



Mind the gap

The Australian Actuaries Intergenerational Equity Index

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What does Intergenerational Equity mean?

- Intergenerational equity is the concept of fairness or justice between generations, often covering economic, psychological and sociological aspects.
- A discussion of intergenerational equity, therefore, should consider how a broad range of wealth and wellbeing dimensions differ across generations.
- People care about much more than just their income and consumption of goods and services. People also care about factors such as health, housing and the environment, as these are also important to broader wellbeing.
- While the purpose of the intergenerational index is to assess inequality between generations, it is pertinent to know that there is also inequality within generations themselves.
- Although the importance of intergenerational equity is well-known as a metric of wellbeing to address the development of public policy, currently there are no established rules for Intergenerational Equity Index construction.







How is Intergenerational Equity constructed?

While there are many ways an index can be constructed, the main design principles that guided the development of the AAIEI are the following:

- The index should **distinguish between absolute and relative changes**.
- It must be constructed using **publicly available data** where possible.
- It requires to place importance on the **discussion and understanding of indicators**, not just the index itself.
- The index should be supported **on time-series** data and the current state of indicators.
- Indicators with **longer historical time series** are preferable.
- It is necessary to limit the number of indicators for **simplicity** and to aid **understanding**.
- The time series of indicators included in the index needed to be **robust** so that movements in the index over time are **meaningful**.
- Finally, it is recommended not to translate all measures of intergenerational equity into dollar values nor determine the cost, value or price of intergenerational equity.

What are the main domains involved in the index of intergenerational equity proposed?

There are **6 domains** with different indicators

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| <p>Economic and fiscal indicators </p> <ul style="list-style-type: none"> • Economic indicators. • Employment Underutilization (Volume measure). • Average Wages. • Poverty Rates. • Net worth. • Government per capita spending. • Government net debt. | <p>Social indicators </p> <ul style="list-style-type: none"> • Rate of robbery victimization. • Rate of incarceration. • Rate of homelessness. • Gender pay gap. • Rate of children aged 0-17 years who are in out of home care. • Teenage birth rate. | <p>Environmental indicators </p> <ul style="list-style-type: none"> • Atmospheric CO2 concentration. • Average 5-year mean temperatures. • Murray Darling Basing rainfall. • Number of threatened, endangered or extinct species. |
| <p>Educations indicators </p> <ul style="list-style-type: none"> • Year 12 completion rate. • Percentage with tertiary qualifications. | <p>Health and disability indicators </p> <ul style="list-style-type: none"> • Life expectancy. • Disability rates. • Obesity rates. • Suicide rates. | <p>Housing indicators </p> <ul style="list-style-type: none"> • Home ownership rate. • Rental costs. |

Main study results

Figure 1 – Main results of the Australian Actuaries Intergenerational Equity Index (AAIEI)

