Profit From Wedges? Evidence from Labor Recruitment Agencies in China

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Abstract

Can the market correct misallocations through endogenous arbitrage forces? This paper studies the role of recruitment agencies in mitigating spatial misallocations in the Chinese labor market. Using a newly constructed dataset, this paper finds that such profit-driven intermediaries established branches to arbitrage away pre-existing inter-regional wage disparities. The expansion of agency networks facilitated temporary mobility of low-skilled workers and reduced regional wage dispersion by 10%. This translates into 3% aggregate output gains by 2010, of which agencies appropriated 40% as profits. I develop a simple neoclassical growth model with mobility barriers and endogenous agency dynamics, where initial misallocations create pecuniary incentives for agencies who in turn promote productive efficiency. Quantitative results highlight how competition among labor intermediaries shapes the transition path of regional convergence: a larger share of the surplus gains accruing to entrepreneurs accelerates capital accumulation, generating persistent efficiency gains even after agencies exit.

Introduction

A central question in the misallocation literature is why factors of production do not automatically flow to their most productive uses. Recent work following Hsieh and Klenow (2009) have shown that promoting factor reallocation can generate substantial productivity and output gains in many empirical contexts. But a natural question follows: if the potential gains are so large, wouldn't one expect profit driven economic agents to arise endogenously and deliver them?

This paper explores this question by studying the expansion of labor recruitment agencies in a context well-known for its spatial misallocations of labor. Empirically, while many developing economies, such as those in Sub-Saharan Africa, have experienced widening wage disparities along their development paths, wage dispersion in China *reduced* by 46% in the manufacturing sector over 1999-2015. At the same time, while China's reforms on land market, privatization, trade openness have been extensively studied (e.g., Lin 1992, Lau et al. 2000), the role of labor recruitment agencies, who are perceived to employ a large fraction of the workforce, remains largely absent from the economics literature.

I construct a comprehensive dataset that covers the near-universe of labor recruitment agencies in China. Using this novel dataset, this paper quantifies how the spatial expansion of these agencies contributed to wage convergence through labor reallocation across regions, generating aggregate efficiency gains while capturing part of the resulting surplus as profits.

Figure 1. The Expansion of Agency Network: 2005 (left) versus 2010 (right)

