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One Mandarin Benefits the Whole Clan: Hometown Infrastructure and Nepotism in an Autocracy *

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ABSTRACT

This paper studies nepotism by government officials in an authoritarian regime. We collect a unique dataset of political promotions of officials in Vietnam and estimate their impact on public infrastructure in their hometowns. We find strong positive effects on several outcomes, some with lags, including roads to villages, marketplaces, clean water access, preschools, irrigation, and local radio broadcasters, as well as the hometown's propensity to benefit from the State's "poor commune support program". Nepotism is not limited to only top-level officials, pervasive even among those without direct authority over hometown budgets, stronger when the hometown chairperson's and promoted official's ages are closer, and where provincial leadership has more discretionary power in shaping policies, suggesting that nepotism works through informal channels based on specific political power and environment. Contrary to pork barrel politics in democratic parliaments, members of the Vietnamese legislative body have little influence on infrastructure investments for their hometowns. Given the top-down nature of political promotions, officials arguably do not help their tiny communes in exchange for political support. Consistent with that, officials favor only their home commune and ignore their home district, which could offer larger political support. These findings suggest that nepotism is motivated by officials' social preferences directed towards their related circles, and signals an additional form of corruption that may prevail in developing countries with low transparency.

Keywords: nepotism, infrastructure construction, official's hometown, political connection, political promotion, social preference, directed altruism.

JEL Classifications: O12, H54, H72, D72, D64

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"One person becomes a mandarin, his whole clan benefits."
- Vietnamese old saying

"Even the blind favor the people they know."
- Indian old saying

"When a man gets the power, his chicken and dogs all go to heaven."
- Chinese old saying

1. INTRODUCTION

Studies of corruption, defined as officials' and bureaucrats' abuse of the privileges of public offices for private gains, oftentimes identify these gains in forms of personal and family wealth and consumptions. In other cases, misuses of public offices are manifested as favoritism towards certain related groups. In democratic regimes, one prevalent form of favoritism is often referred to as *pork barrel politics*, whereby officials direct government favor to certain groups of citizens to win their votes and political support. This strategic quid-pro-quo behavior has been a central topic in the political economic literature, including a significant body of evidence.

Still, a large proportion of the world's population is living in not so democratic environments, where this favoritism relationship is yet to be understood. In a typical authoritarian system, public offices are not elected by ordinary citizens but appointed by leaders above. Under this system, government officials have incentives to please their superiors rather than their constituents. Such a difference in the incentive scheme opens up a number of questions in political economy. Do authoritarian officials favor any citizens' group at all? Which parts of the political hierarchy can direct public resources towards favored groups, given that the authority in autocracies is highly concentrated in the hands of a few people at the top? How is such favoritism actually exercised? What are the motives of such favoritism?

Our paper makes a first attempt at tackling these important questions by examining the effects of political promotions of public officials on public infrastructure in their hometowns in single-party Vietnam. We construct a dataset of political promotions, match them with infrastructure data from the Vietnam Household Living Standard Surveys, and employ a fixed effect model to identify the magnitude of this favoritism. We refer to it as *nepotism*, as this is a form of favoritism given to the officials' (remote) relatives regardless of merit and without necessarily expected return

of political support. This phenomenon is different from *clientelism*, *patronage* or *pork barrel,* which describe the two-way political relationship usually observed in democracies where votes matter.[1]

The majority of the literature on favoritism since Ferejohn's (1974) seminal work on pork barrel politics has focused on democratic regimes where officials must seek office through competitive elections, with notable results reported by Ray (1981), Levitt and Snyder (1995), and Rundquist and Carsey (2002) from U.S. context, Joanis (2010) for Quebec, and Kaja and Werker (2010) from supra-national context. It also relates to a burgeoning literature on the value of political connections through socio-economic relations, such as Goldman et al. (2009) and Do et al. (2011). Evidence from India, a developing country with a young democratic system, has emerged since recently with findings by Chattopadhyay and Duflo (2003) and Gajwani and Zhang (2008) on scheduled castes and women in power; Besley, Pande, and Rao (2007, unpublished) on village chief councilors' identity and residential location; Khemani (2010) on employment and welfare transfers for winning re-elections, Keefer and Khemani (2009) on Indian legislators. On the other hand, Banerjee and Somanathan (2007) and Johnson (2009) also report that in the democracy of India, not all public good provisions are captured by officials.

Evidence from authoritarian regimes is scarcer. Khwaja and Mian (2005) showed that politicians' firms in Pakistan[2] get preferential treatment from government banks. In the context of China, Luo et al. (2007) find the association between village leaders and public good provision, but in case the village leader is competitively elected, and Persson and Zhuravskaya (2009) report more public good provision when provincial leaders built their career within the province. In Vietnamese context, Markussen and Tarp (2011) show that land improvement investments increase for households self-reporting to have connections to officials. Given the restricted access to data on political connections, there has been no study on systemic favoritism or nepotism in any authoritarian setting.

Anecdotal examples abound on excessive favors that dictators bestow on their hometowns in authoritarian regimes. Sirte was a small and unknown village in Libya until the early 1970s when it suddenly received massive government investments, which turned it into a real city. In 1988, the Libyan parliament and most government departments were even relocated from Tripoli to Sirte.

[1] See Hicken (2011) for a survey of clientelism and related concepts in political science.

[2] Khwaja and Mian use data from 1996 to 2002, during which Pakistan's Polity IV score drastically dropped to -6.

This special treatment was not a surprise to anyone: the town is the birthplace of Colonel Gaddafi, Libya's autocrat from 1969 until recently. In a similar vein, Félix Houphouët-Boigny, the dictatorial president of Côte d'Ivoire from 1960 until his death in 1993, moved the official capital city from Abidjan to the ten-time smaller town of Yamoussoukro in 1983, his birthplace. The new capital received massive public investments, including the completion in 1989 of the $300 million Basilica of Our Lady of Peace of Yamoussoukro on an area even larger than St. Peter's Basilica in Vatican City.

While anecdotal evidence is aplenty in the literature, most of the time it involves only dictators, or a very few top officials in a country. For example, Burgess et al. (2011) show evidence that presidents in Kenya[3] disproportionately invest in their regions of birth and ethnicity. The question is open as to how common and pervasive this practice is among other ranks in the government hierarchy. Although dictators like Colonel Gaddafi might regard their hometown as their last line of defense, officials at other levels in the government may not have such a strategic consideration or sufficient power to bend public resources. This becomes an empirical question, whose answer requires a sizeable dataset on officials' connections, and a sound identification strategy to deal with confounding unobservable factors that may affect both officials' position and their hometown.

We undertake our empirical analysis in the context of Vietnam in the years 2000s. Vietnam has been ruled by a single party, the Communist Party of Vietnam (CPV), since its unification in 1976. The ruling party practically selects and appoints positions in all political, executive and legislative bodies, including its own powerful Party Central Committee, as well as the government and 80% of the National Assembly. (The judiciary branch is weak, and the People's Supreme Court's Judge is counted as a member of the government.) In the selection process for political and executive bodies, power lies mostly in the Central Committee, and popular support plays only a minor role. While the National Assembly is elected by popular votes, the candidate selection process is also under tight scrutiny by the CPV, and the election is in truth more of a non-binding approval votes on the government.

[3] During the period of their study, Kenya's Polity IV score is -6 over the range from -10 to 10, i.e. in the range of autocracy (from -10 to -6). The Polity IV score examines concomitant qualities of democratic and autocratic authority in governing institutions, and is widely used in political science and political economy.

In this context, politicians are mostly accountable to the selectorate within the Party, and most are insulated from the population. As the commune is the lowest administrative level, averaging only a few thousand households, no single commune can harness any significant level of political or popular support for a ranking official. Because they play no role in the political selection process, existing theories of clientelism would not predict any systematic favor from officials. Therefore, the Vietnamese context of officials' home communes provides an excellent setting to eliminate concerns about strategic political behavior, leading to the interpretation of favor as evidence of social preferences.

In Vietnamese culture, hometowns are a significant part of each person's identity, as they represent the traditional geographical root of a person's patriarchal family. A hometown usually accounts for a person's patrilineage, in many cases up to hundreds of years in genealogical records. Bonds can exist among relatives from the same hometown even if they are genealogically four, five generations remote from one another. On the other hand, hometowns play no political role in a politician's career. A politician's family might have already moved away before he was born, or at some point during wartime before 1976. If not, the politician still must have moved away as soon as he ascended to any position at provincial level or higher. (We only consider hometowns in rural area.) Therefore, any affiliation between officials and hometowns originates mostly from the Vietnamese cultural and social norms.

Anecdotally, according to Vietnamese tradition, favors returned to one's hometown are widespread, as captured by the old saying that *"one person becomes a mandarin, his whole clan benefits."* They are usually fruits of combined efforts of both the officials and local officers. In one likely scenario, a commune leader from the newly promoted official's hometown may start the process by suggesting to the official certain projects that the hometown can benefit from, usually in the domain of infrastructure construction. In most cases, these projects are not at all under the official's authority. Nevertheless, the official can use his political capital to intervene in decisions on the commune's budget and project funding, possibly by making deals with appropriate authorities, and eventually get the project for his/her hometown. Due to the large amount of public investments in infrastructure at all levels during the last decade, this mechanism of giving and obtaining favors for hometowns has become rampant.

In our empirical investigation of this mechanism, we manually collect data on all officials in high office during the period 2000-2009, including all members of the Party Central Committee, all government positions of rank vice minister and above, all provincial leaders, and all members of the legislative National Assembly. Their hometowns are matched to data on communes, the lowest official administrative unit, as surveyed by the Vietnam Household Living Standards Survey (VHLSS, a World Bank-led survey project in Vietnam, and part of the World Bank's Living Standards Measurement Surveys). We use a fixed-effect identification strategy to estimate the impact of an officials' promotion to high office on the construction of new infrastructures in their hometown. The inclusion of year and commune-official fixed effects eliminates concerns of confounding interpretations of the empirical results due to time-invariant omitted variables or reverse causation channels.

We find strong evidence of favors addressed to officials' hometowns across several types of infrastructures, most notably road access to villages and construction of marketplaces. The promotion also increases the chance of the commune to benefit from the State's support for poor communes, a program supposed to select communes purely based on their level of hardship. On the other hand, there is no evidence of improved living standards in the home communes up to two years after the promotion. In further investigation of these results, we find that the impact of promotion depends on the official's political power; in particular, members of the National Assembly who are not committee chairs do not have much influence on their hometowns. On the other hand, the nepotism effect is pervasive even among non-provincial officials, who do not have formal, hierarchical authority over hometown budgets. The effect is found to be stronger when the hometown's commune chair's age is closer to the official's age, and where provincial institutional environment allows for more discretionary policies. These findings suggest that nepotism works through informal channels based on specific political power and institutional settings.

