



A lack of nostalgia: Hometown favoritism and allocation of intergovernmental transfer in China

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ABSTRACT

We investigated hometown favoritism among senior provincial officials (SPOs) in China. SPOs include all officials with a vice-governor rank or above in provincial party standing committees and provincial governments. Using a new comprehensive panel of 2381 SPOs, we found that an increase in the number of SPOs born in a city does not increase the fiscal transfers received by the city and does not promote local economic growth. We argue that the absence of hometown favoritism results from the Chinese style of upward-accountability regime, in which provincial officials do not need to please residents in return for votes.

1. Introduction

Hometown favoritism can affect the allocation of public resources, and it can stem from both political motives and non-political motives. On one hand, politicians may strategically direct public resources towards specific regions to secure re-election support (Besley, Pande, & Rao, 2012), strengthen patron-client networks (Jiang & Zhang, 2020) or reduce the threat of rebellion (Francois, Rainer, & Trebbi, 2015; Padró i Miquel, G., 2007; Wintrobe, 2000). On the other hand, favoritism can also arise from non-political motives, such as individuals' social preference for their hometown (Do, Nguyen, & Tran, 2017; Fiva & Halse, 2016) or pursuit of future economic gains (Carozzi & Repetto, 2016).¹ However, it is worth noting that the intensity of favoritism may vary depending on the specific research context (Burgess, Jedwab, Miguel, Morjaria, & Padró i Miquel, 2015; Carozzi & Repetto, 2016; Do et al., 2017; Dreher, Fuchs, Parks, Strange, & Tierney, 2022; Hodler & Raschky, 2014).

This paper investigates whether senior provincial officials (SPOs) in China favor their hometowns, in light of the unique institutional milieu in China that differs from previous studies. In China, on one hand, the political motives for hometown favoritism may be relatively weak due to several factors. Firstly, the Communist Party of China (CPC) exercises control over officials' appointments, resulting in officials facing top-down political incentives (Smith, 1991). Consequently, their primary accountability lies with their superiors rather than voters, eliminating the need to cater to the voters for electoral support. Secondly, the stable rule of the CPC minimizes the threat of rebellion, reducing the necessity for officials to mitigate the risk of rebellion. On the other hand, senior provincial officials in China may still seek political support from their hometowns. Hometown connections can foster trust and reduce

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¹ Ethnic identity is another kind of non-political motive that can drive favoritism, and related evidence is concentrated on leaders in sub-Saharan African countries with ethnic diversity (e.g., Dickens, 2018; Franck & Rainer, 2012; Kramon & Posner, 2016; Widmer & Zurlinden, 2022). However, this favoritism may be driven by both political motives and non-political motives because the leader's ethnic strongholds not only trigger ethnic identity but also provide political support.

information friction, leading top-ranking officials to be more inclined to establish patron-client networks with lower-ranking officials in their hometowns compared to those in non-hometown areas. Beyond political motives, the emotional attachment individuals hold for their hometowns can influence decision-making and lead SPOs to prioritize the interests of their hometowns.

Studies have found that favoritism is more prevalent in the context of weaker political institutions (Anaxagorou, Efthyoulou, & Sarantides, 2020; Bommer, Dreher, & Perez-Alvarez, 2022; Hodler & Raschky, 2014) and stronger social ties (Do et al., 2017). In the context of China, the fairly weak political institutions in developing countries and the important role of hometown ties in Chinese society may also provide a breeding ground for favoritism (Cai, 2014; Chu, Fisman, Tan, & Wang, 2021; Fisman, Shi, Wang, & Xu, 2018; Jia, Kudamatsu, & Seim, 2015). However, there exists a backlash against hometown ties in China's political regime (Fisman, Shi, Wang, & Wu, 2020). Therefore, the extent of hometown favoritism among China's SPOs remains uncertain.

We examine the outcomes of favoritism in terms of fiscal transfer in 321 prefecture-level cities (ADM2, hereinafter referred to as "cities"), given its discretionary allocation and key role in development. In China, fiscal transfers account for about half of the local spending (Shen, Jin, & Zou, 2012). Furthermore, it is worth noting that over 70% of the fiscal transfers to prefecture-level cities are sourced from the provincial government (Jiang & Zhang, 2020). Provincial officials not only have the power to directly and discretionally determine the allocation process for this portion of funds but also possess the ability to influence the distribution of grants from the central ministry (Hillman, 2014).

Such a study needs comprehensive data on officials and their backgrounds for identification, while these data in most developing countries are sparse, scattered, and skewed towards top officials. To address this problem, we manually collected the resumes of 2381 SPOs in 31 provinces from 1990 to 2016, which included all officials with vice-governor rank and above in provincial party standing committees (PPSCs) and provincial governments (PGs). These resumes contain officials' personal information, from which we can deduce their hometowns and incumbent positions. We thus measured the intensity of city-level political connections by the number of SPOs born in a given city.

A key challenge in causal identification is confounding factors. For example, in order to enhance policy coordination, the central government might appoint more officials born in a city that are strategically important; meanwhile, the hometown city will receive more fiscal transfers due to its strategic importance. Moreover, the city's geographic and historical features also affect the number of SPOs and fiscal transfers. To exclude these confounding factors, we control for city fixed effects and province-year fixed effects, equivalent to the difference-in-differences (DID) approach. Beyond that, we use a flexible specification to check for pre-treatment parallel trends. Our results show no significant difference between the connected and non-connected cities before treatment, indicating that the parallel trend assumption is satisfied.

We find no evidence of hometown favoritism among SPOs in China. The effect of changes in the number of connected senior officials on fiscal transfers is tiny and not distinguishable from zero, implying that SPOs in China do not favor their hometowns through this channel. In addition to fiscal transfers, officials may also favor a particular region through other regional regulation policies, which cannot be observed or measured. However, if there is hometown favoritism in other regional regulation policies, these policies will ultimately promote the economic growth of hometown cities. We further find that the effect of connected senior officials on city-level GDP growth is also not distinguishable from zero. We believe that the absence of an electoral system, lack of other political motivations, and insufficient social preferences could all be potential reasons for the non-existence of favoritism.

This study contributes to ongoing debates on the existence and the extent of hometown favoritism. Early research on favoritism draw on preexisting literature on pork-barrel politics (Ferejohn, 1974; Goss, 1972).² This pork-barrel literature implies possible favoritism towards concentrated groups of beneficiaries (as modeled by Weingast, Shepsle, & Johnsen, 1981), such as by one's party (Berry, Burden, & Howell, 2010; Curto-Grau, Solé-Ollé, & Sorribas-Navarro, 2018; Knight, 2008; Levitt & Snyder Jr, 1995), caste (Banerjee & Somanathan, 2007), gender (Chattopadhyay & Duflo, 2004), or simply hometown (Besley et al., 2012). In addition to the pork barrel, the evidence of favoritism also covers leaders in most countries around the world (e.g., De Luca, Hodler, Raschky, & Valsecchi, 2018; Hodler & Raschky, 2014), cabinets in sub-Saharan Africa (Widmer & Zurlinden, 2022) and even all ranking officials in Vietnam (Do et al., 2017). However, lots of studies document that the intensity of favoritism depends on the specific context. Hodler and Raschky (2014) found that favoritism is more prevalent in areas with weaker political institutions and lower levels of education. Dreher et al. (2022) found that hometown favoritism of leaders disappears outside the African continent. Burgess et al. (2015) and Fiva and Halse (2016) also identify different patterns of favoritism among different types of officials in Africa and Italy, respectively. Using systematic and comprehensive information on China's SPOs, our research adds to the growing body of literature exploring favoritism patterns of non-leader officials and upward-accountability systems.

