

Creating and maintaining a dynamic society: The role of the welfare state

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Creating and maintaining a dynamic society: The role of the welfare state

1. The backdrop

Part 1: Why do we need a welfare state?

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1 The backdrop

What's the problem

- In public debate the issue of market v. state is conducted primarily in ideological terms
 - Governments make things worse, or
 - Markets are inherently exploitative
- The analytical problem is the failure to distinguish
 - What is properly ideological
 - What is technical
- The policy problem is that ideologically-driven institutions that conflict with the findings of economic theory generally do not work well

Major objectives

- Poverty relief
- Insurance
- Consumption smoothing
- Redistribution

Part 1: The ‘So What?’ question: Why have a welfare state?

- Always a good idea to ask the ‘So What?’ question
- Will discuss four distinct reasons for having a welfare state
 - To address market failures
 - To share risk
 - To assist economic growth
 - To address distributional concerns

2 The welfare state to address market failures

- In a civilised society – access to adequate education, nutrition, health care, etc.
- Why do we have a welfare state?
 - That the welfare state exists to tackle poverty and inequality is well known
 - Much less well-known: the welfare state exists for efficiency reasons, to do things that private markets would either not do at all, or would do badly
- Thus will start with those other reasons and then come back to distribution
- In sum, the welfare state is not a socialist plot, but exists to promote equity *and* efficiency

The general argument

- Assumptions of a first-best economy
 - Perfect competition
 - No externalities, public goods, increasing returns to scale
 - Perfect information
 - Rational behaviour
 - Complete markets
 - No distortionary taxation
- The ‘Invisible Hand’ theorem
 - In a first-best economy, markets will achieve an efficient allocation of resources
 - There is no role for government in social policy
 - Redistributive taxation is incompatible with a first-best economy
 - Redistribution is through voluntary charity

Why might markets not do things efficiently?

- Imperfect information (addressed by the economics of information, Nobel Prize 2001)
- Behaviour beyond 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)

Example 1: Externalities

- Definition
 - An external cost arises where an activity by one person or firm imposes a cost on others for which no compensation takes place, and vice versa for an external benefit
- The BIG externalities
 - Climate change
 - Loss of biodiversity
 - Pollution
 - Congestion
 - Social cohesion (i.e. shared core values) (more below)

Example 2: Imperfect information

- About quality (dodgy pharmaceutical drugs over the internet)
- About price (administrative charges for pensions)
- About the future (inflation in future years)

Example 3: Behaviour beyond narrow economic rationality

- Bounded rationality, which arises where a problem is too complex for someone to know what he/she should do
 - Choice of pharmaceutical drugs
 - Choice of pension provider
- Bounded will-power, which arises where someone knows what he/she should do, but does not do it
 - Choices about diet and life style
 - Choices about saving

More examples

- Search frictions: one source of unemployment is that it takes time to find a new job that matches a worker's preferences and constraints
- Incomplete markets
 - In a first-best economy it is possible to buy any product, now or in the future
 - Incomplete markets can lead to non-existent products
 - Private market cannot offer insurance against unemployment
 - Nor against future inflation
- Incomplete contracts
 - Can specify a fairly complete contract for garbage collection so outsourcing can work well
 - Not so for hospital cleaning

Government failure

- Markets may fail; but so may governments at national and sub-national level because of
 - Limited capacity
 - Lack of competence
 - Limited information
 - Limited resources
 - Faulty motivation
 - Excessive emphasis on short-term political gain
 - Corruption
- Thus
 - Market failure does not necessarily imply government intervention
 - Intervention increases efficiency only if cost-effective

3 The welfare state as a risk-sharing device

- A second major purpose of the welfare state is to share risk
- Too much risk is bad – but so is too little
 - Too much risk (e.g. no social safety net) is bad, and not only in equity terms: for example, if there is no safety net people are less likely to risk starting a new business
 - But so is too little risk, e.g. the Communist economic system

How actuarial insurance works

- Actuarial insurance

$$\text{Premium} = (1 + \alpha) pL$$

- p = probability that insured event will occur
- L = size of loss
- α = insurer's markup

When is competitive actuarial insurance efficient?

