

## Extended Abstract

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<b>Paper/Poster Title</b>	<b>Will industrial specialization squeeze out rural smallholder production? --A 10-year tracking survey of 4,376 households from China's "One Village, One Product" program</b>
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**Abstract prepared for presentation at the 98th Annual Conference of The Agricultural Economics Society will be held at The University of Edinburgh, UK, 18th - 20th March 2024.**

<b>Abstract</b>	<i>200 words max</i>
<p>Enabling smallholder farms into larger operations and avoiding smallholders stranded in agricultural production is essential for low- and middle-income countries' economic development and food security. We propose the framework of "endowment constraints - organizational embeddedness - transaction costs" to explore whether industrial specialization can alleviate smallholders stranded in agricultural production. On this paper, using a multi-period policy effect estimation method (CSDID) with 4376 households and 19,706 people in China from 2010 to 2020, the empirical evidence reveals several key results: (a) the regional promotion of the "one village, one product" industrial specialization policy significantly increases the share of agricultural income in the total income of the households, and weakens the withdrawal of households from agricultural production; (b) for the region that lacks the organization of clan alliances, effectiveness is enhanced over generalized results. This suggests that, for developing countries, with constrain of agricultural endowments, industrial specialization can hardly change the directly production, but can significantly reduce the transaction costs and makes farmers further rely on agricultural. For regions where clanship exists, it can serve as a substitute for organized markets, increasing the bargaining power of agricultural purchases and sales, and reducing transaction costs through industrial specialization.</p>	
<b>Keywords</b>	Transformation, smallholder farming, agricultural specialization, regional development planning, organizational behaviour, transaction costs.
<b>JEL Code</b>	O13, D23, R58.
<b>Introduction</b>	<i>100 – 250 words</i>
<p>Reforming smallholder production systems is a central task when countries facing structural adjustment. Enabling voluntary consolidation of smallholder farms into larger operations and avoiding smallholders stranded in agricultural production and the countryside under a dualistic institutional framework, is essential for low- and middle-income countries' economic development and food security. In this background, the "one village, one product" project was launched, which aims to enhance industrial specialization by steering a township to develop a distinct agricultural product based on its endowment advantages.</p>	

According to the existing research, industrial specialization should be manifested in the concentration of production, that is, the core enterprise reinforces the regional endowment advantage by scale expansion and other smallholder operators will be pushed to accelerate their withdrawal from agriculture. However, China's practice has shown the opposite effect to what was expected.

In this article, we propose the framework of "endowment constraints-organizational embeddedness-transaction costs" to explore whether the "part-time farming characterized by semi-subsistence small-scale land management" is still the mainstay of China's agriculture after more than 40 years of reforms and changes. Also, we further explore the implications for smallholder production under the new organizational system and propose feasible improvement paths for developing countries to modernize their agriculture during the structural transformation.

**Methodology**

*100 – 250 words*

Previous studies illustrate the production transition behaviours of households by constructing structural estimation models with some uncertainty parameter settings or using cross-sectional data. In this paper, households are categorized into farm-only, lagging, part-time, and land-distributing households based on whether they are engaged in production, whether they are working outside the home, whether they are involved in land transfers, and whether they can contribute income for the household. In the tracking data, their proportions changed from 61.9%, 7.2%, 30.9%, and 0 in 2010 to 35.9%, 36.3%, 17.1%, and 10.7% in 2020, respectively. On this basis, using a multi-period policy effect estimation method (CSDID) with 4376 households and 19,706 people in China from 2010 to 2020, we investigate the impact of the project of "one village, one product" on the livelihood choices of rural households, that is, to explore whether industrial specialization squeeze out small household production.

**Results**

*100 – 250 words*

According to the description of the problem and the methodological design above, the study concludes the following:

for tracking households, (a) the regional promotion of the "one village, one product" industrial specialization policy significantly increases the share of agricultural income in the total income of the households, and weakens the withdrawal of households from agricultural production; (b) for the region that lacks the organization of clan alliances, the industrial specialization policy significantly increases the level of agricultural part-timing, and the effect of households stranded in agricultural production is enhanced. In addition, this paper observes some heterogeneity in the impact of the "one village, one product" industrial specialization policy on the production and management decisions of farmers' households, with (c) in regions with plain terrain, the industrial specialization policy leading to an increased effect of households stranded in agricultural production; and (d) for households closer to the regional economic centre, the industrial specialization policy leading to an increased effect of households stranded in agricultural production.



**Discussion and Conclusion****100 – 250 words**

Normally, industrial specialization can accelerate the process of urbanization and avoid smallholders stranded in agricultural production and the countryside by dismantling the traditional smallholder production system through machinery substituting for labour. However, in this China 2010-2020 empirical evidence, the "one village, one product" industrial specialization policy has weakened the withdrawal of households from agricultural production. The strength of this effect is significantly strengthened by controlling for clanship (variables about regional endogenous kinship organization). This suggests that, for developing countries such as China, with agricultural production endowments such as land fragmentation and property rights constraints, industrial specialization can hardly change the directly agricultural production process, but it can significantly reduce the purchase price of agricultural materials and the transaction costs of selling agricultural products. However, with improved transaction costs at both the front and back ends of the chain, the increased profitability of agriculture leads more farmers to further rely on or enter agricultural production. For regions where clanship exists, it plays the role of an organized market substitute, increasing the bargaining power of agricultural purchases and sales, and thus has limited effect in reducing transaction costs through industrial specialization. Thus, for a wide range of developing countries, structural transformation cannot be achieved overnight. Given the difficulty of achieving large-scale production directly, it is particularly urgent to construct some form of organization based on projects such as industrial specialization to reduce the transaction costs of purchasing and trading agricultural products.