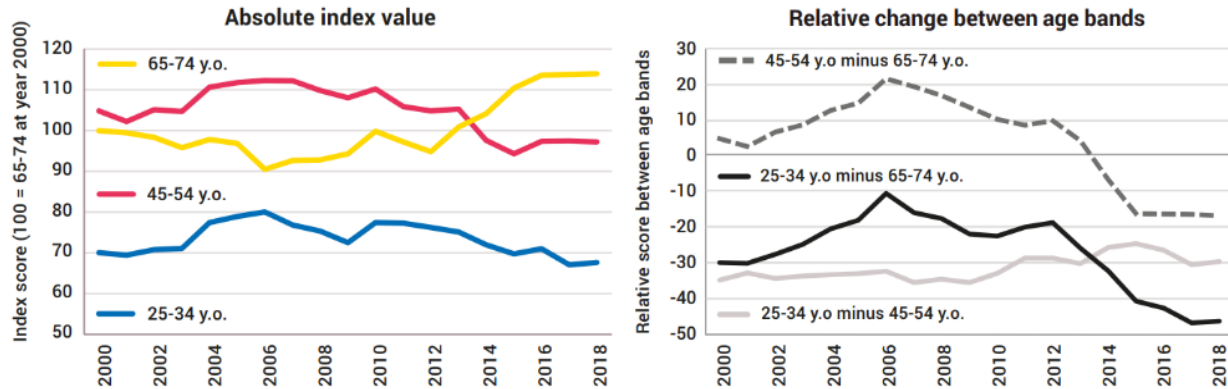
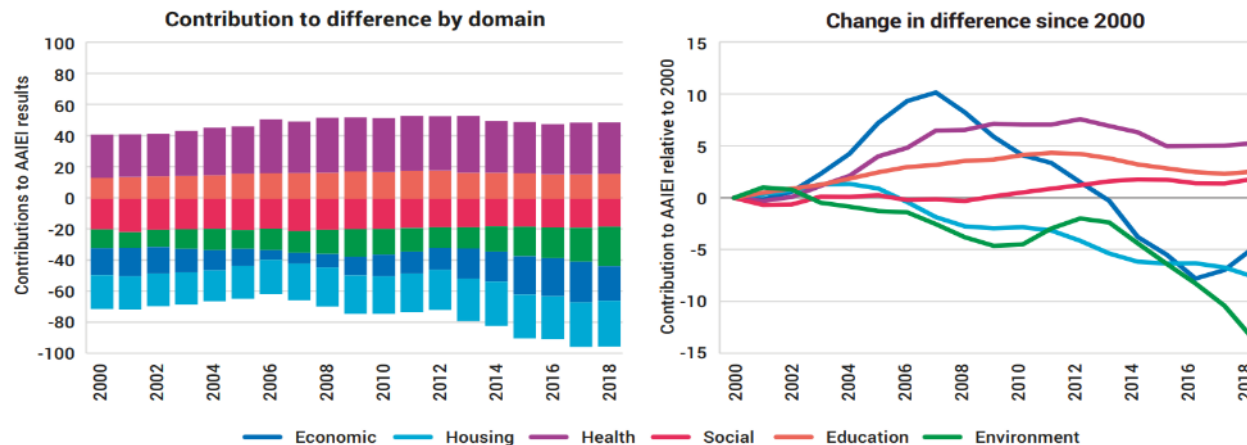


Figure 2 – Contribution of domains to the values and movement in AAIEI: 25-34 versus 65-74 age bands.



- Currently old people have a better index than younger people.
- Better performance in health, education and social indicators, worse economic, housing and environment.
- The AAIEI finds that the wealth effects of the “housing boom” plus rapid increases in government payments on pensions and services for older people are the key reasons that younger Australians today have relatively lower wealth and wellbeing than their parents at a similar age.
- The inequity is supported by policies which are mainly focus on the needs of older Australians while those working age groups are not effectively attended. This is not sustainable.
- Longevity problems, as well as lower birth rates, contribute to make the gap bigger.

Recommendations to public policy

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| <p>Economic Youth underutilisation</p> | <ul style="list-style-type: none"> • Review rate of unemployment benefits. • Better targeting of vocational education to growth areas. |
| <p>Economic Growth in wealth disproportionately to older generations</p> | <ul style="list-style-type: none"> • Increase the Age Pension eligibility age to reflect increases in life expectancy (with appropriate carve-outs for people with poor health). • Relatedly, reduce the gap between superannuation preservation age and the Age Pension eligibility age to reflect increases in life expectancy (with appropriate carve-outs for people with poor health). • Tightening and targeting of superannuation tax concessions and/or removing overly generous concessions from wealthy retirees. • Include the value of a retiree's principal residence in the Age Pension means tests, whether in its entirety or above a threshold. • Consider tax treatment of end-of-life bequests and gifts. • Increase the availability of products that efficiently allow retirees to draw down their net wealth (including housing wealth) and also insure retirees against longevity risk, health shocks, long-term care needs, etc. |
| <p>Economic Government expenditure and the dependency ratio</p> | <ul style="list-style-type: none"> • Increasing childcare rebates would reduce the income 'traps' facing second earners (mainly women) when they increase the number of days a week they work. • Increasing availability of out-of-school-hours care to encourage parental labour force participation. • Continued focus on primary and secondary education, teacher training and improving educational outcomes. • Implement tax policies aimed at keeping older people in the workforce (e.g. the Mature Age Worker Tax Offset and Senior Australians Tax Offset). |
| <p>Economic Productivity and infrastructure</p> | <ul style="list-style-type: none"> • Continue to consider productivity-enhancing reform, including chronic health management, improving teaching and learning and managing population growth in cities. • Require independent project assessments of government infrastructure investment above a certain threshold to ensure benefits exceed costs. |
| <p>Housing Affordability and ownership for younger Australians</p> | <ul style="list-style-type: none"> • Replacing stamp duty with a land tax to remove the tax burden of 'right-sizing' a household's home. • Maintain supply of social and affordable housing in line with population growth. • Improve support for low-income renters, such as increasing Commonwealth Rental Assistance in line with increases in average rents. • Review state-based residential tenancy laws to improve certainty of tenure for vulnerable tenants. |

