

# Does Performance Matter? Evaluating Political Selection Along the Chinese Administrative Ladder

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## Abstract

Political selection is central to the survival of all regimes. This article evaluates the relative importance of performance and political connection for the advancement of local politicians under authoritarianism. We hypothesize that in a large-scale multilevel polity, economic performance plays a greater role in promotion at lower administrative levels of government than at higher ones, even after controlling for political connections. This dualist strategy allows the ruling elites to achieve economic performance while minimizing the advancement of potentially disloyal challengers. Thus, balancing between loyalty and competence among subordinates enhances regime survival. Our empirical evidence draws on a comprehensive panel dataset of provincial, prefectural, and county-level Communist party secretaries and government executives appointed between 1999 and 2007. We find consistent evidence for our argument under various model specifications. We also explore the heterogeneous effects of performance on promotion given the Chinese Communist Party's (CCP) age ineligibility rule for cadre promotion and jurisdiction characteristics.

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Autocracies are inherently fragile. They are often short-lived and prone to coups d'état that are usually engineered by competitors who emerge from within the system (Geddes, 1999; Przeworski, Alvarez, Cheibub, & Limongi, 2000). Authoritarian leaders are understandably highly sensitive to these risks and have learned to deploy a variety of techniques that minimize the probability of displacement, or "coup proofing" (Quinlivan, 1999).

These techniques that mitigate displacement have perverse consequences: They incentivize leaders to appoint sycophants and loyalists to their immediate power circle, but doing so increases the likelihood that appointees lack the skills and competence to effectively implement crucial policies. The top leaders must therefore also consider the necessity to sustain the administrative apparatus that allows their regime to function by extracting necessary fiscal revenue and implementing government's policies. In that sense, coup-proofing erodes regime efficiency.

Research on Chinese politics has emphasized the efficiency side of the equation. The key argument about China's political meritocracy is that the Chinese Communist Party (CCP hereafter) retains the ability to identify and credibly reward officials who have the skills to nurture economic growth and to sideline those who do not. Nathan (2003) suggests that the increased use of meritocracy over factional considerations in the promotion of political elites is the key to the resilience of the Chinese regime. Similarly, Fukuyama (2011) points at the development of China's modern bureaucracy as a key driver of political order. Presumably, by tying leadership selection to economic performance, the regime has bolstered its legitimacy among citizens who have seen their standard of living rise steadily over time. Scholars of Chinese politics claim that this is no accident, as political leaders in Beijing crafted a set of powerful incentives along the entire bureaucratic ladder to ensure that officials at all levels deliver the kind of economic performance that the center deems necessary to maintain popular support (Landry, 2008; Naughton & Yang, 2004; Whiting, 2004).

Surprisingly, the extant empirical evidence remains mixed. Despite the introduction of explicit targets and clear performance contracts (Edin, 1998; Whiting, 1996), existing empirical studies have not consistently identified a positive correlation between economic performance (measured by GDP growth) and leadership promotion: While Zhou and Li (2005) show a positive correlation among provincial leaders, Landry (2008) found mixed results among prefecture-level mayors. More recently, Shih, Adolph, and Liu (2012)

and Meyer, Shih, and Lee (2016) have gone the farthest in stressing the importance of factionalism for promotion based on exhaustive biographical data on CCP's Central Committee members.

Such inconsistency is puzzling. China's remarkable economic performance since 1978 is patently at odds with a model of pure nepotism and corruption. Evidence from multiple rounds of public opinion surveys collected by many institutions has shown that ordinary Chinese citizens strongly support both reforms and the government, and claim to benefit personally from China's economic transformation (J. Chen, 2004; J. Chen & Dickson, 2010; J. Chen, Zhong, & Hillard, 1997; Dickson, 2016; Shi, 2001; Tang & Parish, 2000; Whyte, 2010). Furthermore, if economic performance plays no role in cadre promotion, it is puzzling why so many local governments exert enormous energy to promote economic growth (Oi, 1999; Xu, 2011) or even potentially engage in data manipulation (Holz, 2004; Koch-Weser, 2013; Wallace, 2016).

We seek to reconcile extant theoretical debates on political selection in authoritarian regimes with the key features of the Chinese political system. Our main claim is a simple one: CCP rule is no exception to the need for regime-learning and coup-proofing, but it happens in a manner that mitigates the tradeoff between loyalty and efficiency. Specifically, we show that the regime is quite successful at fostering meritocracy at the lower levels of the administrative hierarchy, where local leaders are several steps removed from the selectorate that is relevant to central leaders. However, the imperative of protection against potential competitors results in a weaker propensity to promote high-performing officials as they climb the political ladder.

We constructed the most comprehensive dataset of political appointments in China at the provincial, prefectural, and county levels, thus helping to address the problem of conflicting evidence in part due to inconsistent levels of analysis across studies. Those who are skeptical about economic performance tend to rely on evidence near the center (Nathan, 1973; Teiwes, 1984), or specifically the Party's Central Committee members (Meyer et al., 2016; Shih et al., 2012), while those who detect economic performance often use data at the provincial level (Bo, 2002; Huang, 1996; Jia, Kudamatsu, & Seim, 2015; Sheng, 2010) and below (T. Chen & Kung, 2016; Guo, 2007). Our integrated approach allows us to measure and compare the political returns of economic performance across all three levels of government.

Our key empirical result is that performance has a positive effect on cadre promotion at the lower level of government but not at higher ones, even when we account for political connections that several scholars regard as important to cadre promotion. Specifically, we find evidence supporting performance-based promotion at the county level but we do not detect any consistent

evidence for the promotion of prefecture and provincial leaders. These results are robust even to specifications that consider the selection bias problem wherein some favored politicians may be appointed to jurisdictions with better economic endowments.

Although our empirical analysis is restricted to China, these results have broader implications for understanding the political selection process and the survival of authoritarian regimes. The selection of individuals for political office is one of the core issues in the political economy of development (Besley, 2005). Failure to select politicians of “good quality” leads to incompetent governments and economic failures (Acemoglu, Egorov, & Sonin, 2010; Olken & Pande, 2012). Political selection is critical in authoritarian regimes where rulers have greater political power, face fewer constraints, and potentially have a greater impact on social welfare than their democratically elected counterparts (Hodler & Raschky, 2014; Jones & Olken, 2005). Standard accounts of political selection in nondemocratic regimes are largely based on the “selectorate theory” (Besley & Kudamatsu, 2008; Bueno de Mesquita, Smith, Siverson, & Morrow, 2003; Shirk, 1993). However, these studies focus on the political selection of national leaders, but offer little explanation for the logic of selection of local politicians beyond and below the relevant selectorate, even though these “foot soldiers” are an essential ingredient of regime resilience. Recent scholarship has turned to political selection at the subnational level in countries that hold local elections, such as Russia (Reuter, Buckley, Shubenkova, & Garifullina, 2016; Reuter & Robertson, 2012) and Brazil (de Janvry, Finan, & Sadoulet, 2011). We provide additional evidence from China where local politicians are not selected through the ballot box.