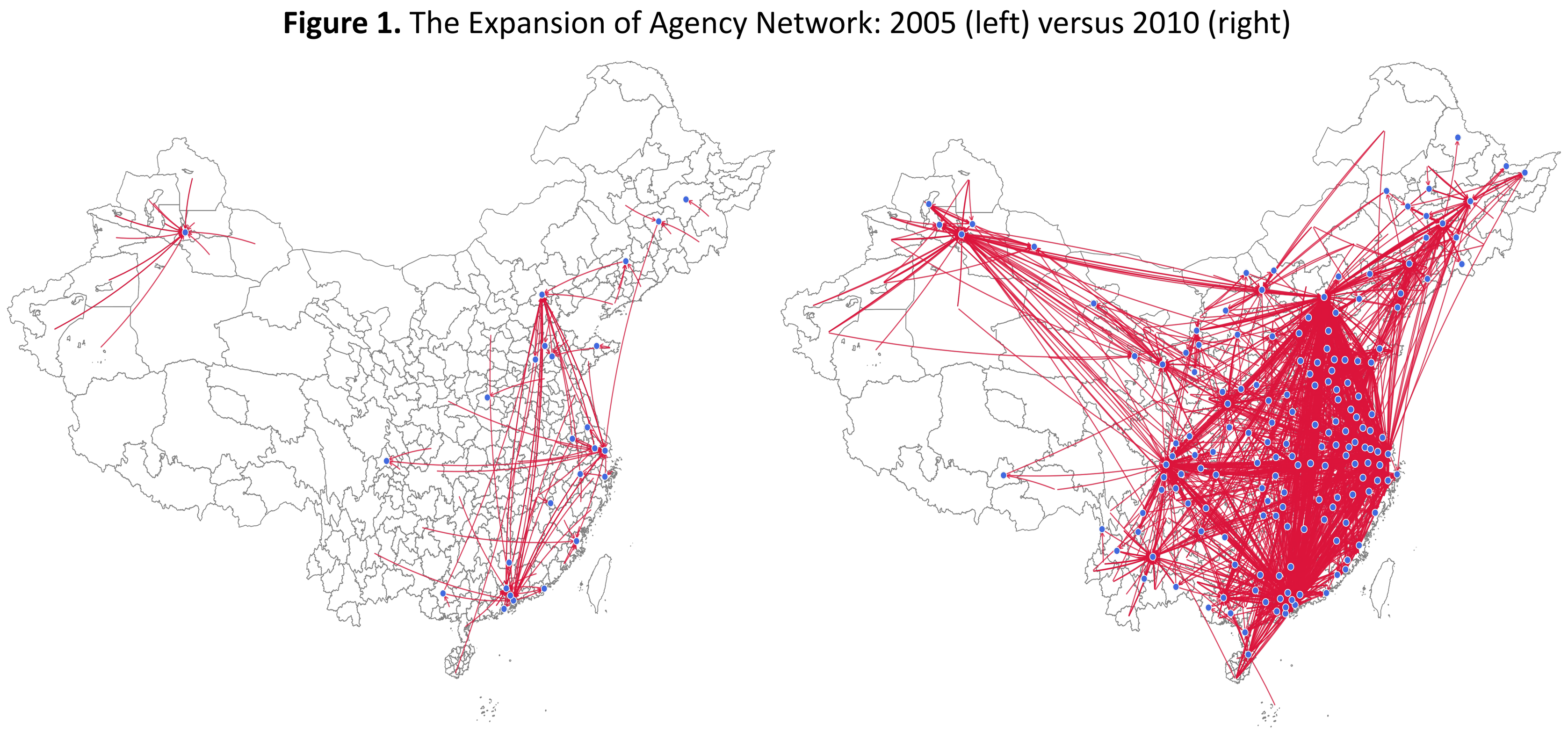

Table 1. Output Gains (Relative to No Agency Counterfactual) 2010

	$Y = AK^{\alpha}L^{1-\alpha}$	$Y = AK^{\alpha}(L_U)^{\beta}(L_S)^{1-\alpha-\beta}$		
		$\beta = 0.2$	$\beta = 0.4$	$\beta = 0.6$
Output Gains	3.15%	2.30%	2.79%	3.32%

