

# Intergenerational Inequality and the Intergenerational State

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# Outline

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Data source

- Australian National Transfer Accounts

Income and public transfers

An index of intergenerational inequality in income

The redistributive effect of public transfers

Trends

Conclusion

# Introduction

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# Attitudes to intergenerational inequality

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Kendig, Hussain, O'Loughlin, and Cannon (2018)

National survey of Australian attitudes to intergenerational inequality, 2015-17

Each generation has different social and economic opportunities over their lives. How would you say the life-long opportunities for Baby Boomers compare to those for younger people today?

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Better for Baby Boomers	49%
About the same	24%
Better for younger people	27%

How would you say the life-long opportunities for Baby Boomers compare to those for older people who have already retired?

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Better for Baby Boomers	49%
About the same	35%
Better for the already-retired people	17%

Right now, do you think older people are getting more than their fair share, less than their fair share, or about their fair share of government benefits?

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More than their fair share	6%
About their fair share	41%
Less than their fair share	53%

# Gál and Monostori's (2014) taxonomy of indicators of economic sustainability and intergenerational fairness

	Cross-sectional			Long time-horizon			
	Partitioning of the population by			Parametric characterisation	Cohort		Population
	Chronological age	+ Other non-economic characteristics	+ Other incl. economic characteristics		Remaining lifetime	Entire lifetime	
<b>Specific public programmes</b>	old-age dependency ratio			pension support ratio; turnover duration	contribution wealth; pension wealth	net transfer rate	contribution wealth; implicit pension debt; pension wealth; <i>implicit education capital</i>
<b>General government</b>				fiscal support ratio	human capital investment gap	generational imbalance	sustainability gap
<b>Market economy</b>				economic support ratio; arrow diagram; Silver Club			<i>consumption deficit</i>
<b>Total economy</b>				total support ratio			

# Two temporal perspectives on material living standards and intergenerational inequality

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## The 'cross-sectional' perspective

- Focuses on material living standards at a particular point in time and how these living standards vary between people of different ages

## The 'cohort' perspective

- Focuses on material living standards over a lifetime and how these living standards vary between people of different generations or birth cohorts.

# Data source

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AUSTRALIAN NATIONAL TRANSFER ACCOUNTS

# National Transfer Accounts (NTA)

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United Nations Department of Economic and Social Affairs (2013)

- A system of macroeconomic accounts that measures current economic flows by age in a manner consistent with the United Nations System of National Accounts. NTA measures age-specific labour income, asset income, consumption, transfers and saving, accounting for flows within households, between households, through the public sector and with the rest of the world.

# National Transfer Accounts (NTA)

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Individuals resident in a particular country

Institutional sectors

- Public sector
- Private sector
- Rest of the world

Institutions

- Agents of individuals or intermediaries between individuals

# Australian NTA

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## Methods

- Based on methods developed by the global NTA project

## Data sources

- Australian System of National Accounts
- ABS Household Expenditure Surveys
- Other sources

# Australian NTA

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Total of 67 detailed account items

## Broad structure

- The life cycle deficit
  - Consumption
  - Labour income
- Age-related reallocations through the public sector
  - Public transfers
  - Public asset-based reallocations
- Age-related reallocations through the private sector
  - Private transfers
  - Private asset-based reallocations

# Australian NTA

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Australian NTA have been constructed for 6 years over a 28 year time period

- 1981-82
- 1988-89
- 1993-94
- 1998-99
- 2003-04
- 2009-10

# Variables

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## Net public transfers

- Public transfer inflows minus public transfer outflows

## Pre-public-transfer income

- All income apart from net public transfers
- Includes
  - Labour income
  - Capital income
  - Property income received net of property income paid
  - Private transfers received net of private transfers paid

