



ARE THE POOR GETTING POORER? (AND THE RICH GETTING RICHER?)

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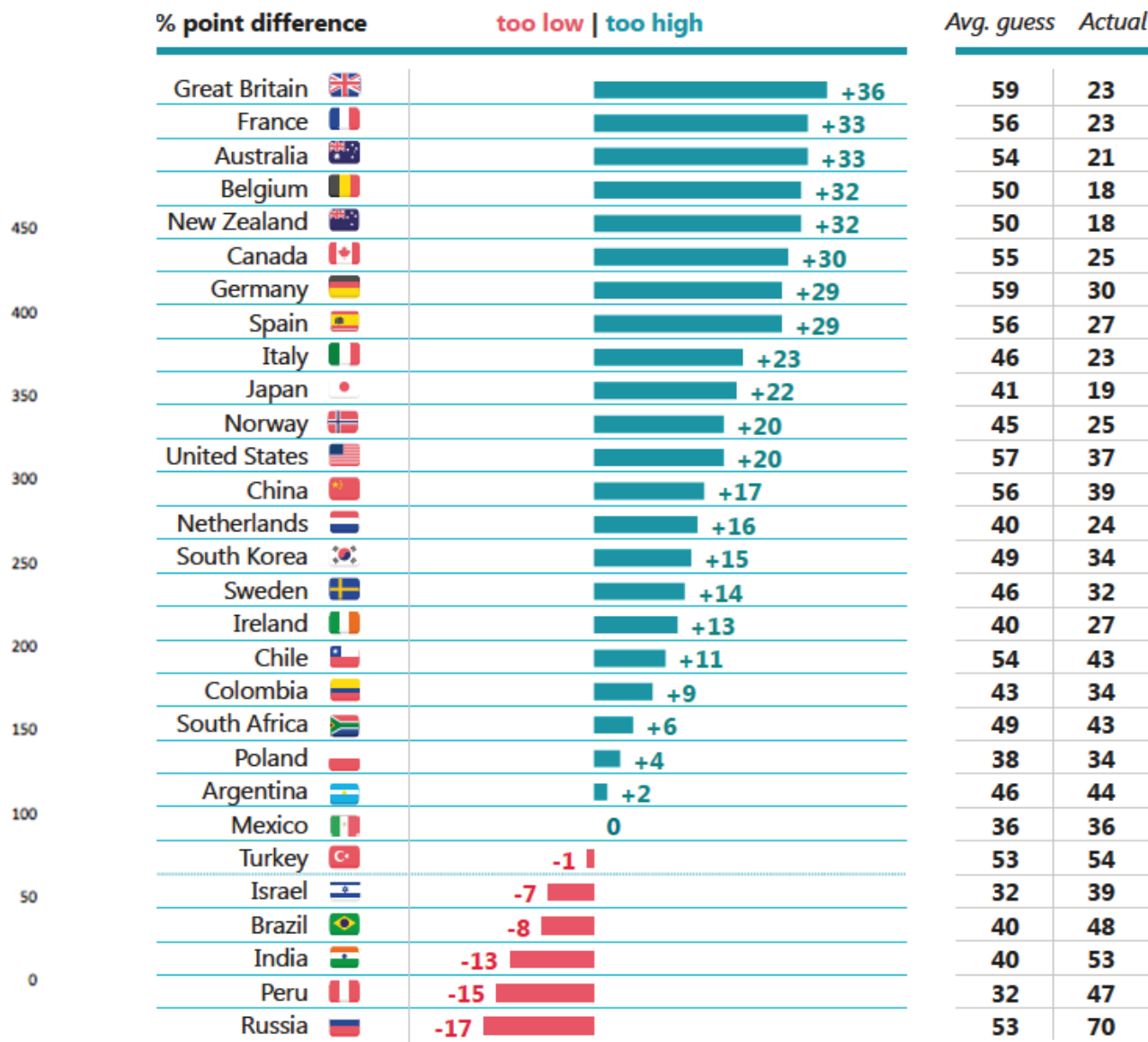
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Outline: are the poor getting poorer?

- Perceptions versus realities
- Measuring income inequality & poverty
- What about income 'mobility' & poverty persistence?
- Some inequality & mobility evidence for New Zealand

Average responses to question: What proportion of the total household wealth do you think the wealthiest 1% own?



Source: Image copied from Ipsos Mori, "Perils of Perception 2015," <https://www.ipsos-mori.com/Assets/Docs/Polls/ipsos-perils-of-perception-charts-2015.pdf>.



Income Inequality & Poverty Measurement

- Many different income-based (and non income-based) measures
- Inequality: Gini coefficients & Lorenz curves
- Poverty: headcount, poverty (income) gap, 'inequality of poverty'
- And many more (90:10 & 80:20 ratios, "income share of top 1%, 0.1% etc.")
- What measure of income? ... before or after taxes and benefits?
- Cross-sectional or longitudinal?

Reporting inequality & poverty measures

Is evidence cross-sectional or longitudinal?

