

# Finding the Holy Grail

Comments on Jamison et al.



George Psacharopoulos  
gpsach@rcn.com

# Summary

- **A major contribution to the empirical literature on assessing the costs and benefits of education**
- **Important policy implications especially for developing countries**
- **Leads for future research**

# Traditional C-B analysis of education

- Estimate a rate of return on the education investment, similar to that for any other investment project,
- by comparing a stream of future benefits of education to the costs of education

# Rate of return species

Investor	Individual	Private rate of return
	State	Narrow-social rate Wide-social rate

# Bank interest example

$$\text{Rate of return} = \frac{\$5 \text{ annual interest}}{\$100 \text{ capital stock}} = 5\%$$

## Private rate of return

$$\textit{private} \quad r = \frac{\overline{W}_u - \overline{W}_s}{4 (\overline{W}_u)}$$

**About 16% in low-income countries**

# Narrow-social rate of return

$$\textit{social} \quad r = \frac{\overline{W}_u - \overline{W}_s}{4(\overline{W}_s + \overline{C}_u)}$$

**About 11% in low-income countries**

# Wide-social rate of return

## The Holy Grail!



- We know there are lots of non-market and external effects of education,
- but it has been very difficult to measure them and incorporate them in the social rate of return to make it “wide”.



# Jamison et al.

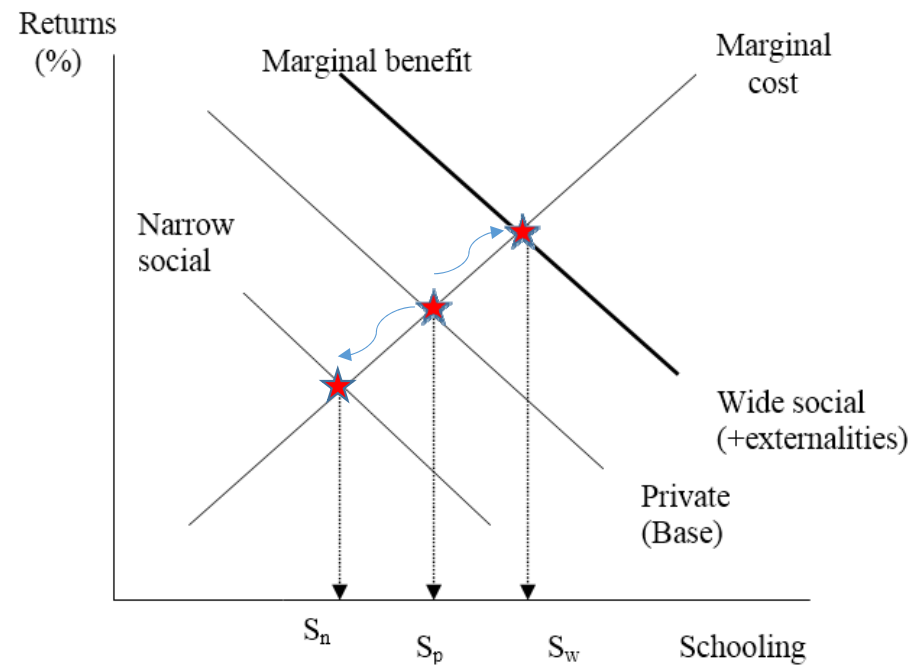
Added one non-market effect, health, to the benefits of education,

$$r = \frac{\text{Earnings differential} + \text{Value of mortality reduction}}{\text{Foregone earnings} + \text{Direct cost of education}}$$

resulting to a 16% wide-social rate of return

# Policy implications

Traditional earnings-based returns are gross underestimates



# Research frontier

- **Add more non-market effects of education, such as crime reduction**
- **Estimate country-specific wide-social returns**
- **Reconcile micro findings with macro growth accounting**
- **Use an appropriate cost-benefit methodology**