Given the top-down nature of political promotions, officials arguably do not help their communes in exchange for political support. In our analysis, nepotism is detected only for home communes and not for larger home districts, while even the later is still too small an administrative unit to provide any significant political support. We therefore deduce that the main motive of nepotism is a form of social preferences directed towards each official's hometown. The argument of directed altruism posits that an official has intrinsic utility in providing additional consumption and wealth to a group of social relatives defined by common or proximate social characteristics, such

as coming from the same greater family or the same clan, sharing the same caste, race, gender or religion, originating from the same geographical region, or having similar social and class status. When opportunities arise, the official may choose to exert influence on the allocation of public funding towards those social relatives.

The paper is organized as follows. Sections 2 to 5 respectively present the political background of Vietnam, the data collection and description, the methodology, and empirical results. The last section discusses the results and concludes.

2. CONTEXT OF THE STUDY

The Constitution of the Socialist Republic of Vietnam states that "The Communist Party of Vietnam […] is the leading force of the State and the Society." In practice, the country has been ruled singly by the Communist Party of Vietnam (CPV) since Vietnam's reunification in 1976. In the Vietnamese political structure, the three most important bodies (by the order of actual power) are the CPV, the Government, and the National Assembly. The CPV is headed by a General Secretary and its leadership includes a 15-member Politburo and a 150-member Central Committee. These are the most powerful people and decision-making entities in Vietnam, in charge of making key personnel and strategic decisions for the country.

The Government, headed by a Prime Minister and several Deputy Prime Ministers, is the executive branch of the state. Functionally, the Government consists of more than 30 ministries and ministry-level agencies. Geographically, the Government includes 64 provincial authorities called Provincial People Committees. An important difference between this structure and those of Western democracies is that local authorities are not independent but considered branches of the central government. There are three levels of the local authorities: provincial, district, and commune. The lower-level people committees report to the higher-level people committees.

The National Assembly is the legislative branch of the state. It consists of roughly 500 delegates elected from electoral districts based in the 64 provinces. The CPV closely controls the nomination and election process for the National Assembly (Malesky and Schuler, forthcoming). About 80 percent of the delegates are members of the CPV. Although the de facto power of the National Assembly has been expanded in recently, it is very limited compared to that of the CPV

and the Government. All laws and budget decisions are prepared by the Government before they are sent to the National Assembly for discussion and ratification.[4]

Similar to other authoritarian regimes, the ruling party selects, appoints, or influences the fillings of all government and political positions, including those in the three bodies discussed above. The nominal process is supposed to work as follows. In election years CPV members meet in Congresses, elect the Central Committee, Politburo, and ranking positions. The CPV then nominates candidates for the National Assembly and citizens vote to choose among these candidates. After that, elected delegates of the National Assembly vote to approve the Prime Minister and Cabinet Members nominated by the CPV. Then, the Prime Minister and Cabinet Members appoint all other positions in the Government. In practice, the CPV closely controls the selection of candidates, the communication between candidates and constituents, the election locations and procedure, and the counting of the votes. Malesky and Schuler (2009) document the controlling practices by the CPV in elections in Vietnam.

In Vietnam, since there is only one political party, there is no distinction between politicians, bureaucrats, and government officials. The career ladder in the government starts from the entry level and ends at the highest level of the Prime Minister without a threshold that distinguishes bureaucrats from politicians. Ranking members of the CPV and elected delegates of the National Assembly receive their salaries from the same system and source as do government bureaucrats.

For this study, it is also useful to understand how Vietnamese government officials may direct public investments in infrastructure toward their preferred communes. Subject to the level of funding required, the decision to build a commune road, school, clinic, kindergarten, or market is usually made in different stages by provincial, district, and then commune officials. These are the officials who can directly favor projects for certain communes. Officials at the central level, such as members of the Central Committee of the CPV, of the Government Cabinet, or of the National Assembly, usually do not have the formal, hierarchical authority to make decisions on local infrastructure. They must exercise their personal influence on the local officials, who have the authority in this matter, in order to get government projects for their preferred communes. The only exception to this is Program 135, the State's "poor commune support program" which aims to

[4] The judiciary branch of the government is called the Court System. It has very limited power and little independence from CPV. Its head, the Chief Justice of the Supreme Court, has never been even a member of the Politburo.

promote the development of especially difficult communes by, among other things, investing in commune infrastructure. The selection of "'especially difficult communes"' is made by the Central Government under the advice of a joint committee of several related ministries.

During the studied period, Vietnam experienced significant economic growth. GDP in real terms increased 6.5% per year on average from 2001 to 2010.[5] Together with this growth came a surge in infrastructure investment, which presents a window opportunity to do this study. The percentage of people living with under two dollar (PPP) per day fell from 68.7% in 2002 to 38.5% in 2008 (World Bank, 2011). The ethnicity of the Vietnamese is relatively homogenous: the Vietnamese accounts for 86% of the population and also controls the majority of important political positions. Buddhism is the dominant religion and is moderate. The Vietnamese culture, like many other traditional cultures, emphasizes the important of family and home village links. This leads us to the idea of testing the importance of these links in the political economy of Vietnam.

3. THE DATA

Finding political data from an authoritarian country is always challenging, and Vietnam is not an exception. There is no survey data and very limited public records regarding government officials and their personal backgrounds. We manage a team of research assistants to collect, enter, and check data on all ranking officials, all manually. Our data come from three main sources: data on the members of the Politburo and Central Committee are collected from the website of the Communist Party; data on the members of the National Assembly are collected from the website of the National Assembly; and data on ranking officials of the central and provincial government are collected from the hardcopy Yearbooks of Administrative Organizations. All of these three sources list the names of the officials and some background information, including their hometowns. The start and end dates of the positions are based on their official terms, covering a 10 year period from 2000 to 2009.

Data on local infrastructures and public goods come from the Vietnam Household Living Standard Survey (VHLSS). This survey is supported technically and financially by the United Nations, and is regarded as the most reliable data on living standards in the country. The VHLSS, which includes a commune survey and a household survey, is conducted every two years (2002, 2004, 2006, and 2008) from a random sample of about 3,000 communes out of about 11,000

[5] World Bank, World Data Bank, accessed August 8, 2011

communes in the country. The commune survey is conducted with commune officials while the household survey is conducted with a random sample of households in the commune. Our analysis exploits data from both surveys, including commune characteristics (i.e. area, population, average income, average expenditure, geographical zone, rural/urban classification), presence and quality of various types of infrastructure in the communes (i.e. roads, market places, utilities, irrigation systems, schools, clinics/hospitals, cultural centers, radio broadcasters, bank branches), and commune chairman characteristics (i.e. age, gender, education, years in position, previous position).

We then match each official to a commune based on his/her hometown. Only communes classified as rural are included so as to avoid the complexity of infrastructure development in urban areas. We also eliminate matches of provincial officials who hold positions in provinces that are different from those of their hometowns. This results in a total of 468 matches, covering 468 officials out of a total of 1,719 for which data are collected, and 392 communes. These 468 officials hold a total of 753 positions, consisting of 133 positions (17.7%) in the Party Central Committee, 117 positions (15.5%) in the Central Government, 321 positions (42.6%) in the National Assembly, and 182 positions (24.2%) in Provincial People Committees. All 63 Vietnamese provinces are covered in this sample of 392 communes.

Finally, we construct our benchmark sample based on these matches, in which each observation combines an official, his/her rural home commune, and a year for which VHLSS data for this commune are available (2002, 2004, 2006, or 2008). This benchmark sample consists of 1,609 observations, roughly equally distributed over the years (428, 401, 400, and 380 observations for the years 2002, 2004, 2006, and 2008 respectively).

4. EMPIRICAL STRATEGY

We use fixed-effect regressions in panel data to identify the impact of officials' promotions on infrastructure construction in their rural home communes. Our benchmark regression considers each unit of observation as a combination of a ranking official, as defined in the previous section, his/her rural home commune, and a year of observation, depending on data availability for the commune in the VHLSS. This connection is unique for each official, but not for each commune: we only consider communes that are connected to at least one official. The outcome variable is the presence of each type of infrastructure in each hometown in a given year of observation. The

treatment variable is the number of positions ever held by each official, starting from 2000 until the year of observation. By including fixed effects for each year, each geographical zone, and each pair of official and home commune, the regressions yield the estimate of having one new ranking position on the official's hometown infrastructure. The multitude of fixed effects in use ensures that the estimate is unconfounded by any unobservable characteristics belonging to the same year, the same geographical zone, or the same pair of official and hometown.

The main regression equations are as follows:

$$Infrastructure_{cpt} = \beta AccumulatedPower_{p,t-L} + \boldsymbol{X}_{cpt} + \delta_t + \delta_{cp} + \varepsilon_{cpt}.$$

The indices c, p, and t respectively represent the home commune c of official p in year t. L denotes the possible lag in year(s) after a promotion. The left hand side variable *Infrastructure* refers to the presence of one of different types of infrastructure in the commune, including road access to villages, local radio station, preschools and schools, irrigation and water systems, and marketplaces. The vector $\boldsymbol{X}_{cpt}$ regroups observable controls by commune, official, and year; the fixed effects by year and by commune-official pair are respectively denoted as δ_t and δ_{cp}; and ε_{cpt} is the error term. The right hand side variable *AccumulatedPower* adds up all ranking positions ever held by each official until year t-L.

In some specifications where there is little variation at the commune level, such as road access to commune that is already present in most communes, we use the corresponding village level outcome variable. Such variable is measured in a village randomly sampled by the VHLSS in that commune, for instance, the presence of asphalt road access to the village. It is then a noisy measure of the proportion of villages in the commune with that type of infrastructure, e.g. asphalt road access, in which the measurement error is a classical sampling error independent of all right-hand-side variables. The presence of this measurement error only increases the standard errors of estimators, without affecting their consistency. We can thus interpret the estimate of β as the effect of an official's promotion on the proportion of villages in his/her home commune with a certain type of infrastructure.