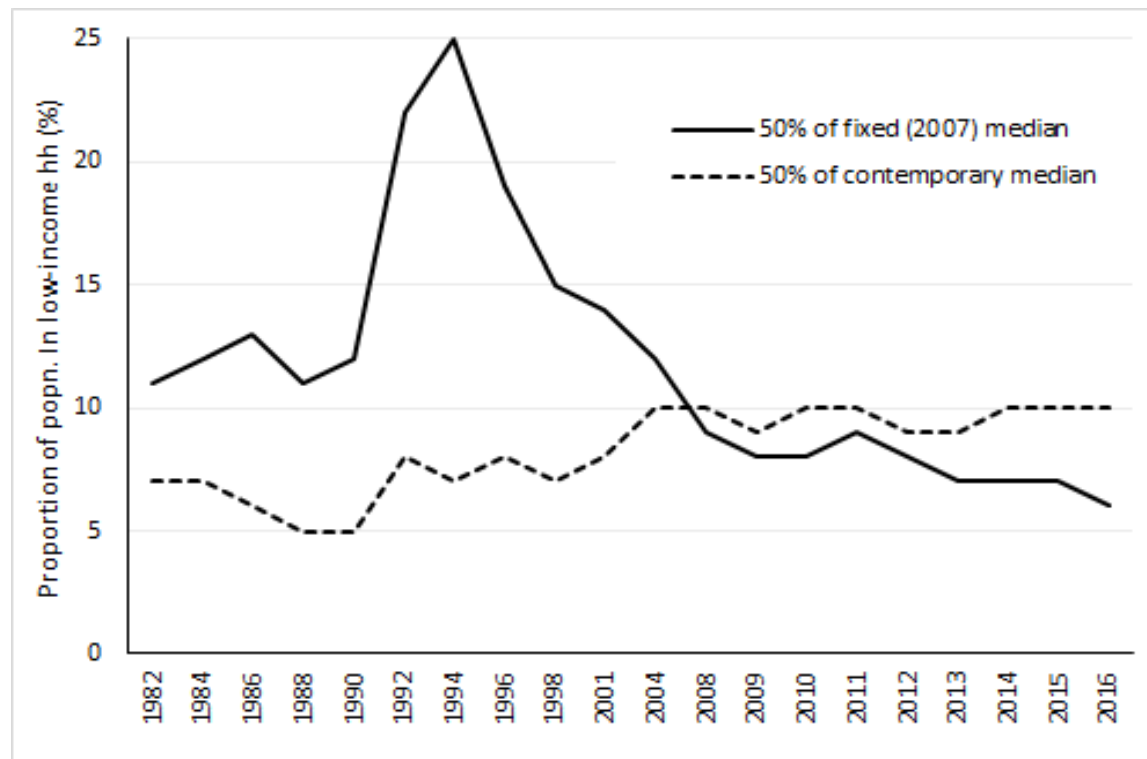


Cross-sectional study VS

Longitudinal study

Cross-sectional evidence: poverty

The headcount poverty measure ...



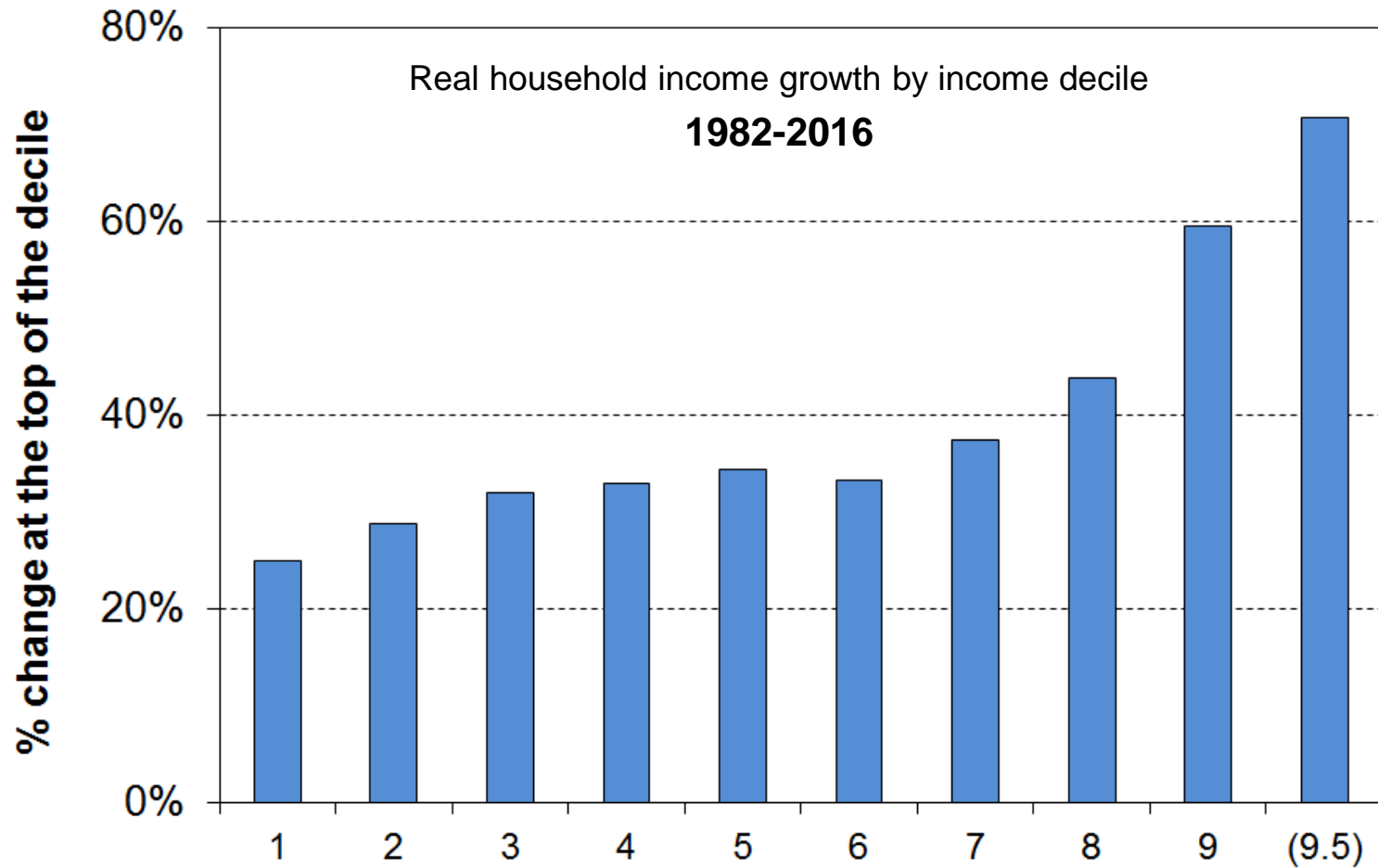
Cross-sectional evidence: inequality

- Are the poor's income growth rates falling behind?
- Cross sectional evidence on income growth ...