Competitive insurance is efficient if

- 1 Probabilities are independent (individual risk, not common shock or social risk)
 - 2 Probability is less than one (risk, not certainty)
 - 3 Probability is known (risk, not uncertainty)
 - 4 No adverse selection (no hidden knowledge)
 - 5 No moral hazard (no hidden action)
 - Endogenous probability
 - Third-party payment problem
- The failure of some of these conditions creates additional market failures, in this case in insurance markets
 - Will discuss these below in context of health care

Risk and uncertainty

- The distinction
 - Risk: probability distribution of outcomes is reasonably well known
 - Uncertainty: probability distribution not well known
- The actuarial insurance mechanism addresses risk but has problems covering uncertainty
- Social insurance can cope with both risk and uncertainty

Social insurance

Differs from actuarial insurance in 2 ways:

- Compulsory, hence
 - Up to a point, gets round adverse selection, i.e. good risks can't leave the plan
 - And therefore allows redistribution
- The contract is not fully specified, hence
 - Benefits can respond to unforeseen events (i.e. can address uncertainty) (2008 economic crisis; pandemic)
 - Benefits can respond to social change (pensions for partner to whom not married)
- Thus there are two separate but mutually reinforcing rationales for social insurance
 - As a response to market failure
 - As a redistributive device (though care needed to ensure that redistribution is progressive)

The ‘new social risks’

- Social policy in 1950 was based on a series of assumptions about labour markets, family structures and skills
- These assumptions have become less and less true, requiring social policies that recognise a broader range of uncertainties
 - Changing risks: labour markets
 - Changing risks: family structures
 - Changing risks: skills

Implications

- The world faces major uncertainties
 - Economic (another economic crisis?)
 - Political (Ukraine, the Middle East)
 - Medical (antibiotic resistance, pandemics)
 - Environmental (climate change)
 - Social (changing age structure; the ‘new social risks’)
 - Technical (globalisation, robots, nuclear safety)
- Thus the welfare state as a device for risk sharing arguably is more important than ever

4 The welfare state to assist economic growth

An IMF study

- Ostry *et al.* 2014, p. 4 concluded that
 - ‘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.’

Pathways through which the welfare state 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
 - Reducing inequality in education and health outcomes, reduces inequality of opportunity and of income
- 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: IMF findings

- Over a broad range of redistribution, the argument that there is a tradeoff between economic growth and the equalising effects of the welfare state is generally not true
- More strongly, a well-designed, sustainable welfare state generally assists growth
- That is not an argument for anything goes

5 The welfare state to address distributional concerns

- Problems
 - Poverty
 - Widening inequality
- Policy responses
 - Income transfers: redistributive taxes and transfers, including social insurance broadly defined
 - Human capital: investment in skills and health
 - Family policies

Conclusion to Part 1

- Deliberately left the equity role of the welfare state till last to make it clear that – though its distributional purpose is of central importance – the welfare state is important for much wider reasons
- ‘[T]he welfare state does things which markets would do badly or not at all’ (N. Barr, *The Economics of the Welfare State*, OUP, 2020, pp. vii-viii)
- Why the emphasis on the efficiency arguments for the welfare state?
 - Important for design of policy that works well
 - To win the argument with the Ministry of Finance
- All the policies in the rest of the talk address both efficiency and distributional concerns

Part 2: Some lessons for organising a welfare state

Having set out relevant economic theory in the first part of the talk, now turn to policy

6. Social insurance
7. Health care
8. Social care
9. Pensions
10. Education

6 Social insurance

- That actuarial insurance covers some risks well (automobile, burglary) does not mean that it can be applied uncritically to other areas
- As noted, social insurance is both
 - A redistributive device, AND
 - A response to market failure, in particular
 - To ensure full coverage of bad risks
 - To accommodate uncertainty
 - To adjust to changing economic, demographic and social circumstances
- Depending on history and electoral preferences, social insurance can be designed
 - To resemble actuarial insurance more closely (Bismarck, e.g. NDC pensions in Sweden); or
 - To give greater weight to redistribution (UK after 1975: earnings-related contributions for flat-rate state pension)

7 Health care

Lesson 1: It's not just health care

- Sources of good health
 - Income/wealth
 - Individual choice
 - A person's environment
 - Access to health care
 - Inheritance
- Advice to the Minister of Health: spend part of the health care budget on
 - Diet and nutrition, especially for young children
 - Advice on healthy lifestyles
 - School sports facilities
 - Etc.