This article contributes to theories of authoritarian resilience. While many studies of authoritarian regimes highlight the importance of formal institutions, such as parties, legislatures, and advisory councils, for regime survival (e.g., Boix & Svobik, 2013; Gandhi & Przeworski, 2007; Wright & Escrivà-Folch, 2012), we turn to another important yet neglected factor—the selection of *local politicians*—to understand how ruling elites can both promote economic growth and concurrently ensure their political survival. Our article also helps reconcile the debate over the nature of political selection in China. Based on a multilevel dataset of local appointees, our empirical analysis unifies the conflicting evidence of performance-based political selection. We highlight the limitations of performance-based political selection: the diminishing returns of economic performance on promotion along the administrative ladder as well as the shortcoming that the selection of higher level politicians—who have a significant impact on policy formulation and outcomes—is unlikely to be made from among the most competent leaders, even by regime’s own metric.

The roadmap of our article is the following: We first present a theoretical framework on the ways through which economic performance and political connection influence the selection of local politicians in China. We then describe our original dataset of political appointments in China at the provincial, prefectural, and county levels and the measurements of economic performance and political connections. We discuss our empirical strategy and main statistical results, as well as robustness checks. Finally, we evaluate the heterogeneous effects of economic performance on local cadre promotion and offer some concluding thoughts.

## **Economic Performance and Political Selection in China**

In this section, we review existing arguments about economic performance and leadership selection in China. We first present a theoretical framework to conceptualize the tradeoff between the economic benefits of selecting competent local officials and the political risks that such appointees pose as they climb the administrative ladder and become relevant players within the selectorate that matters to national leaders.

To begin, our theoretical framework hinges on three key assumptions. First, rulers aim to maintain their own personal political survival by selecting seemingly loyal subordinates. Second, regime survival requires competent subordinates who help achieve policy targets, such as fiscal extraction and local stability, which are set by the central rulers. Third, rulers generally choose between four types of potential candidates for promotion, who combine different degrees of loyalty and competence (Table 1). No ruler wants to promote officials who are both disloyal and incompetent (Type 4), which would lead to rapid regime breakdown. Although officials with high loyalty and high competence (Type 1) are the most desirable, the pool of desirable appointees is likely to be shallow in part because loyalty is difficult to gauge *ex ante* and competent politicians often have greater ambition, which erodes their loyalty to incumbents. In practice, rulers often face the tradeoff of promoting candidates who have low competence but high loyalty (Type 2) or who have high competence but low loyalty (Type 3).

The balance of competence and loyalty for promotion is not evenly distributed along the multilevel administrative ladder, which we can simplify as the difference between high-level officials who belong to the selectorate of central leaders and lower level ones who are essential to the production and transmission of economic resources required by the regime but have no direct influence on the selection of central leaders. The tradeoff between loyalty and competence is clear in Types 2 and 3: Competent but disloyal local officials (Type 3) are able to produce needed resources, while

**Table 1.** The Tradeoff Between Loyalty and Competence.

	High degree of competence	Low degree of competence
High degree of loyalty	1 <i>Regime stability</i>	2 <i>Economic risks</i>
Low degree of loyalty	3 <i>Political risks</i>	4 <i>Regime breakdown</i>

competent but disloyal higher level officials may see themselves as credible alternatives to incumbent central leaders. In contrast, incompetent but loyal (Type 2) local officials would fail to deliver key resources and policy targets needed for the regime to function, but these appointees ensure that the central leadership is not challenged.

The key question is thus to identify the conditions under which rulers choose to promote more competent but potentially disloyal officials rather than loyal but incompetent officials. Because selecting neither Type 2 nor Type 3 candidates is a dominant strategy, we are likely to observe mixed aggregate distributions that reflect the degree of risk in these two dimensions facing rulers under different institutional settings. In a nested but relatively decentralized bureaucracy such as China, there are many appointers under what is termed the “*one-level-down*” system of cadre management,<sup>1</sup> a factor that results in even more mixed aggregate outcomes. However, we argue that we should observe a systematic pattern in which performance is greater correlated with promotion at the lower level of administrative level.

### *The Logic of Political Meritocracy Through Economic Performance in China*

Although China has embraced economic decentralization since 1980s, it remains as a politically centralized state (Landry, 2008; Xu, 2011). Local officials are appointed by higher level governments that are tightly controlled by the CCP (Bo, 2002; Cai & Treisman, 2006). The centralized personnel appointment system is a key feature that allows the higher level governments to incentivize the lower level governments to implement their policy preferences (Huang, 1996).

Economic growth has been the CCP’s top priority since 1978. Scholars have argued that maintaining rapid economic growth is key to enhancing the “performance legitimacy” of the CCP (Zhao, 2009). Consequently, local governments exert tremendous effort to promote growth in their jurisdictions in anticipation of political advancement. For example, officials sign “performance contracts” with the higher level governments that specify targets for a number of economic indicators, such as attracting foreign direct investment

(FDI), GDP growth, and fiscal revenue (Edin, 1998; Whiting, 1996). Performance contracts—along with an extensive statistical and monitoring apparatus—presumably provide the center with the information required to ensure that targets are indeed met.

In this institutional context where political selection is centralized and economic growth is prioritized by the CCP, some scholars contend that Chinese local officials engage in a “promotion tournament” in which they compete against peers, while higher level governments reward best performers (Zhou & Li, 2005; Maskin, Qian, & Xu, 2000). The system of Organization Departments allows the CCP to set the rules of the game at all levels, and local agents are expected to follow them closely.<sup>2</sup> Thus, although the central government does not directly manage county officials, under the “cadre responsibility system” (*ganbu zeren zhi*) provincial and prefectural officials know that they will be held to account to their respective principals at the central and provincial levels should they fail to ensure that lower level officials perform well in the economic and fiscal areas (Manion, 1993, 2008; O’Brien & Li, 1999). The underlying logic is that the variation of local officials’ efforts and competence translates into different economic outcomes under the same incentive structure. Indeed, Xi, Yao, and Zhang (2015) show that local politicians’ competence explains a larger fraction of the variation in growth rates among municipalities in China than is implied by the incentive structure. Xu (2011) characterizes this arrangement as the fundamental institution behind China’s rapid economic growth since 1978.

### *The Roles of Political Connections and Economic Performance in a Multilevel Appointment Strategy*

Despite the importance of economic performance, some scholars of Chinese politics have advocated the idea that strong political connections drive cadre promotions (Dittmer & Wu, 1995; Meyer et al., 2016; Nathan, 1973; Shih et al., 2012). Given higher level governments have de facto control over appointments at the lower levels, CCP party secretaries have the authority to veto appointments. Thus, when promotions occur, party secretaries tend to reward loyal local officials with whom they have good political connections.

In a pure factional patronage model, the promotion process is entirely driven by the nature of the political connection between the party secretaries and local officials. Only local officials deemed loyal to the party secretary are promoted, so long as the party secretary remains in office. In practice, all rulers require competent subordinates to help them carry out policies, and given the absence of a plentiful and ex ante observable supply of Type 1 officials, rulers must choose a mixture of Types 2 and 3 that maximizes competence while producing the least amount of disloyalty.