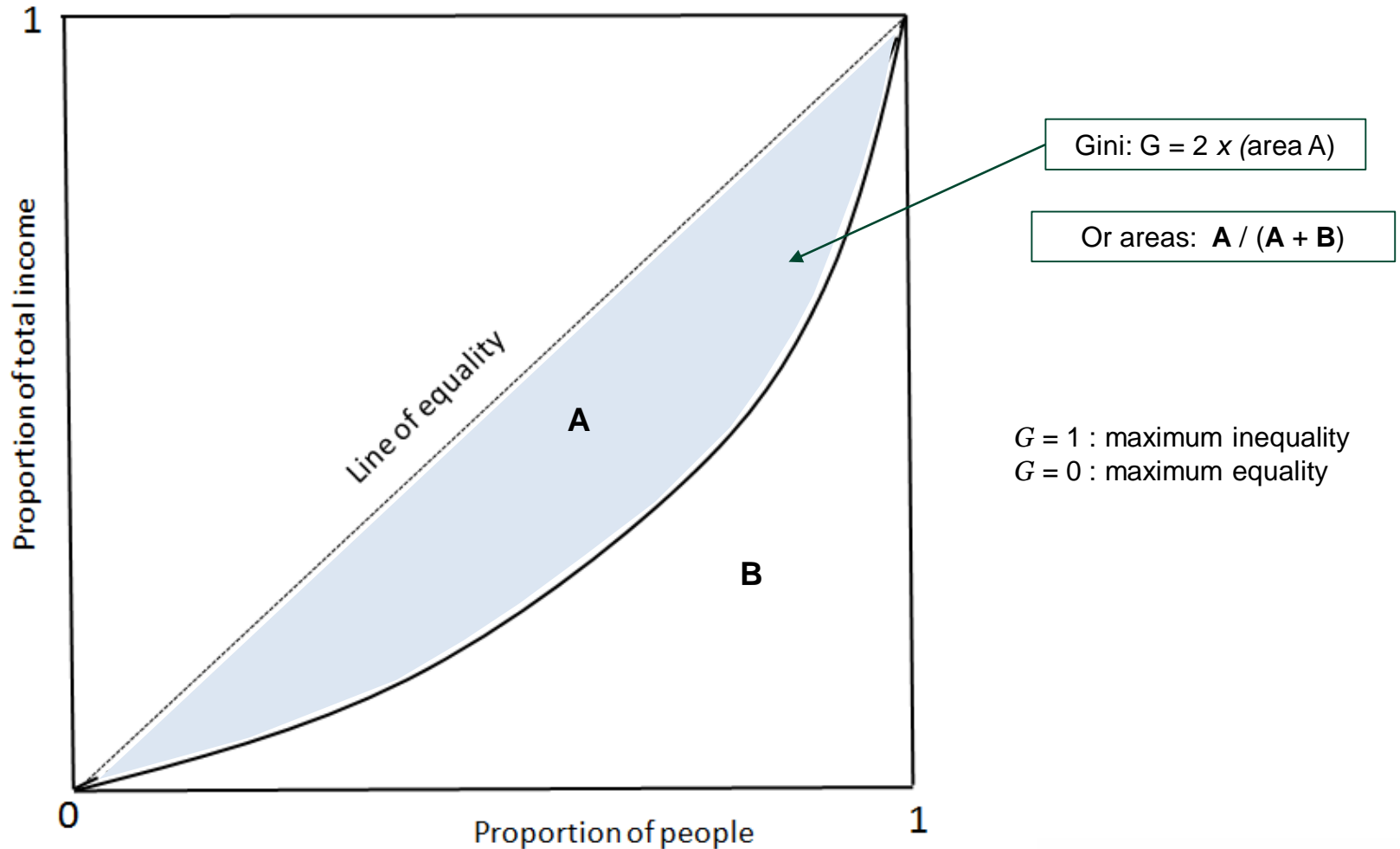
Source: Ministry of Social Development (2017)

