

# What motivates French pork: Political career concerns or private connections?\*

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## Abstract

This paper uses the detailed curricula of French ministers and the detailed accounts French municipalities to identify governmental investment grants targeted to specific municipalities. We distinguish between municipalities in which a politician held office before being appointed as a government's member and those in which current ministers lived during their childhood. We provide evidence that municipalities in which a minister held office during her career experience a 45% increase in the amount of discretionary investment subsidies they receive during the time the politician they are linked to serves as minister. In contrast, we do not find any evidence that subsidies flow to municipalities from which ministers originate.

KEYWORDS: Pork-barrel economics, distributive politics, political connections, private connections.

JEL CLASSIFICATION: D72, D73, H50, H77.

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# 1 Introduction

Pork barrel politics, i.e., the propensity of politicians to unduly direct public spending toward specific places, has been widely documented. Recent contributions provided empirical evidence of this phenomenon in various institutional contexts. For example, Hodler and Raschky (2014) show that birth regions of weakly institutional countries' leaders become significantly richer once the latter reach power. Similarly, Carozzi and Repetto (2016) report large inflows of transfers toward birth cities of Italian members of Parliament. These behaviors could go along with different candidate, and plausibly non-mutually exclusive, motivations such as politicians' career concerns and kinship considerations.

In this paper, we use an original data set that contains the detailed curricula of all French ministers that held office between 2000 and 2013. Together with ministers' terms and municipalities detailed accounts, these data helps us to identify governmental subsidies targeted to specific municipalities and to distinguish between alternative motivations by ministers. We achieve this by constructing two types of links through which a municipality might be linked to a minister. Namely, we distinguish between municipalities in which a politician held office before being appointed as a government's member and those in which current ministers lived during their childhood. These two groups of municipalities help us to disentangle motivations in the allocation of subsidies by ministers once they reach a national-level position.

Municipality fixed effects regressions allow us to provide evidence that municipalities in which a minister held office during her career experience a 45% increase in the amount of discretionary investment subsidies they receive during the time the politician they are linked to serves as minister. We find that this effect persists once the politician terminates her term, which is consistent with municipalities being able to continue using their accumulated knowledge of the administration or politicians successfully continuing to lobby once they left office. In contrast, we do not find any evidence that subsidies flow to municipalities from which ministers originate. These findings are robust to a variety of robustness tests such as a placebo test using formula-based municipalities' revenues or explicitly taking into account the potential inertia of investment grants.

The detailed accounts of French municipalities also allow us to further show that French ministers only tunnel governmental expenditure. They do not seem to influence lower administrative tiers and to indirectly target subsidies controlled by the latter. We also provide evidence that ministers who are supposed to control smaller budgets perform as well as others in directing subsidies toward their preferred places. This advocates in favor of ministers using their relations within the government rather than the budget they directly control to favor specific municipalities. Additional results also allow us to show that subsidies' targeting is rather precise as direct neighbors of politically connected municipalities do not benefit from any increase in the amount of grants they receive. We finally provide evidence that right- and left-wing ministers behave similarly once in office.

To the best of our knowledge, this paper is the first to use a single framework that enables to distinguish the different motivations that drive pork barrels economics. Empirical evidence we present support the view that politicians' career concerns are the main driver of subsidies' targeting. While this finding might be specific to the context investigated in this paper, it contrasts with findings by Carozzi and Repetto (2016) who uncover personal motives as the main drivers of funds allocation by Italian parliament's members.

The main source of variation of our identification strategy is the time a politician is appointed as minister. Fixed effects regressions enable us to compare how subsidies that flow to municipalities she is connected to evolve compared to transfers to non-connected municipalities. Yet, this difference-in-differences setting requires a careful definition of the control group as the probability for a municipality to be linked to a future minister is arguably not randomly distributed over the population of cities. Connected municipalities do differ from non-connected ones in some dimensions such as size and political orientation for example. We thus use three different control groups. The first one is made of all French municipalities. The second is constituted by municipalities with more than 10,000 inhabitants as size is an important determinant of the probability to be connected to a minister at some point in time. We finally construct a third control by using a propensity score matching approach to ensure that observables characteristics balance between treated and control municipalities. All empirical results hold when using the three control groups.

The main limitation of the empirical evidence presented in this paper lies in the relatively short time span for which French municipalities' detailed accounts are available. While we do document some persistence of subsidies flows once the connected minister has left office, we are not able to determine the length of time after which the effect vanishes. Similarly, the time span is not sufficiently long to check whether former ministers really benefit during the rest of their career from having targeted subsidies while in office.

This paper essentially makes a contribution to the pork barrels economics literature by offering simultaneous tests of personal and career motivations of politicians in the allocation of public funds. Our finding that political career motivations are a driver of ministers' decisions in the allocation of grants to French municipalities confirms evidence on the importance of career concerns provided by Castells and Solé-Ollé (2005), Aidt and Shvets (2012), and Albouy (2013) among others.

Another feature of this paper is that it contributes to the study of distributive politics in developed countries. These countries are studied in only 37% of the 158 articles listed in the recent literature review by Golden and Min (2013). France appears to be particularly under-studied as Cadot et al. (2006) is the only paper inventoried by Golden and Min (2013) that explicitly focuses on this country by providing evidence that French infrastructure investments were primary driven by political concerns at the turn of the nineties. More recently, contributions by Bertrand et al. (2007) and Coulomb and Sangnier (2014) also contributed to fill this gap by showing how much linked French industry and politics are.

The remainder of the paper is organized as follows. The institutional context, the data, and the estimation strategy are presented in section 2. Empirical results are presented and discussed in section 3. Section 4 concludes.

## **2 Data and estimation strategy**

This section presents the institutional context, the data we use, and the empirical strategy we adopt.

## 2.1 Institutional context and data

French parliamentary and presidential elections are synchronized since 2002. Shaded areas of Figure 1 map the different heads of state and government from 2000 to 2013, together with their respective political orientation. Over this time period, the French government was made of 36 ministers on average. However, its composition regularly changed. Either following parliamentary elections or because of political choices made by the head of the political majority. This gives raise to frequent changes in the identity of ministers as illustrated by instantaneous entries and exits in and from the government represented by spikes on Figure 1.

All in all, 200 distinct individuals served as ministers in the French government between 2000 to 2013. The original data set used in this paper contains the detailed curricula of all these politicians. Information have been collected and cross-checked from manual search on various online resources: the French parliament and government’s websites, politicians’ official websites, Wikipedia, and other occasional resources such as information websites. These resources allowed us top gather detailed information about French ministers’ past political career and private life. From the later information, we use birth cities and places where individuals attended high-school to identify municipalities that will at some point benefit from a *private connection* to a minister.<sup>1</sup> Similarly, we define a municipality as benefiting from a *political career connection* if a future member of the government once served as municipal councilor or mayor of that municipality.<sup>2</sup>

Variations in ministers’ past history and in the composition of the French government allow us to assess at each point in time whether or not a municipality benefits from a political or a private connection to a current member of the government. Figure 2 plots the yearly number of French municipalities that benefit

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<sup>1</sup>All birth places of the 200 politicians who have held office in the French government between 2000 and 2013 were identified: 181 in France and 19 abroad. 152 ministers attended high-school in a French municipality and 4 in a foreign cities. This information remains unknow for 44 individuals. All in all, only 7 out of the 200 politicians have no known private connection to some French municipality.