Lesson 2: Actuarial insurance not a good fit for important medical risks

- 1 Probabilities independent: normally yes, but not during epidemic or pandemic
- 2 Probability is less than one: yes for broken leg; not for a pre-existing condition and for older people
- 3 Probability is known: generally holds
- 4 No adverse selection: people who are bad medical risks can hide the fact from insurance companies
- 5 No moral hazard:
 - Ability to affect the probability: elective care, pregnancy
 - Third-party payment problem: if insurance company pays neither doctor nor patient has to worry about the cost of care
- Conclusion: the model of actuarial insurance is a bad fit for medical risks

What theory predicts

- Gaps in coverage
 - Pre-existing and chronic health problems
 - The elderly
- Uninsured individuals
- Exploding costs

What happens in the USA?

- Gaps in coverage in exactly those areas which theory predicts
 - Older people
 - Poor people
 - People with long-term health problems
 - Maternity and child welfare
- Unequal access
- High and rising medical spending

Health spending, various countries

	Health spending per head, 2016 (US\$ PPP, 2010 prices)	Health spending, per cent of GDP, 2016
Canada	4,378	10.3
France	4,088	11.0
Sweden	4,993	11.0
UK	3,759	9.7
USA	8,985	17.2

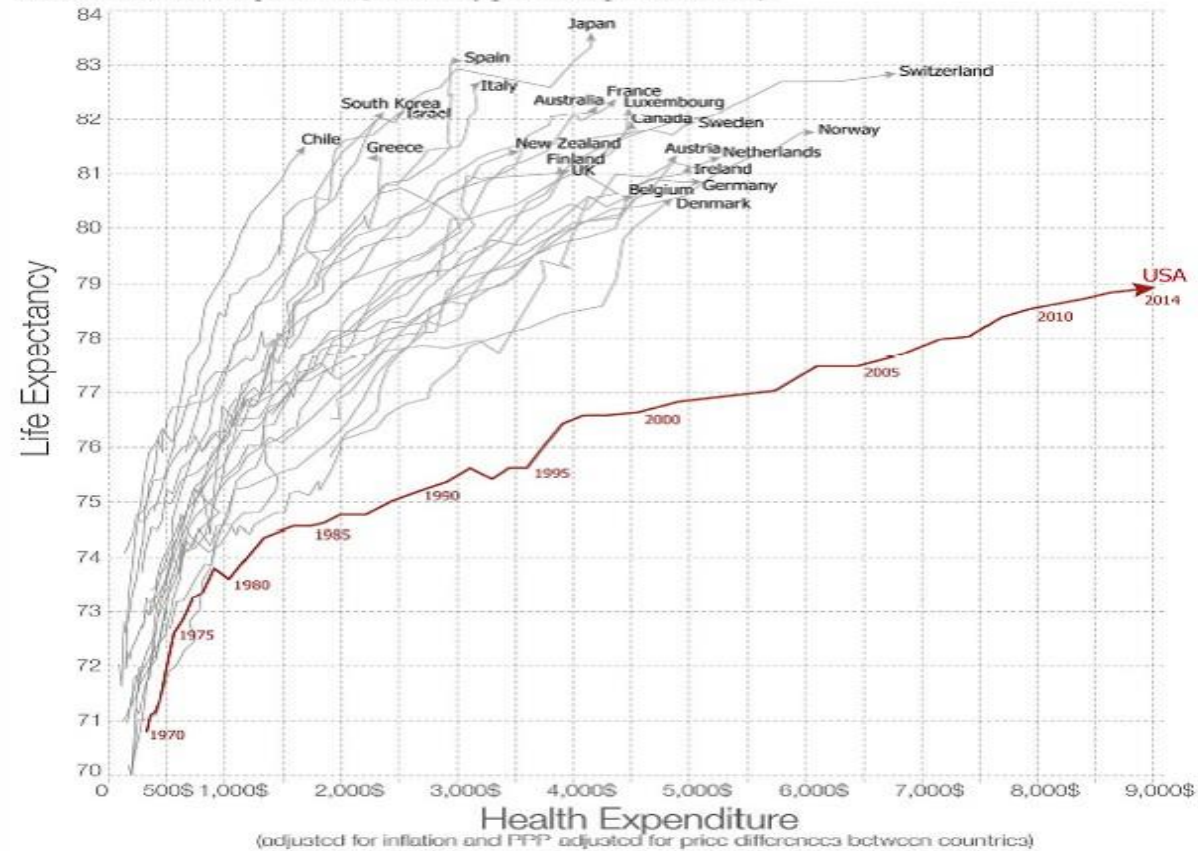
Source: <http://stats.oecd.org/Index.aspx?DataSetCode=SHA>