Decile income growth rates over a long period

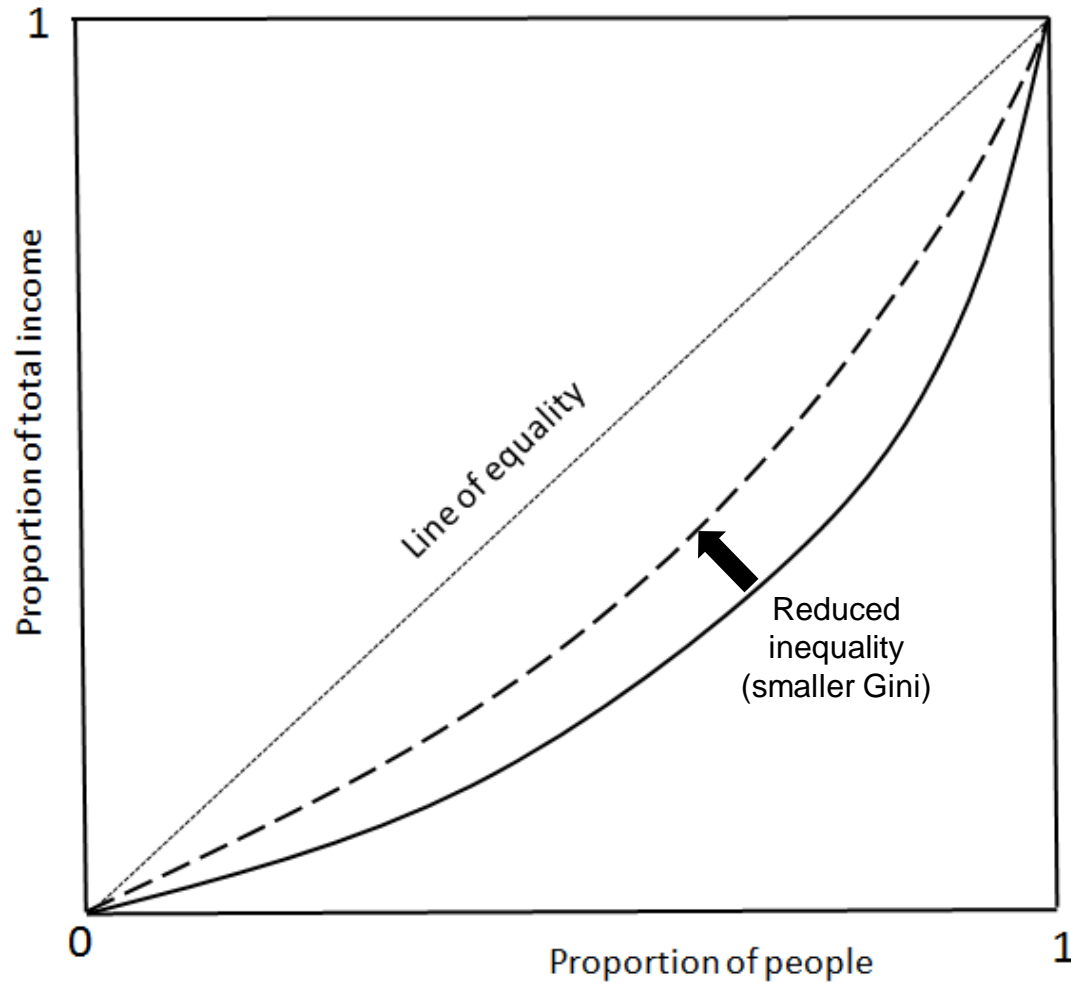


Source: Ministry of Social Development (2017)

