The Role of Economic Modelling in Influencing Government Education Policy

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Making the case

→ Economic modelling has had great influence on education policy

→ Education research lends itself to economic analysis given the methodological and theoretical challenges inherent in the field
Methodological Robustness

• Economic analyses have been particularly influential partly because of quantitative methods used and also methodological robustness

• Econometric modeling approaches enable causal relationships to be drawn
  – Timing/Before-After methodology/Diff in Diff
  – Richness/structural models/IV
• How has economic modelling influenced policy?
Inter and intra generational analysis

• **Skills develop in early childhood**

• **Socio-economic gaps in cognitive and non-cognitive skills emerge early**
  - Carneiro and Heckman, 2004; Feinstein, 2003

• **Strong intergenerational component**
  - Ermisch and Francesconi (2001); Chevalier *et al.* (2007); Plug (2004); Sacerdote (2002); Brown et al. 2009; De Coulon, Meschi and Vignoles, 2008
Inter and intra generational analysis

• Role of education in promoting or preventing social mobility and inequality

• Education has had a disequalising impact on mobility

• Disproportionately benefited individuals from richer families
  – Blanden and Machin, 2005.
Policy impact

• Early intervention
  – 40% increase in primary expenditure since 97
  – positive impact on achievement
    – Machin et al. 2007

• Family intervention
  – intergenerational persistence of attitudes and aspirations
  – parenting programmes introduced
    – Goodman and Gregg, 2009
Rate of return analyses

• Policy-makers have scarce resources and must decide whether to spend more on the army, the NHS or the school system.

• Resource decisions are (partially) based on the economic value of potential investments.

• A key policy question is therefore what is the economic value of education?
Rate of return analyses

• Convincing methodologically and used to increase investment in education

• % of GDP spent on education rose
  – 5.2% in 1995 to 5.9% in 2006

• % of GDP spent on primary and secondary education increased
  – 3.6% in 1995 to 4.3% in 2006
Basic skill policy

• The UK has a poor record in terms of the basic skills of its adult population
  • Moser report, DfEE, 1999
  • Heavily cited work of Bynner, Layard, Vignoles and others that relied largely on NCDS data
  • Showed high proportion of individuals who lacked basic skills
  • Showed very high return to having good basic skills
Basic skill policy

• Policy response quite clear
• PSA targets to improve the basic skills of adults by 2010
• Skills for Life programme
• Train to Gain
  – Subsidised work related training for low skilled workers
Ignore at will: the case of NVQ2

• Academic level 2 qualifications yield sizable returns

• Some traditional level 2 vocational qualifications do yield sizeable wage returns
  – 13% for a BTEC First or General Diploma
  – 5-7% for a City and Guilds Craft qualification

• Wage returns to NVQs are negligible at levels 1 and 2
Ignore at will: the case of NVQ2

• Acquiring qualifications late leads to lower returns even for academic qualifications
• Even for young workers, NVQs do not perform as well as other VQs and certainly not as well as academic qualifications
• Still did not stop government endorsing a level 2 entitlement
A multi disciplinary approach

• Maternal employment
• Impact on family income, mothers
• Impact on children
  – Evidence from cohort studies suggested impact was relatively small although significant in first year of life
• Impact on policy to further encourage women back into work
Conclusions

• Impact of economic evidence base on education policy is profound

• Policy is of course only partially determined by evidence.............