<sup>2</sup>Only 16 out of the 200 politicians have never been elected. These are mostly individuals who were appointed as ministries following a career in the private sector (known as “*issus de la société civile*” in French). 155 served at least once as municipal councilor or mayor (the mayor is elected by and among municipal councilors). The remaining 29 ministers did hold electoral mandates, but not at the municipal level.

from such connections. Over the 2000–2013 period, the average yearly number of connected municipalities is 65, with peaks close to 100 in 2002 and 2012 when the political majority changed side. On an average year, 35 municipalities are politically connected to a minister while 38 benefit from a private connection and 9 benefit from both.<sup>3</sup>

We map information about municipalities that benefit from connections to current government’s members into official detailed accounts of French municipalities provided by the French *Direction Générale des Finances Publiques*. These data are available over the 2002–2011 period for all the 2,489 municipalities of more than 3,500 inhabitants.<sup>4</sup> They allow us to observe the precise yearly amount of discretionary investment grants allocated to each municipality by the central state.

## 2.2 Estimation strategy

The data allow us to uncover whether municipalities connected to a government’s member experience any increase in the amount of subsidies they received. The panel structure further allow us to investigate whether this increase persists once the politician to which the municipality is connected terminates her term. We achieve these objectives by estimating the following fixed effects equation:

$$\begin{aligned}
 y_{it} = & \beta_1 \text{Political career connection}_{it} + \beta'_1 \text{Terminated political career connection}_{it} \\
 & + \beta_2 \text{Private connection}_{it} + \beta'_2 \text{Terminated private connection}_{it} \\
 & + \mathbf{I}_i + \mathbf{I}_t + \alpha + \varepsilon_{it},
 \end{aligned}
 \tag{1}$$

where  $y_{it}$  denotes the log of per capita amount of discretionary investment grants received by municipality  $i$  on year  $t$  from the central government,  $\text{Political career connection}_{it}$  and  $\text{Private connection}_{it}$  are dummy variables equal to 1 if municipality  $i$  is politically or privately connected to a current government’s member on year  $t$ ,  $\text{Terminated political career connection}_{it}$  and  $\text{Terminated private connection}_{it}$  are dummy variables equal to 1 if municipality  $i$  was, but is not anymore, connected

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<sup>3</sup>These average figures only fall to 33, 36, and 8, respectively, when excluding 2002 and 2012.

<sup>4</sup>Municipalities of more than 3,500 inhabitants represent 68% of the total population of metropolitan France. We exclude the three largest cities—Paris, Lyon, and Marseille—from the sample as they depart from other French municipalities in many dimensions such as administrative status, size, etc.

to a government’s member,  $\mathbf{I}_i$  and  $\mathbf{I}_t$  are sets of municipality and year fixed effects, respectively,  $\alpha$  is a constant term, and  $\varepsilon_{it}$  is the error term. The expression also includes interaction terms between connection variables. We estimate equation (1) using ordinary least squares and cluster standard errors at the municipality level.

This difference-in-differences setting will allow us to uncover the causal effect of a municipality benefiting from a connection to a minister only if the treatment is as close as possible from random. The treatment—being connected to a current member of the government—can be divided in two steps. First, a municipality must be candidate to the treatment. In other words, it must be linked to a politician that might at some point become a minister. Second, the precise timing of ministers’ appointments must not depend on the local situation. This second statement is backed by the mere observation of changes in the government’s composition that are mainly due to elections or within-party political debates or disputes. In contrast, the first step of the treatment is more challenging as politicians that will at some point become ministers are likely to hold particular social origins and to have spent their childhood in specific cities. Similarly, early political career experience of top-level politicians are not likely to be random: they often depend on decisions by political parties.<sup>5</sup>

The strategy we use to alleviate this selection issue is to define alternative control groups to be used in regressions. As a first candidate counterfactual group, we agnostically select all the 2,320 municipalities that did not benefit from any connection to a current government’s member between 2002 and 2011. These municipalities however differ strongly from connected municipalities as illustrated by descriptive statistics presented in the left part of Table 1 and by the discrepancy between the dashed and the solid size distributions of Figure 3. This latter observation leads us to create a second estimation sample from all municipalities with more than 10,000 inhabitants. This condition ensures that compared municipalities will be of comparable size and also improves on comparability across other dimensions as shown by the middle part of Table 1. Finally, we construct a third sample thanks to a matching model that we estimate using observable character-

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<sup>5</sup>For example, high-potential politicians are frequently designated as candidates to gain or defend a particular city. Others are also designated as candidates in easy-to-in places as a reward. See Dolez and Hastings (2003) among others.

istics measured in 2001. This matching procedure, which is summarized in Online Appendix' Table A1 and whose outcome is tabulated in the right part of Table 1, allow us to ensure that connected and non-connected municipalities share similar observable characteristics as illustrated for example by the comparison between the dotted and the solid size distributions of Figure 3.

### 3 Results

In this section, we present evidence that subsidies accrue disproportionately to municipalities that benefit from a connection to a current government's member. We show that this only applies to municipalities that are politically connected to a minister and that private connections do not to bring extra revenues. We then show that these findings are robust to various robustness checks. Finally, we explore the different channels through which ministers may tunnel subsidies and provide additional results that help us to further interpret the main findings.

#### 3.1 Main results

Columns 1–3 of Table 2 present the estimated coefficient of equation (1) when treating identically both types of connections, i.e. without making a distinction between political career connections and private ones. Estimates turn out to be positive whatever the sample used. Their magnitude however decreases as the counterfactual group becomes better defined. The matched sample even provide us with estimates that are not statistically significant at conventional levels.

Columns 4–6 of Table 2 decompose the previous estimates depending on the type of connection. Connections associated to the past political career of a current minister appear to have a large and positive effect on investment subsidies' flows. Interestingly, this effect seems to persist even once the minister the municipality is connected to has left office. In contrast, we do not find evidence that private connections to current government's members allow municipalities to benefit from larger discretionary investment grants.