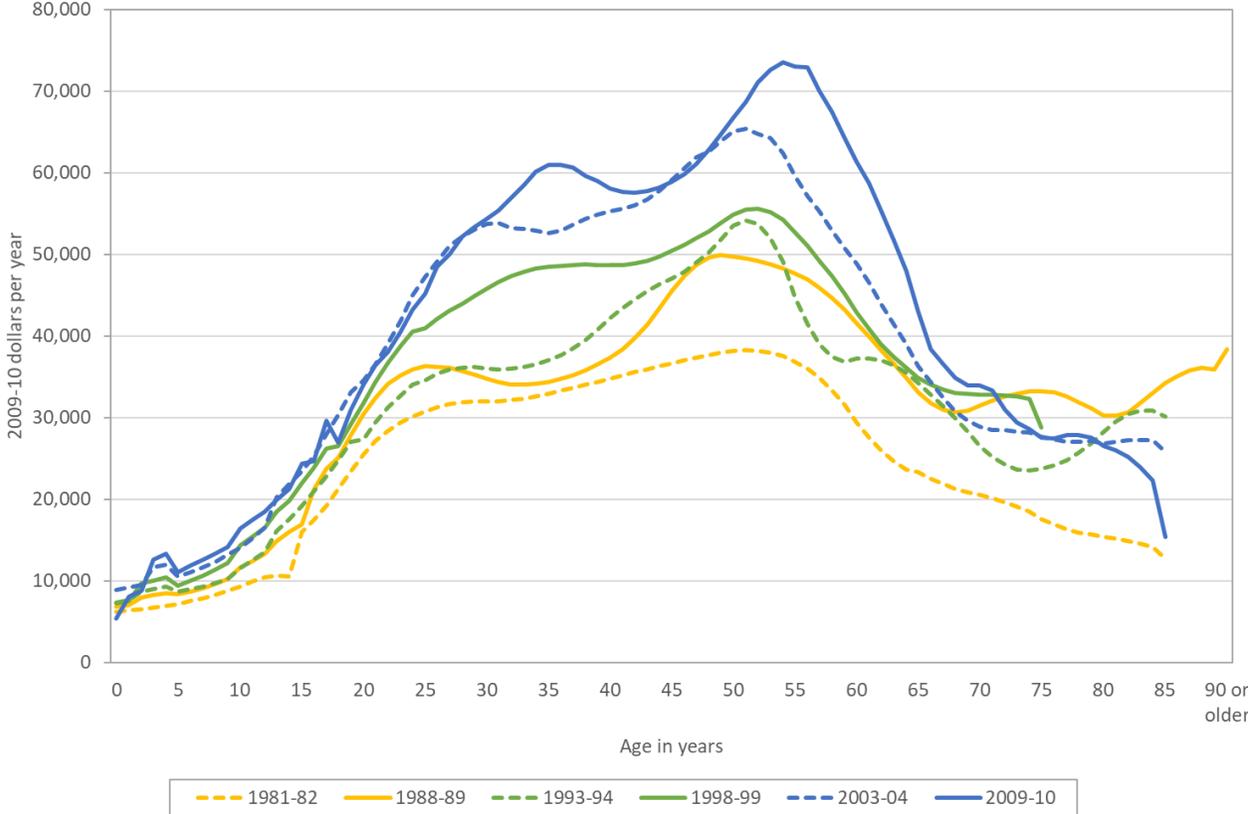
## Post-public-transfer income

- Pre-public-transfer income plus net public transfers

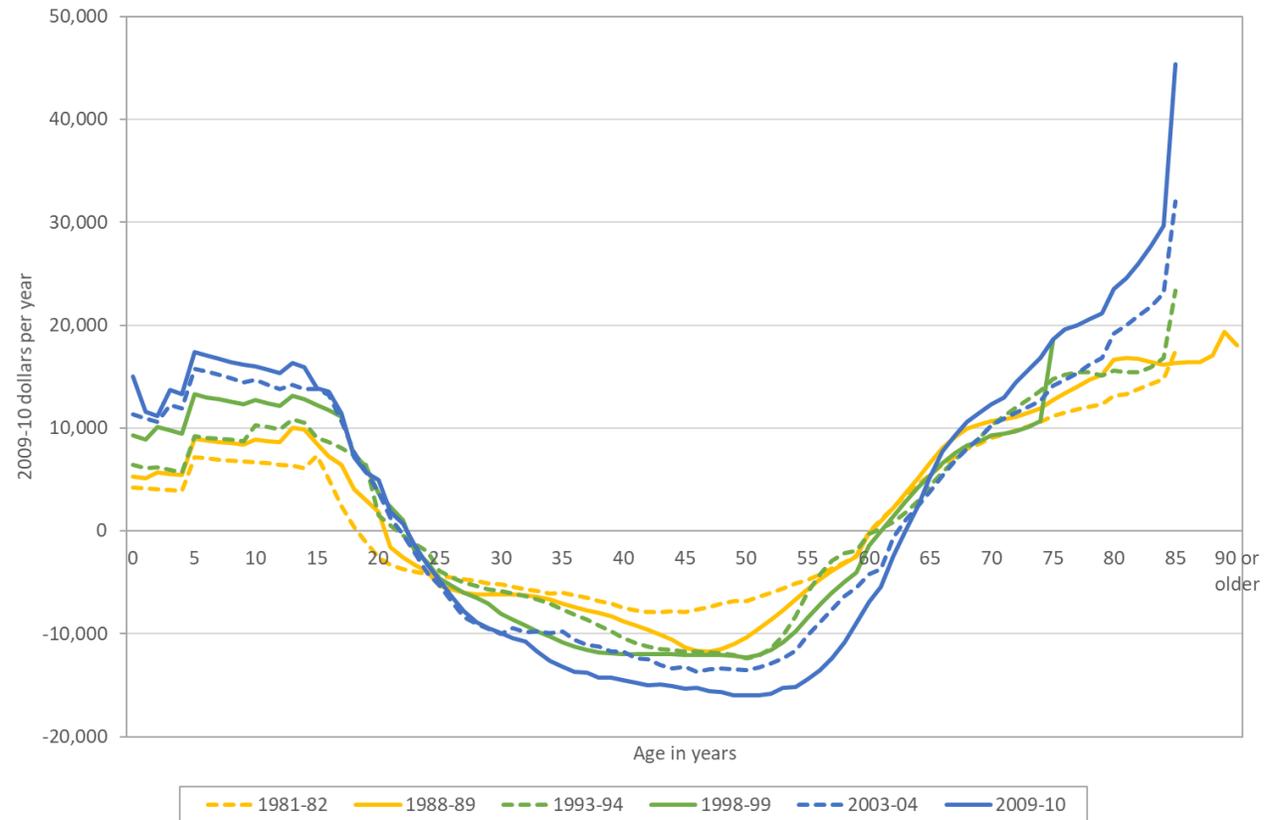
# Income and public transfers

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