# One Mandarin Benefits the Whole Clan: Hometown Favoritism in an Authoritarian Regime $^{\dagger}$

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We study patronage politics in authoritarian Vietnam, using an exhaustive panel of ranking officials from 2000 to 2010 to estimate their promotions' impact on infrastructure in their hometowns of patrilineal ancestry. Native officials' promotions lead to a broad range of hometown infrastructure improvement. Hometown favoritism is pervasive across all ranks, even among officials without budget authority, except among elected legislators. Favors are narrowly targeted toward small communes that have no political power, and are strengthened with bad local governance and strong local family values. The evidence suggests a likely motive of social preferences for hometown. (JEL D72, H76, O15, O17, O18, P25, Z13)

*One person becomes a mandarin*,<sup>1</sup> *his whole clan benefits.* —Vietnamese proverb

Even the blind favor the people they know.

-Indian proverb

When a man attains power, even his chickens and dogs ascend to heaven. —Chinese proverb

One common form of public office misuse is favoritism targeted toward certain groups. In democracies, favoritism is often associated with pork barrel politics whereby office holders direct resources to specific constituencies in order to win

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<sup>1</sup>The term "mandarin" refers to bureaucrats of the historical Vietnamese monarchist court.

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their votes and political support for reelection.<sup>2</sup> In contrast, in authoritarian regimes where the state is barely accountable to voters, politicians do not gain power via competitive elections. To get appointed to an office they need to please their superiors rather than any other group of citizens. Without electoral incentives, different questions on favoritism under dictatorship arise. Do appointed officials favor any group of citizens, and which ones? Which officials, at which ranks, can direct public resources toward favored groups? How is favoritism actually exercised? What are the motives of favoritism when elections do not matter? Those issues of "who gets what, when, how" are central to the study of politics (Lasswell 1936), hence, of high necessity to understanding the functioning and development of autocracies.

In contribution to those questions, this paper investigates hometown favoritism under autocracy across a spectrum of office holders, highlighted by the relationship between their new promotions and new public infrastructures in their ancestral hometowns. We provide empirical characteristics of hometown favoritism regarding its prevalence below the top leadership, the breadth of its targets, its scope across types of infrastructure, and the local characteristics that can predict its strength.

Hometown favoritism in dictatorship has traditionally been recounted through a host of anecdotal examples of excessive favors that dictators bestow on their hometowns. Sirte, Libya was a small unknown village until the early 1970s when it received massive government investments, and eventually became home of the Libyan parliament and most government departments after 1988 (Maher 2004). The town was not chosen at random. It was the birthplace of Colonel Muammar Gaddafi, Libya's autocrat for 42 years. In a similar spirit, Côte d'Ivoire's president Félix Houphouët-Boigny established his tiny birth town of Yamoussoukro as the capital, and showered it with record-breaking behemoth infrastructures (Economist 2012); Zaire's notorious dictator Mobutu Sese Seko created a "jungle paradise" in his remote ancestral hometown Gbadolite (Smith 2015); and Sri Lankan Prime Minister Mahinda Rajapaksa flooded his tiny rural birth district Hambantota with extravagant projects (Bengali 2015), to name but a few. Guided by those examples, recent studies have shown evidence of country leaders' favoritism toward their birth regions (Hodler and Raschky 2014, Dreher et al. 2015) and ethnic groups (Burgess et al. 2015, Kramon and Posner 2016, Franck and Rainer 2012, De Luca et al. 2015).

In contrast, little empirical evidence is known concerning favoritism beneath dictators, mainly due to three major obstacles. First, systematic administrative data on ranking officials in authoritarian societies, especially related to their potential targets of favoritism, are often too sensitive to obtain or collect. Second, when the target group is sufficiently large and could be envisaged to provide significant political support, such as in the case of favoritism toward a major ethnic group, there is naturally a possible reverse causation channel from favors to officials' promotions,

<sup>&</sup>lt;sup>2</sup>Since Ferejohn (1974), the large body of evidence of this central topic in the political economy of resource distribution, as surveyed in Golden and Min (2013), has mostly considered the quid pro quo nature of favoritism toward concentrated groups of beneficiaries that provide political support in elections (as modeled by Weingast, Shepsle, and Johnsen 1981). Notable empirical evidence includes Levitt and Snyder (1995) in the United States; Besley, Pande, and Rao (2012); Chattopadhyay and Duflo (2004); Banerjee and Somanathan (2007); and Keefer and Khemani (2009) in India; and Hicken (2001) in Thailand. The topic is also closely related to the literature on politicians' favoritism toward firms, in autocracies as well as democracies (e.g., Fisman 2001, Khwaja and Mian 2005, Do et al. 2014, among others).

which adds to the difficulties of interpreting regression coefficients. Third, even when data are available and identification is credible, grand scale favoritism by an all-powerful dictator toward a large group, such as in Burgess et al.'s (2015) investigations of Kenya's autocratic presidents Jomo Kenyatta and Daniel arap Moi, may overwhelm or crowd out "petty favoritism" by most officials in the system. (Burgess et al. (2015) did not find ethnic favoritism among key ministers in the corresponding cabinets.)

To address these challenges, we choose to study hometown favoritism in Vietnam. The country is ruled by the Communist Party of Vietnam (CPV), one of the oldest authoritarian parties in continual existence today, with long-established political principles and organization rules.<sup>3</sup> Unlike in China, since 1984 the CPV has avoided concentration of authority in an all-powerful dictator. Since the CPV controls and appoints all positions in all political, executive, and legislative bodies, officials are only accountable to the selectorate within the party, but insulated from the ordinary voters (Malesky and Schuler 2009). It is common knowledge that there is no need to please the populace in exchange for political support.<sup>4</sup> To further minimize the potential political support that could be traded for favor, we focus on the lowest level administrative unit, the commune. Each of Vietnam's over 9,000 rural communes contains at most a few thousand households, hardly meaningful to harness any political or popular support for a native ranking official in provincial or central government.

We examine the outcome of favoritism in terms of public infrastructure in communes, given its key role in development. The United Nations regards infrastructure as one of the most important foundations for achieving its Sustainable Development Goals. Shioji (2001) suggests that a 10 percent increase in infrastructure investment improves regional income by 1 to 1.5 percent in the long run. Fast-growing Vietnam and China invest nearly 10 percent of their national incomes in this critical foundation (Sahoo, Dash, and Nataraj 2012).<sup>5</sup>

We collect data on all officials in ranking office during the period 2000–2010, including 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 focus on their rural home communes of patrilineal ancestry, a key part of any Vietnamese's identity. They are matched with infrastructure data on rural communes, including electricity, clean water supply in dry season and that in wet season, irrigation system, market place, post office, radio station, cultural center, preschool, middle school, high school, and hospital (from the Vietnam Household Living Standards Survey VHLSS). Using OLS regressions with commune and year fixed effects, we estimate the effect of new promotions of native officials on home communes' new infrastructure. We further estimate the

<sup>&</sup>lt;sup>3</sup>Based on the Worldwide Governance Indicators (Kaufmann, Kraay, and Mastruzzi 2011), from 2000 to 2010 Vietnam consistently scores around the eighth percentile on voice and accountability, and around the median on political stability.

<sup>&</sup>lt;sup>4</sup>Ethnic favoritism is not a major factor, since a single ethnic group (native Vietnamese, called Kinh) constitutes 86 percent of the population and control most important political positions.

<sup>&</sup>lt;sup>5</sup>Interestingly, Persson, and Zhuravskaya (2016) reports that Chinese provincial leaders who build their careers within the province tend to spend less on infrastructure and more on education and health, which reflects local preferences.

new promotion effect on the incidence rate of new infrastructure in a Poisson count model and a Cox survival model.

We find strong, robust evidence of favors addressed to officials' hometowns: home communes receive an average of 0.23 new categories of infrastructures within three years after a native official's promotion (the estimated multiplicative effects on incidence rates are also around 1.22). Favors are narrowly targeted toward home communes, while similar communes in the same home district receive no additional infrastructures.<sup>6</sup>

The estimated pattern of favoritism reveals the power structure within an authoritarian regime, and its stark difference with democracies. Representatives in the legislative National Assembly exercise no detectable hometown favoritism, unlike the ubiquitous distributive politics of their counterparts in democracies (Golden and Min 2013). Instead, favoritism is most widespread among middle-ranking positions in the executive branch (even stronger than in the Central Committee). Those results support the argument that in an autocracy the legislature only has severely limited power (Jensen, Malesky, and Weymouth 2014; Gillespie 2008) against the cooptation theory that a dictator may share considerable power and rents with a legislature in order to placate local elites and potential opposition forces (Boix and Svolik 2013, Gandhi and Lust-Okar 2009).

Those results shed light on the nonpolitical nature of hometown favoritism motives. Political motives may take different forms. Pork barrel politics in democracies is generally based on quid pro quo rewards to political constituencies. In some specific cases, it can be motivated by politicians' career concern in their hometown (Carozzi and Repetto 2016). In autocracies, dictators' favoritism is tightly linked with political motives to strengthen political support and reduce the threat of rebellion (Padró i Miquel 2007, Wintrobe 1998), and to build a loyal stronghold when armed conflicts take place, as witnessed in the case of Colonel Gaddafi's last defense in Sirte (*Economist* 2013).