All in all, estimates presented in Table 2 suggest that the amount of discretionary investment grants increase by about 50% by the time one of a municipi-



pality’s former counselor or mayor becomes a government’s member. This effect persists and even seems to become larger once the politician has left office. This latter finding is consistent with (i) some decisions needing time to be taken and/or having lasting consequences, (ii) municipalities being able to continue using accumulated knowledge of the administration even once their direct connections to the government are terminated, and (iii) former ministers being able to continue to lobby in favor of specific municipalities even once they have left office. This persistence results however needs to be taken with caution as one of the main limit of this paper lies in the short time period under scrutiny.<sup>6</sup>

There is however still sufficient variation in the data to further investigate the dynamics of the effect we are interested in. We achieve this by estimating a modified version of equation (1) in which we decompose each of the two sets of dummy variables into finer time periods relative to the appointment as minister of the politician a municipality is connected to. Figure 4 plots the associated series of estimates that we obtain when the sample is restricted to municipalities of more than 10,000.<sup>7</sup> This graphical representation allows us to clearly see that (i) connected municipalities do not receive more grants than non-connected ones until the start of the connected minister’s term, (ii) for political career connections, the effect persists for a while once the term is terminated, and (iii) private connections definitely do not trigger any dynamics in the evolution of received grants. This dynamic representation further enables us to state that the above discussed finding about persistence cannot only be due to decisions needing time to be implemented as visual investigation makes clear that subsidies immediately increase once the politician to which a municipality is connected to starts her term.

All in all, the most conservative estimate of Table 2 suggests that municipalities that benefit from political career connections to a current member of the government experience a 45% increase in the amount of investment subsidies they receive. A back-of-the-envelope calculation suggests that this targeting by politicians represents a total amount of 30 million euro per year. This corresponds to

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<sup>6</sup>In particular, while information we use on current connections are exhaustive, we do not observe an unknown number of terminated connections as information on ministers’ curricula only covers individuals who were member of the government since 2000.

<sup>7</sup>See Figures A1 and A2 in the Online Appendix for mirroring estimates obtained using the full and the matched sample, respectively.

7.8% of the total budget allocated by the government to discretionary investment grants.<sup>8</sup>

### 3.2 Robustness checks

This sub-section presents a series of tests that demonstrate the robustness of our main findings.

We first start by a placebo test. We estimate again equation (1), but swapping the dependent variable for the per capita *dotation globale de fonctionnement*, a formula-based item of municipalities' detailed accounts that corresponds to funds allocated to municipalities for their general functioning expenditure.<sup>9</sup> As shown by estimates presented in columns 1–3 of Table 3, political and private connections do not have any robust impact on municipalities' formula-based revenues.

Second, we test whether estimates of interest are sensitive to particular observations or to some methodological choices we made. More precisely, we re-estimated equation (1) excluding 2002, 2007, and 2008 from the sample as these years were periods of major changes in the French political context: the two first were presidential election years while the latter was a municipal elections one. We also test whether estimates depend on our methodological choice of arbitrarily considering that a municipality is treated a given year as soon as the politician it is connected to served as minister for at least one day during that year. We thus remove each connected municipality's first and last years in treatment from the sample. Estimates tabulated in columns 4–9 of Table 3 show that these restrictions hardly affect findings.

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<sup>8</sup>The detailed calculation is as follows. The most conservative estimate of Table 2 is 0.45. It is obtained when using the matched sample. Politically connected municipalities receive on average 14.54 euro per capita as discretionary investment grants during years that immediately precede the beginning of the relevant politician's term as minister. They thus experience a  $0.45 \times 14.54 = 6.54$  euro per capita increase in subsidies. The population of municipalities that benefited at least once from a political connection between 2002 and 2011 sums to 4.68 million inhabitants. This implies that they receive together on average  $4.68 \times 6.54 = 30.6$  million euro per year because of their connections. This represents 7.8% of the yearly average total budget allocated to discretionary investment grants (394 million euro).

<sup>9</sup>The total *dotation globale de fonctionnement* received by a municipality is derived from a formula that takes into account the number of inhabitants, the area, revenues from business taxes, and occasional factors such as the fact that part of a municipality's area overlaps with a national park.

As a third robustness check, we introduce the lagged dependent variable as supplementary explanatory variable to explicitly account for the potential time structure of investment grants allocated to municipalities. While this variable is indeed positively and significantly correlated to the dependent one, its introduction in expression (1) leaves estimates of interest qualitatively and quantitatively unchanged as shown by columns 10–12 of Table 3.

Finally, we show in columns 13–15 of Table 3 that estimates we obtain on the matched sample are not particularly sensitive to the approach used to construct this particular sample. Namely, we construct two distinct matched samples by separately considering political career connections and private connections. This allow us to estimate the effect of each type of connection on a distinct sample whose composition is not affected by the alternative type of connection. We obtain estimates that are consistent with those of the main specification. This also holds true when using the union of both preceding matched samples.

### 3.3 Mechanisms

In this sub-section, we provide additional empirical evidence that help us to have a finer look at mechanisms at play. In what follows, we only focus on political career connections as the above results demonstrated that municipalities do not benefit from private connections to ministers. We therefore replace the original matched sample by a matched sample that is specific to political connections and remove from estimations all terms that relate to private connections.

We first investigate whether subsidies allocated to municipalities by lower tiers of the administration also depend on political career connections. The two lower administrative tiers from which municipalities might receive subsidies are, by ascending order, the *départements* and the *régions*. Both also allocate investment subsidies whose amount are available from municipalities' detailed accounts. As shown by columns 1–6 of Table 4, municipalities that are connected to a current government's member do not receive higher funding from lower administrative tiers. This suggests (i) that ministers do not use their hierarchical position to influence decisions taken by *départements* and *régions*, or (ii) that ministers are

not able to exert any pressure on these actors.<sup>10</sup>

We then have a closer look at the past political career of ministers and distinguish between those who are still member of the municipality's council and those who terminated their term. This distinction could go along with some differences in the intensity of a politician's feeling toward municipalities and/or denote different local reelection concerns. We empirically investigate this potential heterogeneity in political career connections by constructing a supplementary dummy variable that acts as an interaction term and is equal to 1 if the current minister is not anymore a member of the municipality's council. Estimates coefficients presented in columns 7–9 of Table 4 reveal negative but hardly statistically significant interaction terms that suggest that ministers do not behave very differently towards municipalities depending on whether or not they still hold a seat at the municipal council.

In a further attempt to dig into minister's behavior, we isolate high rank ministers from others.<sup>11</sup> High rank ministers are politicians who are in charge of larger departments and/or supervise lower ranked ministers who served in their department. Ministers' ranks are thus correlated with differences in decision-making power. However, such differences do not seem to make any difference on investment grants received by politically connected municipalities as shown by columns 10–12 of Table 4.

We next identify neighboring municipalities of treated ones to check whether subsidies are precisely targeted or only directed toward a geographical areas that are of some interest for a minister. We define neighboring municipalities as any municipality that share an administrative border with a municipality that is politically connected to a current minister. 346 municipalities of the full sample fall into this category. This number amounts 174 once the sample is restricted to municipalities of more than 10,000 inhabitants. As for the matched sample, we run a new matching procedure to select municipalities that have observable characteristics that are as close as possible to those of actual neighboring municipalities. We then re-estimate a modified version of expression (1) in which we add a dummy

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<sup>10</sup>While both interpretations might be correct, we are not able to discard one or the other.

