Financing higher education: Principles and an outline of the story in England

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1 Objectives

- Quality: strengthening the quality of teaching and research
- Access: raising participation by students from disadvantaged backgrounds
- Size: ensuring the sector is large enough, given that skill-biased technological change is driving up the demand for skills, requiring more training

The future is bleak for those with medium skills

Source: OECD

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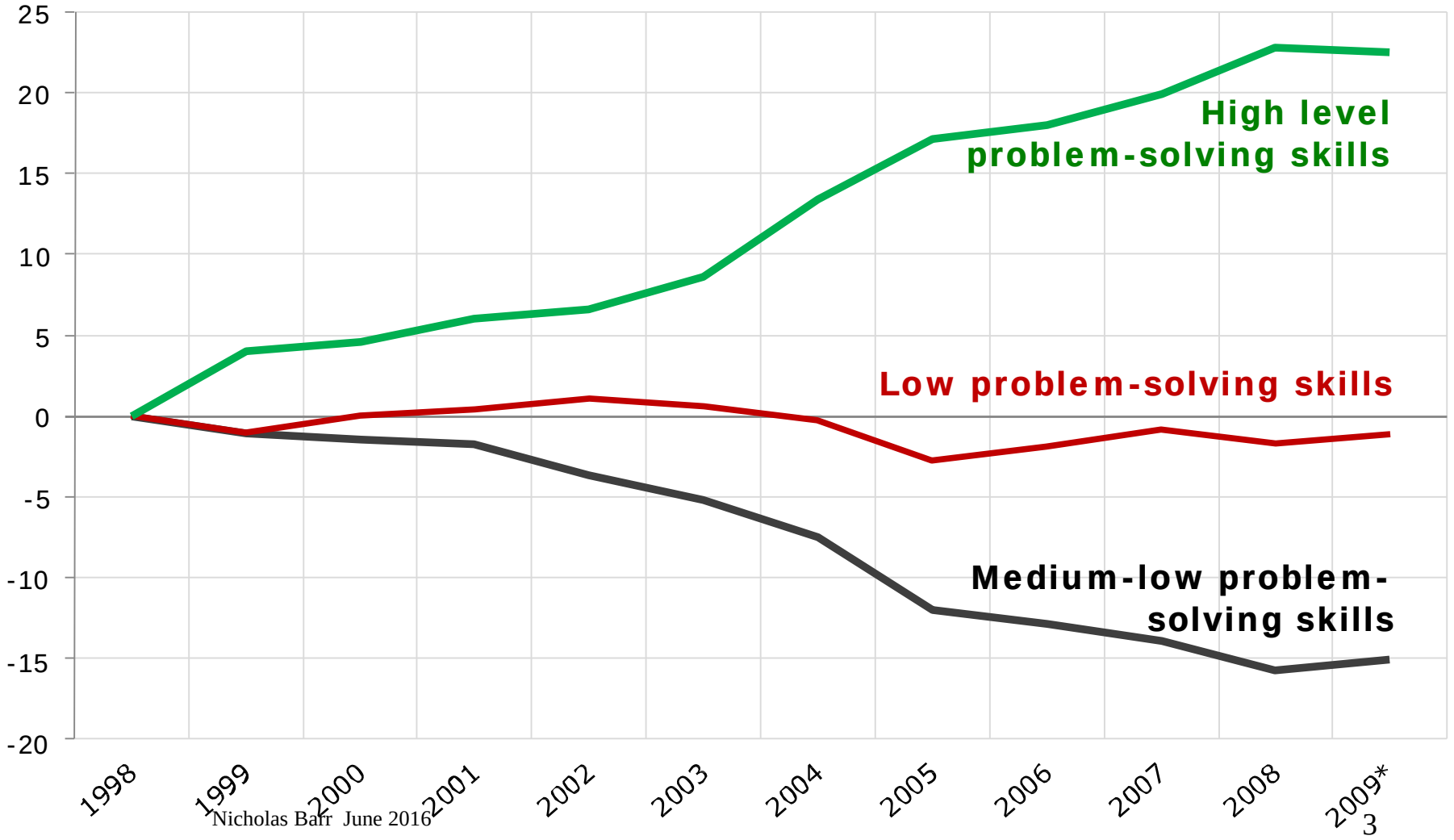


