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One Mandarin Benefits the Whole Clan: Hometown Favoritism in an Authoritarian Regime*

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Abstract

Although patronage politics in democracies has been studied extensively, it is less understood in undemocratic regimes, where a large proportion of the world's population resides. To fill this gap, our paper studies how government officials in authoritarian Vietnam direct public resources toward their hometowns. We manually collect an exhaustive panel dataset of political promotions of officials from 2000 to 2010 and estimate their impact on public infrastructure in their rural hometowns. We obtain three main results. First, promotions of officials improve a wide range of infrastructure in their hometowns, including roads, markets, schools, radio stations, clean water and irrigation. This favoritism is pervasive among officials across different ranks, even among those without budget authority, suggesting informal channels of influence. Second, in contrast to pork-barrel politics in democratic parliaments, elected legislators have no power to exercise favoritism. Third, only home communes receive favors, while larger and more politically important home districts do not. This suggests that favoritism is likely motivated by officials' social preferences for their hometowns rather than by political considerations.

Keywords: favoritism, patronage, authoritarian regime, political connection, hometown, infrastructure, cultural preference, directed altruism.

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

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“One person becomes a mandarin,¹ his whole clan benefits.”

- Vietnamese proverb

“Even the blind favor the people they know.”

- Indian proverb

“When a man gains power, his chicken and dogs all go to heaven.”

- Chinese proverb

1. Introduction

Studies of corruption, defined as officials’ and bureaucrats’ abuse of the privileges of public office for private gain, often consider such gains in terms of personal and family benefits. In other cases, the misuse of public office is manifest as favoritism towards certain associated groups. In democracies where there is electoral accountability for office holders, favoritism has often been studied in the form of pork-barrel politics, whereby politicians and officials direct resources to favor certain groups in order to win their votes and political support. This strategic quid-pro-quo behavior has been a central topic in the political economic literature, and is substantiated by a significant body of evidence (e.g. Ferejohn 1974, Shepsle and Weingast 1981).

However, in authoritarian regimes where the state is barely accountable to voters, politicians gain power not via competitive elections. To get appointed to an office, they have an incentive to please their superiors rather than any group of citizens. This lack of electoral incentives opens up a number of questions regarding the political economy of autocracies. For example, do officials favor any group of citizens at all? Which parts of the political hierarchy can direct public resources towards favored groups, given that authority 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 when

¹ The term “mandarin” refers to the historical scholar-bureaucrats of the Vietnamese monarchist court.

elections do not matter? Favoritism's motives, whether political or cultural, have important implications for the design of anti-corruption institutions.

Our paper addresses these questions by examining the effects of public officials' political promotions on public infrastructure in their hometowns in single-party Vietnam. The term "hometown" refers to each official's commune of patrilineal origin, a denomination that is important culturally but has little political significance. We collect an extensive 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 effect. We refer to it as *favoritism*, as this is a form of favors given by officials to their remote relatives regardless of merit.

This authoritarian context also allows us to analyze the motives of favoritism, which further distinguishes our considerations from the existing literature on pork barrels in democracies. Most studies since Ferejohn's (1974) seminal work explain patronage politics in terms of political strategies to distribute pork in exchange for votes and campaign contributions. Notable empirical evidence includes Ray (1981), Levitt and Snyder (1995) and Rundquist and Carsey (2002) in the U.S; Kopecký and Scherlis (2008) in Europe; Chattopadhyay and Duflo (2004), Banerjee and Somanathan (2007), Gajwani and Zhang (2008) and Keefer (2010) in India and Kaja and Werker (2010) in the context of international organizations. Schady (2000), Stokes (2005), Magaloni (2006), Keefer and Khemani (2009) and Golden and Tiwari (2009) provide further evidence for this political exchange by showing that pork is often targeted at swing voters. In addition, Levitsky (2007) and Lindberg and Morrison (2008) find that pork increases as elections become more competitive. Besley, Pande and Rao (2012) show that elected officials favor their own villages and castes, which in turn support them in elections.²

² Favoritism also relates to the burgeoning literature on the value of political connection through socio-economic relations, such as Khwaja and Mian (2005), Goldman et al. (2009) and Do et al. (2011).

Electoral motives need not be the only explanation for favoritism. Political leaders may favor certain groups for non-vote political support. At crucial times, political support from politically active groups can help influence public opinion, mobilize mass protests or mitigate political conflict. Politicians may also distribute favors to certain groups due to their ideological beliefs or personal preferences. In democratic countries, it is difficult to study those motives separately, because of their coexistence in most situations. Studying favoritism in an authoritarian context, where votes do not matter, allows us to better distinguish between motives.

In authoritarian regimes, anecdotal examples abound of the excessive favors that dictators bestow on their hometowns. Sirte was a small and unknown village in Libya until the early 1970s when it suddenly received the massive government investments that turned it into a proper city. In 1988, the Libyan parliament and most government departments were even relocated from Tripoli to Sirte. This special treatment was a surprise to no one: 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 the Côte d'Ivoire from 1960 until his death in 1993, moved the official capital city from Abidjan to the ten-times 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, constructed on an area even larger than St. Peter's Basilica in Vatican City.

Beyond anecdotes such as these, favoritism in authoritarian regimes has been shown most systematically as ethnic favoritism. Recent studies by Burgess et al. (2011) and Kramon and Posner (2012) provide empirical evidence of favoritism towards common ethnic groups by top autocrats in Kenya. Under nondemocratic institutions, Kenyan presidents directed public resources disproportionately towards their ethnic groups to build roads (Burgess et al 2011) and improve education (Kramon and Posner 2012). When the country became more democratic, road

construction favoritism disappeared, while education favoritism remained equally prevalent. In a similar vein, Franck and Rainer (2012) find that authoritarianism aggravates ethnic favoritism. In other studies suggestive of favoritism in autocracies, Persson and Zhuravskaya (2009) report more public good provision in Chinese provinces when provincial leaders build their careers within the province, and Markussen and Tarp (2011) show that land improvement investments in Vietnam increase for households that self-report their connections to officials.

The literature thus far does not distinguish whether autocrats favor their connected groups for non-vote political support in the case of violent conflicts (as suggested by Padro-i-Miquel 2007 and Burgess et al 2011) or due to personal preferences. The question is: is favoritism rooted in autocrats' evaluations of their political survival, or in their intrinsic utility function? During the recent revolution in Libya, Sirte's role as the last line of defense for Colonel Gaddafi demonstrates that the former motive can be as important as the latter. These two motives are often entangled, especially when top leaders in authoritarian regimes grant favors to a sizeable group with strong political potential, such as entire ethnic groups or large provinces.

To separate the social-preference motive from the non-vote political support motive, we can employ two empirical strategies. First, we can analyze favors bestowed on politically insignificant groups who are not able to mobilize significant non-vote support for an official in an authoritarian regime. Second, we can look for favoritism exercised by lower-level officials whose political promotions depend solely on their superiors' decisions and whose political survival has no relation to the recipients of favors (say, as supporters in an armed conflict.) The combination of both strategies would best highlight the social-preference motive. This approach requires an extensive dataset covering a wide range of officials, detailed allocation of public resources to small groups and a reliable measure of connection between officials and beneficiaries.

Vietnam provides a unique opportunity for that purpose. A single party, the Communist Party of Vietnam (CPV), has ruled the country since its unification in 1975. The ruling party selects, controls and appoints positions in practically all political, executive and legislative bodies, including its powerful leadership in the Politburo and its 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 Chief Justice is considered a member of the cabinet. In the selection process for political and executive bodies, decision power lies mostly with the Politburo and the CPV's Central Committee, while popular support barely plays any role. While the National Assembly is elected by popular vote, the candidate selection process is under tight scrutiny by the CPV, and the election is in truth more of a non-binding approval vote on the government (Malesky and Schuler 2009). In this context, government officials are mostly accountable to the selectorate within the Party and are insulated from the population.

The commune is lowest administrative level in Vietnam. There are more than eleven thousand communes in the country, and each is home to only a few thousand people on average. Given their tiny size, no single commune can harness any significant level of political or popular support for a ranking official in provincial or national government. Because communes play no role in the political selection process, existing theories of clientelism would not predict politically motivated favoritism on the part of officials. Therefore, the Vietnamese context of officials' home communes provides an ideal setting for eliminating concerns about strategic political behavior, leading to an the interpretation of favor as rooted in social preferences.

Infrastructure is a particularly important area of public spending that deserves examination. Research suggests that a 10% increase in infrastructure investment increases regional income by 1 to 1.5% in the long run (Shioji 2001). In developing countries, it has been estimated that about 30% of economic growth is attributed to infrastructure improvement (Calderon et al 2011). In poorer

countries such as in Africa, infrastructure can contribute to more than half of total growth (Kingombe 2011). The United Nations regards infrastructure as one of the most important foundations for achieving its Millennium Development Goals. However, building and maintaining this foundation for development is also expensive. Africa can only invest about 5% of its income in infrastructure. Fast-growing Vietnam and China, on the other hand, invest nearly 10% of their national incomes in this critical foundation (Sahoo 2012).

In Vietnamese culture, a hometown, defined as the patrilineal town of origin, is a significant part of each person's identity, as it represents the traditional geographical root of a person's patriarchal family. A hometown 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 or five generations remote from one another. On the other hand, hometowns play no significant political role in a politician's career. A politician's family might have already moved away before he was born,³ or at some point during wartime prior to 1975. If not, the politician still must have moved away as soon as he ascended to any position at the provincial level or higher, since we only consider hometowns in rural area. Therefore, any affiliation between officials and hometowns originates mostly from Vietnamese cultural and social norms. Such norms are captured by the old saying, "one person becomes a mandarin, his whole clan benefits."

Such favoritism is usually the fruit of combined efforts on the part of both officials and local officers. Typically, a commune leader from a newly promoted official's hometown starts the process by suggesting to the official certain projects from which the hometown could benefit, usually in the form 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

³ Purely for expositional convenience, we refer to ranking officials as males.

eventually get the project for his hometown. Due to the large amount of public investment in infrastructure at all levels during the last decade, this mechanism of giving and obtaining favors for hometowns has become rampant.

In this empirical project, we first collect data on all officials in ranking office during the period 2000-2010. Ranking officials include all members of the Party Central Committee, all government positions of the deputy minister rank and above, all provincial leaders and all members of the legislative National Assembly. We then match their hometowns to infrastructure 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).

To estimate the effect of officials' promotions on infrastructure in their hometowns, we need to address a key challenge: political promotions of officials can be endogenous. In particular, powerful provinces may have better infrastructure and at the same time they can get more promotions for their officials in the Central Government. To deal with this and other endogeneities, we employ a fixed-effect strategy, which includes commune-official pair-fixed effects and year dummies to eliminate time-invariant omitted variables. Further, we run placebo tests for the effect of officials' promotions on communes neighboring their hometowns to ensure that there is no evidence for time-variant omitted variables and reverse causation.

Using this strategy, we find strong evidence of favors addressed to officials' hometowns across several types of infrastructure, most notably road access to villages and marketplace construction. Promotions also increase the chances that a commune will benefit from the State's support for poor communes, through a program supposed to select communes purely based on their level of hardship.

The distribution of this favoritism reveals the power structure within an authoritarian regime, a topic often considered a black box to outsiders. Contrary to pork-barrel politics in democracies, we find that members of the legislative National Assembly do not have much influence on their hometowns' budget, despite their formal budgetary authority. On the other hand, favoritism is pervasive among executive officials, who do not have formal budgetary authority. The effect is stronger when the age of the hometown's commune chair is closer to the official's age, and where the provincial institutional environment allows for more discretionary policies. These findings suggest that favoritism works through informal channels based on specific forms of 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, favoritism is detected only for home communes and not for larger home districts, while even the latter is still too small a geographical unit to provide any significant political support. This pattern suggests that the main motive of favoritism is a form of social preference directed towards each official's hometown.