<sup>11</sup>There are four distinct levels in the protocol of the French government: *secrétaire d'état*, *ministre délégué*, *ministre*, and *ministre d'état*. The head of the government is called *premier ministre*. We classify as high rank ministers all *ministres* and *ministres d'état*.

variable that is equal to 1 for municipalities that share a border with a municipality that is politically connected to a current government's member. As shown by estimates presented in columns 13–15 of Table 4, neighboring municipalities do not benefit from being close to a politically connected municipality. This suggests that subsidies targeting by ministers is accurate and does not consist in favoring an approximate area. This finding is consistent local reelection concerns.

Last but not least, we investigate whether returns from connections to ministers are different depending on the minister's political orientation. We achieve this objective by isolating right-wing politicians from left-wing ones. Unfortunately, the period for which municipalities' detailed accounts are available does not allow us to fully replicate the estimation strategy that we used until now as 2002 is the only year for which left-wing politicians served as ministers. We thus remove municipality fixed effects from equation (1). Estimated coefficients of interest are presented in columns 16–18 of Table 4.<sup>12</sup> As shown by the interaction term, the political orientation of ministers does not appear to make any difference.

## 4 Conclusion

To the best of our knowledge, this paper is the first to use a single framework that enables to distinguish the different motivations that drive pork barrels economics.

We use an original data set that contains the detailed curricula of French ministers, their terms in office, and French municipalities detailed accounts between 2002 and 2011. These data helps us to identify governmental subsidies targeted to specific municipalities and to distinguish between alternative motivations by ministers. We provide evidence that municipalities in which a minister held office during her career experience a 45% increase in the amount of discretionary investment subsidies they receive during the time the politician they are linked to serves as minister. We find that this effect persists once the politician terminates her term, which is consistent with municipalities being able to continue using their accumulated knowledge of the administration or politicians successfully continu-

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<sup>12</sup>The omission of municipality fixed effects obviously lead to an overestimation of the main effects when using the un-matched samples. This issue however seems to vanish when using the matched sample.

ing to lobby once they left office. In contrast, we do not find any evidence that subsidies flow to municipalities from which ministers originate.

We further show that French ministers only tunnel governmental expenditure and do not seem to influence lower administrative tiers and to indirectly target subsidies controlled by the latter. We also provide evidence that ministers who are supposed to control smaller budgets perform as well as others in directing subsidies toward their preferred places. This advocates in favor of ministers using their relations within the government rather than the budget they directly control to favor specific municipalities. Additional results also allow us to show that subsidies' targeting is rather precise as direct neighbors of politically connected municipalities do not benefit from any increase in the amount of grants they receive. We finally provide evidence that right- and left-wing ministers behave similarly once in office.

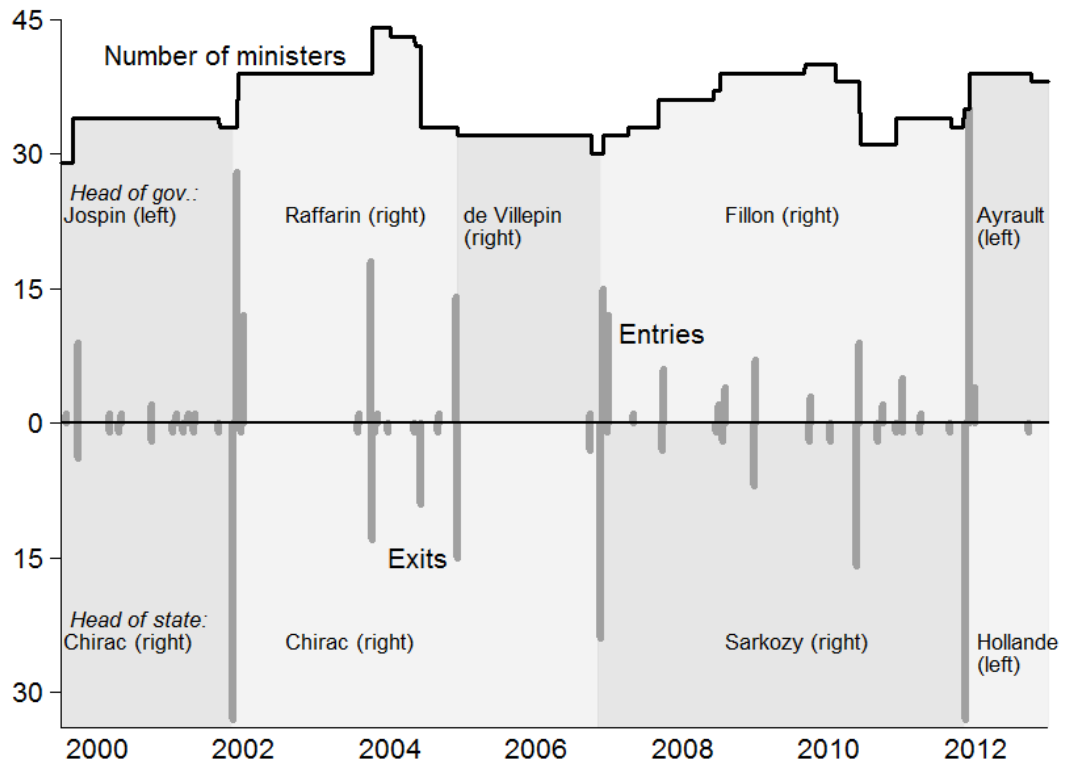
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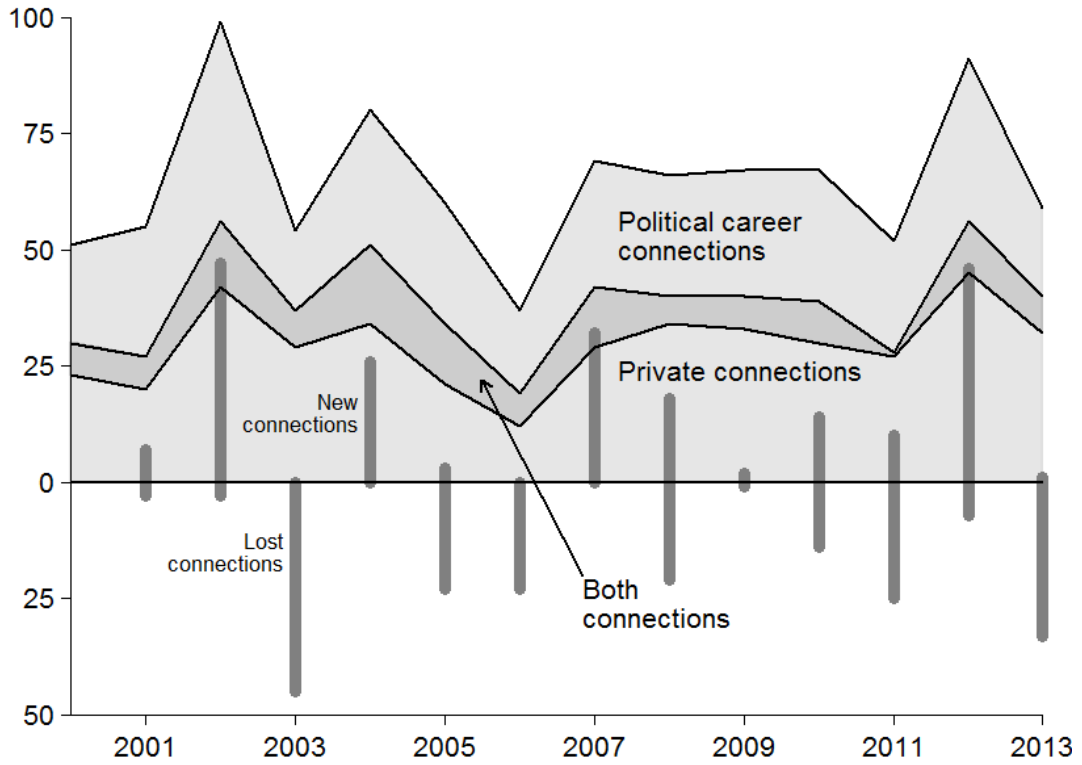


