Family Ties and Undermined Accountability in Italian Municipalities

Luca Vitale* Lorenzo Maria Casale†

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Abstract

Do family ties undermine electoral accountability? While previous studies on political accountability have examined the role of institutional factors, they often overlook the impact of social connections and familial networks in shaping politicians' behavior. We argue that politicians from large families benefit from more unconditional electoral support from their relatives, driven by loyalty and deeply ingrained social norms. As a result, their incentives to perform well are lower, as they can rely on a stable base of support regardless of their governance outcomes. Employing a TWFE and a Politician-Characteristic Regression Discontinuity (PCRD) design in 33,283 municipal elections held in Italy between 2000 and 2020, we find that mayors from larger families exhibit poorer economic performance. Using a novel dataset of mayors' CVs, we further show preliminary evidence of instances of a privatized management of public finances, with mayors from large families allocating more public funds to repair/beautify their streets of residence. Last, our analysis shows that large-family mayors are not electorally punished for their poor economic performance. Our study contributes to the literature by shedding light on the role that family networks have in shaping politicians' incentives and electoral accountability.

*New York University. Email: lv2194@nyu.edu

†University of Zurich. Email: lorenzo.casale@econ.uzh.ch

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1 Introduction

The concept of electoral accountability is foundational to democratic systems (Dahl and Polyarchy 1971, Chappell Jr and Keech 1985, O'Donnell 1998, Svolik 2013) with governments held accountable and responsive through the electoral process (Downs 1957). Ideally, the desire to keep their jobs ensures that politicians serve constituents in pursuit of larger vote shares. But this assumption only holds true when politicians are punished by voters for their poor performance. Existing literature showed that different political context characteristics can undermine accountability, in both developing and developed democracies. Factors such as affective polarization (Iyengar et al. 2019, Pierson and Schickler 2020, Graham and Svolik 2020), inequality (Rubenstein 2007) and information (Berry and Howell 2007, Snyder and Strömberg 2010) have been found to have detrimental effects on electoral accountability. However, existing literature has largely neglected the role of social connections in shaping electoral accountability. These connections can significantly influence political behavior by fostering loyalty to politicians based on personal bonds rather than performance, thereby shielding them from voter punishment for poor governance.

Previous studies explored differences in politicians' behaviors based on their personal characteristics (Ferreira and Gyourko 2009, Nye et al. 2015, de Benedictis-Kessner and Warshaw 2016, Daniele et al. 2023). However, politicians are not isolated within institutional frameworks; rather, they operate within systems of social connections, norms, and responsibilities that influence their electoral incentives and constraints. Among such types of connections, family ties are undoubtedly the strongest and most relevant.

Across the globe, families play a foundational role in political life. In many democracies, the household often acts as the primary unit of political socialization, shaping individuals' values, loyalties, and political preferences from an early age. Electoral choices frequently reflect patterns of loyalty, obligation, or trust rooted in kinship. Parental partisanship is one of the strongest predictors of individual vote choice across countries

(Niemi and Jennings 1991, Zuckerman et al. 2007). Two-thirds of Americans say they align with close family members on political issues. Similarly, Eurobarometer surveys show that in countries like Spain and Italy, over 60% of respondents report that their political views are "very" or "fairly" similar to those of their parents. Family networks provide not only social support but also electoral infrastructure by mobilizing votes, financing campaigns, and serving as conduits of local influence.

Previous literature established that relying on family networks is an equilibrium strategy for both candidates and voters, with politicians from sizable and central families usually obtaining higher vote shares due to the support of their relatives (Cruz et al. 2017, Davidson et al. 2017). Unlike other forms of political support, family-based backing is often more unconditional, rooted in loyalty and shared identity rather than performance or policy alignment. Does the unconditional nature of family support alter the incentives for politicians, potentially diminishing their accountability to the broader electorate?

We theorize that a politician's incentives to perform well are shaped by the size of their family network. When surrounded by a large and loyal network of relatives, politicians enjoy a built-in electoral base that reduces their dependence on broader public support. This dynamic weakens the accountability mechanism that should discipline poor performance. The unconditional support from relatives comes from two elements. First, candidates from large families can benefit from a specific type of valence advantage (Stokes 1963, Evrenk et al. 2018). Voters may feel a personal connection and loyalty to their relatives, motivating them to vote based on familial ties rather than solely on political considerations (Tatalovich 1975, Rice and Macht 1987). As a consequence, politicians from larger families will have both more freedom in spending public funds and less probability of being electorally punished in subsequent elections. Second, politicians embedded in extensive family networks have greater access to detailed and localized information about voters' needs and preferences, making it easier to implement clientelistic strategies (Kitschelt 2007, Ferraz and Finan 2011, Gagliarducci and Manacorda 2020).

In this paper, we study the case of Italian mayors elected between the years 2000 and 2020. Exploiting a novel dataset of phone directories, we build a within-municipality last name distribution for the entire country. We then use the proportion of individuals with the same last name in a municipal phone directory as a proxy for the family size in that area. To detect the effect of family ties on performance, we implement two analyses. We start by modeling the relationship between economic performance and the size of the mayor's family with a TWFE model. We measure economic performance using three key indicators: the average debt repaid during their term, the average debt accumulated during the term, and the municipality's ability to attract EU funds. The analysis indicates a negative impact of family size on economic performance. This effect is concentrated in the upper tail of the distribution, emerging when the mayor's share of relatives exceeds the 90th percentile.

To increase the internal validity of our findings, we implement a Politician-Characteristic Regression Discontinuity (PCRD), separating mayoral candidates between candidates from large families and candidates from small families[1]. The analysis allows us to causally infer that municipalities led by large-family-tied mayors exhibit significantly worse economic performance. The results confirm the negative effect of family size on economic performance, with the exception of debt accumulation.

Our theoretical framework suggests that the observed decline in mayoral performance should be driven by cases where a family's relative power, compared to other families in the municipality, is larger. To investigate this possibility, we exploit the distribution of last names within the municipality to measure the relative family power of each mayor, defined as a function of the Herfindahl-Hirschman Index (HHI). The findings of the heterogeneity analysis show that mayors from families with higher power exhibit poorer municipal performance.

We then examine whether family mayors engage in clientelistic behavior by analyzing two forms of favoritism: the allocation of municipal contracts to relatives and the

[1]The definition of "small" and "large" requires a judgment call on the threshold after which a family is considered "large". More details on this choice are in Section 4.

appointment of family members to cabinet positions. The results show no evidence that large-family mayors are more likely to engage in these behaviors—in fact, both outcomes show null or slightly negative effects. However, these practices are likely constrained by conflict-of-interest laws, which explicitly prohibit mayors from awarding public contracts to close relatives or appointing them to official positions within the municipal government. To explore more subtle forms of favoritism, we use a novel dataset of mayors' home addresses contained in their *curriculum vitae* to examine whether they disproportionately invest in their own neighborhoods. Specifically, we analyze the amount of public funds spent on repairing or beautifying the streets where mayors live. We find that large-family mayors spend significantly more on the streets they live in compared to non-large-family mayors. Although the dataset size limits advanced analysis, namely the PCRD we use for the main analysis, we provide suggestive evidence that large-family mayors spend about three times more per capita on their streets. This behavior can be seen as clientelistic, given that relatives are more likely to live near the mayor and thus benefit from these targeted local improvements.

