Elite Capture in the Absence of Democracy: Evidence from Backgrounds of Chinese Provincial Leaders[*]

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Abstract

Using panel data on Chinese provinces over 26 years, we show that local public policy to a large extent is determined by the background of the top provincial leader, i.e., the party secretary. Provinces under the leadership of party secretaries who built their careers within the province have higher public goods provision and are less predatory towards business. The magnitude of these differences is large even after controlling for fiscal incentives and career concerns of provincial leaders, province and time fixed effects; and after accounting for the possibility of endogenous appointments using instrumental variables. We show that the results are not driven by the differences in local knowledge or innate preferences of provincial leaders. We attribute our findings to the effect of "elite capture" in the absence of local democracy. Party secretaries who built their careers within the province, in contrast to the "outsiders," have implicit contracts with local elites, who helped them to power, and channel benefits to them, some of which come in the form of public goods. Formally, provincial leaders in China are accountable only to the center and are given strong incentives to deliver economic growth, possibly at the expense of local public goods provision. We find that "elite capture" serves as an imperfect substitute for an otherwise absent local accountability mechanism.

1   Introduction

What is the effect of having close social ties between a regional political leader and local elites on governance in a developing federation? The theoretical answer is not straightforward and depends on various characteristics including the strength of political parties, the strength of local democracy, and the structure of local elites (Riker, 1964). On the one hand, many classic works have suggested that entrenched networks of government and business, commonly referred to as "subversion," lead to overregulation, corruption, and economic stagnation, particularly, when the alternative is a well-functioning local democracy (see, for instance, Buchanan and Tullock, 1962; Stigler, 1971; Olson, 1982).[1] On the other hand, recent empirical studies have shown that social ties between local leaders and local elites may serve as an informal substitute for other local accountability mechanisms when formal democratic mechanisms are malfunctioning or absent (this became apparent from analyses of results of several recent Community Driven Development (CDD) programs, e.g., Rao and Ibanez, 2003; Labonne and Chase, 2009). In particular, this could happen when local elites have preferences that are closer to those of the common people compared to those of politicians.

Our aim is to estimate the effect of informal networks between local politicians and local elites on public policy and governance in a very specific setting: a politically centralized, autocratic state which, at the same time, is a federation from an economics standpoint. In particular, we address this question by by examining how social ties between the top provincial political leader and local elites affect local policy outcomes and governance. We find that provincial leaders who are bound by informal obligations to local elites provide more public goods and are less predatory towards provincial business compared to those who are free from such obligations. Thus, in the Chinese context, implicit contracts between provincial leaders and local elites serve as (an imperfect) substitute for an otherwise absent local accountability mechanism.

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[1]For a survey of empirical evidence, see Bardhan (2002). Slinko, Yakovlev and Zhuravskaya (2005), for instance, provide direct evidence on the relationship between local capture and governance in the context of Russia.

The context of China is particularly interesting because it sheds light on the long-standing debate over the workings of fiscal federalism in the developing world. Many authors have considered China as a model of how a central government can provide provincial officials with efficient incentives.[2] In particular, Blanchard and Shleifer (2001) applied the theory of Riker (1964) to Chinese development and argued that political incentives (i.e., career concerns for promotion to the higher-level positions within the communist party hierarchy) are the main determinant of Chinas miraculous economic performance over the last 30 years. Similarly, Qian and Xu (1993) and Maskin, Qian and Xu (2000) argued that the center created yardstick competition among provincial leaders. Li and Zhou (2005) and Chen, Li and Zhou (2005) provided empirical support for these arguments by showing that the main criterion for promotion and demotion of provincial leaders in China has been the provincial growth rate relative to that of neighboring provinces and relative to the growth rate under the predecessor. Blanchard and Shleifer (2001) argued that high-powered national career concerns can mitigate the main cost of federalism in developing federations, namely, inter-provincial externalities (Musgrave, 1969; Oates, 1972). Riker (1964), however, claimed that in order to realize the full benefits of federalism, the local government incentives should combine national career concerns—necessary to mitigate inter-provincial externalities—with local accountability. The reason for this is that the benefits of federalism, e.g., better information of local politicians about preferences of local population (Hayek, 1948), depend on the incentives of politicians to satisfy these preferences. Using a large panel of developing countries, Enikolopov and Zhuravskaya (2007) confirmed Riker's conjecture: they show that on average fiscal decentralization results in better governance only in the presence of local elections and strong national political parties; so that the former provides local accountability and the latter—national career concerns. Since China is an autocratic state and there are no formal mechanisms of local accountability, the functioning Chinese federalism remains puzzling. The first step to resolve this puzzle is to understand whether there are any in-

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[2]See, for instance, Montinola, Qian and Weingast (1995); Qian and Roland (1998); Maskin, Qian and Xu (2000); Qian and Weingast (1996).

formal institutions in China that help provide local accountability. Our paper contributes to this debate by showing that elite capture to some extent serves as a substitute for local democracy in China.

We focus on the top provincial executives, party secretaries, who are appointed by the center and who serve as the ultimate decision makers for all provincial policies. To measure the strength of social ties between provincial party secretaries and local elites, we collect detailed information about the backgrounds of all individuals who served as party secretaries in Chinese provinces between 1980 and 2005. We distinguish between party secretaries who made their careers, i.e. raised from low to high positions, within the province and those who made their careers elsewhere. Making a successful career from low to high positions within a province is impossible without the support of local elites (i.e., representatives of the local administration, party organs, and top management of state owned enterprises and large collectives). Elites are responsible—both formally and informally—for nominations to high- and appointments to medium-level positions in the administration and state-owned enterprises of the province. Since such support often implies reciprocity, "local" party secretaries are bound by an implicit contract that requires a return of favors (a la Shleifer and Summers, 1988). In contrast, party secretaries who made their careers in other provinces and were transferred to a high position in the province from elsewhere are not bound by any obligations to local elites. Importantly, the backgrounds of party secretaries may matter for provincial policies not only because they reflect ties to local elites, but also because of differences in local knowledge or innate preferences. In our empirical analysis, we verify that neither of these two alternative explanations drives our results. We, therefore, interpret the differences in provincial policy outcomes between "local" and "outsider" party secretaries (defined by where they made their career from low to high positions) as evidence of the effect of implicit contracts with the local elite, i.e., elite capture.

Using panel data for 30 provinces over 26 years, we find substantial differences in provincial policies depending on whether a "local" or an "outsider" party secretary is at the helm,

controlling for province and year fixed effects, political and fiscal incentives of party secretaries, as well as a large set of other individual and provincial characteristics that may affect policy outcomes. In particular, provinces under "local" party secretaries rely less on extra-budgetary funds, spend a higher share of the budget on public goods such as education and healthcare, have a higher number of primary school teachers, and higher sales of state-owned enterprises (SOEs) and collectives. At the same time, "local" party secretaries spend a lower share of the budget on government consumption and investment, which results in lower construction of infrastructure.

The variation in party secretary backgrounds may not be exogenous, as the center may wish to appoint "locals" or "outsiders" depending on provincial policy outcomes, or the center may wish to appoint "outsiders" in provinces where the entrenchment of provincial leaders and elites is particularly strong in order to breach these entrenched networks. Thus, we construct an instrument for whether a party secretary is local, which relies on exogenous changes in the central leadership (exploiting the fact that the central leader wants his allies as party secretaries) combined with the timing of 5-year term appointments of provincial leaders. Instrumental variable estimation confirms our results on policy differences between "local" and "outsider" party secretaries.