We contend that the solution to this problem lies in a multilevel appointment strategy: Local officials who are distant from the selectorate are more likely promoted on the basis of perceived competence through observable performance indicators, but the promotions of officials at the higher administrative ladder are less tied to performance because these positions are within the selectorate that is key to the survival of the central rulers. In contemporary China, provincial governors and CCP party secretaries almost always sit on the Central Committee (either as a full member, or alternates) and therefore map to the central selectorate, while other local officials have too low a party rank to influence the political fate of rulers. They do, however, govern municipalities and counties that lie at the core of the Chinese economy and produce the critical fiscal and economic resources that the regime requires. It is at their level that rulers prefer to reward competence (e.g., economic performance) because the consequences of concurrently promoting potentially disloyal officials are politically acceptable. In addition, because most local officials are promoted based on performance, it is harder to distinguish themselves on the basis of performance alone after they move up the political hierarchy. Hence political connections become more important at the higher level of the political hierarchy.

To sum up, the key empirical inquiry of our article is whether the CCP systematically promotes government officials who demonstrate their competence by generating greater economic outcomes at the lower levels of the political hierarchy. We also test the extent to which leadership selection is influenced by loyalty concerns—resulting in diminishing returns of competence—as one climbs the administrative ladder and approaches the central selectorate.

## **Data and Empirical Strategy**

We constructed an original dataset that links detailed economic performance and political connection with political appointments for all the provincial, prefectural, and county-level jurisdictions in China from 1999 to 2007.<sup>3</sup> In this section, we detail our measurements of key dependent and independent variables.

### *Measuring Promotion*

The political appointment data were collected through several sources. First, we relied on provincial yearbooks for lists of the names of party secretaries and government executives (e.g., provincial governors, mayors, and county heads) at the provincial, prefectural, and county level. We then filled in the



**Table 2.** Summary Statistics of Local Politicians (1999-2007).

	Provincial level		Prefecture level		County level	
	Party secretary	Governor	Party secretary	Mayor	Party secretary	County head
Position change outcomes						
Promotion	25.37%	40.00%	37.05%	56.60%	39.54%	66.95%
Transfer	71.64%	48.57%	58.81%	41.49%	57.70%	31.67%
Retirement	1.49%	4.29%	1.68%	0.68%	0.38%	0.19%
Fire for misconduct	1.49%	5.71%	2.20%	1.01%	2.21%	0.95%
Death	0.00%	1.43%	0.26%	0.23%	0.13%	0.20%
Demotion	0.00%	0.00%	0.00%	0.00%	0.04%	0.03%
Politician characteristics						
Avg. age	58.94	58.41	51.92	49.81	46.47	43.98
Avg. length of tenure (year)	3.76	3.79	3.49	3.09	3.42	3.08
Observations	67	70	772	887	5,288	6,397

Based on authors' database, which includes both party secretaries and government executives for all provincial, prefectural, and county levels of jurisdiction. We exclude those politicians whom we did not observe a change of position in 2007 to avoid right censoring. We also extend the data collection in 1996 to avoid left censoring.

missing data by using the publications by the provincial and prefectural Organization Departments as well as Internet sources. Once we collected the names of these officials, we collected their bibliographies to identify their political appointments after leaving the current post.<sup>4</sup> We thus obtained appointment information for all the provincial and prefecture politicians between 1996 and 2007. Due to data limitations, our coverage of county leaders is slightly less comprehensive, especially in the late 1990s. However, we are still able to identify the political appointments for more than 96% of county party secretaries ( $n = 5,288$ ) and the county heads ( $n = 6,397$ ) between 1996 and 2007. For any politician, we code six different types of career changes: promotion, transfer, retirement, dismissal for misconduct, demotion, and death. Our coding rule follows the Chinese administrative ranking system. The coding rule for career changes can be found in Appendix B.<sup>5</sup>

Table 2 summarizes the breakdown of career changes for politicians at different levels of government. Our data reveal two patterns of political appointments. First, promotions and transfers account for over 97% of the position changes, with the exception of governors (88%). Second, the average tenure length hovers between 3 and 4 years, even though formal appointments have

a 5-year term. This result is consistent with Kou and Tsai (2014) who suggest that Chinese politicians seek to “sprint through the ranks in a series of small, rapid steps” to avoid the age limitation for promotion (p. 159). In fact, the average age of all three levels of politicians are well below the age of ineligibility for promotion stipulated by the CCP cadre management system.

### *Measuring Economic Performance*

Fiscal revenue and GDP data came from two sources: The provincial fiscal data were obtained from *China Tax Affairs Yearbook (Zhongguo Shuiwu Nianjian)*, while provincial GDP data come from China Data Online hosted by University of Michigan. The prefecture and county-level jurisdictions’ fiscal and GDP data come from the *National Prefecture and County Finance Statistics Compendium (Quanguo Di Shi Xian Caizheng Tongji Ziliao)*, published by the Ministry of Finance.<sup>6</sup>

We employ two strategies to capture the impact of economic performance on promotion. First, we use fiscal revenue and GDP as separate indicators of economic performance. The fiscal revenue measure is the sum of all local taxes and fees as well as the shared tax revenues remitted to higher level governments,<sup>7</sup> but before any transfers and tax rebates received from higher level government. It is important to include shared tax revenues because they are part of the credible signal that local governments use to demonstrate competence in fiscal and economic affairs. Although GDP is most commonly associated with the argument of “performance legitimacy” (e.g., Montinola, Qian, & Weingast, 1995; Zhao, 2009; Zhu, 2011), studies have shown that fiscal revenue is a crucial indicator of the Chinese cadre evaluation system (T. Chen & Kung, 2016; Ong, 2012).

Second, we use the annual growth rates of economic indicators (i.e., fiscal revenue and GDP) rather than their levels. Using growth rates has several advantages. First, if cadres intend to signal performance through fiscal revenue or GDP, they tend to focus on growth rates as they are listed as performance targets. Second, promotions may be endogenous to the political connections of appointees. Politicians favored by higher level governments or by a powerful faction may be dispatched to “easy” localities, namely, those who are already more economically developed, and will thus appear to have “performed” well during their term. Such cases result in promotions due to connections and patronage instead of actual performance. Even though highly developed jurisdictions have large nominal fiscal revenue and GDP, they may actually exhibit lower growth rates due to maturing economies. Thus, using the growth rates rather than levels of economic indicators mitigates the concern about endogenous appointments.

Third and most importantly, we constructed our key independent variables so as to match the concept of “promotion tournament.” In a tournament-like setting, relative performance is the key driver of promotions. Thus, we calculated the deviation of a locality’s performance (i.e., growth rates of revenue and GDP) from the average performance of competitors in a given year.<sup>8</sup> In other words, we capture whether a locality performed better or worse relative to the average performance of all the other competing jurisdictions. We define competitors as the neighboring jurisdictions controlled by the same higher level government.<sup>9</sup> This measure also allows for comparisons between point estimates across localities as standardized values address the problem that a percentage point difference in growth matters differently across time and space.