Recommendations to public policy (cont.)

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| <p>Health Life expectancy and mental health challenges</p> | <ul style="list-style-type: none"> • Increased spending on mental illness prevention and intervention. This may include the use of risk-based forecasting tools to help identify those most at risk of mental illness. • The Government consider a role for private health insurers – or another party – to help Australians effectively navigate the health system, which at times is complex and disjointed. • Reform private health insurance to improve sustainability. |
| <p>Health Rising obesity</p> | <ul style="list-style-type: none"> • Continue to monitor international evidence on the effectiveness of sugar taxes. • Consider further enhancement to food star ratings, including treatment of foods with added sugars. |
| <p>Social</p> | <ul style="list-style-type: none"> • Consider greater use of home detention as an alternative to incarceration. • Housing-first initiatives to tackle chronic homelessness. |
| <p>Education</p> | <ul style="list-style-type: none"> • Gonski type funding models for disadvantage. • Improve educational outcomes of school students by addressing out-of-field teaching and continuing reforms to improve the quality and effectiveness of teachers. |
| <p>Environment</p> | <ul style="list-style-type: none"> • Implement a carbon emissions reduction strategy that meets global commitments and provides investment certainty for business, and do so in collaboration with countries to deliver effective mitigation of greenhouse gas emissions on a global basis. • Greater activity to prepare for and adapt to climate change: <ul style="list-style-type: none"> • property damage prevention for natural disasters, • better recognition of natural disasters in land planning decisions and updating building codes, and • maintenance of infrastructure that protects against natural peril damage. • Consider increased use of natural environment accounting, to recognise the environment's value to quality of life. |

Technical considerations

- **Measurement error:** They have considered errors in the selection of components but have not attempted explicit corrections for series.
- **Transformation:** In several instances it was necessary to transform the raw data underlying an indicator to make it more relevant.
- **Imputation and extrapolation** when necessary were implemented.
- **Timing:** Many of the index components are only updated annually that why the index was reported on an annual basis.
- To produce an index, it is necessary to **standardize** each indicator to make it unitless before it is combined with other indicators.
- **Weighting and aggregation:** The index uses two stages of weights: firstly, within domains were all indicators weights the same, the once exception the home ownership rate that was considered to have a particular importance. Second, the final index is the weighted average of the six domains (Economic 30%, Housing 10%, Health 20%, Social 15%, Education 10%, Environment 15%).
- **Scaling:** The index produces series for three age bands. We scale these so that the overall standard deviation (treating the three series as a whole) is 15 and the starting value for the 65-74 age band is 100.
- **Index sensitivity:** To give a guide as to how measures contribute to the index, they have calculated the change required in the indicator to produce a one-point improvement to the index.



Changes need to be made so that most people do not believe that they live in a place where their children will be worse off.

Such a system is not sustainable!

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- If you think this topic is interesting for Europe/your country, do join the working group under the Pension Committee we are going to set up to design the “European Index”
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