As explained above, *AccumulatedPower* is calculated using all ranking positions previously held by each official, including terminated ones. In Vietnam, while the ascension to a new position is a significant change, most of the times leaving a ranking position before retirement only means a switch to another, usually more important one. Most commonly, such switches do not prevent the

official from having strong influences on his/her previous office, even in case of retirement. For instance, a former minister of education may relinquish that position to become deputy prime minister; however, he can still exert particularly strong influences on the ministry of education. In other words, the relative importance of an official in the government is best measured by the accumulation of important, ranking positions. We accordingly ignore the officials' departures from current office, and focus only on promotions. Empirically, promotions turn out to be much more influential than departures, as the results become much noisier if we include information on departures.

In presence of the commune-official fixed effect, the fixed-effect estimator of β is identified by the changes of *AccumulatedPower* within each pair of commune and official. It is effectively interpreted as the effect of an official's one more ranking position, i.e. having accumulated more power, on the probability of infrastructure improvement in his/her home commune. In a framework with heterogeneous effects, the estimator is the treatment effect averaged over all officials where we observe a new ranking position, i.e. a change in *AccumulatedPower*, during the considered period. Thanks to the fixed effects, the estimate of β is not confounded by any time-invariant characteristics of the pair commune-official, including geographical conditions of the commune such as distance to large cities, distance to major rivers and water sources, and background conditions of the official including gender and education, year of participation in the ruling party, and year of first ranking position. The inclusion of a year fixed effect further dilutes concerns about macroeconomic changes that could affect both new promotions and infrastructure constructions.

As discussed previously on the political background in Vietnam, the reverse causation channel is implausible in this context. Communes have no significant political importance whatsoever in Vietnamese institutions, especially in rural areas. It is unlikely that new infrastructures in a single commune may affect in any way the lot of a ranking official at the central level.

There may still be a more realistic concern of omitted factors, such as provincial economic activities, affecting both the official's accumulation of power and his/her entire home province, to which the home commune belongs. In additional regressions not presented in this draft, we ascertain that this omitted variable bias is absent by showing that there is practically no significant effect if all surveyed communes in the home province are counted as connected to the official.

Additional placebo tests are performed for infrastructure constructions happening before the promotion, as well as for non-office holding positions in the National Assembly renowned for their lack of influence. In these placebo tests, the absence of effects assures that the estimated effect comes from new promotions of hometown-bound officials, not some other events happening at the same time.

5. RESULTS

In this section, we report our main empirical findings on the impacts of an official's new promotion to a ranking position on infrastructure construction in his/her rural home commune, with additional results from alternative specifications with different lags and using different observation units. We also investigate the determinants, channel, and motive of this type of nepotism.

5.1 THERE IS EVIDENCE OF WIDESPREAD NEPOTISM

We first present our estimations of the impacts of an official's new promotion to a ranking position on the construction of various types of infrastructure in his/her rural home commune across different lags. Each observation combines an official, his/her rural home commune, and a year for which VHLSS data for this commune are available (2002, 2004, 2006, or 2008). For each official, we sum up the number of ranking positions that official had held up to the year of observation, as described in the previous section. For each commune, we obtain data on the presence of various types of infrastructure, including roads, market places, utilities, irrigation systems, schools, clinics/hospitals, cultural centers, radio broadcasters, bank branches, etc.[6], in the year of observation from the corresponding VHLSS. We then estimate the impact of an official's new promotion on the construction of each type of infrastructure in his/her home commune by relating the number of ranking positions he/she had to the presence of each infrastructure in the commune, using different lags, controlling for commune current average income and population, and including year, zone, and commune-official fixed effects. Panel A of Table 1 reports salient results for each different lag.

[6] Throughout this section, please see data appendix for detailed variable descriptions.

[Insert Table 1 Panel A here]

We find strong positive effects on several outcomes, some with lag, including construction of local radio broadcasters and improvement of local roads within the year of the promotion, construction of preschools, irrigation systems, and clean water access with a one-year lag, and construction of commune market places with a two-year lag.

The effect is immediate for the construction of local radio broadcasters and the improvement of local roads. As shown in column (1), a native official's new promotion increases the probability of having a local radio broadcaster by an estimate of 3.3%, statistically significant at 10%. Column (2) shows a similar effect of 6.1%, statistically significant at 5%, on local road quality. This outcome variable is measured as the grade of road access (detailed in data appendix) to a village randomly sampled by the VHLSS in the commune. As discussed in the previous section, the estimate in column (2) can be interpreted as the impact of an official's promotion on the proportion of villages in his/her home commune with higher-grade road access.

A new promotion takes effect on other outcome variables with lags. With a one-year lag, we find positive impacts of the promotion on the presence of preschools, irrigation systems, and clean water access (in wet seasons), as presented in columns (3) to (5). The effects are 2.0%, significant at 10%, 5.8%, significant at 10%, and 4.2%, significant at 5% respectively. With a two-year lag, there is strong evidence of impact on the presence of commune market places, with an estimate of 5.8% at 5% significance. The different lags observed for different outcome variables could be explained by the time required for the construction of different types of infrastructure, as a local radio broadcaster can be easily setup within one year while a commune-level market will require considerably more time to be established. The effects of a new promotion on other outcome variables or on these same variables but with different lags, though noisier, are also qualitatively consistent with the above findings.

Panel B of Table 1 reports further checks on the effect of an official's new promotion on other type of outcome variables, including commune average income, expenditure, population, etc., all with a one-year lag and year, zone, and commune-official or province fixed effects.

[Insert Table 1 Panel B here]

Column (1) and (2) show there is no evidence that an official's new promotion improves (or reduces) his/her rural home commune's living standards in terms of its average income and expenditure. Both estimates are only about 0.1% and not statistically significant. Similarly, the promotion does not affect the commune population as presented in column (3). Nevertheless, column (4) shows that the promotion has a significant effect of 1.4% on the commune's inclusion into the State's "poor commune support program," while, interestingly, the commune average income – the key criterion for such inclusion – does not have any such effect. In other words, the official's promotion improves the hometown's chance to benefit from the program. Finally, column (5) reports the effect on aggregate infrastructure in the home commune, calculated as the total number of existing infrastructure items as surveyed by the VHLSS (detailed in data appendix). The estimate is 16.8%, significant at 5%, suggesting that the promotion increases the probability of any new infrastructure construction by as much as 16.8%.

The benchmark sample used in Panels A and B includes communes where some types of infrastructure were already present at the beginning and throughout the period from 2002 to 2008. Excluding these communes from the benchmark sample, with respect to each type of infrastructure, gives us a more precise estimate of the impact of an official's new promotion on the construction of the respective type of infrastructure in his/her rural home commune. Panel C of Table 1 reports the benchmark regression results using such refined samples.

[Insert Table 1 Panel C here]

We find that not only do the estimates derived from these refined samples remain statistically significant despite much smaller sample sizes (with the exception of pre-school construction), they are also considerably larger than those derived from the benchmark sample reported in Panel A. The estimated impact on local road quality increases from 6.1% in Panel A to 9.6% in Panel C, while that on commune marketplaces increases from 5.8% to 12.6%. The increases in estimated impacts on local radio broadcasters, irrigation systems, and clean water access are from

3.3% to 16.1%, from 5.8% to 11.7%, and from 4.2% to 7.6% respectively. These results are consistent with the claim of widespread nepotism among Vietnamese officials, shown in the form of newly bestowed infrastructure projects in their home communes.

For robustness checks, we explore alternative specifications using different controls, different fixed effects, different lags, and different observation units for two key outcome variables: local road quality and presence of commune marketplaces. These are arguably two most important variables to commune economic development. Table 2 summarizes this exercise.

[Insert Table 2 Panel A here]

In Panel A of Table 2, we explore the effect of a native official's new promotion on local road quality (detailed in data appendix) under various specifications. Column (1) shows the benchmark specification with immediate effect, controlling for commune average income and population, and year, zone, and commune-official fixed effects as presented in Table 1. Columns (2) to (4) test the results with different controls, including no fixed effect, year fixed effect only, and commune-official fixed effect only. All estimates are significant, being 2.8%, significant at 1%; 4.5%, significant at 10%, and 14.4%, significant at 1% respectively. Columns (5) to (7) vary the time lag from a year before the promotion to two years after. Column (5) includes both *AccumulatedPower* at one year after the year of observation, i.e. its one-year forward value, and *AccumulatedPower* at the current year of observation, in order to separate the effect of the promotion from potential noises that arise from even before the promotion. The 1-year forward value provides a placebo test of the effect: before the year of the promotion, we should not expect an effect on the outcome. Results from column (5) pass this test, as the coefficient of the 1-year forward value of *AccumulatedPower* is not significant at conventional levels, while the coefficient of the present value *AccumulatedPower* is large at 8.0% and statistically significant at 1%. Columns (6) and (7) use *AccumulatedPower* at one and two year(s) before the year of observation, i.e. its one-year and two-year lag values. The result with a one-year lag is significant at 10% while the result with a two-year lag is not, suggesting that the improvement in local road quality happens mostly in the immediate time window after the promotion.

Lastly, while our benchmark regressions treat each combination of an official, his/her home commune, and a year as equally weighted, in columns (8) and (9) we use alternative observation units to verify that the results are not driven by over-weighing or under-weighing certain communes. Column (8) uses a finer observation unit by combining a ranking position (an official can have multiple ranking positions), the home commune of the official in the position, and a year; the treatment variable *AccumulatedPower* then takes binary values of 0 or 1. On the other hand, column (9) uses a coarser observation unit of a commune in a year of observation, with the treatment variable *AccumulatedPower* adding up all ranking positions accumulated by all officials coming from that commune. The impact estimates using these observation units are very close to the benchmark estimate, being 5.6% and 5.2% respectively, and both statistically significant at 5%.

[Insert Table 2 Panel B here]

We employ similar robustness checks for the outcome variable representing the presence of commune marketplaces in Panel B of Table 2. Column (1) shows the benchmark specification with a two-year lag and the full set of controls. Columns (2) to (4) test the results with different controls. Columns (5) to (7) vary the time lag from one-year forward to two-year lag. There is no evidence of effect in any of these columns, suggesting that the construction of commune marketplaces only completed a few years after the promotion due to its relatively larger scale. Columns (8) and (9) use alternative observation units. The coefficients in columns (2) to (4) and (8) to (9) are close to the benchmark estimate, even when some are not statistically significant at conventional levels due to small sample sizes.