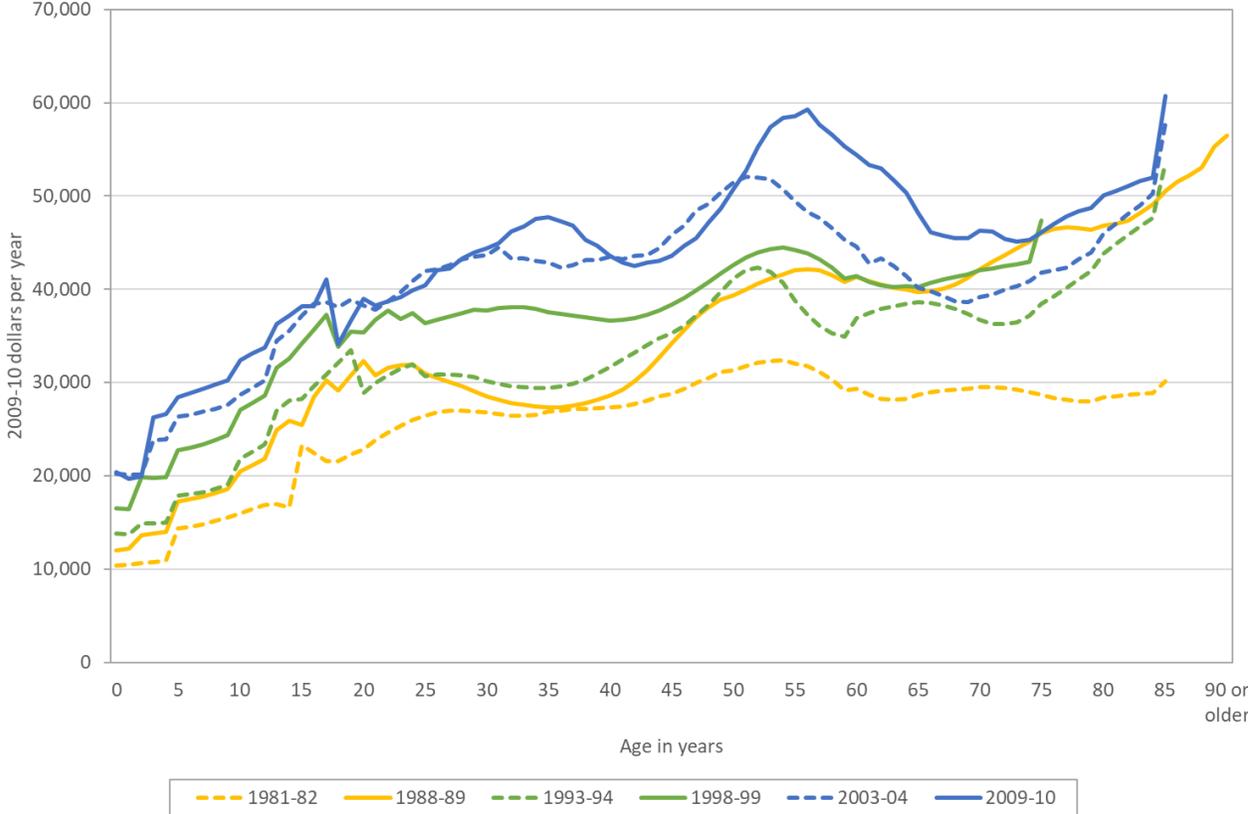
# Per capita pre-public-transfer income by age, 1981–82 to 2009–10 (2009–10 dollars per year)



# Per capita net public transfers by age, 1981–82 to 2009–10 (2009–10 dollars per year)



# Per capita