In contrast to political motives, the evidence of widespread favoritism narrowly targeted toward small home communes of ancestral origin suggests the possible link between hometown favoritism and social norms and preferences. In Vietnam, when a hometown's native ascends to power, he is commonly expected to channel some favors back to the hometown, as captured in the old saying "one person becomes a mandarin, his whole clan benefits." This explanation is further strengthened by an additional finding that hometown favoritism is stronger in areas with stronger family values (measured by remittances and worship expenditure). Narrowly targeted favoritism under strong family values resonates with recent studies of family culture, quality of institutions, and corruption (e.g., Lipset and Lenz 2000, Alesina and Giuliano 2011), which follow Edward Banfield's (1958) pioneer work on how "amoral familism" (the social equilibrium in which people exclusively care about

<sup>&</sup>lt;sup>6</sup>Relatedly, Kung and Zhou (2016) shows that birthplace prefectures (a much larger administrative unit) of members of the Chinese Communist Party's Central Committee receive more grain, thus have lower death tolls during the Great Famine in China in 1959–1961.

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and trust their families) prevents the development of well-functioning political institutions and fosters deviance from norms of merit.<sup>7</sup>

The finding of considerable political power of members of the government to affect public decisions beyond their own jurisdiction suggests that favoritism is engineered through informal channels of favor trading (e.g., Karlan et al. 2009), a well-known mechanism in Vietnamese politics. Typically, a home commune leader initiates the process by suggesting to the native official certain infrastructure projects that could benefit the commune. Even without direct budget authority, the official can use his political capital to influence province and district authorities in favor of his hometown's projects. We find support for this mechanism in that favoritism is stronger under weaker local governance (measured via the Vietnam Provincial Competitiveness Indices).

The paper is organized as follows. Sections I and II describe the study's context and the data. Section III and IV present the hypotheses, empirical methods and empirical results. Section V discusses the main findings and concludes.

## I. Context of the Study

#### A. Political Background

The Constitution of the Socialist Republic of Vietnam states that "the Communist Party of Vietnam [...] is the only leading force of the State and the Society." The Communist Party of Vietnam (CPV) has held a monopoly of power in Vietnam since its reunification in 1976.<sup>8</sup> CPV members account for less than 4 percent of the population. The CPV is headed by a general secretary, who leads a 19-member Politburo at the head of a 150-member Central Committee. These are the most powerful people in Vietnam, in charge of making all key personnel and strategic decisions for the country. In descending order of political influence, next to the Central Committee are the government and the National Assembly.

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 also 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.<sup>9</sup> Geographically, the government includes 64 provincial authorities (Provincial People's Committees). There are three levels of the local authorities: provincial, district, and commune. The lower level People's Committees report to the People's Committees immediately above them.

The National Assembly (NA) is the legislative branch of the state. It consists of roughly 500 delegates elected from electoral districts based in the 64 provinces. All

<sup>&</sup>lt;sup>7</sup>The role of links to hometown and the extended family also relates this paper to the broad literature on networks of relatives and compatriots, which have been shown to help with risk sharing (review by Fafchamps 2011), job search and job referral (review by Ioannides and Loury 2004, Topa 2011). Similar to this literature, favoritism may also be motivated by officials' possible personal economic or symbolic gains.

<sup>&</sup>lt;sup>8</sup>Its pre-1976 predecessor, the Labour Party of Vietnam, held power in Vietnam Democratic Republic (North Vietnam) since 1954.

<sup>&</sup>lt;sup>9</sup>The judiciary branch thus has limited power, and judiciary decisions depend heavily on the Government and CPV.

laws and budget decisions are prepared by the government before they are sent to the NA for discussion and ratification. In practice, the CPV controls all key positions in the NA and directs the NA to rubber stamp proposed laws. The CPV also closely controls the nomination and election process for the NA (as documented by Malesky and Schuler 2009). About 80 percent of the delegates are members of the CPV. Although the NA's de facto power has increased in recent years, it is still very limited compared to that of the CPV and the government.

Similar to other authoritarian regimes, the ruling party selects, appoints, and influences the filling of all executive and legislative positions (Gillespie 2008). The nominal process works as follows. In an election year, based on lists of nominations by the incumbent Politburo and Central Committee, the CPV's Congress meets and selects the Central Committee, which then selects the Politburo and ranking positions. The CPV then nominates candidates for the NA, including its key positions, and citizens vote among those candidates. Afterward, elected delegates of the NA, 80 percent 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. The CPV controls closely the selection of candidates, the communication between candidates and constituents, the election locations and procedure, and the counting of the votes. Thus, the CPV's Central Committee effectively decides who fill ranking positions in the government and in the NA. In this system, the popular votes count little, and small entities like communes hold no political power over ranking officials.

Under Vietnam's single-party rule, there is little separation between the state and the CPV, and thus little distinction between bureaucrats and politicians. In practice, even very low-ranking officials (such as the heads of communes) need to be members of the CPV in order to hold office and get promotions. Ranking members of the CPV and elected delegates of the NA receive their salaries from the same system and source as do government bureaucrats.

It is useful to understand the ways in which Vietnamese state officials may direct public investments in infrastructure toward their preferred communes. Subject to the level of funding required, the decision to build public infrastructure is made in different stages by provincial, district, and then commune officials. District officials have the authority to direct projects to communes. In contrast, officials at the central level (CPV's Central Committee members, ranking members of the Central Government, or the NA) do not have the formal, hierarchical authority to make decisions on local infrastructure. They must exercise their personal influence over district officials in order to obtain government projects for their preferred communes.

During the study period, Vietnam experienced significant economic growth and a drastic reduction in poverty. Real GDP increased by 6.5 percent per year on average from 2001 to 2010. The percentage of people living on less than \$2 (PPP) per day fell from 68.7 percent in 2002 to 38.5 percent in 2008 (from the World Bank's World DataBank). The government's budget, while always in deficit, was strongly supported by the growing economy, strong exports, 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 instrumental for poverty alleviation (Songco 2002). This period therefore holds particular interest for studying of a determinant of infrastructure in rural Vietnam.

# B. Hometowns in Vietnam

In Vietnam, a person's hometown refers to the origin commune of a person's extended patrilineal family, composed of those who share the same patrilineal ancestors. It is legally defined and figures prominently on every adult's national identity card, and needs not correspond to the birthplace (not shown on the identity card). Urban families commonly make sizeable transfers and loans toward extended patrilineal family in their rural hometown (they amount to 25 percent of house-hold income, based on VHLSS). Patrilineal clans also raise funds for their own activities, usually in the form of ancestral temples and religious ceremonies in the hometown that glorify common patrilineal ancestors (Nguyễn and Healy 2006, Hunt 2002). Variation in the strength of local social norms about patrilineal family link is a determinant of such contribution. Those norms take root in Vietnam's historical Confucian tradition, which encourages young people to study hard for the civil service exams to become a mandarin in the royal court, and bring court favors to their clan.

Based on our personal experience and conversations with several Vietnamese journalists knowledgeable of political career paths in Vietnam, we understand that ranking officials and their immediate family very probably live in large (national or provincial) cities away from their rural hometowns (among about 200 officials we can check, no one live in theirs). It is unlikely that they plan to resettle in their rural hometown after retirement from public office: such phenomenon has been unheard of among journalists. Therefore, an official's link with his hometown is reportedly maintained through his extended patrilineal family.

## II. The Data

# A. Data Collection

As in most authoritarian countries, data on officials and their family backgrounds in Vietnam are scarce. Available information is scattered and skewed toward top officials, whereas we are concerned with the full population of ranking officials. To avoid potential selection issues, our data collection team identified, checked, and matched officials from three sources: the CPV's information on all members of its Politburo and Central Committee, the National Assembly's information on all of its members, and the government's information on central officials starting from the rank of deputy minister, and provincial officials starting from the rank of vice chair of provincial People's Committees.<sup>10</sup> The dataset thus covers exhaustively all ranking political promotions in the country from 2000 to 2011. Since important officials typically hold more than one position in these organizations, we make sure to match

<sup>&</sup>lt;sup>10</sup>The dataset was collected from 2009 to 2011, and updated in 2014. Data sources are detailed in the online Appendix.

all individuals across the three groups, if necessary by obtaining and verifying additional information from other sources.

We gather information on each official's declared commune of patrilineal origin. In the very few cases in which it no longer exists, we trace the historical names of all communes in the same province for the declared name, and assign a modern commune that best corresponds to the old name. Officials whose hometowns cannot be traced to the commune level are excluded.