Design Matters

<https://ourworldindata.org/financing-healthcare>

Life expectancy vs. health expenditure over time (1970-2014) Our World in Data

Health spending measures the consumption of health care goods and services, including personal health care (curative care, rehabilitative care, long-term care, ancillary services and medical goods) and collective services (prevention and public health services as well as health administration), but excluding spending on investments. Shown is total health expenditure (financed by public and private sources).



Data source: Health expenditure from the OECD; Life expectancy from the World Bank. Licensed under CC-BY-SA by the author Max Roser. The data visualization is available at [OurWorldinData.org](https://ourworldindata.org) and there you find more research and visualizations on this topic.

And the politics of reform are difficult

- If the US spends 16% of GDP to cover 80% of the population, covering 100% implies one or more political bads
 - a) Spending 20% of GDP (places burden on taxpayers)
 - b) Diluting what the 80% get (places burden on current recipients of health care)
 - c) Paying less to medical providers and pharmaceutical companies (burden on suppliers of medical care) and/or
 - d) Reducing government spending on some other area (burden on those who currently benefit from whichever non-health spending is cut)

Lesson 3: No perfect system

Problems are predictable outcomes of a country's chosen strategy

- **Private finance + private delivery, e.g. USA:**
 - Coverage: incomplete insurance, uninsured individuals
 - Cost containment: a major problem
- **Public finance + private delivery, e.g. Canada**
 - Coverage and equity: good
 - Cost containment: a continuing pressure
- **Public finance + public delivery, e.g. UK**
 - Coverage and equity: good
 - Cost containment: good
 - Consumer responsiveness: a potential problem area
 - Waiting lists: a major problem

Conclusion

- Fundamental distinction: finance and delivery
- Finance
 - US problems are no accident, but a predictable result of relying on private medical insurance when technical problems argue against
 - Finance: for that reason, health care systems in OECD countries, with the exception of the USA, rely mainly on public finance
- Delivery: can be public, private or a mix
- These conclusions are technical rather than ideological

8 Social care

- A hypothetical private market for long-term care faces a range of serious technical problems similar to medical insurance
- As with health care
 - Finance: strong case for relying mainly on public finance, through social insurance, taxation or a mix – for both efficiency and equity reasons
 - Delivery can be public, private or mixed
- Again, these conclusions are technical rather than ideological

9 Pensions

- A huge topic
- Focus on selected aspects
- Pay-as-you-go (PAYG) and funded pensions
- Defined-benefit and defined-contribution plans

Lesson 1: Many different systems

- Canada
 - National defined benefit plan with rules for adjusting to a deficit; partially funded
 - Non-contributory pension for people with low pensions
- Sweden
 - Notional defined-contribution (NDC) plan, partially funded
 - Guaranteed minimum pension
- Netherlands
 - Non-contributory pension for all workers
 - Funded industry plans
- Chile
 - Non-contributory pension for lowest 60% of pensioners
 - Funded individual accounts

Lesson 2: Good reasons for saving, but many ways of doing so

- Increased saving and investment are rational responses to population ageing but need to be implemented with care, e.g. productive assets
- Funded individual pension accounts are one way to organise saving but not the only way
- Within the pension system options include
 - Fully-funded individual accounts from multiple competing providers (Chile, Australia)
 - Simpler, cheaper individual accounts with less choice (US Thrift Savings Plan, UK NEST pensions – more below)
 - Fully-funded industry plans (Netherlands)
 - Partially-funded NDC (Sweden)
 - Partially-funded DB (Canada)
- Outside pension system: Norway sovereign wealth fund