Last, we investigate the effect of the mayor's family size on the probability of reelection. The results confirm that large-family mayors benefit from unconditional support. However, this support diminishes in close races. These findings suggest that family networks can undermine accountability, as poor performance does not necessarily lead to electoral punishment for mayors from large families.

This paper contributes to three strands of literature. First, this work contributes to the growing literature that studies the effect of politicians' connections to different members of civil society. Scholars have focused on the relations of local politicians with religious authorities (Pulejo 2022), local firms (Amore and Bennedsen 2013, Bertrand et al. 2018), and upper-level politicians (Brassiolo et al. 2020). Among the various relationships that influence a politician's trajectory, family ties stand out as the most enduring and personal. This study places them at the center of the analysis. Previous studies on the impact of family in politics have mostly focused on the electoral side of this connec-

tion, proving that candidates for public office are disproportionately drawn from more central families (Cruz et al. 2017, Davidson et al. 2017). The results of this work complement the existing literature by analyzing the economic and policy outcomes of these connections.

Second, this paper contributes significantly to the literature on dynastic politics. Most existing research conceptualizes political dynasties as cases in which candidates are directly related to individuals who previously held elected office — typically focusing on intergenerational transmission of political capital and name recognition (Dal Bó et al. 2009, Geys 2017, George and Ponattu 2019, Folke et al. 2021). While these studies have enriched our understanding of political reproduction and elite persistence, they focus primarily on whether family ties facilitate entry into politics. By contrast, we examine how a politician's contemporaneous family network affects their behavior after taking office. Rather than focusing on legacy or lineage, we emphasize how present-day family density creates a form of electoral insulation and facilitates a different incentive structure — one that weakens accountability by reducing dependence on broader voter approval. In doing so, we extend the study of dynastic politics beyond the classic conceptualization.

Finally, this paper is closely connected to the literature on electoral accountability in developed democracies (Dahl and Polyarchy 1971, Chappell Jr and Keech 1985, O'Donnell 1998, Berry and Howell 2007, Rubenstein 2007, Snyder and Strömberg 2010, Svolik 2013, Iyengar et al. 2019, Pierson and Schickler 2020, Graham and Svolik 2020) and local politics (Trounstine 2006). Previous studies have neglected the relevance of social connections in changing the incentives a politician can face. We contribute to the literature by adding a novel perspective on the elements that can undermine electoral accountability in local politics.

2 Electoral Support for Family Candidates

To explain why politicians from large families might perform worse when in office, we propose a theoretical framework that incorporates two non-rival alternative mechanisms: a specific type of valence advantage these candidates enjoy and the dynamics of clientelism that often accompany their political rise. Together, these factors create a context where the politician's incentives to govern effectively could be compromised.

First, the valence advantage associated with candidates from large families plays a crucial role in their electoral appeal. The idea of valence is usually used to refer to the bonds between the candidates and some desirable qualities in the public's mind (Stokes 1963, Evrenk et al. 2018), irrespective of specific policy positions. A valence advantage can permit the favored candidate to decrease his performance once in office while not being held accountable (Stone and Simas 2010). We argue that candidates from large families can benefit from a similar effect. Voters may indeed feel a personal connection and sense of loyalty toward their relative, which motivates them to cast their vote based on a sense of familial obligation rather than political considerations. Furthermore, the support enjoyed by politicians from sizable families lies in voters' perception that a relative possesses superior information about their needs and priorities. Relatives may assume that, due to the politician's deep integration into the local community and family network, their specific interests will naturally be better addressed and represented (Key Jr 1949). This expectation can foster a sense of trust and loyalty.

The second reason for the strong support enjoyed by politicians from sizable families lies in the possibility of rewarding their relatives with particularistic goods. Connections play a central role in clientelism, as candidates rely on trustworthy brokers. In this regard, relatives can represent the most reliable form of brokers. In other words, family ties make it easier for candidates and brokers to engage in credible political exchanges (Davidson et al. 2017). As evidence of these types of clientelistic behavior, Fafchamps and Labonne (2017) show that relatives of current officeholders in the Philippines are more likely to be employed in better-paying occupations. It is worth mentioning that

the Italian law strictly limits mayors' family ties in office, prohibiting close relatives from holding municipal contracts or serving on the council or in the executive. However, there is evidence that Italian politicians' relatives are hired or promoted by firms in exchange for or in expectation of political favors (Gagliarducci and Manacorda 2020).

Taken together, these theoretical foundations lead us to argue that the incentives of mayors with large families are substantially different. Large-family mayors can rely on their relatives for unconditional electoral support, reducing the incentives to perform well while in office. This dynamic weakens the power of voting as a tool for holding leaders accountable. As a result, the effectiveness of elections as a tool for accountability diminishes as the proportion of relatives supporting the family candidate grows.

While we propose both valence and clientelism as plausible mechanisms behind the poor performance of large-family mayors, we remain agnostic as to which of the two plays the dominant role. In Section 7, we test for evidence of clientelist behavior, trying to identify which specific forms of clientelism are at play and which are less consistent in the data.

Last, we expect the effect of family ties on electoral outcomes to be stronger in cases where a family does not face competition from other powerful families within the municipality. Without these competing networks, the dominant family can consolidate its support base more effectively, further reinforcing its electoral advantage. This highly concentrated familial influence not only amplifies the effect of family size but also decreases large-family politicians' incentives to perform well.

3 Italian Mayors and Mayoral Elections

Italy can be considered a perfect laboratory to test our theory. First, Italians strongly rely on their family members (Alesina and Giuliano 2014, Crocetti and Meeus 2014). Italians rationally choose not to trust anyone outside their family (Alesina and Giuliano 2014, Crocetti and Meeus 2014) and do not expect to be trusted by non-family members

(Banfield 1958, Alesina and Giuliano 2011). The strong reliance on family is evident in everyday social contexts, such as the age at which Italians typically leave their parental home (Billari et al. 2001)

Second, Italian municipal governments feature a directly elected mayor. Municipalities are responsible for a wide set of services, from primary schooling to local police, waste management, public roads and infrastructure, social services, and security. As a result, municipal governments enjoy large degrees of financial autonomy and they are responsible for the procurement of goods and services. In other words, executive power is highly concentrated (Bellodi et al. 2023).