5.2 THE EFFECT OPERATES THROUGH INFORMAL CHANNELS BASED ON POLITICAL POWER

In this section, we investigate the channels of the nepotism found in the previous subsection. Since the existing literature on favoritism in autocratic regimes has mostly focused on top-level officials, we will first explore how pervasive this nepotistic mechanism is among other ranks of Vietnamese officials by limiting the sample to only officials at medium-ranking positions and to only those without formal, hierarchical authority over hometown budgets. Table 3 reports the results from this investigation.

[Insert Table 3 here]

Columns (1) and (2) show the results for the same two key outcome variables – local road quality and presence of commune marketplaces – using the subsample of medium-ranking officials. This sample includes officials at positions equivalent to ordinary members of the Central Committee, ministers and deputy ministers in the government, chairmen and vice-chairmen of National Assembly committees,[7] and provincial leaders. The estimate of impact on improvement in local road quality is 7.3% and that on the presence of commune marketplaces is 6.6%, both significant at 5%. This is evidence that nepotism is not limited to only top-level officials, as shown in the existing literature, but pervasive also in the midrange of Vietnamese politics.

So far, the evidence is suggestive of an informal channel of influence that may involve the use of political power within the system. However, it is also consistent with an institutionalized mechanism in which officials, through their top-down hierarchical capacity, choose better infrastructure projects through formal institutions, based on their knowledge about their hometowns. We find further evidence for an informal channel of impact, as opposed to the formal mechanism, by excluding provincial leaders from the benchmark sample in columns (3) and (4). The effect on local road quality is 6.5%, significant at 5%, and the effect on the presence of commune marketplaces is 3.5%. While not statistically significant, its magnitude is comparable to that derived from the benchmark sample. This cannot be explained by the provincial leaders' direct hierarchical authority over district-, and then commune-level budgets. The sample is mostly composed of members of the Party's Central Committee, central government officials, and National Assembly committee chairs, whose capacity can be very remote from infrastructure construction. Therefore, the evidence suggests that the effect most likely operates through informal channels within the political system.

Finally, columns (5) and (6) show the results of the same regressions using the intersection of the aforementioned two subsamples: the subsample of medium-ranking officials who do not have

[7] The chair-holding positions in the National Assembly are also as closely selected by the Party apparatus as similarly ranked positions in the government. They also hold real power, unlike the non-chaired members in the National Assembly.

formal, hierarchical authority over hometown budgets. Both estimates – 7.8% for local road quality and 7.3% for presence of commune marketplaces – are comparable to those derived from the benchmark sample in magnitude, though not statistically significant at conventional levels due to small sample sizes. These results show evidence that nepotism among Vietnamese officials is a phenomenon not limited to only top level officials but widespread across the ranks of officials, including those who do not have the direct hierarchical authority over hometown budget.

If an official uses his power to channel resources to his/her hometown, the extent of this misuse of office privileges should depend positively on the political power at hand. We can then further investigate the variation of the estimated effect along the line of officials' ranks, expecting the association between more important positions and more benefits for hometowns. Since in the Vietnamese context the power of each position can hardly be unambiguously ranked, we proceed with this test by dividing the sample along the most salient line of separation: that between executive and party ranking positions, and parliamentary positions. While ranking positions in the CPV and the Government provide some strong influence in the government apparatus, holding a mere seat in the National Assembly, without chairing a committee, usually does not imply much power. A regular, non-chair member of the National Assembly without another ranking position in the CPV or the Government can hardly use his/her parliamentary membership as leverage for any real benefits, while a member of the National Assembly already having another ranking position in the CPV or the Government can make use of that other position with much more effect. Therefore, by limiting the sample to all non-chair positions in the National Assembly, we do not expect to find a strong effect of an official's new promotion to such positions on his/her home commune infrastructure construction. On the other hand, the effect is expected to be strong in the subsample excluding those positions. Table 4 reports the corresponding results.

[Insert Table 4 Panels A and B here]

Panels A and B of Table 4 show the results from the benchmark regressions presented in Table 1 with subsamples divided by positions' empowerment, as described above. The subsample in Panel A includes all CPV and Government ranking positions, as well as chair-holding members in the National Assembly. The subsample in Panel B includes the remaining, which are non-chair

members of the parliament. If an official happens to be both (e.g. a minister who is also a non-chair parliamentary member), he/she is included in both subsamples; however, the corresponding independent variable *AccumulatedPower* only reflects the relevant positions for each subsample. Incidentally, these two subsamples are of roughly the same size.

As expected, columns (2) and (6) of Panel A show large and significant effects of a native official's promotion to a more empowered ranking position on local road quality and the presence of commune marketplaces, while the corresponding columns in Panel B show no evidence of impact on these same variables. The estimate for improvement in local road quality in Panel A is 9.4%, statistically significant at 1%, as compared to a non-significant estimate of 1.9% in Panel B. Similarly, the estimate for construction of commune marketplaces in Panel A is 7.4%, statistically significant at 5%, as compared to a non-significant estimate of 5.2% in Panel B. These findings are consistent with our prediction that officials promoted to more empowered ranking positions have better opportunities to redirect resources to their hometowns. Results in the remaining columns are qualitatively similar, although less significant, with the exception of those for clean water access.

We now explore the role of the institutional environment in which the mechanism takes place, using a measure of provincial governance. As commune budgets are decided by district and province authorities, ranking officials must seek approval from these offices to intervene in infrastructure constructions at their hometowns. Consequently, when the provincial leadership has more flexibility in crafting policies, they can better commit to, and honor quid-pro-quo deals with ranking officials, so the latter are expected to be more capable of channeling resources to their hometown budgets. We test this hypothesis with the use of provincial governance indicators taken from the Vietnam Provincial Competitiveness Indices (PCI), a set of survey-based indices of industries' governance perception that has been systematically implemented with the help from the UNDP since 2006. Among the available indicators, we select the three that are relevant to the measurement of the discretionary power of the provincial leadership, including the index of provincial leadership proactiveness, the index of the lack of informal costs to business, and the transparency score of the province. We synthesize a composite measure of provincial discretionary policies, abbreviated as PDP, as the proactiveness score minus the score on lack of informal costs, minus transparency score, and take its average over the period of 2006 to 2008 where the PCI overlaps with our sample. Similarly to previous subsections, the sample is divided at the median of PDP scores; Table 5 reports the benchmark regression results with the two resulting subsamples.

[Insert Table 5 Panels A and B here]

Panels A and B of Table 5 present the benchmark regression results with subsamples of communes in provinces with above-median PDP scores (i.e. where provincial leaderships have more discretionary power) and those with below-median PDP scores respectively. The effects of a native official's promotion on two key outcome variables – local road quality and presence of commune marketplaces – in each subsample as shown in columns (2) and (6) of each panel confirm our hypothesis that more flexible provincial institutional environment better allows ranking officials to influence new infrastructure construction in their home communes. In the subsample with higher PDP scores, the estimates for improvement in local road quality and construction of commune marketplaces are both large (7.7% and 8.4% respectively) and significant (at 5%), while in the other subsample, the effects are not statistically significant at conventional levels.

5.3 NEPOTISM IS LIKELY TO BE DRIVEN BY ALTRUISTIC MOTIVES

In most studies of political favoritism, the challenge to distinguish among motives of favoritism is insurmountable. Officials may favor their friends and relatives because of their intrinsic preferences directed towards their kin, or because of strategic calculation in building and/or profiting from a political base. For instance, the politics of pork barrel is explained as rewards to political constituencies, and ethnic favoritism by certain dictators also serves to build a supporting coalition.

In our empirical context, we argue that the evidence of nepotism found at commune level is an indicator of the officials' altruistic motives, given that rural communes, which are of tiny size and significance, play no role in providing support to, or penalizing the officials' ascension to power. In an alternative story where an official searches for local political support, he/she should be granting favors to his/her home province, not just her home commune. In that scenario, we should be able to detect similar effects on infrastructure construction throughout the official's home district, if not the whole province. We thus test for the political support mechanism by replicating the set of benchmark regressions on samples that match ranking officials to their home districts, instead of their home communes. Table 6 summarizes the results from this exercise.

[Insert Table 6 Panels A and B here]

Each observation used in Panel A of Table 6 combines a ranking official, his/her home district, and a year for which VHLSS data for at least one commune in the respective district are available. The value of each outcome variable at district level is then calculated as the average over all the surveyed communes in the district. The resulted estimates are all well below 1% and none is statistically significant at conventional levels, thus rejecting the explanation that ranking officials grant favors to their hometowns in exchange for political support at local level. In Panel B of Table 6, we estimate the impacts of an official's new promotion on infrastructure construction in other communes in his/her home district, using a sample in which each observation combines a ranking official, a non-home commune in his/her home district, and a year for which VHLSS data for the respective commune are available. Again, all the resulted estimates are close to zero and not statistically significant. These results show strong evidence that the observed nepotism is driven by officials' social preferences toward their hometowns instead of by their aim to gain political support.

The previous results show that nepotism is unlikely motivated by strategic concerns of political supports. We now further explore the connection between a ranking official and his/her rural home commune as a determinant of the nepotism effect. We use the age gap between the official and the commune chairperson as a proxy for the facility of connection. In Vietnam, most projects related to the commune need the commune chairperson's active support. If the commune chairperson is of the same generation as the related official, it will facilitate the process of obtaining and completing infrastructure projects.[8]In Table 7, we report the results from the benchmark regressions with subsamples divided according to the age gap between the official and his/her home commune's chairperson, using the sample median of 10 years of age gap as the division threshold.

[Insert Table 7 Panels A and B here]

[8]VHLSS is fortunately one among the very few surveys of the World Bank's Living Standards Measurement Surveys where there is information on commune officials.

Panels A and B of Table 7 present the benchmark regression results for the subsamples of communes where the age gap is below and above 10 years respectively. Panel A shows that a commune benefits greatly from a native official's promotion when the commune chairperson and the official are of the same generation: the estimate for improvement in local road quality is 10.0%, significant at 1%, and those for irrigation system and clean water access are respectively 9.5% and 4.8%, both significant at 10%. All coefficients in Panel A are considerably larger than their counterparts in Panel B, where the commune chairperson is not of the same generation as the official. In fact, the only significant effect in Panel B is that of local road quality, but even that effect is only two third of the corresponding effect found in Panel A. The evidence suggests that commune chairs play an active role in the mechanism at work, and all the more so when they are closer to the promoted native officials.