Lesson 3: Don't overstate the usefulness of consumer choice

- Lessons from behavioural economics
- What conventional theory predicts
 - Voluntary saving to maximise lifetime utility (consumption smoothing)
 - Voluntary purchase of annuities (insurance)
- What actually happens
 - Bounded rationality
 - Procrastination: people delay saving
 - Inertia: people stay where they are; in theory it should make no difference whether the system is opt in or opt out – in practice, automatic enrolment leads to higher participation
 - Immobilisation: impossible to process information about more than 800 different funds (90% go into Swedish default fund)
 - Bounded will-power
 - People do not save, or do not save enough

What happens

- Consumers often
 - Do not save enough
 - Retire too soon
 - Delay choice or make no choice (Sweden)
 - Choose an unsuitable portfolio
 - Active not passive
 - Inadequately diversified
 - Current inducements, e.g. some sort of reward when signing on
 - Trading too much or at the wrong time
 - Holding equities too close to retirement
 - Taking insufficient account of family members
 - Not taking account of administrative charges
 - Choose an unsuitable adviser
- Firms exploit asymmetric information
 - High charges, often with little relation to fund performance
 - Biased advice
 - At worst, fraud

Why? Recent lessons from behavioural economics

- Experimental evidence shows high discount rate in short run, much lower in long run
 - Next week's snack: 2/3 chose fruit salad, 1/3 chocolate
 - This week's snack: 1/3 fruit salad, 2/3 chocolate
- Thus people are rational for the future, but not the present; but when the future arrives it is the present, so the short-term wins
- Examples: start dieting tomorrow; give up smoking tomorrow; but when tomorrow comes ...
- Results call into question the simple model of long-term rationality

Conclusion

- Many ways to organise saving
- No single best pension system for all countries
- If a country chooses to have individual pension accounts, design should be based on a realistic view of individual behaviour. In particular should be designed to avoid requiring complex choices
 - A well-designed system should
 - Should assist choice where people wish to makes choices, but
 - Should also work well for people who make no choice, and
 - Making no choice should be a perfectly acceptable option
 - Not a condescending remark
- The two things that matter most for effective pension systems are
 - Good government
 - Output growth

