

# The role of social protection systems in welfare states to address inequality

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# The role of social protection systems in welfare states to address inequality

1. What's the problem
2. Improving vertical equity: Poverty relief via non-contributory benefits
3. Improving consumption smoothing for lower earners: Simple savings plans
4. Improving horizontal equity: Gender and family
5. Improving intergenerational equity: Human and physical capital
6. An overarching strategy

# 1 What's the problem

- Income inequality
  - Of the global population
    - The poorest 50% share 8% of total income
    - The richest 10% earn over 50% of total income
  - In Latin America and the Caribbean
    - The 10% highest earners on average make 12 times more than the poorest 10%
    - In the developed countries of the OECD the comparable ratio is 4

# Why does reducing inequality matter?

- **Social impact:** the welfare state affects the quality of life of hundreds of millions of older citizens (e.g. pensions and health care) and, as they look to their future, hundreds of millions of workers
- **Economic impact**
  - The welfare state matters for a country's economic growth
  - The welfare state matters internationally: global imbalances and China's precautionary savings rate of about 50% of GDP (see '[China is the key to unwinding global imbalances](#)', *Financial Times*, 20 April 2010)

# Politics matters

(Atacama desert, January 2017)



Nicholas Barr, Santiago, Chile, June 2024

# 2 Improving vertical equity: Poverty relief via non-contributory benefits

- Primary objectives of pensions
  - Poverty relief
  - Insurance
  - Consumption smoothing
- Pension plans and pension systems
  - Useful to distinguish between ‘pension systems’ and the different elements of pension systems, i.e. pension plans
  - Since pensions have multiple objectives, a well-designed system generally comprises multiple plans, e.g. a non-contributory pension plan and individual accounts
  - Will discuss different components of the pension system

# Non-contributory pensions and child benefit

- Non-contributory pensions
  - A flat-rate tax-financed pension based on age and residence
  - Country examples
    - Australia (with affluence test)
    - Canada (with affluence test for top 5%)
    - Chile (with affluence test for top 10%)
    - Netherlands (stringent residence test)
    - New Zealand (no affluence test, easy residence requirement)
    - Developing countries
- Child benefit: a tax-financed benefit per child, in many countries paid to the mother
  - Common in Europe but not in the Americas

# Why non-contributory pensions

- Structural shortcomings of contributory systems
  - Limited coverage, in large part because of informality leading to incomplete contribution records
  - Impact of bad defined-benefit design, e.g. regressive (more on day 2)
- A changing world: declining coverage of contributory plans based on a worker's employment status
  - Increased diversity of labour market relations, both LMICs and OECD countries
  - Implications: convergence between OECD countries and LMICs; contributions via a person's employment status no longer generate the coverage they once did



# Advantages

- Social policy: adequacy and coverage
  - Non-contributory pensions strengthen poverty relief in terms of coverage and adequacy
  - Help to reduce inequality: true of any flat-rate benefit with wide coverage
  - Provides insurance against shocks
  - Considerable gain in gender balance (next slides)
  - Broader social benefits, e.g. family poverty relief via Grandma
  - Share risk with taxpayers and hence via government borrowing intergenerationally
  - Make fewer demands on institutional capacity than contributory plans
- Ministry of Finance: multiple levers to maintain sustainability
  - The level of the monthly benefit
  - The age at which the benefit start
  - Whether there is an income or affluence test
- ['The case for social pensions'](#), *Jobs and Development Blog*, World Bank, 9 December 2013

# Some empirical evidence

- Coverage of non-contributory pensions in LAC (Arenas de Mesa and Robles, 2024)
  - 2000: 1 million people, 3.4% of elderly LAC population
  - 2022: 20 million people, 31%
  - 2023: 28 of the 33 countries in LAC have some sort of non-contributory pension
- Poverty relief: in Chile
  - The solidarity pension system reduced elderly poverty from 23.5% to 14.8% between 2006 and 2009 (Vila and Yanes, 2024)
  - In 2020, the non-contributory pension system reduced elderly poverty by 5.7 % (Arenas de Mesa, Espíndola and Vila, 2024)

# Wider advantages

- Family poverty relief via Grandma
  - Duflo (2012), ‘**finds that girls who live with a grandmother who receives the pension are heavier than those who live with a grandmother who is not quite old enough to receive the pension....** In contrast, no such effect is found when the pension is received by a man’
- A [study of Brazil and South Africa](#), the countries with the largest non-contributory pension systems, found that
  - ‘**...the poverty headcount and the poverty gap would be appreciably higher for households with older people.** The impact on the poverty gap is much larger for the poorer households. The programmes significantly reduce the probability that individuals in households with a pension recipient will be in poverty’