This paper reinforces the connection between favoritism and its motivation. A substantial body of literature has documented the political motivations underlying hometown favoritism. Favoritism is mainly associated with vote-purchasing (Besley et al., 2012), while in sub-Saharan African countries, favoritism of leaders is widely identified as a mixed effect of both strengthening political support from their stronghold and ethnic identity (Anaxagorou et al., 2020; Bommer et al., 2022; Burgess et al., 2015; De Luca et al., 2018; Dickens, 2018; Dreher et al., 2019; Ejdemyr, Kramon, & Robinson, 2018; Franck & Rainer, 2012; Francois et al., 2015; Hodler & Raschky, 2014; Kramon & Posner, 2016; Widmer & Zurlinden, 2022). However, there are still many instances of favoritism that cannot

² Ferejohn (1974) and Goss (1972) investigate the pork barrel of rivers and harbors and defense contracting in the United States. In addition to favoritism, another strand of pork-barrel politics literature focuses on whether pork barrels flow more to core or swing voters, as modeled by Cox and McCubbins (1986), Lindbeck and Weibull (1987), Dixit and Londregan (1996), and reviewed by Golden and Min (2013). Notable empirical evidence includes Keefer and Khemani (2009) in India, Dahlberg and Johansson (2002) in Sweden, and Larcinese, Rizzo, and Testa (2006) in the U. S.

be explained by these political motivations alone. In contexts where electoral incentives are lacking, officials may also remain loyal to their hometown roots (Fiva & Halse, 2016) or be motivated by social preferences (Do et al., 2017). The strength of favoritism is intricately linked to the intensity of its motivations. We discuss the potential absence of these motives in the Chinese context and relate our null effect with the lack of these motives.

This research also relates to the study of political connections, which are often measured by shared hometowns, schools, and work experiences due to their very hidden nature. Political connections can increase firm value (Fisman, 2001; Khwaja & Mian, 2005; Nguyen, Do, Lee, & Nguyen, 2012), reduce audit quality (Chu et al., 2021), and influence the probability of Chinese officials receiving a promotion (Fisman et al., 2020). The study conducted by Jiang and Zhang (2020) on patronage politics is highly relevant to our research context. They define a city leader as a client of a provincial secretary (the top leader at the provincial level) if the city leader was first promoted as city secretary or mayor from within the province when the provincial secretary was in office. Their findings indicate that such patron-client connections lead to a significant increase in fiscal transfers to the client's city. Jiang and Zhang (2020) does not examine the effects of hometown connections on the allocation of fiscal transfers. By contrast, in this paper, we directly identify the effects of hometown connections. Our study also expands the scope by collecting information from all officials with a vice-governor rank or above, allowing sufficient variation for analysis. Our findings indicate no evidence of hometown connections influencing the allocation of public resources or the overall output of hometown cities. These results suggest a limited role of hometown connections in the distribution politics of China.

The rest of the paper is arranged as follows. Section 2 introduces the institutional background. Section 3 describes the data and empirical methods. Section 4 presents the main findings and a variety of expanded analyses. Section 5 concludes the paper.

2. Institutional background

2.1. Prefecture-level cities

In China, the subnational jurisdictions consist of four layers of government: the provincial level (31 provinces in the mainland), the prefectural level (333 prefecture-level cities), the county level (2853 counties), and the township level (40,497 towns). Governments in the lower tiers are wholly subordinate to those at higher levels. As sub-provincial administrative units, a typical prefecture-level city is divided into several county-level districts covering the core metropolitan areas, with several peripheral counties covering suburban and rural areas.

Prefecture-level cities in China exhibit significant scale both in terms of administrative areas and population. In our sample, these cities have an average land area of 27,000 km² and a population of approximately 3.6 million people. Appendix Fig. A1 shows maps of prefecture-level cities in coastal Guangdong Province, which has a higher population density (564 people per km²), and inland Shanxi Province, which has a relatively lower population density (219 people per km²), as examples. These examples showcase the considerable variation in population density and the geographic expanse of prefecture-level cities in China.

2.2. Fiscal transfers in China

Fiscal transfers are important fiscal resources of local governments in contemporary China. This key role was established by the reform of the fiscal and taxation system in 1994. Under the new tax-sharing system, local governments took on an average of 72% of spending responsibility but only received 47% of total fiscal revenue between 1994 and 2009.³ Fiscal transfers to cover the budget gap account for about 50% of local spending (Shen et al., 2012) and not only cover daily operating costs but also fund a variety of policy projects closely tied to local development and have a positive impact on the economy (Feyrer & Sacerdote, 2011; Suárez Serrato & Wingender, 2016). In China, a 1% increase in fiscal transfers per capita would raise GDP per capita by about 1% (Wang & Ma, 2018).

Fiscal transfers are divided into general-purpose transfers and earmarked transfers. One of the most critical aims of general-purpose transfers is the equalization of public goods, which are usually distributed among cities according to a pre-determined formula that varies from province to province and is based on factors such as population, geographic conditions, and standardized fiscal revenue and expenditure. Earmarked transfers are designed by higher-level governments to achieve specific policy goals or to compensate lower-level governments for some of the matters entrusted to their agents, usually allocated by projects and largely at the discretion of officials. We mainly examined the outcomes of hometown favoritism in terms of earmarked transfers in prefecture-level cities and used general-purpose transfers as a robustness test.

Provincial authorities have a deep influence on the distribution of fiscal transfers. More than half of transfers to prefecture-level cities come from provincial governments (Shen et al., 2012) and reached 70% between 2001 and 2006 (Jiang & Zhang, 2020). The governor and vice governor can determine which projects are submitted to conferences of the local PPSC, which decides the annual budget. The members of the PPSC can determine the location and amount of earmarked transfer projects and even renegotiate the formula used to calculate general-purpose transfers if they deem it necessary. In addition to provincial funds, SPOs also serve as "gatekeepers" for transfers allocated to cities by the central ministry (Hillman, 2014). On the one hand, provincial officials can filter

³ Fiscal revenue refers to budgetary revenue, fiscal expenditure refers to budgetary expenditure, and local government expenditure responsibility refers to the proportion of local government fiscal expenditure to national fiscal expenditure. Prior to the introduction of the tax sharing system, local budgets were basically balanced. In 1993, local governments were responsible for 72% of spending and absorbed 78% of total fiscal revenue. Data source: Calculated based on fiscal revenue and fiscal expenditure data published by the National Bureau of Statistics of China.

projects before they are submitted, whereas, on the other hand, some central grants require a fraction of provincial funding as a prerequisite for permitting the project.