2 From economic theory to policy design

Lessons from economic theory

1) Cost sharing: graduates (not students) should share in the costs of their degree
2) Well-designed student loans have core characteristics, a central element being income-contingent repayments
3) Competition between universities helps students
4) Government has an important and continuing role

Will focus on (1) and (2)

Income-contingent repayments are very different

- Conventional loan repayments: monthly repayment of $X for *n* years.
- Income-contingent repayments
  - *x*% of the borrower's income until loan repaid
  - Loan duration is variable
- Income-contingency turns many standard understandings upside down
  - An increase in the interest rate has no effect on monthly repayments; what changes is the duration of the loan
  - What is fixed is the fraction of a person's income absorbed by loan repayments; the variable is the duration of the loan

2.1 Why loans?

- Arguments for cost sharing
  - Social benefits but also private benefits
  - Macro: the railroad crash
  - Equity arguments: ‘free’ is just another word for ‘some other sucker pays’
- But credit constraints
  - Students generally cannot afford to meet their cost share while students
  - Thus need a mechanism that provides consumption smoothing – loans

2.2 Why loans with income-contingent repayments (ICR)

- Friedman's (1955) insights: in contrast with home loans, loans to finance investment in human capital face two problems
  - No physical collateral
  - Asymmetric information
- The first implies excessive risk for borrowers; both imply excessive risk for lenders
- Thus with conventional loans lending is inefficiently low

Different ways of thinking about income-contingent repayments

- Friedman:
  - 'The device adopted to meet the corresponding problem for other risky investments is equity investment plus limited liability on the part of shareholders. The counterpart for education would be to "buy" a share in an individual's earning prospects: to advance him the funds needed to finance his training on condition that he agree to pay the lender a specified fraction of his future earnings' (Friedman, 1955, p.138)
- Yale: all members of a cohort in a shared risk pool
- Analogous to social security (hence Barr (1988) proposed collecting repayment as an add-on to social security contributions)

2.3 Income-contingent repayments: How

- Graduate tax (Friedman), i.e. pay fraction of earnings for life or (say) till retirement. This is equity finance
- Loans: repayment continues until have repaid some specified amount, e.g. 100% of amount borrowed in present value terms
- Will focus on loan finance

Different ways of implementing income-contingent repayments

Loan repayments can be based on

- Current income (US social security; student loans Australia, New Zealand, UK); this is the best system
- Past income (US income-based loans; Hungary)
- Hybrid (the Netherlands)

2.4 Implications for good design

An efficient loan system must provide

- Consumption smoothing: the loan needs to be large enough to provide consumption smoothing
- Insurance: for effective consumption smoothing, the loan needs to provide insurance against low earnings. A well-designed loan does so in two ways
    - ICRs provide insurance against low current income; **repayments based on current income instantly and automatically fall to zero if (say) a person becomes unemployed**
    - Forgiveness after (say) 25 years provides insurance against low lifetime income
- Loans provide consumption smoothing; other instruments are more powerful in fostering social mobility

Key elements in design

- What repayment rate(s), i.e. what is *x*?
- What repayment threshold, i.e. at what level of income do repayments start?
- What interest rate? At least cost of finance
- What cap on borrowing
    - Total per person
    - An annual cap?
- Forgiveness after *n* years; what is *n*?
- A robust collection mechanism, e.g. payroll deduction in the US

Mistake to avoid: a blanket interest subsidy

- In a conventional loan scheme, an interest subsidy helps people with low earnings by reducing monthly repayments
- But a well-designed student loan system has
    - Income-contingent repayments
    - Forgiveness after (say) 25 years
- These two features turn the conventional argument upside down
- Who benefits from interest subsidies?
    - Students?
    - Low-earning graduates?
    - High earning graduates with low early-career earnings?
    - High earning graduates?

