

# Discussion of “Differential Fertility and Economic Opportunity: Evidence from China’s One-Child Policy”

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# Paper Summary

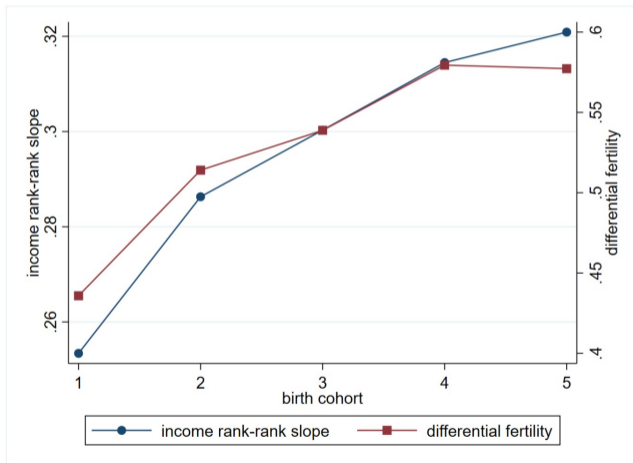


Figure 2. Trends in intergenerational rank-rank slope and differential fertility

## Paper Summary

- Using China's OCP as a quasi-natural experiment, this paper examines the effect of differential fertility on intergenerational income mobility.
- Rural/poorer families are less constrained by the OCP than their urban/richer counterparts, have more children, but invest less in each child's human capital.
- With fertility difference between rural and urban areas rising by 1, the intergenerational income persistence increases by 0.13 (53%), and this effect is driven by the rising mean percentile rank of children born to urban families.
- OCP contributes to 25% of the declining intergenerational income mobility from the 1970-73 to 1983-85 birth cohort.

## Contribution of the Paper

- Determinants of intergenerational mobility
  - family factors: genes (Black et al. 2020), education (Yang and Qiu 2016), income, and credit constraints
  - social factors: schools (Pakkarinen et al. 2009), neighborhood sorting (Chetty and Hendren 2018), government spending (Huang et al. 2021; Biasi 2023; Zheng and Graham 2022), racial segregation (Ward 2023)
  - This paper: differential fertility between rich and poor households – human capital investment
- Effect of OCP
  - Differential fertility between rural and urban areas (Ebenstein 2010, 2011, 2014, McElroy and Yang 2000, Zhang 2017)
  - Differential fertility leads to lower average human capital level because human capital investment in children is lower in rural areas (Wang and Zhang 2018)

## Comments: The IV Approach

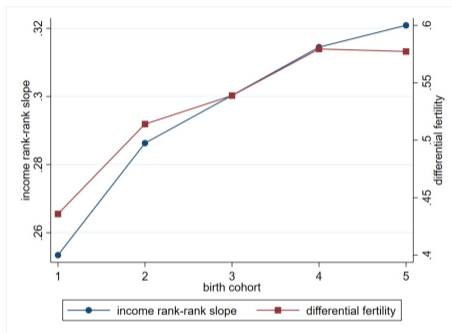


Figure 2. Trends in intergenerational rank-rank slope and differential fertility

### Potential confounding factors

- No guarantee job assignment
- College expansion

## Comments: The IV Approach

- The paper uses  $exposure_{ipc}$  and  $exposure_{ipc} \times RuralMother_{pc}$  as the IV of  $DiFertility_{pc}$

$$exposure_{ipc} = \sum_{a=17}^{46} ProbBirth_e(a) \cdot 1[\tau + a \geq PolicyYear_p]$$

- $exposure$  is the average exposure of the policy for mothers of all children in the province-cohort group (1970-73, 1974-76, 1977-79, 1980-82, and 1983-85).
- The  $exposure$  captures the effect of OCP on mothers' fertility over their life cycle, not for a specific birth cohort
- Mothers without children born in the specific birth year are not included, which may lead to selection bias
- The  $exposure$  variable is not significant, while the interaction term is significant — the interaction may capture the differential time trend across cohorts from regions with a larger share of rural population: job assignment, college expansion

## Comments: Alternative IVs

- Use the staggered roll-out of the OCP across provinces: from 1979 to 1984
- Economic fines
- Share of minority

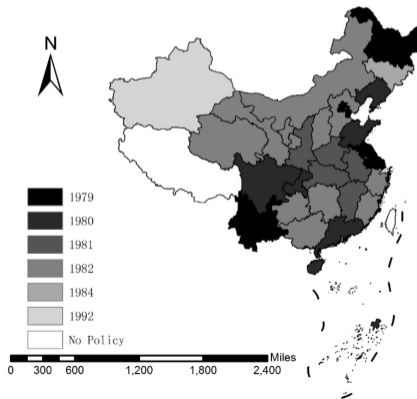


Figure A1. The rollout of China's one-child policy across provinces

## Comments: Potential Channels

- Human capital investment: impact on education rank-rank slope
- Sex ratio: more biased after OCP, and parents invest more in sons
  - Higher differential fertility → more sons than daughters → sons more likely to preserve the rank than daughters → higher persistence
  - The authors show that the positive effect of differential fertility on intergenerational income persistence is more evident among daughters than sons — fertility effect is stronger for sons
  - Rank sons and daughters separately to distinguish the fertility channel from the sex ratio channel
- Lower human capital → changes in social factors → lower IGM:
  - Wang and Zhang (2018) shows that OCP reduced the average human capital level
  - Lower human capital may reduce innovation and entrepreneurship



## Comments: Data and Measures

- How to get income data for parents and adult children from CHARLS?
- Percentile rank is calculated at the national level. Could you calculate it at the group level to avoid spillover effect?

## Policy Implications and Future Work

- How does the relaxation of the OCP affect intergenerational mobility?
- Effect of differential fertility on other outcomes, e.g., inequality and technology growth?