2.3. SPOs

In China, the province is the highest level of the sub-national region, involves managing a huge amount of land and population, and administrative divisions below the province are prefecture-level cities. The PPSC and PG hold the main authority and administrative powers of the province.⁴

The PPSC is the de facto supreme authority of the province. Under the leadership of the Secretary of the Provincial Party Committee, the PPSC has the power to decide on all aspects of provincial affairs, particularly the annual budget, which contains the allocation of fiscal transfers. The members of the PPSC can be divided into three categories: (1) party officials who are responsible for internal party affairs, such as the minister of organization and the minister of united front work; (2) important members of other provincial institutions, including the governor and executive vice governor of the PG, the secretary of the Commission for Discipline Inspection, and the military representative; and (3) other officials who joined the Standing Committee for specific matters (their number is 0 in most cases). Their influence on the distribution of fiscal transfers may be heterogeneous due to differences in influence and the scope of power.

The PG holds executive power. The governor, as the head of the PG, holds the second-highest amount of power in the province after the provincial party secretary. Vice governors are responsible for assisting the governor, usually by taking charge of specific types of affairs, managing numerous provincial departments, and acting as liaisons with provincial agencies that are directly under the central administration. For example, the executive vice governor is normally in charge of finances and manages the provincial finance department; their tasks may include, among others, development and reform, security, and natural resources.⁵ When cities submit applications for earmarked transfers, these applications are first submitted to the corresponding provincial department and are therefore under the authority of the governor and the vice governor concerned.

3. Empirical methodology

3.1. Data on fiscal transfers and economic characteristics

We obtained data on city-level fiscal transfers from the Public Finance Statistical Materials of Prefectures, Cities, and Counties (PFSM) (*quanguo dishixian caizheng tongji ziliao*). This source, compiled by the Ministry of Finance, contains comprehensive information on government budget revenues and expenditures for all sub-national administrative divisions and ceased being published in 2010. We excluded centrally administered municipalities (*zhixia shi*) and municipalities with independent planning status under national social and economic development (*jihua danlie shi*) from our sample because their transfer allocation rules are different from those of general cities.

Although with the implementation of the tax-sharing system, a gap between local government revenue and expenditure emerged from 1994 onward, and this gap was primarily covered by tax rebates rather than fiscal transfers in the early years, owing to the special arrangements during the transition period. It was not until around 2000 that a large share of fiscal transfers was de facto established, and a comparable systematic classification approach was developed at the sub-provincial level. Hence, our final panel contained data for 321 prefecture-level cities in 27 provinces from the period 2000–2009 (as seen in Table 1, Panel A).

We obtained information on other economic and social characteristics of cities from the *China Statistic Yearbook for Regional Economy (CSYRE)* (*zhongguo quyue jingji tongji nianjian*) and the *China City Statistic Yearbook (CCSY)* (*zhongguo chengshi tongji nianjian*), including fiscal revenue, GDP, population, per capita income, and human capital.⁶ On the one hand, we used these variables to control for possible time-varying confounding factors; on the other hand, we utilized GDP as an output variable to test for aggregate policy effects of hometown favoritism. We deflated all nominal terms by using province-level CPI.⁷ The geographical features (elevation and slope) of the prefecture-level cities were obtained from the Resource and Environment Science and Data Center of the Chinese Academy of Sciences.

⁴ The Five Main Local Bodies (*wuda banzi*), including the provincial party standing committee (PPSC), provincial government (PG), Local People's Congress (LPC), Chinese People's Political Consultative Conference (CPPCC), and the military, are key local institutions in China's governance structure. Among them, the LPC is responsible for legislation and supervision, the CPPCC is responsible for communication between various parties and the CPC, and the military is responsible for national defense affairs. None of these three institutions hold major local powers.

⁵ For example, the People's Government of Hebei Province shows that Tongli Yuan, the executive vice governor in 2021, is responsible for development and reform, finance, natural resources, emergency management, statistics, the management of institutional affairs, government services, open government, and local chronicles. He is in charge of the Office of the Provincial Government, the Provincial Development and Reform Commission, the Provincial Department of Finance, the Provincial Department of Natural Resources (the Provincial Oceanic Bureau), the Provincial Department of Emergency Management, the Provincial Bureau of Statistics, the Provincial Bureau of Institutional Affairs, the Provincial Office of Government Services Management, the Provincial Food and Materials Reserve Bureau, and the Provincial Energy Bureau, among other institutions.

⁶ We used the average years of education to measure the level of human capital in the city.

⁷ Deflation using city-level CPI would be more accurate, but such data are not available in China.

Table 1
Summary statistics.

Variable	Num. of obs.	Mean	Mean of original linear value	SD	Min	Max
Panel A: Fiscal transfers and economic/social characteristics in the baseline estimation (1999–2008)						
Logarithm of earmarked transfer p.c. (¥) in the next fiscal year	3197	4.71	180.11	0.96	2.34	8.87
Logarithm of general-purpose transfer p.c. (¥) in the next fiscal year	3180	5.02	235.39	1	0	8.29
Logarithm of total transfer p.c. (¥) in the next fiscal year	3180	5.63	416.27	0.9	2.78	9.15
Logarithm of one's own fiscal revenue (¥10,000)	3203	11.1	127,329	1.14	6.59	14.96
Logarithm of GDP (¥10,000)	3195	14.15	2,412,554	1.1	9.65	17.38
Logarithm of population (10,000 people)	3193	5.63	361.94	0.83	2.12	7.24
Logarithm of income per capita (¥)	3054	8.28	4369.45	0.49	6.13	9.48
Human capital (year)	2639	8.34	–	0.73	6.84	12.57
Panel B: Number of connected SPOs at the city level (1999–2008)						
Number of senior officials	3210	0.65	–	0.95	0	8
Number of the top two leaders	3210	0.04	–	0.2	0	2
Number of senior officials in government, plus the secretary	3210	0.34	–	0.66	0	6
Number of directors of the finance department	3210	0.04	–	0.21	0	1
Panel C: Geographical and social features (City level)						
Average slope (degrees)	321	11.4	–	5.91	1.59	30.8
Average elevation (meters)	321	763.16	–	942.42	7.34	5044.38
The Ethnic Minority Areas	321	0.09	–	0.29	0	1

Note. Column 4 reports the mean of the original linear values of the logarithmic variables. SPOs denote senior provincial officials. The top two leaders denote the provincial party secretary in PPSC and the governor in PG. The Director of Finance Department is not at the vice-provincial level but handles essential power in distributing transfers. Panel C reports city features without time variance.

3.2. Data on provincial officials

We manually collected information on 2381 senior officials from 31 provinces via multiple websites. This dataset contains 16,549 position-year observations for 830 province-year groups from 1990 to 2016.

We gathered the data through the following process. First, we collected the list of incumbent officials of the PPSC and PG each year through the Provincial People's Government website. We recorded their names, ranks, and positions. Second, based on the names of the officials, we collected the officials' resumes from online sources such as the People's Daily Online Local Leaders Database and Baidu Encyclopedia, and we recorded their characteristics and biographies.⁸ Third, since the list of incumbent officials published on the government website includes all officials who served in a given year (e.g., in a change year, two executive vice governors will appear on this list), we needed to remove some officials to get an accurate list.

Specifically, for the provincial party secretary and governor, to ensure the existence of a unique official for these two positions, we chose the official with the longest tenure in the year of the change of term. For the other members, because the scope of their responsibilities shifted before and after the change of term, we were unable to identify the position first and then assign a unique official for that position as provincial leaders do, so we only kept officials who were in office for more than six months in that year. The logic behind this treatment is that if officials have been in office for less than six months, they are not considered to have an impact on the actual affairs of the province.