Subsidy as per cent of total loan, by decile of lifetime earnings (2006 system)

(Johnston and Barr 2013, drawing on IFS data)

3 Evidence on the determinants of participation

- According to ‘pub economics’ it is obvious that ‘free’ higher education widens participation
- Pub economics is wrong
- Access is at least as much a 0-18 problem as an 18+ problem

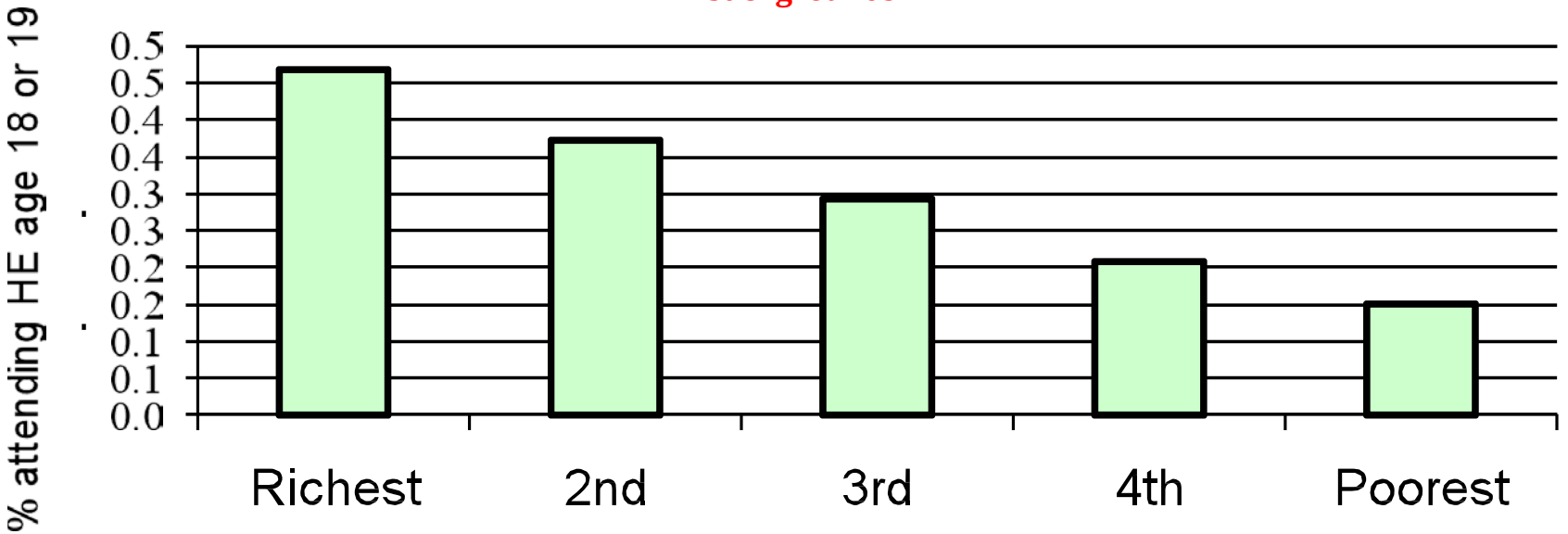
3.1 Problem 1: Not getting to the starting gate