Official data on commune budget are unavailable. Fortunately, data on local infrastructures and public goods can be obtained from the Vietnam Household Living Standard Survey (VHLSS, a World Bank-led survey project in Vietnam, part of the Living Standards Measurement Surveys). The survey receives technical support from the World Bank, and is regarded as the most reliable data on living standards in the country. The VHLSS is conducted every two years (2002, 2004, 2006, 2008, and 2010) from a random, representative sample of approximately 2,300 communes out of about 11,000 communes and wards in the country.<sup>11</sup> Most of the sampled communes remain in the panel through many waves. Commune characteristics used in our analysis include reported measures of population, geographical zone, rural classification, and the presence of various types of infrastructure in the commune. Measures of average income and expenditure per household are computed from household survey data.

We match each official to his commune of patrilineal origin. Only rural communes are considered, so as to avoid the complexity of urban infrastructure development and association with officials.<sup>12</sup> We further exclude the top four positions in the country, namely the general secretary of the CPV, the prime minister, the president, and the chairman of the National Assembly, in order to focus on the pervasiveness of favoritism beneath the very top.<sup>13</sup> The baseline sample of connected communes (with at least one matched native ranking official) is constructed for 2002, 2004, 2006, and 2008 based on those matches.<sup>14</sup>

# B. Data and Variable Description

Table 1 summarizes data patterns in the baseline sample and in the raw data. Panel A describes the number and share of unique officials from different branches of government and different terms, their positions, and the number and share of

<sup>13</sup>Our results are not sensitive to the inclusion of those top four positions.

<sup>14</sup> Following the baseline specification described in Section IIIB, the outcome variable covers two consecutive waves of VHLSS, so it could only be computed up to 2008.

<sup>&</sup>lt;sup>11</sup>The exact number of communes changes slightly over time, due to rare cases of mergers and division.

<sup>&</sup>lt;sup>12</sup>We exclude wards, the urban equivalent of rural communes, for several reasons. First, the construction and management of urban infrastructures are very different from those in rural communes (e.g., urban schools are built and run by district or city offices), and in practice most wards already have all considered categories of infrastructure. Second, by excluding wards, we rule out the direct economic motive of officials who still live in their hometowns (all officials live in urban areas). Third, urban wards in big cities, especially the capital, could be important to the state's security concerns (e.g., Campante, Do, and Guimaraes 2014), thus a confounding political motive of favoritism. Fourth, family lineages in wards are usually substantially diluted by massive waves of migration, reducing the relevance of social preferences in our context. Fifth, since the VHLSS undersamples urban areas, we can only match 39 officials' urban home wards with the VHLSS, and the inclusion of urban wards does not affect our results.

Panel A. Ranking officia	als		P		. (	cc : 1	•.4							
	Те	rm	Baseline sample (officials with surveyed home communes)					Whole population of ranking officials						
Official group/subgroup	Start year	End year	posi	ber of tion x rms	of u	mber inique icials	of u	imber inique imunes	posi	ber of tion x rms	of u	nber nique cials	of u	nber nique nunes
Central committee Central committee ninth	2002	2006	113 41	17% 6%	85 41	21% 10%	81 41	24% 12%	335 148	13% 6%	255 148	15% 9%	243 146	18% 11%
Central committee tenth	2007	2011	72	11%	72	17%	68	20%	187	7%	187	11%	178	14%
Central government Government from 2000 yearbook	1998	2002	99 23	15% 3%	69 23	17% 6%	65 23	19% 7%	487 128	19% 5%	361 128	21% 7%	290 102	22% 8%
Government from 2004 yearbook Government from		2007 2011	42 34	6% 5%	42 34	10% 8%	41 34	12% 10%	188 171	7% 7%	188 171	11% 10%	173 162	13% 12%
2009 yearbook Provincial government Government from	2000	2003	194 41	28% 6%	123 41	30% 10%	106 41	32% 12%	811 249	31% 10%	593 249	34% 14%	488 190	37% 14%
2000 yearbook Government from 2004 yearbook		2003	76	11%	76	18%	70	21%	249	10%	249	14%	253	19%
Government from 2009 yearbook	2009	2012	77	11%	77	19%	69	21%	297	11%	297	17%	278	21%
National assembly National assembly eleventh	2003	2007	275 132	40% 19%	239 132	58% 32%	212 124	63% 37%	955 499	37% 19%	844 499	49% 29%	755 468	57% 36%
National assembly twelfth	2008	2011	143	21%	143	35%	135	40%	456	18%	456	27%	438	33%
Total			681	100%	414	100%	334	100%	2,588	100%	1,720	100%	1,318	100%

(continued)

unique communes they are matched with. Overall, the baseline sample covers 414 unique officials from 334 unique home communes who occupy 681 position by terms over the considered period. All three numbers are near one quarter of the corresponding numbers in the collected population of ranking officials, as expected from the VHLSS's random sampling rate of about 25 percent in rural areas. The proportions of the different branches, namely the CPV's Central Committee, central and provincial governments, and the National Assembly, are roughly similar between the baseline sample and the whole population.

Panel B summarizes our key variables at commune by year level. The baseline sample is an unbalanced panel of 1,237 observations of communes by year, covering approximately 300 communes in 200 districts each year. Except the excluded four major cities, almost all of 60 provinces are covered.

The average rural commune in Vietnam is small, with population under 10,000, or around 0.01 percent of the total population, and VND 10,000,000 in income per capita by 2008 (~USD 600 in 2008). Our baseline sample of connected communes has slightly higher population and average income. Given potential concern of selection bias in the group of connected communes, our empirical strategy remains conservative insofar as it only focuses on connected communes and aims to estimate the treatment effect on this group.

Our key outcome variable  $Infras3yr_{ct}$ , commune infrastructures within three years is the total number of all infrastructure categories ever present in commune c in

Panel B. Communes										
	Baseline sample (rural communes with native officials)					Whole VHLSS rural commune population				
Commune statistics	2002	2004	2006	2008	2002-2008	2002	2004	2006	2008	2002-2008
Total observations		1,2	37				9,0	70		
Sample coverage										
Number of unique communes	292	319	323	303	334	2,311	2,261	2,279	2,219	2,670
Number of unique districts	188	205	207	196	212	583	573	575	582	636
Number of unique provinces	54	59	59	57	59	61	64	64	64	64
Commune statistics										
Average population (people)	9,736	9,674	9,663	9,691	9,690	9,271	8,625	8,643	8,830	8,844
Average annual income per capita ('000 VND)	4,681	5,234	6,903	10,217	6,760	4,102	5,190	6,888	10,575	6,657
Average commune infrastructures (	over 12 o	categorie	s)							
Within three years	6.75	7.38	7.48	7.50	7.29	6.54	7.11	7.23	7.20	7.01
Only productive infrastructures	2.58	2.90	2.93	3.06	2.87	2.46	2.72	2.75	2.80	2.68
Only information infrastructures	1.99	2.26	2.33	2.28	2.22	1.94	2.21	2.27	2.22	2.16
Only education and health infrastructures	2.18	2.22	2.21	2.17	2.20	2.14	2.18	2.20	2.18	2.17
Within one year		6.62	6.88	6.98	6.82		6.37	6.60	6.76	6.57
Average commune power capital until the year before	0.19	0.83	1.03	1.26	0.84	0.03	0.12	0.15	0.18	0.12
From Central Committee positions	0.00	0.12	0.12	0.35	0.15	0.00	0.02	0.02	0.05	0.02
From Central Government positions	0.08	0.20	0.20	0.20	0.17	0.01	0.03	0.03	0.03	0.03
From Provincial Government positions	0.12	0.11	0.32	0.32	0.22	0.01	0.02	0.04	0.04	0.03
From National Assembly positions	0.00	0.40	0.39	0.39	0.30	0.00	0.06	0.06	0.06	0.04

TABLE 1—DESCRIPTIVE STATISTICS	(continued)	r.
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Notes: Commune infrastructures within three years is the total number of all infrastructure categories present in that commune in that year's survey or the following survey. Productive infrastructures include electricity, clean water supply in dry season, clean water supply in wet season, irrigation system, and marketplace (five categories). Information infrastructures include post office, radio station, and cultural center (three categories). Education and health infrastructures include preschool, middle school, high school, and hospital (four categories). Commune infrastructures within one year is the sum of infrastructures observed in that commune in the first subsequent survey on or after that year. Commune power capital adds up all ranking positions ever held by native officials until the year before.

survey years t and t + 2 (i.e., two consecutive waves of the VHLSS).<sup>15</sup> Since infrastructure construction lag may vary across infrastructure categories, this measure helps capture the full extent of native official promotions' impact. The 12 included infrastructure types are classified into three groups: productive infrastructures (electricity, clean water supply in wet and dry seasons, irrigation system, marketplace), information infrastructures (post office, radio station, cultural center), and education and health infrastructures (preschool, middle school, and high school, hospital).<sup>16</sup> Throughout the study period, connected communes in our baseline sample have slightly more infrastructures on average than those in the full surveyed rural sample.

Panel B. Communes

<sup>&</sup>lt;sup>15</sup>For example, if commune *c* has a total of five types of infrastructures that are observed either in 2004 or 2006: marketplace, preschool, irrigation system, clean water, and radio station, then the value of *Infras3yr<sub>c,2004</sub>* is 5. We also use *commune infrastructures within one year* in our robustness checks.