3.3. Measuring hometown connections

Senior officials include all provincial and vice-provincial officials serving on the PPSC and the PG, including provincial party committee members, provincial governors, and all vice governors. Fig. 1 shows the structure of the provincial authority and the average number of corresponding officials (in parentheses). We use their birthplace from their resumes to identify their hometown, which takes advantage of the fact that most officials in our sample were born in the 1960s, and that population mobility in China was constrained before 1978, so most officials' birthplaces and hometowns coincided. If a senior official's hometown was in the province in which they presided, then we deemed them senior officials of their hometown city and native senior officials of their province (non-native, vice versa). At the same time, we maintain that one's city has a hometown connection with the province.

Other than using the connectedness dummy, we also used an alternative measurement, the number of senior officials of the city, to gauge the strength of the hometown connection between a specific city and a province. If a senior official held positions both in the PPSC and the PG at the same time (e.g., the governor), we only counted them once. Although the hypothesis of homogeneity is implied, our measurement provides greater variation and more accurately identified the heterogeneous effects of different numbers of senior

⁸ Personal characteristics include one's home province, home city, home county, birth date, ethnicity, and educational information. Official biography details include one's province, current position, time of appointment, time of departure, previous position, whereabouts after resignation, and whether the individual is a member of the central committee.

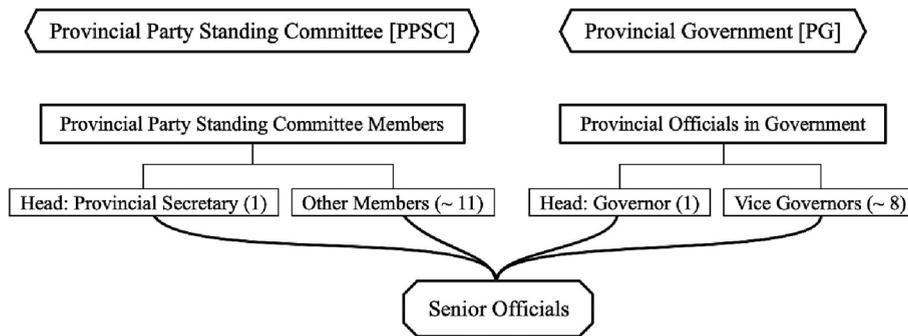


Fig. 1. Structure of the provincial authority.

Note. In the provincial party standing committee, there is one secretary as the head, and around 11 standing members, which have a vice-governor rank or above in China’s bureaucratic regime. In the provincial government, there is one governor as the head, and around 8 vice governors.

officials of cities than dummy variables.

3.4. Descriptive statistics

Table 1 shows the summary statistics. Panel A presents information on fiscal transfers and the control variables used in the baseline specification. We added 1 before taking the logarithm, which both avoided the effect of certain zero values and ensured that our coefficient estimates would be very close to semi-elasticity. From 2000 to 2009, the average value of earmarked transfers per capita was 180.11 yuan (26.45 dollars), and the average value of general-purpose transfers per capita was 235.39 yuan (34.56 dollars).⁹ Panel C shows the geographical and social features of 321 cities.

Panel B shows the variation in the number of senior officials at the city level, which comes from the turnover of SPOs from 1999 to 2008. During the sample period, each city had an average of 0.67 senior officials (row 1) every year. According to the information in Fig. 2, 44% of the observations had at least one senior official. Among all connected observations, over 66% (956) of the city-year observations had one senior official, over 22% (316) of the observations had two senior officials, and about 11% (164) had more than three senior officials.¹⁰

Rows 2–4 indicate three alternative measurements of SPOs, the details of which are presented in Section 4.3. Row 2 shows that each city had about 0.04 of the top two leaders (a secretary and a governor) per year. Among them, the ratio of the provincial secretary to the governor was about 1:4. In China, to achieve effective control of a local area and to prevent officials from establishing contact with local elites, the secretary is usually transferred from another place. During the sample period, 31 governors were native (out of 86), whereas only 10 secretaries were native (a total of 73).¹¹ The variation of the top two leaders is quite small, not only because of the special Chinese personnel rules just mentioned but also determined by the inherent nature of this measurement. Even if the hometowns of all provincial leaders overlap with their jurisdictions, on average, each prefecture-level city would have at most 0.17 local leaders.

As with the collection procedure for senior officials, we also gathered information on Directors of the Finance Department (as displayed in Row 4) because, despite their lower rank, they are directly involved in the allocation of transfers. However, limited by data availability, we obtained only 199 (out of 270) director-year observations. Missing values are concentrated in 1999–2002 and the northwestern and southwestern provinces. On average, there were 0.04 finance directors in each province per city per year. Of the 70 finance directors in the sample, 39 were born in their respective provinces.

3.5. Empirical specification

Our baseline regression is a fixed-effects model with the following specification:

$$\ln(\text{Earmarked Transfers } p.c.)_{i,p,t+1} = \alpha + \beta \text{Num.of Senior Officials}_{ipt} + \mathbf{X}_{ipt} \boldsymbol{\gamma} + (\mathbf{Z}_i^* \boldsymbol{\lambda}_i)' \boldsymbol{\theta} + \mu_i + \eta_{pt} + \epsilon_{ipt}$$

where i, p, t refer to the index city, province, and year, respectively. The dependent variable is Log Earmarked Transfers in the next fiscal year because fiscal transfers are determined in the previous year when annual budgets are decided. The independent variable $\text{Num.of Senior Officials}_{ipt}$ is the number of senior officials whose hometown is city i in year t . \mathbf{Z}_i are the city-level geographic and social

⁹ We used the average exchange rate of 2009.

¹⁰ The transfer of officials between provinces leads to variation in the types of officials (native vs. non-native) and hometown connections in cities, so we treated an official before and after the transfer as multiple observations. Of the 1293 officials, 1183 worked in only one province, 196 worked in two provinces, 33 worked in three different provinces, and 4 worked in four provinces, with a total of 1416 province-official observations.

¹¹ As with senior officials, two governors, and one provincial secretary served in multiple provinces during the sample period and are considered as multiple officials.

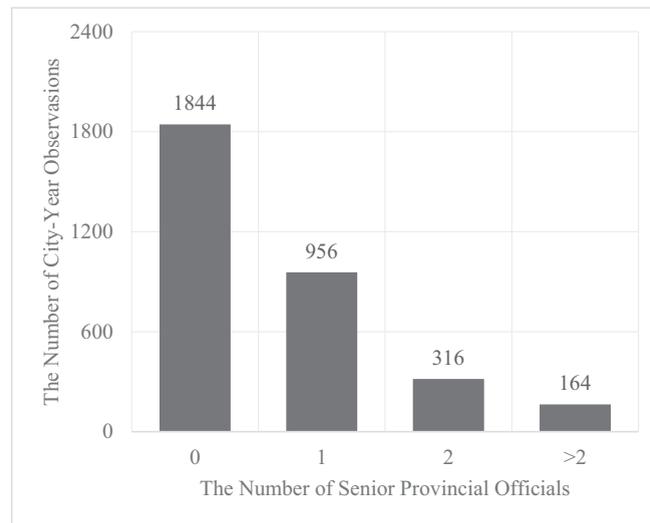


Fig. 2. Hometown connections at the city level.