Figure 1: Political majorities and size of government between 2000 and 2013.



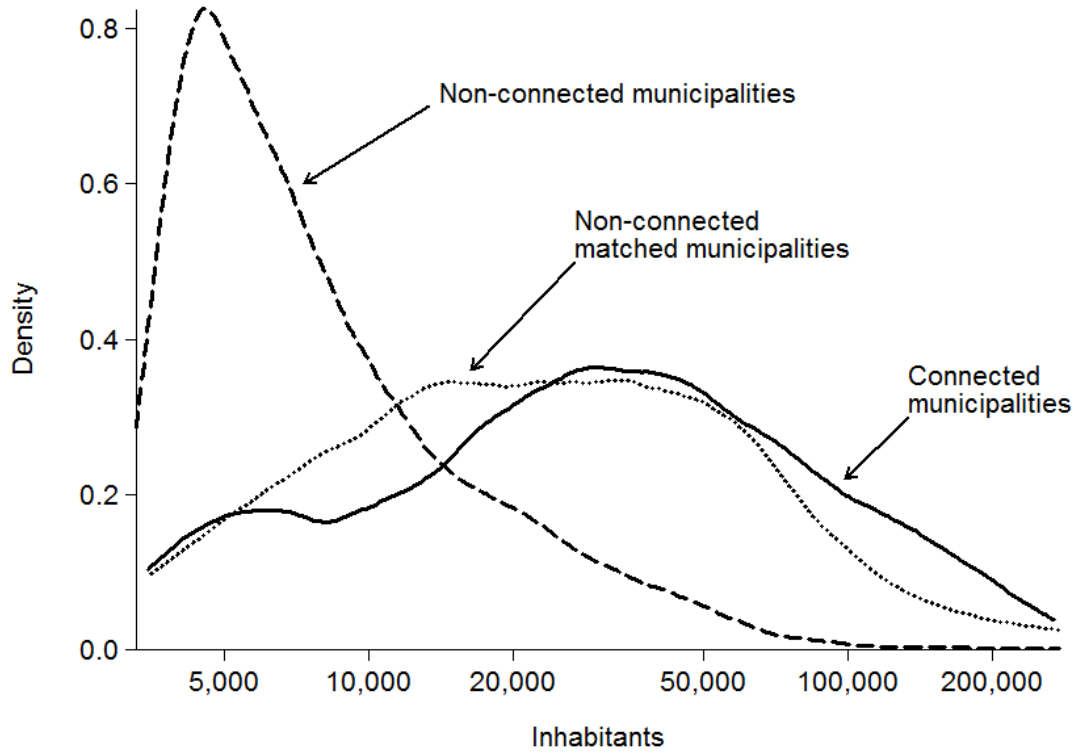
Source: Official composition and daily changes of the French government. Exits followed by re-entries in the government within less than 30 days have been ignored. Entries and exits are aggregated at the monthly level.

Figure 2: Yearly number of connected municipalities between 2000 and 2013.



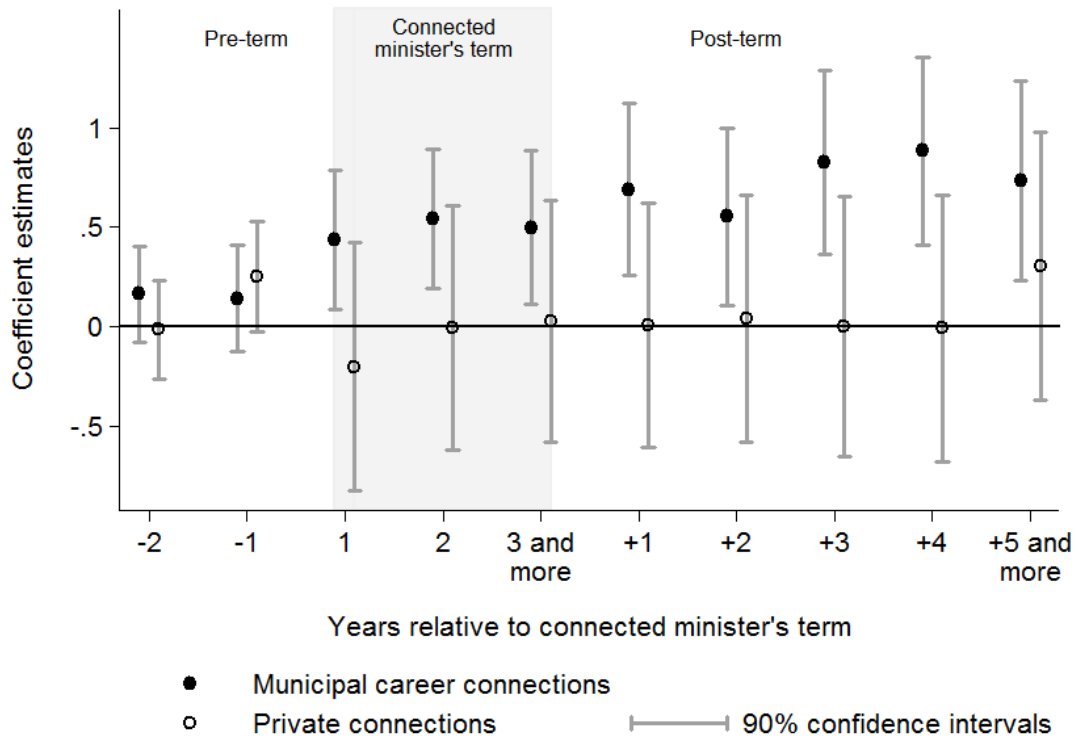
Source: Official composition and daily changes of the French government and authors' original data collection of government's member curricula. A municipality is considered as benefiting from a *political career connection* on year  $t$  if a minister who hold office during year  $t$  once served as municipal councilor or mayor of this municipality. A municipality is considered as benefiting from a *private connection* on year  $t$  if a minister who hold office during year  $t$  is born or attended high-school in this municipality. Spikes represent new and lost connections. *New connections* correspond to municipalities that were not connected to any government's member over the previous calendar year. *Lost connections* correspond to municipalities that were connected to a government's member over the previous year but not during the current year anymore.