<sup>&</sup>lt;sup>16</sup>Together, they cover all infrastructures surveyed in VHLSS, except for primary school and clinic, which are always present in all baseline communes throughout this period and therefore excluded.

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Our key explanatory variable *PowerCapita*  $l_{c,t-1}$ , *commune power capital* adds up all ranking positions ever held by native officials until year t - 1.<sup>17</sup> Compared with a measure of only currently held positions by native officials (used in a robustness check), this accumulated measure is likely more accurate in reflecting the extent of a commune's political connections in the context of Vietnam. In some specifications, we further decompose this power capital variable into power capital coming from different branches of the state, by adding up only corresponding positions. Average commune's power capital experiences strong increases in 2004 (driven by the 2002 ninth Central Committee, 2004 Central Government, and 2003 eleventh National Assembly) and in 2010 (driven by the 2009 Central and Provincial Governments and 2008 twelfth National Assembly).

#### III. Testable Hypotheses and Empirical Design

# A. Testable Predictions

We will spell out three key testable hypotheses, derived from a formal model available in the online Appendix. Given the Vietnamese political context, where ranking officials are not personally involved in district-level budget decisions, we model that favors must be brokered between each official and the local budget allocator. The official is endowed with great political capital thanks to his high rank, and may care about the welfare of his hometown. The budget allocator wants political help from the ranking official, in return for infrastructure investment in the official's hometown. Under the negotiated deal, the official could influence infrastructures in his hometown.

First, given little accountability and checks on officials, we predict testable **Hypothesis I**: hometown favoritism is widespread among officials.

Second, since the negotiation outcome depends on the official's power and the ease to work out a deal with the budget allocator in allocating infrastructure projects, we should find evidence supporting **Hypothesis II**: hometown favoritism depends positively on the official's rank in the authoritarian hierarchy and on the home province's local governance quality.

Third, favoritism should be most present when most valued by the official. If it is primarily motivated by a native official's narrowly targeted preferences towards his hometown, we expect evidence consistent with **Hypothesis III** that favoritism fades out as we move away from the home commune to neighboring non-connected communes or to the home district.<sup>18</sup> Furthermore, it is stronger when local culture

<sup>&</sup>lt;sup>17</sup>For example, *PowerCapital* for a commune in 2003 is the accumulated number of ranking positions with term start date until 2003 held by that commune's native officials. In our context, these include positions in the ninth CPV's Central Committee (term started in 2002), 2000 and 2004 Central Governments (terms started in 1998 and 2003 respectively), 2000 Provincial Government (term started in 2000), and eleventh National Assembly (term started in 2003).

<sup>&</sup>lt;sup>18</sup>Those are most naturally social preferences toward the hometown and the remote relatives living there, including symbolic preferences of pride in the hometown's new infrastructures. We cannot completely rule out the scenario in which hometown relatives serve as intermediaries to funnel economic benefits directly to the official, although based on our experience we find it unlikely, given the high level of ranking officials considered in our sample.

puts more value on family ties and support. However, if instead the motive is mostly potential political support, as commonly observed in the relevant literature, the evidence should reject **Hypothesis III**.

#### **B**. Empirical Design

We first investigate the effect of connected officials on hometown infrastructures in a benchmark linear framework, where the total of infrastructure categories available in a commune within three years is regressed on a measure of the commune's power capital, derived from all ranking officials native to the commune. The sample is an unbalanced panel of all rural matched communes, and each observation represents a commune in a specific year:

(1) 
$$Infras3yr_{ct} = \beta PowerCapital_{c,t-1} + \gamma \mathbf{X}_{ct} + \delta_t + \mu_c + \varepsilon_{ct}$$

The indices *c* and *t* represent home commune *c* in survey year t ( $t \in \{2002, 2004, 2006, 2008\}$ ). As described in Section IIB,  $Infras3yr_{ct}$  is the total number of all infrastructure categories ever available in commune *c* in survey years *t* and t + 2, and *PowerCapital*<sub>*c*,*t*-1</sub> counts all ranking positions ever held by each official until year t - 1;  $\delta_t$  and  $\mu_c$  denote respectively year and commune fixed effects. The vector  $\mathbf{X}_{ct}$  regroups time-variant observable controls including population size, average income, and dummies for five different geographical zones.

The key parameter  $\beta$  is interpretable as the effect of power capital on the expected number of available hometown infrastructure categories within three years:  $\frac{\partial E(Infras_{3yr_{ct}}|PowerCapital_{c,t-1}, \mathbf{X}_{ct})}{\partial PowerCapital_{c,t-1}} = \beta$ . In the presence of commune fixed effects  $\mu_c$ ,  $\beta$  is identified from changes in  $Infras_{3yr_{ct}}$  and  $PowerCapital_{c,t-1}$ , that is, from new promotions of officials from the same commune. Given the lack of data on the size and quality of each infrastructure category, we could only identify favoritism's impact on new types of infrastructures, not on the improvement of existing types.

In support of a causal interpretation of  $\beta$ , the specification first relies on commune fixed effects  $\mu_c$  to deal with commune time-invariant, omitted, unobservable factors that may bias the estimates. For example, a province's wealth and power, or geographical conditions, such as distances to large cities and major rivers, may correlate with better infrastructure and also the capacity to produce more high-ranked officials. Year fixed effects  $\delta_t$  allay concerns about macroeconomic shifts that could affect both new promotions and infrastructure construction. To make correct inferences when the error term  $\varepsilon_{ct}$  may be serially correlated, we cluster standard errors by commune.

Regarding time-variant factors that may influence both promotions and infrastructures, such as good local economic performances, we note that officials in our sample are not directly responsible for the performances of home communes, as explained in Section I. Given their high ranks, their preceding positions must have already been much above the commune level since decades. Therefore, if such time-variant factors are driving the results, we would expect to detect similar effects in neighboring communes in the same province. We thus perform placebo tests of our causal interpretation on neighboring communes matched with connected communes.

The variable *PowerCapital*<sub>c,t-1</sub> accumulates all ranking positions ever held by officials from commune c up to year t - 1, so the change in *PowerCapital*<sub>c,t-1</sub> counts new promotions of officials from commune c, and ignores eventual departure from previous offices. It represents a social capital concept that captures an official's influence in his previous office even after a move or promotion, or even retirement. In the context of Vietnam, the accumulated measure of capital is likely more accurate in reflecting the extent of a commune's political connections than the current power level of native officials (also used in a robustness check). In one recent case, for instance, a former minister of education relinquished that position to become deputy prime minister; however, he still exerts particularly strong influence on the Ministry of Education.

Equation (1) accounts for the timing of infrastructure construction in a simple way, in which all new infrastructures that appear in the following three years (two survey waves) are counted together. We choose this benchmark specification for the simplicity and transparency of its interpretation. In robustness checks, we use two other models with structural constraints on the timing of new infrastructures: a Poisson count model and a Cox proportional hazard model.

First, the number of new infrastructure categories in each commune can be modeled by a Poisson process with incidence rate  $\lambda_{ct}$  over a survey interval of T = 2years following year t (during which a new infrastructure "arrives" independently at this rate):

(2) 
$$\lambda_{ct}T = \exp(\beta \Delta PowerCapital_{ct} + \gamma \mathbf{X}_{ct} + \delta_t + \mu_P).$$

The likelihood function for the number of new infrastructure categories in the following *T* years is given by  $Pr(NewInfras3yr_{ct} = y) = e^{-(\lambda_{ct}T)}(\lambda_{ct}T)^y/y!$ , which yields MLE estimates of the parameters  $(\beta, \gamma, \delta_t)$ . The coefficient  $\beta$  estimates the effect of new promotions on the log incidence rate of new infrastructure categories, so the effect on the incidence-rate ratio of an increase of power capital is  $exp(\beta)$ . Because  $E(NewInfras3yr_{ct}|\Delta PowerCapital_{ct}, \mathbf{X}_{ct}) = \lambda_{ct}T$ , so  $\beta = \frac{\partial \log E(NewInfras3yr_{ct}|\Delta PowerCapital_{ct}, \mathbf{X}_{ct})}{\partial \Delta PowerCapital_{ct}}$ , therefore  $\beta$  is also interpreted as the effect on the expected log number of new infrastructure categories. In the same spirit as the identification in (1), we use changes in infrastructures and changes in power capital (new promotions). We further include province fixed effects  $\mu_P$  (similar to the inclusion of province fixed trends in the benchmark OLS specification). The Poisson model belongs to a small class of nonlinear models where fixed effects can be completely separated from the maximized likelihood function (Cameron and Trivedi 2013, chapter 9), so there is no longer the problem of incidental parameters, and the fixed effects  $\mu_P$  need not be estimated as parameters.