# 3 Improving consumption smoothing for lower earners: Simple savings plans

- Having discussed poverty relief, it is necessary to broaden the discussion
- A central message is that the welfare state exists not only to protect the poor, but also – and crucially – because it does things that private markets, for technical reasons (next slide), do badly or not at all
- That message applies to all the topics below

# Why might markets not do things efficiently?

- Imperfect information (addressed by the economics of information, Nobel Prize 2001)
- Behaviour different from narrow economic rationality (addressed by behavioural economics, Nobel Prize 2002, 2017)
- Search frictions (Nobel Prize 2010)
- Incomplete markets, incomplete contracts (Nobel Prize 2016)
- Distortionary taxation (necessary to finance redistribution; addressed in the literature on optimal taxation, Nobel Prize 1996)

# Conclusion: consumer choice in pensions is over-rated

- Consumers often
  - Do not save enough
  - Retire too soon
  - Delay choice or make no choice (Sweden)
  - Choose an unsuitable portfolio
- Choice has high administrative costs
  - Over a full career, an annual management charge of 1% results in an accumulation 20% smaller than without that charge
- Firms exploit asymmetric information
  - High charges, often with little relation to fund performance
  - Biased advice
  - At worst, fraud

# Implications for pension design

1. Make pensions mandatory or use automatic enrolment
2. Keep choices simple: highly constrained choice is a deliberate and welfare-enhancing design feature
3. Include a good default option which includes life-cycle profiling if the system requires annuitisation
4. Keep administrative costs low by decoupling account administration from fund management
  - Centralised account administration
  - Fund management
    - Wholesale, competitive; or
    - Sovereign wealth fund; closest example is Norway

# Example: UK NEST pensions (more on day 2)

- Design explicitly based on those implications
- Informative web site ([www.nestpensions.org.uk](http://www.nestpensions.org.uk)), including performance of funds
- Key elements
  - Auto enrolment
  - Limited choice
  - Centralised account administration
  - Wholesale fund management



# 4 Improving horizontal equity: Gender and family

- What's the problem? A simple 'factoid'
  - The US Food and Drug Administration approved the first oral contraceptive on 23 June 1960
  - In Japan
    - The birth control pill was not legalised until 1999
    - In contrast, Viagra was approved for use
      - In only six months, and
      - Before the contraceptive pill
- Why does improving gender equity matter?
  - For reasons of morality
  - For reasons of efficiency – inequity wastes talent

# 4.1 What's the problem: Some facts

- Though focus below is on labour markets and pensions, the problems are *much* wider. Other inequalities include
- Physical security
  - Domestic violence
  - Sexual harassment, violence and rape
- Health
  - [Invisible women](#) by Caroline Criado-Perez: health and safety designed for men: dosages of pharmaceutical drugs, design of car seat belts
  - Women's reproductive health
- Education
  - Gender roles still linger
  - Fewer girls study science and technology

# Some facts (2)

- Participation, influence, and voice
  - Men taking credit for women's work: [a long list](#)
  - Uphill struggle for women in politics
- Equality before the law
  - Women not able to get a mortgage in their own right
  - Women formerly required to retire if they got married
- Covid-19 entrenched gender norms
  - Labour market impacts stronger on women
  - Increase in domestic violence

# Some facts (3) Labour markets

- Background issues
  - Gender pay gap (‘greedy jobs’)
  - Women on average have less job security
  - Gendered division of unpaid work
- Pensions: multiple issues
  - Labour markets, women on average have smaller pension accumulations because more likely to have
    - Lower hourly wage
    - More part-time work
    - More career breaks
  - Pension design can aggravate matters
    - Lower pension age for women
    - Single-sex annuities
    - Inadequate provision for survivors or after divorce

# 4.2 Improving gender equity: Some policy directions

# Labour markets

- Legislation on equal pay
- Maternity/paternity rights
- Regulation of design of algorithms, e.g. for short-listing job applicants
- Reporting requirements on pay, promotions, retention
- Policies to address impediments to hiring older and younger workers
- Address incentives against employing younger women
  - Child rearing costs have to fall somewhere
  - If fall on the employer creates unhelpful incentives
  - One option is taxpayer support to create a more level playing field
- Analogous arguments apply to incentives against employing older women, e.g. legal recognition of menopause symptoms

# Pension design

- Policies to improve contribution records
  - Labour market institutions
  - Availability of child care in terms of quality, affordability, hours of operation and location
  - Alignment of working hours, school hours and child care
- A common pension age and, more generally, common rules for pension eligibility and determination of benefits
  - See Gales, Angela, Hepp, Pedro, Montanari, Daniela, Rayman, David, and Riesco, Agustin (2024), [\*A Proposal for the Equalisation of Retirement Age Across Genders in Chile\*](#)
- Require the use of joint life tables for mandatory annuities
- Ensure that satisfactory pension arrangements are in place for surviving spouses and after a divorce