This finding also provides real-world evidence of *directed altruism* that goes beyond controlled experiments using dictator games (Leider et al 2009, drawing from Williams's (1966) and Dawkins's (1976) ideas on the selfish gene.) It suggests that officials find intrinsic utility in providing additional consumption and wealth to a group of social relatives defined by common or proximate social characteristics, e.g. those 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.

The paper is organized as follows. Sections 2 to 6 present the political background of Vietnam and the conceptual framework, data description, methodology and empirical results, respectively. The last section discusses the results and concludes.

2. Context of the Study

2.1 Political background

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 Communist Party of Vietnam (CPV) has held a monopoly of power since Vietnam’s reunification in 1976. CPV members account for less than 4% of the population. 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; they are 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. The cabinet includes the State Bank’s Governor, the Chief Justice of the Supreme People’s Court and the Prosecutor General of the Supreme People’s Procuracy.⁴ Geographically, the Government includes 64 provincial authorities called Provincial People’s Committees. Local authorities are considered branches of the Central Government. There are three levels of the local authorities: provincial, district and commune. The lower-level People’s Committees report to the higher-level People’s 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 2009). About 80% of the delegates are members of the CPV. Although the de facto power of the National Assembly

⁴The judiciary in Vietnam has limited power and depends heavily on the Government and CPV.

has been expanded in recent years, 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.

As in other authoritarian regimes, the ruling party selects, appoints, and influences the filling 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 the Party Congress and select the Central Committee, which then selects the Politburo and ranking positions based on lists of candidates recommended by the incumbent Politburo and Central Committee. The CPV then nominates candidates for the National Assembly, including ranking positions in the National Assembly, and citizens vote among these candidates. After that, elected delegates of the National Assembly, 80% of whom are CPV members, vote to approve the Prime Minister and Cabinet Members nominated by the CPV in a single, uncontested list. Finally, 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. The CPV's Central Committee effectively decides who fills ranking positions in the Central and Provincial Governments and in the National Assembly. Malesky and Schuler (2009) document the CPV's controlling practices in elections in Vietnam.

Under Vietnam's single-party rule, there is little separation between the State and the CPV, and thus little distinction between politicians and bureaucrats. In practice, starting from very low ranks, such as the heads of communes, officials in the Government need to be members of the CPV in order to hold office and get promotions. The career ladder in the Government starts from the entry level and ends at the highest level of 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 the ways in which 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 local officials, who have the authority in this matter, in order to obtain government projects for their preferred communes. The only exception to this is Program 135, the State's "poor commune support program" which aims to 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 study period, Vietnam experienced significant economic growth accompanied by a drastic reduction in poverty. GDP in real terms increased 6.5% per year on average from 2001 to 2010. The percentage of people living on less than two dollars (PPP) per day fell from 68.7% in 2002 to 38.5% in 2008.⁵ The government's budget, while always in deficit, was strongly supported by the growing economy, strong exports (particularly the increasing world prices of exported crude oil) and development aids. Consequently, the government expanded all forms of infrastructure construction, including in particular those in communes and districts, an attempt widely seen as a

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

key way of alleviating poverty in the country. This period therefore held particular interest for a study of the determinants of infrastructure improvements in rural Vietnam.

2.2 Cultural and social background

Culture is known as an important informal institution that sanctions political and economic behaviors (Helmke and Levitsky 2003, Tabellini 2010). The phenomenon of strong connections among extended families is a cultural norm not unique to Vietnam. The importance of kinship networks in both traditional and post-traditional societies has been long studied *inter alia* by Radcliffe-Brown (1922), Gluckman (1955) and Mitchell (1965). The diverse ways in which these networks exhibit and operate across different societies have attracted more recent studies. For example, Angelucci et al. (2007, 2012) have stressed the importance to informal insurance of social networks based on the extended family in rural Mexico. The literature on social networks also identifies family links as a key factor in job searches (see Ioannides and Loury's 2004 review).

In our context, the family links manifest in the form of connections to a hometown are a strong point of reference in Vietnamese culture. The Vietnamese population is relatively homogenous. The Kinh (original Vietnamese) account for 86% of the population,⁶ and they also control most important political positions. In their traditionally heavily patriarchal society, which is rooted in a long history of Confucian influences and a cult of ancestral worship, Vietnamese social norms put particular emphasis on patrilineal links in the family and society (Hunt 2002). Since Confucius, filial virtues, mostly defined within a patriarchal family, have been considered the building blocks of a stable society. Therefore, all links based on common patriarchal roots are sacred and command great respect. It is quite common to observe large loans and transfers within the extended patrilineal family, and especially contributions towards "public goods" such as religious

⁶ Authors' calculation from 2009 Population Census's data.

ceremonies and ancestral temples that help glorify common patrilineal ancestors. Those norms also explain the strong preference for sons as opposed to daughters in Vietnamese society.

Therefore, one's hometown, defined as the origin of a person's patrilineal clan, is truly important to most Vietnamese. It highlights a person's connection to his or her extended patrilineal family, composed of all those who share one's patrilineal ancestors (Nguyen and Healy 2006). Bonds are easily forged among people of common hometown even if they are genealogically many generations remote from each other. Hometowns are so important that this information figures in all Vietnamese national identity cards, while there is no information on place of birth.

Under traditional Vietnamese Confucian culture, government officials resemble the successful mandarins of the old days. Historically, the selection, promotion and ascent to power of mandarins were heralded with major celebrations in their hometowns. Once selected, mandarins would usually try to direct favors to their hometowns in acknowledgment of the benevolent blessings they must have received from their ancestors, and in sustaining the tradition of filial virtues. Anecdotal evidence points out that these practices are still very common today.

The Vietnamese context thus opens the door to our study of the role of officials' social preferences towards their hometowns. The connections between individuals and their hometowns are prevalent and important according to the existing social norms. They are also distinct from political motivations, since hometowns are of negligible political importance. Moreover, because of the long wars in Vietnam, most current key officials must have either been born far away from their hometown, or have moved away at a young age as part of waves of war refugee migrants in both the North and the South; they also must be at present based in a large city away from their rural hometowns. Therefore, officials' links with their hometowns are mostly based on cultural and social factors.

3. A simple conceptual framework

Existing economic theory has analyzed favoritism in auctions (Laffont and Tirole 1989, Burguet and Perry 2007, Lee 2008, Arozamena and Weinschelbaum 2011), in the labor market (Prendergast Topel 1996, Miguel A. Duran and Morales 2011) and in queuing for public resources (Batabyal and Beladi 2008). Ethnicity (Burgess et al 2011), gender (Abrevaya and Hamermesh 2012) and social pressure (Garicano, Palacios and Prendergast 2005) have been considered as bases for favoritism. In this section, we present a simple model to illustrate how hometown-based favoritism works, and predict how officials' power and motives shape the outcomes of this type of favoritism.

The model involves a sequential game between two utility-maximizing agents, the Official and the Budget Allocator.⁷ The Official corresponds to newly promoted officials with special links to their place of origin. The Allocator refers to the government unit that has authority over budget allocations to communes. The Official cares about getting additional resource allocation for his commune, which often comes in the form of additional budget infrastructure projects such as roads, markets, schools and clinics. These additional resources can benefit the Official in two ways: by providing him with additional political support from his home commune/district, as observed in the case of pork-barrel politics, and by appealing to his "altruistic" preference to improve the welfare of his commune/district of origin and his remote relatives living there. This altruistic preference is understood as an inherent cultural trait. Let λ denote the administrative level of the place of birth. λ can be commune, district or province. A higher λ means a larger administrative level, with more potential to provide political support but less social affection from the Official. The model allows for the comparison of different λ 's (commune versus district) to gain insight into the Official's motivation.

⁷ For expositional convenience, we refer to the official as male and the local authority as female.

To achieve his objective, the Official has to work out a deal with the Allocator, who has direct control over budget allocation. The Official can give the Allocator certain favors, such as political promotion, that enhance the Allocator's utility by P , at a cost g for the Official. In return, the Allocator will channel an additional amount B from the budget to the Official's hometown's infrastructure projects, at a cost h for the Allocator. This favored allocation B is valued by the Official at $\pi(B,\lambda) + \sigma(B,\lambda)$, where π represents the utility from additional political support and σ represents the utility from social preference satisfaction. We pay particular attention to B , as it manifests explicit evidence of favoritism between the Official and Allocator.

We assume that the Official's cost function $g(P,r)$ is increasing and convex in P and decreasing in r , where r represents the Official's power such that higher r implies higher power. Next, the Allocator's cost function $h(B,d)$ is increasing and convex in B and increasing in d , where d measures institutional constraints on the Allocator's discretion. We further assume that $\pi(B,\lambda)$ and $\sigma(B,\lambda)$ are both increasing and concave in B .⁸

The Official is the first mover and makes an offer to the Allocator involving (P,B) . The Allocator will accept if it satisfies her participation constraint, namely that the benefit of accepting is not lower than the cost. As the first mover, the Official can fully appropriate the game's rent by making an offer such that the Allocator is indifferent as to whether to accept or refuse it. The offer then solves the following maximization problem:

$$\text{Max}_{(P,B)} \pi(B,\lambda) + \sigma(B,\lambda) - g(P, r) \text{ s.t. } P - h(B,d) \geq 0. \quad (1)$$

⁸ We assume that the costs of direct monetary transfers between the two agents are much higher than the costs of providing favor, so monetary transfers, or bribes, are not realistic options. In practice, exchanges of both bribes and favors may coexist. We refrain from modeling explicit bribes because it would not add insight to our empirical setup.

We will now state three propositions about the existence, distribution and motives of favoritism. These propositions provide the basis for the subsequent empirical investigation presented in this paper.

Proposition 1: Assume that (A1): $\pi'_B(0,\lambda) + \sigma'_B(0,\lambda) - g'_P(h(0,d),r)h'_B(0,d) > 0$. There exists a unique solution (P^*,B^*) to this model, with positive favored allocation $B^*>0$, determined by the following equations:

$$\pi'_B(B^*,\lambda) + \sigma'_B(B^*,\lambda) - g'_P(h(B^*,d),r)h'_B(B^*,d) = 0 \quad (2), P^* = h(B^*,d).$$

Intuitively, this proposition shows that if there is positive net marginal benefit of favored allocation B at 0, then a positive level of favoritism will occur. As a result, even in an authoritarian regime where the electoral motivation is absent, if the marginal social motivation is sufficiently large then favoritism will arise. (Proof in the Appendix)

Proposition 2: (a) Assume that (A2a) the marginal cost g'_P is decreasing in r , then the favored allocation B^* is increasing in r ; (b) Assume that (A2b) the marginal cost h'_B is increasing in d , then the favored allocation B^* is decreasing in d .

Result (a) implies that a higher-powered official can exercise more favoritism for his home commune. This relation allows us understand the power structure in a political system through observing the favoritism of different officials. Notice that what matters is the cross derivative of g with respect to P and r , and not the first derivative of g with respect to r . A higher-ranked official can get a better deal because P and r are complements. Result (b) implies that favoritism is more widespread when local authorities have more discretionary power to make a deal. (Proof in the Appendix)

Proposition 3: If the marginal benefits $\sigma'_B(B,\lambda) + \pi'_B(B,\lambda)$ are increasing (decreasing) in λ (A3), then the favored allocation B^* is increasing (decreasing) in λ .

