

Local Land Allocation and Demographic Transitions across Time and Space in China

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This paper argues that the dramatic population decline in China in recent years is an unintended consequence of local governments' land allocation decisions, driven by industrial discounts in the land market. We construct a dynamic spatial overlapping-generation framework to capture the interplay between governments' land allocation, population controls, and public education expenditures on household family-planning decisions. A key feature of this model is the trade-off between industrial and residential land, where local governments prioritize industrial land to boost output, inadvertently raising housing prices and lowering fertility rates. By estimating the model to match empirical population distributions and conducting counterfactual analysis, we find two key results: First, under the One Child Policy, China's realized fertility rate was significantly below the fertility rate needed for natural population replacement. However, shifting to a free land market could potentially have reduced this fertility rate gap by 16.33%. Second, the geographic variations in fertility rates across cities increased following the removal of the fine, suggesting that the effects of land allocation and housing prices would become more pronounced in the future.

Keywords: Land Use, Fertility Rate, Human Capital, Education, Migration

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