# Families

- Child benefit: if paid to mother more likely to be spent on the child
- Child care and labour markets
  - Policies on core working hours compatible with school hours
  - Child care suitable in terms of price, quality, location and open hours
- Non-contributory pensions also have a role
  - As noted earlier, pensions received by older women in South Africa improve the anthropometrics of female children in the household
  - De Carvalho Filho (2012) found that the expansion of pension coverage in Brazil increased school enrolment for girls



# 5 Improving intergenerational equity: Human and physical capital

# 5.1 The welfare state and economic growth

**‘Lower net inequality is robustly correlated with faster and more durable growth, for a given level of redistribution.**

‘Redistribution appears generally benign in terms of its impact on growth; only in extreme cases is there some evidence that it may have direct negative effects on growth. Thus the combined direct and indirect effects of redistribution—including the growth effects of the resulting lower inequality—are on average pro-growth’ (Ostry J. et. al. (2014), [\*Redistribution, Inequality, and Growth\*](#), IMF, p. 4)

**‘Economic development depends on the skills of each society, which means that high-quality, equitable education is paramount ...’** [\*The Basic Skills Gap\*](#), *Finance & Development*, June 2022)

# Pathways through which social policy can assist economic growth

- **Element 1:** Human capital is increasingly important for inclusive growth
  - Expanding access to basic education and health services increases the stock of human capital
  - By reducing inequality in education and health outcomes, reduces inequality of opportunity and of income
  - Thus access to education and health services matters for both efficiency and equity reasons – link to Michael Marmot’s lecture tomorrow
- **Element 2:** Income transfers also assist growth
  - Interaction with human capital, e.g. the ability to afford a healthy diet improves educational outcomes
  - Interaction with risk sharing, e.g. well-designed risk sharing supports business start ups and innovation (more below)

# Redistribution and growth: Conclusion

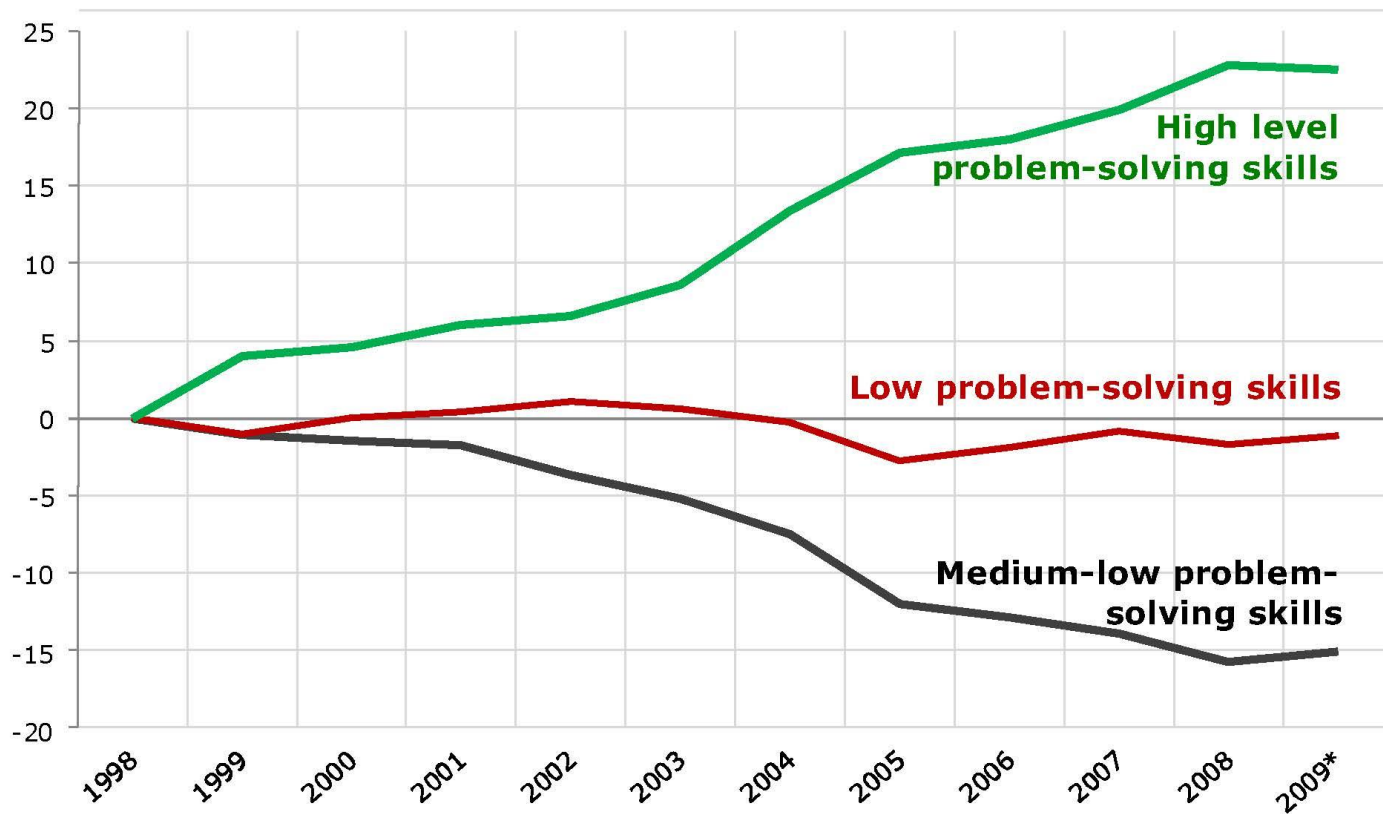
- Over a broad range of redistribution, the argument that there is a tradeoff between economic growth and the equalising effects of social policy is generally not true
- **More strongly, well-designed, sustainable social policy assists growth**