This result shows that the effect of administrative level λ on the value of favored allocation essentially depends on its effect on the marginal benefits (Proof in the Appendix). As discussed previously, it is realistic to assume that at a larger administrative level, social preferences become less important and political motivation more important. At a larger level, social connections arguably become less frequent or salient, so the improved utility derived from more favored allocation is less valuable, i.e. $\sigma'_B(B,\lambda)$ decreases when λ increases. On the other hand, a larger level is more politically influential, so additional favored allocation can potentially bring more benefit, i.e. $\pi'_B(B,\lambda)$ increases when λ increases. Overall, our prior on the effect of λ on the total marginal benefit, namely $\sigma'_B(B,\lambda) + \pi'_B(B,\lambda)$, depends on whether social preferences or political influences are more dominant. Empirically, evidence that B^* is increasing in λ is consistent with $\sigma'_B(B,\lambda) + \pi'_B(B,\lambda)$ being increasing in λ , in which case the social preference effect through σ'_B must have dominated the political motivation effect through π'_B .

We can also consider the special case where the Official is the same as the Budget Allocator, political favor exchange becomes irrelevant and the Official only has to pick B to maximize his net gain of $\pi(B,\lambda) + \sigma(B,\lambda) - h(B,d)$. This problem has a unique solution B^* that satisfies $\pi'_B(B^*,\lambda) + \sigma'_B(B^*,\lambda) - h'_B(B^*,d) = 0$ (as $\pi'_B(B,\lambda)$ and $\sigma'_B(B,\lambda)$ are both decreasing in B while $h'_B(B,d)$ is increasing). As in propositions 2 and 3 above, this unique solution B^* increases when d is lower (assuming that h'_B is increasing in d) and when $\sigma'_B(B,\lambda)$ is higher for every value of B .

Propositions 1 to 3 are illustrated in Figure 1. Two key functions of the favored allocation B , namely the positive and negative parts in equation (2), are represented by a downward sloping marginal benefit curve $\pi'_B(B,\lambda) + \sigma'_B(B,\lambda)$ and an upward sloping “pseudo-marginal” cost curve $g'_p(h(B,d),r)h'_B(B,d)$. The two must intersect at the unique solution B^* . An increase in r or d raises

the pseudo-marginal cost curve, thus reducing B^* to B_1 . On the other hand, an increase in either coming $\pi'_B(B,\lambda)$ or $\sigma'_B(B,\lambda)$ pushes the marginal benefit curve up and moves B^* to B_2 .

[Insert Figure 1 here]

This model provides a simple framework for understanding favoritism under various political systems, as previously examined in the existing scientific and journalistic literatures. In institutional environments with strong governance and high accountability, both g'_p (the Official's marginal cost to grant political favor) and h'_B (the Allocator's marginal cost to distort the local budget) are prohibitively high. The resulting amount of budget distorted by favoritism B^* is then minimal, if at all. This applies to strong democracies as well as non-democratic regimes with a well-functioning system of checks and balances on the majority of officials, such as Singapore's – the lack of political incentives in those regimes, i.e. low π'_B , may further dampen favoritism. In effect, it suffices to raise either g'_p or h'_B , i.e. either the accountability of high-rank officials or that of local administrative units, to curb B^* .

The model also shows that while evidence of favoritism from heads of state such as Colonel Gaddafi or President Félix Houphouët-Boigny abound, it is unclear whether favoritism is widespread in these contexts. A strong dictator may only tolerate his own favoritism and punish his coordinates'; this is a case of $g'_p=0$ for the dictator, but very high for everyone else. In such cases, democratization and/or decentralization could increase π' and lower h'_B , both leading to more widespread favoritism. For that reason, favoritism may also be found in democratic countries, such as in certain cases in the U.S. or India where the marginal cost g'_p is low.

The model's application to an authoritarian setting yields key empirical predictions on the effects of officials' promotions on home commune infrastructure, a manifestation of favored budget allocation. First, because of a lack of checks and balances, the marginal costs g'_p and h'_B are expected

to be low in Vietnam, so the phenomenon of hometown favoritism is predicted to be widespread among officials, even beyond the top leaders (**Hypothesis I**). Second, hometown favoritism depends positively on the official's power in the authoritarian hierarchy and on the home province's discretionary power (**Hypothesis II**). Third, hometown favoritism is most present where the attachment between the official and the hometown is strongest. We expect that the marginal social preference σ'_B is close to zero for communes aside from the home commune and that σ'_B for the home district is diluted to a much lower level than that of the home commune. Therefore, favoritism is predicted to decrease as we move from the home commune to neighboring communes or to the home district (**Hypothesis III**). While marginal political interest π'_B may be slightly higher at the district level, we do not expect it in practice to be of a relevant magnitude (as districts barely matter in Vietnamese politics). The subsequent sections will present the data, empirical strategy and results of the tests of these three hypotheses.

4. The Data

4.1 Data collection

As in most authoritarian countries, available data on officials and their family backgrounds in Vietnam are scarce. Available observations are highly scattered and skewed toward top officials, leading to potential selection issues. Our question requires data on the full population of ranking officials, which makes data collection more difficult. From 2009 to 2011, our data collection team identified, checked and matched officials from three major sources: the Communist Party's information on all members of the Politburo and Central Committee (which is publicly available on its websites), the National Assembly's (the legislature) information on all of its members (also publicly available on its website) and the Yearbook of Administrative Organizations' information on

Central and Provincial Government officials starting from the rank of deputy minister (Central Government) and vice chair of Provincial People's Committees (Provincial Government). These are known as the three major political bodies of Vietnamese politics. These sources cover the period from 2000 to 2010; start and end dates are based on official term dates. In practice, start and end dates that differ from term dates (e.g. an early promotion) are unusual. This puts together an exhaustive dataset of all ranking political promotions in the country during this 11-year period.

Since important officials typically hold more than one position in these organizations, we make sure to match all individuals across the three groups, if necessary by obtaining extra information from other sources. We pay special attention to clarifying information on each official's hometown, understood as the commune of patrilineal origin in the Vietnamese legal context. This legally defined information appears, for example, on individual's identity cards, and needs not correspond to one's birthplace. In the very few cases in which different hometowns are listed in different sources, we include all verifiable hometowns in the dataset. We exclude officials whose hometowns cannot be traced to the commune level (even when they are traceable to the district level).

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 World Bank, and it 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, representative sample of about two thousand and two hundred communes out of about eleven thousand communes in the country. The commune survey is conducted with several 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 stations, bank branches) and commune chairman characteristics (i.e. age, gender, education, years in position, previous position).

We then match each official to his or her commune of patrilineal origin. Only communes classified as rural are included so as to avoid the complexity of infrastructure development in urban areas. We exclude the top 4 positions in the country, namely the General Secretary of the Communist Party of Vietnam, the President, the Prime Minister and the Chairman of the National Assembly, to focus on the pervasiveness of favoritism beyond the top. This results in a total of 422 officials out of a total of 1,791 in the three sources of collected data, coming from 351 communes. These 422 officials hold a total of 678 positions, consisting of 119 positions (17.6%) in the Party Central Committee, 102 positions (15.0%) in the Central Government, 290 positions (42.8%) in the National Assembly and 167 positions (24.6%) in Provincial People's Committees. All 60 Vietnamese provinces, excluding the 3 national cities, are covered in this sample of 351 communes.

Finally, based on these matches we construct our *main sample*, in which each observation combines an official, his rural home commune and a year for which VHLSS data for this commune are available (2002, 2004, 2006 or 2008). We include communes that are connected to at least one official in this period. This main sample consists of 1,542 observations, roughly equally distributed over the years (376, 393, 398 and 375 observations for the years 2002, 2004, 2006 and 2008, respectively).

4.2 Data description

Table 1 summarizes data patterns. In Panel A, we describe politicians in the matched sample as well as the full collected dataset of politicians. Given that VHLSS covers only a random sample of all communes in the country, we can match roughly one quarter of collected politicians to

communes available in the VHLSS. This proportion is around 20% for Central and Provincial Governments, for which our data source contains more missing data in terms of hometown: 30% for the National Assembly and 35% for the Party's Central Committee. This is approximately the coverage rate of VHLSS for rural communes, which we are interested in. (The VHLSS oversamples rural areas compared to urban areas.)

[Insert Table 1 here]

As discussed, this period is marked by the inflation of key positions in Vietnamese politics. The size of the Central Committee increased by 26.4% between 2002 and 2007, from 148 to 187 (starting from an even lower number in its 8th term), an expansion that was matched by the number of Central Government positions (46.9%, from 128 in 1997-2002 to 188 in 2003-2007). In contrast, the size of the National Assembly was reduced from 499 in 2003-2007 to 456 in 2008-2011. Most members of the Central Committee hold more than one key position as counted in our data; the majority of them hold at least 3. Meanwhile, the majority of the legislature members do not hold any other key position. Across the matched and total samples, we see roughly similar shares of different types of positions.

Among those that have at least one connection as shown in Panel A, there are roughly two positions connected to each commune. Panel B further shows that on average each commune has 1.2 politicians in office throughout the 2000-2010 period. The survey waves of 2004 and 2008 witnessed the majority of promotions, corresponding to new terms of the Central Committee in 2007, the Government (starting in 2003-2004) and most strongly, the National Assembly (starting in 2003 and 2007). These waves are therefore largely responsible for the identification in our regressions. Our empirical strategy uses a measure of power capital, understood as the accumulated number of positions connected to a commune, regardless of whether a politician remains in that position. Panel B shows that power capital accumulates fastest for the National Assembly and more

slowly for Government and Central Committee positions. On the other hand, the coverage of our sample is fairly stable over time in terms of administrative units (commune, district or province), area and population. We observe a stark increase in the share of good-quality roads, suggestive that the effect of promotions will be most remarkable for road quality.

Communes with connections to politicians are different from the full VHLSS sample in a number of ways. The former are markedly smaller but more densely populated and considerably less likely to be poor (even though their average income is on par with the full sample's). When it comes to basic infrastructure, there seem to be important disparities regarding good-quality roads, marketplaces and radio stations. Given the concern of selection bias in the group of communes connected to at least one politician, our empirical strategy remains conservative insofar as it only uses the sample of matched communes, i.e. it aims to estimate the Average Treatment Effect on the Treated instead of the overall Average Treatment Effect of politicians' promotions.

5. Empirical Strategy

In an ideal experiment, we would randomly assign promotions to officials and estimate the impact of those promotions on the infrastructure in the politicians' hometowns. Given randomization's infeasibility, our main task is to deal with all possible endogeneity of officials' assignments. Such endogeneity may arise in several ways. Statically, more powerful provinces may have better infrastructure and more officials promoted to the Central Government. Dynamically, officials from provinces that develop faster may be promoted more quickly.

A standard solution for the first (static) type of endogeneity is to include location-fixed effect. A solution for the second (dynamic) type of endogeneity is to test if promotions of officials correlate with infrastructure improvements in communes near their home communes. If certain local conditions drive both promotions and infrastructure investment, we should see a correlation of

promotions and infrastructure in nearby communes. Another robustness check is to include leads in the regressions to see if the local infrastructure improves before officials are promoted. If this happens, it indicates a potential reverse causality problem.

Even after we have included all location-fixed effects and run these tests, there might still be another type of endogeneity. If the attitude of officials towards their hometowns correlates with their ability to get promoted, our estimation can still be biased. For example, if more practical officials care less about their home communes but get promoted more frequently, this correlation will bias our estimate towards zero. A solution to this is to include a fixed effect for each commune-official pair.

With all these considerations in mind, 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 rural home commune and a year of observation. 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 held by each official from 2000 until the year of observation. By including fixed effects for each year, each geographical zone and each pair of official and home communes, the regressions yield an estimate of the effect of having a 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.