To further investigate the determinants of the nepotism, we study its variation over commune's average income and population size. If nepotism is principally motivated by an official's social preferences directed towards his/her hometown, we expect the effect to be declining in the commune's average income, as the official is less willing to "give" to his/her wealthier relatives. This decline should be similar for the two key infrastructures in our paper, measured as local road quality and presence of commune marketplaces. On the other hand, one may expect the benefits per capita of a marketplace to be increasing in the population size, thanks to the economies of scale of such organization. Therefore, the effect on marketplace construction is expected to be increasing in the population size of the commune. Since the economies of scale are much less clear in the case of village roads, we should not expect a clear relationship between the effect on local road quality and the commune population size.

The variation of the nepotism effect on local road quality and presence of commune marketplaces is best illustrated with graphs that show the non-parametric relationship between each effect and the baseline variable (population size or average income). We construct such graphs by running semi-parametric local linear regressions of the outcome variable (namely local road quality or commune marketplace) at each value of the baseline, weighted by a Gaussian kernel with a bandwidth of 10% of the total range of the baseline,[9] on the treatment variable of *AccumulatedPower* (with two-year lag for presence of commune marketplaces) together with the controls and fixed

[9]The results are very similar when we vary the bandwidth from 5% to 20% of the total range.

effects in the benchmark regression, then use the estimated effect as the local, semi-parametric estimate of a native official's promotion on the outcome at each value of the baseline variable. To demonstrate an example, in Figure 1A, we divide the full range of the logarithm of commune's average income into a 100-point grid, run a local linear regression of village road quality on *AccumulatedPower* with Gaussian kernel weight at each of these points, using all controls and fixed effects in the benchmark regression in Table 1A, then report the estimated coefficient of *AccumulatedPower* as a point on the graph.

Figures 1A and 1B then report the variations of nepotism according to average income for local road quality (Figure 1A) and presence of commune marketplaces (Figure 1B). Both figures clearly show a sharp drop in nepotism at a certain level of income, consistent with the explanation using social preferences directed towards hometowns. Figures 2A and 2B show the analogous variations according to population size. While it is hard to recognize the trend in the effect for local road quality, we can see clearly the increasing effect for presence of commune marketplaces for the most important range of values of population size. The findings from Figures 1A, 1B, 2A and 2B strongly support our explanation of the directed social preference motives by Vietnamese officials.

In summary, our empirical findings as presented in this section show strong evidence that ranking officials in Vietnam use their power through informal mechanisms to channel resources to their home communes in the form of infrastructure projects, such as road quality improvement and marketplace construction. This (mis)allocation mechanism is most likely motivated by their social preferences directed towards their hometowns.

6. CONCLUDING REMARKS

In this paper, we attempt to show a causal link between an official's promotion to a ranking position in high office and infrastructure development in his/her home commune. Using a fixed effect model on panel data of commune infrastructure, we find evidence of widespread nepotism in different types of infrastructure including roads, marketplaces, irrigation, schools, radio stations, safe water, and access to the State's "poor commune support program" (Program 135). The magnitude of this nepotism depends on the position of the official, the respective provincial environment, and the connection between the official and his/her rural home commune. While medium-ranking officials in the Government have significant ability to exercise nepotism, non-chair members of the

legislative National Assembly do not. This power difference is in stark contrast to the politics that we have known in democracies. Further, ranking officials without formal, hierarchical authority over local budgets can evidently direct resources to their hometown budgets, suggesting that nepotism is exercised through informal influence. Communes better connected to the promoted native officials and in provinces where provincial leaderships have more discretionary power tend to reap more benefits from nepotism.

We also observe that ranking officials target their favors narrowly to their small home communes instead of bestowing it over their whole home districts. The entire population of a commune is politically insignificant in the Vietnamese context, and unlikely to matter to the official's career. It is thus unlikely that the findings are due to reverse causation, or the possibility of strategic behaviors in building political supporting bases. We also use year and commune-official fixed effects to eliminate concerns of time-invariant unobservable factors affecting both the promotion and the outcomes. Therefore, the results suggest a form of social preference towards social relatives that prevail in environments with low transparency, high discretionary power of local officials, and a strong social connection between ranking officials and their relatives along social lines such as ethnicity, race, clan, or geographic origins.

One may expect marginal incentives for corruption, defined as the abuse of public offices for personal gains, to diminish as the office holder becomes richer. However, if the office holder also has strong interests in channeling public resources to his/her social relatives, and this is without any strategic consideration of quid-pro-quo deals for support, then his/her appetite for corruption may not diminish with his/her accumulation of wealth. This is an important factor to design measures against corruption. The implications of this "hometown nepotism" are perhaps not restricted to only authoritarian regimes but also relevant to most developing countries where democracy and transparency are less than adequate.

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8. TABLES AND FIGURES

Table 1: Benchmark results

Panel A: Major results

We estimate the impact of an official's new promotion to a ranking position on the construction of each type of infrastructure in his/her home commune by relating the number of ranking positions accumulated by the official to the presence of each infrastructure in the commune, using different lags, controlling for commune current average income and population, and including year, zone, and commune-official fixed effects. Panel A reports salient results for each different lag.

	(1)	(2)	(3)	(4)	(5)	(6)
Time lag	Immediate	Immediate	1-year lag	1-year lag	1-year lag	2-year lag
Dependent variable	RadioBroadcaster	VillageRoadType	Preschool	Irrigation	CleanWater	MarketPlace
AccumulatedPower	0.0334	0.0607				
	[0.0195]*	[0.0237]**				
AccumulatedPower_L1			0.0201	0.0583	0.0415	
			[0.0112]*	[0.0331]*	[0.0187]**	
AccumulatedPower_L2						0.0579
						[0.0234]**
logComAvgInc	0.0139	0.0366	0.00571	-0.0464	0.0473	0.0125
	[0.0271]	[0.0306]	[0.0132]	[0.0553]	[0.0310]	[0.0362]
logComPop	0.0511	0.0678	0.0801	0.241	0.0249	0.0878
	[0.0895]	[0.0871]	[0.0617]	[0.171]	[0.0679]	[0.100]
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
ComOfficial FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,161	1,541	1,163	1,161	1,536	1,163
R-squared	0.738	0.578	0.575	0.588	0.726	0.773

Robust standard errors in brackets are clustered at commune-year level. Statistical significance is denoted by *** (p < 1%), ** (p < 5%), and * (p < 10%).

Table 1: Benchmark results

Panel C: Major results, excluding communes that already have corresponding infrastructures

For each type of infrastructure previously reported in Panel A, we replicate the benchmark regression on a subsample excluding communes where the corresponding infrastructure was present throughout the period. Panel C reports reports similar salient results from these subsamples.

	(1)	(2)	(3)	(4)	(5)	(6)
Time lag	Immediate	Immediate	1-year lag	1-year lag	1-year lag	2-year lag
Dependent variable	RadioBroadcaster	VillageRoadType	Preschool	Irrigation	CleanWater	MarketPlace
AccumulatedPower	0.161	0.0964				
	[0.0885]*	[0.0371]***				
AccumulatedPower_L1			0.298	0.117	0.0758	
			[0.301]	[0.0617]*	[0.0350]**	
AccumulatedPower_L2						0.126
						[0.0563]**
logComAvgInc	0.0775	0.0732	0.0110	-0.103	0.0778	0.0158
	[0.0927]	[0.0560]	[0.233]	[0.113]	[0.0514]	[0.0733]
logComPop	0.249	0.120	-0.630	0.341	0.0207	0.435
	[0.344]	[0.193]	[0.688]	[0.232]	[0.119]	[0.289]
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
ComOfficial FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	289	899	59	620	856	473
R-squared	0.463	0.428	0.409	0.322	0.440	0.449

Robust standard errors in brackets are clustered at commune-year level. Statistical significance is denoted by *** (p < 1%), ** (p < 5%), and * (p < 10%).

Table 1: Benchmark results

Panel B: Benchmark checks

Panel B reports further checks on the effect of a native official's new promotion on other type of outcome variables, including commune average income, expenditure, population, inclusion into the State's "poor commune support program", and aggregate infrastructure, all with a one-year lag and controlling for year, zone, and commune-offcial or province fixed effects.

	(1)	(2)	(3)	(4)	(5)
Time lag	1-year lag	1-year lag	1-year lag	1-year lag	1-year lag
Dependent variable	logComAvgInc	logComAvgExp	logComPop	PoorClassification	AggregateInfrastructure
AccumulatedPower_L1	0.0108	-0.00448	-0.00410	0.0141	0.168
	[0.0253]	[0.0170]	[0.00646]	[0.00798]*	[0.0825]**
logComAvgInc				0.00115	0.0535
				[0.0202]	[0.142]
logComPop				-0.0910	2.284
				[0.0268]***	[0.714]***
Year FE	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes
ComOfficial FE	Yes	Yes	Yes		Yes
Province FE				Yes	
Observations	1,550	1,550	1,541	1,540	1,154
R-squared	0.689	0.780	0.953	0.433	0.772

Robust standard errors in brackets are clustered at commune-year level. Statistical significance is denoted by *** (p < 1%), ** (p < 5%), and * (p < 10%).

Table 3: Pervasiveness of nepotism

Table 3 reports benchmark regression results for two key outcome variables - VillageRoadType and MarketPlace - using subsample of medium-ranking officials, and subsamples of ranking officials with and without formal, hierarchical authority over hometown budget.

	(1)	(2)	(3)	(4)	(5)	(6)
Subsample	Medium-ranking	Medium-ranking	Without authority	Withoutt authority	Medium-ranking & Without authority	Medium-ranking & Without authority
Dependent variable	VillageRoadType	MarketPlace	VillageRoadType	MarketPlace	VillageRoadType	MarketPlace
AccumulatedPower	0.0727		0.0645		0.0780	
	[0.0355]**		[0.0278]**		[0.0540]	
AccumulatedPower_L2		0.0658		0.0350		0.0728
		[0.0278]**		[0.0360]		[0.0665]
logComAvgInc	0.0423	-0.0140	0.0294	0.0187	0.0373	-0.0321
	[0.0397]	[0.0358]	[0.0340]	[0.0435]	[0.0566]	[0.0458]
logComPop	0.0419	0.0645	0.0642	0.0665	0.0298	-0.0269
	[0.104]	[0.100]	[0.100]	[0.116]	[0.142]	[0.0917]
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
ComOfficial FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	836	633	1,240	935	507	384
R-squared	0.583	0.815	0.571	0.753	0.570	0.786

Robust standard errors in brackets are clustered at commune-year level. Statistical significance is denoted by *** (p < 1%), ** (p < 5%), and * (p < 10%).