## 5.2 Human capital: more important than ever

- Technological change is driving up the demand for skills, requiring
  - More training
  - More diverse training and
  - Repeated training, because skills have a shorter life
- No sign that these trends are slowing

# The future is bleak for those with medium skills, OECD

Source: OECD



## 5.3 Early child development is central

- High-grade medical research has produced largely uncontested evidence that a child's first 1000 days (conception to age 2) strongly influences life chances, the quality of life and life expectancy
- Evidence on critical developmental windows, e.g. first 22 months
- Tests of cognitive abilities from 22 months onwards
- August babies (teaser for Q&A)

# Early child development: Multiple dimensions

- Physical health, including health care for the mother before, during and after pregnancy, and health care for the child
- Emotional health
- Cognitive development
- Social development



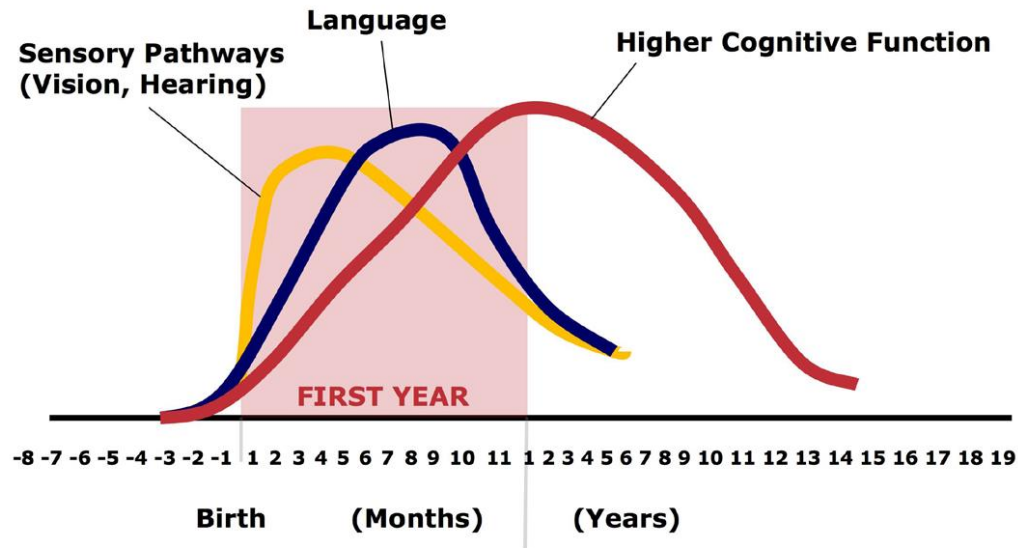
# The neuroscience

[http://developingchild.harvard.edu/library/briefs/inbrief\\_series/inbrief\\_the\\_science\\_of\\_ecd/](http://developingchild.harvard.edu/library/briefs/inbrief_series/inbrief_the_science_of_ecd/)