Our benchmark regression equation is as follows:

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

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 the different types of infrastructure in the commune, including the quality of road access to villages, local radio stations, preschools and schools, irrigation and water systems, and marketplaces. The vector \mathbf{X}_{qit} 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_{qit} ; ε_{qit} is the error term.

The right-hand-side variable *Power Capital* adds up all ranking positions ever held by each official until year $t-L$. It is a social-political capital measure calculated using all ranking positions ever held by each official, including terminated ones. This measure acknowledges that officials keep their connections and influence even after leaving an office. In Vietnam, while the ascension to a new position is a significant change, most of the time 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 influence on his previous office, even in the case of retirement. In one recent case, for instance, a former Minister of Education had relinquished that position to become Deputy Prime Minister; however, he still exerted particularly strong influence on the Ministry of Education. In other words, the relative importance of an official in the government is best measured by the accumulation of the important, ranking positions he has held over time.

In some specifications where there is little variation at the commune level such as road access to the commune (already present in most communes), we use the corresponding village-level outcome variable (a commune usually consists of several villages.) Such variables are measured in a village randomly sampled by the VHLSS in that commune, e.g. the presence of asphalt road access to the village. Such a variable 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 home commune with a certain type of infrastructure.

In presence of the commune-official fixed effect, the fixed-effect estimator of β is identified by the changes of *Power Capital* within each pair of commune and official. It is effectively interpreted as the effect of an official's increased ranking position, i.e. his accumulation of more power, on the probability of infrastructure improvement in his 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 *Power Capital*, during the considered period. Due 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 construction.

The strength of a fixed-effect model is its control for all *time-invariable* factors. As discussed above, we also pay special attention to and test for *time-variant* factors, which may drive changes in both officials' promotion and communes' infrastructure. As Vietnam has more than eleven thousand communes, it is unlikely that the economic situation in a tiny home commune can affect the lot of a ranking official at the central level. The reverse causality or omitted-variable issue, if it exists, should take place at the district level, which may influence political promotions on a larger scale. If this is true, we must see a correlation between the official's promotion and the development of other communes in his home district and province. As shown in the next section, we will look for evidence for such correlation. Further, if the economic situation in a home commune leads to a

political promotion, then we may expect that changes in commune infrastructure can precede promotions. By including different leads in our econometric model, we can test for such a relation.

6. Empirical results

We employ this benchmark empirical strategy to different data subsamples to address the following questions: (i) Does favoritism arise in an authoritarian regime? (ii) Who is powerful in the political hierarchy? and (iii) What is the motive of favoritism? These questions correspond to Hypotheses I, II and III discussed in Section 3. We report the results for each question below.

6.1 Does favoritism arise in an authoritarian regime?

The more precise question is this: can officials other than top leaders exercise favoritism in authoritarian regimes? We first present our estimations of the impacts of an official's promotion to a ranking position on the construction of various types of infrastructure in his rural home commune in Table 2, using the main sample discussed in Section 4, which excludes the top leaders (General Secretary of the CPV, President, Prime Minister and Chairman of the National Assembly). We find strong positive effects on several outcomes, some with a lag, including the construction of local radio stations and the improvement of local roads within a year of the promotion, the construction of preschools and irrigation systems, the introduction of clean water access with a one-year lag and the construction of commune market places with a two-year lag.

[Insert Table 2 here]

The effects are immediate for the construction of local radio stations 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 station by an estimated 3.5 percentage points. Column (2) shows a similar effect of 6.2 percentage points 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 home commune with higher-grade road access.

A new promotion effects other outcome variables with lags. With a one-year lag, we find positive impacts of the promotion on the presence of preschools and irrigation systems as well as clean water access, as presented in columns (3) to (5). The effects are 2.5 percentage points, significant at 10%; 6.4 percentage points, significant at 10% and 4.9 percentage points, significant at 5%, respectively. With a two-year lag, there is strong evidence of impact on the presence of commune marketplaces, with an estimate of 5.9 percentage points 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 station can be easily set up within one year while a commune-level market will require considerably more time for land clearance and construction. 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.

The main sample used in Panel A 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 main sample with respect to each type of infrastructure gives us a more informative estimate of the impact of an official's new promotion on the construction of the respective type of infrastructure in his rural home commune. Panel B of Table 2 reports the benchmark regression results using such refined samples.

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 main sample reported in Panel A. The estimated impact on local road quality increases from 6.2 percentage points in Panel A

to 9.3 percentage points in Panel B, while that on commune marketplaces increases from 5.9 to 12.6 percentage points. The increases in estimated impacts on local radio stations, irrigation systems, and clean water access, in percentage points, are from 3.5 to 16.1, from 6.4 to 12.6 and from 4.9 to 8.9 respectively, and the estimate on preschools soars to 31.8% (imprecisely estimated). The changes reflect the fact that many infrastructures are already in place (we cannot observe other improvements of existing infrastructures); therefore, the actual impact on the probability of getting each new infrastructure (with lag) is as large as 10% or even higher.

The results presented in both panels of Table 2 are consistent with the claim of widespread favoritism among Vietnamese officials, shown in the form of newly bestowed infrastructure projects in their home communes. Given that our sample does not include top leaders, this finding provides support for Hypothesis I, which states that non-top officials in authoritarian regimes also exercise favoritism.

Table 3 reports further checks on the effect of an official's new promotion on other types of outcome variables, including commune average income, expenditure and population, all with a one-year lag, and the immediate inclusion into the State's "poor commune support program," controlling for year, zone and commune-official or province-fixed effects. Column (1) 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 0.202, significant at 5%, suggesting that the promotion increases the probability of any new infrastructure construction by as much as 20.2 percentage points. Column (2) shows that the promotion has a significant effect of 1.7 percentage points on the commune's inclusion into the State's "poor commune support program," while, interestingly, the commune average income – the key criterion established by the law – does not even predict such inclusion. In other words, the official's promotion improves the hometown's chance of benefiting immediately from the program, in line

with the centralized nature of the program as discussed in Section 2. However, columns (3) and (4) show that there is no evidence that an official's new promotion improves (or reduces) his rural home commune's living standards in terms of its average income and expenditure. Both estimates are less than 1 percentage points and not statistically significant. Similarly, the promotion does not affect the commune population as presented in column (5).

[Insert Table 3 here]

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 the presence of commune marketplaces. These are arguably the two most important variables to economic development in communes. Table 4 summarizes this exercise.

[Insert Table 4 here]

In Panel A of Table 4, we explore the effect of a native official's promotion on local road quality (detailed in the data appendix) under various specifications. Column (1) shows the benchmark specification with immediate effect, controlling for commune average income and population, as well as year, zone and commune-official fixed effects as presented in Table 2. 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 positive, being 6.7 percentage points, significant at 1%; 2.1 percentage points, not statistically significant and 14.6 percentage points, 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 *Power Capital* at one year after the year of observation, i.e. its one-year forward value, and *Power Capital* at the current year of observation in order to separate the effect of the promotion from potential noises that arise from circumstances that pre-date the promotion. The 1-year forward value provides a placebo test of the effect: before the year of the promotion, we should not expect a positive effect on the outcome. Results from

column (5) pass this test, as the coefficient of the 1-year forward value of *Power Capital* is negative 7.0 percentage points, significant at 10%, while the coefficient of the present value *Power Capital* is large at 11.0 percentage points, significant at 1%. Columns (6) and (7) use *Power Capital* 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 home commune and year as equally weighted, in columns (8) and (9) we use alternative observation units to verify that the results are not driven by over-weighting or under-weighting 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 *Power Capital* 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 *Power Capital* 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 percentage points, respectively, and both statistically significant at 5%.

We employ similar robustness checks for the outcome variable, commune marketplaces, in Panel B of Table 4. 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 and show that the effect on marketplaces is robustly significant. Columns (5) to (7) vary the time lag from one year forward to a two-year lag. There is no evidence of effect in any of these columns, suggesting that the tendency of commune marketplaces to be constructed a few years after promotions is due to their relatively larger scale of construction. 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.

One may worry that the evidence thus far arises from the official's better information on the targeted commune, which prompts the budget allocator to allocate more resources to that commune. This alternative explanation is a strong argument against most findings regarding favoritism and pork-barrel politics (e.g. Kramon and Posner 2012.) In our context, this story is inconsistent with several details. First, better information should have been shared independently of the official's power, and thus before his promotion. Many officials in the sample had already held some ranking positions, and could have well transferred their information. Because we find no effect prior to promotion, information sharing is unlikely to be the cause behind the effect on infrastructure. Second, most officials had not lived in their hometowns for an extended period, so the amount of information available to them that could improve the efficiency of public investments in those hometowns is unlikely to be better than that of local budget allocators. Finally, infrastructure projects in our analysis are widely considered necessary in all communes, so further knowledge of local conditions is unlikely to affect the decision to undertake such constructions.

6.2 Who has the power to give favors?

Next we investigate the pervasiveness and degree of favoritism among different groups of Vietnamese officials, including members of the National Assembly, Central Government and Provincial Government. While existing literature on favoritism in autocratic regimes has mostly addressed top-level officials, who have both the political interest and the power to favor certain groups within the population (e.g. Burgess et al 2011), our sample covers not only the very few at the top but also a large number of mid-level officials. Using Proposition 2a, this investigation helps shed light onto the power structure of different groups of Vietnamese political elites, as shown in Table 5. Columns 2-8 compare the effects of an official's new promotion on home commune road

quality, one of the two key outcome variables⁹, using the benchmark regression in subsamples of non-chaired, all, non-National Assembly positions, Central Government positions, Provincial Government positions and some combinations of these subsamples¹⁰.

[Insert Table 5 here]

In democracies, members of parliament are the key players in pork-barrel politics (Shepsle and Weingast 1981, Bickers and Stein 2000). In authoritarian regimes, members of parliament may play a different role since the Central Government and ruling party (whose members largely overlap) make major decisions (Malesky, Schuler and Tran 2012). In Vietnam, a regular, non-chaired member of the National Assembly without another ranking position in the CPV or Government can hardly use his parliamentary membership as leverage for any real benefits. Column (2) shows that an official's new promotion to such a non-chaired position in the National Assembly has no detectable effect on his home commune road quality: the impact estimate is only 1.9 percentage points and not statistically significant at conventional levels, compared to the benchmark estimate of 6.2 percentage points. Even when we extend this subsample to all National Assembly positions in column (3), the impact estimate is still negligible, being only 2.8 percentage points and not statistically significant at conventional levels. On the contrary, in the subsample of non-National Assembly positions in column (4), which includes all remaining Central Government, Provincial Government and Party's Central Committee positions, we find a large impact estimate of 10.0 percentage points, significant at 1%. This difference in statistical significance level is not driven by sample sizes, as the number of observations in columns (2)-(4) are roughly even. Overall, these results are consistent with our view

⁹ We also ran similar tests using other outcome variables, including the other key outcome variable, presence of commune marketplaces. The results from these tests are qualitatively similar to those presented above, although less significant.

¹⁰ An official could hold more than one position (e.g. a minister who is also a non-chair parliamentary member) and therefore could be included in more than one subsample. The corresponding independent variable *Accumulated Power* only reflects the relevant positions for each subsample.

that the parliament has little power within the Vietnamese political hierarchy and therefore its members have limited bargaining power to redirect resources to their hometowns.

Columns (5)-(7) report the effect of an official's new promotion on his commune road quality in a subsample of Central Government positions, a subsample of Provincial Government positions and the combined subsample. All three point estimates are large, being 17.3, 8.2, and 9.3 percentage points, respectively, compared to the benchmark estimate of 6.2 percentage points and, except for one with a small sample size, all statistically significant at 5%. Furthermore, we find that a promotion to a Central Government position has a larger and statistically stronger impact on home-commune road quality than a promotion to a Provincial Government position (17.3 compared to 8.2 percentage points), even though provincial leaders have direct control over budgetary allocations to communes. This result suggests the existence of an informal channel of influence through exchanges of personal favors (i.e. between a Central Government member and a local leader in this context) as described in our theoretical model, and the considerable political power of the Central Government that allows it to affect public decisions beyond its jurisdiction.