Second, we can model the incident of improving infrastructures as a survival process, where the event of "failure" for a commune is defined as an improvement in the overall number of infrastructures. We use a Cox proportional hazard model, under the assumption that changes in covariates affect the hazard function multiplicatively, to write the hazard function H(t) as the product of a baseline, unspecified hazard function  $H_0(t)$  and a hazard ratio:

(3) 
$$H(t|X) = H_0(t)\exp(\beta\Delta PowerCapital_{c,t} + \gamma \mathbf{X}_{ct} + \delta_t + \mu_P).$$

The parameters  $(\beta, \gamma, \delta_t)$  are estimated by maximum of a partial likelihood that needs no information on the baseline hazard function  $H_0(t)$ . The coefficient  $\beta$  estimates the effect of new promotions on the log hazard of infrastructure improvement (so the effect on the hazard ratio is  $\exp(\beta)$ ). Similar to the Poisson model, we include province fixed effects  $\mu_P$ . We address the potential problem of incidental parameters by estimating the model as if the data were stratified at province level ( $H_0(t)$  is specified as  $H_{0,P}(t)$  for different provinces P's), which cancels out  $\mu_P$  that we do not need to estimate (Chamberlain 1985).

The Poisson model uses full information in the number of new infrastructures, while the Cox model only uses information in a binary outcome of infrastructure improvement. On the other hand, the Cox model is much more flexible as the base-line hazard function can take any form, as opposed to a fixed constant incidence rate in the Poisson model.<sup>19</sup> Both models require fairly strong structural assumptions on the time process of new infrastructures that are not supported in the data.<sup>20</sup> For the sake of simplicity and clarity, we choose the benchmark linear regression model, which has a clear interpretation of the coefficient  $\beta$ , and imposes minimal structure on how power capital may affect infrastructures.

#### **IV. Empirical Results**

This section aims to address the questions that correspond to the hypotheses put forth in Section IIIA: (i) Does favoritism arise in an authoritarian regime? (ii) Who is powerful in the political hierarchy? (iii) What is the motive of favoritism?

#### A. Does Favoritism Arise in an Authoritarian Regime?

Table 2 presents different estimations of the impacts of an official's promotion to a ranking position on infrastructure development in his rural home commune, using the baseline sample of connected communes.

Column 1 shows the benchmark specification that regresses  $Infras3yr_{ct}$ , commune infrastructures within three years, on  $PowerCapital_{c,t-1}$ , commune power capital, as described in Section IIIB. Control variables include commune's population and average income, and a full set of commune and year dummies. We find that an additional ranking position in the power capital of a commune increases its sum of

<sup>&</sup>lt;sup>19</sup>There is a certain link between the two models. If the true hazard rate is constant, then the Cox model should produce similar results to the Poisson count model with only binary outcomes. Online Appendix Table A1 reports robust estimates from a conditional logit model of infrastructure improvement over fixed intervals as a function of new promotions.

<sup>&</sup>lt;sup>20</sup>Since the Poisson model typically encounters overdispersion in the data, we also report in online Appendix Table A1 very similar results obtained from a negative binomial model that could better fit the observed dispersion.

Specification	OL	.S in level equat	ion	OLS in level equation	OLS in difference equation	Poisson model	Cox model
Dependent variable		Total infrastructures within 1 year (2)			Change in total infrastructures (5)	Total new infrastructures within 3 years (6)	
Power capital	0.227 [0.0746]	0.224 [0.126]		0.164 [0.0632]			
Current power level			0.137 [0.0796]				
Change in power capital					0.187 [0.0667]	0.200 [0.0641]	0.224 [0.102]
Effect on incidence rate						1.22	1.25
Commune controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Commune and year	Commune and year	Commune and year	Commune pair $\times$ year	Province and year	Province and year	Province and year
Cluster	Commune	Commune	Commune	Commune	Commune	Commune	Commune
Observations	1,237	941	1,237	2,437	898	730	326
$R^2$	0.760	0.756	0.757	0.778	0.136		

TABLE 2—MAIN RESULTS: INCREASED COMMUNE'S F	POWER CAPITAL IMPROVES INFRASTRUCTURES
---------------------------------------------	----------------------------------------

Notes: This table relates native officials' promotion to a home commune's new infrastructure. Each observation is a connected commune (except for column 4) in a year (2002, 2004, 2006, or 2008 for columns 1 and 3, and 2004, 2006, or 2008 for columns 2, 5, 6, and 7). Controls include commune's log average income per capita, log population, and geographical zone. Columns 1 to 3 report OLS regressions in level, including commune and year fixed effects. Infrastructure outcomes are measured within three years for columns 1 and 3, and one year for column 2. Columns 1 and 2 use total positions accumulated by native officials (i.e., power capital), and column 3 uses the number of current positions held by native officials. Column 4 reports a standard matching specification that replicates the baseline specification in column 1 on the sample of connected communes and their matched communes, with commune pair by year fixed effects. A connected commune's match is its most similar rural non-connected commune in the same home district, defined by the shortest Mahalanobis distance based on predetermined variables (see text for details). Columns 5 to 7 relate different changes in infrastructure outcomes to changes in power capital, controlling for changes in commune controls, and province and year fixed effects. Column 5 reports an OLS specification, column 6 shows a Poisson model of new infrastructure within one year, and column 7 reports a Cox proportional hazard model of the incidence of infrastructure improvement. The multiplicative effects on incidence rate in columns 6 and 7 are exponentials of the corresponding coefficients. Robust standard errors in brackets are clustered at commune level.

infrastructure categories by 0.23, statistically significant at 1 percent. This estimate amounts to 3 percent of the mean and 15 percent of the standard deviation of commune infrastructures.<sup>21</sup>

Column 2 uses immediate infrastructures (*commune infrastructures within one year*) as the outcome variable. The immediate effect's magnitude is similar to column 1's benchmark estimate, but it is less precisely estimated, and only statistically significant at 10 percent.<sup>22</sup> Column 3 uses current power level, measured by

<sup>21</sup>We further verify the statistical inferences from this exercise with 1,000 Monte Carlo simulations of the specification in column 1, in each of which every commune's power capital is drawn randomly from the baseline sample power capital distribution. As expected, the distribution of the simulated estimates of the coefficient on power capital (reported in online Appendix Figure A2) is centered around zero, while our baseline estimate of 0.227 falls on the 99.9th percentile.

<sup>22</sup> Alternatively, we apply Kling, Liebman, and Katz's (2007) method of aggregation of commune infrastructures by using the z-score of each infrastructure instead of a dummy indicating its presence in the commune. The resulting estimate (standard error) is 0.608 (0.199), approximately 15 percent of the baseline sample standard deviation of the outcome measure, and statistically significant at 1 percent. We prefer our aggregation without the

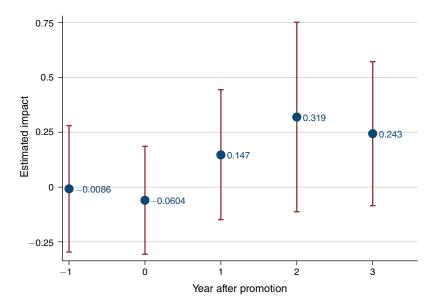


FIGURE 1. IMPACT OF NATIVE OFFICIALS' PROMOTIONS ON TOTAL INFRASTRUCTURES IN HOME COMMUNES OVER TIME

*Notes:* This figure shows the impact of native officials' promotions on hometown infrastructure categories over time. The dependent variable is commune infrastructures within one year. Each point denotes a coefficient of the number of *new* native official promotions in years t + 1, t, t - 1, t - 2, and the accumulated power capital up to year t - 3. Each corresponding bar represents the coefficient's 95 percent confidence interval. Controls include commune's log average income per capita, log population, geographical zone, and commune and year fixed effects.

the number of ranking positions that the commune's native officials currently hold, instead of accumulated power capital. The effect is still sizeable and significant, but considerably smaller than power capital's effect found in column 1. This is consistent with Section IIIB's consideration of power capital as a social capital concept, whereby an official's personal connections are preserved when he moves or get promoted to a different position.

Figure 1 further shows the effects of new promotions over time, by decomposing the benchmark variable power capital. We use *commune infrastructures within 1 year* as the dependent variable (as in Table 2's column 2). We include explanatory variables that count the number of new promotions of native officials for the years -1, 0, 1, 2 before the surveyed year *NewPromotions*<sub>c,t-s</sub>,  $s \in \{-1, 0, 1, 2\}$ , and the accumulated power capital of three years before the surveyed year *PowerCapital*<sub>c,t-3</sub>, in place of the benchmark *PowerCapital*<sub>c,t-1</sub>. The coefficients of those variables are reported on Figure 1. Not surprisingly, the impact starts at least one year after a new promotion.

Because of the decomposition  $PowerCapital_{c,t-1} = NewPromotions_{c,t-1} + NewPromotions_{c,t-2} + PowerCapital_{c,t-3}$ , the average of the coefficients of those three variables ( $\approx 0.237$ ) is expectedly close to the coefficient in column 2 of Table 2. Besides, the variables  $NewPromotions_{c,t-s}$ ,  $s \in \{-1,0\}$  serve as placebo tests, since

z-scores for a more transparent interpretation of the effect, and to avoid inflating the role of low-variation infrastructure categories in the aggregated measure.

we do not expect significant impacts of future or contemporaneous promotions on today's infrastructure. Indeed, their coefficients are much closer to zero.<sup>23</sup>

Column 4 replicates the benchmark specification in column 1 in a matched sample of connected communes and their most similar rural non-connected commune in the same home district,<sup>24</sup> including commune pair by year fixed effects. This matching estimate of 0.16 is statistically significant at 1 percent.