In addition to the literatures on federalism in developing countries and on the effects of elite capture on governance, which we discuss above, our paper is closely related to several other strands of economic literature. We contribute to the empirical literature analyzing how social networks can serve as informal institutions (see, for instance, Almeida and Wolfenzon, 2006, and references cited therein). In particular, a large and growing literature studies the effects of social networks on governance in different contexts (e.g., Becker, 1971; Granovetter, 1974; Putnam, 1993; Petersen and Rajan, 1994; Callahan, 2005; Fershtman, Gneezy and Verboven, 2005; Harris, 2007). Our findings are also related to the literatures on the effects of leadership on outcomes in politics (e.g., Jones and Olken, 2005) and in the corporate sector (e.g., Bertrand and Schoar, 2003). Furthermore, our study relates to a large

body of recent work on "political connections" (see, for instance, Fisman, 2001; Johnson and Mitton, 2003; Khwaja and Mian, 2005; Faccio, 2006; Slinko, Yakovlev and Zhuravskaya, 2005), which has examined the consequences of connections between firms and government officials for public policy and firm profitability.

The rest of the paper is organized as follows. In Section 2, we formulate hypotheses. In Section 3, we describe the data. Section 4 details the empirical methodology and the construction of the instrument. Section 5 presents the results and considers alternative explanations. Section 6 concludes.

2 Hypotheses

There are two competing theories with diametrically opposed predictions about the possible effects of ties between local politicians and local elites on local governance: "the subversion theory" and "the substitute for local accountability theory."

According to the subversion view on elite capture (e.g., Stigler, 1971; Olson, 1982), the domination of special interests is detrimental for local governance. Subverted governments provide less public goods and engage in more petty corruption, since rents from subversion of public resources and government predation are channeled to the narrow politically-powerful groups in the localities. Slinko, Yakovlev and Zhuravskaya (2005) show that regional governors in the transitional Russia behave according to this model.

In contrast, the substitute for local accountability view signifies that local governments, who act in the interests of local elites, provide more public goods to the general public and prey less on business. The reason for this is that the preferences of local elites may be closer to those of the common people compared to preferences of politicians themselves. Thus, policies that satisfy local elites may have positive spillovers to the general population. In particular, this could be the case when local democratic mechanisms are extremely weak, and when local politicians are faced with one of the following two incentive schemes in the

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absence of ties to local elites: either they are not accountable to anyone and behave as local tyrants; or they are accountable only to the center, which pursues its own objectives distinct from local public goods provision. In both cases, social ties between the local politician and the local elites serve as an informal local accountability mechanism, inducing the local politician to shift policies towards the preference of the local population.

Our aim is to test for these two competing theories in the context of Chinese local governance.

3   Data

Our empirical exercise is to estimate the relationship between the career paths of the top Chinese provincial officials—the provincial party secretaries—and provincial policy outcomes. For this purpose, we collected panel data for 30 Chinese provinces (all provincial units except Tibet) for 26 years, from 1980 to 2005, resulting in 755 province*year observations.[3]

3.1   Backgrounds and careers of provincial party secretaries

During our sample period, 160 different individuals served in 180 different provincial party secretary positions. We track each of these officials over the course of their careers prior to assuming the post of party secretary in a particular province. For each party secretary, we record whether or not this individual, prior to assuming the current position, i) worked in the central government or in the central party organs, ii) worked in other provinces, and iii) worked in the same province. Furthermore, for each of these prior work experiences, we distinguish between low-level and high-level positions. A high position in the center is defined as deputy minister or higher. A high position in a province is defined as deputy governor or higher. For each of the individuals who served as party secretaries, we also

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[3]Provincial units include 22 Provinces, 5 Autonomous regions, and 4 Metropolitan areas. Data on Chongqing start from 1997, when it was separated from the Sichuan province and became a self-governed Metropolitan area. As is common for analyses of Chinese provinces, we exclude Tibet, which is very different from the other provinces in terms of political instability and ethnic composition.

record the places of birth and study, year of birth, and the level of education. In addition, for each point in time for each party secretary, we have information on the length of tenure on the job and membership in the Politburo of the Communist Party of China. Finally, for each party secretary who was replaced by someone else, we have information about the reason for leaving office, i.e., if the party secretary retired, was promoted or demoted, or passed away.

The party secretaries spent between 1 and 12 years in office. The backgrounds of the party secretaries vary substantially. 38% of the 180 party secretary positions (38% of the 755 province*year observations) were held by individuals who made a career rising from low to high positions within the province. We call a party secretary who serves in a province where he rose from low to high positions "local," even though, before or after raising from low to high positions within the province, he may have worked in other provinces or in the center. 19% of the party secretary positions (25% of obs.) were held by individuals who had no previous work experience outside the province, and 41% of the positions (39% of obs.) were held by individuals who had no prior work experience within the province. 30% of the party secretary positions (34% of obs.) were held by individuals who were born and/or studied in the province. We refer to such party secretaries as native to the province. Among party secretaries, who were native to the province, 33% made their careers (i.e., rose from low to high positions) in other provinces; whereas among non-native party secretaries (i.e., those who were born and studied in a different province), 21% had built a local career. Table 1 summarizes the backgrounds of the individuals holding the 180 party secretary positions, overall and separately for local and non-local party secretaries. Panel A of Table A.2 presents summary statistics for the 755 province*year observations.

Our main variable of interest, a dummy which takes the value one if the party secretary is local (in a given position and year), varies greatly within provinces: there are only 4 provinces (Chongqing, Guizhou, Hainan, and Inner Mongolia) where there is no over-time variation and only "outsiders" served as party secretaries; whereas in all other provinces

both locals and outsiders served as party secretaries at different times.

Information on the biographies of the officials (place and year of birth, place and level of studies, work histories, and current affiliations) was collected from various sources, some of which are in Mandarin Chinese. The main sources are "Who's Who in the Chinese Communist Party," *the People's Daily*, the web site Chinavitae.com, and the web site of the Center for China Studies at the NCCU in Taipei, Taiwan.[4] We also used the official government portal of the Government of the People's Republic of China, www.gov.cn and, occasionally, other web resources. Information on the reasons for discontinuing the party secretary position was obtained from Chen, Li and Zhou (2005).

3.2   Governance outcomes

As policy outcomes, we consider available measures of corruption, public goods provision, and infrastructure investment. We measure the extent to which the provincial leadership is predatory towards businesses in the province with the size of provincial extra-budgetary revenue. Extra-budgetary revenue is a fund under full discretion of the provincial leadership, which allows them to collect administrative and regulatory charges, levies and fees from enterprises outside the official taxation system. Several authors (e.g., Ma et al., 2003; Zhan, 2009) suggested that extra-budgetary funds are an indication of excessive taxation and bribe extortion on the part of local governments.

We also look at the composition of the provincial budget. In particular, we are interested in the share of provincial public expenditure that is allocated to public goods provision. Unfortunately, we only have information on the very large categories. In particular, we consider the category of spending on education, healthcare, culture and science as public goods spending, and henceforth refer to it as social expenditure. The main policy tradeoff that the local government is facing as far as public spending is concerned is whether to spend the marginal yuan of revenue on government consumption and investment (which

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[4]The Center's website is http://ics.nccu.edu.tw/neweb/eng/index.php.

could potentially trigger growth) or on public goods, such as healthcare and education, which are still severely under-provided.

As a non-monetary measure of public goods provision, we take the number of teachers in primary schools per capita; and as an outcome of infrastructure investment, we use the log of total length of provincial railroads. As a very crude measure of the benefits received by local elites from local policies, we take log sales of SOEs and major Collectives, as directors of SOEs and Collectives constitute an important part of local elites. In addition, we use information on gross provincial product and total government expenditure.

The data on outcomes come from the Chinese Official Statistical Abstracts (at the national and provincial levels). The exact definitions and sources of each variable are described in Table A.1 in the Appendix. The variables are summarized in Panel B of Table A.2. All monetary variables are expressed in real terms.

4   Empirical Methodology

Our aim is to estimate the effect on policy outcomes and governance of having a party secretary who made his career within the province (by rising from low to high positions) as opposed to having a party secretary who made his career in other provinces or the center. We estimate the following panel fixed effects equation:

$$Outcome_{pt} = \phi_p + \tau_t + \alpha_1 Local_{pt} + \beta' X_{pt} + u_{pt}, \tag{1}$$

where p indexes provinces; t indexes years; and ϕ_p and τ_t are province and year fixed effects, respectively. $Outcome_{pt}$ is a policy outcome; and $Local_{pt}$ is our main explanatory variable, i.e., a dummy dummy taking the value one if the party secretary is "Local," in other words, if he made a career moving from low to high positions within the province. X_{pt} is a vector of observed attributes of the province p and of the individual serving as party secretary in province p, at time t, which directly affect the outcome variables (to be discussed below).