Finally, column (8) reports the effect of an official's new promotion on his commune road quality in the subsample of "middle-ranking" positions. As Proposition 2a suggests, the more political power an official has, the larger the amount of favored allocation he can direct to his home commune. Thus, we would like to investigate if the effects of an official's new promotion on his commune road quality found in columns (4)-(7) are largely driven by only a few top-level officials, or if the observed hometown favoritism is much more pervasive among Vietnamese political elites. To do so, we construct a subsample of "middle-ranking" positions, which excludes not only the top 4 positions as in the benchmark sample but also all Deputy Prime Ministers, Vice Presidents, members of the Politburo and chair-holding members of the Central Committee. The estimate of impact on improvement in local road quality in this subsample is 7.2 percentage points and significant at 5%.

Although this estimate is, as expected, lower than that of 9.3 percentage points in the subsample of all non-National Assembly positions, it provides clear evidence that favoritism is not limited to only top-level officials, as shown in the existing literature, but is pervasive also in the midrange of Vietnamese politics.

Together, the results from Table 5 show that hometown favoritism is a phenomenon widespread across different groups and ranks of Vietnamese officials, consistent with Hypothesis I. The magnitude of such favoritism varies substantially among different ranks and divisions within the government, consistent with Hypothesis II. In particular, we find that even Provincial Government officials are more powerful than members of the legislative National Assembly. Central Government officials, who have no authority over commune budget, turn out to be the most powerful in directing these public resources toward their hometowns. This pattern underlines the importance of informal authority and the inconsequence of legislative bodies in less democratic countries.

We now ask which institutional environments are more likely to encourage or prohibit the sort of favoritism discussed above, using a measure of provincial governance. As district and provincial authorities decide commune budgets, ranking officials must seek approval from these offices in order to intervene in infrastructure construction in their hometowns. Consequently, when provincial leaders have more flexibility in crafting policies, they can better commit to and honor quid-pro-quo deals with ranking officials; in such cases the latter are expected to be more able to channel resources toward 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 perceptions that has been systematically constructed with the help from the UNDP since 2006. Among the available indicators, we select three that are relevant to the discretionary power of 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 the transparency score, and take its average over the period of 2006 to 2008, the period during which the PCI overlaps with our sample. As in previous subsections, the sample is divided at the median of the PDP scores. Table 6 reports the benchmark regression results for the two subsamples.

[Insert Table 6 here]

Panels A and B of Table 6 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 environments better allow 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 (7.1 and 8.5 percentage points, respectively) and significant (at 5%), while in the other subsample, the effects are not statistically significant at conventional levels. These results suggest that discretionary authority facilitates favoritism.

6.3 What is the motive of hometown favoritism?

In existing studies of political favoritism, the identification of the motive of favoritism represents a formidable challenge. Officials may favor friends and relatives because of directed altruism towards their kin, or as a result of strategic calculation in building and profiting from a political base. For instance, pork-barrel politics are mostly explained in terms of rewards to political constituencies, and

ethnic favoritism by certain dictators arguably serves to build a coalition of support (Padro-i-Miquel 2007).

Political motive versus social preference. In our empirical context, we can compare the importance of these two motives by assessing favoritism at the commune and the district levels. As argued in Proposition 3, moving from the commune to the district dilutes the social preference motive, since the larger population is less related to its officials. In contrast, the political motive is reinforced because a larger district can leverage greater political support for its officials. 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 7 summarizes the results from this exercise.

[Insert Table 7 here]

Each observation used in Panel A of Table 7 combines a ranking official, his home district and a year for which VHLSS data for at least one commune in that district are available. The value of each outcome variable at the district level is then calculated as the average among all the surveyed communes in the district. The resulted estimates are all well below 1 percentage point and are not statistically significant at conventional levels; thus they refute the explanation that ranking officials grant favors to their home districts in exchange for political support at the local level. In Panel B of Table 7, we estimate the impact of an official's new promotion on infrastructure construction in non-home communes in his home district, using a sample in which each observation combines a ranking official, a non-home commune in his home district and a year for which VHLSS data for the commune are available. Again, all the resulting estimates are close to zero and not statistically significant. These results show strong evidence that the observed favoritism is driven by officials' social preferences toward their hometowns rather than by their desires for political support. This is consistent with Hypothesis III.

Connection: Let us investigate the favoritism motive further. If favoritism is based on the preference of ranking officials, we should expect that the social distance between the official and his rural home commune determines the magnitude of favoritism. We use the age gap between the official and the commune chairperson as a proxy for social proximity.¹¹ In Table 8, we report the results from the benchmark regressions with subsamples divided according to the age gap between the official and his home commune's chairperson, using the sample median of a 10-year age gap as the division threshold.

[Insert Table 8 here]

Panels A and B of Table 8 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 percentage points, significant at 1%, and that for commune marketplaces is 6.1%, though not statistically significant due to small sample size. 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 thirds 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.

Commune needs: If favoritism is principally motivated by an official's social preferences for his hometown, we expect the effect to be declining in the commune's average income, as the official is less willing to give to his wealthier relatives. This decline should be similar for the two key

¹¹ VHLSS is fortunately one among the very few surveys of the World Bank's Living Standards Measurement Surveys that includes information on commune officials.

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 a service. 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 relationship between the effect on local road quality and the commune population size.

The variation of the favoritism effect on local road quality and the presence of commune marketplaces is best illustrated with graphs that show the non-parametric relationship between each effect and the baseline variable (average income or population size). 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,¹² on the treatment variable of *Power Capital* (with a two-year lag for presence of commune marketplaces) together with the controls and fixed effects in the benchmark regression; we 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 provide an example, in Figure 2 Panel A 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 *Power Capital* with Gaussian kernel weight at each of these points, using all controls and fixed effects in the benchmark regression in Table 1A, and then report the estimated coefficient of *Power Capital* as a point on the graph.

Figure 2 then reports the variations of favoritism according to average income for local road quality (Panel A) and presence of commune marketplaces (Panel B). Both figures clearly show a sharp drop in favoritism at a certain level of income, consistent with the explanation regarding social

¹²The results are very similar when we vary the bandwidth from 5% to 20% of the total range.

preferences directed towards hometowns. Figure 2 shows the analogous variations according to population size. While it is hard to recognize a trend in the effect for local road quality, we can see clearly the increasing effect for the presence of commune marketplaces for the most important range of values of population size. The findings from these figures support our explanation regarding the directed social preference motive of government officials.

7. Concluding Remarks

In this paper, we attempt to show a causal link between the promotion of officials to ranking positions in high office and infrastructure developments in their home communes. Using a fixed-effect model on panel data of commune infrastructure, we find evidence of widespread favoritism in the construction of different types of infrastructure including roads, marketplaces, irrigation, schools, radio stations, safe water access and access to the State's "poor commune support program." The magnitude of this favoritism depends on the position of the official, the respective provincial environment and the connection between the official and his rural home commune. While middle-ranking officials in the Government have significant ability to exercise favoritism, 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 favoritism is exercised through informal influence. Communes better connected to promoted native officials and in provinces where provincial leaderships have more discretionary power tend to reap more benefits from favoritism.

We observe that officials target their favors narrowly to their small home communes instead of distributing them over their whole home districts. The entire population of a commune is politically negligible 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 to strategic behaviors in building political support 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 prevails in environments with low transparency, high discretionary power on the part 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.

The important question of efficiency has been left out in this paper, as it is in most related studies. It is not exactly clear how the favoritism pattern identified here affects the efficient allocation of public resources, an issue discussed by Hsieh and Klenow (2009). Apart from the intuitive interpretation that it could cause serious misallocations of public resources, one might also speculate that officials possess better information about their home communes and therefore can direct public resources to more efficient use in them. This information channel presents a formidable challenge to the broad literature on favoritism and patronage politics. Testing this efficiency gain or loss represents an interesting avenue for future research. In our study, it is unlikely that favoritism leads to a more efficient use of resources. Even if promoted officials know their communes' needs, it is unlikely that they do better than local budget authorities in suggesting more efficient allocation. Besides, were it to exist, their information advantage should have materialized even before the promotion, and should have spilled over to neighboring communes as well. These two predictions are not supported by our empirical results; however, we remain cautious in making claims about efficiency.

Standard economic theory would predict that marginal incentives for corruption, defined as the abuse of public office for personal (individual or close family) gain, will diminish as office holders become richer. It implies that in the long run, growth and stable politics will reduce

corruption rates. Our results challenge this view. Because of their willingness to abuse power to channel public resources to social connections, ranking officials may maintain an appetite for corruption far beyond their own consumption and accumulation of wealth. This motive of favoritism runs independently of quid-pro-quo political support, and could thus be present in developed countries as well (Hyytinen, Lundberg and Toivanen 2007), although in such cases political concerns would confound the empirical association between power and favoritism. Socially motivated favoritism should be an important consideration in designing measures against corrupt behaviors on the part of public officials, not only in authoritarian regimes but also in countries where democracy and transparency are less than perfect.

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9. Appendix: Proof of Propositions

Proof of Proposition 1: The Lagrangian of this optimization problem, $\pi(B,\lambda) + \sigma(B,\lambda) - g(P, r) - \lambda[P - h(B,d)]$, implies the first order conditions:

$$\pi'_B(B,\lambda) + \sigma'_B(B,\lambda) + \lambda h'_B(B,d) = 0 \text{ and } -g'_P(P,r) - \lambda = 0.$$

The participation constraint is binding as $P = h(B,d)$.

These conditions yield:

$$\pi'_B(B,\lambda) + \sigma'_B(B,\lambda) - g'_P(h(B,d),r)h'_B(B,d) = 0.$$

This equation has a unique solution B^* because the left-hand side's derivative with respect to B is negative, as:

$$\pi''_{BB}(B,\lambda) < 0, \sigma''_{BB}(B,\lambda) < 0, \text{ and } g''_{PP}(h(B,d),r)[h'_B(B,d)]^2 + g'_P(h(B,d),r)h''_B(B,d) > 0.$$

The Lagrangian is concave in (P,B) because its Hessian matrix is negative definite. Therefore, $(h(B^*,d),B^*)$ is the unique solution to this optimization problem under constraint. Furthermore, since the left-hand side of this equation is positive when $B=0$, the result of favored allocation B^* must be positive (**QED**).

Proof of Proposition 2: (a) The partial differentiation with respect to r from equation (2) yields:

$$\begin{aligned}
& \pi''_{BB}(B^*,\lambda)B^*'_r + \sigma''_{BB}(B^*,\lambda)B^*'_r = \\
& [g''_{PP}(P^*,r)h'_B(B^*,d)B^*'_r + g''_{Pr}(P^*,r)]h'_B(B^*,d) + g'_P(P^*,r)h''_{BB}(B^*,d)B^*'_r \\
\Leftrightarrow & \{\pi''_{BB}(B^*,\lambda) + \sigma''_{BB}(B^*,\lambda) - g''_{PP}(P^*,r)[h'_B(B^*,d)]^2 - g'_P(P^*,r)h''_{BB}(B^*,d)\}B^*'_r = \\
& g''_{Pr}(P^*,r)h'_B(B^*,d).
\end{aligned}$$

The expression in the bracket on the left-hand side is negative while the right-hand side is positive as $g''_{Pr}(P^*,r) < 0$ based on the proposition's assumption. Therefore, $B^*'_r$ must be positive, indicating that the solution B^* is increasing in r (**QED**).