Center on the Developing Child  
HARVARD UNIVERSITY

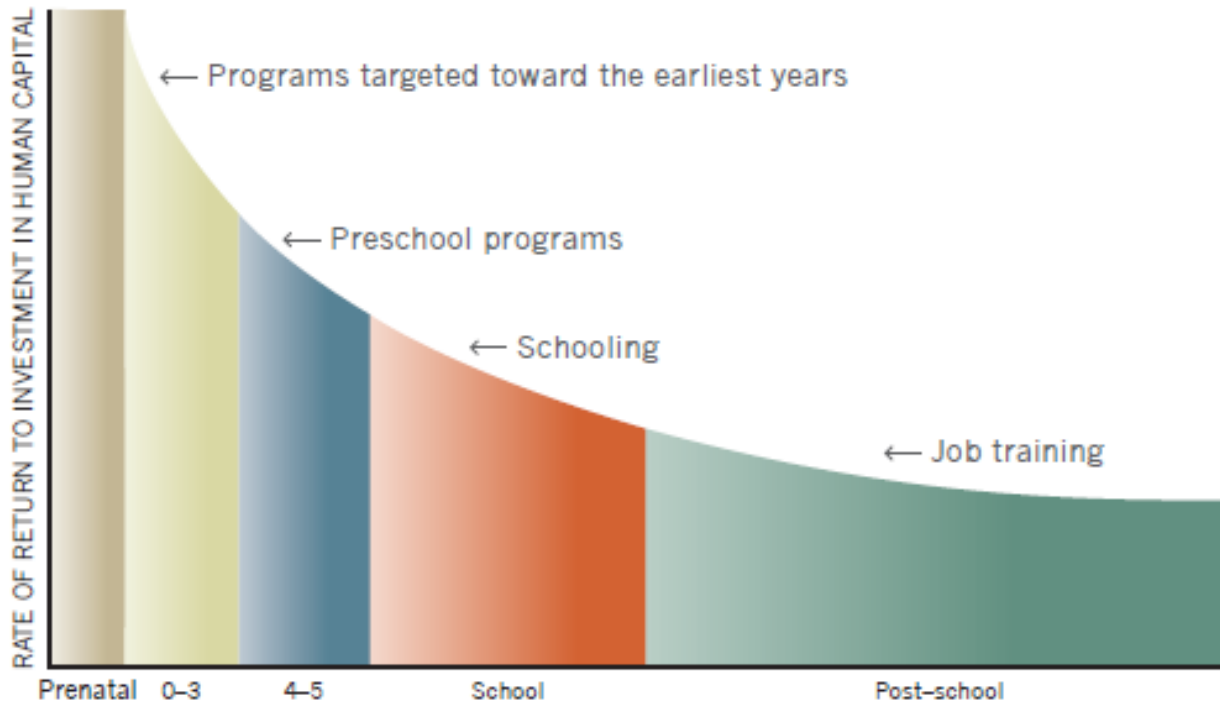
## Human Brain Development Neural Connections for Different Functions Develop Sequentially



Source: C.A. Nelson (2000)

