

## Thesis Defense Handout

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

*by*

Petr Čala

## Importance

Ability is potentially a highly influential factor in the Mincer equation, one 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 success is 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 to 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 backed 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.

## Response to Comments on the Thesis

*TBA*