Table 2: Alternative specifications and robustness checks

Panel A: Robustness checks with dependent variable VillageRoadType

Panel A explores the effect of a native official's new promotion on local road quality under various specifications, including using different controls and fixed effects, with different lags, and using different observation units.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Specification	Benchmark	No FE	Year FE	ComOfficial FE	1-year forward	1-year lag	2-year lag	ComPosition unit	Commune unit
Dependent variable	VillageRoadType	VillageRoadType	VillageRoadType	VillageRoadType	VillageRoadType	VillageRoadType	VillageRoadType	VillageRoadType	VillageRoadType
AccumulatedPower	0.0607	0.0677	0.0245	0.144	0.0804			0.0562	0.0515
	[0.0237]**	[0.0118]***	[0.0128]*	[0.0179]***	[0.0306]***			[0.0233]**	[0.0210]**
AccumulatedPower_F1					-0.0327				
					[0.0314]				
AccumulatedPower_L1						0.0429			
						[0.0226]*			
AccumulayedPower_L2							0.0383		
							[0.0261]		
logComAvgInc	0.0366				0.0360	0.0362	0.0376	0.0222	0.0322
	[0.0306]				[0.0307]	[0.0307]	[0.0306]	[0.0349]	[0.0293]
logComPop	0.0678				0.0707	0.0694	0.0651	0.0623	0.143
	[0.0871]				[0.0872]	[0.0869]	[0.0862]	[0.0992]	[0.0936]
Year FE	Yes		Yes		Yes	Yes	Yes	Yes	Yes
Zone FE	Yes				Yes	Yes	Yes	Yes	Yes
ComOfficial FE	Yes			Yes	Yes	Yes	Yes		
ComPosition FE								Yes	
Commune FE									Yes
Observations	1,541	1,550	1,550	1,550	1,541	1,541	1,541	2,524	1,270
R-squared	0.578	0.020	0.050	0.562	0.579	0.577	0.577	0.571	0.580

Robust standard errors in brackets are clustered at commune-year level. Statistical significance is denoted by *** (p < 1%), ** (p < 5%), and * (p < 10%).

Table 2: Alternative specifications and robustness checks

Panel B: Robustness checks with dependent variable MarketPlace

Panel B explores the effect of a native politician's new promotion on presence of commune marketplaces under various specifications, including using different controls and fixed effects, with different lags, and using different observation units.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Specification	Benchmark	No FE	Year FE	ComOfficial FE	1-year forward	Immediate	1-year lag	ComPosition level	Commune level
Dependent variable	MarkerPlace	MarkerPlace	MarkerPlace	MarkerPlace	MarkerPlace	MarkerPlace	MarkerPlace	MarkerPlace	MarkerPlace
AccumulatedPower_L2	0.0579	0.0296	0.0400	0.00927				0.0473	
	[0.0234]**	[0.0166]*	[0.0178]**	[0.0184]				[0.0192]**	
AccumulatedPower_F1					-0.00626				0.0320
					[0.0327]				[0.0214]
AccumulatedPower					-0.0235	-0.0275			
					[0.0318]	[0.0264]			
AccumulatedPower_L1							0.00882		
							[0.0221]		
logComAvgInc	0.0125				0.0102	0.0103	0.00981	-0.0172	0.00253
	[0.0362]				[0.0361]	[0.0360]	[0.0362]	[0.0387]	[0.0358]
logComPop	0.0878				0.0973	0.0969	0.0969	0.0376	0.135
	[0.100]				[0.101]	[0.101]	[0.101]	[0.0924]	[0.120]
Year FE	Yes		Yes		Yes	Yes	Yes	Yes	Yes
Zone FE	Yes				Yes	Yes	Yes	Yes	Yes
ComOfficial FE	Yes			Yes	Yes	Yes	Yes		
ComPosition FE								Yes	
Commune FE									Yes
Observations	1,163	1,172	1,172	1,172	1,163	1,163	1,163	1,903	957
R-squared	0.773	0.003	0.005	0.765	0.772	0.772	0.771	0.767	0.778

Robust standard errors in brackets are clustered at commune-year level. Statistical significance is denoted by *** (p < 1%), ** (p < 5%), and * (p < 10%).

Table 4: Effects of more and less empowered ranking positions

Panel A: Subsample of officials in more empowered ranking positions

Panel A reports benchmark regression results in for the subsample of top-level officials, including all CPV and Government ranking positions, as well as chair-holding members in the National Assembly.

	(1)	(2)	(3)	(4)	(5)	(6)
Time lag	Immediate	Immediate	1-year lag	1-year lag	1-year lag	2-year lag
Dependent variable	RadioBroadcaster	VillageRoadType	Preschool	Irrigation	CleanWater	MarketPlace
AccumulatedPower	0.0407	0.0944				
	[0.0262]	[0.0323]***				
AccumulatedPower_L1			0.0174	0.0515	0.0107	
			[0.0116]	[0.0409]	[0.0263]	
AccumulatedPower_L2						0.0740
						[0.0295]**
logComAvgInc	0.0236	0.0394	0.00278	-0.0366	0.0610	-0.0160
	[0.0282]	[0.0387]	[0.0117]	[0.0740]	[0.0428]	[0.0359]
logComPop	0.0674	0.0219	0.0113	0.296	0.0647	0.0594
	[0.0713]	[0.101]	[0.0308]	[0.236]	[0.0870]	[0.0994]
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
ComOfficial FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	661	875	661	661	873	661
R-squared	0.719	0.591	0.577	0.566	0.719	0.808

Robust standard errors in brackets are clustered at commune-year level. Statistical significance is denoted by *** (p < 1%), ** (p < 5%), and * (p < 10%).

Table 4: Effects of more and less empowered ranking positions

Panel B: Subsample of officials in less empowered ranking positions

Panel B reports benchmark regression results in for the subsample of officials who are non-chair members of the National Assembly.

	(1)	(2)	(3)	(4)	(5)	(6)
Time lag	Immediate	Immediate	1-year lag	1-year lag	1-year lag	2-year lag
Dependent variable	RadioBroadcaster	VillageRoadType	Preschool	Irrigation	CleanWater	MarketPlace
AccumulatedPower	0.0418	0.0193				
	[0.0409]	[0.0467]				
AccumulatedPower_L1					0.0851	
					[0.0473]*	
AccumulatedPower_L2						0.0522
						[0.0517]
logComAvgInc	0.0266	0.0125	0.00715	-0.0738	0.00557	0.0403
	[0.0368]	[0.0381]	[0.0182]	[0.0612]	[0.0349]	[0.0552]
logComPop	0.0498	0.0497	0.143	0.127	0.0141	0.101
	[0.184]	[0.118]	[0.101]	[0.198]	[0.0681]	[0.173]
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
ComOfficial FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	653	869	655	653	865	655
R-squared	0.744	0.582	0.594	0.612	0.733	0.740

Robust standard errors in brackets are clustered at commune-year level. Statistical significance is denoted by *** (p < 1%), ** (p < 5%), and * (p < 10%).

Table 5: Effects in more and less flexible provincial institutional environment

Panel A: Subsample of communes in provinces with above-median PDP scores

Panel A reports the benchmark regression results for the subsample of communes in provinces where provincial leaderships have more discretionary power, as measured by the provinces' PDP scores.

	(1)	(2)	(3)	(4)	(5)	(6)
Time lag	Immediate	Immediate	1-year lag	1-year lag	1-year lag	2-year lag
Dependent variable	RadioBroadcaster	VillageRoadType	Preschool	Irrigation	CleanWater	MarketPlace
AccumulatedPower	0.0627	0.0771				
	[0.0309]**	[0.0321]**				
AccumulatedPower_L1			0.0260	0.0714	0.0402	
			[0.0204]	[0.0484]	[0.0266]	
AccumulatedPower_L2						0.0837
						[0.0371]**
logComAvgInc	0.0270	0.0206	-0.00612	0.0173	0.0508	0.00108
	[0.0361]	[0.0388]	[0.0133]	[0.0839]	[0.0401]	[0.0450]
logComPop	0.107	0.0920	0.0225	0.303	0.0152	0.0176
	[0.0978]	[0.130]	[0.0266]	[0.246]	[0.118]	[0.103]
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
ComOfficial FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	609	802	611	610	797	611
R-squared	0.705	0.581	0.536	0.561	0.657	0.769

Robust standard errors in brackets are clustered at commune-year level. Statistical significance is denoted by *** (p < 1%), ** (p < 5%), and * (p < 10%).

Table 5: Effects in more and less flexible provincial institutional environment

Panel B: Subsample of communes in provinces with below-median PDP scores

Panel B reports the benchmark regression results for the subsample of communes in provinces where provincial leaderships have less discretionary power, as measured by the provinces' PDP scores.

	(1)	(2)	(3)	(4)	(5)	(6)
Time lag	Immediate	Immediate	1-year lag	1-year lag	1-year lag	2-year lag
Dependent variable	RadioBroadcaster	VillageRoadType	Preschool	Irrigation	CleanWater	MarketPlace
AccumulatedPower	0.00751	0.0422				
	[0.0250]	[0.0348]				
AccumulatedPower_L1			0.0130	0.0555	0.0446	
			[0.0134]	[0.0463]	[0.0262]*	
AccumulatedPower_L2						0.0337
						[0.0292]
logComAvgInc	0.0160	0.0649	0.0166	-0.132	0.0465	0.0320
	[0.0372]	[0.0471]	[0.0269]	[0.0622]**	[0.0487]	[0.0560]
logComPop	-0.0780	-0.00416	0.151	0.263	0.0366	0.195
	[0.174]	[0.118]	[0.119]	[0.196]	[0.0744]	[0.191]
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
ComOfficial FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	552	739	552	551	739	552
R-squared	0.781	0.592	0.624	0.640	0.791	0.785

Robust standard errors in brackets are clustered at commune-year level. Statistical significance is denoted by *** (p < 1%), ** (p < 5%), and * (p < 10%).

Table 6: Effects on infrastructure construction at home district level

Panel A: Sample in which ranking officials are matched to their home districts

Panel A reports the benchmark regression results using a sample in which each observation combines a ranking official, his/her home district, and a year. The outcome variables are calculated as the average over the surveyed communes in that district. These regressions estimate the impact of an official's new promotion on infrastructure construction in his/her home district.