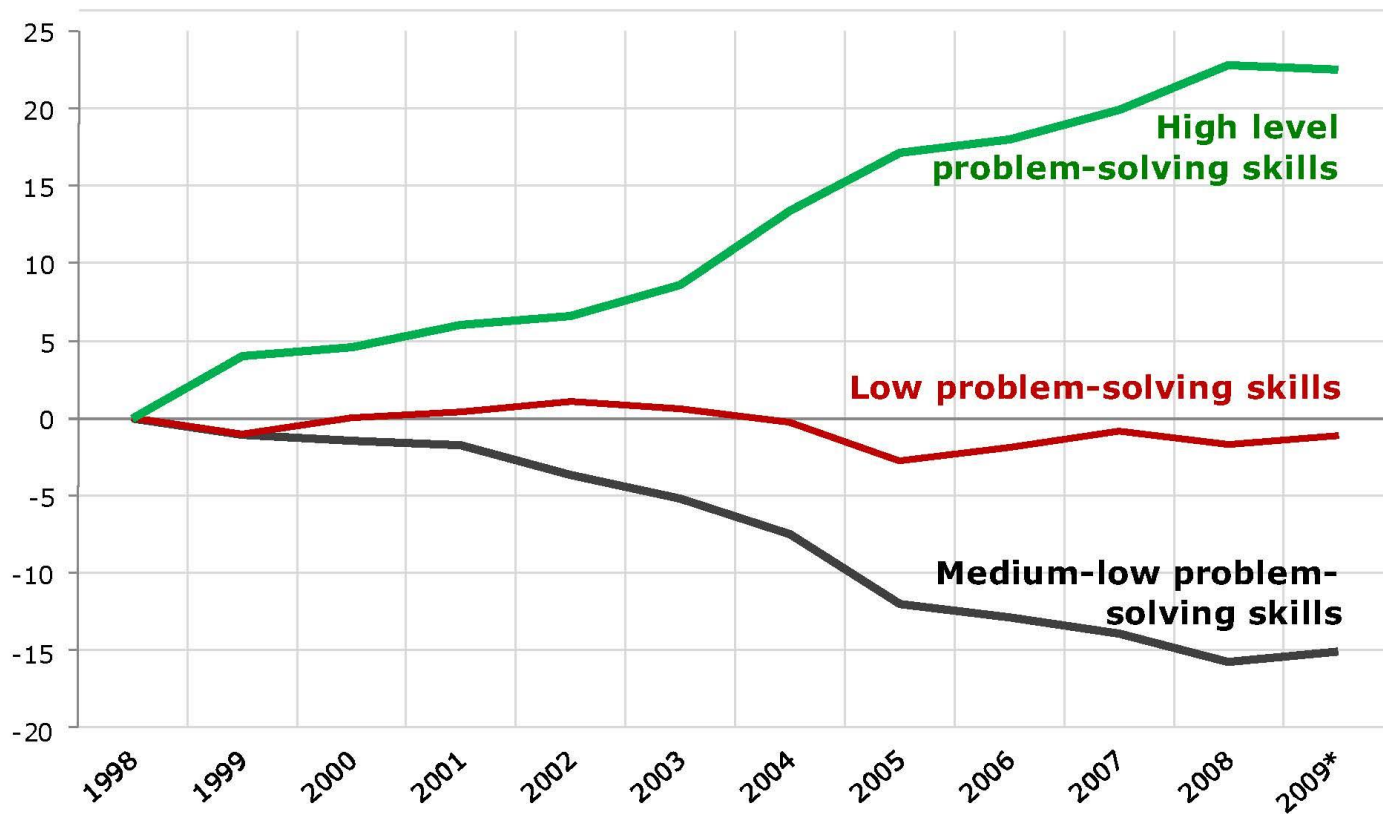
10 Education

Lesson 1: Human capital is increasingly important

- Technical advance 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

Source: OECD



Lesson 2: The role of values is central

Objectives of education: to transmit

- Knowledge and skills, *and also*
- Attitudes and values
- A shared value is tolerance; but how much tolerance of different views is desirable?
- Some examples of values I have come across
- Implications: what values am I promoting?

Lesson 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
- Thus early child development is an essential element in promoting social equity

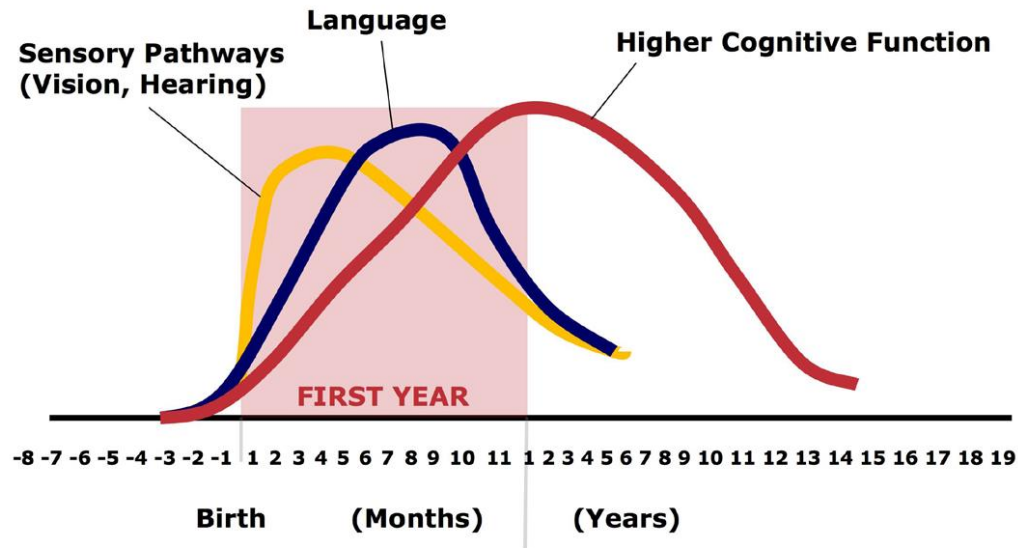
The neuroscience

http://developingchild.harvard.edu/library/briefs/inbrief_series/inbrief_the_science_of_ecd/