Since the variables measuring background of party secretaries before they assumed their positions (such as $Local_{pt}$) do not vary over the time period when he serves as party secretary in a particular province, we allow u_{pt} to be correlated within each such spell and correct standard errors for the presence of these clusters.

Two important challenges arise in causal estimation of α_1. First, the covariates X_{pt} must account for all relevant variables which affect outcomes and are correlated with $Local_{pt}$. In particular, we need to control for the political and fiscal *incentives* of provincial leaders. Second, $Local_{pt}$ may itself depend on outcomes, giving rise to reverse causality. For instance, it could be argued that the center may be more likely to appoint "outsiders" in provinces where there is a lot of corruption and where the ties between large businesses and the provincial leadership are particularly close. Below we describe how we address each of these challenges.

4.1   Covariates: accounting for incentives

A large literature studies how the fiscal and political incentives of provincial leaders, which are designed by the center, affect the party secretaries' performance. In order to estimate the effect of the provincial leader's background on policy outcomes, we need to account for variation in these incentives.

Until 1993, each province had its own fiscal revenue-sharing contract with the central government. Oi (1992) and Montinola, Qian and Weingast (1995) (among others) argue that these revenue-sharing contracts made provincial governments residual claimants on a certain part of the marginal tax collections and were very important for providing provincial leaders with "fiscal incentives" to generate revenue. Jin, Qian and Weingast (2005) have shown that the strength of these fiscal incentives can be characterized by the Marginal Retention Rate (MRR) of local budget revenue, and that the MRR was correlated with growth-promoting reforms in the Chinese provinces. The MRRs vary both over time and across provinces. We control for differences in fiscal incentives by including MRR as a covariate.

Career concerns are also an important determinant of local policies. The probability of promotion and demotion of a provincial leader at a particular point in time (as shown by Li and Zhou, 2005; Chen, Li and Zhou, 2005) is significantly affected by (i) the average provincial growth during the secretarys tenure up to that point; (ii) the provincial growth under the predecessor; (iii) the secretarys age; (iv) a dummy for whether the leader has reached the retirement age, i.e., is 65 years old; (v) the number of years on the job (which we refer to as tenure); (vi) whether the secretary has previous work experience in the center; (vii) whether the secretary is a member of the Politburo; and the secretarys level of education. Many of these variables can also affect governance decisions directly and not only through their effect on career concerns. For example, leaders' knowledge and experience is likely to have a direct effect on policy choices, which implies that age, tenure on the job, and the level of education may play important roles in explaining differences in provincial policies.

In addition, we control for logs of population, urbanization, and lagged gross provincial product, as all of these variables may directly influence the outcomes. We also include a dummy for whether the party secretary is native to the province (i.e., was born and/or studied in the province), as this may affect his attitude towards the province and, therefore, could account for variation in the innate preferences of provincial leaders for provincial policies. We also tried controlling for various individual characteristics of the governor of the province, who formally is the head of the provincial government and who arguably is the second most important person in the province. It turns out, however, that the governor's characteristics do not have any effect on the provincial policies or on other estimated coefficients; which is consistent with the fact that the party secretary is the top executive and ultimately controls all provincial policies. For the sake of completeness, we keep a dummy for whether governor is local, defined in the same way as for party secretaries, in the list of covariates. Panel C of Table A.2 presents summary statistics for our control variables.

4.2 Instrument for *Local*

To deal with the issue of possible reverse causality, we exploit exogenous—from the point of view of provincial leadership—shifts in the central leadership, i.e., changes in who is holding the position of the General Secretary (GS) of the Chinese Communist Party. During our sample period, 1980-2006, there were two such changes: Jiang Zemin replaced Deng Xiaoping in 1989 and Hu Jintao assumed the position in 2003.[5]

Provincial party secretary is a very important political position in China. Thus, each leader of China (i.e., each General Secretary) prefers to have individuals whom he knows well personally and whom he trusts as provincial party secretaries in all provinces at any given point in time. Thus, when a new General Secretary comes in, he wants to appoint his own close allies as party secretaries in the provinces. We postulate that in provinces, where the General Secretary worked prior to becoming the national leader, he is more likely to appoint local person (as he knows local people in these provinces); whereas in provinces where he did not work and, therefore, knows fewer people, he is more likely to appoint an outsider.

Moreover, it is politically easier and less distortive to change an incumbent provincial party secretary for a new one when his 5-year term expires. The reason for this is that the central leadership wants to keep commitment to the rule which creates high-powered career concerns to provincial leaders to deliver growth. Any unnecessary deviations from the rule require an explanation on the part of the General Secretary; and therefore, newly-come General Secretary may prefer to wait for the expiration of the party secretaries' terms before altering any appointments.

Thus, there are two exogenous sources of variation in the probability that a party secretary is local in a given province at a given time. First, different General Secretaries had work experience in different provinces: Deng Xiaoping (the leader of China between 1978

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[5]Deng Xiaoping never formally served as the General Secretary of CCP; he was the Chairman of the Central Military Commission. However, there is a considerable evidence that he was the leader of China holding all real powers until 1989.

and 1989) worked in Beijing, Guangxi, and Sichuan; Jiang Zemin (1989-2003) worked in Beijing, Jiangsu, Jilin, and Shanghai; and Hu Jintao (2003-) worked in Beijing, Jiangsu, Guizhou, and Gansu provinces. Second, at the time, when new General Secretary comes in (and the changes in central leadership occur during the Party Congresses), different provincial party secretaries are at different times in their 5-year appointment terms: some have just been appointed, others are at the very end of their 5-year terms. Thus, as an instrument for *Local*, we use a dummy which equals one only in provinces where the current General Secretary has work experience and in years when the 5-year term of the party secretary who was in place at the time of the change in the central leadership (i.e., in 1989 and 2003) was over. Formally,

$$Z_{pt} = \begin{cases} 0, \text{ if current GS did not work in province } p; \\ 0, \text{ if GS worked in prov. } p, \text{ term of PS appointed before this GS is not over;} \\ 1, \text{ otherwise.} \end{cases}$$

The resulting Z_{pt} equals one in 1 province (Beijing) in all years and in seven provinces (Gansu, Guangxi, Guizhou, Jiangsu, Jilin, Shanghai, Sichuan) in some years only. Altogether, $Z_{pt} = 1$ in 76 province*year observations, which occurs during 20 out of the 180 different party secretaries. Our first stage, therefore, is the linear probability model of appointing a *Local* party secretary:

$$Local_{pt} = \phi_p + \tau_t + \pi Z_{pt} + \gamma' X_{pt} + v_{pt}, \tag{2}$$

where all of the notation is as above. Table 2 presents the results of the first stage estimation. The number of covariates included in X_{pt} differs in different columns: in column 1, there are no covariates except for province and year fixed effects (which are included in all specifications), only individual characteristics of party secretaries are included as covariates in column 2, only provincial controls are used in column 3, and the full set of covariates is

included in column 4. Our instrument is a strong and significant predictor of the probability that a party secretary is local. When the instrument switches from zero to one in a province, the probability that the party secretary is local increases by 46 percentage points. The last two rows in the table present F-statistics for the excluded instrument under two different assumptions about the variance-covariance matrix, allowing and not allowing for clusters within each party secretary spell. Irrespective of these assumptions, the predictive power of the instrument is sufficiently high to rule out concerns about a weak instruments problem.