post-public-transfer income by age, 1981–82 to 2009–10 (2009–10 dollars per year)



# Birth cohorts and generations

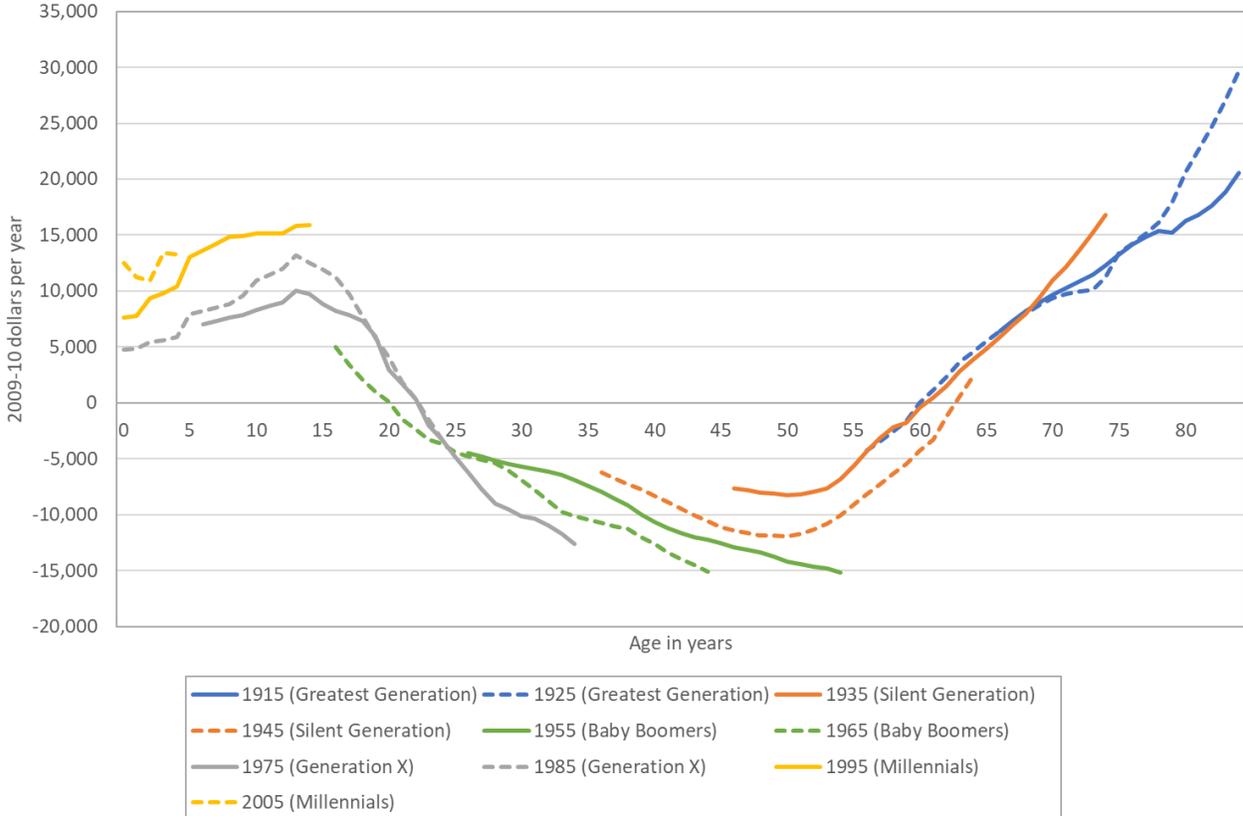
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Birth cohorts are grouped into generations