- Early child development matters
- School attainment matters

England: Fewer poor people go to university

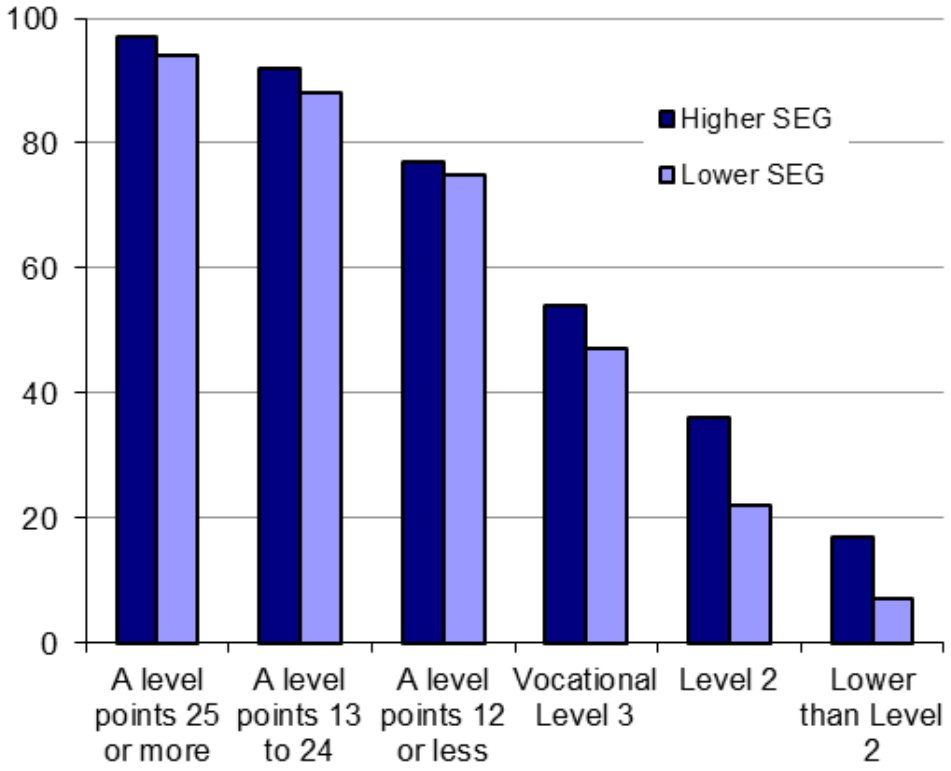
Chowdry, Haroon, Crawford, Claire, Dearden, Lorraine, Goodman, Alissa and Vignoles, Anna (2013), 'Widening participation in higher education: analysis using linked administrative data', *Journal of the Royal Statistical Society*, Series A, 176, Part 2, pp. 431–457

25% of young people from the best off backgrounds get top grades, only 3% of those from the poorest backgrounds



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)



3.2 Problem 2: Getting to the starting gate but then baulking

- Risk aversion rather than debt aversion
- If someone is highly risk averse it may be rational to refuse to take out a loan even if it has income-contingent repayments

4 UK reforms in 2006: How to get it right

4.1 The strategy that economic theory suggests

- Element 1: quality and size: higher education and training should be financed from a mix of taxation and variable fees
- Element 2: Well-designed loans to address credit constraints
- Element 3: Policies to address prior constraints on participation

4.2 What the evidence shows: the 2006 reforms in England

The reforms

- Fees: variable tuition fees of up to £3,000 (US$5,000) per year, replacing the previous fixed fee of £1,000
- Loans:
    - An income-contingent loan to cover the full tuition fee (previously there had been no loan to cover fees)
    - An increase in the income-contingent loan to cover living costs
    - Forgiveness after 25 years
- Continuation of previous policies earlier in the systems

The 2006 strategy got it broadly right

- Financing universities: variable fees
- Addressing credit constraints: income-contingent loans to cover fees and living costs
- Policies earlier in the system to address prior constraints on participation

What happened?

Between 2006 and 2012:

- Tuition fee income +87%
- Number of grants and loans +25%
- Number of students +20%
- Number of applicants from most disadvantaged background +53%

Postscript: the 2012 reforms (Barr 2012*a*)

- The good
  - Raising the fees cap (though the increase to £9,000 (US$13,000) was too large)
  - Raising the interest rate on student loans
- The bad
  - Abolishing taxpayer support for the arts and humanities and the social sciences
  - Raising the threshold at which loan repayments start, thus sharply reducing the repayment flow
- The unspeakable: abolishing policies earlier in the system

5 Conclusion

- A strategy, not a bunch of policies that people happen to like
- Two examples: New Zealand 1993-2000, England 2006-2012
- The economics is easy; but the pub economics makes the politics horribly difficult

References

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