Figure 3: Size distributions of connected and non-connected municipalities.



Source: Authors' calculation. The 169 *connected municipalities* are municipalities that benefit from at least one private or political connection to a current government's member between 2002 and 2011. The 2,320 *non-connected municipalities* are municipalities that did not benefit from any connection to a current government's member between 2002 and 2011. The 134 *non-connected matched municipalities* are a sub-group of non-connected municipalities selected following a matching procedure. See Table 1 and Online Appendix' Table A1 for more details.

Figure 4: The dynamics of connections.



Source: Authors' calculation. Estimates are from an OLS regression of the log of yearly per capita discretionary investment grants received by a municipality from the central government on year and municipality fixed effects, and a series of dummy variables defined relative to the term of the minister to which the municipality is connected. Standard errors are clustered at the municipality level. *Political career connection* and *private connection* are dummy variables equal to 1 if municipality *a* is politically or privately connected to a current government's member (see the text for the definitions of connections). The regression also includes interaction terms between the two types of connections. The sample is made of municipalities with more than 10,000 inhabitants. Estimates have been horizontally shifted for aesthetic considerations.

Table 2: Effect of being politically or privately connected to a current government's member on discretionary investment grants received by a municipality.

Dependent variable : Per capita grants received from the central government (log of)			
	(1)	(2)	(3)
Sample:	Full	$\geq 10,000$ inh.	Matched
Any connection	0.300** (0.117)	0.265** (0.133)	0.203 (0.143)
Any terminated connection	0.372*** (0.120)	0.256* (0.143)	0.103 (0.150)
	(4)	(5)	(6)
Sample:	Full	$\geq 10,000$ inh.	Matched
Political career connection	0.490*** (0.164)	0.521*** (0.147)	0.452** (0.211)
Terminated political career connection	0.718*** (0.222)	0.751*** (0.216)	0.905*** (0.346)
Private connection	-0.160 (0.235)	-0.343 (0.238)	-0.093 (0.302)
Terminated private connection	-0.027 (0.253)	-0.226 (0.262)	0.001 (0.293)

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . White heteroskedastic standard errors clustered at the municipality level in parentheses. OLS regressions. Each column presents estimates from a separate regression. All regressions include a constant term, year and municipality fixed effects. Regressions presented in columns 4–6 also include interaction terms between the two types of connections. The dependent variable is the log of yearly per capita discretionary investment grants received by a municipality from the central government. *Political career connection* and *private connection* are dummy variables equal to 1 if municipality  $a$  is politically or privately connected to a current government's member (see the text for the definitions of connections). *Terminated political career connection* and *terminated private connection* are dummy variables equal to 1 if a municipality was, but is not anymore, connected to a government's member. *Any connection* and *any terminated connection* do not distinguish between political career and private connections. The full sample is made of all French municipalities of more than 3,500 inhabitants. The  $\geq 10,000$  inhabitants sample is made of all French municipalities of more than 10,000 inhabitants. The matched sample has been constructed following a matching procedure on the probability for a municipality to benefit from any type of connection. See Table 1 and Online Appendix' Table A1 for more details.

Table 1: Differences in observable characteristics across connected and non-connected municipalities.

	Full sample		$\geq 10,000$ inh.		Matched	
	Connected municipalities	Non-connected municipalities	Connected municipalities	Non-connected municipalities	Connected municipalities	Non-connected municipalities
Population (log of)	10.26	8.99	10.66	9.90	9.99	10.02
Share of pop. under 14	0.18	0.19	0.18	0.20	0.18	0.18
Share of pop. over 65	0.17	0.16	0.16	0.15	0.17	0.18
Median income (log of)	9.75	9.77	9.76	9.76	9.74	9.72
Unemployment rate	0.13	0.11	0.13	0.12	0.13	0.13
Share of self-employed workers	0.06	0.06	0.05	0.06	0.06	0.06
Share of high-skilled workers	0.16	0.13	0.18	0.14	0.15	0.15
Right-wing vote share at last municipal elec.	0.50	0.45	0.50	0.44	0.50	0.49
Right-wing vote share at the 2002 presidential elec.	0.38	0.35	0.37	0.34	0.38	0.37
Right-wing mayor	0.33	0.45	0.32	0.45	0.33	0.37
Mayor is member of the parliament	0.38	0.07	0.44	0.15	0.31	0.32
P.c. housing tax base (log of)	7.06	6.90	7.08	6.97	7.05	7.04
P.c. property tax base on built assets (log of)	7.06	6.82	7.07	6.93	7.04	7.02
P.c. property tax base on non-built assets (log of)	1.84	2.48	1.64	1.90	1.98	1.98
P.c. business tax base (log of)	7.37	7.03	7.42	7.22	7.32	7.35
Belongs to a <i>communauté de communes</i>	0.23	0.37	0.15	0.22	0.26	0.30
Belongs to a <i>communauté d'agglomération</i>	0.36	0.29	0.40	0.34	0.31	0.28
Belongs to a <i>communauté urbaine</i>	0.09	0.10	0.10	0.17	0.07	0.09
Shared tax decisions	0.17	0.21	0.13	0.15	0.18	0.19
# of municipalities	169	2,320	136	679	134	134

*P.c.* stands for “per capita”. *Elec.* stands for “election”. *P-val. of diff.* stands for “p-value of difference”. All variables are measured in 2001, except *Right-wing vote share at the 2002 presidential election* which is measured in 2002. *Connected municipalities* are municipalities that benefit from a political career or a private connection to a government’s member between 2002 and 2011. (see the text for the definitions of connections). The full sample is made of all French municipalities of more than 3,500 inhabitants. The  $\geq 10,000$  inhabitants sample is made of all French municipalities of more than 10,000 inhabitants. The matched sample has been constructed following a matching procedure on the probability for a municipality to benefit from any type of connection (see the text and the Online Appendix for more details).

Table 3: Effect of being politically or privately connected to a current government's member on discretionary investment grants received by a municipality: robustness tests.