	(1)	(2)	(3)	(4)	(5)	(6)
Time lag	Immediate	Immediate	1-year lag	1-year lag	1-year lag	2-year lag
Dependent variable	RadioBroadcaster	VillageRoadType	Preschool	Irrigation	CleanWater	MarketPlace
AccumulatedPower	-0.00614	0.000338				
	[0.00638]	[0.00718]				
AccumulatedPower_L1			-0.00379	0.00596	0.00534	
			[0.00477]	[0.0116]	[0.00904]	
AccumulatedPower_L2						0.00465
						[0.00882]
logComAvgInc	-0.00664	0.0311	-0.00280	0.0315	-0.0365	0.0477
	[0.0254]	[0.0334]	[0.0179]	[0.0375]	[0.0369]	[0.0349]
logComPop	0.0173	0.0561	0.0278	-0.0195	-0.0864	0.0858
	[0.0330]	[0.0516]	[0.0425]	[0.0369]	[0.0394]**	[0.0506]*
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
ComOfficial FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,981	4,715	3,981	3,981	4,716	3,981
R-squared	0.827	0.739	0.576	0.704	0.805	0.782

Robust standard errors in brackets are clustered at commune-year level. Statistical significance is denoted by *** (p < 1%), ** (p < 5%), and * (p < 10%).

Table 6: Effects on infrastructure construction at home district level

Panel B: Sample in which ranking officials are matched to other communes in their home districts

Panel B reports the benchmark regression results using a sample in which each observation combines a ranking official, a commune in his/her home district that is not his/her home commune, and a year. These regressions estimate the impact of an official's new promotion on infrastructure construction in other communes in his/her home district.

	(1)	(2)	(3)	(4)	(5)	(6)
Time lag	Immediate	Immediate	1-year lag	1-year lag	1-year lag	2-year lag
Dependent variable	RadioBroadcaster	VillageRoadType	Preschool	Irrigation	CleanWater	MarketPlace
AccumulatedPower	-0.00608	0.00615				
	[0.00492]	[0.00655]				
AccumulatedPower_L1			0.000699	0.00878	-0.00355	
			[0.00365]	[0.00871]	[0.00520]	
AccumulatedPower_L2						-0.00212
						[0.00705]
logComAvgInc	0.00868	-0.0107	-0.000453	-0.000407	0.00826	-0.0161
	[0.0106]	[0.0175]	[0.00931]	[0.0219]	[0.0168]	[0.0163]
logComPop	0.00603	0.0410	-0.0387	0.00140	0.0125	0.0556
	[0.0761]	[0.0386]	[0.0560]	[0.0870]	[0.0365]	[0.101]
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
ComOfficial FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	17,689	23,639	17,701	17,674	23,626	17,701
R-squared	0.714	0.577	0.513	0.621	0.729	0.768

Robust standard errors in brackets are clustered at commune-year level. Statistical significance is denoted by *** (p < 1%), ** (p < 5%), and * (p < 10%).

Table 7: Effects by small and large age gaps between ranking officials and home communes' chairs

Panel A: Subsample of ranking officials and home communes' chairs whose age gaps are below median (i.e., age gaps of 9 and below)

Panel A reports the benchmark regression results for the subsample of ranking officials who are more likely to have close relationships with their home communes' leaderships, as measured by the age gaps between the officials and their home communes' chairs.

	(1)	(2)	(3)	(4)	(5)	(6)
Time lag	Immediate	Immediate	1-year lag	1-year lag	1-year lag	2-year lag
Dependent variable	RadioBroadcaster	VillageRoadType	Preschool	Irrigation	CleanWater	MarketPlace
AccumulatedPower	0.0425	0.0995				
	[0.0299]	[0.0373]***				
AccumulatedPower_L1			0.00502	0.0946	0.0481	
			[0.0109]	[0.0493]*	[0.0265]*	
AccumulatedPower_L2						0.0603
						[0.0435]
logComAvgInc	0.0728	0.0385	-0.00737	0.00283	0.0383	0.00960
	[0.0379]*	[0.0534]	[0.0188]	[0.0635]	[0.0513]	[0.0565]
logComPop	0.246	0.120	-0.0530	0.435	-0.100	0.101
	[0.167]	[0.107]	[0.0381]	[0.246]*	[0.0750]	[0.184]
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
ComOfficial FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	562	779	562	562	776	562
R-squared	0.836	0.658	0.635	0.670	0.784	0.802

Robust standard errors in brackets are clustered at commune-year level. Statistical significance is denoted by *** (p < 1%), ** (p < 5%), and * (p < 10%).

Table 7: Effects by small and large age gaps between ranking officials and home communes' chairs

Panel B: Subsample of ranking officials and home communes' chairs whose age gaps are above median (i.e., age gaps of 10 and above)

Panel B reports the benchmark regression results for the subsample of raking officials who are less likely to have close relationships with their home communes' leaderships, as measured by the age gaps between the officials and their home communes' chairs.

	(1)	(2)	(3)	(4)	(5)	(6)
Time lag	Immediate	Immediate	1-year lag	1-year lag	1-year lag	2-year lag
Dependent variable	RadioBroadcaster	VillageRoadType	Preschool	Irrigation	CleanWater	MarketPlace
AccumulatedPower	0.011	0.0643				
	[0.0262]	[0.0364]*				
AccumulatedPower_L1			0.0284	0.025	0.0169	
			[0.0268]	[0.0610]	[0.0361]	
AccumulatedPower_L2						0.00000729
						[0.0394]
logComAvgInc	-0.0804	0.0102	0.0142	-0.0983	0.107	-0.00207
	[0.0467]*	[0.0486]	[0.0247]	[0.109]	[0.0504]**	[0.0490]
logComPop	-0.0804	0.0109	0.109	0.0917	0.0892	-0.0324
	[0.132]	[0.160]	[0.0938]	[0.235]	[0.132]	[0.122]
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
ComOfficial FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	599	762	601	599	760	601
R-squared	0.779	0.644	0.638	0.657	0.765	0.819

Robust standard errors in brackets are clustered at commune-year level. Statistical significance is denoted by *** (p < 1%), ** (p < 5%), and * (p < 10%).

Figure 1A: Effects of a native official's new promotion on local road quality - VillageRoadType - by commune per capita income in 2002 from non-parametric regression, excluding from the sample communes already having a good local road throughout the period.

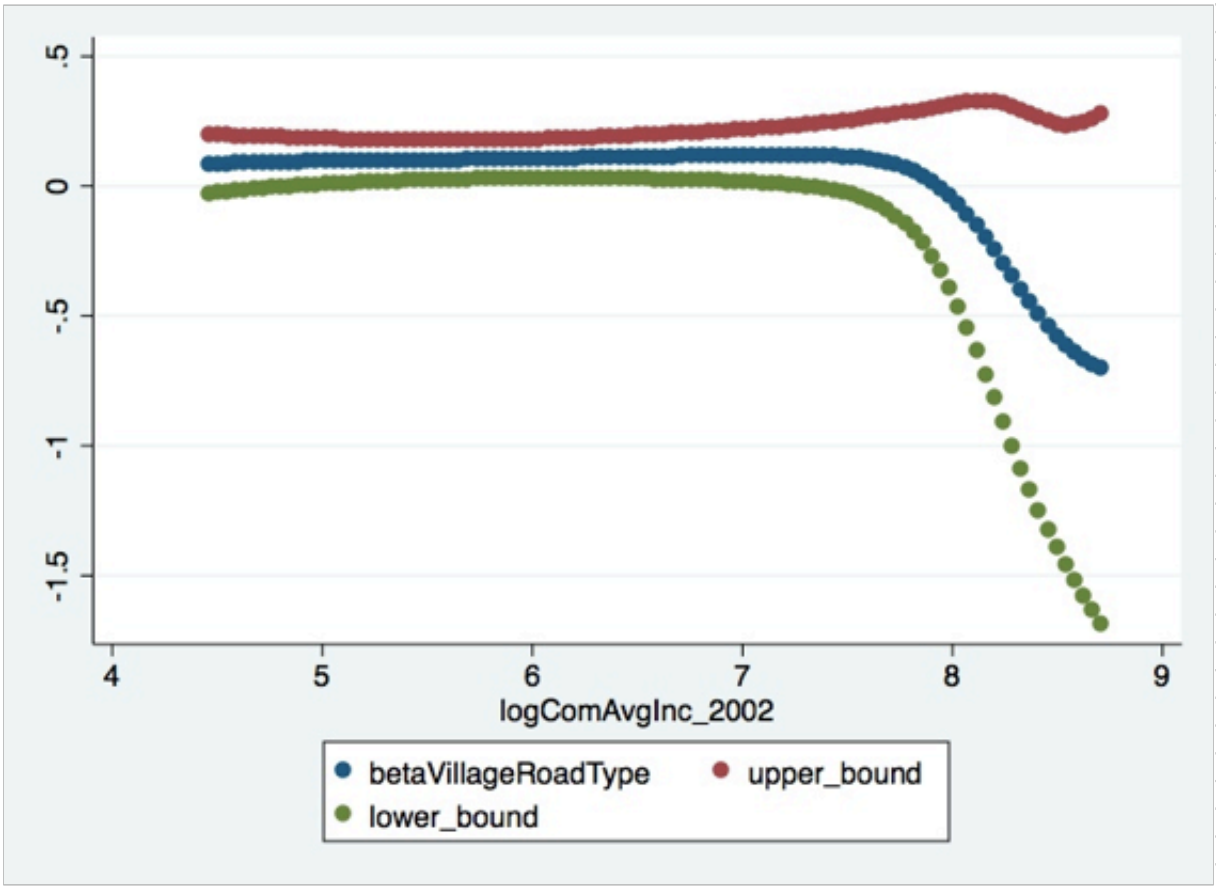

Figure 1B: Effects of a native official's new promotion on presence of commune marketplaces - MarketPlace - by commune per capita income in 2002 from non-parametric regression, excluding from the sample communes already having a commune marketplace throughout the period.