Center on the Developing Child
HARVARD UNIVERSITY

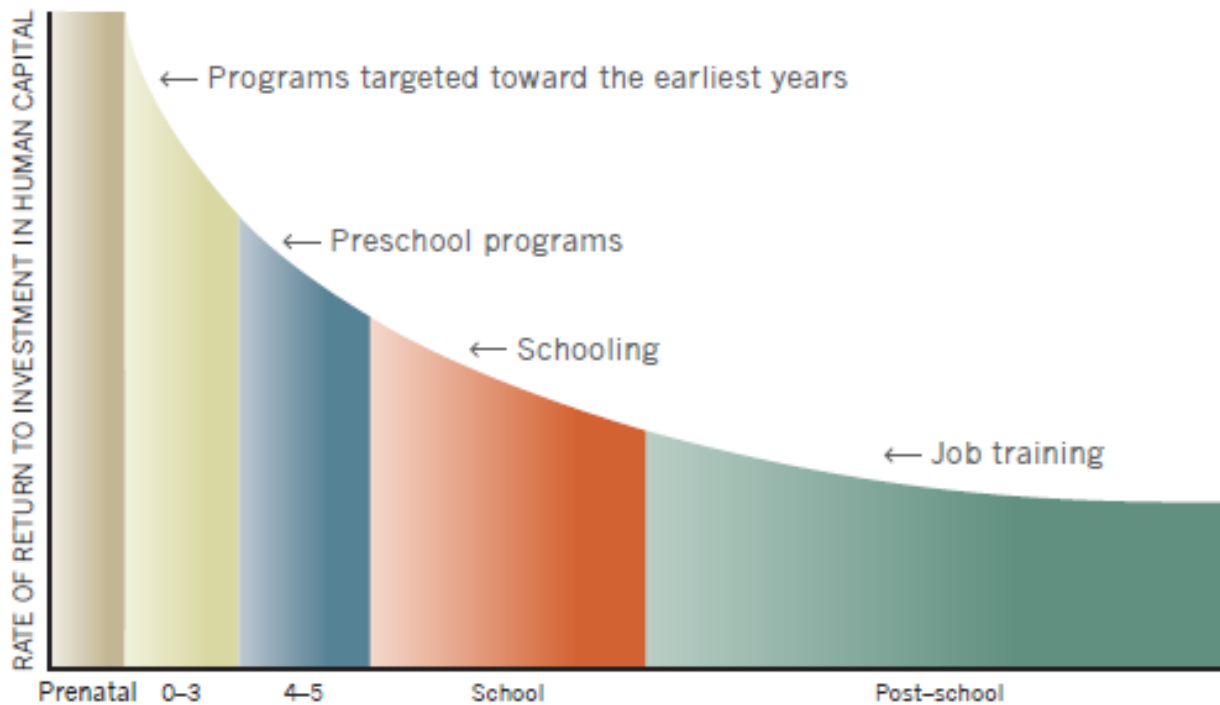
Human Brain Development Neural Connections for Different Functions Develop Sequentially



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.’

Lesson 4: Multiple market failures

1. External benefits

- Benefits to future taxpayers
- Production benefits
 - Someone who is more productive can make others more productive
 - Clustering effects (Silicon Valley, Cambridge (Mass.), Cambridge (UK))
 - Student peer effects
- Family benefits
 - Child will generally do better if he/she has educated parents
 - Child minding benefits
- Social cohesion – more than just wishy washy blather
 - Shared experiences
 - Shared values