Dependent variable : Per capita grants received from the central government (log of), except if differently specified			
Per capita <i>dotation globale de fonctionnement</i> (log of) as dependent variable			
Sample:	(1) Full	(2) ≥ 10,000 inh.	(3) Matched
Political career connection	-0.013 (0.036)	-0.020 (0.042)	-0.035 (0.042)
Private connection	-0.092** (0.043)	-0.079* (0.047)	-0.038 (0.050)
Excluding election years			
Sample:	(4) Full	(5) ≥ 10,000 inh.	(6) Matched
Political career connection	0.420** (0.188)	0.361** (0.167)	0.474** (0.233)
Private connection	-0.181 (0.256)	-0.228 (0.257)	-0.246 (0.311)
Excluding transition years			
Sample:	(7) Full	(8) ≥ 10,000 inh.	(9) Matched
Political career connection	0.503** (0.215)	0.527*** (0.158)	0.406 (0.284)
Private connection	-0.105 (0.275)	-0.258 (0.249)	-0.078 (0.364)
Including lagged dependent variable as explanatory variable			
Sample:	(10) Full	(11) ≥ 10,000 inh.	(12) Matched
Political career connection	0.378** (0.158)	0.265* (0.145)	0.437** (0.200)
Private connection	-0.173 (0.228)	-0.199 (0.231)	-0.154 (0.263)
Different matched samples			
Sample:	(13) Matched on political connections	(14) Matched on private connections	(15) Union of both samples
Political career connection	0.329** (0.138)		0.369** (0.168)
Private connection		-0.018 (0.182)	-0.239 (0.248)

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1. White heteroskedastic standard errors clustered at the municipality level in parentheses. OLS regressions. Each column presents estimates from a separate regression. All regressions include a constant term, year and municipality fixed effects, as well as variables corresponding to terminated connections (see Table 2 and equation (1)), and interaction terms between the two types of connections. The dependent variable is the log of yearly per capita discretionary investment grants received by a municipality from the central government, except in columns 1–3 where the dependent variable is the log of yearly per capita *dotation globale de fonctionnement* (a formula-based item). *Political career connection* and *private connection* are dummy variables equal to 1 if municipality a is politically or privately connected to a current government's member (see the text for the definitions of connections). In columns 4–6, 2002, 2007, and 2008 are excluded from the estimation sample. In column 7–9, observations that correspond to a connected municipality's first and last years in treatment are excluded from the sample. The full sample is made of all French municipalities of more than 3,500 inhabitants. The ≥ 10,000 inhabitants sample is made of all French municipalities of more than 10,000 inhabitants. The matched sample has been constructed following a matching procedure on the probability for a municipality to benefit from any type of connection. The sample used in column 13 has been constructed following a matching procedure that considers as treated municipalities that benefit from a political career connection. The sample used in column 14 has been constructed following a matching procedure that considers as treated municipalities that benefit from a private connection. The sample used in columns 15 is the union of the two preceding ones. See Table 1 and Online Appendix' Table A1 for more details about matched samples.

Table 4: Effect of being politically or privately connected to a current government’s member on discretionary investment grants received by a municipality: additional evidence.

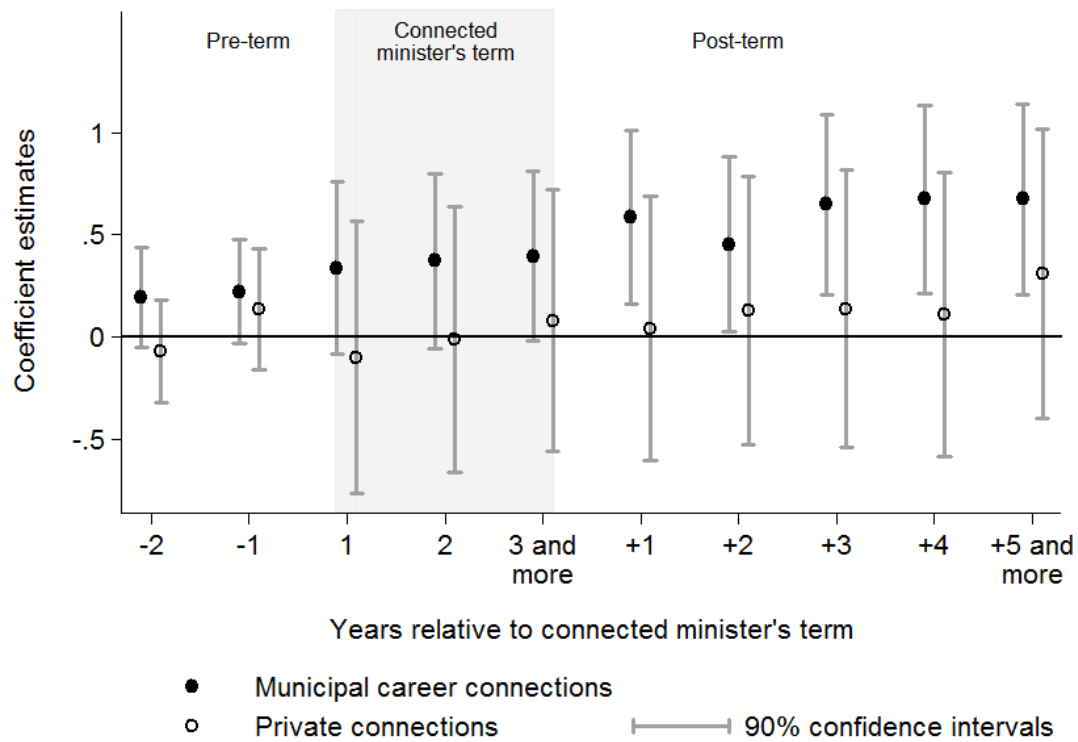
Dependent variable : Per capita grants received from the central government (log of), except if differently specified			
Per capita grants received from the local government (log of) as dependent variable			
Sample:	(1) Full	(2) ≥ 10,000 inh.	(3) Matched
Political career connection	0.131 (0.129)	0.113 (0.151)	0.058 (0.143)
Per capita grants received from the regional government (log of) as dependent variable			
Sample:	(4) Full	(5) ≥ 10,000 inh.	(6) Matched
Political career connection	0.056 (0.128)	0.021 (0.136)	0.017 (0.145)
Sample:	(7) Full	(8) ≥ 10,000 inh.	(9) Matched
Political career connection	0.477*** (0.146)	0.506*** (0.125)	0.362** (0.155)
Political career connection × Terminated municipal term	-0.129 (0.205)	-0.345* (0.196)	-0.138 (0.211)
Sample:	(10) Full	(11) ≥ 10,000 inh.	(12) Matched
Political career connection	0.449*** (0.137)	0.445*** (0.131)	0.366** (0.148)
Political career connection × High rank minister	0.079 (0.188)	0.018 (0.220)	-0.051 (0.192)
Sample:	(13) Full	(14) ≥ 10,000 inh.	(15) Matched
Political career connection	0.432*** (0.131)	0.416*** (0.107)	0.373*** (0.133)
Politically connected neighbor	-0.139 (0.254)	-0.357 (0.226)	-0.081 (0.260)
Sample:	(16) Full	(17) ≥ 10,000 inh.	(18) Matched
Political career connection	0.856*** (0.223)	0.742*** (0.220)	0.463* (0.243)
Political career connection × Right-wing minister	0.028 (0.258)	-0.098 (0.261)	-0.203 (0.278)

