Thesis Defense Handout

Ability bias in the returns to schooling:
How large it is and why it matters

by

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Importance

Ability is potentially a highly influential factor in the Mincer equation, on of the all-times most prominent models in labor economics.

- Labor policy: If ability is not controlled for, the returns to schooling are overestimated, which may lead to suboptimal policy decisions.

- Impact on the individual: For individuals, knowing, or contrarily the lack of the true extent to which one's future successess are determined by ability is inherently tied to making optimal life decisions.

Problem Formulation

The influence and extent of ability bias in the returns to schooling has long been a disputed topic in the returns to schooling literature.

- Out of 10 existing meta-analyses, only a single one searches for ability bias. That study suggests that ability is a significant factor in the returns to schooling.

- On the other hand, many researchers in the field dismiss the influence of general ability on returns to schooling completely, leading a dissatisfactory state of the literature on one of the most fundamental questions in labor economics.

Methodology & Data

Using a battery of standard and cutting-edge meta-analytical techniques to synthesize the existing literature into a comprehensive analysis.

- I assemble two full datasets on which I run my analyses: one comprised of 1754 estimates over 174 studies, and another one, focused only on identical twins, with 154 estimates from 13 studies.

- I test for publication bias, within-study heterogeneity, construct a best-practice estimate for all available studies, calculate economic significance, and run all of this on the twin dataset as well.

Contribution

- The thesis brings focus to a rather neglected question of ability bias, claiming that ability directly and negatively affects the estimates of returns to schooling, among a myriad of other variables.

- The thesis also runs another, complete meta-analysis comprised only of natural twin studies, suggesting that the returns to schooling drop by up to 2-3 percentage point when ability is controlled for.

- The work is backuped up by an open-source project that allows anyone to run a full-fledged meta-analysis using their own data in a matter of minutes.