An important identification assumption is that our instrument affects outcomes only by means of affecting the probability that the party secretary is local. This exclusion restriction is not testable directly in the absence of other instruments, but indirect evidence can be provided in support of this assumption. The main possible concern is that General Secretaries may treat provinces where they previously worked differently also in other respects, in addition to appointing local rather than outsider party secretaries. In particular, one may worry that General Secretaries favor those provinces over the ones which they are not familiar with. The literature points to two major measurable ways in which General Secretaries can favor a province over others: (i) allow a higher Marginal Retention Rate for provincial revenue, which gives a province more fiscal autonomy; and (ii) appoint the provincial party secretary to the Politburo of the CCP, which gives the province additional power in lobbying for redistribution of central funds, e.g., for getting central investment projects. Thus, it is important to analyze whether provincial MRRs and Politburo membership of the provincial party secretaries are related to our instrument.

Table 3 presents the results of regressions with MRR (in Panels A and B) and Politburo membership (in Panels C and D) as dependent variables. We regress these variables on the same four sets of controls: (i) no controls except province and time fixed effects, (ii) individual, (iii) provincial, and (iv) all controls. In addition, we include two variables: a dummy for whether the General Secretary was native in the province, i.e., was born and/or studied in the province, and either a dummy for whether the General Secretary worked in

the province (Panels A and C) or our instrument (which, in addition to the leader's work experience in the province, takes into account the timing of the term expiration for party secretaries who were in place at the time of the change in central leadership) (Panels B and D). In these regressions, the dummy for having worked in the province and our instrument are never statistically significant once at least some covariates are included. In contrast, the dummy for the General Secretary being native in the province significantly positively affects the MRR and the probability of a party secretary being included in the Politburo, as one would expect for provinces that are favored by the central leadership. It is important to note that if we do not control for the native provinces of the General Secretaries, our instrument and the dummy for GS's work experience in the provinces are not significant predictors of MRR and Politburo membership of provincial party secretaries in all cases, but one.[6] Thus, we conclude that it is a reasonable assumption that work experience in a province does not make the General Secretary treat this province differently from other provinces. In any case, we control for MRR and Politburo membership in our regressions as important independent determinants of provincial policies.

We estimate equation 1 both with OLS and with 2SLS using Z_{pt} as instrument for $Local_{pt}$.

5   Results

Tables 4 – 8 present our baseline results. All of them are organized in the same way. Each table displays the results for one policy outcome, featured in the caption of the table, and consists of two panels: A, which presents the OLS results; and B, which presents the results of the instrumental variables estimation. The four columns presents the results with the four different sets of controls, as in Table 2. The tables present coefficients only for a subset of these controls.

Let us, first, consider the effect of local party secretaries on our measure of the extent of

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[6]The Politburo members do not rotate continuously. The changes in the Politburo occurred in 1983, 1988, 1993, 1998, and 2003. Our results are unaffected irrespective of whether we take this into account or not.

government predation towards business, the size of extra-budgetary revenue (Table 4). Both according to the OLS and the IV regressions, local party secretaries have significantly lower extra-budgetary revenue. In the OLS regressions, the magnitude of the effect is substantially smaller, which may be explained by attenuation bias due to measurement error in the main explanatory variable. In the OLS regressions, the average difference in extra-budgetary revenue between local and outsider party secretaries is 6 percent, whereas this difference increases to 21 percent in the IV regressions. The IV results suggest that outsider party secretaries, on average, collected additional extra-budgetary revenue amounting to 7 percent of budgetary revenue.[7] Thus, local party secretaries are less predatory towards business than outsiders, as they collect fewer administrative fines, levies, and charges.

The second question is how public goods provision is affected by whether the party secretary is local or an outsider. Table 5 presents results for the share of social expenditure, i.e., the share of expenditure spent on public goods (education, health care, culture, and science). Both the OLS and the IV results point to a larger spending on public goods by local party secretaries than by outsiders. Local party secretaries spend on average 5 percentage points more of their budgets on social expenditure than outsiders do. This is a large effect since on average a quarter of the budget spending is directed to social expenditure. Again, the coefficient estimated with OLS is smaller in magnitude than the coefficient estimated with IV, i.e., 1 vs. 5 percentage points. Table 6 presents results for the number of primary school teachers. As a result of a higher social spending by local party secretaries, the number of primary school teachers significantly increases as well. The magnitude is as follows: if a local party secretary replaces an outsider, the number of primary school teachers increases by 13%. Moreover, as shown in Table 7, local party secretaries also provide public goods more efficiently than outsiders; the number of primary school teachers is higher in provinces governed by a local even when controlling for the size of social expenditure. (Again, in both the OLS and the IV regressions the coefficients on *Local* are positive even when we control

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[7]The results are unaffected if we control for the total provincial budgetary revenue.

for social expenditure; but, unlike in the IV regression, in the OLS regression the coefficient is imprecisely estimated with a p-value equal to 0.11.)

An important question is which categories of public spending decrease as a result of an increase in the share of social spending by local party secretaries. None of the other categories that we have data for are significantly affected by *Local* when considering each category individually. Yet, the share of the sum of capital construction, administrative expenditure, and investment and innovation expenditure, which represent all the big categories of spending except of agricultural subsidies, is significantly lower for local party secretaries. In regressions for the share of agricultural subsidies, the coefficient on *Local* is positive but insignificant. (To save space, we do not report these results; they are available from the authors upon request.) These results suggest that in provinces governed by a local party secretary, spending on public goods increases at in the expense of government consumption and infrastructure investment. Table 8 confirms this conjecture; it reports the results for the length of railroads. In the IV regressions, the length of railroads is significantly lower under local party secretaries; in the OLS regressions, the coefficient on *Local* is also negative, but very small in magnitude and statistically insignificant.[8] Overall, this evidence suggests that local party secretaries provide more public goods, possibly at the expense of lower government consumption and investment.

Another outcome that we are interested in is the extent to which local elites benefit from provincial policies. Unfortunately, we have no good measures of this. The best available, and highly imperfect, measure is the sales of SOEs and Collectives. We treat changes in the sales of SOEs and Collectives as a possible outcome of policies directed towards provincial elites (as directors of SOEs and major collectives are an integral and important part of the local elites). Table 9 presents the results for this outcome. We find that the sales of SOEs and Collectives are significantly higher under local party secretaries (both the OLS and the

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[8]Such a large discrepancy between the OLS and the IV results may be explained by the fact that we are able to identify exogenous sources of within-province variation in *Local* only for a few provinces. If we run an OLS regressions with the length of railroads as dependent variable for these provinces only, the magnitude and significance of the coefficient on *Local* becomes a lot closer to our baseline IV results.

IV coefficients on *Local* are positive and significant). The magnitude of the effect, again, is substantial. According to the OLS estimates, the difference in sales of SOEs and Collectives is 5%; according to the IV estimates, the difference is 27% between times when locals and outsiders are at the helm of the province.

Panels A and B of Table 10 verify that the differences in policies that we find are not driven by differences in the size of government. Total government expenditure is unaffected by *Local* once we include any of the controls.

Finally, it is interesting to analyze whether these differences in policies translate into differences in provincial development. Arguably, local party secretaries, in contrast to outsiders, in addition to the goal of delivering growth set for them by the center, also care about public goods provision. Such multiplicity of objectives could potentially lead to lower growth during the years when a province is under a local party secretary's leadership. However, panels C and D of Table 10 illustrate that there is no robust significant difference in provincial development between local and outsider party secretaries. Thus, local party secretaries are just more efficient in using public money to pursue their goals: a significant increase in public goods provision does not result in significantly slower growth. Interestingly, once we include all control variables, the OLS regressions indicate that provincial gross product is 1 percent lower under local party secretaries (statistically significant at the 5% level), but in the IV regressions, the difference is smaller and statistically insignificant. A potential explanation for this is endogeneity of appointments; if the center is more inclined to appoint an outsider in faster-growing provinces, this would bias our OLS results. Our instrumental variables analysis accounts for the possibility of endogenous appointments.

5.1   Interpretation and alternative explanations

In order to interpret the baseline results in light of our hypotheses, we need to address two alternative explanations for our findings.