- 1906-1925      Greatest Generation
- 1926-1945      Silent Generation
- 1946-1965      Baby Boomers
- 1966-1985      Generation X
- 1986-2005      Millennials



# Per capita net public transfers by birth cohort (generation), 1981-82 to 2009-10 (2009-10 dollars per year)





An index of  
intergenerational  
inequality in income

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# An index of intergenerational inequality in income (the / index)

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## Aim

- To measure the extent of inequality in the living standards experienced by people of different generations or birth cohorts over their lifetimes

## Assumption

- Inequalities between birth cohorts over their lifetimes are approximated by inequalities across the limited number of years for which information is available
- Inequalities between birth cohorts over their lifetimes are assumed to be approximated by inequalities between birth cohorts when these birth cohorts are at the same ages, across the limited number of years for which information is available.

# An index of intergenerational inequality in income (the / index)

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## Starting point

- A two-way table of mean income by age and birth cohort

The first (that is, the earliest) birth cohort and the second (that is, the second earliest) birth cohort can be compared by calculating, for each age for which data is available for both birth cohorts, the ratio of the second birth cohort's mean income to the first birth cohort's mean income

The mean of these ratios across all the ages for which data is available for both birth cohorts is an indicator of the second birth cohort's income expressed as a proportion of the first birth cohort's income.

This indicator is assumed to approximate the inequality between these two birth cohorts over their lifetimes.

# An index of intergenerational inequality in income (the $I$ index)

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The second and third birth cohorts can be compared in the same way, as can all later pairs of birth cohorts, leading to a series of indicators of one birth cohort's income expressed as a proportion of the preceding birth cohort's income.

By chaining this series of indicators together, it is possible to calculate a related series of indicators ( $L_1, L_2, L_3$ , and so on) in which the incomes of all birth cohorts are expressed as a proportion of the income of the first birth cohort.

This series of indicators ( $L_1, L_2, L_3$ , and so on) is assumed to approximate the inequalities between these birth cohorts over their lifetimes.

# An index of intergenerational inequality in income (the / index)

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The index of intergenerational inequality in income (the / index) is estimated by calculating the Gini coefficient across this series of indicators.