Table 2's following columns estimate the effect of changes in power capital on changes in commune infrastructures. Column 5 shows the corresponding OLS regression, controlling for changes in column 1's control variables, year dummies, and province fixed effects (equivalent to province-specific trends in the level equation). The effect of 0.19 is slightly smaller than that in column 1, and also statistically significant at 1 percent.

Column 6 reports estimates from Section IIIB's Poisson count model of new infrastructures, including the same set of controls and fixed effects. The coefficient of changes in power capital is 0.20, statistically significant at 1 percent. It indicates that a single promotion of a native official multiplies the incidence rate of a new category of infrastructure over a two-year period by  $\exp(0.20) = 1.22$ . It means an increase of 22 percent of new infrastructures (see Section IIIB), equivalent to 0.18 more new infrastructures (the sample mean of new infrastructures is 0.81). Hence, despite the Poisson model's strong structural restrictions, the effect does not substantially deviate from the benchmark effect in column 1 (even though a comparison between these two interpretations is not entirely rigorous).

In column 7, we estimate Section IIIB's Cox proportional hazard model of the incidence of infrastructure improvement, controlling for the same set of controls and fixed effects. The coefficient of changes in power capital is 0.22, statistically significant at 5 percent. A single promotion of a native official is thus estimated to multiply the hazard rate of infrastructure improvement by exp(0.22) = 1.25. While the effect's magnitude is not readily comparable with the other specifications', column 6's finding confirms that native officials' promotion leads to new infrastructures, even when we impose the proportional hazard restriction and only use limited variation in the outcome (only the incidence, not the magnitude of improved infrastructures).

Overall, Table 2 shows that a commune's increase in power capital due to native officials' promotions is strongly associated with more infrastructure categories in subsequent years. This finding is robust across different measures of infrastructures and power, and different econometric specifications.<sup>25</sup> We will build on the benchmark specification from Table 2's column 1 in the rest of the paper, as its estimate is most interpretable, and it requires minimal assumptions.

<sup>&</sup>lt;sup>23</sup> The estimated coefficients are not statistically significant, as precision is dampened by the inclusion of many explanatory variables with low predictive power. The full regression is reported in online Appendix Table A1.

<sup>&</sup>lt;sup>24</sup> Similarity is defined by the shortest Mahalanobis distance between two communes, based on their geographical distance and differences in average income per capita and population in 2002, and total infrastructure categories in 2004.

<sup>&</sup>lt;sup>25</sup> In online Appendix Table A2, we further verify that the findings in Table 2 are robust to additional sensitivity checks, by excluding the year 2002, splitting the sample into less and more developed communes, using the full sample of all surveyed rural communes that also includes non-connected communes, and using different fixed effects and clustering levels.

Dependent variable	Productive infrastructures within 3 years (1)	Information infrastructures within 3 years (2)	Education and health infrastructures within 3 years (3)	log average income within 3 years (4)	log average expenditure within 3 years (5)	log population within 3 years (6)
Power capital	0.132	0.0781	0.0168	-0.0111	-0.0110	0.0104
	[0.0545]	[0.0471]	[0.0235]	[0.0344]	[0.0274]	[0.0122]
Commune controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Commune	Commune	Commune	Commune	Commune	Commune
	and year	and year	and year	and Year	and year	and year
Cluster	Commune	Commune	Commune	Commune	Commune	Commune
Observations $R^2$	1,237	1,237	1,237	1,023	1,023	1,012
	0.695	0.737	0.811	0.764	0.783	0.973

TABLE 3-EFFECTS OF INCREASED POWER CAPITAL ON DIFFERENT OUTCOMES

*Notes:* This table relates native officials' promotion to a home commune's new infrastructure in different groups, and other commune characteristics. Each observation is a connected commune in a year (2002, 2004, 2006, or 2008). Controls include commune's log average income per capita, log population, and geographical zone, with commune and year fixed effects. All columns report OLS regressions on power capital measured as total positions accumulated by native officials. Different infrastructure outcomes in columns 1 to 3 are measured within three years. Productive infrastructures include electricity, clean water supply in dry season, clean water supply in wet season, irrigation system, and marketplace (5 categories). Information infrastructures include post office, radio station, and cultural center (3 categories). Education and health infrastructures include preschool, middle school, high school, and hospital (4 categories). Commune characteristics in columns 4 to 6 are measured in the first subsequent survey. Robust standard errors in brackets are clustered at commune 4 to 6 are measured.

Table 3 shows the effects of commune power capital on different types of infrastructures and other outcomes. Columns 1 to 3 show the effects on infrastructures for production, information and communication, and education and health. Each outcome variable is constructed similarly to  $Infras3yr_{ct}$  over the group of relevant infrastructures. The effect on productive infrastructures is large and statistically significant, amounting to 4.5 percent of the baseline sample mean and 14 percent of the baseline standard deviation of the outcome infrastructure variable. The effect on information infrastructures is similarly large, at 3.5 percent of the baseline sample mean and 11 percent of the baseline standard deviation. In contrast, the effect on education and health infrastructures is limited in both magnitude and statistical significance.<sup>26</sup> High maintenance cost, especially in terms of staff salaries, may explain the lower effect for education and health infrastructures.

Columns 4 to 6 show the effects of power capital on log commune average income and expenditure per capita, and log population in the subsequent survey year. All three estimates are small in magnitude and not statistically significant, suggesting that native official promotion does not have direct effects on home commune's economic outcomes within the relatively short three-year window. It is thus unlikely that new infrastructure results from a stronger local economy.<sup>27</sup>

<sup>&</sup>lt;sup>26</sup>The estimated effect on education and health infrastructures amounts to only 0.8 percent of the baseline sample mean and 3 percent of the baseline standard deviation of the respective infrastructure variable.

<sup>&</sup>lt;sup>27</sup> This is not enough to ascertain that promoted native officials do not care about the local economy because it may take time for the newly constructed infrastructures to produce an effect.

The results presented in Tables 2 and 3 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.

A common alternative explanation found in most studies of favoritism and pork-barrel politics (e.g., Kramon and Posner 2016) is that a native official has better information on his home commune and helps budget allocators direct more resources to that commune to improve efficiency. In our context, this explanation is inconsistent with several details. First, better information should have been shared even before the promotion, since all studied officials (especially in the Government and the CPV) had already held notable positions that allowed for convenient communication with district budget allocators. Second, by the time of promotion, most officials had long since left their rural hometowns, so their information on hometowns is unlikely to be new to budget allocators in district authorities. Third, the included infrastructures are considered necessary in every commune in the state's long-run development plans, so further knowledge of local conditions is unlikely to affect the decision to undertake such constructions. Fourth, even if an official had better information on which infrastructure a commune needs most, it would only result in shifting between different types of infrastructure, and would not produce the positive effect on the measured total number of infrastructure categories.

#### B. Who Has the Power to Give Favors?

Next we investigate the pervasiveness and degree of favoritism across different groups of Vietnamese officials, including members of the National Assembly (NA), Central and Provincial Governments, and the CPV's Central Committee. While the literature on favoritism in autocratic regimes has mostly addressed top leaders with both political interest and power to favor certain groups (e.g., Burgess et al. 2015), our sample also covers a large number of mid-level officials. This investigation helps shed light on the power structure of Vietnamese politics.

Panel A of Table 4 compares the effect of power capital in different groups of officials. In democracies, the politics of earmarking and pork barrel concentrates in the hands of lawmakers (Weingast, Shepsle, and Johnsen 1981; Bickers and Stein 2000). In contrast, in authoritarian Vietnam, estimates in columns 1 and 2 indicate that an NA position has very little power compared to other positions. The point estimate of NA power capital's effect is not statistically different from zero, and is only one-third of that of non-NA power capital. The difference between the two estimates is statistically significant at 5 percent. This finding is consistent with the observation that a regular member of the NA without another ranking position in the executive branch or CPV can hardly use his parliamentary membership as leverage for any real benefits, as the CPV and Central Government make major decisions (Malesky, Schuler, and Tran 2012).

