, for example, the fiscal position, material consumption or GDP alone."

In this paper I have tried to contribute to this important subject with longitudinal analysis of the well-being of baby boomers, Generation X and millennials in Australia, along with some observations on our current and likely future.

[47] See Article 5.3 of the Treaty pf the European Union. See also
http://dictionary.cambridge.org/dictionary/english/subsidiarity
[48] https://theconversation.com/scott-morrison-tells-public-servants-keep-in-mind-the-bacon-and-eggs-principle-122021.
[49] For example, Carol Graham's keynote address for Australian Conference of Economists, 2017: "*Unequal Hopes, Lives and Lifespans in the U.S*: *Some Insights from the New Science of Well-Being"*.

The paper finds that millennials are considerably better off than the earlier generations in material well-being, physical health and education and are generally better off in working conditions. They are less well-off in mental health, some major environmental conditions and international security. And there has been a small increase in inequality. Housing, social connections and domestic safety are mixed issues.

But further, unprecedented global, environmental and technological changes are currently creating more stressful living conditions and a loss of safe and comfortable privacy, arguably without compensatory well-being solutions through improved community connections.

The paper does not attempt to produce or estimate an overall level of generational well-being. How these various effects net out on generational well-being we leave to the reader to decide.

To put our findings into international perspective, in the 2020 *World Happiness Report* (Helliwell *et al*., 2020), based on surveys of the state of happiness of citizens in 152 countries, Australia ranks 12th out of the 152 countries.

In looking at the drivers of well-being, we also observed that we live in a rapidly changing world of increased competition, technology changes and globalization. In the words of one reader, "In the 60's, people took acid (LSD) to make the world weird.  Now the world is weird, and people take prozac to make it normal". There has also been a major fall in trust in government in Australia and many other countries. Thus, the ongoing well-being of current generations cannot be taken for granted

Our main suggestions for dealing with these issues are (i) that governments at federal and state levels should adopt well-being budgets (or at least well-formed outcome budgets) that directly address well-being objectives and provide explicit performance metrics, which are based on active consultation with the public. (ii) There needs to be an explicit, and public, recognition of the precise government responsibilities at each level of government. Local councils would have special responsibility with engaging with local communities and encouraging local community activities. (iii) There is an urgent need for reform of government processes at federal and state levels, with a strengthened professional public service, clearer public accountability, and independent oversight agencies.

As all readers will appreciate, inter-generational well-being is a large topic. I hope that this paper provides a useful perspective on inter-generational issues. This paper discusses mainly national aggregates.  Ideally, we would address well-being at more disaggregate geographical and cultural levels. The potential scope for this is huge. I hope that this paper may encourage others to work on these issues and, importantly, on measures to deal with them.

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