Each Italian municipality has two branches: the *Consiglio*, and the *Giunta*, with the former holding the legislative power and the latter the executive. In municipalities below 15,000 inhabitants, both the mayor and the councilors (for the *Consiglio*) are directly elected. The candidate who secures the most votes is declared the elected mayor. In the rare case of a tie, a runoff election will be held between the two most-voted candidates. The list linked to the winning mayoral candidate is granted two-thirds of the council seats, giving an almost exclusive legislative power to the elected mayor. The remaining seats are proportionally distributed among the other lists, based on the votes they received.

The *Giunte* are completely in the hands of the mayor, who can choose the remaining components of the *Giunta*, either from the members of the Council or from outsiders. The mayor's mandate lasts for 5-year mandates, which, in the period of study, could have been renewed only once, apart from those municipalities with less than 3,000 inhabitants, for which also three straight mandates are allowed since 2014.

Italian legislation regarding family connections of mayors is particularly stringent. Article 61 of Legislative Decree No. 267/2000 prescribes that the office of mayor cannot be held by someone who has ascendants, descendants, relatives, or in-laws up to the second degree who holds the position of contractor for municipal works or services. Moreover, Article 64 establishes that spouses, ascendants, descendants, relatives, and in-

laws up to the third degree of the mayor cannot be members of the council and cannot be appointed as representatives of the municipality (in the *Giunta*).

4 Data

4.1 Last Names and Families

To build the distribution of last names, we collected, for each municipality, up to 5,000 entries on phone directories from ancestry.com. Italian phone directories were extremely popular up to the 2010s. Each entry contains the first and last name of the person of interest. This dataset allows us to be confident of having mapped consistently the distribution of each last name for all the municipalities with less than 5,000 inhabitants, equal to 70% of Italian municipalities. We limit our analysis to these municipalities.

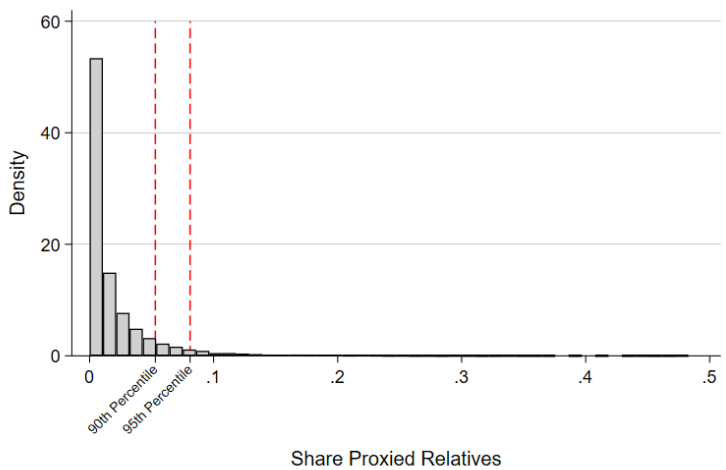
The main independent variable of the paper is a proxy for the family ties of the mayor. We use the share of entries in the phone directory in a given municipality with the same last name as the mayor. We restricted the sample to municipalities below 5,000 inhabitants to increase the confidence in the phone directories data[2], as well as to capture those municipalities in which it is credible that family really can play a role. The median value of the variable is 0.008, indicating that family ties are generally limited. However, the upper tail of the distribution reveals cases in which mayors share their last name with up to 40% of residents listed in the phone directory, suggesting the presence of extremely dense family networks in some municipalities. The main analysis will concentrate on this particular segment of the distribution, where the influence of family connections is more pronounced. Figure 1 shows the distribution of the variable. Section A.1 elaborates on the choice of using last names to proxy for family ties.

Last, to fit the RDD model, we need to define a cutoff of relatives above which we classify a candidate as a candidate from a "large" family. Let s_i represent the share of inhabitants sharing the last name with the mayor in municipality i, then

[2]Indeed, the website ancestry.com does not allow to obtain more than 5,000 observations per search.

Large-Family Candidate $= \mathbb{1}(s_i > x)$, with x being a specific cutoff. In our preferred specification, we define this cutoff at the 95th percentile of the distribution of the share of relatives (8.3%). We identify 1,662 large-family mayors. Section A.3.1 shows the results described in the paper using different cutoffs to define the dummy.

Figure 1: Last Name Distribution



Notes: The measuring variable is specified as the title of the x-axis.

4.2 Measures of Local Government Performance

4.2.1 Balance Sheets

We present two measures of the economic performance of local governments that capture the fiscal quality and sustainability of the administration, proxied by the accumulation and repayment of residual liabilities.

Municipalities are granted large autonomy, they manage around 8% of total public expenditure (over 55 billion) and have full control of a wide range of essential public services. Spending is financed by municipal fiscal revenues (87%) plus transfers from the central government (13%), while borrowing is allowed only to finance investment expenditures and is subject to strict quantitative limits[3]. Fiscal revenues come from two

[3]The central government also allows municipalities to undertake new debt to refinance existing debt or to refund previously emitted bonds, provided that this allows them to achieve debt service savings and that the new funds are still used to finance investment spending (Law 311/2004).

main sources: local taxes, among which the most relevant is the property tax, and local fees - e.g. building permits, traffic fines, and fees for other services. One of the main responsibilities of mayors is to propose the annual provisional budget and final budget to the municipal council that approves them with majority rule. The mayor enjoys a substantial amount of executive power and discretion over tax collection, tax rates, and budget allocations (Vannutelli 2023)[4].

Debt accumulation is computed as the ratio between current and initial liabilities while debt repayment is defined as the ratio between disposed and accumulated liabilities in each year. Both measures have been utilized by Bellodi et al. (2023). Each mayor is associated with the mean debt repayment and debt accumulated during the five years of his term. A good fiscal performance is associated with low levels of debt accumulation and high levels of debt repayment.

4.2.2 EU Funds

We construct an additional novel measure of the economic performance of local governments, assembling a dataset of 75,164 EU-funded projects, between 2007 and 2021, for a total value of close to 20.7 billion euros.

The European Cohesion Funds are financial instruments aimed at promoting economic, social, and territorial cohesion within the European Union (EU). Their main goal is to reduce disparities in development levels across different regions and foster sustainable development throughout the EU. These funds play a crucial role in supporting infrastructure projects, job creation, competitiveness, environmental sustainability, and innovation[5]. The implementation of these programs involves regional and local authorities, including municipalities, who play a key role in executing the projects. Funds

[4]From 1999 onwards, all Italian sub-national entities were subject to the so-called "Domestic Stability Pact" (DSP), the national counterpart of the European Union's Stability and Growth Pact, adopted in 1997. The pact prescribes a set of fiscal rules that has undergone several changes over time, but which generally requires municipalities to limit the growth of their so-called fiscal gap - defined as the deficit, net of transfers, and debt service - below a given threshold.