### *Measuring Political Connection*

Political connections have long been regarded as key factors in cadre promotion in China. Empirically, however, identifying a political connection between two politicians is challenging because there are not ethnic, religious, or partisan ties that clearly define political connection in China, as may be true in many other polities. Some scholars rely on a combination of workplace and birthplace connections (e.g., T. Chen & Kung, 2016; Jia et al., 2015). However, there is no guarantee that concurrent workplace experiences or birthplace necessarily strengthen political bonds between two politicians. Keller (2016) proposes a more restrictive measure by defining a political connection only if a client was promoted within the same work unit when he worked under the patron. Finally, Meyer et al. (2016) go the farthest by developing four different sets of factional ties to measure political connections among Chinese elites, ranging from board ties to restrictive work ties.

In this article, we use the coding of restrictive work ties developed by Meyer et al. (2016) to measure political connection to the CCP General Party Secretary for provincial party secretaries and governors. For politicians at the prefectural and county level, we adopt the restrictive measure in which a political connection is coded 1 when a prefectural (county) politician experienced a position change under the watch of the provincial (prefectural) party secretary who appointed them to the current positions in the first place, and 0 otherwise. We concur with Keller (2016) that coding workplace or birthplace connections generate greater numbers of false connections, which biases estimates of the impact of political connections. Coding appointments under the watch of higher level CCP party secretaries, while still imperfect, is less likely to generate false positives because a party secretary has no incentive to appoint untrustworthy CCP secretaries or government executives in the localities under his purview.

## Model Specification

Although our dataset has a panel structure by jurisdiction-year observations, we opt for the politician as the unit of our analysis.<sup>10</sup> Specifically, we evaluate the effects of the average performance of key performance indicators upon term completion on the observed career change of local politicians after they leave their current post. We prefer this specification to the jurisdiction-year analysis because it is theoretically hard to justify using the performance of year  $t$  or  $t-n$  as the key explanatory factor for the career change at year  $t$ . In particular, most party secretaries and government executives do not complete a full 5-year term, an observation made by many scholars and confirmed in our data.<sup>11</sup> Hence, it is extremely hard to time effort strategically to maximize economic performance at the end of one's term—as noted in the “political business cycle” literature—because the specific time of departure from a locality is unknown *ex ante*.

Following other studies, our baseline model is a linear probability model that incorporates various fixed effects, as specified in Equation 1<sup>12</sup>:

$$y_{ijkt} = \gamma_1 \overline{Performance}_{ijkt} + \gamma_2 \text{Political\_Connection}_{ijkt} + \beta \overline{X}_{ijkt} + \delta_k + \varphi_t + \varepsilon_{ijkt}, \quad (1)$$

$y_{ijkt}$  is the indicator for the career change of cadre  $i$  in jurisdiction  $j$ , controlled by the higher level government  $k$  at year  $t$ . Promotion was coded as 1 and all other changes of positions were coded as 0. In unreported analysis, we recoded our dependent variable where 1 is for promotions and 0 is for lateral transfers, excluding all other career changes, and we still found consistent results with our primary coding of promotion.  $\overline{Performance}_{ijkt}$  is the average relative performance of key economic indicators (e.g., growth of fiscal revenue or GDP) during their entire tenure.  $\text{Political\_Connection}_{ijkt}$  is our measure of political connection between cadres and the higher level CCP secretary.

We also consider an alternative specification that takes into account the potential complementarity between performance and political connection for promotion (Jia et al., 2015). This model specification (Equation 2) introduces an interaction term between performance and political connection. Note that performance and political connection could also be substitutional because politicians who lack strong political connections may use performance to signal their competence to advance their career. If this were the case, we would expect the estimates of the interaction term,  $\gamma_3$ , to be statistically insignificant, while adding the interaction term should not affect the direct estimates of performance and political connections.

$$y_{ijkt} = \gamma_1 \overline{\text{Performance}}_{ijkt} + \gamma_2 \text{Political\_Connection}_{ijkt} + \gamma_3 \overline{\text{Performance}}_{ijkt} \times \text{Political\_Connection}_{ijkt} + \beta \overline{X}_{ijkt} + \delta_k + \varphi_t + \varepsilon_{ijkt}. \quad (2)$$

In both Equations 1 and 2,  $\overline{X}_{ijkt}$  is a vector of variables controlling for local conditions and politician characteristics during local officials' tenure. Our baseline specification only includes characteristics of the local jurisdictions, including the percentage of rural residents in the population (*% of Rural Population*) as a proxy for human capital as well as the logged population for the size of labor market. Many have questioned the reliability of the Chinese GDP as an indicator of actual local economic development (Holz, 2004; Koch-Weser, 2013). To address this concern, we rely on an alternative measure of development that is entirely independent of the data produced by the Chinese statistical system. We use Defense Meteorological Satellite Program—Operational Linescan System (DMSP-OLS) satellite images that capture stable electrical refraction of the earth at night on a scale of 0 to 63.<sup>13</sup> These data have been shown to be correlated with economic growth (Henderson, Storeygard, & Weil, 2012), and we thus use them as an alternative indicator of local economic performance that is not properly captured by standard Chinese county-level statistics. Following Lü and Landry (2014), we also control for the intensity of local political competition—the number of jurisdictions within a given higher level administrative jurisdiction  $k$ . The greater it is, the more competitors a given official faces as he seeks a promotion to the next level.

We recognize that not all localities at the same administrative level are treated with equal importance by higher level governments. For example, party secretaries and government executives holding positions in the capital city of a province are more important than those posted in the regular prefectural governments. Similarly, although urban districts (*Qu*), county-level cities (*Xianji Shi*), and counties (*Xian*) are all county-level jurisdictions under China's administrative ranking, those holding positions in urban districts tend to receive preferential treatment relative to those holding position in rural counties. To control for the unobserved political importance of different locality types, we include dummies for each administrative category in our models for prefecture and county-level analysis. In the next section, we also provide separate analysis for each type of county-level jurisdictions to evaluate heterogeneous effects of performance.

In addition, the geographical location could play an important role for both cadre promotion and economic performance. Localities that are close to the seat of higher level governments are more visible to their superiors. Easy access makes it more likely that powerful officials will visit them

during inspection tours, which grants local officials ample opportunities to showcase their achievements. Politicians are more likely to cultivate relationships with members of the political network of the higher level government, who typically work and reside in such districts. Thus, these locations are more likely to receive preferential treatment aimed at developing the local economy. For these reasons, we include the distance from the locality to the seat of the higher level government as a proxy for access to the regional political network.<sup>14</sup>

In our extended model specification, we control for the personal characteristics of local politicians. Due to the difficulties in collecting biographical information for all cadres, especially those serving at the lower level and in the earlier years, we are able to include only two key variables that are consistently available for politicians at all three levels. The first one is the age of politicians, which is a key indicator for promotion: The cadre management system explicitly discourages the promotion of officials to key leadership positions once they reach certain age thresholds (Manion, 1993). The age ineligibility thus creates a “glass-ceiling” effect for some local politicians who are not eligible for promotion despite their strong performance (Kostka & Xiaofan, 2015). The second variable is the tenure length of current position, which is also an indicator of promotion probability. When local politicians are approaching the formal end of their term, they are more likely to change their position or be retired. In practice, most county, prefecture, and provincial officials do not serve out their full 5-year term, as shown in Table 2. Note that for both age and tenure length variables, we also include the squared terms to capture the nonlinear effects of age and tenure length on promotion probability, because older politicians and those who have longer tenures have lower odds of promotion (Kou & Tsai, 2014). We also include time dummies to control for unobserved shocks in the year of a cadre’s position change.