Inequality: the Lorenz curve & Gini coefficient

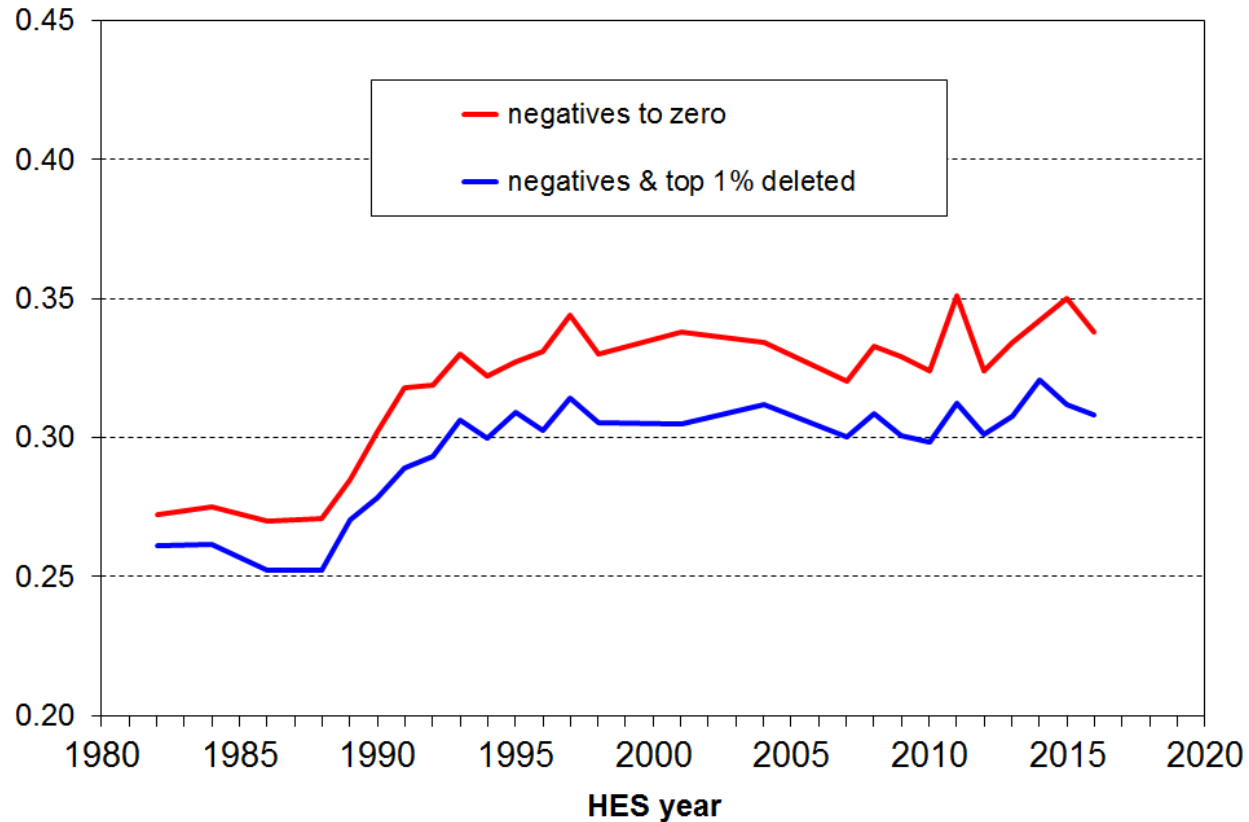


Inequality: the Lorenz curve & Gini coefficient



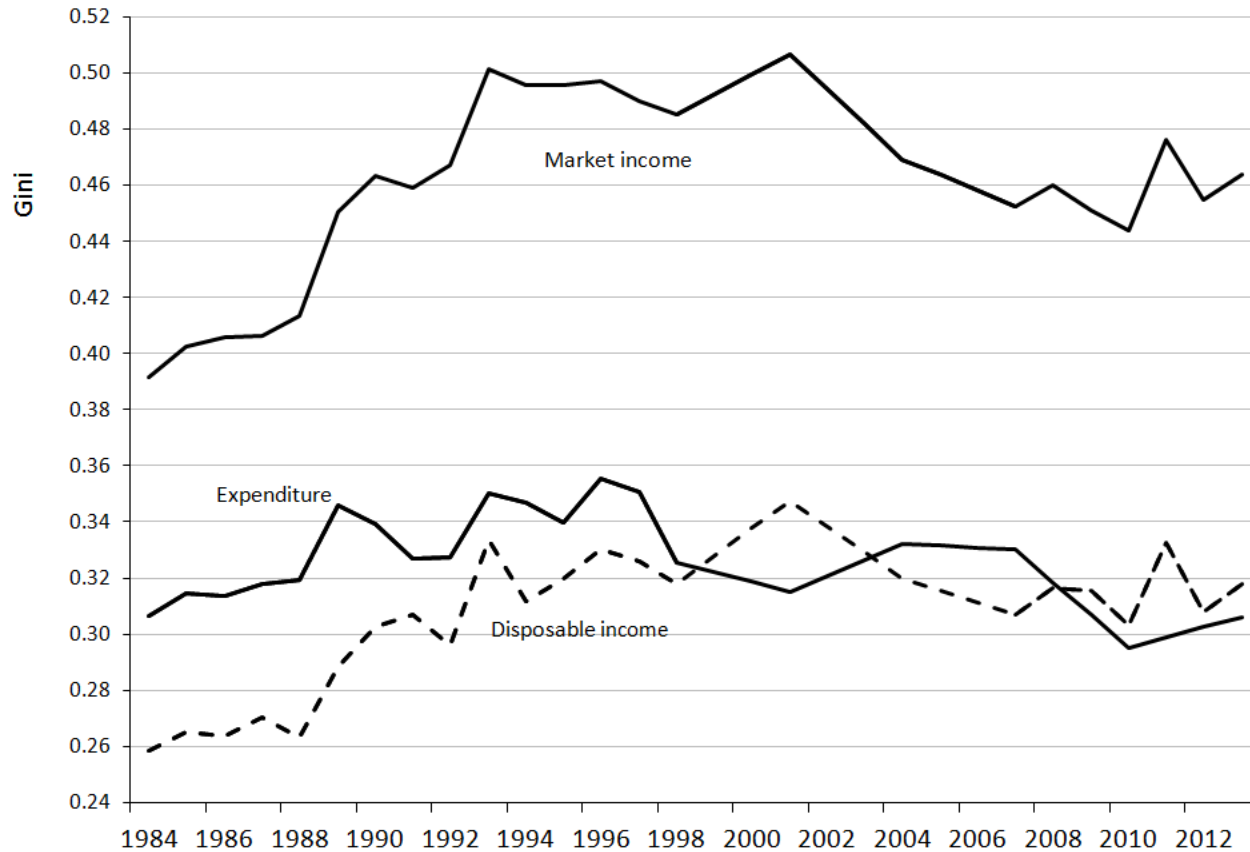
$G = 1$: maximum inequality
 $G = 0$: maximum equality

Inequality in New Zealand – Gini, 1982-2016



Source: Ministry of Social Development (2017)

Inequality in New Zealand - Gini



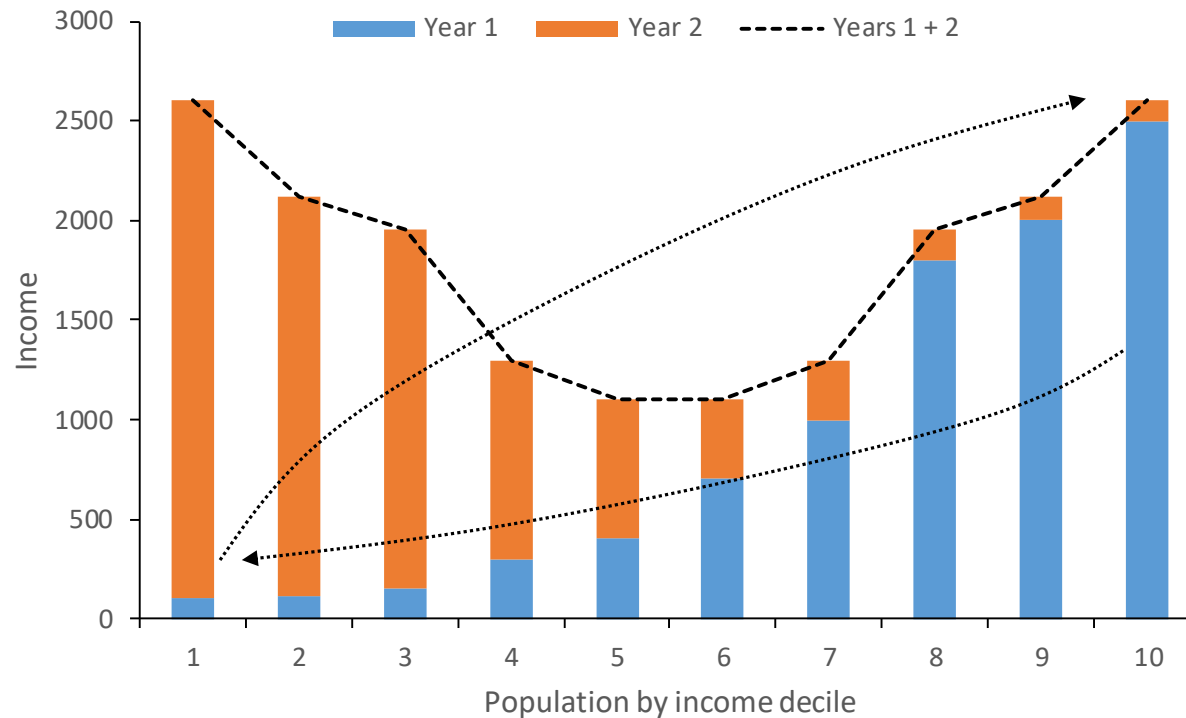
Source: Ball and Creedy (2015) ['Inequality in New Zealand 1983/84 to 2013/14'](#).