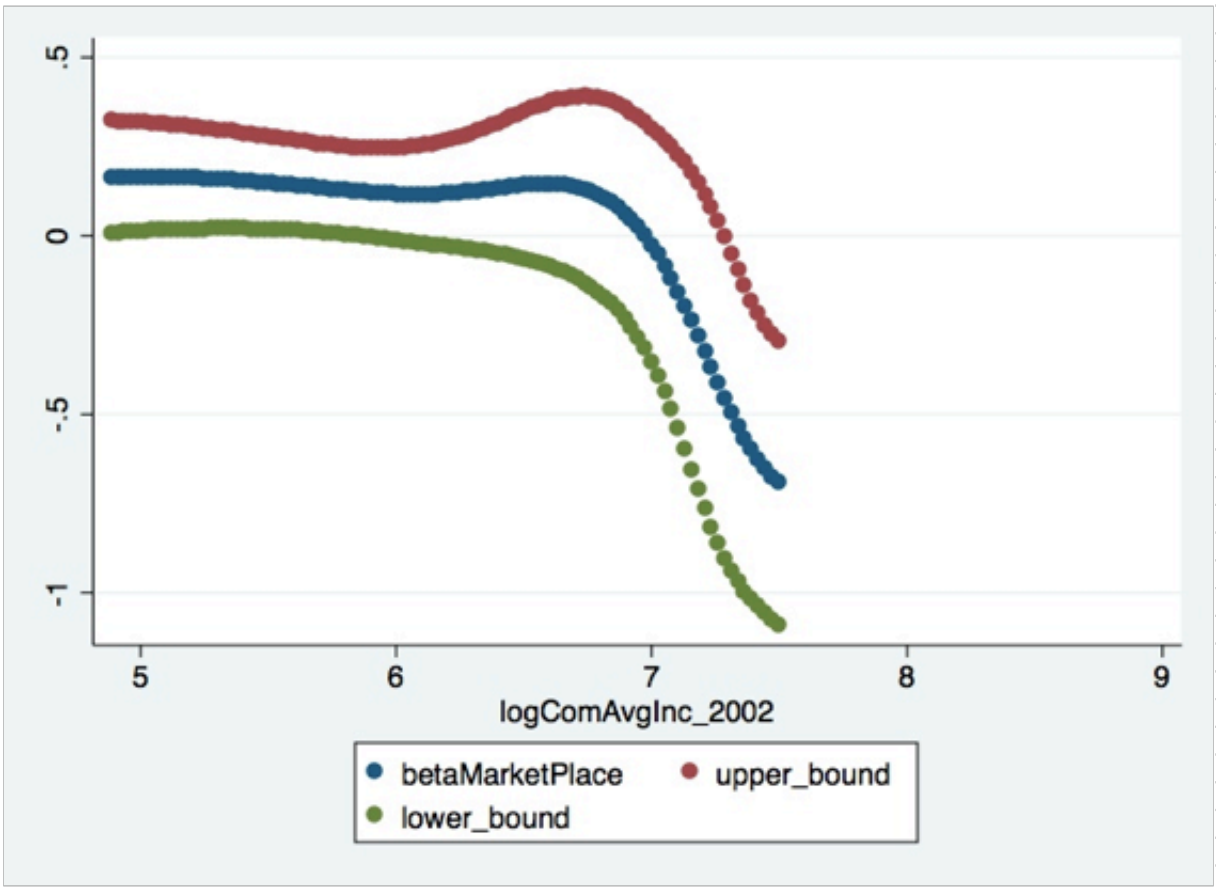

Figure 2A: Effects of a native official's new promotion on local road quality - VillageRoadType - by commune population in 2002 from non-parametric regression, excluding form the sample communes already having good local roads throughout the period.

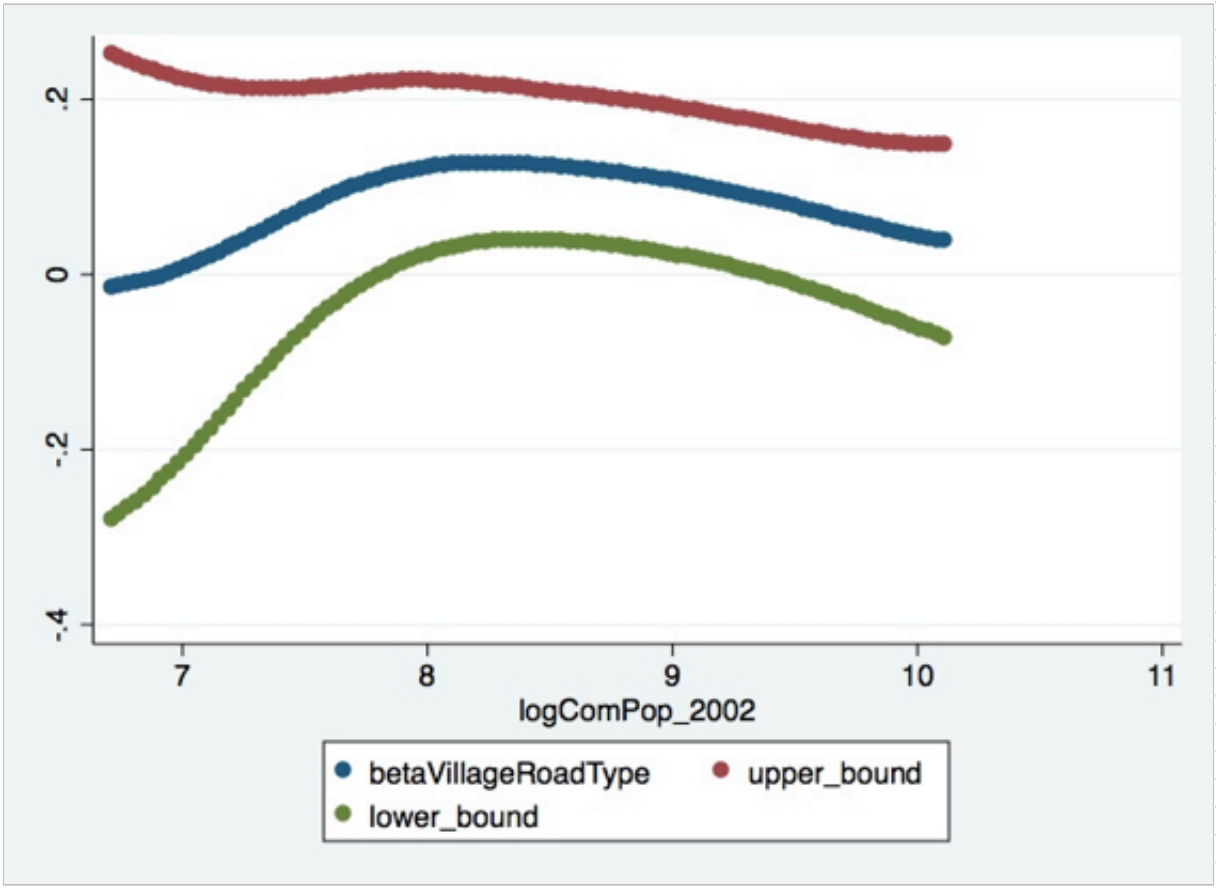
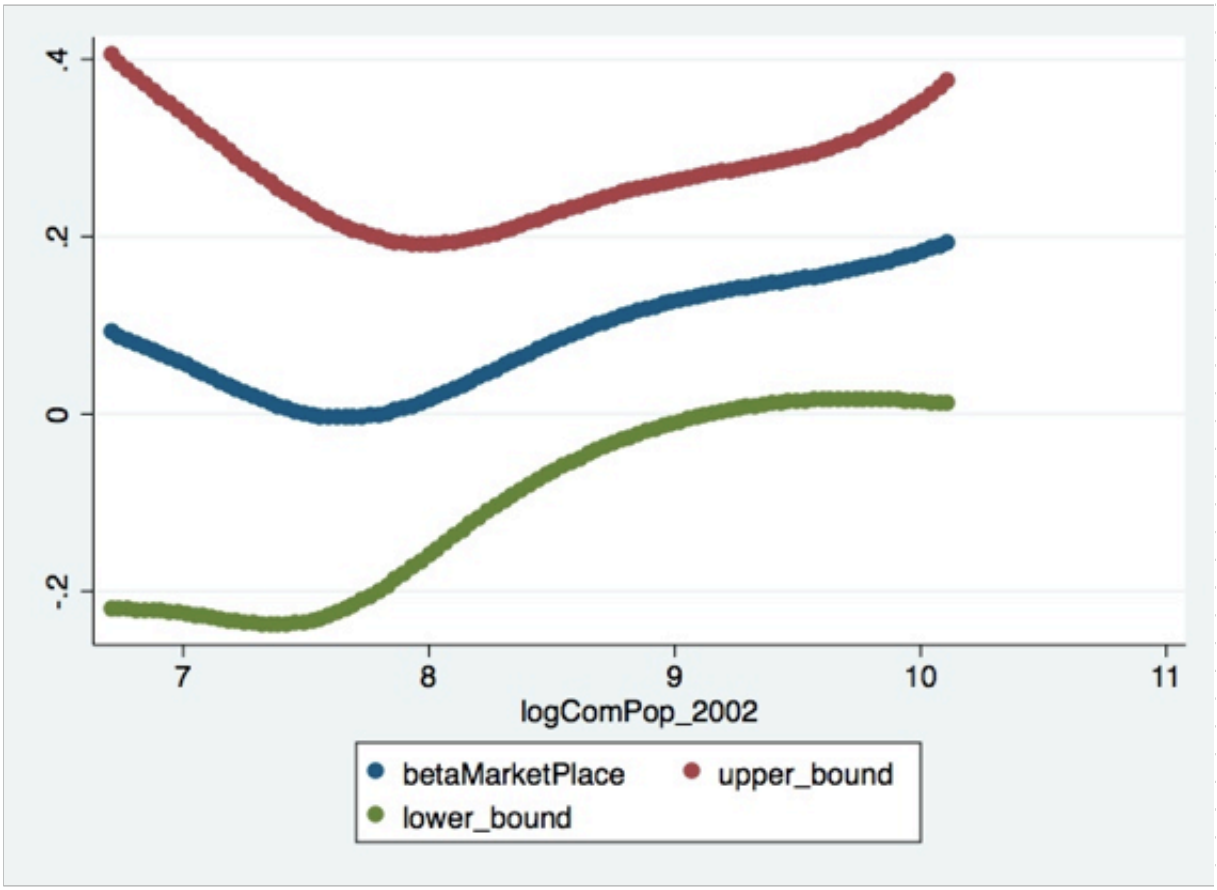
Figure 2B: Effects of a native official's new promotion on presence of commune marketplaces - MarketPlace - by commune population in 2002 from non-parametric regression, excluding from the sample communes already having a commune marketplace throughout the period.