[5]The Cohesion Fund supports member states with a Gross National Income (GNI) per inhabitant below 90% of the EU average, typically investing in transport infrastructure and environmental projects.

are allocated to specific initiatives through calls for proposals managed by regional authorities or designated managing authorities. Municipalities can apply for funding for projects that align with the EU objectives, such as infrastructure improvements, urban development, environmental sustainability, and social inclusion.

Being awarded European Cohesion Funds can be considered a good measure of the performance of a local mayor or government for two reasons. First, securing European Cohesion Funds often requires navigating complex application processes, meeting stringent criteria, and adhering to rigorous reporting standards. A local government that successfully obtains these funds demonstrates strong effective governance, administrative capabilities, and the ability to manage large-scale projects. Second, securing external funding is an indication of a local government's ability to leverage additional resources beyond local and national budgets. It shows that the mayor and their administration can attract investment and funding to supplement local resources.

A map of the funding for these projects is in the Appendix, Figure A.1. The program focuses on strengthening economic and social cohesion by addressing imbalances between regions. It is not surprising, then, that most projects are allocated to Southern regions. The inclusion of province-fixed effects in the main analysis addresses this potential concern.

4.3 Mayors' Curricula Vitae

Collecting data on a mayor's *curriculum vitae* can be quite challenging. Although regulations mandate the publication of certain information[6], the implementation is inconsistent across different municipalities, due to limited oversight and enforcement of the transparency regulations.

[6]Over the last decade, Italian political institutions were demanded to increase the transparency of the political life of each member of the different institutions. The Legislative Decree 14 March 2013, No. 33 - "Reorganization of the regulations concerning the obligations of publicity, transparency, and dissemination of information by public administrations", or more simply *Decreto Trasparenza*, i.e. Transparency Norms - mandates that public administrations publish a series of information regarding holders of political, administrative, management, or government positions, including mayors.

To overcome these challenges, we sent an official request[7] to each municipality, asking for the CVs of mayors in office since 2000. We compiled a dataset of 2,143 curriculum vitae of mayors, covering 3,374 mayoral terms from 2000 to 2021, including municipalities outside of our study. Within these CVs, we specifically sought the mayor's address to identify their residence while in office. Since the law does not prescribe a standard format for *curricula*, the inclusion of this information is at the discretion of the CV writer. After filtering for relevant entries—i.e., municipalities with fewer than 5,000 inhabitants and with a clearly stated address in the CV—we assembled a sample of 1,299 unique addresses.

4.4 Additional Data

We obtained data on all municipal elections, mayoral candidates, and their party affiliations from the Historical Electoral Archive of the Ministry of the Interior (1989-2020). We, then, used the Database on Local Administrators for other information on mayors (e.g., job, gender, and level of education), local councilors, and members of the executive committee (1998-2020). Budget data and socioeconomic control variables for all Italian municipalities from 2000 to 2021 have been collected from the repository of *ISTAT*, the Italian national statistic agency.

Last, we collected data on aldermen appointed in each Italian municipality from 1994 to 2020, while procurement data for the years 2013-2020 were collected from the Italian National Anti-Corruption Authority (*ANAC*). This dataset includes information about the firms awarded contracts. We classify a firm as "connected" if its name contains the last name of the mayor in charge. Summary statistics - mean and standard deviation - for the variables used throughout the paper are in the Appendix, Table A.1.

[7] Via certified electronic mail (*PEC*)

5 Empirical Strategy

We adopt two empirical strategies to assess whether politicians from large families perform worse. First, we use a panel-data, two-way fixed effects approach on the full sample of municipal elections held since 2000. Specifically, we run:

$$\text{EconomicPerformance}_{i,t} = \beta(\text{Share Relatives})_{i,t} + X'_{i,t-1} + \phi_i + \tau_t + \epsilon_{i,t}, \tag{1}$$

Share Relatives$_{i,t}$ is the share of people in the municipality sharing the last name with the mayor. We further control for a set of time-varying municipal and mayoral controls[8]. All the regressions include municipality and term fixed effects. We also test two different specifications where the main independent variable is, respectively, a dummy for being above the 90th percentile[9] of the distribution of the share of relatives, and a a dummy for being above the 95th percentile[10] of the distribution of the share of relatives.

However, the success of a mayor depends on many observable and unobservable features of a municipality, which may in turn affect economic performance as well. To address this issue, we employ a Politician-Characteristic Regression Discontinuity (PCRD) design. PCRD is a close-election Regression Discontinuity Design (Imbens and Lemieux 2008, Lee and Lemieux 2010), isolating the effects of a characteristic of the winning candidate – here, family network. Our regression equations have the form:

$$\begin{aligned}\text{EconomicPerformance}_{i,t} = \beta\ \text{Large-FamilyMayor}_{i,t} + \gamma f(\text{Margin})_{i,t} + \\ +\lambda(\text{Large-FamilyMayor} \cdot \text{Margin})_{i,t} + \theta Z'_{i,t-1} + \psi X'_{i,t-1} + \tau_t + \phi_p + \epsilon_{i,t},\end{aligned} \tag{2}$$

[8]Namely, the share of votes the mayor managed to obtain, the value of debt repayment, debt accumulated, and amount of EU funds obtained in the previous term, sex of the mayor, age of the mayor, a dummy for the mayor being a native candidate, education of the mayor, white-collar mayor. We include the lagged values of debt accumulation, debt repayment, and EU funds per capita to account for the dynamic nature of municipal finances. The inclusion of these lagged terms controls for path dependence and ensures that our estimates capture the independent effect of our key explanatory variables. Additionally, the Wooldridge test for serial correlation (Wooldridge 2010) indicates significant first-order autocorrelation in EU funds per capita and debt accumulation, justifying the inclusion of their lagged term. While the test does not detect strong autocorrelation in debt repayment, we retain their lagged values due to its strong predictive power in fixed-effects regressions, ensuring a more robust specification.

[9]5.6% of proxied relatives.

[10]8.3% of proxied relatives.

The parameter of interest is β, namely the effect of electing a mayor from a large family on the economic performance variable by municipality i over term t. Given the PCRD setup, the coefficient $\hat{\beta}$ measures this effect at the cutoff of 0 margin of victory of the most voted large-family candidate ($\text{Margin}_{i,t}$), thus comparing municipalities where she narrowly won with those where she narrowly lost. Equation (2) has province (ϕ_p) and election-year fixed effects (τ_t), so to compare municipalities close to the cutoff within the same province, holding elections in the same year.

The vectors $Z_{i,t-1}$ and $X_{i,t-1}$ contain pre-election characteristics of the mayor and the municipality[11], respectively. Finally, $f(\text{Margin}_{i,t})$ is a polynomial in the margin of victory of the most voted large-family candidate, also interacted with the indicator for she winning the election ($\text{Large-FamilyMayor}_{i,t}$).