Finally, we use clustered standard errors by jurisdiction  $j$  to account for serial correlation. We also include dummies for the immediate higher level government  $k$  and the year of position change  $t$  in the analysis to capture the unobserved characteristics in the political selection mechanisms devised by higher level party and government leaders. Specifically, we include prefecture fixed effects for the county-level analysis, provincial fixed effects for the prefecture analysis, but we do not include provincial fixed effects for the provincial analysis. We choose not to use jurisdiction-level fixed effects (i.e., province, prefecture, and county) in our main models because each jurisdiction averages three to four local officials holding office during the period under investigation. Using fixed effects reduces the variation that we can explore in the model.

## Estimation Results

We conducted three sets of analyses for each level of government to evaluate the marginal effect of performance at different steps of the Chinese administrative ladder: provinces, prefectures, and counties.

We first report the results for party secretaries and fiscal revenue as the performance indicator in Table 3. The provincial-level analysis suggests that relative performance is positively correlated with promotion (columns 1 and 3), but the estimates are not statistically significant. Once we control for personal characteristics, the estimates of revenue performance became negative, but still not statistically significant (columns 2 and 4). Meanwhile, estimates of political connection have positive but statistically insignificant correlation with promotion. The inclusion of the interaction terms has little correlation with the promotion of provincial party secretaries.<sup>15</sup>

Meanwhile, the effect of relative performance in fiscal revenue performance becomes positive and statistically significant at both the prefectural (columns 5 to 8) and county level (columns 9 to 12), even after controlling for personal characteristics. For example, columns 5 to 6 suggests that a one standard deviation increase in relative revenue growth enhances prefectural party secretary's promotion probability by around 5 percentage points, which is a 14% increase in average promotion probability. Meanwhile, columns 9 to 10 suggests that a one standard deviation increase in relative revenue growth enhances county party secretary's promotion probability by 4 percentage points, which is a 10% increase in average promotion probability.

The estimates of political connection are statistically insignificant at the prefecture level, and negative and statistically significant for county party secretaries. However, the estimates of political connections are no longer statistically significant for county party secretaries after we control for personal characteristics. We only find some evidence for the complementary effect between performance and political connection is at the prefecture level.

We then turn to the analysis of government executives (provincial governors, city mayors, and county heads) in Table 4. Again, we do not detect any evidence of a positive correlation between fiscal revenue performance and promotion at the provincial level. In fact, the estimates of relative revenue growth are negative and statistically significant before we include the interaction terms (columns 1 to 2). At the prefecture level, we do not find any evidence that relative performance in fiscal revenue growth is correlated with the promotion of mayors. Finally, the analyses at the county level suggest consistent positive correlation between relative performance and the promotion of county heads. More interestingly, we also find evidence that political connections have a large and positive correlation with promotion for provincial

**Table 3.** Promotion of Party Secretaries Upon Term Completion (Relative Revenue Performance to Competitors).

	Provincial level			Prefecture level					County level			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Relative fiscal revenue growth	0.057 (0.051)	-0.020 (0.044)	0.032 (0.048)	-0.046 (0.038)	0.055* (0.029)	0.051* (0.030)	0.004 (0.036)	0.011 (0.037)	0.039*** (0.011)	0.038*** (0.013)	0.043*** (0.013)	0.033** (0.016)
Political connection	0.057 (0.077)	0.031 (0.070)	0.059 (0.076)	0.031 (0.069)	-0.011 (0.042)	0.034 (0.052)	-0.002 (0.043)	0.038 (0.052)	-0.056*** (0.017)	-0.010 (0.023)	-0.056*** (0.017)	-0.011 (0.023)
Relative fiscal revenue growth x Political connection		0.089 (0.126)	0.110 (0.130)				0.130** (0.053)	0.104* (0.058)			-0.010 (0.022)	0.015 (0.028)
Local characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician characteristics	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Province FE	No	No	No	No	Yes	Yes	Yes	Yes	—	—	—	—
Prefecture FE	—	—	—	—	No	No	No	No	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	65	65	65	65	665	607	665	607	4,739	3,508	4,739	3,508

Clustered standard errors at the corresponding administrative level are reported in the parentheses. The variables to measure local characteristics are log (population), rural population percentage, log (brightness), log (distance to the upper level government), and the number of competitors at the same level of jurisdiction. The variables to measure politician characteristics are the age and its squared term, and total year in office and its squared term. We did not report the coefficient estimates of these control variables as well as fixed effects dummies.

FE = fixed effects.

\* $p < .1$ . \*\* $p < .05$ . \*\*\* $p < .01$ .



**Table 4.** Promotion of Government Executives Upon Term Completion (Relative Revenue Performance to Competitors).

	Provincial level			Prefecture level					County level			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Relative fiscal revenue growth	-0.129* (0.076)	-0.165** (0.073)	-0.185 (0.146)	-0.201 (0.150)	0.018 (0.027)	0.013 (0.027)	0.015 (0.035)	0.027 (0.035)	0.024*** (0.009)	0.026** (0.011)	0.038*** (0.012)	0.042*** (0.014)
Political connection	0.238* (0.139)	0.223 (0.140)	0.241* (0.143)	0.223 (0.142)	0.037 (0.039)	0.041 (0.041)	0.037 (0.039)	0.040 (0.041)	0.047*** (0.015)	0.031 (0.019)	0.047*** (0.015)	0.031 (0.019)
Relative fiscal revenue growth × Political connection			0.101 (0.197)	0.063 (0.210)			0.006 (0.049)	-0.030 (0.051)			-0.034* (0.019)	-0.036* (0.022)
Local characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician characteristics	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Province FE	No	No	No	No	Yes	Yes	Yes	Yes	—	—	—	—
Prefecture FE	—	—	—	—	No	No	No	No	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	68	68	68	68	773	726	773	726	5,737	3,916	5,737	3,916

Clustered standard errors at the corresponding administrative level are reported in the parentheses. The variables to measure local characteristics are log (population), rural population percentage, log (brightness), log (distance to the higher level government), and the number of competitors at the same level of jurisdiction. The variables to measure politician characteristics are the age and its squared term, and total year in office and its squared term. We did not report the coefficient estimates of these control variables as well as fixed effects dummies.