# The economics (schematic illustration)

## Returns to a Unit Dollar Invested



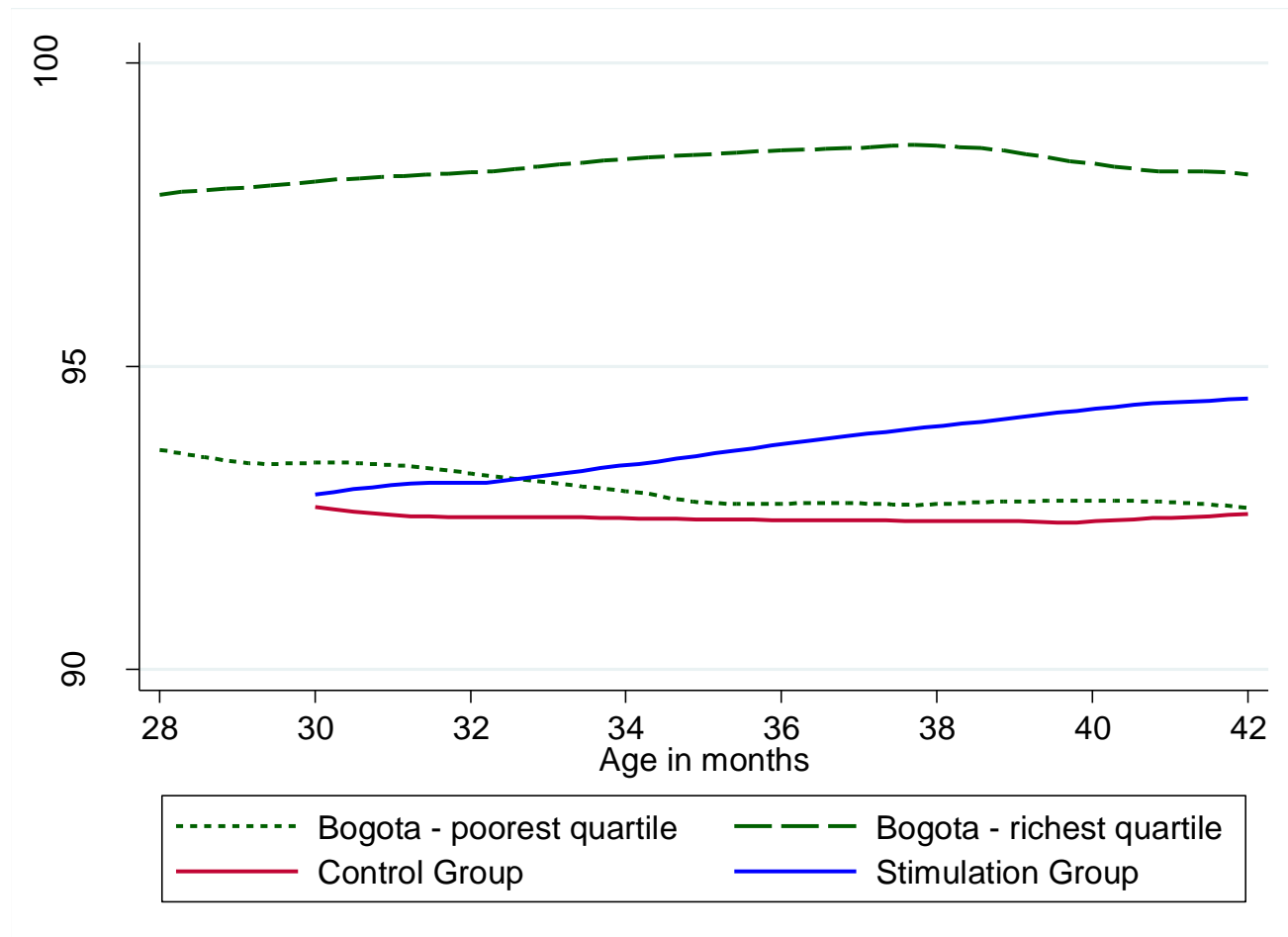
# The economics

James J. Heckman (2012), Invest in early childhood development: Reduce deficits, strengthen the economy, <http://heckmanequation.org/>

‘The highest rate of return in early childhood development comes from investing as early as possible, from birth through age five, in disadvantaged families. Starting at age three or four is too little too late, as it fails to recognise that skills beget skills in a complementary and dynamic way. Efforts should focus on the first years for the greatest efficiency and effectiveness. The best investment is in quality early childhood development from birth to five for disadvantaged children and their families.’

# Effect of early interventions: Colombia

[Attanasio et al. \(2014\)](#)



# A natural experiment in Brazil

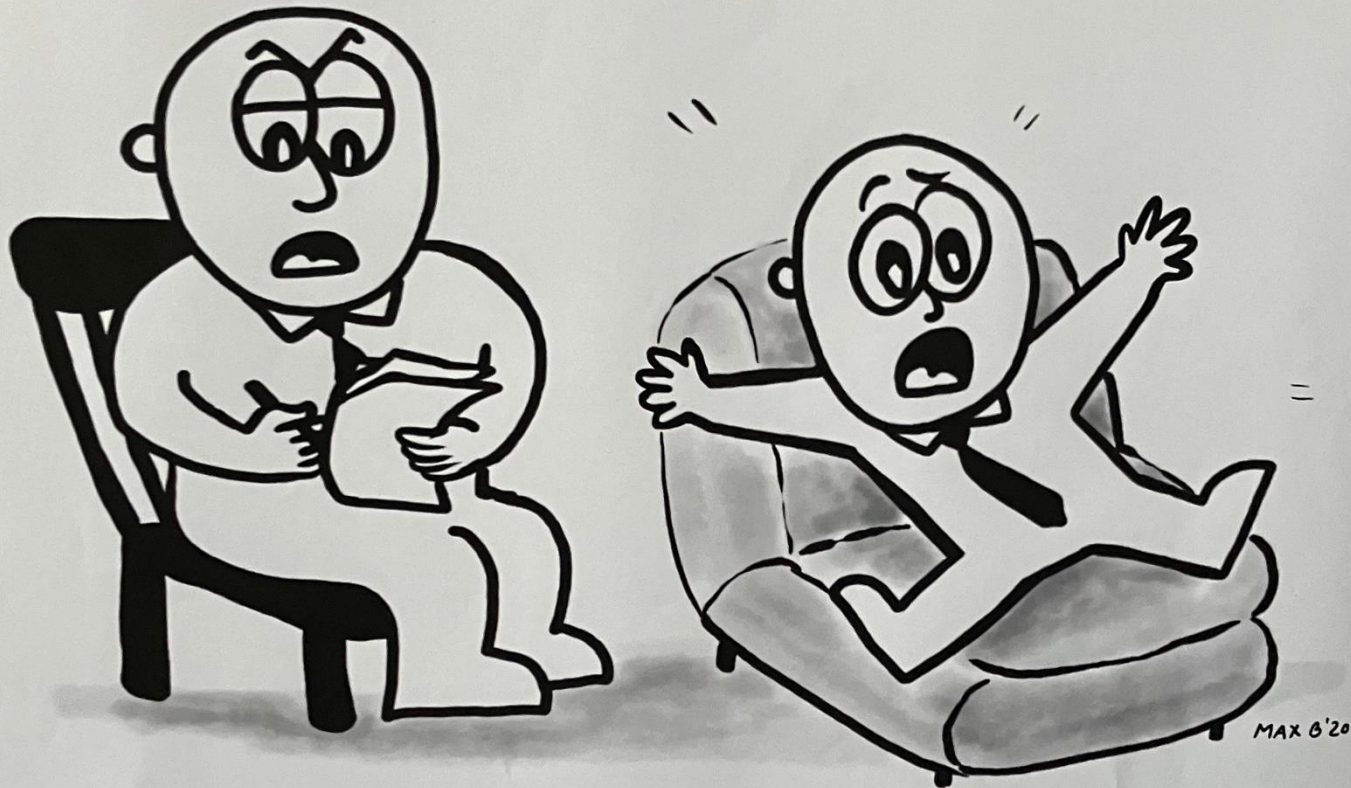
- [Attanasio et al. 2022](#): a shortage of childcare spaces for 0-3 year olds in Brazil in 2007 led the government to ration them by lottery
- Bad news for those missing out, but good news for both the lucky winners and researchers who were handed a natural experiment on the impact of such childcare
- The impact was big
- The winning households had higher incomes over the next few years (note this was about grandparents being able to continue to work, not just parents) and, as a result, taller/heavier children