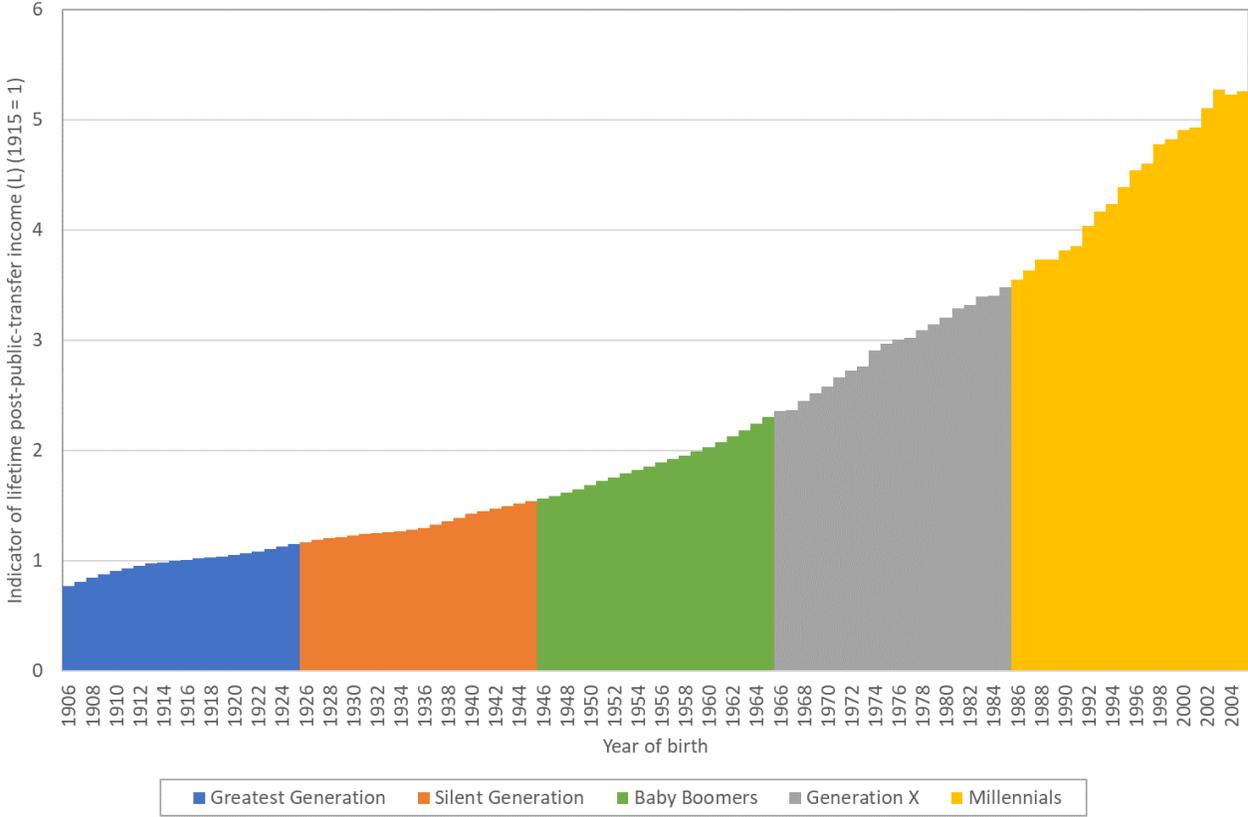
## Attractive qualities of the Gini coefficient

- Intuitively meaningful
- Principle of transfers (or the Pigou-Dalton condition)
- Scale invariant
- 0 = absolute equality
- 1 = all income is received by one person

# Gál and Monostori's (2014) taxonomy of indicators of economic sustainability and intergenerational fairness

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# The indicators of lifetime post-public-transfer income (L) by birth cohort (generation), 1981-82 to 2009-10 (1915 = 1)



# An index of intergenerational inequality in income (the / index)

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/ index for post-public-transfer-income	0.345
Gini coefficient for equivalised disposable household income, 2009-10	0.320
Gini coefficient for equivalised final household income, 2009-10	0.252
◦ Final income = Disposable income + social transfers in kind - taxes on production	

# The redistributive effect of public transfers

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# The redistributive effect of public transfers

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## Compare

- Inequality in post-public-transfer income
- Inequality in pre-public-transfer income

Redistributive effect of public transfers on intergenerational inequality in income