\* $p < .1$ . \*\* $p < .05$ . \*\*\* $p < .01$ .  
FE = fixed effects.

governors, and a small but positive correlation with promotion for county heads, but the estimates are not statistically significant once we control for politicians' characteristics. For example, column 1 suggests that political connection increases governor's promotion probability by 24 percentage points, a 60% increase from the average promotion probability. We also find evidence of a substitution effect between performance and political connection in the promotion of county heads. For example, column 11 suggests that a one standard deviation increase in relative revenue growth enhances a county head's promotion probability by around 4 percentage points when he or she lacks political connections, which is a 6% increase in average promotion probability. However, the same politician enjoying political connections but with an average performance actually sees his or her promotion probability decrease by 3.5 percentage points according to our model.

We repeat the analysis using GDP growth as our performance indicator, and find broadly consistent results with the analysis using fiscal revenue as the performance indicator (Tables 5 and 6). We still find consistent evidence for a positive correlation between relative performance and promotion for county-level politicians, but not at the prefecture and provincial level.<sup>16</sup> If anything, we find a negative correlation between relative GDP performance and promotion for provincial governors. The effects of political connection remained mixed. At the provincial level, we do not find strong evidence of a positive correlation between political connection and the promotion of party secretaries. However, we find a large and statistically significant correlation between political connection and the promotion of provincial governors. Meanwhile, the estimates of political connection are not statistically significant for both prefecture party secretaries and mayors. At the county level, political connection has a negative correlation with the promotion of county party secretary, but a positive correlation with the promotion of county heads.

Overall, these results provide supporting evidence for our hypothesis that economic performance has diminishing returns for promotion as one climbs the administrative ladder. The results are robust even after we control for political connections, and we find the strongest support for a positive correlation between economic performance and promotion at the county-level analysis. At the prefecture and provincial level, however, the effects of performance and political connection are mixed. In general, we do not find any evidence that performance is positively correlated with promotion at these levels.

Our main results reveal a more complicated relationship between performance and political connection. We do not find consistent evidence that these two factors are complementary or substitutes. The mixed results reveal the dilemma of cadre promotion in China. Although the ideal candidates are both

**Table 5. Promotion of Party Secretaries Upon Term Completion (Relative GDP Performance to Competitors).**

	Provincial level			Prefecture level			County level					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Relative GDP growth	0.169*** (0.082)	0.136** (0.080)	0.168 (0.137)	0.087 (0.124)	0.025 (0.032)	0.016 (0.034)	0.017 (0.042)	0.010 (0.042)	0.041*** (0.011)	0.044*** (0.014)	0.048*** (0.014)	0.047*** (0.017)
Political connection	-0.001 (0.082)	-0.016 (0.059)	-0.001 (0.086)	-0.007 (0.067)	-0.016 (0.042)	0.029 (0.052)	-0.015 (0.043)	0.030 (0.052)	-0.056*** (0.018)	-0.014 (0.023)	-0.056*** (0.018)	-0.014 (0.023)
Relative GDP growth x Political connection			0.002 (0.158)	0.079 (0.160)			0.020 (0.065)	0.015 (0.066)			-0.020 (0.024)	-0.010 (0.030)
Local characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician characteristics	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Province FE	No	No	No	No	Yes	Yes	Yes	Yes	—	—	—	—
Prefecture FE	—	—	—	—	No	No	No	No	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	65	65	65	65	664	606	664	606	4,659	3,460	4,659	3,460

Clustered standard errors at the corresponding administrative level are reported in the parentheses. The variables to measure local characteristics are log (population), rural population percentage, log (brightness), log (distance to the higher level government), and the number of competitors at the same level of jurisdiction. The variables to measure politician characteristics are the age and its squared term, and total year in office and its squared term. We did not report the coefficient estimates of these control variables as well as fixed effects dummies.

FE = fixed effects.

\* $p < .1$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

**Table 6.** Promotion of Government Executives Upon Term Completion (Relative GDP Performance to Competitors).

	Provincial level			Prefecture level				County level				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Relative GDP growth	-0.190 <sup>***</sup> (0.068)	-0.179 <sup>***</sup> (0.065)	-0.318 <sup>***</sup> (0.114)	-0.283 <sup>***</sup> (0.101)	0.020 (0.032)	0.017 (0.032)	0.003 (0.043)	0.001 (0.045)	0.035 <sup>***</sup> (0.010)	0.037 <sup>***</sup> (0.012)	0.041 <sup>***</sup> (0.013)	0.046 <sup>***</sup> (0.016)
Political connection	0.237 <sup>**</sup> (0.134)	0.216 (0.135)	0.258 <sup>***</sup> (0.131)	0.231 <sup>*</sup> (0.132)	0.035 (0.039)	0.041 (0.041)	0.036 (0.039)	0.041 (0.041)	0.048 <sup>***</sup> (0.015)	0.033 <sup>*</sup> (0.019)	0.048 <sup>***</sup> (0.015)	0.032 <sup>**</sup> (0.019)
Relative GDP growth × Political connection		0.196 (0.163)	0.159 (0.165)	0.159 (0.165)		0.038 (0.061)	0.037 (0.061)	0.037 (0.061)			-0.014 (0.020)	-0.022 (0.023)
Local characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician characteristics	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Province FE	No	No	No	No	Yes	Yes	Yes	Yes	—	—	—	—
Prefecture FE	—	—	—	—	No	No	No	No	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	68	68	68	68	773	726	773	726	5,632	3,860	5,632	3,860

Clustered standard errors at the corresponding administrative level are reported in the parentheses. The variables to measure local characteristics are log (population), rural population percentage, log (brightness), log (distance to the higher level government), and the number of competitors at the same level of jurisdiction. The variables to measure politician characteristics are the age and its squared term, and total year in office and its squared term. We did not report the coefficient estimates of these control variables as well as fixed effects dummies.

FE = fixed effects.

\* $p < .1$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

competent and loyal, identifying such candidates is very difficult. Hence, higher level governments face the tradeoff of having to promote either loyal but less competent officials or competent but disloyal subordinates. As such, the optimal strategy for rulers is a mixed strategy between these two options, and in fact our mixed empirical results reflect this strategy.

### *Addressing the Selection Bias Problem*

The primary concern of our empirical analysis is the “selection-for-treatment” bias: While relative performance is important, the assignments of politicians to localities with *ex ante* different levels of (and potential for) economic development are unlikely to be random. Higher level officials may strategically assign promising officials to some localities to allow them to gain local experience, as required by the promotion guidelines issued by the CCP’s Organization Department. Furthermore, local officials favored by their higher level patrons may be strategically assigned to more economically developed areas where they are *a priori* expected to easily meet the basic performance targets.

We employ three strategies to address this concern. First, we exclude the most and least developed localities in our sample. In other words, we address the selection bias problem by excluding suspect cases of endogenous selection in which favored cadres are assigned to more developed areas and less favored cadres to less developed areas. We calculated the average fiscal revenue of all the jurisdictions controlled by the same higher level government between 1999 and 2007, and excluded the jurisdictions whose average performance is in the top 10% or bottom 10% of the list. We reanalyzed the data using the same model specification above, and obtained results consistent with our main findings. The magnitudes of estimates of relative performance are close to the main results and they are statistically significant in models of county-level party secretaries as well as county heads (Tables A1 to A4 in the online appendix).