Income Mobility

- Always some people are on low/high incomes
- But is it the same people, or different?
- What happens when we follow the same people over time?
 - Why choose annual measure of income?
 - Do initially low income people's incomes grow more slowly?
 - What about when incomes are volatile from year to year?

The problem with annual measures ...



Note: Hypothetical data

Some recent longitudinal evidence for NZ

Inequality

- How does Gini change when measured using multiple year incomes? (IRD data)

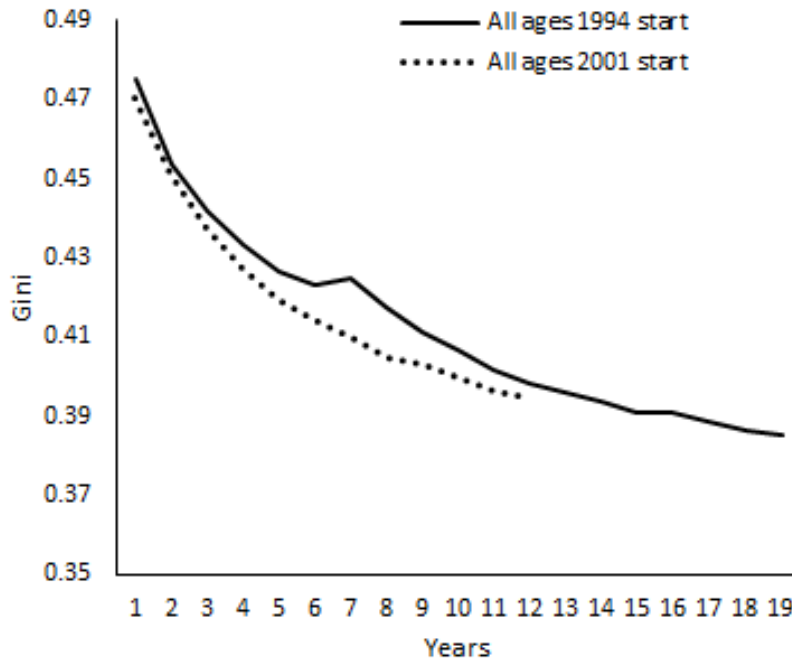
Mobility

- Follow 30,000+ NZ individual taxpayers over five year periods (IRD data)
- Compare:
 - ‘incomes in each decile in two different years’ \Rightarrow measure income growth from t to $t+1$ (different individuals) [cross-sectional]
 - ‘income growth, from t to $t+1$, for the same individuals in a decile at t ’ [longitudinal]