5.1.1 Differences in local knowledge?

First we ask whether the observed policy differences between local and outsider party secretaries could be explained differences in local knowledge. Presumably, the party secretaries who made their careers within the province know more about it and understand it better than those who made their careers elsewhere. However, the following two pieces of evidence are inconsistent with differences in knowledge being the explanation for our findings.

First, if local knowledge is an important driving force behind the differences in policies between local and outsider party secretaries, one would expect this difference to decrease (and eventually disappear) with tenure on the job, as outsider party secretaries gradually acquire knowledge about the province while serving as party secretary. Table 11 presents the results of regressions, where in addition to our standard sets of explanatory variables, we include an interaction term between our *Local* dummy and tenure (from which we subtract the sample mean before generating the cross-term). The first two columns of the Table present results of the OLS regressions and the second two columns present results of the IV regressions with individual and all controls, respectively. Thus, tenure itself is included in all specifications.[9] The coefficient on the interaction term is never significant and it does not have a robust sign: in exactly one half of the regressions, the signs of the coefficients on *Local* and on the interaction terms coincide. Thus, there is no evidence of learning.

Second, even though we do not have information on the total number of years spent in the province, which arguably is the best proxy for local knowledge, we do know whether a party secretary had some prior experience working in the province. We repeat our analysis controlling for a dummy indicating prior experience in the province and get results very similar to the baseline. In addition, our main results go through, despite the substantial decline in the number of observations, when we drop party secretaries who had no prior experience in the province from the sample altogether.

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[9]In the IV regressions, in addition to *Local*, instrumented with Z, we use $(Z * Tenure)$ as an instrument for $(Local * Tenure)$.

To summarize, these pieces of evidence suggest that local knowledge is not what drives the difference in policies between local and outsider party secretaries.

5.1.2 Differences in innate preferences?

Another possible interpretation of the differences between local and outsider party secretaries is that they have different preferences over policies in their provinces. For example, it could be argued that local party secretaries care more about people in their provinces and associate more with them than the outsiders. It is impossible to test for this directly as we do not observe preferences. Yet, if this were the case, the effect of *Local* on policies, probably, should have been similar to the effect of being native in the province, defined as being born and/or having studied in the province; one's preferences and attachments to a particular place are often formed during youth and adolescence. Therefore, public officials are likely to view the populations of the provinces where they were raised and studied as their fellow-provincemen; and more so than for the populations of provinces where they worked. For example, as shown in Table 3, the General Secretaries of the CCP indeed favor provinces where they were born or studied, but not the ones where they used to work before becoming General Secretaries. The attitudes are likely to be similar for provincial party secretaries as well.

Since a native province dummy is included in all regressions with individual controls, we can compare the effects of being local and being native (see Tables 4 - 9). The evidence is inconsistent with a conjecture of similar effects for local and native party secretaries. In all OLS regressions, the coefficient on the native party secretary dummy is insignificant. Moreover, the coefficients on the native dummy and the *Local* dummy have opposite signs in half of these regressions. In the IV regressions, the coefficients on the native dummy and the *Local* dummy have opposite signs for all outcomes, and it is statistically significant for public goods and infrastructure investment. Thus, native party secretaries (in contrast to local ones) promote infrastructure investment and provide fewer public goods.

Overall, as mentioned above, preferences are not directly measurable, and, therefore, any differences in behavior can be explained by differences in preferences. Yet, it is hard to reconcile the preferences story with the fact that party secretaries who were born or studied in the province they govern do not behave in the same way as local party secretaries do.

5.1.3 Elite capture

As it is unlikely that the differences between local and outsider party secretaries are driven by differences in local knowledge or innate preferences, we interpret our results as reflecting differences in social ties between the provincial leader and local elites. Since local leaders, according to our definition, are the ones who substantially advanced their careers within the province and since it is virtually impossible to move from low-level to high-level positions within the industry or administration in a province without considerable support of at least some representatives of the local elite (corporate executives, bureaucrats, or lower-level regional politicians), advancement of one's career within a particular province implies that significant favors were made to this person by other key provincial stakeholders. In a bureaucratic system such as the Chinese political and administrative hierarchy, these informal favors are usually granted in anticipation of reciprocity and "mutual back-scratching."[10] Thus, it is likely that a party secretary who made his career within the province is bound by implicit contracts that de facto require paybacks from the party secretary to the provincial elites who helped the secretary to advance his career. In contrast, those who have risen to high-level positions in other provinces are likely not to have any implicit obligations to local elites. Thus, we can interpret the *Local* dummy as an indicator of having close ties to the local elite; or in short, elite capture.

As we discussed in Section 2, social ties between local politicians and local elites may, depending on the circumstances, have either a detrimental effect on public goods provision (such as in the case of Russia, as shown by Slinko, Yakovlev and Zhuravskaya, 2005) or,

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[10]In particular, see the political psychology literature on back-scratching; for early contributions, see, for instance, Goodin (1975); for more recent work, see Bolton and Zaharia (2006).

in contrast, it may facilitate local public goods provision. In particular, the latter may be the case when local accountability is weak and when the preferences of local elites are closer to those of the median voter than the preferences of politicians (e.g., Rao and Ibanez, 2003). Our results suggest that in China, implicit contracts between local elites and top provincial executives are beneficial for public goods provision and, therefore, informal social ties between politicians and elites serve as an imperfect substitute for local accountability in the absence of democracy and local elections.

An important question for understanding our results is why the local elite in China is interested in public goods provision. The reason is simply that they consume public goods, i.e., they, from time to time, use schools and hospitals just like the general population. It is important to note here that we, of course, are not measuring the full benefit of such implicit relationships to the local elites; and, probably, most benefits are targeted by party secretaries to narrow groups of people, who helped them advance their careers. Yet, what is key for our story is that some of these benefits spill over to the general population.

Another important question is why such implicit commitments of officials to elites are binding once officials occupy the top provincial position. As with all implicit contracts, the commitment mechanism here relies on the continuation of the relationship between the party secretary and the local elites. Since party secretaries not only can be promoted but also fired, they presumably value their relationships with the local elites because they may need these connections in case of a dismissal.

6 Conclusions

The career backgrounds of top provincial executives in China—provincial party secretaries—have a significant impact on local public policies. Party secretaries who made their careers within the province rather than in the center or in other provinces prey on business less, which boosts sales of SOEs and collectives, spend more on public goods such as education,

which results in a higher numbers of teachers per capita, and provide public goods more efficiently. At the same time, local party secretaries spend less on government consumption and investment, which translates into lower development of infrastructure in their provinces. Provincial growth, however, is not robustly affected by whether party secretary is local.

These policy differences are not driven by differences in the local knowledge and, most probably, also are not due to differences in preferences of provincial leaders. We conjecture that it is the presence of implicit contracts between provincial leaders and local elites that differentiates party secretaries who rose through the political hierarchy within the province. These implicit contracts introduce an additional dimension to the objective function of provincial leaders. In the absence of ties to local elites, Chinese provincial leaders are accountable only to the center and have no incentives to cater to the local population. Obligations to local elites bring provincial leaders closer to the needs of common people in their province, even though the elites are a fairly narrow group. This is because local elites have closer preferences to the local population than the national leaders in Beijing, whose preferences are imposed on provincial leaders through career concerns. Thus, elite capture in the Chinese context serves as an imperfect local accountability mechanism, which is absent when provincial leaders have no social ties to local elites.

The results of our analysis highlight that the effects of elite capture on policy outcomes and governance depend on the context. In the context of China, an environment where democratic mechanisms are absent, capture of local politicians by local elites brings benefits to the general public. Future research should consider conditions under which elite capture has socially beneficial and socially harmful effects.