# What does the evidence tell us

- Message from the neurological evidence:  
invest early
- Message from the economic evidence:  
invest early

# 5.4 Intergenerational equity and climate change

- Beyond the scope of this lecture but too important not to mention in the context of intergenerational equity
- An example of multiple market failures



- Enough about climate change,  
tell me about your mother!



# Multiple market failures

- Externalities: negative (greenhouse gases), positive (innovation)
- Uncertainty, e.g. about what innovations and when, and about future government policy
- Imperfect information (both fund managers and savers)
  - Lack of awareness of technologies
  - Lack of clarity about ESG-compliance (or not) of different investments
- Co-ordination problems,
  - Many large-scale things must happen at right time & in right order
  - E.g. need electric charging stations before widespread use of EVs
  - Co-ordination across countries is even more difficult
- Time inconsistency, e.g. profits now but adverse effects on profits of climate change are in the future. Not least because of uncertainty not all future losses are priced in

# Public policy responses

- In the face of market inefficiencies there are two mechanisms policy makers can use to induce market participants to act more efficiently:
  - Regulation and/or
  - Incentives

# 6 An overarching strategy

# Strategy (1)

- As noted, the world has changed, including changes in work, families and skills
- Particularly relevant is increased diversity and fluidity of labour market relations – a change that is true both in LMICs and OECD countries
- Thus the design of welfare states suitable for the 21<sup>st</sup> century needs to recognise that
  - In advanced economies, fluid labour market relations will persist
  - In LMICs informality will not disappear

# Strategy (2)

- A strategy is a series of policies designed to be mutually reinforcing in pursuing stated objectives
- A strategy for reducing inequality involves
  - Policies to improve vertical equity
  - Policies to improve consumption smoothing
  - Policies to increase horizontal equity, notably concerning gender equity
  - Policies to improve intergenerational equity, notably investment in human capital, including early child development
- Setting out the strategy is the easy part. The hard part is engendering *sustained* political support

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- Barr, Nicholas (2019), [Gender and Family: Conceptual Overview](#), Social Protection and Jobs Discussion Paper No. 1916. May 2019, Washington, DC: World Bank
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Gales, Angela, Hepp, Pedro, Montanari, Daniela, Rayman, David, & Riesco, Agustin (2024), [\*A Proposal for the Equalisation of Retirement Age Across Genders in Chile\*](#), School of Public Policy, London School of Economics

Levy, Santiago (2021), '[\*Informality: Addressing the Achilles Heel of social protection in Latin America\*](#)', WIDER Annual Lecture 23.