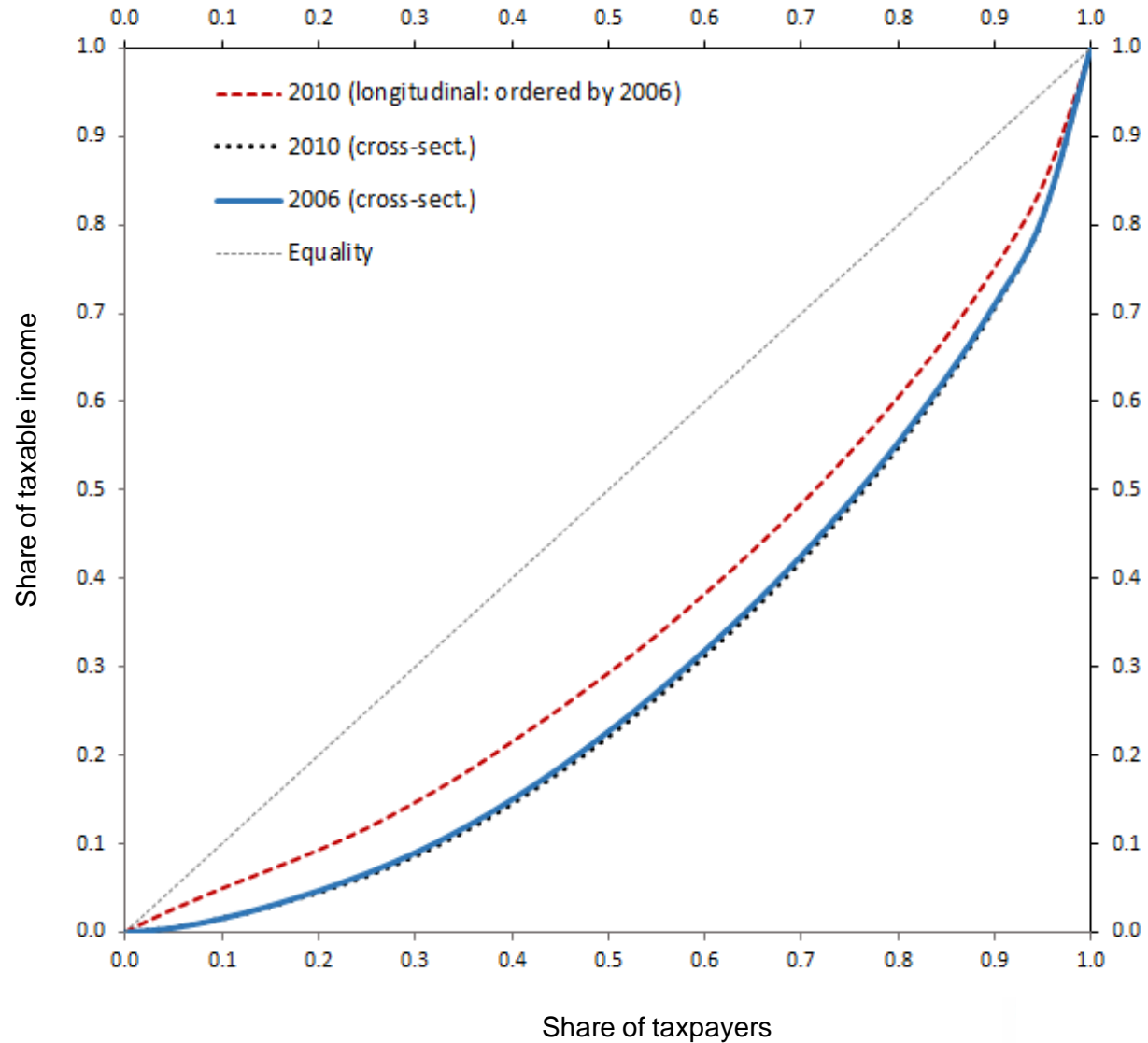
\Rightarrow How do income growth rates for ‘cross-sectional deciles’ and ‘longitudinal deciles’ differ?

Gini for taxable income measured over 1 to 19 years

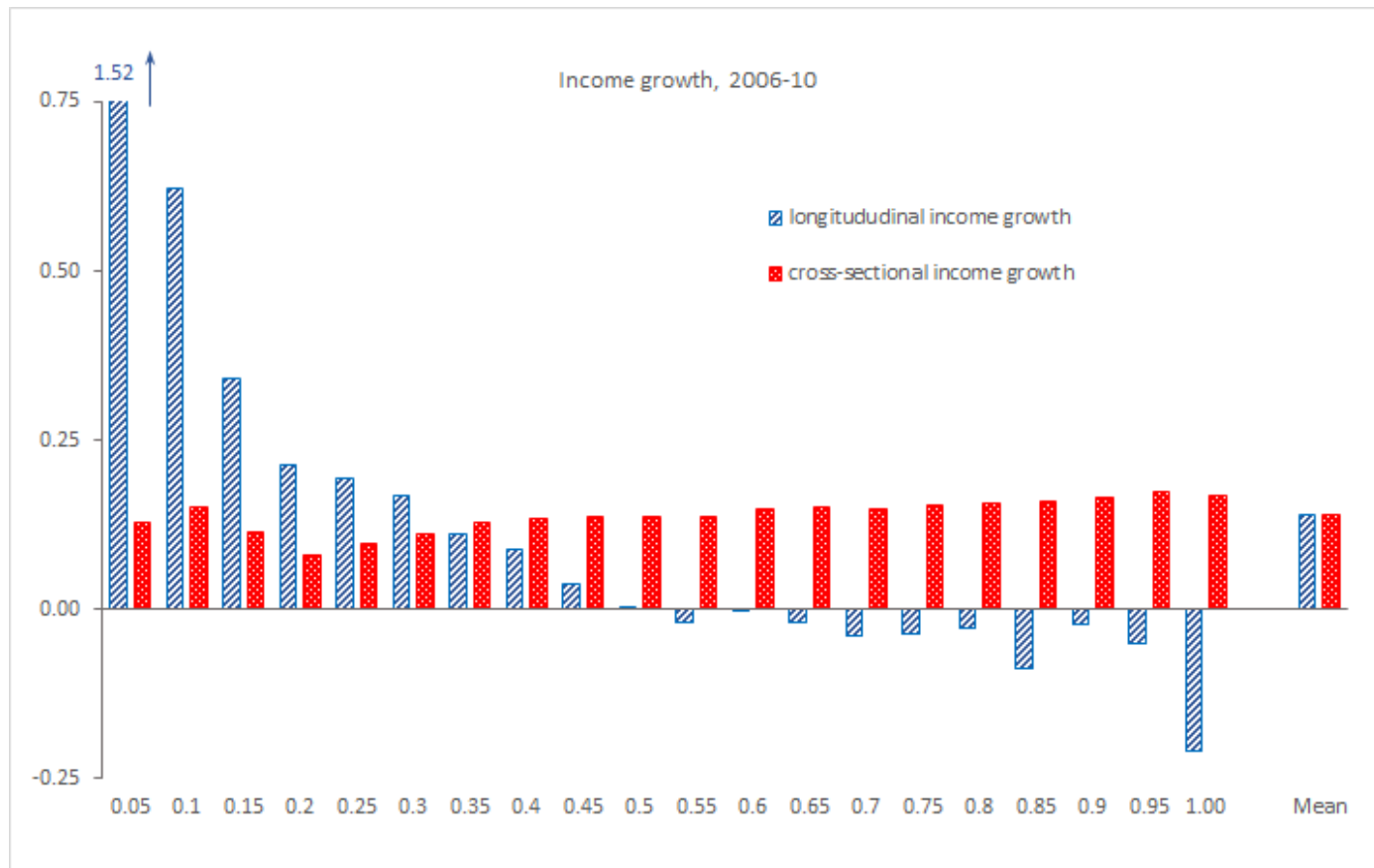
- Inequality is much less when income is measured over several years
- It generally starts lower for 'working age' individuals but ...