If the NA has very little power to allocate the budget, then which branch does? Columns 3 and 4 compare the effect of power capital from the executive branch (including Central and Provincial Governments) to other branches. A promotion

Panel A. Main results							
		Dependent	variable: Total	infrastructures wit	hin three years		
Source of power capital	National Assembly positions (1)	Non-National Assembly positions (2)	Executive branch positions (3)	Non-executive branch positions (4)	Executive branch and CPV middle-ranking positions (5)	National Assembly middle-ranking positions (6)	
Power capital	0.0307	0.309	0.471	0.100	0.348	0.0314	
	[0.135]	[0.0948]	[0.133]	[0.0930]	[0.0944]	[0.135]	
p-value of difference	0.	038	0	.010	0.025		
Commune controls	Yes	Yes	Yes	Yes	Yes	Yes	
Fixed effects	Commune and year	Commune and year	Commune and year	Commune and year	Commune and year	Commune and year	
Cluster	Commune	Commune	Commune	Commune	Commune	Commune	
Observations	1,237	1,237	1,237	1,237	1,237	1,237	
$R^2$	0.756	0.761	0.762	0.756	0.762	0.756	

TABLE 4—IMPACTS ON INFRASTRUCTURES ACROSS DIFFERENT TYPES OF POSITIONS

Panel B. Comparison between different types of positions

Dependent variable: Infrastructures within 3 years	Total	1 51	Information (3)	Education and health (4)	Total (5)	Productive (6)	Information (7)	Education and health (8)
Power capital from								
CPV's central committee	0.154 [0.150]	0.124 [0.108]	0.00621 [0.0696]	0.0236 [0.0458]				
National Assembly	0.0636 [0.128]	-0.00554 [0.0919]	0.0755 [0.0899]	-0.00638 [0.0452]				
Executive branch	0.471 [0.135]	0.269 [0.0886]	0.175 [0.0830]	0.0297 [0.0357]				
Top-ranking positions					-0.0887 [0.322]	0.00207 [0.256]	-0.116 [0.136]	0.0249 [0.104]
Executive branch and CPV middle-ranking positions National Assembly middle-ranking positions	8				<b>0.352</b> [ <b>0.0943</b> ] 0.0770 [0.131]	<b>0.215</b> [ <b>0.0670</b> ] 0.00287 [0.0931]	<b>0.109</b> [ <b>0.0531</b> ] 0.0844 [0.0920]	0.0282 [0.0259] -0.0103 [0.0443]
Commune controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Commune and year	Commune and year	Commune and year	Commune and year	Commune and year	Commune and year	Commune and year	Commune and year
Cluster	Commune	Commune	Commune	Commune	Commune	Commune	Commune	Commune
Observations	1,237	1,237	1,237	1,237	1,237	1,237	1,237	1,237
$R^2$	0.762	0.697	0.738	0.812	0.762	0.697	0.738	0.812

Notes: This table relates native officials' promotion to a home commune's new infrastructure in different groups, and other commune characteristics. Each observation is a connected commune in a year (2002, 2004, 2006, or 2008). Controls include commune's log average income per capita, log population, and geographical zone, with commune and year fixed effects. All columns report OLS regressions in level, with infrastructure outcomes measured within three years and power capital measured as total positions accumulated by native officials. Panel A reports benchmark regression results using power capital accumulated by native officials in different government branches, including National Assembly and non-National Assembly positions (columns 1 and 2), executive branch (i.e., central and provincial governments) and non-executive branch positions (columns 3 and 4), middle-ranking positions in the executive branch and CPV (i.e., deputy ministers, provincial government, and ordinary non-Politburo non-chaired members of the CPV's Central Committee) (column 5), and middle-ranking positions in the National Assembly (i.e., ordinary non-chaired members) (column 6). Differences of coefficients are tested against zero using seemingly unrelated regressions. In panel B, columns 1 to 4 report "horserace" regression results among power capital accumulated by native officials in different government branches (i.e., CPV's Central Committee, National Assembly, and executive branch). Columns 5 to 8 of panel B report "horserace" regression results among power capital accumulated by native officials of different rankings (i.e., top-ranking positions, middle-ranking positions in the executive branch or CPV, and middle-ranking positions in the National Assembly). Productive infrastructures include electricity, clean water supply in dry season, clean water supply in wet season, irrigation system, and marketplace (five categories). Information infrastructures include post office, radio station, and cultural center (three categories). Education and health infrastructures include preschool, middle school, high school, and hospital (four categories). Robust standard errors in brackets are clustered at commune level.

in the executive branch brings 0.47 additional infrastructure categories to the home commune (statistically significant at 1 percent), almost 5 times the effect of a promotion to nonexecutive branches. The strong effect of power capital from executive branch positions highlights the considerable political power of Central Government members to affect public decisions beyond their jurisdiction. That would be consistent with an informal channel of influence through exchanges of personal favors (between ranking officials and local budget allocators). A simple model of this informal channel is discussed in the online Appendix.

Column 5 examines the effect of a promotion to a middle-ranking position in the executive branch or CPV, which includes all positions in our sample below the rank of minister or equivalent (data construction is detailed in the online Appendix). A promotion to a middle-ranking position brings 0.35 new infrastructure categories to the home commune. The effect is statistically significant at 1 percent, and significantly greater than that of ordinary non-chaired positions in the NA (column 6). Favoritism is thus clearly not limited to only top-level officials, as shown in the existing literature, but also pervasive in the midrange of Vietnamese politics, especially within the executive branch and the CPV.

An alternative way to compare the influences of different groups of political elites is to run "horserace" regressions, reported in panel B of Table 4. Column 1 includes in one regression three power capital variables separately for: the CPV's Central Committee, the NA, and the executive branch. The result is intriguing. While its one-party role is anchored in the constitution, the CPV's influence is much smaller than the executive branch's, and is not significantly different from zero. The same pattern holds when we break infrastructures into three groups: productive, information, education, and health (columns 2 to 4). This shows that a membership in the high-profile CPV's Central Committee still does not help one's hometown much, unless one holds an additional executive position.

The remaining columns in panel B exhibit a surprising difference in the influences of different ranks of Vietnamese political elites. Columns 5 to 8 show that only middle-ranking positions in the executive branch or CPV have positive and statistically significant effects on hometown infrastructures. Middle-ranking positions in the NA have positive but insignificant effects. Interestingly, top-ranking positions have negative although statistically insignificant effects on hometown infrastructures. A speculative explanation of this pattern is that while low-level promotions (e.g., non-chaired positions in the NA) do not yield enough power to exercise hometown infrastructure because those hometowns have already obtained sufficient infrastructures by that time. The fact that we only detect favoritism among middle-ranking officials does not rule out other potential channels through which top officials can favor their hometowns.

Together, the results from Table 4 show that hometown favoritism is a phenomenon widespread across different groups and ranks of Vietnamese officials, consistent with Hypothesis I. The magnitude of favoritism varies substantially across different ranks and divisions within the government, consistent with Hypothesis II. In particular, we find that even middle-ranking officials in the executive branch or CPV are more powerful than members of the legislative National Assembly. This pattern underlines the importance of informal authority and the inconsequence of legislative bodies in less democratic countries.

#### C. What Is the Motive of Hometown Favoritism?

*Political versus Nonpolitical Motives.*—We now assess the relative importance of two motives of hometown favoritism by comparing favoritism at the commune and district levels. As argued in Section IIIA, if favoritism is motivated principally by social preferences toward the home commune, it should be narrowly targeted, and little effect should be detected outside the home commune. In contrast, if political support is what motivates favoritism, it should be reinforced at the district level. Table 5 reports tests of those two predictions.

Addressing narrow targeting, columns 1 to 6 use a sample of connected home communes and their most similar rural non-connected communes in the same home district (as defined in Table 2's column 4). Each infrastructure outcome of the matched non-connected commune is regressed on the home commune's power capital, controlling for matched commune's and year's fixed effects. Column 1 shows that a promotion of a native official from one commune has a negative, statistically insignificant effect on infrastructure development of similar communes in the same home district. The estimate remains similar even when we focus only on promotions to positions with the strongest effects on home commune's infrastructures, namely executive branch or middle-ranking positions, as shown in columns 2 and 3. The estimate is close to zero for categories of information infrastructures (column 5) and education and health infrastructures (column 6), while for productive infrastructure it is slightly larger in magnitude, but still not statistically significant (column 4).<sup>28</sup>

When those estimates are compared with the corresponding effects in home communes, the difference is always large and strongly significant. They clearly show that favoritism is narrowly targeted toward home communes, not similar communes close by. The negative effects in the matched communes may hint that home communes benefit from favoritism at the expense of their neighbors, an effect in line with a fixed total district budget. Given that all estimates are not significant, this interpretation is inconclusive.

Going further, columns 7 and 8 explore potential favoritism beyond connected communes in a sample of connected districts.<sup>29</sup> Average and total infrastructure outcomes (computed among non-connected communes) are respectively regressed on the home district's power capital (total power capital of all of its communes). Both estimates are close to zero and not statistically significant, thus not consistent with the motive of district political support.

Overall, the results in Table 5 suggest that the observed favoritism is narrowly targeted to home communes. They support Hypothesis III that favoritism is more

<sup>&</sup>lt;sup>28</sup>We further show in online Appendix Figure A3 (similar to Figure 1, for matched communes) that the effect of promotions on matched communes remains close to zero over time.

<sup>&</sup>lt;sup>29</sup>Four hundred and fifteen out of 656 districts in Vietnam are connected to at least one official in our study period.