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Empirical Evidence

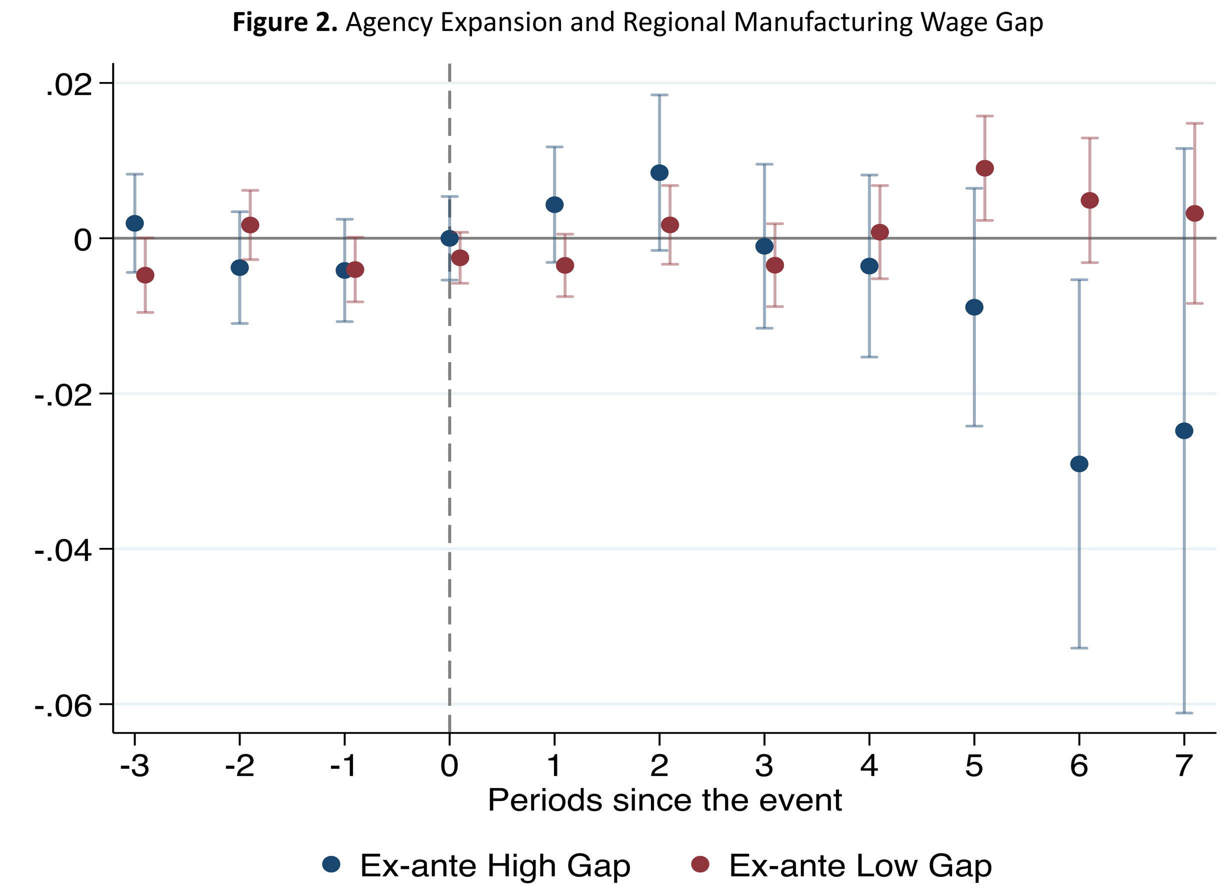
The Labor Contract Law in 2008 legally recognized labor recruitment agencies, which lead to their rapid expansion across the country (Figure 1). Combining the labor agencies dataset with administrative tax survey of firms, population census, labor surveys, I document the following three main empirical findings:

1. The location choice of labor recruitment agencies exhibits a U-shaped relationship with pre-existing average local wage. Higher pre-existing wage disparity is also correlated with higher agency profits. In order words, agencies will open branches in both the lowest and the highest wage cities, because these provide the largest arbitrage space for agencies to reallocate workers.

2. When agencies established branches between cities, the temporary flow of workers increased. The effect is stronger among cities with larger pre-existing wage gaps, and for below college workers (than college workers).

3. Labor reallocation translates into regional convergence in wages (Figure 2) and output per worker in manufacturing, as well as construction, hospitality, and logistics sectors which are similarly likely to employ agency workers. There is also stronger regional wage convergence among below college workers.

Figure 2. Agency Expansion and Regional Manufacturing Wage Gap



Quantitative Results

(1) Back-of-the-Envelope Calculations. Calculating fitted values of regional wage gaps and labor flow, with and without agencies, I find the expansion of agencies contribute to **27** million workers reallocated across space, and **10**% reduction in regional wage dispersions. These then translate into **3**% GDP gains (Table 1), and agencies can capture **40**% of such gains as profits. This is consistent with the fact that many cities are linked by one agency, and there are substantial entry barriers required by the law.

(2) A Neoclassical Growth Model with Endogenous Agency Dynamics. The model features mobility barriers, regional capital accumulation, endogenous agency entry and exit decisions, as well as surplus division between firms and agencies. The core idea is to see how long run capital dynamics may amplify the aggregate gains promoted by labor reallocation via agencies. I show that increasing competition among labor market intermediaries can ensure a larger share of the surplus gains going to local entrepreneurs, which leads to faster capital accumulation and persistent efficiency gains when arbitrage opportunities evaporate.

Conclusions

Initial misallocations of labor and the associated regional wage disparities can become arbitrage opportunities that provide pecuniary incentives for intermediaries to expand, which can in turn promote aggregate efficiency gains. In other words, misallocations may be at least partially corrected, not directly by policy interventions, which are the current focus of the literature (e.g., Sraer and Thesmar 2023, Bau and Matray 2023), but by market incentives.

Empirically, the aggregate gains promoted by agencies stem from the regional reallocation of primarily low-skilled workers, which underscores their contribution to the labor-intensive growth trajectories observed in many developing economies.

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