2. Imperfect information

3. Incomplete contracts: inability to fully specify a contract *ex ante* or monitor quality *ex post*

4. Missing markets

- Thus major government involvement in education in all OECD countries

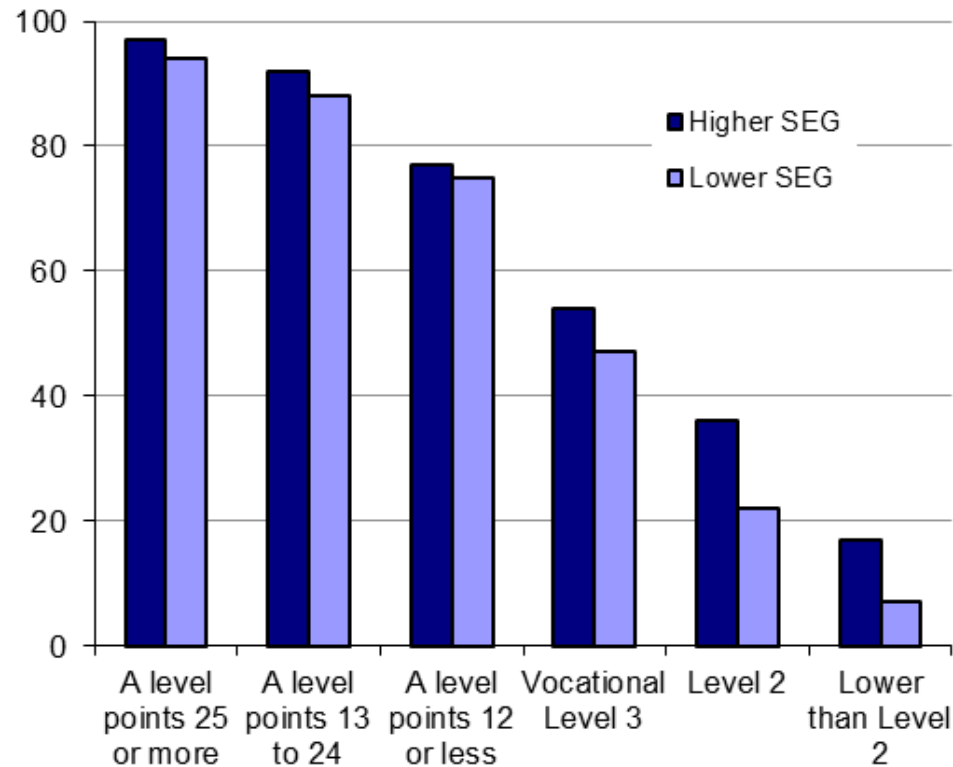
Equity issues

- Who makes the best choices about education?
- Who is best able to turn choices *ex ante* into outcomes *ex post*?

Lesson 5: Attainment in school is a primary determinant of access to higher education

England: Who goes to university? It's school attainment, stupid

Office for National Statistics (2004), *Focus on Social Inequalities*, 2004 edition, London, Figure 2.15)



Lesson 6: A good student loan system has income-contingent repayments

- Repayments are $x\%$ of the graduate's subsequent earnings, collected each week or month alongside income tax and social insurance contributions
- A payroll deduction, NOT credit-card debt
- A well-designed loan offers insurance in two ways
 - Income-contingent repayments provide insurance against low current income
 - Forgiveness after (say) 25 years provides insurance against low lifetime income
- Thus the design combines consumption smoothing (the loan) with insurance, because investing skills can be risky
- Examples: Australia, New Zealand, UK (10 year campaign)

11 Conclusion

The logic of the welfare state

- Distinguish
 - Objectives (the What)
 - Instruments (the How)
- The main place for ideology is in choosing the objectives of policy, e.g. how much weight to give to distributional concerns
- Once the objectives have been set, choices about modes of delivery, i.e. the How, are properly treated more as a technical issue than an ideological one

Reading

Nicholas Barr (2020), *The Economics of the Welfare State*, 6th edition, Oxford University Press, especially chapters 3 and 4 or the non-technical appendices to chapters 3 and 4

Nicholas Barr (2021), ‘Pension Design and the Failed Economics of Squirrels’. *LSE Public Policy Review*, 2021; 2(1): 5, pp. 1–8. DOI: <https://doi.org/10.31389/lseppr.40>

Nicholas Barr and Peter Diamond (2009), ‘Reforming pensions: Principles, analytical errors and policy directions’, *International Social Security Review*, Vol. 62, No. 2, pp. 5-29.

In Spanish: ‘Reforma de las pensiones: principios, errores analíticos y orientaciones políticas’, *Revista Internacional de Seguridad Social*, 62/2, 2009, 5-33.