(b) The partial differentiation with respect to d from equation (2) yields:

$$\begin{aligned}
& \pi''_{BB}(B^*,\lambda)B^*'_d + \sigma''_{BB}(B^*,\lambda)B^*'_d = \\
& g''_{PP}(P^*,r)[h'_B(B^*,d)B^*'_d + h'_d(B^*,d)]h'_B(B^*,d) + g'_P(P^*,r)[h''_{BB}(B^*,d)B^*'_d + h''_{Bd}(B^*,d)] \\
\Leftrightarrow & \{\pi''_{BB}(B^*,\lambda) + \sigma''_{BB}(B^*,\lambda) - g''_{PP}(P^*,r)[h'_B(B^*,d)]^2 - g'_P(P^*,r)h''_{BB}(B^*,d)\}B^*'_d = \\
& g''_{PP}(P^*,r)h'_d(B^*,d)h'_B(B^*,d) + g'_P(P^*,r)h''_{Bd}(B^*,d).
\end{aligned}$$

The expression in the bracket on the left-hand side is negative while the right-hand side is positive as $h''_{Bd}(B^*,d) > 0$ based on the proposition's assumption. Therefore, $B^*'_d$ must be negative, indicating that the solution B^* is decreasing in d (**QED**).

Proof of Proposition 3: Suppose the marginal benefits are decreasing in λ , as in the case where social preferences outweigh political supports (the opposite case is proven analogously.) Let $\lambda_1 < \lambda_2$, so $\sigma'_B(B,\lambda_1) + \pi'_B(B,\lambda_1) \geq \sigma'_B(B,\lambda_2) + \pi'_B(B,\lambda_2)$ for every B , and B_1^* and B_2^* be the corresponding solutions. We now need to show that $B_1^* \geq B_2^*$.

Recall from equation (2) that : $\sigma'_B(B,\lambda) + \pi'_B(B,\lambda) = g'_P(h(B,d),r)h'_B(B,d)$. Denote this expression as $M(B)$. $\sigma'_B(B,\lambda) + \pi'_B(B,\lambda)$ is decreasing in B as $\sigma + \pi$ is concave in B , while $M(B)$ is increasing in B as g and h are convex.

Assume that $B_1^* < B_2^*$, then $M(B_1^*) = \sigma'_B(B_1^*, \lambda_1) + \pi'_B(B_1^*, \lambda_1) \geq \sigma'_B(B_1^*, \lambda_2) + \pi'_B(B_1^*, \lambda_2) \geq \sigma'_B(B_2^*, \lambda_2) + \pi'_B(B_2^*, \lambda_2) = M(B_2^*)$, contradictory to $M(B)$'s increasing in B . Therefore, $B_1^* \geq B_2^*$ **(QED)**.

10. Tables and Figures

Table 1. Descriptive statistics

Panel A. Government officials

Official group/subgroup	Start year	End year	No. of officials		No. of positions*		Average**	Median**	No. of communes	
							no. of positions	no. of positions		
Central Committee	2002	2011	90	21%	119	18%	2.67	2	86	25%
Central Committee 9th	2002	2006	43	10%	43	6%	3.14	3	43	12%
Central Committee 10th	2007	2011	76	18%	76	11%	2.82	3	72	21%
Central Government	1997	2011	72	17%	102	15%	2.29	2	68	19%
Government from 2000 yearbook	1997	2002	23	5%	23	3%	2.65	2	23	7%
Government from 2004 yearbook	2003	2007	43	10%	43	6%	2.47	2	42	12%
Government from 2009 yearbook	2008	2011	36	9%	36	5%	2.56	2	36	10%
Provincial Government	2000	2010	105	25%	167	25%	1.92	2	97	28%
Government from 2000 yearbook	2000	2004	37	9%	37	5%	2.65	3	37	11%
Government from 2004 yearbook	2004	2006	67	16%	67	10%	2.19	2	64	18%
Government from 2009 yearbook	2006	2010	63	15%	63	9%	1.92	2	61	17%
National Assembly	2003	2011	252	60%	290	43%	1.58	1	224	64%
National Assembly 11	2003	2007	138	33%	138	20%	1.83	1	130	37%
National Assembly 12	2008	2011	152	36%	152	22%	1.70	1	144	41%
Total	1997	2011	422	100%	678	100%	1.61	1	351	100%

Panel B. Communes

Commune statistics	Benchmark sample					VHLSS rural commune population				
	2002	2004	2006	2008	Overall	2002	2004	2006	2008	Overall
Sample coverage										
Number of communes	311	323	328	309	343	2213	2238	2276	2191	2554
Number of districts	196	207	208	197	215	556	570	575	582	610
Number of provinces	55	59	59	57	60	55	59	59	57	60
Commune statistics										
Average area	26.9	27.0	26.7	29.0	27.4	39.4	35.9	39.7	41.3	39.1
Average population	9794	9689	9658	9714	9713	9039	8631	8647	8836	8787
Average income	404	435	572	856	565	342	432	574	881	556
% with poverty classification	13.2	13.7	14.0	12.6	13.4	19.2	20.9	19.4	18.0	19.4
Commune existing infrastructure										
% with radio station	-	81.7	86.9	85.4	84.7	-	77.0	80.7	80.6	79.5
% with good quality road	50.8	67.8	73.2	76.7	67.2	43.3	58.5	63.9	69.6	58.9
% with preschool	-	96.9	98.8	97.4	97.7	-	96.8	96.4	97.7	97.0
% with irrigation system	-	70.2	70.1	68.5	69.6	-	66.5	67.3	67.2	67.0
% with clean water supply	61.4	58.8	58.3	58.0	59.1	61.6	60.8	59.4	61.6	60.8
% with market place	-	70.0	70.7	68.3	69.7	-	62.2	63.6	62.9	62.9
Average politicians per commune										
promoted this year or the year before	0.13	0.69	0.18	0.63		-	-	-	-	
promoted/in office this year or earlier	0.29	0.77	0.83	1.21		-	-	-	-	
promoted/in office between 2000-10	1.21	1.22	1.21	1.21	1.21	-	-	-	-	
Average power capital per commune***	0.32	1.03	1.21	1.96	1.13	-	-	-	-	
from Central Committee positions	0.13	0.12	0.12	0.35	0.18	-	-	-	-	
from Central Government positions	0.07	0.20	0.20	0.31	0.19	-	-	-	-	
from Provincial Government positions	0.11	0.32	0.49	0.49	0.35	-	-	-	-	
from National Assembly positions	0.00	0.40	0.39	0.82	0.40	-	-	-	-	

Note:

* Numbers of unique officials & numbers of positions x terms in each group/subgroup (each subgroup represents a term)

** Average/median numbers of positions x terms held by an official in each group/subgroup throughout the 2000-10 period

*** Power capital of a commune in a year is the accumulated number of positions x terms held by officials coming from that commune up to

Table 2: Officials' power and home commune infrastructure

Panel A. Main sample

	(1)	(2)	(3)	(4)	(5)	(6)
Time lag	Immediate	Immediate	1-year lag	1-year lag	1-year lag	2-year lag
Dependent variable	Radio station	Good road	Preschool	Irrigation	Clean Water	Marketplace
Power Capital	0.0346 (0.0201) *	0.0620 (0.0242) **	0.0247 (0.0127) *	0.0643 (0.0356) *	0.0485 (0.0197) **	0.0590 (0.0239) **
Commune ave. income	0.0136 (0.0271)	0.0356 (0.0307)	0.00575 (0.0132)	-0.0464 (0.0555)	0.0472 (0.0310)	0.0124 (0.0362)
Commune population	0.0522 (0.0896)	0.0647 (0.0872)	0.0792 (0.0615)	0.239 (0.1720)	0.0254 (0.0678)	0.0884 (0.1010)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
Comm-Official FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,155	1,533	1,157	1,155	1,528	1,157
R-squared	0.738	0.578	0.575	0.587	0.726	0.772

Panel B. Subsamples, excluding communes that already have corresponding infrastructure

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	Immediate Radio station	Immediate Good road	1-year lag Preschool	1-year lag Irrigation	1-year lag Clean Water	2-year lag Marketplace
Power Capital	0.161 (0.0885) *	0.0932 (0.0373) **	0.318 (0.3090)	0.126 (0.0650) *	0.0886 (0.0363) **	0.126 (0.0563) **
Commune ave. income	0.0775 (0.0927)	0.0722 (0.0561)	0.00238 (0.2310)	-0.105 (0.1130)	0.0762 (0.0514)	0.0158 (0.0733)
Commune population	0.249 (0.3440)	0.113 (0.1930)	-0.665 (0.7020)	0.337 (0.2340)	0.0239 (0.1180)	0.435 (0.2890)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
Comm-Official FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	289	895	59	620	856	473
R-squared	0.463	0.426	0.413	0.322	0.441	0.449

Note: In this table, 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 on the main sample. Panel B replicates the Panel A regressions on a subsample excluding communes where the corresponding infrastructure was present throughout the period. Panel B reports reports similar salient results from these subsamples. 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: Favoritism in other home commune outcomes

	(1)	(2)	(3)	(4)	(5)
Time lag	1-year lag	Immediate	1-year lag	1-year lag	1-year lag
Dependent variable	Aggregate infrastructure	Poor commune support program	Commune average income	Commune average expenditure	Commune population
Power Capital	0.202 (0.0881) **	0.0169 (0.0083) **	0.0106 (0.0275)	-0.00438 (0.0188)	-0.00526 (0.00733)
Commune ave. income	0.0520 (0.1420)	8.91e-05 (0.0203)			
Commune population	2.281 (0.7140) ***	-0.0932 (0.0270) ***			
Year FE	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes
ComOfficial FE	Yes		Yes	Yes	Yes
Province FE		Yes			
Observations	1,148	1,532	1,542	1,542	1,533
R-squared	0.769	0.434	0.688	0.779	0.953

Note: This table 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, most with a one-year lag and controlling for year, zone, and commune-official or province fixed effects. 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: Alternative specifications and robustness checks

Panel A: Robustness checks with dependent variable Good road

Lag Specification	(1) Immediate Benchmark	(2) Immediate No FE	(3) Immediate Year FE	(4) Immediate ComOfficial FE	(5) 1-year forward Benchmark	(6) 1-year lag Benchmark	(7) 2-year lag Benchmark	(8) Immediate Composition unit	(9) Immediate Commune unit
Power Capital	0.0620 (0.0242) **	0.0673 (0.0125) ***	0.0213 (0.0136)	0.146 (0.0181) ***	0.110 (0.0365) ***	0.0426 (0.0245) *	0.0367 (0.0266)	0.0563 (0.0237) **	0.0523 (0.0214) **
Power K 1-year lead					-0.0695 (0.0372) *				
logComAvgInc	0.0356 (0.0307)				0.0350 (0.0306)	0.0353 (0.0308)	0.0366 (0.0307)	0.0193 (0.0351)	0.0310 (0.0294)
logComPop	0.0647 (0.0872)				0.0706 (0.0870)	0.0654 (0.0869)	0.0618 (0.0863)	0.0519 (0.0990)	0.138 (0.0935)
Year FE	Yes		Yes		Yes	Yes	Yes	Yes	Yes
Zone FE	Yes				Yes	Yes	Yes	Yes	Yes
ComOfficial FE	Yes			Yes	Yes	Yes	Yes		Yes
ComPosition FE								Yes	
Commune FE									Yes
Observations	1,533	1,542	1,542	1,542	1,533	1,533	1,533	2,480	1,262
R-squared	0.578	0.018	0.049	0.563	0.580	0.577	0.576	0.570	0.579