Note. Senior Provincial Officials include all officials with a vice-governor rank or above in provincial party standing committees and provincial governments.

characteristics and λ_t are year dummies. The city fixed effects μ_i capture the time-invariant heterogeneity in levels of transfers across cities, whereas the province year-fixed effects absorb any provincial-specific economic or political shocks in relation to transfers. This specification is equivalent to a DID approach. X is a vector of control variables, including each government's own fiscal revenue, GDP, population, per capita income, and human capital.

4. Results

4.1. Baseline results

Table 2 shows the estimation of the effect of changes in senior officials on earmarked transfers at the city level. The first column presents the baseline estimation, regressing the logarithm of the earmarked transfers per capita on the number of senior officials with local origins. The baseline outcome indicates that for every additional senior official, the city will receive an additional 1.04% of earmarked transfers per capita on average, corresponding to approximately a 1.95 yuan increase in earmarked transfers for every person and 7 million yuan in earmarked transfers for a medium-sized and non-capital city (this calculation is for a 3.6 million inhabitants city, such as Langfang in Hebei province). This estimate is negligible and not distinguishable from zero. Thus, we have no evidence to claim that the turnover of senior officials changes the distribution of earmarked transfers.

To avoid the influence of potentially confounding factors, we incrementally added control variables in Columns 2–6. The findings imply that the coefficient estimates see only negligible change compared with the baseline estimation, and none of them are statistically significant.

Counting variables can provide a plentiful variation, and also take into account the heterogeneous influence of the different numbers of senior officials on earmarked transfer allocation. However, the dummy measurement does not need to assume that the effects of every official are homogeneous, and it is more in line with the standard DID approach. In column 7, we regress earmarked transfers on the dummy “at least one senior official” to investigate the effects of the existence of senior officials on the number of earmarked transfers. We obtained slightly larger but still insignificant coefficients.

We can explain the empirical results in the following way: There is no favoritism towards hometown cities among SPOs, rather than the existing petty favoritism with a rough estimation. Because even if our independent variables have rich variations and the sample size is large, the coefficient estimates are still very close to zero, indicating neither economic nor statistical significance. According to the outcomes in Table 2, if hometown favoritism exists, then each additional senior official will increase the earmarked transfers p.c. to one's hometown city by 0.3%–1.0%. However, Carozzi and Repetto (2016) demonstrated that hometown favoritism of external officials increases fiscal transfers p.c. by approximately 2.5%, and Do et al. (2017) found that the number of infrastructure projects rises by approximately 3% due to hometown favoritism, which is far greater than the effect we discovered. With a similar background to our paper, Jiang and Zhang (2020) observed that China's provincial leaders allocate 6.6% more earmarked transfers to their clients due to patronage politics. These effects are much larger than what we observed. Our results suggest that hometown favoritism towards the hometown city might not exist among SPOs in China.

Compared with earmarked transfers, the allocation of formulaic general-purpose transfers is less discretionary. If officials do not favor their hometowns, we would observe the same pattern in general-purpose transfers as we do in earmarked transfers. Table 3 repeats the baseline regression but replaces the dependent variable with general-purpose transfers p.c. as a robustness test. The tiny

Table 2
Baseline estimation: Effects of hometown connections on earmarked transfers p.c.

	DV: Log earmarked transfers per capita at t + 1						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Number of senior officials	0.0104 (0.0087)	0.0093 (0.0084)	0.0090 (0.0083)	0.0090 (0.0083)	0.0060 (0.0085)	0.0033 (0.0092)	
At least one senior official							0.0214 (0.0183)
Log own fiscal revenue		-0.138*** (0.040)	-0.076 (0.052)	-0.075 (0.052)	-0.073 (0.055)	-0.035 (0.068)	
Log GDP			-0.164** (0.069)	-0.158** (0.069)	-0.163** (0.073)	-0.181** (0.083)	
Log population				-0.088 (0.105)	-0.104 (0.107)	-0.005 (0.119)	
Log income per capita					-0.004 (0.039)	-0.007 (0.048)	
Human capital						-0.143*** (0.037)	
City features×Year dummy	√	√	√	√	√	√	√
City FE	√	√	√	√	√	√	√
Province-year FE	√	√	√	√	√	√	√
Number of cities	321	321	321	321	321	299	321
Observations	3197	3194	3191	3189	3047	2585	3197

Note. This table presents the effects of changes in the number of senior officials on earmarked transfers. The dependent variable is the log of earmarked transfers per capita in the next fiscal year. Standard errors clustered at the city level are reported in parentheses. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

and negative coefficient in Column 1 does not suggest that officials reduce general-purpose transfers to their hometowns but reveals a null effect. Statistical insignificance also indicates no evidence to show that officials allocate more or less general-purpose transfers to their hometowns, and the results were still robust with adding a series of controls and using the dummy variable.

4.2. Identifying assumptions and checks

The plausible endogenous problem is that cities’ economic and social characteristics that vary over time are confounding factors. For example, cities’ development level decades ago may affect the probability of a given generation of young people becoming senior officials in the future, and cities’ economic and social characteristics over time are highly autocorrelated. Nevertheless, this concern can be greatly alleviated as the results are virtually unchanged after we control for the time-invariant characteristics of cities in Table 2. Thus, we chose specification without controls as the benchmark in the following. However, it is possible that officials are simply appointed to senior positions in the provinces of their hometowns, which received more earmarked transfers in the past.

We further directly examine whether the parallel trends assumption is satisfied. We use a more flexible specification model containing a series of dummy variables that indicate whether a city will be connected, is currently connected, or used to be connected with the province, as follows:

$$\begin{aligned} \text{Log Earmarked Transfer } p.c.i.p.t+1 = & \alpha + \sum_{\tau=1}^3 \beta_{\tau} \text{ Will be Connected}_{ipt}^{\tau} + \sum_{\tau=1}^3 \delta_{\tau} \text{ Currently Connected}_{ipt}^{\tau} \\ & + \sum_{\tau=1}^3 \rho_{\tau} \text{ Used to be Connected}_{ipt}^{\tau} + \mathbf{X}_{ipt} \boldsymbol{\gamma} + (\mathbf{Z}_i^* \boldsymbol{\lambda}_i)' \boldsymbol{\theta} + \mu_i + \eta_{pt} + \epsilon_{ipt} \quad (2) \end{aligned}$$

where Will be Connected_{i,p,t}^τ is a set of dummy variables to indicate whether city *i* will establish a hometown connection with the province after τ years, Currently Connected_{i,p,t}^τ are three binary indicators for whether city *i* has been connected to the province for one year, two years or more than three years, and Used to be Connected_{i,p,t}^τ are indicators denoting whether city *i* lost its hometown connection before τ years. The complete set of dummy variables includes 1–3 years before the establishment of the connection, the first year, the second year, the third and later years after the establishment of the connection, as well as 1–3 years after the loss of the connection. We omitted the dummies four years before the connection was established and four years after the connection was established, and we used their average effects as the benchmark. In this specification, we utilize all available variations in turnover of senior officials, that is, all official-position observations from 1990 to 2016. The results are recorded in Column 1 of Appendix Table A1, which also includes the estimated outcomes of alternative dummy variable sets.