A crucial component of this empirical strategy is the dummy $\text{Large-FamilyCandidate}_{i,t}$. In other words, we need to define a cutoff of relatives above which we classify a candidate as a "large" family candidate. In our preferred specification, we define this cutoff at the 95th percentile of the distribution of the share of relatives (8.3%) among all mayoral candidates. Section A.3.1 contains results using different cutoffs to define the dummy, based on the share of relatives.

Before presenting the results, we ensure that our analysis addresses the threats to internal validity. The threats can be classified into two groups: standard threats to RDD, and possible effects of compensating differentials (Marshall 2022). The main assumption is that municipalities where a family candidate slightly won against a non-family candidate e are comparable to municipalities where a large-family candidate slightly lost against a non-large-family candidate. To assess whether this is likely to hold, Figure A.2 presents the results from estimating Equation (2) using as outcomes several geographic and socioeconomic characteristics of municipalities measured prior to the election. Reassuringly, none of the RDD coefficients is significant, indicating that municipalities just above the cutoff are indeed comparable to those just below.

[11] Log population, area, mayor's age, gender, latitude, longitude.

On top of this, we also test for an additional identifying condition that is specific to PCRD designs Marshall (2022)[12]. We perform the same RDD on a battery of mayor-specific variables. The idea is that if we are capturing the compensating effects of other mayors' characteristics, we should observe a jump at the cutoff. Fortunately, this is not the case. We focus on five characteristics of the mayor observed in the dataset: sex, age, education, white-collar job, and a dummy for being a dynastic candidate. Figure A.3 displays the results of estimating Equation (2) using as an outcome each of the five mayoral attributes mentioned. The list of mayor-specific variables is of course not exhaustive and other compensating differentials could emerge, but excluding a joint effect of coming from a large family and any of the five characteristics considered is encouraging.

As a final preliminary test, we are also showing that the margin of victory of the best-performing large-family candidate shows no jumps around 0, as confirmed by the formal test proposed by McCrary (2008), displayed in Figure A.4.

The analysis is implemented using the Stata package `rdrobust` (Calonico et al. 2017) with the default options: linear polynomial approximation and size of the bandwidth around the cutoff determined through the data-driven approach of Calonico et al. (2014), with a triangular kernel. Robust, bias-corrected standard errors are clustered at the municipality level. In the appendix, we show that the results are robust to different specifications of the default options of the package.

6 The Effect of Family Ties on Performance

6.1 Two-Way Fixed Effects Model

Table 1 shows the result of the model from Equation (1). We use the logarithm of EU funds, debt repayment, and debt accumulated as the dependent variables. As expected,

[12] Marshall (2022) critique of RDD close elections estimations arises from the fact that these types of RD close-elections estimators identify the effect of the specific characteristic of interest and all compensating differentials—candidate-level characteristics that ensure elections remain close between candidates who differ in the characteristic of interest.

the first two columns reveal a negative association between the economic performance variables and the share of relatives of the mayor. Localities, where a higher proportion of the population shares the mayor's last name, tend to receive fewer EU funds and to repay less debt. On the other hand, there is a positive relationship between the share of relatives and debt accumulation.

Table 1: Share of Relatives and Economic Performance

	EU Funds p.c. (Log)	Debt Repayment	Debt Accumulated
Share Relatives of Mayor	-1.06	-1.72***	0.43
	(1.20)	(0.55)	(0.31)
Observations	11,764	12,813	13,122
Fixed Effects	YES	YES	YES
Controls	YES	YES	YES

Note: *** p<0.01, ** p<0.05, * p<0.10. OLS estimates from Equation (1). Standard errors in parenthesis, clustered at the municipality level. Controls include: sex of the mayor, age of the mayor, education of the mayor, white-collar mayor, native mayor, dynastic mayor, lagged dependent variable, share of votes of mayor, year FE, and municipality FE.

Table 2 presents OLS estimates examining the impact of being in the tail of the distribution of the mayor's family size on the economic performance. When the share of relatives exceeds the 90th percentile, EU funds per capita decrease significantly (-0.31), and debt repayment declines (-0.17), while debt accumulation rises slightly (0.05). The effects are stronger above the 95th percentile, with a larger reduction in EU funds (-0.34) and debt repayment (-0.20), alongside a notable increase in debt accumulation (0.10).

6.2 Close-Election RD Design

Table 3 shows the main results from estimating Equation (2). In odd columns, we show results for the specifications with year and province-fixed effects. We, then, introduce a battery of controls in even columns. The first two columns (1) and (2) display results for Log EU funds per capita. In the first specification, as expected, the coefficient of interest is negative and highly significant. In column (2), the estimation remains unchanged. The coefficient of interest ranges between -75 and -95 euros per capita, approximately equal

Table 2: Tail of the Distribution and Economic Performance

	EU Funds p.c. (Log)		Debt Repayment		Debt Accumulated	
Share Relatives > 90th Percentile	-0.31**		-0.17**		0.05*	
	(0.12)		(0.07)		(0.03)	
Share Relatives > 95th Percentile		-0.34*		-0.20***		0.10**
		(0.18)		(0.07)		(0.04)
Observations	11,764	11,764	12,813	12,813	13,122	13,122
Fixed Effects	YES	YES	YES	YES	YES	YES
Controls	YES	YES	YES	YES	YES	YES

Note: *** p<0.01, ** p<0.05, * p<0.10. OLS estimates from Equation (1). Standard errors in parenthesis, clustered at the municipality level. Controls include: sex of the mayor, age of the mayor, education of the mayor, white-collar mayor, native mayor, dynastic mayor, lagged dependent variable, share of votes of mayor, year FE, and municipality FE.

to half of the standard deviation of the outcome variable.

Columns (3) and (4) present results for debt repayment. In both specifications, the coefficient of interest is negative and significant, ranging between -0.54 and -0.55, approximately equal to one-third of the standard deviation of the outcome variable.

In Columns (5) and (6) we use debt accumulated as the outcome variable. Interestingly, the results are close to zero and not significant. We provide two explanations for this null result. First, the RD likely provides a lower bound estimate of the effect of a large-family mayor on economic performance. Indeed, when at the cutoff, even a mayor who can count on strong unconditional support might face incentives to perform better, as he knows his possible re-election can be hanging by a thread. Furthermore, debt accumulation is a weaker signal of bad economic performance, as it may also represent the willingness to invest in potentially profitable assets.

Figure A.5 visually displays the RDD results with polynomial degree one.

6.3 Robustness Checks

In this section, we discuss a battery of robustness tests aimed at reinforcing the causal interpretation of the estimates in Table 3.