# Addenda



# Inequality is not only about income and wealth

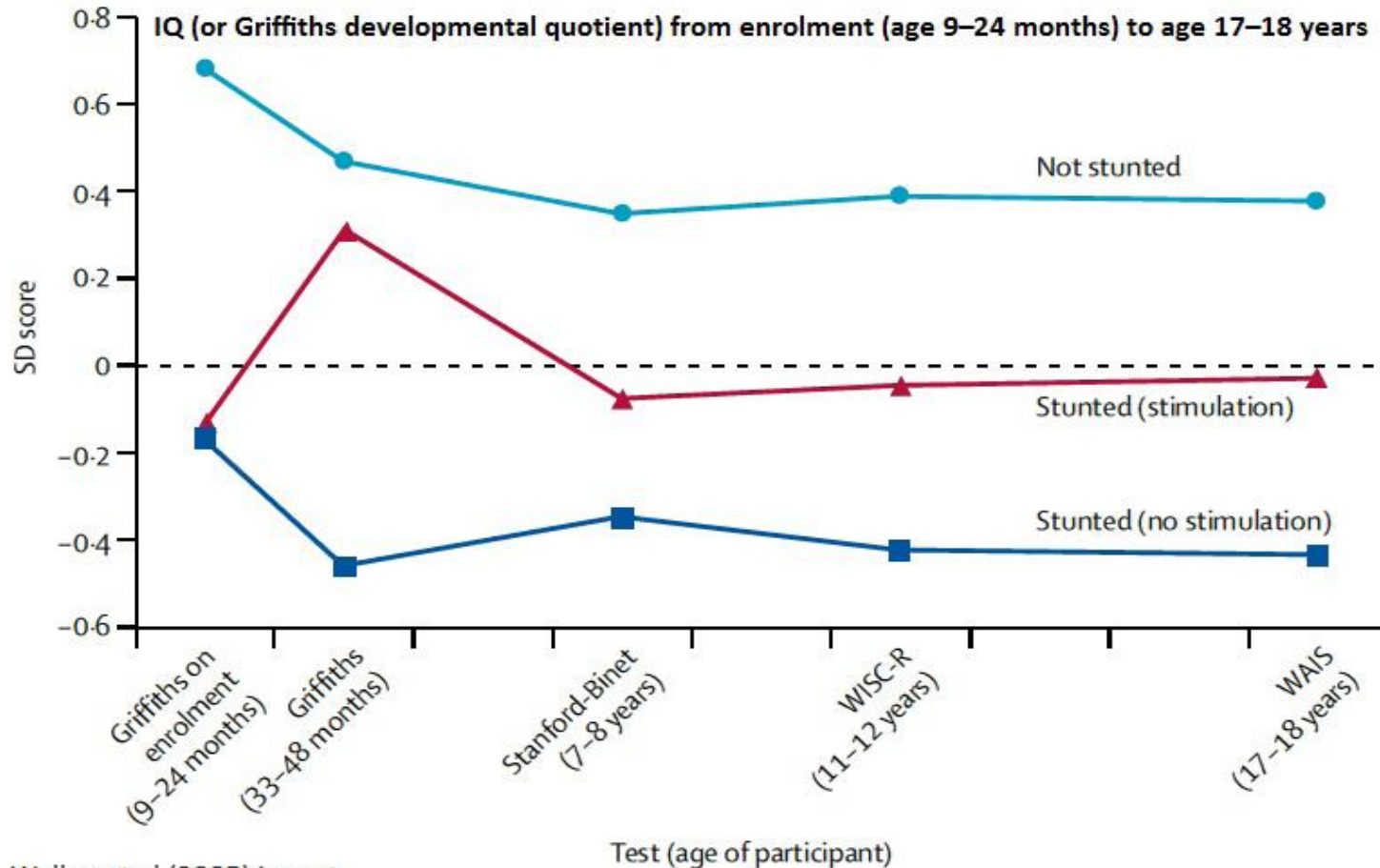
- Longevity
- Physical security
- Health
- Education
- Standard of living, including access to employment, work/life balance, and being able to care for others
- Individual, family, and social life
- Participation, influence, and voice, including participation in decision-making and democratic life
- Identity, expression and self-respect, including freedom of belief and religion
- Legal security, including equality before the law

# Two types of unfairness

- ‘Society’ can be unfair, e.g. poor health because of poor maternal and child nutrition or unequal access to education: policy should seek to remove such problems
- ‘Life’ can be unfair
  - Good luck, e.g. musical skills: policy: none
  - Bad luck, e.g. exogenous chronic health problem: policy: protect the individual, but not seek to change the structure of society

# Effect of early interventions: Jamaica

Walker et al. (2005), 'Effects of early childhood psychosocial stimulation and nutritional supplementation on cognition and education in growth-stunted Jamaican children: prospective cohort study', *The Lancet*, 2005, 366 (9499): 1804-7



Walker et al (2005) Lancet  
Nicholas Barr, Santiago, Chile, June 2024

# Strategy part 2: Reconsider how contributions are organised

- Key elements
  - A trusted brand
  - Simple to understand
  - Cheaply administered
  - With a liquid element
- For informal workers and the self-employed
  - Simple, cheaply-administered savings accounts
  - Electronic contributions
    - Flexible (a) in how much contribute, (b) when, and (c) with accumulations that include a ‘rainy day’ element
    - Payable via apps that are simple to install and use (e.g. [pinBox Solutions](#))
    - Motivated by nudges, and perhaps some form of non-regressive government match
- Speculative look ahead: consider contributions based on consumption spending rather than income
  - Warwick, R., Harris, T., Phillips, D., Goldman, M., Jellema, J., Inchauste, G., Goraus-Tanska, K. (2022), [The redistributive power of cash transfers vs VAT exemptions: A multi-country study](#), *World Development*, 151
  - [‘How millennials and savings apps are making asset managers wake up and smell the coffee’](#), *Financial Times*, 14 October 2018
  - [Miles for Retirement](#) programme in Mexico