

# Intrahousehold Resource Allocation, Son Preference, and Fertility Restrictions: A Tale of Birth Order\*

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## Abstract

The health status of children has improved in tandem with China's dramatic economic growth since the reform and opening up. However, malnutrition is still a severe problem for rural children. Little attention has been paid to health inequality between siblings, which explains more than 60 percent of the total variation in rural children's height-for-age scores. In this study, I seek to improve our understanding of health inequality within families in rural China by exploring birth order effects theoretically and empirically. Specifically, I first document a negative birth order effect on health outcomes in rural areas using data from China Family Panel Studies (CFPS). Second, to reveal the mechanism of the birth order effect, I develop a multi-stage family utility model that incorporates both fertility and investment decisions. Different from the classical one-period parental preference models, children's skill formation in my model is abstracted into early and late stages and features self-productivity and dynamic complementarity. This proposed model suggests that when parents are credit-constrained, birth order effects will arise if the efficiency factors in children's early- and late-stage investments differ. Furthermore, I extend the model by introducing son preference, sex selection, and penalties for violating the one-child policy. The extended model generates several predictions on how birth order effects change with family income, son preference, gender, and enforcement of OCP. Finally, the data from CFPS confirm my theoretical predictions and suggest the rationality of the proposed theoretical framework.

*Keywords:* Intrahousehold resource allocation, gender preference, one child policy, birth order  
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