First, Figures A.6 and A.7 in Section A.3.1 shows the main results using different

Table 3: Large-Family Mayors and Economic Performance

	EU Funds p.c. (Log)		Debt Repayment		Debt Accumulated	
Large-Family Mayor	-1.02***	-0.92***	-0.54**	-0.55**	-0.07	-0.08
	(0.39)	(0.39)	(0.23)	(0.25)	(0.08)	(0.08)
Observations	1,141	1,065	1,183	1,169	1,192	1,178
Effective Obs. (Left)	303	289	387	327	350	340
Effective Obs. (Right)	299	277	373	315	337	327
Bandwidth	.17	.17	.21	.17	.21	.2
Fixed Effects	YES	YES	YES	YES	YES	YES
Controls	NO	YES	NO	YES	NO	YES

Note: *** p<0.01, ** p<0.05, * p<0.10. RDD estimates from Equation (2) with linear polynomial fit, triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al. 2014). Standard errors in parenthesis, clustered at the municipality level. Controls include: sex of the mayor, age of the mayor, population (Log), latitude, longitude, size of municipality, year FE and province FE.

cutoffs to transform the continuous variable ShareRelatives in a dummy. One concern of our analysis comes from the arbitrary nature of the cutoff to define a Large-family Mayor. The figures use different cutoffs ranging from 7% to 12%. Results show that the negative effect on economic performance seems to appear after 7% of share relatives of the mayor, recalling that the 95^{th} percentile we employ is at 8,3 %.

Second, we test the robustness of the results to the use of a weighted version of our last names. In short, this entails moving from a binary to a continuous measure, whereby individuals are assigned to a weight that decreases with the frequency of that last name among the population as a whole. More details on how this alternative measure is computed are in the Appendix, Section A.2.1, while examples of the most frequent and infrequent last names are in Table A.2. Reassuringly, repeating our RDD giving more weight to candidates with less frequent last names does not change the direction and significance of the coefficients while increasing the magnitudes, as shown in Table A.3. This finding increases our confidence in identifying the effect of proper family ties rather than generic common last names.

Standard RD robustness checks are now discussed. First, we re-estimate the RDD regressions, but using as outcomes debt repayment and log EU funds in the term *prior*

to the election of a large-family mayor. The aim of this test is to verify that large-family mayors do not happen to systematically win close elections in towns where debt repayment and log EU funds are always systematically lower. Table A.4 in the Appendix shows that this is not the case, corroborating the idea that our main results gauge the effects of electing a large-family mayor, rather than simply picking up the continuation of existing patterns. Second, Table A.5 performs the estimation of Equation (2) with a second-degree polynomial. Coefficients are comparable to the ones shown in the main analysis. Results are thus robust to the degree of the fitting. Third, Figure A.8 - A.9 show coefficients of 15 regressions using bandwidths ranging from 12 to 27[13]. Results show that the effects we find are not sensitive to the bandwidth used. Fourth, Figure A.10 - A.11 uses different placebo cutoffs. The graph shows that about 85% of the results using different cutoffs ranging from -0.15 to 0.15 are not significant. Finally, we implement two sensitivity tests related to the RDD algorithm. Table A.6 shows that the coefficients are largely robust to the use of a uniform – as opposed to a triangular – kernel. Next, Table A.7 shows that our conclusions stand when using a Coverage Error Robust (CER) algorithm for bandwidth selection (Calonico et al. 2020). Last, Figures A.12 - A.13 perform jackknife estimations. The results show that the estimate of the treatment effect remains consistent regardless of which regions (left panel) or which election year (right panel) are excluded from the sample.

6.4 Families Competition and Incentives

The theoretical framework illustrated in previous sections implies that the observed decrease in mayoral performance should be driven by those cases in which the relative power of a family, compared to possible competitors, is larger. To investigate whether this is the case, we use the distribution of last names within a municipality to build a measure of relative family power.

[13]The optimal bandwidth of the main table is 19, as estimated through the procedure of Calonico et al. (2014)

The idea is to define family power as a function of the Herfindahl-Hirschman Index (HHI). The index is a measure of market concentration and is widely used to assess the level of competition within an industry. It is computed as the sum of the squared market share of each firm in a given industry (Rhoades 1993). In our case, we can use the proportion of the population with each last name in the same spirit of market shares. However, a simple naive implementation of the HHI would not manage to properly capture the power of a given family. Consider, for example, a case of highly concentrated distribution of families (i.e. last names) in a municipality. The winning family would not benefit from her position of advantage because their power would be undermined by - at least one - other large family.

To better identify the relative power of a family, we then proceed to use a transformation of the HHI. Namely, we define Family Power with the following formula:

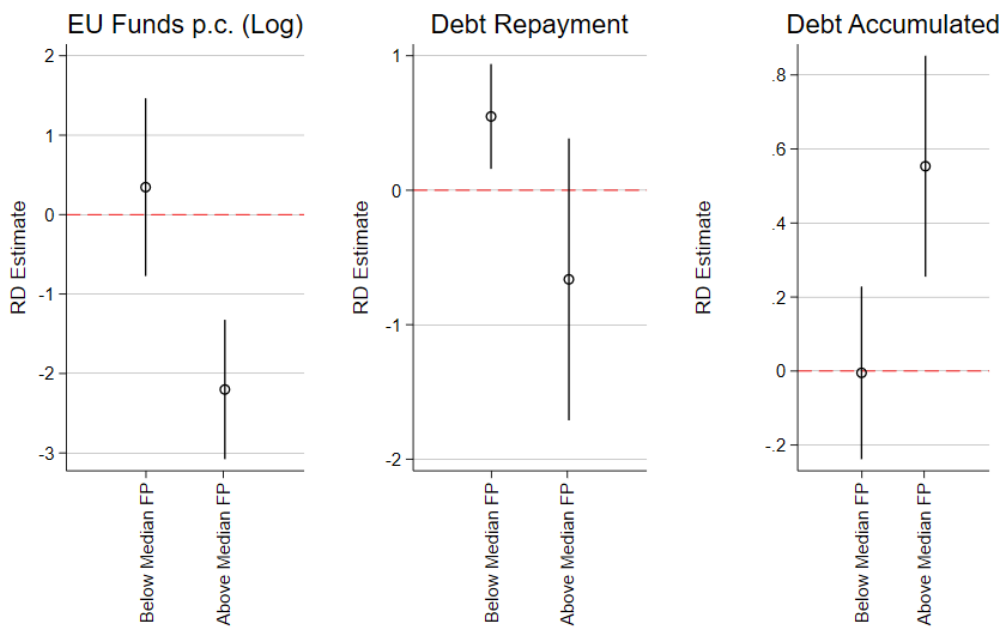
$$\text{FamilyPower}_{i,m} = \frac{s_i^2}{HHI_m} \tag{3}$$

The variable would then capture the weight of a family i in the HHI of their municipality m. A higher number would signal a higher relative power compared to the remaining families within the municipality. The measure ranges from 0 to 1, allowing us to quantify the power of a given family relative to others. This transformation accounts not only for the family's influence but also for the combined weight of all other families, providing a more comprehensive comparison. Table A.8 in Section A.2.2 provides specific examples and elaborates on the reasoning behind this choice.

