

The Returns to Schooling Unveiled

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Structure of the Paper

- Paper assesses the role of worker, firm and job unobserved fixed characteristics on the returns to education
- Further, the paper claims that the role of the firm can be further understood by co-worker interactions: productive externalities
- Hence, it assesses the role co-worker effects into the returns to own education

Findings

- Worker “skills” (unobserved heterogeneity) explain almost 60% of the returns to education
- The remaining 40% is related to positive assortative matching:
 - Into firms (25%)
 - Into jobs (15%)
- Access to skilled co-workers increases wages:
 - Most of it is sorting
 - But about 15% of co-worker effects are pure skill externalities

Assessment

- Fascinating paper...
- Provides first answers to lingering questions in labor economics
- Very interesting results
- Opens new questions and appetite for more research in the area

Outline

1. Theoretical Underpinnings
2. Econometric issues
 - Econometric Specification
 - Sample Selection
 - Intriguing Results

Theoretical Underpinnings

- Theoretical discussion is useful, but it is still unclear what the theoretical underpinnings of the empirical specification are
- Some modelling choices are not sufficiently justified
 - “coworkers of worker i as all workers that, in a given year, share the same firm and job title with worker i ”
- Given fact-finding nature of the exercise, it seems strange to be this restrictive

Externalities

- Example: worker i is a computer programmer
- She may be more productive if other programmers she works with are very good. Technological spillover that this paper isolates
- Other externalities may be present:
 - She maybe more productive at her job because the manager of her team is very good at organizing their work (Lucas, 1978)
 - She may also benefit from having an stellar sales team. Pecuniary externality

Econometric Specification

- Firm size and technology are endogenous.
 - Two dimensions of worker sorting:
 - Entry
 - Retention. Only good matches survive.
 - Firm-size: high ability workers will sort themselves into firms with higher growth potential, because large firms pay higher wages.
- Gelbach decomposition would allow assessing how much of the education effect is absorbed by these two factors

Econometric Specification II

- The current specification assumes that individual ability is fixed over time
 - This is a reasonable starting point
- Arcidiacono et al. (2012) discuss also the case in which ability accumulates according to the interaction between the individual and her peers.
 - This seems a natural extension in the context of the technological externalities discussed here

Econometrics. Sample Selection

- There are 95,000 job titles in the data.
- Paper restricts analysis to firms that have at least two workers performing the same task
 - How important is this restriction
 - What happens to other workers who do not have peers within the firms? How is the co-worker effect in this case identified?
- Education is fixed? But sample is defined by individuals who are 16-64.

Econometrics. Intriguing Results

- The R^2 in the model with co-worker fixed effects is 0.95. This is remarkable. Perhaps adjusted R^2 should be reported
- In some cases, the magnitudes of some effects is difficult to evaluate. What does 0.44 of the co-worker quality effect in Table 3 means?
- Results for co-worker schooling are intriguing. Worker FE explain 35% of the effect. How to interpret this result?

THANK YOU!