Second, if some local officials favored by their patrons were purposely appointed to more developed areas, economic performance is only likely to matter when the locality experiences a tick (upward or downward) from the base-trend line set by their predecessors. If strong economic performance indeed increases the odds of promotion, we should observe that overperformers (relative to the benchmark set by predecessors) are likely be rewarded with a promotion. To test this proposition, we computed local politicians’ relative performance relative to the trend line set by their predecessors. This approach thus de-trends the data and rules out the contaminating effect of unobserved characteristics of localities. However, this approach also significantly reduces the number of

observations in our data, especially considering that we include fixed effects in the model. As shown in Tables A5 to A8 in the online appendix, we find that overperformance in relative fiscal growth only has a positive impact on the promotion of county party secretaries, but not any other type of politicians, regardless of the level of government considered. However, our results of county heads have the expected (positive) signs, even though they do not reach standard statistical significance. Meanwhile, only overperformance in relative GDP growth has a positive and statistically significant on county heads.

Finally, one may question the way through which we constructed our performance measure by calculating the standard deviation from the average performance of all neighboring jurisdictions under the control of the same higher level government. We adopt a different measure by using the ranking of their revenue or GDP performance relative to their competitors. Given different jurisdictions face different numbers of competitors (jurisdictions), using absolute ranking is misguided because the meaning of same rank is different, depending on how many jurisdictions are being ranked together. Hence, our performance ranking variable is in percentile of all the competitors. Using this ranking measure, we still find consistent evidence supporting the main results (Tables A9 to A12 in the online appendix).

In summary, these findings broadly conform to our theoretical expectation that Chinese central leaders govern with a dualist appointment strategy in mind. The imperative to maintain “performance legitimacy” forces the CCP to ensure that minimum standards of economic performance are enforced at the lower level of the political hierarchy. This approach is rational in a country that remains economically decentralized and where counties are historically and institutionally well positioned to foster local economic development. Meanwhile, we also find some evidence that political connection becomes more important at the higher levels of government, which is consistent with studies of factionalism in Chinese politics.

## **Disentangling Heterogeneous Effects of Performance**

It is conceivable that economic performance carries different weights in cadre promotion under different circumstances. In this section, we disentangle the heterogeneous effects observed in our main results by focusing on two sources: the CCP rule on cadre promotion and the implications of the jurisdiction’s administrative characteristics on politicians’ incentive structure.

First, we consider the rule of age ineligibility for promotion. A cornerstone of the institutionalization of CCP rule is the enforcement of mandatory retirement age and age requirements for promotion (Manion, 1985; Miller, 2008).

These policies were motivated by Deng Xiaoping's push to rejuvenate cadres in the early phase of the reform era. Specifically, the CCP stipulates the age of ineligibility for promotion at every administrative rank (Kou & Tsai, 2014). For example, provincial party secretaries and governors are at the Minister rank (*Zheng Bu ji*, 正部级), who are ineligible for promotion to the next rank of Deputy State Leader (*Fu Guo ji*, 副国级) after the age of 63. Prefectural party secretaries and mayors are at the Bureau Director rank (*Zheng Ting ji*, 正厅级), who are ineligible for promotion to the next rank of Deputy Minister (*Fu Bu ji*, 副部长) after the age of 55. Finally, county-level party secretaries and county heads who are at the Division Head rank (*Zheng Chu ji*, 正处级) are ineligible for promotion to the next rank of Deputy Bureau Director (*Fu Ting ji*, 副厅长) after the age of 50.

Our summary statistics reported in Table 2 shows that the average age of politicians at each level falls well below the age limit for further promotion, suggesting that the CCP systematically promotes younger cadres with the expectation that they will be age eligible for promotion at the next level. Yet, some politicians are inevitably too old to be promoted. Among 67 provincial party secretaries in our data, eight were age ineligible by the year of position change, and indeed none of them was promoted. Likewise, five out of 70 provincial governors were age ineligible by the year of position change, and none of them were promoted as well. Meanwhile, 158 out of 708 (22%) prefecture party secretaries and 98 out of 833 (12%) prefecture mayors were age ineligible for promotion.<sup>17</sup> However, 38% and 26% of age ineligible party secretaries and mayors were promoted, respectively. Finally, 704 out of 3,936 (18%) county party secretaries and 262 out of 4,445 (6%) county heads are age ineligible for promotion. Yet 51% and 56% of ineligible party secretaries and county heads were still promoted. It is worth noting that the percentages of ineligible politicians being promoted at the prefecture and county level are probably overstated because we are only able to identify the year of birth for 92% of prefectural party secretaries, 94% of the mayors, 75% of the county party secretaries, and 69% of the county heads. Leaders for whom age and promotion data are missing (mostly lower level officials), are unlikely to have been promoted; otherwise, we would have identified their resumes once they reached higher level position where biographical information is more complete. Nonetheless, we still observe that the age ineligibility rule is less strictly enforced at the lower levels of government.<sup>18</sup>

Given the age ineligibility requirements for promotion, we expect that political connection and performance may play different roles among those who are age eligible or otherwise. Hence, we disaggregate the data by comparing and contrasting these two types of politicians.<sup>19</sup> In the analysis of

prefectural politicians, we find that neither performance nor political connection have a strong impact on the promotion of party secretaries regardless of age eligibility (Tables A13 and A14). Furthermore, the evidence for the complementary role of performance and political connections among prefecture party secretaries in Table 3 mainly comes from those who are age ineligible (Table A13). Meanwhile, we find some evidence that political connections play an important role in the promotion of seemingly age ineligible mayors in one model (column 4).

When it comes to county-level politicians, the picture becomes clearer (Tables A15 and A16). Among politicians who are age ineligible, neither performance nor political connections are strongly correlated with promotion. However, both factors are closely associated with promotion for politicians who are age eligible. In other words, the main results are primarily driven by the data of age eligible county politicians. These results confirm the “glass-ceiling” effect described in Kostka and Xiaofan (2015). Given that neither factors could greatly enhance the promotion probability of age ineligible politicians, it is not surprising to find that many of them engaged in rent-seeking and corruption.

The second source of heterogeneous effects stem from the preferential treatments that some jurisdictions receive. As we argued earlier, not all jurisdictions are equal at the same level of government because the CCP strategically grants certain types of jurisdictions different degrees of autonomy in policy making and assigns different policy priorities to them. For example, although urban districts, counties, and county-level cities are all considered county-level jurisdictions, politicians in urban districts (*Qu*) have less authority over fiscal affairs than counties and county-level cities (*Xian/Xianjishi*). As a result, performance may play a less important role than political connections in urban districts. Tables A17 and A18 in the online appendix offer supporting evidence. We find that the positive correlation between performance and promotion mainly comes from the data that excludes urban districts. Meanwhile, the positive correlation between political connections and promotion among county heads that we observe in the main results is primarily driven by the data on urban districts.