We can now move to use the above-defined measure of family power to build a crucial heterogeneity analysis for our main result. If large-family mayors perform worse because of a decrease in accountability and a different scheme of incentives, the results should be driven by those cases in which the family power is higher. Figure 2 presents the RD estimation for the three economic performance variables, distinguishing between mayors with below-median and above-median family power (FP). In other words, this

figure reflects the estimation of Equation (2), but with the sample split based on the family power indicator. The results indicate that the effects are largely driven by mayors with high family power. Specifically, similar to our main specification, we observe negative effects on both EU funds and debt repayment. Unlike the earlier analysis, however, we see a positive impact on debt accumulation, suggesting that large-family mayors are indeed more likely to increase municipal debt.

Figure 2: Economic Performance Heterogeneity by Mayor Family's Power



Notes: RDD estimates from Equation (2) using the specification with only FEs. The dependent variables are specified as subtitles of panels. Vertical bars are 95% confidence intervals, based on bias-corrected standard errors clustered at the municipality level.

7 Family Ties and the Allocation of Public Resources

A key mechanism through which large-family mayors may engage in clientelistic behavior is the allocation of public resources to benefit their relatives. To test this hypothesis, we examine two measures of potential conflict of interest: (i) public funds allocated to firms owned by relatives of the most-voted large-family candidate[14] and (ii) the like-

[14]We classify a firm as "connected" if its name contains the last name of the mayor in charge. For example, the firm "Mascolo Costruzioni" was classified as connected when the mayor of its town was Mr.

lihood to have a family member of the most-voted large-family candidate in a cabinet position. These outcomes capture different dimensions of clientelism—favoritism in municipal contracts and nepotism in political appointments.

Table 4 presents estimates from Equation (2). The results indicate that relatives of the most voted large-family candidate receive fewer municipal contracts when their relative is elected. Similarly, family members of these candidates are slightly less likely to be appointed to cabinet positions when their relative is elected, despite the estimates are not statistically significant. Importantly, both practices are subject to conflict of interest regulations, which legally restrict the ability of mayors to directly channel public funds to relatives' businesses or appoint close family members to government positions.

Table 4: Large-Family Mayors and Clientelistic Behaviour

	Money to Relatives (Log)		Cabinet Member Relatives	
Large-Family Mayor	-0.62*	-0.76**	-0.04	-0.04
	(0.35)	(0.36)	(0.04)	(0.04)
Observations	944	872	2,086	1,909
Effective Obs. (Left)	237	215	581	528
Effective Obs. (Right)	234	214	592	541
Bandwidth	.17	.17	.17	.17
Fixed Effects	YES	YES	YES	YES
Controls	NO	YES	NO	YES

Note: *** p<0.01, ** p<0.05, * p<0.10. RDD estimates from Equation (2) with linear polynomial fit, triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al. 2014). Standard errors in parenthesis, clustered at the municipality level. Controls include: the sex of the mayor, age of the mayor, population (Log), latitude, longitude, size of municipality, year FE, and province FE.

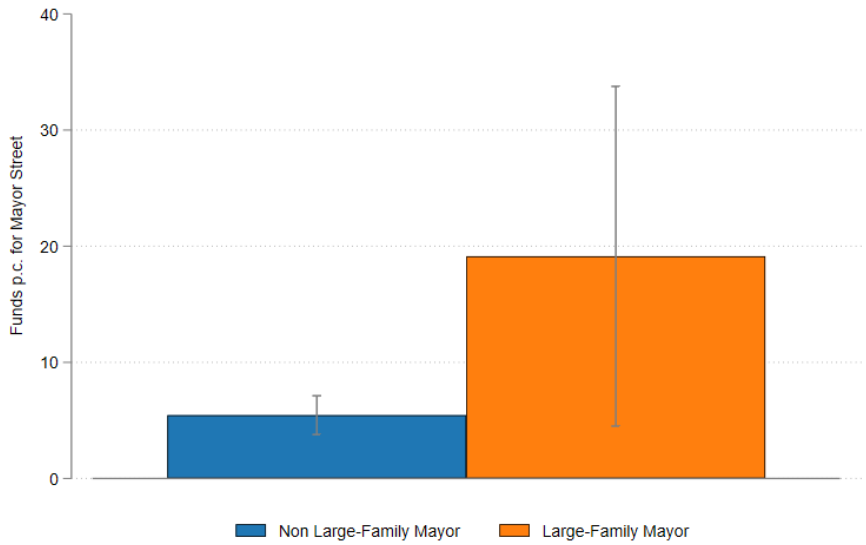
To explore subtler forms of favoritism not constrained by conflict-of-interest laws, we complement our analysis with a novel dataset of *curriculum vitae* of Italian mayors. Unlike the previous measures, there are no legal barriers preventing a mayor from directing public funds toward improving their own neighborhood. More specifically, we test the hypothesis of a privatized management of public finances. With this expression, we refer to a situation in which mayors treat public resources with a sense of ownership

that leads to misappropriation for personal uses. A typical example of such behavior is precisely the use of public funding to repair or beautify the street and neighborhood where the mayor resides. This can also be interpreted as a form of clientelistic behavior, insofar as relatives are more likely to live near the mayor and benefit from these localized improvements.

The information about the address of the mayor is often contained in the curriculum vitae. We collected 2,143 curriculum vitae, 1,299 of which had a valid address, of mayors covering 3,374 mayoral terms between 2000 and 2022. Merging this extremely granular and rare information with the description of the contract in the procurement data allows us to create a variable that measures the extent to which a mayor uses public funding for private benefits. In particular, we measure the amount of funds per capita used to repair/beautify the street and the neighborhood the mayor lives in. The expectation is that mayors from large families, because of the limited accountability they're subject to, will be more likely to use their money to increase their wealth rather than allocating public funds for projects that are more likely to help society, suggesting a privatized management of the public finances.

The limited size of the dataset prevents us from implementing an RDD, as too few large-family mayors within the threshold have a CV that includes their address. We then simply show a descriptive test as suggestive evidence. Figure 3 plots the amount of public funds per capita the mayor allocates for her street, dividing the sample into large-family mayors and non-large-family mayors. At first glance, large-family mayors seem to spend about three times more on repairing/beautifying their own streets, with 20 euros per capita against the 6 euros per capita of their counterfactuals. The difference is statistically significant at 10%. Table A.9 in the Appendix presents OLS regressions including sets of fixed effects. The results are consistent with the descriptive evidence presented in this section.

Figure 3: Large-Family Mayors and Funds For Mayor's Street



Notes: The measuring variable is specified as title of the y-axis. Vertical bars are 95% confidence intervals.

8 Unconditional Support for Large-Family Mayors

The underlying assumption of our theory is that large-family mayors can count on unconditional electoral support from their relatives. In this section, we dig deeper into this mechanism and study the electoral advantage that large-family mayors have compared to their peers. First, we run a TWFE estimation using the vote share of mayoral candidates as the dependent variable and their share of relatives as the main explanatory variable. Table A.10 in the Appendix presents the results. The positive correlation between the size of family ties and the vote share of the candidate is evident and significant.