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Table 1: Summary of party secretary backgrounds for 180 party secretary positions

Description	Overall	Local	Not local
Local = worked both in high and low positions in prov.	38%	100%	0%
Worked in center	56%	41%	63%
Worked in center in high positions	27%	11%	35%
Worked in other prov.	72%	37%	91%
Worked in other prov. in high positions	49%	14%	68%
Worked elsewhere	81%	51%	97%
Worked elsewhere in high positions	64%	22%	87%
Did not work in this prov.	41%	0%	62%
Did not work in this prov. in high positions	43%	0%	66%
Politburo member	11%	13%	9%
Born in province	24%	48%	12%
Studied in province	12%	25%	4%
Higher education	66%	59%	70%
Length of time on the job as party secretary	4.2 years	4.6 years	4.0 years

Table 2: First stage (OLS, fixed effects). Dep. var.: Party Secretary is local.

	(1)	(2)	(3)	(4)
Instrument (Z)	0.46***	0.41***	0.47***	0.46***'
	(0.12)	(0.11)	(0.11)	(0.11)
Age		0.01**		0.01*
		(0.006)		(0.007)
Tenure		-0.01		-0.01
		(0.01)		(0.01)
Higher education		0.06		0.04
		(0.09)		(0.10)
Native province		0.47***		0.48***
		(0.08)		(0.08)
Age > 64		0.02		0.02
		(0.05)		(0.06)
Central connection		-0.24***		-0.26***
		(0.07)		(0.08)
Governor is local			0.008	-0.023
			(0.07)	(0.06)
PS is Politburo member			0.06	0.008
			(0.12)	(0.13)
MRR			-0.12	-0.27
			(0.25)	(0.24)
Log Population			-0.89	-0.34
			(1.12)	(1.01)
Log Urbanization			-0.02	-0.002
			(0.06)	(0.042)
1yr Lagged Log GPP			-0.34	-0.26
			(0.27)	(0.26)
GPP growth of predecessor				-0.3000
				(1.12)
Average GPP growth				0.63
				(0.97)
Number of observations	755	753	707	702
Adj. R-Squared	0.29	0.45	0.29	0.44
F-stat, no clusters	42.02	41.07	44.37	52.87
F-stat, with clusters	15.40	14.97	16.53	17.46

Note: Dependent variable is the dummy indicating whether the provincial party secretary is local. Province and year fixed effects included in all regressions. Robust standard errors adjusted for clusters for each party secretary in each province. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 3: Reality check on excludability of the instrument

Panel A. DV: MRR	(1)	(2)	(3)	(4)
GS born and/or studied in province	0.27***	0.26***	0.26***	0.24***
	(0.07)	(0.07)	(0.08)	(0.07)
GS worked in province	.0004	.0025	-0.02	-0.02
	(0.04)	(0.04)	(0.05)	(0.05)
PS is Politburo member			0.06*	0.07*
			(0.04)	(0.04)
Number of observations	785	782	707	702
Adj. R-Squared	0.58	0.59	0.69	0.70
Panel B. DV: MRR	**(1)**	**(2)**	**(3)**	**(4)**
GS born and/or studied in province	0.24***	0.23***	0.24***	0.23***
	(0.08)	(0.08)	(0.08)	(0.08)
Instrument (Z)	0.04	0.04	-0.01	-0.01
	(0.05)	(0.05)	(0.07)	(0.06)
PS is Politburo member			0.06*	0.07*
			(0.04)	(0.04)
Number of observations	785	782	707	702
Adj. R-Squared	0.59	0.59	0.69	0.70
Panel C. DV: PS is Politburo member	**(1)**	**(2)**	**(3)**	**(4)**
GS born and/or studied in province	0.20	0.18	0.25*	0.22*
	(0.13)	(0.11)	(0.14)	(0.12)
GS worked in province	-0.14	-0.12	-0.14	-0.12
	(0.13)	(0.11)	(0.14)	(0.12)
Tenure		0.02***		0.02**
		(0.01)		(0.01)
MRR			0.29*	0.28**
			(0.15)	(0.14)
Number of observations	785	782	707	702
Adj. R-Squared	0.37	0.42	0.42	0.45
Panel D. DV: PS is Politburo member	**(1)**	**(2)**	**(3)**	**(4)**
GS born and/or studied in province	-0.07	-0.05	0.04	0.04
	(0.09)	(0.10)	(0.10)	(0.10)
Instrument (Z)	0.19*	0.17	0.11	0.10
	(0.11)	(0.12)	(0.12)	(0.13)
Tenure		0.02***		0.02**
		(0.01)		(0.01)
MRR			0.25*	0.25*
			(0.15)	(0.14)
Number of observations	785	782	707	702
Adj. R-Squared	0.37	0.42	0.41	0.45
Controls	No	Indiv.	Prov.	All

Note: Province and year fixed effects included in all regressions. Robust standard errors adjusted for clusters for each party secretary in each province. * significant at 10%; ** significant at 5%; *** significant at 1%. All controls are as in Table 2.

Table 4: Log of extra-budgetary revenue

Panel A: OLS	(1)	(2)	(3)	(4)
PS is local	-0.10**	-0.08	-0.06**	-0.06*
	(0.05)	(0.05)	(0.03)	(0.03)
Tenure		0.01		0.0022
		(0.01)		(0.01)
Native province		-0.04		-0.02
		(0.05)		(0.04)
Worked in the center		0.07		0.05
		(0.06)		(0.04)
PS is Politburo member			-0.02	0.02
			(0.05)	(0.04)
MRR			-0.07	-0.05
			(0.10)	(0.10)
GPP growth of predecessor				-1.15**
				(0.46)
Average GPP growth				0.03
				(0.35)
Number of observations	647	645	635	630
Within R-Squared	0.55	0.57	0.77	0.78
Controls	No	Indiv.	Prov.	All

Panel B: IV	(1)	(2)	(3)	(4)
PS is local	-0.32***	-0.37**	-0.21**	-0.21**
	(0.12)	(0.14)	(0.09)	(0.08)
Tenure		0.01		0.0009
		(0.01)		(0.01)
Native province		0.10		0.05
		(0.10)		(0.06)
Worked in the center		-0.01		0.0037
		(0.07)		(0.05)
PS is Politburo member			-0.0035	0.02
			(0.05)	(0.05)
MRR			-0.06	-0.07
			(0.10)	(0.11)
GPP growth of predecessor				-1.32***
				(0.49)
Average GPP growth				0.14
				(0.39)
Number of observations	647	645	635	630
Within R-Squared	0.55	0.53	0.76	0.78
Controls	No	Indiv.	Prov.	All

Note: Province and year fixed effects included in all regressions. Robust standard errors adjusted for clusters for each party secretary in each province. * significant at 10%; ** significant at 5%; *** significant at 1%. All controls are as in Table 2.

Table 5: Social expenditure share

Panel A: OLS	(1)	(2)	(3)	(4)
PS is local	0.01*	0.01**	.0044	0.01**
	(0.0039)	(0.0046)	(0.0032)	(0.0038)
Tenure		-0.00005		0.0002
		(0.0008)		(0.0007)
Native province		-0.0021		-0.0034
		(0.01)		(0.0044)
Worked in the center		0.0042		0.01
		(0.0049)		(0.0043)
PS is Politburo member			-0.01	-0.01
			(0.01)	(0.01)
MRR			0.02	0.03**
			(0.01)	(0.01)
GPP growth of predecessor				0.09**
				(0.04)
Average GPP growth				-0.06
				(0.05)
Number of observations	697	695	679	674
Adj. R-Squared	0.68	0.69	0.71	0.72
Controls	No	Indiv.	Prov.	All

Panel B: IV	(1)	(2)	(3)	(4)
PS is local	0.04**	0.05**	0.04**	0.05***
	(0.02)	(0.02)	(0.02)	(0.02)
Tenure		0.00026		0.00052
		(0.0009)		(0.00096)
Native province		-0.02*		-0.02**
		(0.01)		(0.01)
Worked in the center		0.01*		0.02**
		(0.01)		(0.01)
PS is Politburo member			-0.01	-0.01
			(0.01)	(0.01)
MRR			0.02	0.04**
			(0.02)	(0.02)
GPP growth of predecessor				0.11*
				(0.06)
Average GPP growth				-0.09
				(0.07)
Number of observations	697	695	679	674
Adj. R-Squared	0.58	0.57	0.55	0.57
Controls	No	Indiv.	Prov.	All

Note: Province and year fixed effects included in all regressions. Robust standard errors adjusted for clusters for each party secretary in each province. * significant at 10%; ** significant at 5%; *** significant at 1%. All controls are as in Table 2.