Panel B: Robustness checks with dependent variable Marketplace

Lag Specification	(1) 2-year lag Benchmark	(2) 2-year lag No FE	(3) 2-year lag Year FE	(4) 2-year lag ComOfficial FE	(5) 1-year forward Benchmark	(6) Immediate Benchmark	(7) 1-year lag Benchmark	(8) 2-year lag Composition unit	(9) 2-year lag Commune unit
Power Capital	0.0590 (0.0239) **	0.0252 (0.0176)	0.0353 (0.0189) *	0.00949 (0.0188)	-0.0542 (0.0424)	-0.0287 (0.0272)	0.0284 (0.0233)	0.0483 (0.0195) **	0.0326 (0.0217)
Power K 1-year lead					0.0315 (0.0414)				
logComAvgInc	0.0124 (0.0362)				0.0104 (0.0362)	0.0105 (0.0361)	0.00980 (0.0362)	-0.0170 (0.0390)	0.00241 (0.0359)
logComPop	0.0884 (0.1010)				0.0950 (0.1020)	0.0965 (0.1020)	0.0959 (0.1010)	0.0369 (0.0932)	0.136 (0.1210)
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	1,157	1,166	1,166	1,166	1,157	1,157	1,157	1,870	951
R-squared	0.772	0.002	0.002	0.765	0.771	0.771	0.771	0.765	0.778

Note: Panel A explores the effect of a native official's new promotion on local Good road under various specifications, including using different controls and fixed effects, with different lags, and using different observation units. 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. 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: Favoritism by different level of real budget authority

Subsample	(1) Benchmark	(2) Non-chaired National Assembly	(3) All National Assembly	(4) Non National Assembly	(5) Central Government	(6) Provincial Government	(7) Central & Provincial Government	(8) Medium ranking officials
Power Capital	0.0620 (0.0242) **	0.0189 (0.0471)	0.0281 (0.0467)	0.1000 (0.0333) ***	0.173 (0.0792) **	0.0824 (0.0597)	0.0930 (0.0441) **	0.0715 (0.0358) **
Commune ave. income	0.0356 (0.0307)	0.0109 (0.0382)	0.0107 (0.0376)	0.0327 (0.0391)	0.0261 (0.0886)	0.0606 (0.0490)	0.0481 (0.0446)	0.0422 (0.0398)
Commune population	0.0647 (0.0872)	0.0431 (0.1180)	0.0280 (0.1230)	0.0031 (0.1020)	0.0234 (0.1150)	0.0697 (0.1670)	0.0484 (0.1070)	0.0424 (0.1040)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Comm-Official FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,533	861	904	829	267	393	648	832
R-squared	0.578	0.582	0.574	0.6020	0.558	0.602	0.579	0.582

Note: This table reports benchmark regression results for key outcome variable Good road using subsamples divided by different groups of Vietnamese political elites, including non-chaired National Assembly positions, all National Assembly positions, non-National Assembly positions, Central Government positions, Provincial Governments positions, and medium-ranking positions (i.e. ministers, deputy ministers, and the equivalent, provincial leaders, and ordinary members of the Central Committee). 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: Favoritism by the flexibility of the provincial institutional environment

Panel A: Subsample of communes in provinces with above-median 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	Radio station	Good road	Preschool	Irrigation	Clean Water	Marketplace
Power Capital	0.0629 (0.0311) **	0.0710 (0.0319) **	0.0226 (0.0216)	0.0762 (0.0536)	0.0474 (0.0281) *	0.0853 (0.0379) **
Commune ave. incom	0.0270 (0.0361)	0.0190 (0.0388)	-0.00474 (0.0124)	0.0198 (0.0835)	0.0509 (0.0400)	0.00119 (0.0450)
Commune populatio	0.107 (0.0981)	0.0815 (0.1300)	0.0218 (0.0266)	0.300 (0.2490)	0.0159 (0.1180)	0.0185 (0.1030)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
Comm-Official FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	606	798	608	607	793	608
R-squared	0.705	0.581	0.535	0.560	0.657	0.768

Panel B: Subsample of communes in provinces with below-median 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	Radio station	Good road	Preschool	Irrigation	Clean Water	Marketplace
Power Capital	0.00858 (0.0262)	0.0496 (0.0364)	0.0226 (0.0158)	0.0626 (0.0484)	0.0500 (0.0279) *	0.0342 (0.0297)
Commune ave. incom	0.0154 (0.0374)	0.0645 (0.0473)	0.0169 (0.0266)	-0.134 (0.0621) **	0.0457 (0.0490)	0.0318 (0.0562)
Commune populatio	-0.0771 (0.1740)	-0.00204 (0.1190)	0.151 (0.1180)	0.260 (0.1970)	0.0368 (0.0741)	0.195 (0.1910)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
Comm-Official FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	549	735	549	548	735	549
R-squared	0.781	0.592	0.625	0.639	0.790	0.785

Note: In this table, 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 *Provincial Discretionary Policies'* scores (PDP). 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. 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: Favoritism for home district**Panel A: Sample in which ranking officials are matched to their home districts**

	(1)	(2)	(3)	(4)	(5)	(6)
Time lag	Immediate	Immediate	1-year lag	1-year lag	1-year lag	2-year lag
Dependent variable	Radio station	Good road	Preschool	Irrigation	Clean Water	Marketplace
Power Capital	-0.00534 (0.0065)	0.00106 (0.0073)	-0.000263 (0.0050)	0.00349 (0.0125)	0.00985 (0.0093)	0.00471 (0.0089)
Commune ave. income	-0.00680 (0.0255)	0.0343 (0.0327)	-0.00312 (0.0180)	0.0329 (0.0375)	-0.0327 (0.0367)	0.0479 (0.0350)
Commune population	0.0180 (0.0334)	0.0560 (0.0516)	0.0285 (0.0425)	-0.0197 (0.0370)	-0.0867 (0.0391) **	0.0859 (0.0507) *
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
Comm-Official FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,963	4,693	3,963	3,963	4,694	3,963
R-squared	0.827	0.740	0.578	0.704	0.807	0.781

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

	(1)	(2)	(3)	(4)	(5)	(6)
Time lag	Immediate	Immediate	1-year lag	1-year lag	1-year lag	2-year lag
Dependent variable	Radio station	Good road	Preschool	Irrigation	Clean Water	Marketplace
Power Capital	-0.00571 (0.0050)	0.00731 (0.0067)	0.00292 (0.0039)	0.00998 (0.0096)	-0.00213 (0.0054)	-0.00222 (0.0071)
Commune ave. income	0.00862 (0.0106)	-0.0104 (0.0176)	-0.000589 (0.0093)	-0.000334 (0.0220)	0.00872 (0.0169)	-0.0156 (0.0163)
Commune population	0.00790 (0.0767)	0.0412 (0.0387)	-0.0378 (0.0562)	0.00230 (0.0874)	0.0119 (0.0366)	0.0563 (0.1020)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
Comm-Official FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	17,620	23,548	17,632	17,605	23,535	17,632
R-squared	0.714	0.577	0.514	0.621	0.729	0.768

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

Table 8: Favoritism by 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

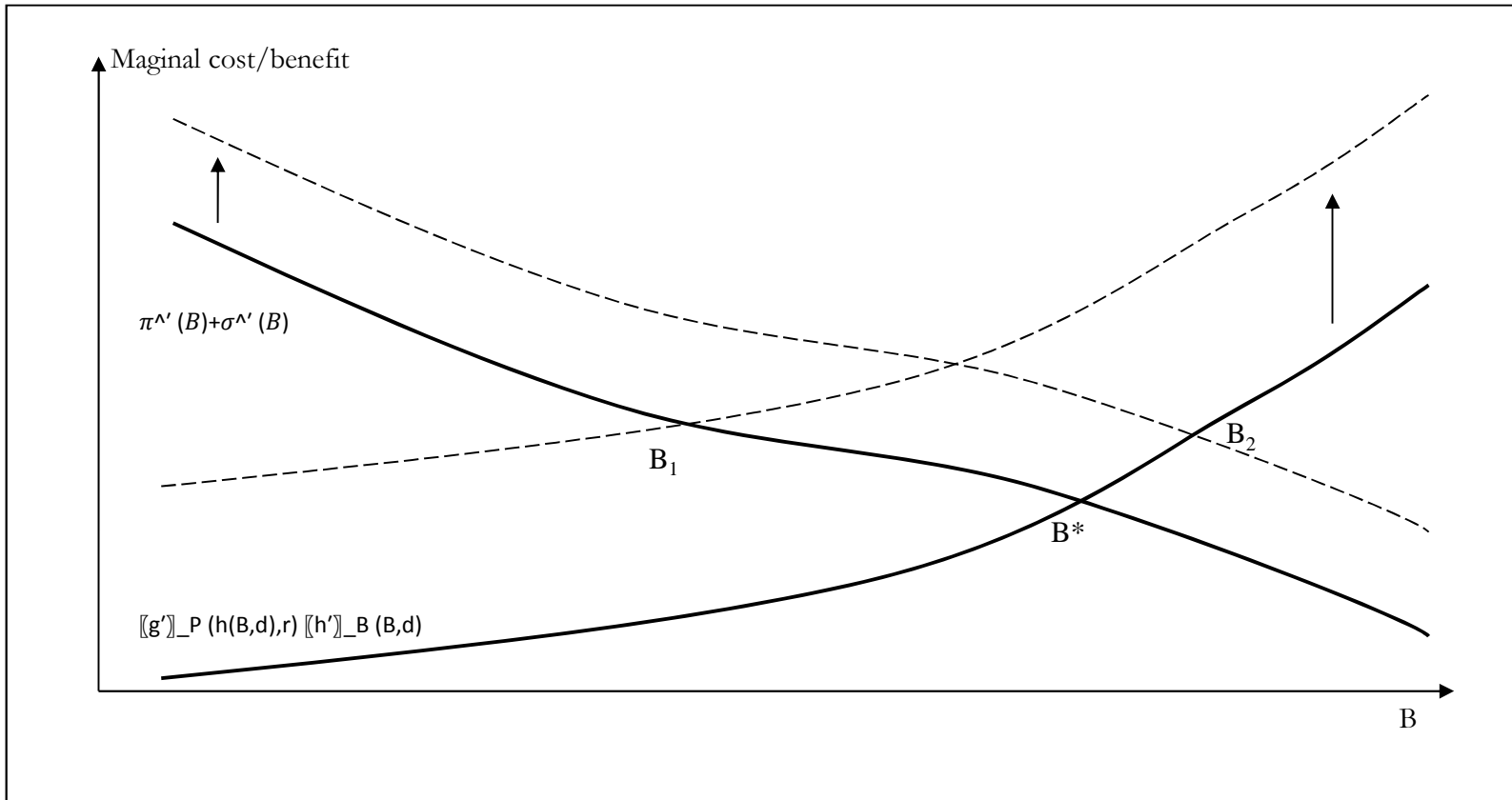
	(1)	(2)	(3)	(4)	(5)	(6)
Time lag	Immediate	Immediate	1-year lag	1-year lag	1-year lag	2-year lag
Dependent variable	Radio station	Good road	Preschool	Irrigation	Clean Water	Marketplace
Power Capital	0.0427 (0.0300)	0.101 (0.0372) ***	0.0160 (0.0155)	0.0673 (0.0551)	0.0411 (0.0265)	0.0608 (0.0441)
Commune ave. income	0.0724 (0.0380) *	0.0337 (0.0534)	-0.00697 (0.0188)	0.000300 (0.0638)	0.0378 (0.0518)	0.00922 (0.0568)
Commune population	0.246 (0.1670)	0.117 (0.1060)	-0.0495 (0.0377)	0.414 (0.2490) *	-0.102 (0.0754)	0.100 (0.1840)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
Comm-Official FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	561	778	561	561	775	561
R-squared	0.836	0.662	0.636	0.667	0.784	0.801

Panel B: Subsample of ranking officials and home communes' chairs whose age gaps are above median

	(1)	(2)	(3)	(4)	(5)	(6)
Time lag	Immediate	Immediate	1-year lag	1-year lag	1-year lag	2-year lag
Dependent variable	Radio station	Good road	Preschool	Irrigation	Clean Water	Marketplace
Power Capital	0.0122 (0.0278)	0.0679 (0.0379) *	0.0197 (0.0248)	0.0446 (0.0634)	0.0438 (0.0388)	-0.000900 (0.0411)
Commune ave. income	-0.0811 (0.0470) *	0.00674 (0.0489)	0.0147 (0.0247)	-0.101 (0.1100)	0.107 (0.0508) **	-0.00189 (0.0494)
Commune population	-0.0796 (0.1320)	0.00194 (0.1610)	0.111 (0.0943)	0.0879 (0.2380)	0.0921 (0.1320)	-0.0335 (0.1230)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Zone FE	Yes	Yes	Yes	Yes	Yes	Yes
Comm-Official FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	594	755	596	594	753	596
R-squared	0.779	0.645	0.637	0.656	0.765	0.818

Note: In this table, 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 (i.e., age gaps of 9 and below). Panel B reports the benchmark regression results for the subsample of ranking 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 (i.e., age gaps of 10 and above). Robust standard errors in brackets are clustered at commune-year level. Statistical significance is denoted by *** ($p < 1\%$), ** ($p < 5\%$), and * ($p < 10\%$).