		Home district's infrastructures						
Dependent variable: Infrastructures within 3 years		Total		Productive	Information	Education and health	Non- connected commune average	Non- connected commune total
Source of power capital	All positions (1)	Executive branch (2)	Middle- ranking (3)	All positions (4)	All positions (5)	All positions (6)	All positions (7)	All positions (8)
Home commune's power capital	-0.0292 [0.0769]	-0.0220 [0.129]	-0.0446 [0.0954]	-0.0378 [0.0470]	0.00397 [0.0506]	0.00349 [0.0178]		
Home district's power capital							0.00131 [0.0256]	0.00729 [0.0951]
Commune/district controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Commune and year	Commune and year	Commune and year	Commune and year	Commune and year	Commune and year	District and year	District and year
Cluster	Commune	Commune	Commune	Commune	Commune	Commune	District	District
Observations	1,200	1,200	1,200	1,200	1,201	1,201	1,057	1,057
$R^2$	0.709	0.709	0.709	0.686	0.712	0.772	0.862	0.983
Corresponding baseline estimate	0.227 [0.0746]	0.471 [0.133]	0.348 [0.0944]	0.125 [0.0548]	0.0801 [0.0469]	0.0163 [0.0236]		
<i>p</i> -value of difference versus baseline estimate	0.0064	0.0022	0.0010	0.0116	0.2000	0.6136		

# TABLE 5—INCREASED COMMUNE POWER CAPITAL DOES NOT AFFECT INFRASTRUCTURES IN NEIGHBORING COMMUNES

*Notes:* This table examines the effect of native officials' promotions on infrastructure construction in home district. Controls include commune's or district's log average income per capita, log population, and geographical zone, with commune (or district) and year fixed effects. All columns report OLS regressions in level, with infrastructure outcomes measured within three years and power capital measured as total positions accumulated by native officials. Columns 1 to 6 consider pairwise matches between a connected home commune and its most similar rural non-connected commune in the same home district, defined by the shortest Mahalanobis distance based on predetermined variables (see text for details). Matched commune's infrastructure outcomes are regressed on home commune's power capital, controlling for commune and year fixed effects. Differences of coefficients are tested against zero using Seemingly Unrelated Regressions. In columns 7 and 8, each observation is a connected district in a year. Power capital is the total power capital of all communes in the district (surveyed or not), and infrastructure outcomes. Both columns use sample of districts that have the same number of surveyed non-connected rural communes in survey waves *t* and *t* + 2. District and year fixed effects are included. Robust standard errors in brackets are clustered at commune or district level as indicated.

likely driven by native officials' social preferences toward their home communes, and unlikely by political motives.

*Family Values.*—We further investigate whether favoritism is associated with local culture's stress on patrilineal duties and altruism toward the family. If officials' favoritism is chiefly motivated by their social preferences toward their patrilineal origin, we expect higher levels of favoritism in areas where the local culture puts more emphasis on these values. We use the ratio of domestic remittances and worship expenditure over household income in 2002, averaged over surveyed households, as a proxy for family values by district.<sup>30</sup>

<sup>&</sup>lt;sup>30</sup>Below the district level, a measure of family values by commune would take up too much noise.

To explore the heterogeneity of favoritism by family values, we plot our benchmark measure of favoritism, namely the regression coefficient of hometown infrastructures on promotion, as a function of family values (in percentile) in the first graph of Figure 2.<sup>31</sup> The extent of favoritism appears robustly increasing in family values, until it stabilizes among the top quartile of family values. Online Appendix Table A4 further strengthens this remark with regression results in two subsamples of communes split at the median of the measure of family values.<sup>32</sup>

*Economic Conditions.*—Is favoritism stronger or weaker in richer versus poorer hometowns? The second graph of Figure 2 shows that favoritism is relatively stable among below median income communes, but quickly declines at higher levels of income per capita. The pattern is further supported by columns 3 and 4 of online Appendix Table A4.

*Local Governance.*—How does favoritism vary with the difficulty to implement it through informal channels within Vietnam's administrative system? As discussed previously, most ranking officials do not have any hierarchical authorities over budget allocation by districts toward their home communes, so favoritism is probably brokered via exchanges of favor.<sup>33</sup> Strong local governance may act as a barrier against this mechanism. We construct a measure of local governance quality that aggregates relevant questions included in the Vietnam Provincial Competitiveness Indices 2006, a set of indices of industries' governance perceptions that has been systematically constructed with the help from the UNDP since 2006 (see details in Malesky 2006 and subsequent reports). Details of the measure's construction are described in the online Appendix. A higher local governance quality score indicates less corrupted and more transparent local governance.

The last graph of Figure 2 shows that the favoritism effect is steadily decreasing in the quality of local governance, and becomes statistically insignificant among the best governed provinces. Supporting regression results based on median-split subsamples are provided in online Appendix Table A4. This pattern suggests that hometown favoritism is more rampant under weaker local governance.

In sum, Table 5 shows that favors are narrowly targeted, and Figure 2 and online Appendix Table A4 associate hometown favoritism with stronger family values, lower income, and weaker governance. These patterns are consistent with the view that hometown favoritism is likely motivated by social preferences, rather than by political calculations.

<sup>&</sup>lt;sup>31</sup> As detailed in the online Appendix, the graphs of Figure 2 are estimated semi-parametrically: the estimate at each percentile of the *x*-axis variable is obtained from the benchmark regression from Table 2 weighted by a kernel function at that point.

<sup>&</sup>lt;sup>32</sup>Even when favoritism correlates with higher family values, we cannot determine whether a promoted official acts out of pure altruism as prosocial preferences toward his hometown and his extended family there, or he has selfish symbolic preferences for gratitude, recognition, or admiration from his hometown.

<sup>&</sup>lt;sup>33</sup> A chairman of a Provincial People's Committee does hold authority over district budgets within the province. However, we do not find significant effects on home district infrastructures.

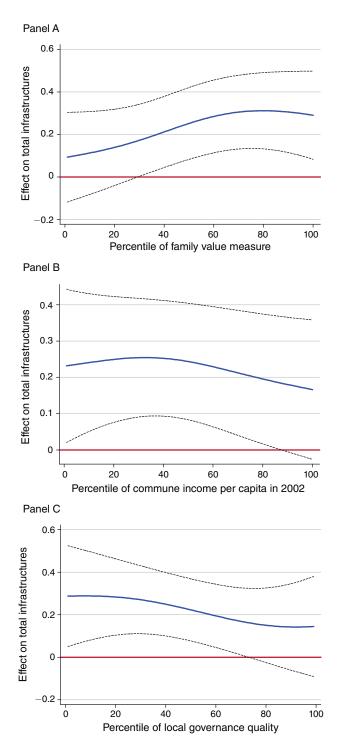


FIGURE 2. IMPACT OF NATIVE OFFICIALS' PROMOTIONS ON TOTAL INFRASTRUCTURES BY HOME COMMUNE CHARACTERISTICS (local linear regression results and 95 percent confidence intervals)

*Notes:* The graphs present semi-parametric estimates of the heterogeneous effect of native officials' promotion on home commune's new infrastructure, as a function of the percentile on the *x*-axis. The semiparametric estimation uses a Gaussian kernel function of the *x*-axis variable, with a bandwidth of 25 percent of the range (details are in the online Appendix.)

#### V. Concluding Remarks

In this paper, we find robust evidence of widespread hometown favoritism in Vietnam, as a hometown receives on average 0.23 new infrastructure categories within three years following a native official's promotion to high office. While middle-ranking officials, especially in the executive branch, widely exercise favoritism, non-chaired members of the legislative National Assembly do not. This pattern reveals the power structure within an authoritarian regime, in stark contrast with common findings in distributive politics in democracies. Because officials without direct authority over commune budgets can direct resources to their home commune, favoritism is likely engineered through informal influence and favor trading. In support of this interpretation, communes in provinces with worse local governance tend to reap more benefits from favoritism.

We find that officials target favors narrowly to their small home communes instead of distributing them over their home districts. In Vietnam, the potential political support of a commune's population is negligible to an official's career. The findings thus suggest that hometown favoritism is unlikely motivated by political aims, as commonly considered in the existing literature. Instead, we suggest an explanation based on officials' social preferences towards hometowns, supported by the evidence of stronger hometown favoritism found in areas with stronger family values. We cannot, however, rule out all forms of personal economic benefits that officials may get via favoritism. It remains an open question whether social preferences or strategic behaviors are more important in explaining favoritism across the world.

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 favoritism affects the allocative efficiency of public resources. 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 can help direct public resources to more efficient use there. This information channel presents a formidable challenge to the literature on favoritism and patronage politics, and remains an interesting avenue for future research.

Based on standard economic theory, marginal incentives for corruption for personal gains should diminish as office holders become richer and their marginal utility smaller. It implies that in the long run, growth and stable politics should automatically reduce corruption rates. This paper's results raise some doubts about this view. Because of their willingness to abuse power to channel public resources to social connections, high-ranking officials may maintain an appetite for corruption far beyond their own consumption. Without proper transparency on public officials' relevant social connections, even fast growing economies under autocracy would find it hard to combat corruption.

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