Table 6: Log of the number teachers in primary schools

Panel A: OLS	(1)	(2)	(3)	(4)
PS is local	0.01	0.02	0.02*	0.023**
	(0.01)	(0.01)	(0.01)	(0.011)
Tenure		0.0013		0.000098
		(0.0030)		(0.0024)
Native province		-0.02		-0.01
		(0.01)		(0.01)
Worked in the center		0.01		0.02
		(0.02)		(0.02)
PS is Politburo member			-0.00	-0.00
			(0.02)	(0.02)
MRR			0.10***	0.11***
			(0.04)	(0.04)
GPP growth of predecessor				-0.01
				(0.13)
Average GPP growth				-0.18
				(0.13)
Number of observations	705	703	693	688
Within R-Squared	0.16	0.21	0.43	0.45
Controls	No	Indiv.	Prov.	All

Panel B: IV	(1)	(2)	(3)	(4)
PS is local	0.08	0.08	0.13***	0.13***
	(0.06)	(0.06)	(0.04)	(0.04)
Tenure		0.0018		0.00084
		(0.0033)		(0.0027)
Native province		-0.05		-0.06**
		(0.04)		(0.03)
Worked in the center		0.02		0.04*
		(0.03)		(0.02)
PS is Politburo member			-0.02	-0.01
			(0.02)	(0.03)
MRR			0.10**	0.13***
			(0.05)	(0.04)
GPP growth of predecessor				0.02
				(0.18)
Average GPP growth				-0.23
				(0.17)
Number of observations	705	703	693	688
Within R-Squared	0.17	0.21	0.45	0.46
Controls	No	Indiv.	Prov.	All

Note: Province and year fixed effects included in all regressions. Robust standard errors adjusted for clusters for each party secretary in each province. * significant at 10%; ** significant at 5%; *** significant at 1%. All controls are as in Table 2.

Table 7: Log of the number teachers in primary schools controlling for expenditure

Panel A: OLS	(1)	(2)	(3)	(4)
PS is local	0.0021	0.01	0.01	0.016
	(0.01)	(0.01)	(0.01)	(0.01)
Social expenditure share	0.57***	0.57***	0.39***	0.39***
	(0.17)	(0.16)	(0.14)	(0.14)
Tenure		0.0012		0.00017
		(0.0029)		(0.0024)
Native province		-0.02		-0.01
		(0.01)		(0.01)
PS is Politburo member			-0.01	-0.01
			(0.02)	(0.02)
MRR			0.05	0.05
			(0.04)	(0.04)
GPP growth of predecessor				-0.09
				(0.12)
Average GPP growth				-0.22*
				(0.13)
Number of observations	677	675	666	661
Within R-Squared	0.18	0.23	0.43	0.46
Controls	No	Indiv.	Prov.	All

Panel B: IV	(1)	(2)	(3)	(4)
PS is local	0.04	0.03	0.12***	0.12***
	(0.05)	(0.05)	(0.04)	(0.04)
Social expenditure share	0.49***	0.52***	0.22	0.15
	(0.19)	(0.17)	(0.19)	(0.21)
Tenure		0.0012		0.00075
		(0.0030)		(0.0027)
Native province		-0.03		-0.06**
		(0.03)		(0.02)
PS is Politburo member			-0.03	-0.02
			(0.03)	(0.03)
MRR			0.07	0.09*
			(0.05)	(0.04)
GPP growth of predecessor				-0.09
				(0.12)
Average GPP growth				-0.22*
				(0.13)
Number of observations	677	675	666	661
Within R-Squared	0.18	0.23	0.45	0.47
Controls	No	Indiv.	Prov.	All

Note: Province and year fixed effects included in all regressions. Robust standard errors adjusted for clusters for each party secretary in each province. * significant at 10%; ** significant at 5%; *** significant at 1%. All controls are as in Table 2.

Table 8: Log of the length of railroads

Panel A: OLS	(1)	(2)	(3)	(4)
PS is local	-0.02	-0.02	-0.003	-0.004
	(0.02)	(0.03)	(0.02)	(0.02)
Tenure		0.0049		0.0027
		(0.0045)		(0.0039)
Native province		-0.01		-0.01
		(0.03)		(0.02)
Worked in the center		-0.0015		-0.02
		(0.03)		(0.03)
PS is Politburo member			0.09***	0.09**
			(0.03)	(0.03)
MRR			0.09	0.08
			(0.07)	(0.07)
GPP growth of predecessor				0.14
				(0.33)
Average GPP growth				0.19
				(0.26)
Number of observations	698	696	675	670
Within R-Squared	0.50	0.51	0.59	0.60
Controls	No	Indiv.	Prov.	All

Panel B: IV	(1)	(2)	(3)	(4)
PS is local	-0.30***	-0.35***	-0.28***	-0.28***
	(0.09)	(0.10)	(0.09)	(0.09)
Tenure		0.0019		0.00041
		(0.01)		(0.01)
Native province		0.15**		0.12**
		(0.06)		(0.05)
Worked in the center		-0.09*		-0.09**
		(0.05)		(0.04)
PS is Politburo member			0.11**	0.10**
			(0.04)	(0.05)
MRR			0.08	0.03
			(0.09)	(0.08)
GPP growth of predecessor				0.06
				(0.51)
Average GPP growth				0.44
				(0.41)
Number of observations	698	696	675	670
Within R-Squared	0.53	0.53	0.61	0.62
Controls	No	Indiv.	Prov.	All

Note: Province and year fixed effects included in all regressions. Robust standard errors adjusted for clusters for each party secretary in each province. * significant at 10%; ** significant at 5%; *** significant at 1%. All controls are as in Table 2.

Table 9: Lof of sales of SOEs and Collectives (TVEs)

Panel A: OLS	(1)	(2)	(3)	(4)
PS is local	0.07**	0.06*	0.05**	0.05**
	(0.03)	(0.04)	(0.02)	(0.02)
Tenure		0.01*		0.0038
		(0.01)		(0.01)
Native province		0.0044		-0.03
		(0.03)		(0.03)
Worked in the center		-0.08***		-0.04
		(0.03)		(0.03)
PS is Politburo member			0.24***	0.21***
			(0.06)	(0.05)
MRR			0.29***	0.26***
			(0.08)	(0.08)
GPP growth of predecessor				0.58
				(0.39)
Average GPP growth				0.36
				(0.32)
Number of observations	539	537	533	528
Within R-Squared	0.59	0.62	0.72	0.74
Controls	No	Indiv.	Prov.	All

Panel B: IV	(1)	(2)	(3)	(4)
PS is local	0.49***	0.59**	0.26**	0.27*
	(0.16)	(0.24)	(0.12)	(0.15)
Tenure		0.02*		0.01
		(0.01)		(0.01)
Native province		-0.27*		-0.14
		(0.14)		(0.09)
Worked in the center		0.10		0.03
		(0.10)		(0.07)
PS is Politburo member			0.20***	0.19***
			(0.06)	(0.06)
MRR			0.25**	0.27***
			(0.10)	(0.09)
GPP growth of predecessor				0.40
				(0.51)
Average GPP growth				0.04
				(0.42)
Number of observations	539	537	533	528
Within R-Squared	0.61	0.64	0.72	0.74
Controls	No	Indiv.	Prov.	All

Note: Province and year fixed effects included in all regressions. Robust standard errors adjusted for clusters for each party secretary in each province. * significant at 10%; ** significant at 5%; *** significant at 1%. All controls are as in Table 2.

