Masayuki Sawada University of Tokyo

Do natural experiments find the absence of the Quantity-Quality trade-off of children?*1

Abstract

We point out that previous findings in Black et al.(2005) and Angrist et al.(2006,2010) are not fully explaining the relations in Quantity (the number of children) and Quality (human capital accumulation) although their papers demonstrate there is no trade-off between Quantity and Quality. Moreover, we show that the causal effects are biased and there are negative effect of large number of children on their education using data from Indonesia in 1990s. This omitted variable is new since it is based on my new findings: "what does the causal effect imply?". From these two reasons above, conclusions in previous researches that "Quantity-Quality trade-off does not exist" do not hold. To find whether the Quantity-Quality trade-off exists or not, we also verify that classical approaches with natural experiment instrument cannot be an estimator or proxy of the substitution between Quantity and Quality and it is required to construct a dynamic structural model of parents decision on quantity and quality for the estimation of the trade-off. Finally, we point out what kinds of model to be considered and what types of policy will be an interesting target for counterfactual analysis.

^{*1} Full paper is available at https://sites.google.com/site/masasawada1123/home/papers