If our results were driven purely by pre-existing differences, then we would expect the patterns of earmarked transfers to hometowns for treatment cities to be already quite different from those to cities never connected with the province, even before the arrival or after the departure of connected officials. However, according to Fig. 3, there was no significant difference between the treatment cities and the rest of the cities before the connection was established and after the connection was lost. This provides potential evidence that the parallel trends assumption was satisfied, and our results were not caused by the pre-trend.

Fig. 3 also reveals dynamic patterns. One question regarding our conclusion is that if most connections lasted only for a short period, then hometown favoritism may have been masked because cities that had recently established connections with the province

Table 3
Effects of hometown connections on general-purpose transfers p.c.

	DV: Log general-purpose transfers per capita at t + 1						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Number of senior officials	-0.0012 (0.0111)	-0.0024 (0.0107)	-0.0024 (0.0107)	-0.0024 (0.0107)	-0.0040 (0.0110)	-0.0077 (0.0119)	
At least one senior official							0.0033 (0.0190)
Log own fiscal revenue		-0.150*** (0.046)	-0.135*** (0.046)	-0.135*** (0.046)	-0.111** (0.049)	-0.135** (0.055)	
Log GDP			-0.051 (0.092)	-0.045 (0.098)	-0.046 (0.096)	-0.105 (0.110)	
Log population				-0.073 (0.211)	-0.072 (0.200)	0.034 (0.138)	
Log income per capita					-0.096 (0.065)	-0.071 (0.085)	
Human capital						0.005 (0.034)	
City features×Year dummy	✓	✓	✓	✓	✓	✓	✓
City FE	✓	✓	✓	✓	✓	✓	✓
Province-year FE	✓	✓	✓	✓	✓	✓	✓
Number of cities	321	321	321	321	321	299	321
Observations	3180	3177	3174	3172	3030	2569	3180

Note. This table presents the effects of the changes in the number of senior officials on general-purpose transfers. The dependent variable is the log of general-purpose transfers per capita in the next fiscal year. Standard errors clustered at the city level are reported in parentheses. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

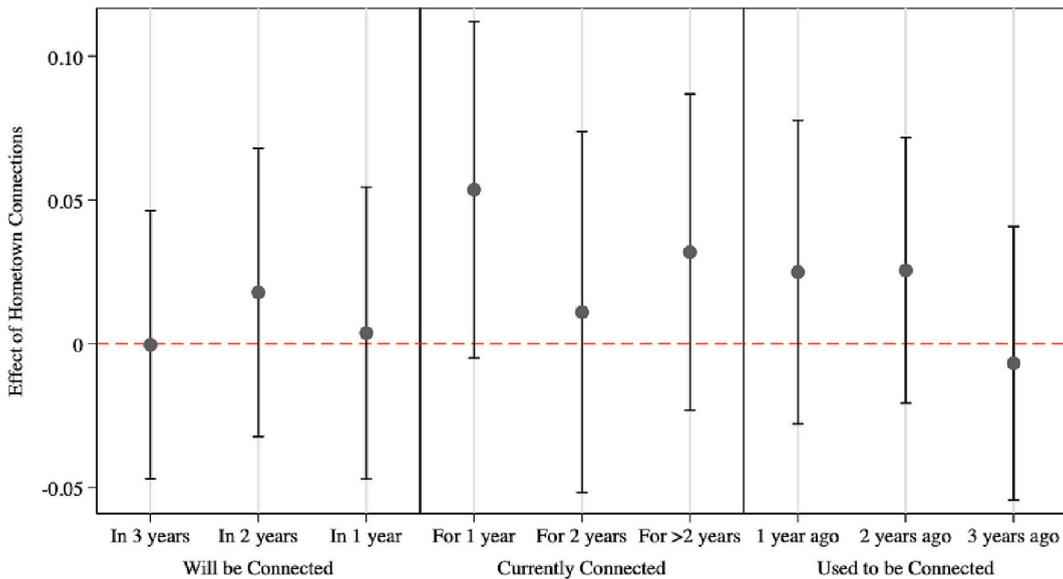


Fig. 3. Dynamic effects of hometown connections on fiscal transfers.

Note. This figure illustrates the dynamic effects of hometown connections on earmarked transfers per capita for cities before, during, and after being connected to provincial officials. Each dot indicates the coefficient estimate for the specification with interaction terms for city features and year dummies, two-way fixed effects, but no control variables, and the vertical bars show the 95% confidence intervals.

might not have enough experience in using this relationship. As time went by, cities and senior officials likely gradually took advantage of this relationship. However, of the 473 connections established from 1990 to 2016, 80.8% lasted 3 years or more. Hence, this hypothesis is unlikely to hold. Besides, the dynamic pattern in Fig. 3 justifies our results. From 1999 to 2008, even though the connection duration was extended, there is no evidence that senior officials' hometown cities would receive more earmarked transfers. This dynamic pattern enhances the robustness of the conclusions.

4.3. Robustness checks

We conducted a series of additional tests to evaluate the robustness of our results. First, we adopted different measures of fiscal

transfers. Columns 1 and 2 of Table 4 respectively involve the original linear measure of earmarked transfers per capita and the log earmarked transfers as the dependent variable to verify the robustness of the baseline estimation. Columns 3 and 4 portray the original linear value of general-purpose transfers per capita and the logarithm of general-purpose transfers, respectively. Column 5 examines the favoritism effect on the logarithm of total transfers per capita. All coefficients are not statistically significant, which implies that our conclusion was not driven by the unique form of the dependent variable.

Second, we investigated whether our results were sensitive to the specific definition of SPOs. The influence of officials in different positions on fiscal transfers was heterogeneous, and some officials may have been unable to influence transfer allocations. For example, the formal power of some officials is unrelated to the transfer allocation, which could have led to their inability to affect the transfer allocation. One challenge to our conclusion is that our sample may have contained such officials, which can create attenuation bias. Considering the heterogeneity of hometown favoritism, we classified officials according to their positions and powers and constructed three alternative measurements to ensure that our results were not driven by certain individual officials.

The first alternative measurement is the top two leaders in the provinces, that is, provincial party secretaries and governors. As leaders have absolute authority among provincial officials, they can unquestionably influence the allocation of fiscal transfers. Moreover, referring to Burgess et al. (2015), powerful leaders may crowd out the “petty favoritism” of other lower-level officials, resulting in less powerful officials not being able to favor their hometowns. This measurement can exclude the influence of “petty favoritism” from vice-governors and other members of the PPSC.

In the second alternative measurement, we counted the number of senior officials in government plus the provincial party secretary. Although other members of the PPSC can influence distribution decisions at the budget conference of the PPSC, their degree of influence depends on their actual authority in economics. From this standpoint, members in charge of party affairs and military representatives usually have less influence, whereas PG representatives have greater influence. Since the latter will also appear in the PG, excluding PPSC members but retaining the secretary can remove members that have relatively little influence on earmarked transfers but still retain members of the PG who have a strong effect. This measurement also provides sufficient variation.