Lorenz curves for 2006 & 2010 incomes

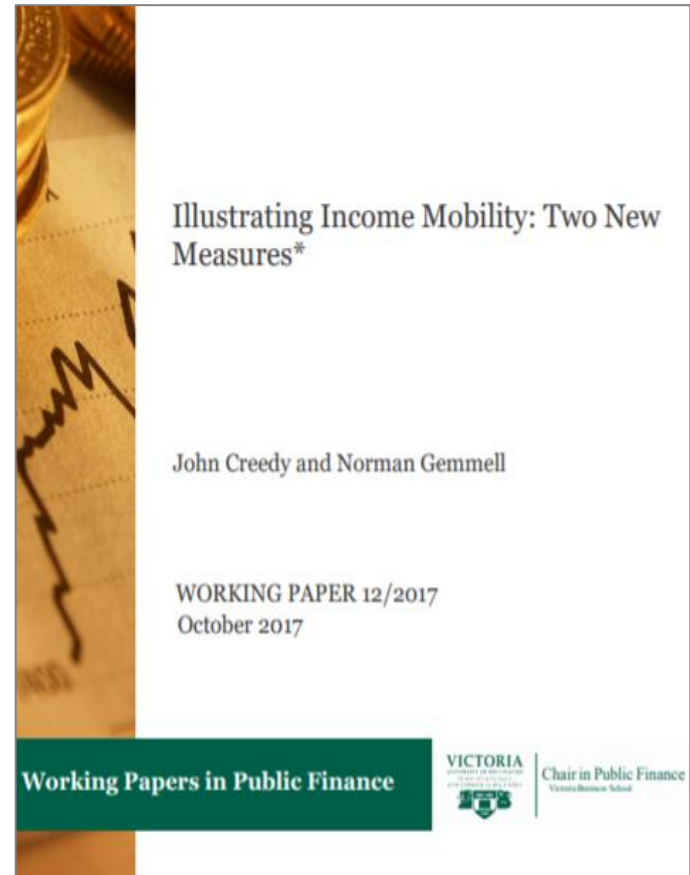
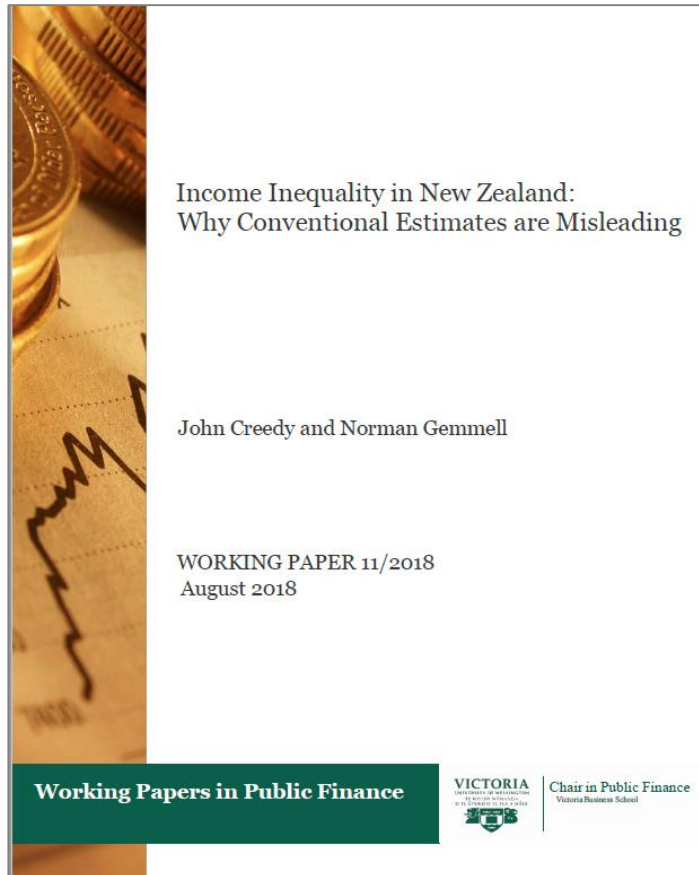


Income growth rates: cross-sectional vs longitudinal



- ⇒ Longitudinal data reveal 'regression towards the mean' properties
- ⇒ Incomes of the 'initially poorest' grew much faster

More details are here ...



<https://www.victoria.ac.nz/sacl/centres-and-institutes/cpf/publications/working-papers>

Conclusions

- Be wary of statistics apparently showing changes in income inequality or poverty over time.
- Ask: are they cross-sectional ‘snapshots’ at different times, or ‘longitudinal’ – for the same people over time?
- Interpreting c-s snapshots needs care and can mislead e.g. there are always some people on very low or high incomes but what does this represent (is it short-term employment? children’s newspaper rounds?) and are they persistent?
- Longitudinal data (NZ & overseas) suggest clear tendencies for ‘regression towards the mean’ over time – the initially poorer (richer) grow faster (slower)
- It matters whether data are for *households* or *individuals* (inequality often looks greater across individuals than across households)

By this point you're probably thinking ...