Finally, counties with large minority population have different policy priorities than ordinary counties—political stability, rather than economic performance, has a greater weight in cadre evaluation. To evaluate this claim, we disaggregate the data between minority and nonminority counties. Consistent with our expectation, the positive correlation between performance and promotion remain consistent only in *Han*-dominant counties but disappears among minority counties (Tables A19 and A20).



## Conclusion

If political meritocracy based on local economic performance exists in China, our empirical analysis is only able to identify consistent evidence of its existence at the lower levels of government, but not at the higher ones. Our findings help explain the puzzle that one may simultaneously observe patronage and factionalism at the top of the hierarchy and a more rigorous leadership incentive system at the bottom of the ladder. Furthermore, our results imply that the floor of “incompetence” among higher level officials is relatively high because most politicians must at the very least survive the promotion process when they serve at the lower levels of the Chinese political hierarchy. Nonetheless, the diminishing returns of economic performance for the promotions to high-level posts suggests that many competent officials are being overlooked when key positions of national significance are being filled.

Our article contributes to the debate about the nature of the cadre promotion in China, and generates several implications for understanding the incentives of local politicians in autocracies. Specifically, we demonstrate that performance carries different weights in the calculus of promotion across various levels of government. Our findings conform to the proposition that the CCP retains the ability to incentivize local officials to perform the key tasks that the regime deems essential for its own political survival. Although our findings suggest that fiscal revenue is less important in the promotion of higher level officials, especially at the provincial level, they do not necessarily imply that incompetent provincial officials are being promoted. An alternative explanation is that cadres who are not deemed competent are filtered out at earlier stages of the selection process. Consequently, the dynamics of the promotion tournament at higher levels shift away from economic performance to other dimensions, such as cultivating political connections and factional support, to enhance their odds of further promotion.

Do our results suggest that the greater reliance of political meritocracy at the lower level of government is a sustainable strategy for the CCP to maintain regime stability and promote economic growth? A well-functioning political meritocracy requires designing of a set of objective indicators of performance. These metrics are normally set by the ruling elites. The survival of such vertically integrated authoritarian systems depends inordinately on the ruler’s ability to make the “right” policy decisions. Simply put, success hinges on the existence of a “good emperor,” who may not always exist. Furthermore, correctly identifying competent individuals is very challenging, because competence is hard to observe and measure. Rulers must instead rely on informational shortcuts, such as the observed performance of the localities where subordinates are posted as a proximate measure of competence. This

strategy gives room to opportunistic local politicians to manipulate the system by pursuing observable indicators of the metrics linked to promotion without genuinely improving outcomes in the long run (O'Brien & Li, 1999).

In fact, the diminishing returns of economic performance along the administrative ladder is the Achilles' heel of the CCP's dualist strategy of political selection, as they highlight the reality that promotions of higher level officials are based on a different metric than what applies to the foot soldiers of the regime. Our empirical analysis of the Chinese promotion system is partly consistent with such pathologies of authoritarianism. The dualist nature of process balances the interests of incumbents with the necessity to maintain a "competence floor" at the bottom of the hierarchy, such as ensuring fiscal revenue collection and policy implementation. The risk, however, is that when competent local officials reach the "glass ceiling" that insulates the higher leadership from political challenges, they will likely lose interest in playing the Party's promotion tournament and turn instead to alternative reward structures. As a result, corruption and rent-seeking are likely to proliferate at the county level and erode the regime's economic performance in the long run.

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## Notes

1. “One-level-down system” of cadre management means that most politicians at any administrative level are appointed by the officials posted at the immediate upper level rather than by the central government.
2. The Central Organization Department regularly issues policies directives about the rules and principles for managing county-level officials. In the post-Mao era, directives such as “Central CCP Organization Department Notice on Further Strengthening Local (county and above) Leaders’ Participation in Internal Meetings” (*Zhonggong Zhongyang Zuzhibu guanyu jingyibu jiangquan xianyishang lingdao ganbu shenghuohui zhidude tongzhi*) were issued in 1981. Even after the introduction on the “one-level-down” system of cadre management, the central Organization Department has continued to issue numerous instructions and directives, both in print (see inter alia Organizational Communications [*Zuzhi Tongxun*] or on online platforms that target local officials: <http://renshi.people.com.cn/GB/140563/140758/index.html>).
3. We extended the data collection of political appointments to 1996 for all levels to avoid left censoring of the politician appointment data. However, the lack of detailed fiscal data in all urban districts before 1999 prevents us from extending our analysis to 1996.
4. The primary Internet sources are resumes of the politicians posted on the government website as well as *Baidu Baike* (<http://baike.baidu.com/>), a Chinese portal that aggregates information from the Chinese press and news agencies.
5. To ensure the consistency of our appointment data coding, we selected several provinces and had them coded by at least two individuals; their coding was matched for more than 90% of the observations. In our robustness checks, we use the data based on each set, and our estimation results remained consistent.
6. The yearbooks start in 1993, but many provinces report data only for counties but not for urban districts. The 1999 yearbook is the first issue that reports full fiscal statistics for both counties and districts.
7. Mainly value added taxes (VAT) and consumption taxes.
8. For example, the relative fiscal revenue performance of county  $i$  in prefecture  $j$  at time  $t$  is calculated as  $relative\_revenue_{ijt} = (revenue\_growth_{ijt} - revenue\_growth_{it\ in\ j}) / SD(revenue\_growth_{it\ in\ j})$
9. For example, a county government’s competitors are all the other county-level jurisdictions in the same prefecture. A prefectural government’s competitors are all the other prefectural-level jurisdictions in the same province.
10. For robustness checks, we conducted additional analyses based on annual data, and the results are broadly consistent with the main results. See Tables A21 to A24 in the online appendix for more details.
11. See for example Guo (2009), T. Chen and Kung (2016), and Lü and Liu (2017).
12. Alternatively, we could use the probit model because our dependent variable is binary. However, we opt for the linear probability model because it offers the flexibility of incorporating various fixed-effect specifications. Furthermore,

- most existing articles also adopt linear probability models, so using this model specification allows us to compare and contrast with existing results.
13. <http://ngdc.noaa.gov/eog/dmsp/downloadV4composites.html>
  14. For the provincial-level analysis, this variable measures the distance (measured in decimal degrees) between the capital city of the province and Beijing. For the prefectural-level analysis, this variable measures the distance between the prefecture and the capital city of the corresponding province. For the county-level analysis, this variable measures the distance between the county and the seat of the corresponding prefecture government.
  15. Our results differ from Jia, Kudamatsu, and Seim (2015), and the discrepancies are mainly due to differences in sample coverage, measurements of economic performance and political connection, and model specifications.
  16. In Table 5, we find relative GDP growth has a positive correlation with the promotion of provincial party secretaries, but the effects disappear once we include the interaction terms with political connection.
  17. The total numbers of prefecture and county party secretaries and government executives reported here are smaller than the numbers reported in Table 2 because we cannot obtain the age information for all of them.
  18. Kou and Tsai (2014) detect irregular promotions occur in China, resulting in age rule violations in some cases.
  19. Due to small sample size of age ineligible provincial politicians, we cannot use our regression model to compare their performance.

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