Third, we estimated the effect of the Director of the Finance Department on earmarked transfers. Although the Director of the Finance Department is at a lower level than senior officials, they are directly responsible for allocating fiscal funds and thus have a great influence on allocation. The process of collecting information on finance directors is similar to that of senior officials. We first searched for lists of finance directors from government websites, provincial yearbooks, and provincial financial statistical yearbooks and then gathered their resumes from multiple websites and identified personal information.

The estimation results of these three alternative measurements are shown in Table 5. The findings in columns 2–4 still imply a potentially null effect consistent with baseline estimation because they are not statistically significant.

4.4. Discussions on motives

The motivations behind hometown favoritism include vote-purchasing (Besley et al., 2012), strengthening political power (Franck & Rainer, 2012, etc.), or simply a strong sense of hometown identity (Do et al., 2017; Fiva & Halse, 2016). However, in the context of China, these motivations may be weakened. The absence of these motivations could be a possible reason for the insignificance of the baseline regression results.

Firstly, the Chinese upward accountability system operates differently from electoral systems, as the promotion of officials is primarily determined by their superiors rather than by the votes of constituents in their jurisdictions. Consequently, it is unlikely that Chinese officials exhibit hometown favoritism driven by the motivation to buy votes. Secondly, within China’s informal political networks, officials may not enhance their political power through favoritism towards their hometown. Instead, officials tend to allocate more resources to the cities where their own clients hold leadership positions (city secretaries or mayors) for policy coordination (Jiang & Zhang, 2020). Furthermore, hometown connections among officials may have negative consequences, such as

Table 4
Alternative measurements of fiscal transfers.

	DV:				
	(1)	(2)	(3)	(4)	(5)
	Linear earmarked transfers p.c. (millions of yuan)	Log earmarked transfers	Linear general-purpose transfers p.c. (millions of yuan)	Log general-purpose transfer	Log total transfers p.c.
Number of senior officials	1.64 (5.77)	0.0091 (0.0086)	1.01 (3.24)	-0.0045 (0.0114)	0.0096 (0.0082)
Control variables					
City features×Year dummy	✓	✓	✓	✓	✓
City FE	✓	✓	✓	✓	✓
Province-year FE	✓	✓	✓	✓	✓
Observations	3197	3204	3180	3187	3180

Note. This table shows the results using alternative measures of fiscal transfer. Control variables are excluded. Standard errors clustered at the city level are reported in parentheses.

Table 5
Alternative measurements of political connections.

	DV: Log earmarked transfers p.c. at t + 1			
	(1)	(2)	(3)	(4)
	Senior officials	Top two leaders	Officials in government, plus the secretary	Director of Finance Department
Number of officials	0.0104 (0.0087)	-0.0070 (0.0277)	0.0140 (0.0125)	0.0271 (0.0555)
Control variables				
City features×Year dummy	✓	✓	✓	✓
City FE	✓	✓	✓	✓
Province-year FE	✓	✓	✓	✓
Observations	3197	3197	3197	3197

Note. This table shows the results using three alternative measurements of political connections. Control variables are excluded. The top two leaders denote the provincial secretary in the PPSC and the governor in the PG. Officials in the government plus the secretary encompasses the governor, all vice-governors, and the provincial secretary. The Director of Finance Department is not at vice-provincial level, but handles essential power in distributing transfers. Standard errors clustered at the city level are reported in parentheses.

decreasing their likelihood of promotion (Fisman et al., 2020). This further diminishes the motivation for officials to engage in hometown favoritism as a means to enhance their political power. Lastly, favoritism based on social preference tends to be more pronounced when social ties are stronger (Do et al., 2017). If provincial-level officials have a weaker emotional attachment to their hometown, the manifestation of favoritism may also be less pronounced.

However, the absence of social preference among SPOs lacks sufficient support within the existing literature and Chinese context. To further investigate the motives of social preference, we will proceed with a preliminary examination of the favoritism pattern stemming from social ties. As social ties are influenced by traditional opinion, officials native to rural areas may hold stronger bonds with their ancestral hometown and would likely be more willing to send back more fiscal transfers. Due to data limitations, we can neither precisely identify officials' rural hometowns as Do et al. (2017) did, nor obtain data on rural-level transfers. However, since the lower the urbanization rate of a city, the higher the probability that a native official was born in a rural area, we can use the urbanization level as a rough measure of the probability that an official was born in a rural area. If there is a hometown favoritism motivated by social preference, then we should likely find a favoritism effect to hometown cities with lower urbanization rates.

To test this hypothesis, we first calculate the average urbanization rate of cities over the sample period and then divide the sample into two groups based on the median. The results of the subgroup regressions are displayed in Table 6, which shows that we still find no evidence of favoritism in areas with higher levels of urbanization, but in cities with lower levels of urbanization, we find each additional native SPO raises earmarked transfers in the city by 1.9% on average with 10% confidence level. This finding provides suggestive evidence for the existence of hometown favoritism among officials with stronger social ties to their hometowns. Furthermore, the insignificant results in the full sample also suggest that social ties may be universally weak among all SPOs. However, it is important to note that our measurement is based on a rough indicator of social ties. This means that we need to exercise caution when interpreting the results we have identified. Besides, the non-significant findings in the baseline results could also be attributed to the absence of favoritism driven by other kinds of motives.

4.5. The effect on GDP

In the context of 6 African countries, Kramon and Posner (2013) pointed out that when using empirical research based on a single output, we need to be very cautious in drawing a generalized conclusion.¹² Kasara (2007) also suggested that heavier agricultural taxes levied on co-ethnic farmers reflect political support rather than ethnic aversion, as leaders may favor co-ethnic regions through other channels, such as fiscal transfers. Thus, although the earmarked transfer is the most direct policy tool that officials can handle and it plays an important role in local development, simply verifying the effect of earmarked transfers is not enough to conclude that hometown favoritism does not exist because officials can also favor their hometown through other unobservable channels. A common solution is to verify the total output within the officials' jurisdiction. For example, Hodler and Raschky (2014) investigated the effect of leaders on the nightlight intensity of their birthplace, and Kramon and Posner (2016) examined the effect of the Minister of Education on the education of co-ethnic people.

We used GDP per capita to capture the aggregate effect of other possible unobservable channels. As the CSYRE, which contains GDP

¹² Using data on 6 sub-Saharan African countries (Benin, Kenya, Malawi, Mali, Senegal, and Zambia) and 4 kinds of public goods (education, water, electricity and infant survival), they show that favoritism towards one group with a single public good may be offset by other public goods and that the effect of a single output may induce wrong conclusions. For example, favoritism in Kenya results in more access to primary education for the co-ethnic group, but no significant favoritism effects are found for water, electricity, or infant survival. Favoritism in Senegal results in more access to improved water source and household electricity for the same ethnic group, but less access to primary education and infant survival, and the total effect may be null.

Table 6
Heterogeneous effect of different urbanization rate.