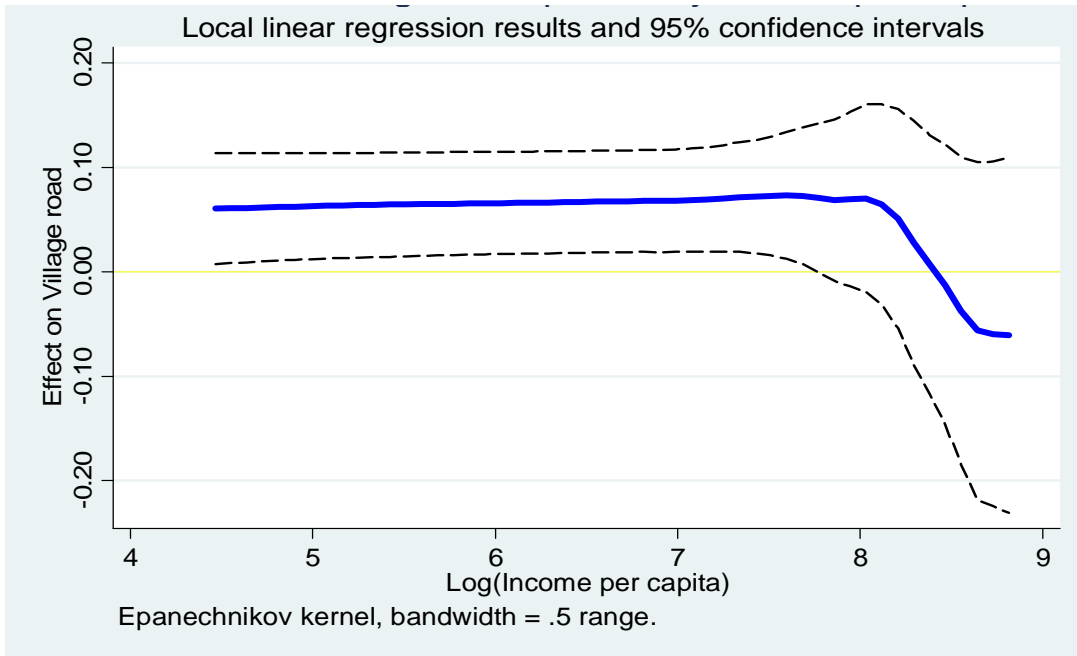
Figure 1: Model solution of favored allocation B^*



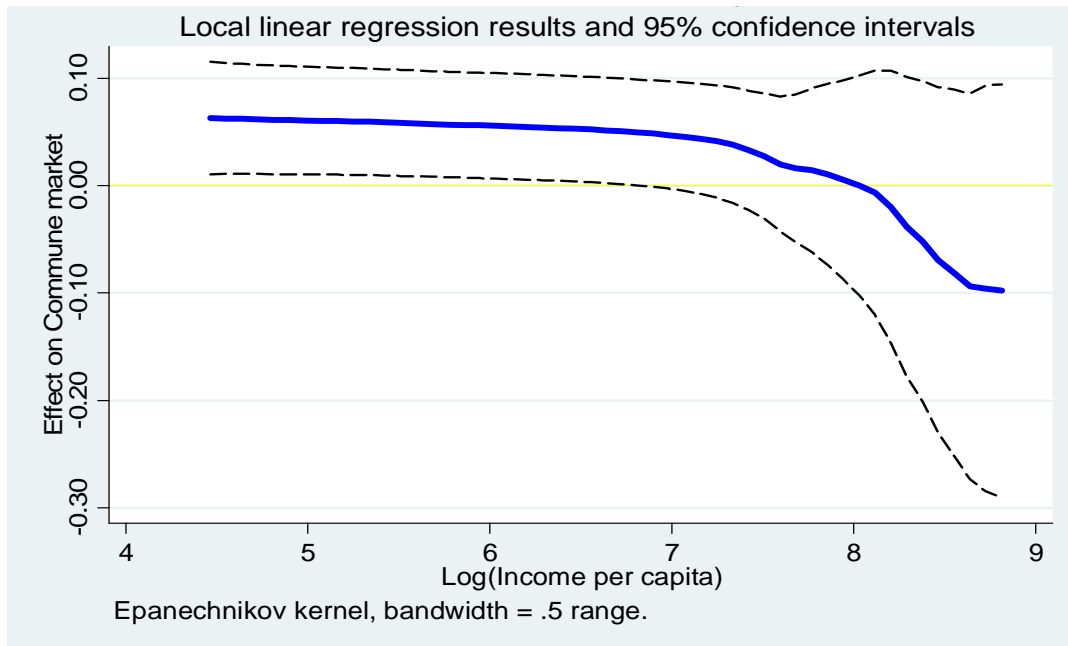
Note: This figure illustrates Propositions 1 to 3. Two key functions of the favored allocation B , namely the positive and negative parts in equation (2), are represented by a downward sloping marginal benefit curve and an upward sloping “pseudo-marginal” cost curve. The two must intersect at the unique solution B^* . An increase in r or d raises the pseudo-marginal cost curve, thus reduces B^* to B_1 . On the other hand, an increase in either political or social payoff pushes the marginal benefit curve up, and moves B^* to B_2 .

Figure 2: Effects of a native official's new promotion by commune per capita income in 2002

Panel A. Effect on village road, plotted by income per capita



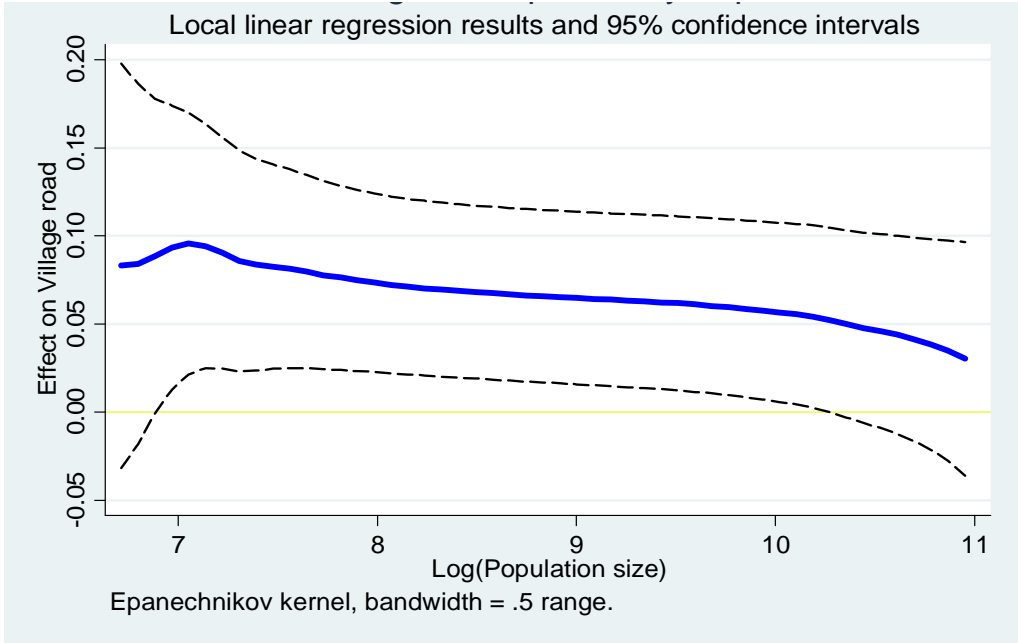
Panel B. Effect on marketplace, plotted by income per capita



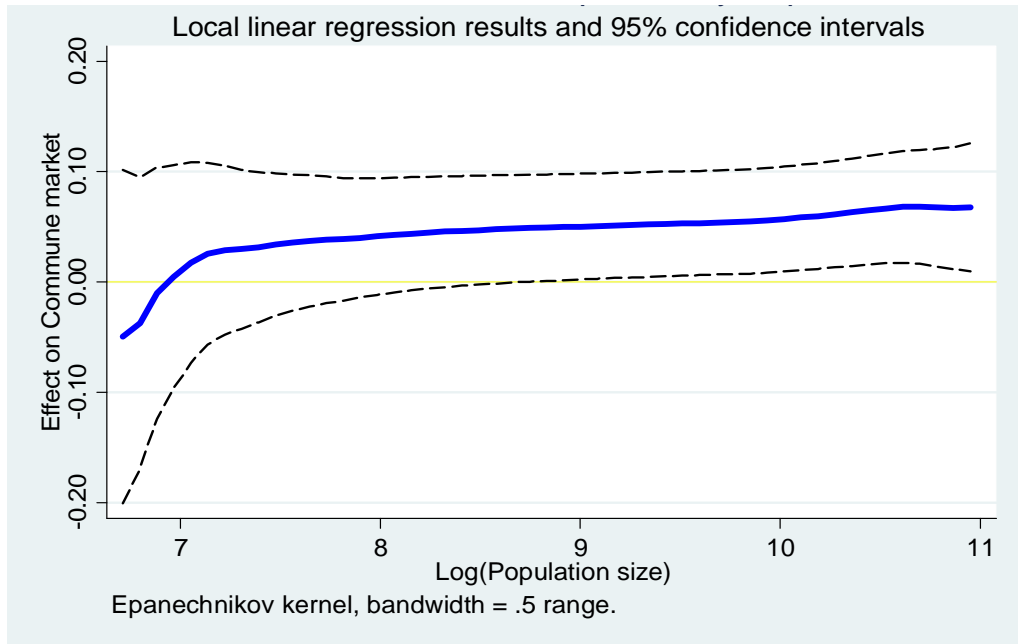
Note: These graphs show the effects of a native official's new promotion on Good road and marketplace - by commune average income in 2002 from non-parametric regression, excluding from the sample communes already having the public service (good village road or market place) throughout the period.

Figure 3: Effects of a native official's new promotion by commune population in 2002

Panel A. Effect on village road, plotted by population size



Panel B. Effect on marketplace, plotted by population size



Note: These graphs show the effects of a native official's new promotion on good village road and marketplace - by commune population in 2002 from non-parametric regression, excluding from the sample communes already having the public service (good village road or marketplace) throughout the period.