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . White heteroskedastic standard errors clustered at the municipality level in parentheses. OLS regressions. Each column presents estimates from a separate regression. Regressions presented in columns 1–15 include a constant term, year and municipality fixed effects, as well as variables corresponding to terminated political connections (see Table 2 and equation (1)). Regressions presented in columns 16–18 omit municipality fixed effects. The dependent variable is the log of yearly per capita discretionary investment grants received by a municipality from the central government, except in columns 1–3 and 4–6 where the dependent variable is the log of yearly per capita investment grants received by a municipality from the local and the regional governments, respectively. *Political career connection* is a dummy variables equal to 1 if municipality  $a$  is politically or privately connected to a current government’s member (see the text for more details). *Terminated municipal term* is a dummy variable equal to 1 if the minister to which the municipality is connected has terminated her term as municipal counselor. *High rank minister* is a dummy variable equal to 1 if the minister to which the municipality is connected currently serves as *ministre* or *premier ministre* rather than as *secrétaire d’état* or *ministre délégué*. *Right-wing minister* is a dummy variable equal to 1 if the minister to which the municipality is connected currently serves in a right-wing government. *Politically connected neighbor* is a dummy variable equal to 1 if a municipality’s direct neighbor benefits from a political connection to a current minister. The full sample is made of all French municipalities of more than 3,500 inhabitants. The  $\geq 10,000$  inhabitants sample is made of all French municipalities of more than 10,000 inhabitants. The matched sample has been constructed following a matching procedure on the probability for a municipality to benefit from a political connection, except in column 15 where it is made made from the union of the preceding one and of a sample constructed following a matching procedure on the probability for a municipality to have a direct neighbor that benefit from a political connection. See Online Appendix’ Table A1 for more details).



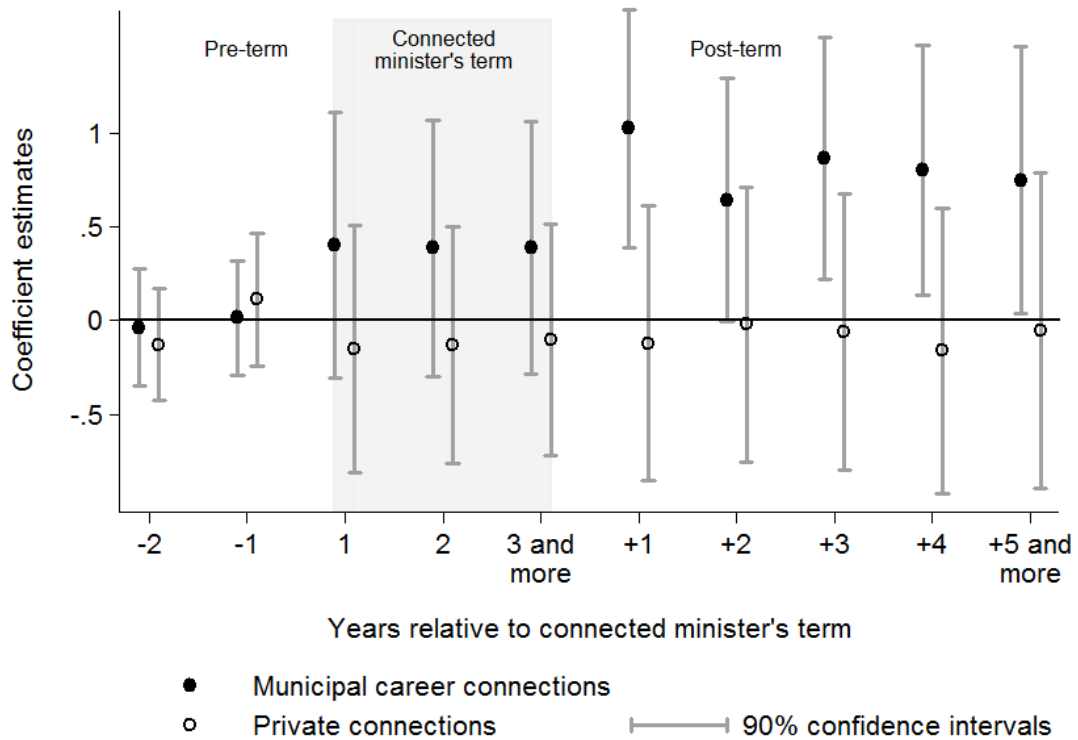
## Online appendix

Figure A1: The dynamics of connections (full sample).



Source: Authors' calculation. Estimates are from an OLS regression of the log of yearly per capita discretionary investment grants received by a municipality from the central government on year and municipality fixed effects, and a series of dummy variables defined relatively to the term of the minister to which the municipality is connected. Standard errors are clustered at the municipality level. *Political career connection* and *private connection* are dummy variables equal to 1 if municipality  $a$  is politically or privately connected to a current government's member (see the text for the definitions of connections). The regression also includes interaction terms between the two types of connections. The sample is made of all French municipalities with more than 3,500 inhabitants. Estimates have been horizontally shifted for aesthetic considerations.

Figure A2: The dynamics of connections (matched sample).



Source: Authors' calculation. Estimates are from an OLS regression of the log of yearly per capita discretionary investment grants received by a municipality from the central government on year and municipality fixed effects, and a series of dummy variables defined relatively to the term of the minister to which the municipality is connected. Standard errors are clustered at the municipality level. *Political career connection* and *private connection* are dummy variables equal to 1 if municipality *a* is politically or privately connected to a current government's member. See Table 1 and Online Appendix' Table A1 for more details. The regression also includes interaction terms between the two types of connections. The sample is made of matched municipalities. Estimates have been horizontally shifted for aesthetic considerations.

Table A1: Summary of propensity score matching procedures.

	Match on any connection	Match on political connections	Match on private connections	Match on politically connected neighbor
# of matched treated obs.	134	104	77	344
# of treated obs. out of the common support	35	3	18	2
# of matched non-treated obs.	134	104	77	344
Pseudo- $R^2$ before matching	0.371	0.346	0.399	0.130
Pseudo- $R^2$ after matching	0.012	0.025	0.053	0.005
$p > \chi^2$ before matching	0.000	0.000	0.000	0.000
$p > \chi^2$ after matching	1.000	0.993	0.916	0.999
Median bias before matching	32.4	30.9	35.2	35.8
Median bias after matching	3.8	5.8	7.2	3.2

This table summarizes the different propensity score matching procedures used in the paper. The method used is the “nearest neighbor matching without replacement”. The estimated model is a probit model. All variables listed in Table 1 are used as explanatory variables. The original sample is always the full sample made of all French municipalities of more than 3,500 inhabitants. The median bias before and after matching are median absolute standardized bias as defined by Rosenbaum and Rubin (1985).