NOTTINGHAM TRENT UNIVERSITY

Education

Lectures 11 and 12

Le Grand, Propper and Smith (2008): Chp 3

Bochel, Bochel, Page and Sykes (2009): Chp 11

Stiglitz (2000): Chp 16

Outline

- Social objectives of education
  - efficiency
  - equity
- Education and the market system
- Forms of Govt intervention
- Education Reforms

Education and Resource Allocation

- Education and Efficiency
  - Maximise net social benefit

- Measuring education benefits

1. Production benefits
   - Investment and future productivity
2. Socialisation benefits
   - Transmission of knowledge
   - Socialisation function v home education

Education and Equity

– Equitable distribution

– Definition of Equity

1. Minimum level
2. Equal access
3. Equality of opportunity

Education and the Market System

- Investment in human capital
  - Costs v future returns

- Education costs
  - Direct costs
  - Opportunity cost of income forego

Education benefits

- Future productivity

- Education as an Inv decision
  - eg university education
  - Costs: areas A + B
  - Benefits: area C

    ⇒ if NPB is positive,
    invest in human capital

Figure 1 **Time Profile of Cost and Benefit Flows**

Education and the Market System (contd)

- If returns to education are high
  - $\Rightarrow$ Students: willing and able to finance studies and repay later
- Advs of the market system
  - Preferences and choice
  - Availability of efficient education system
- Why govt assistance?
- Education and inefficiency
  - Imperfect information
  - Externalities

Education and the Market System I: Imperfect Information

- 1. Supply-side: borrowing requirements
  - Low-income groups, no collateral
    $\Rightarrow$ high-risk premium favours the well-off
  - adverse selection problem
    $\Rightarrow$ lending is inefficiently low

- 2. Demand-side: decision-making
  - A complex process
    $\Rightarrow$ under-estimate the value of education and over-estimate the costs
    $\Rightarrow$ **debt-aversion** to financing education

- Education determines job prospects & quality of life
  $\Rightarrow$ minimise potential for individual mistakes

Education and the Market System II: External Benefits

- Total social benefit = private benefits + external benefits

  $\Rightarrow$ Market provision is inefficient

- 1. Economic benefits
  - Employment benefits: co-operation and overall productivity
    eg efficient management and supervision
  - Production benefits: technological progress and growth
  - eg flexibility and adaptability

- 2. Non-economic benefits
  - Socialisation function

- How to measure external benefits?

Higher Education (HE) and Signalling

- How to distinguish productive v unproductive workers?

- Screening hypothesis
  - HE is a proxy for innate skills and abilities
- a. Strong form
  - HE has no effect on individual productivity
  - A signal to employer that the individual is productive
- b. Weak form
  - Skilled individuals invest in HE to $\uparrow$ appeal to employers
  - HE raises individual productivity; social returns > private returns

$\Rightarrow$ HE is merely a signal of ability

$\Rightarrow$ Govt intervention questionable

Education and the Market System III: Equity

- Non-investment in education is a rational decision
  - Low-income households
  - Credit-constrained and inability to borrow
  - Less knowledgeable of future benefits

  ⇒ Perpetuated across generations

⇒ Govt intervention: equity and efficiency goals

- Compulsory education
- Higher education

Govt Policy: Compulsory Education Reforms

- UK system 1945-1990
  - Finance education from general taxation.
  - Provide education free of charge
  - Limited private education
- Reforms
  - Maintain free education
  - Individual choice, reward school numbers, public information
- 1. Quasi-markets
  - Open enrolment
  - Following the pupil
  - School performance is public information
- 2. Education voucher
  - Entitles an individual to pay for a given quantity of education services
  - Schools redeem vouchers from the govt for a cash sum

Compulsory Education Reforms: Issues

- 1. School choice and school behaviour
  - Exam performance, league tables and 'gaming the system'

    …but broader educational goals

    …and incentives to massage the data
  - Policy: contextual value added

- 2. School choice and efficiency
  - Supply side flexibility
  - Financial implications of student numbers
  - Policy: lottery scheme to prevent over-subscribed popular schools

- 3. School choice and equity
  - Low-income families: quality and duration of education

Govt Policy: Higher Education (HE)

- Link between education and growth?
- Substantial private returns
- Variable govt intervention
- 1. Traditional model of state provision and state funding
  - Public sector universities
  - Entrance exam
  - Free of charge
  - Student grants
- 2. Cost-sharing
  - Costs of provision
  - High private returns
  - Market incentives for providers

Financing HE I: Grants

- UK attendance in HE relatively low but increasing
- Free education & non-repayable maintenance grant
- In favour of grants
  - equalise access

  …but in reality: favours the well-off
- Against grants
  - unrelated to cost of study
  - unrelated to future income
  - stage of education v EMA

Financing HE II: Loans

- Loans system
  - Recipient bears the costs and re-distributes the burden over time
- In favour of loans
  - equity: repayable loans reduce lifetime income inequality
  - efficiency: private costs and student responsibility
- Against loans
  - 1. lower appeal of low-paid jobs

    ⇒ Response: **income contingent loans** at subsidised or zero interest rate
  - 2. inequality of access v consumption expenditure

    ⇒ Response: income contingent loans

    ⇒ Additional targeted policies eg maintenance grant or write off loans in low-paid jobs or loan remission
  - 3. govt exp unreleased for alternative uses for many years

Financing HE III: Graduate Taxes

- Extra tax paid over entire working life if complete education

- In favour of graduate tax
  - As with loans, recipient pays tax v grants (all taxpayers)
  - Cheaper to administer v loans
  - Related to future income v grants

- Against graduate tax
  - Unrelated to cost of study
  - Disincentives to work

$\Rightarrow$ economic efficiency: loans are preferred

Provision of HE: Reforms

- Regulation of prices charged by HE universities
- 1. Fee charging in the UK since 1998
  - Same fee for all subjects and Universities until 2003
  - Promotes equality of access
    …but incentives to improve standards?
- Market reform and efficiency
  - Free(er) to set own fees: price signals
  - Demand-side: allocation of resources between courses
  - Supply-side: improved standards v flat fees: **price ceiling** or **price floor**
- 2. Variable fees
  - Universities differ in quality
  - Equity concerns: scholarships to be widespread and generous

Summary

- Efficiency: productivity and social benefits
- Equity: minimum standard and equality of access
- Markets: increase choice
  - …but imperfect information and externalities impede efficiency aim
  - …inability to pay and unequal distribution impede equity aim
- Dissatisfaction with traditional provision and subsidies
- Policy response: combine equity goals & market mechanisms
  - Compulsory education: lottery and student voucher
  - HE: student loans and targeted grants