	DV: Log earmarked transfers p.c. at t + 1	
	(1)	(2)
	High Urbanization rate	Low Urbanization rate
Number of senior officials	-0.0017 (0.0135)	0.0191* (0.0113)
Control variables		
City features×Year dummy	√	√
City FE	√	√
Province-year FE	√	√
Observations	1527	1608

Note. This table shows heterogeneous effects of SPO's hometown favoritism between high and low urbanization level cities. Sample is divided into two groups by the median of cities' average urbanization rate. Control variables are excluded. The dependent variable is the log of earmarked transfers per capita in the next fiscal year. Standard errors clustered at the city level are reported in parentheses. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

data, ceased to be published in 2014, this sample period is extended to 2000–2013. Similar to specification (1), we estimated the following two-way fixed-effects model:

$$\text{Log GDP p.c.}_{i,p,t} = \alpha + \beta \text{Num.of Senior Officials}_{ipt} + \mathbf{X}_{ipt}\boldsymbol{\gamma} + (\mathbf{Z}_i^* \boldsymbol{\lambda}_t)' \boldsymbol{\theta} + \mu_i + \eta_{pt} + \epsilon_{ipt} \quad (3)$$

Although the coefficient estimate in Column 1 of Table 7 is negative, it still implies that senior officials do not favor their hometowns because the effect is very close to zero and not statistically significant. The specification in column 2 includes Log Population as the control, and in column 3 includes the lag of the dependent variable; the results are consistent with the baseline. The OLS estimation of the dynamic panel was biased (Nickell, 1981). To solve this problem, referring to Hodler and Raschky (2014), we used the method recommended by Angrist and Pischke (2009) to estimate a fixed-effects model that did not include the lagged dependent variable (as shown in Column 1) and a specification that included the lagged dependent variable but not city fixed effects (as seen in Column 4). These two coefficient estimates have the bracket property that the true value of the coefficient must fall between the coefficient estimates of these two specifications. Finally, in Column 5, we used the growth rate of per capita GDP as an alternative measurement, and we still found no evidence of hometown favoritism. Thus, we argue that a rise in the number of senior officials does not promote local economic growth, and there is no evidence that officials will favor their hometowns through unobservable channels.

5. Concluding remarks

In this paper, we show the absence of hometown favoritism within an upward accountability system. It is not widespread for senior provincial officials in China to give more fiscal transfers to their hometown cities. We also examine the aggregate outcomes of unobservable channels in terms of GDP p.c. and come to the same conclusion. We further discuss the motivation for favoritism and the possible reasons for its absence in the Chinese context.

Our research has several limitations as follows. Firstly, our findings' lack of statistical significance means that our conclusions should be interpreted with caution and considered suggestive. Additionally, our research only focuses on relationships based on hometown connections, and we acknowledge that other factors such as shared work experience or common educational backgrounds may play a role in favoritism as well. This question is a very interesting direction and can help us to deepen our understanding of the

Table 7
: Effects of hometown connections on GDP.

	DV: Log GDP p.c.				DV: GDP p.c. growth rate
	(1)	(2)	(3)	(4)	(5)
Number of senior officials	0.00014 (0.00746)	-0.00128 (0.00737)	0.00011 (0.00238)	-0.00132 (0.00131)	0.048 (0.199)
Log population		-0.56*** (0.15)			
1st lag of log GDP p.c.			0.76*** (0.04)	0.98*** (0.00)	
City features×Year dummy	√	√	√	√	√
City FE	√	√	√	√	√
Province-year FE	√	√	√	√	√
Number of cities	321	321	321	321	321
Observations	4680	4678	4680	4680	4665

Note. This table shows the effects of changes in the number of senior officials on GDP per capita and GDP p.c. growth rate. The sample range is expanded to 1999–2013. Standard errors clustered at the city level are reported in parentheses. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

distribution of power, as Jiang and Zhang (2020) and Fisman et al. (2020) and others have done. Regrettably, due to data limitations, we were unable to explore these dimensions more extensively. Furthermore, our study only examines the absence of hometown favoritism among SPOs, and caution should be exercised when generalizing these findings to all officials in China. To gain a comprehensive understanding of the pattern of hometown favoritism in China, further empirical studies focusing on relevant factors are necessary.

Declaration of interest

None.

Data availability

Data will be made available on request.

Appendix



Fig. A1. Map of prefecture-level cities in Guangdong and Shanxi Province.

Note. On the left, we present a simplified map of Guangdong Province, a coastal region known for its high population density in China, with approximately 564 inhabitants per square kilometer. This map displays the geographical distribution of the province’s 21 prefecture-level administrative regions, including their boundaries and locations. On the right, we showcase a simplified map of Shanxi Province, which represents an inland province characterized by a relatively lower population density of 219 people per square kilometer. The map illustrates the presence of 11 prefecture-level administrative regions within Shanxi Province. This comparison serves as an example to demonstrate the varying size and spatial arrangement of prefecture-level cities.

Table A1

Dynamic effects of hometown connections.

	DV: Log earmarked transfers p.c. at t + 1				
	(1)	(2)	(3)	(4)	(5)
Hometown connections	0.025 (0.022)	0.035 (0.024)	0.033 (0.026)		
Past5					-0.001 (0.021)
Past4					0.000 (0.025)
Past3			-0.000 (0.024)	-0.000 (0.024)	0.001 (0.028)
Past2		0.018	0.017	0.018	0.019

(continued on next page)

Table A1 (continued)

	DV: Log earmarked transfers p.c. at t + 1				
	(1)	(2)	(3)	(4)	(5)
Past1	-0.003 (0.020)	(0.022) 0.005 (0.023)	(0.025) 0.004 (0.026)	(0.025) 0.004 (0.026)	(0.029) 0.005 (0.030)
Connect1				0.054* (0.030)	0.055 (0.033)
Connect2				0.011 (0.032)	0.012 (0.035)
Connect3					0.059* (0.034)
Connect4					0.018 (0.035)
Connect5+					0.029 (0.034)
Connect3+				0.032 (0.028)	
Future1	0.018 (0.024)	0.028 (0.025)	0.026 (0.027)	0.025 (0.027)	0.026 (0.031)
Future2		0.034 (0.021)	0.032 (0.023)	0.026 (0.023)	0.026 (0.027)
Future3			-0.010 (0.024)	-0.007 (0.024)	-0.006 (0.027)
Future4					0.009 (0.026)
Future5					-0.005 (0.023)
Control variables					
City features×Year dummy	✓	✓	✓	✓	✓
City FE	✓	✓	✓	✓	✓
Province-year FE	✓	✓	✓	✓	✓
Observations	3197	3197	3197	3197	3197

Note. This table shows the dynamic effect of hometown connections on earmarked transfers per capita using different series of dummies. A hometown connection is a dummy = 1 if there is at least 1 senior official in the province for city i in year t . Past1 is a dummy variable equal to 1 if city i will be connected with senior officials in the next year, and 0 if otherwise. Past2 is a dummy variable equal to 1 if city i will be connected with senior officials in the second year in the future, and 0 if otherwise. Past3, Past4, Past5 are the same. Connect1 is a dummy variable equal to 1 if city i establishes hometown connections for the first year, and 0 if otherwise. Connect2, Connect3, Connect4, Connect5 are the same. Connect3+ is a dummy variable equal to 1 if city i establishes hometown connections for the third year or after. Connect5+ is a dummy variable equal to 1 if city i establishes hometown connections for the fifth year or after. Future1 is a dummy variable equal to 1 if city i just lost connections with senior officials. Future2 is a dummy variable equal to 1 if city i lost connections with senior officials 2 years ago, and 0 if otherwise. Future3, Future4, Future5 are the same. Standard errors clustered at the city level are reported in parentheses. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

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