Table 10: Size of government and Gross Provincial Product

Panel A: Total Gov. Expenditure, OLS	(1)	(2)	(3)	(4)
PS is local	-0.0017	-0.02	0.01	-0.0025
	(0.03)	(0.03)	(0.02)	(0.02)
PS is Politburo member			0.18***	0.18***
			(0.05)	(0.05)
MRR			0.22***	0.17**
			(0.07)	(0.07)
Number of observations	742	740	706	701
R-Squared	0.97	0.97	0.98	0.98
Panel B: Total Gov. Expenditure, IV	**(1)**	**(2)**	**(3)**	**(4)**
PS is local	0.24*	0.23	0.12	0.11
	(0.13)	(0.14)	(0.09)	(0.08)
PS is Politburo member			0.16***	0.17***
			(0.05)	(0.05)
MRR			0.21***	0.19**
			(0.08)	(0.07)
Number of observations	742	740	706	701
R-Squared	0.95	0.98	0.98	0.97
Panel C: Gross Provincial Product, OLS	**(1)**	**(2)**	**(3)**	**(4)**
PS is local	-0.03	-0.03	-0.00084	-0.01**
	(0.02)	(0.02)	(0.0037)	(0.0031)
PS is Politburo member			0.01	0.0017
			(0.01)	(0.0036)
MRR			0.04***	-0.0016
			(0.01)	(0.01)
Number of observations	748	746	707	702
R-Squared	0.38	0.37	0.99	0.99
Panel D: Gross Provincial Product, IV	**(1)**	**(2)**	**(3)**	**(4)**
PS is local	-0.02	-0.04	0.0032	-0.0042
	(0.06)	(0.07)	(0.01)	(0.01)
PS is Politburo member			0.0046	0.0016
			(0.01)	(0.0037)
MRR			0.04***	-0.0014
			(0.01)	(0.01)
Number of observations	748	746	707	702
R-Squared	0.38	0.37	0.99	0.99
Controls	No	Indiv.	Prov.	All

Note: Province and year fixed effects included in all regressions. Robust standard errors adjusted for clusters for each party secretary in each province. * significant at 10%; ** significant at 5%; *** significant at 1%. All controls are as in Table 2.

Table 11: Interaction with tenure on the job

	(OLS)	(OLS)	(IV)	(IV)
Log extra-budgetary revenue				
PS is local	-0.09**	-0.07**	-0.30	-0.05
	(0.04)	(0.03)	(0.31)	(0.47)
PS is local*(Tenure-mean)	-0.008	-0.005	0.26	0.26
	(0.01)	(0.01)	(0.71)	(0.57)
Number of observations	645	630	645	630
Within R-Squared	0.57	0.78	0.57	0.78
Social Expenditure share				
PS is local	0.009**	0.007**	0.05**	0.06**
	(0.004)	(0.003)	(0.02)	(0.03)
PS is local*(Tenure-mean)	-0.0008	-0.0012	0.008	0.019
	(0.001)	(0.001)	(0.01)	(0.02)
Number of observations	695	674	695	674
Within R-Squared	0.52	0.59	0.53	0.60
Log teachers in primary schools				
PS is local	0.01	0.02**	0.06	0.16
	(0.01)	(0.01)	(0.11)	(0.21)
PS is local*(Tenure-mean)	-0.0034	-0.0007	-0.04	0.03
	(0.005)	(0.003)	(0.18)	(0.25)
Number of observations	703	688	703	688
Within R-Squared	0.21	0.45	0.21	0.46
Log SOE and Collectives sales				
PS is local	0.06*	0.04*	0.17	0.22
	(0.03)	(0.02)	(0.93)	(0.52)
PS is local*(Tenure-mean)	0.001	-0.001	0.75	0.60
	(0.010)	(0.008)	(1.90)	(1.68)
Number of observations	537	528	537	528
Within R-Squared	0.62	0.74	0.63	0.73
Log railroads				
PS is local	-0.018	-0.007	-0.35	-0.51
	(0.02)	(0.02)	(0.28)	(0.85)
PS is local*(Tenure-mean)	0.004	0.008	-0.52	-0.54
	(0.006)	(0.006)	(2.27)	(1.68)
Number of observations	696	670	696	670
Within R-Squared	0.51	0.61	0.53	0.62
Controls	Indiv.	All	Indiv.	All

Note: Province and year fixed effects included in all regressions. Robust standard errors adjusted for clusters for each party secretary in each province. * significant at 10%; ** significant at 5%; *** significant at 1%. Controls in regressions reported in columns 1 and 3 of this Table are as in Column 2 of Table 2 and in regressions reported in columns 2 and 4 of this Table are as in Column 4 of Table 2.

A Appendix

Table A.1: Definitions and sources of outcome variables

Outcome	Definition	Source
Extra-budgetary revenue	Extra-budgetary revenue consists of quasi-legal fees levied by the sub-national governments: public utilities surcharges, transportation and licence fees, and, to some extent, retained earnings of local state-owned enterprizes (SOEs). The World Bank describes these funds as arising from "ad hoc fees and charges designed to tap deep pockets wherever they exist, and enterprizes are prime targets."	Difang caizheng tongji ziliao (Local Public Finance Data)
Social expenditure share	Share of expenditure spent on culture, education, science and health.	Provincial yearbooks
Teachers in primary schools	Log of the number of full-time primary school teachers (unit: 10000).	Provincial yearbooks
The length of railroads	Log of the length of railroads (unit: kilometer).	Provincial yearbooks
Sales of SOEs and collectives	Log of sales of state-owned enterprizes and collective units. Collective units are publicly owned (as opposed to private enterprizes and so-called 'self-employed' enterprizes) by local communities. Collectives in rural areas are referred to as Township and Village Enterprizes (TVEs).	Provincial yearbooks
Gross Provincial Product	Gross Provincial Product	China Statistical Yearbook
Total government expenditure	Total local government expenditure.	Provincial yearbooks

Table A.2: Summary statistics

Description	Obs	Mean	Std. Dev.	Min	Max
Panel A: Backgrounds of party secretaries					
Local (i.e., made a career within the province)	755	0.38	0.49	0	1
Worked in center	755	0.48	0.50	0	1
Worked in center in high positions	755	0.20	0.40	0	1
Worked in other provinces	755	0.65	0.48	0	1
Worked in other prov. in high positions	755	0.47	0.50	0	1
Worked elsewhere	755	0.75	0.43	0	1
Worked elsewhere in high positions	755	0.60	0.49	0	1
Did not work in this province	755	0.39	0.49	0	1
Did not work in this province in high positions	755	0.42	0.49	0	1
Politburo member	755	0.10	0.30	0	1
Born in province	755	0.28	0.45	0	1
Studied in province	755	0.14	0.35	0	1
Higher education	753	0.64	0.48	0	1
Panel A: Outcomes					
Log of extra-budgetary revenue	647	3.06	0.85	0.29	4.94
Social expenditure share	697	0.25	0.04	0.13	0.38
Log of teachers in primary schools	705	11.97	0.72	10.10	13.11
Log of the length of railroads	698	7.45	0.77	5.37	8.93
Log of sales of SOEs and collectives	539	4.28	0.82	1.81	6.02
Log of Gross Provincial Product	748	5.85	1.06	2.70	8.39
Log of Total gov. expenditure	742	3.78	0.86	1.43	6.12
Panel C: Controls					
Age	755	60.53	5.16	35	75
Tenure	755	3.29	2.19	1	12
Higher education	753	0.64	0.48	0	1
Native province	755	0.34	0.48	0	1
PS is 65 years old	755	0.19	0.39	0	1
Worked in center in high positions	755	0.20	0.40	0	1
Politburo member	755	0.10	0.30	0	1
Governor is local	750	0.66	0.47	0	1
MRR	755	0.91	0.20	0.08	1
Log Population	748	1.10	0.81	-0.98	2.28
Log Urbanization	712	0.06	0.26	-5.22	0.93
1yr Lagged Log GPP	755	5.76	1.06	2.63	8.28
GPP growth of predecessor	750	0.09	0.03	-0.06	0.21
Average GPP growth	755	0.09	0.03	-0.06	0.27