= / index for post-public-transfer income

- / index for pre-public-transfer income

/ index for post-public-transfer income 0.345

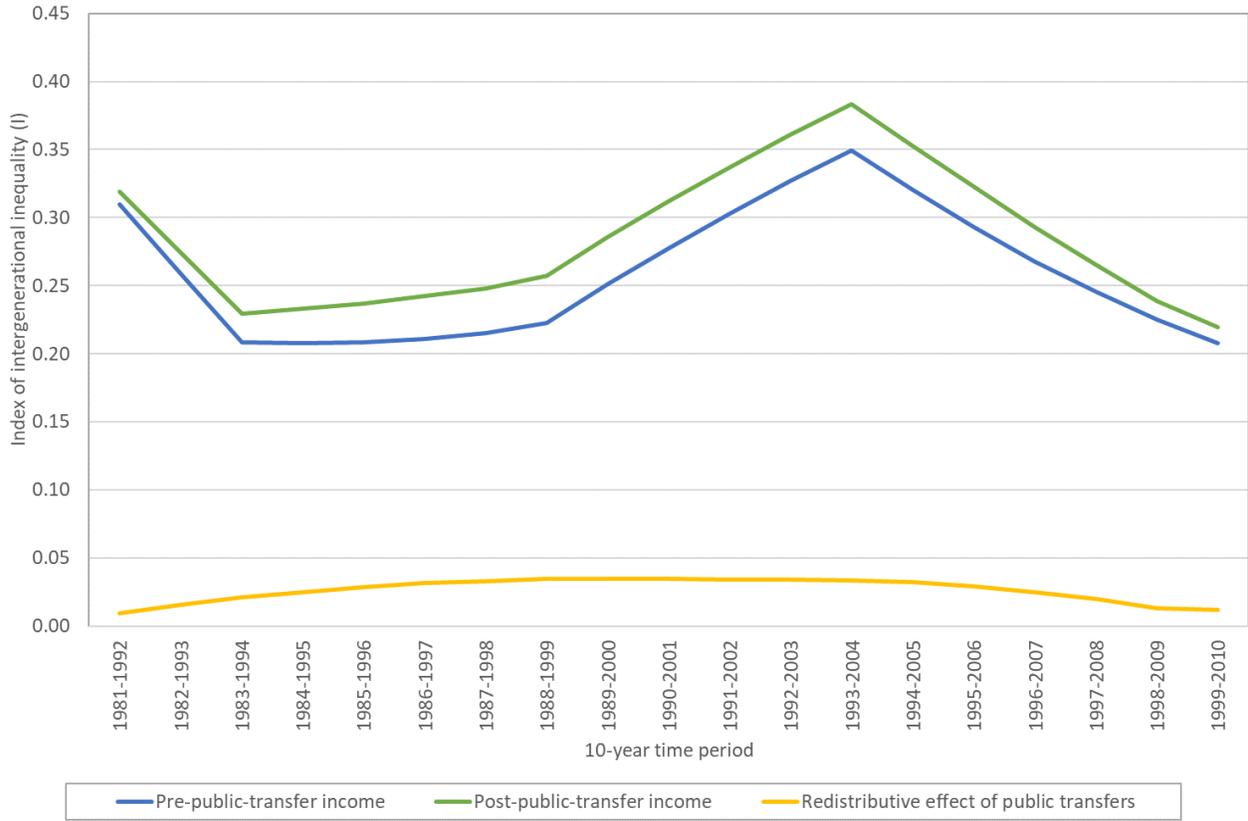
/ index for pre-public-transfer income 0.311

Redistributive effect of public transfers on intergenerational inequality in income 0.035

# Trends

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The index of intergenerational inequality in income ( $I$ ) for pre-public-transfer income and post-public transfer income and the redistributive effect of public transfers, 10-year time periods between 1981-82 and 2009-10



# Conclusion

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# Conclusion

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A new index of intergenerational inequality in income (the  $I$  index)

- Intergenerational inequality in income is substantial

Earlier generations receive less income than later generations

- Contrary to some commonly-held attitudes to intergenerational inequality

Public transfers work to increase intergenerational inequality in income

Future work

- Incorporating intergenerational inequalities in longevity
- What makes the greatest contribution to intergenerational inequality in income?
  - Decomposing the  $I$  index by income source
- Is there a trade-off between intergenerational inequality in income and the financial sustainability of intergenerational transfer systems?
  - Analyse the relationship between the  $I$  index and indicators of financial sustainability