We then run the two additional equations, respectively estimated with a TWFE estimation procedure and with an RDD, to causally assess the effect on reelection probabilities. The RDD equation is the same Equation (2) used for our main analysis using the probability of reelection as the main dependent variable. The TWFE equation estimated is the following:

$$\text{Pr(Re-Election)} = \beta_1 \text{ShareRelatives}_{m,t} + \beta_2 \mathbf{X}_m + \tau_m + \sigma_t + \epsilon_{m,t} \quad (4)$$

Table 5 shows the results. Columns 1 and 2 confirm the idea that the support for the family candidate is unconditional. However, this support disappears in close elections (columns 3 and 4). We rationalize these results as an effect of two competing forces. On the one hand, large-family mayors can benefit from the support of their large families, increasing the probability of reelection. On the other hand, the poor economic performance should push the voters not belonging to his family to punish him, decreasing the probability of reelection. This corrective mechanism brings the estimates to 0 only in the case of contested elections, suggesting the prevalence of the positive effect of family size on the negative effect of economic performance. Overall, the findings in Table 5 confirm that the accountability mechanism in small Italian municipalities can be undermined by family networks. In other words, we do not see a punishment for the bad performance of the mayor.

Table 5: Share of Relatives and Re-Election Probability

	Pr(Mayor Reelected)			
Share Relatives of Mayor	0.35***	0.57***		
	(0.14)	(0.21)		
Large-Family Mayor			0.09	0.07
			(0.08)	(0.08)
Observations	22,583	14,314	1,451	1,340
Effective Obs. (Left)			460	469
Effective Obs. (Right)			467	470
Bandwidth			.18	.24
Fixed Effects	YES	YES	YES	YES
Controls	NO	YES	NO	YES
Estimator	TWFE	TWFE	RDD	RDD

Note: *** p<0.01, ** p<0.05, * p<0.10. TWFE clustered from Equation (4) at the municipality level. RDD estimates from Equation (2) with linear polynomial fit, triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al. 2014). Standard errors in parenthesis, clustered at the municipality level. Controls include: sex of the mayor, age of the mayor, population (Log), latitude, longitude, size of municipality, year FE and province FE.

9 Conclusion

This paper contributes to ongoing debates on electoral accountability, local governance, and the unintended consequences of social capital in electoral politics. We investigate the impact of family networks on electoral accountability and municipal governance. Our findings suggest that mayors from large families benefit from strong, unconditional electoral support, which in turn weakens their incentives to govern effectively. We provide robust empirical evidence that large-family mayors exhibit worse economic performance. Specifically, they are less effective in repaying municipal debt, attracting EU funds, and, in some cases, accumulating public debt.

Beyond general economic performance, we present suggestive evidence that large-family mayors engage in a more privatized management of public finances. By analyzing a novel dataset of mayors' CVs, we find that these politicians allocate significantly more public resources to improving their own streets and neighborhoods. This pattern is consistent with the idea that their reduced accountability allows them to prioritize personal or familial interests over broader municipal needs. Crucially, our analysis shows that large-family mayors are not electorally punished for their poor economic performance. Instead, their kinship networks provide them with a stable base of support, shielding them from the usual accountability mechanisms that should discipline underperforming politicians.

These findings have broader implications for our understanding of democratic accountability, particularly in contexts where social and familial networks play a central role in political life. While our findings focus on Italy, similar patterns may emerge in other political systems where familial and social ties are an important part of electoral behavior - Latin America, and the Philippines as examples. Further studies could explore how family ties influence policymaking beyond economic management, such as public service delivery or corruption risks. Additionally, investigating whether voters in tightly knit communities perceive large-family mayors differently from non-family ones could shed light on the psychological and social drivers of electoral loyalty.

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A Appendix

A.1 Are Last Names Problematic?

In Italy, last names are traditionally passed down from fathers to their children. As also brought up by Geys (2017), this cultural and legal framework may undermine the precision and quality of our study over two different dimensions.

First, people may share their last name without being related, which could lead to incorrectly identifying some individuals as family members (type-2 error). Nevertheless, this should be less of an issue, as we focus on small municipalities. Indeed, because of the setting chosen, the likelihood that sharing the last name is indicative of blood linkage is rather high. Additionally, to prevent any attenuation bias, we conduct a robustness check, weighting the mayor's last name and assigning greater weight to cases where the mayor's last name is less common in the area (see Section A.2.1, weighted-PRCD).

On the other hand, using last names captures only a limited subset of parental relationships. Since we trace relationships through last names, the connection breaks when it comes to maternal lines, effectively excluding mothers and their relatives from the same family as their children. This introduces clear type-1 errors. However, it's important to note that this limitation actually reinforces our conclusions, as the findings are likely to reflect the lower bound of the true effects. Last, a potential concern could be that last names are correlated with certain abilities or socioeconomic status. However, this hypothesis is clearly refuted by Geys (2017).

For these reasons, we are confident that our work identifies family networks with a precision comparable to, if not better than, other studies in the literature. Our approach aligns with existing practices for inferring family ties from last names. For example, Mirenda et al. (2022) classified a firm as affiliated with the Calabrian mafia (*'ndrangheta*) if at least one director was born in Calabria and had a last name matching those listed by the APC - *Commissione Parlamentare Antimafia* - for family clans operating in the Center and North. Gagliarducci and Manacorda (2020) used the first three letters of fiscal codes

and the municipality of birth to match families, a method slightly less precise than ours since we utilize full last names rather than just some consonants—e.g., CSL could refer to Casale, Casali, Cesale, or Cesali. Similarly, Vitale (2023) employed the same method as ours but compared entries within the same diocese (*diocesi*).

A.2 Additional Tables

Table A.1: Summary Statistics Variables Employed

	Whole Sample		Effective Sample	
Variable	*Mean*	*SD*	*Mean*	*SD*
Outcomes				
EU Funds p.c. (Log)	2.697	2.550	3.260	2.850
Debt Repayment	1.123	1.175	1.234	0.989
Debt Accumulated	0.642	0.576	0.663	0.620
Money to Relatives (Log)	0.028	0.563	0.380	2.036
Cabinet Member Relatives	0.006	0.075	0.079	0.270
Funds p.c. for Mayor Street	6.857	41.869	14.183	72.564
Pr(Mayor Reelected)	0.372	0.483	0.389	0.488
Mayor Characteristics				
Sex	0.106	0.308	0.093	0.290
Age	49.170	10.544	48.970	10.912
Education	0.376	0.484	0.341	0.474
White Collar	0.557	0.497	0.523	0.500
Native	0.432	0.495	0.512	0.500
Dynastic	0.057	0.232	0.126	0.331
Shares of Votes	0.633	0.178	0.659	0.183
Municipality Characteristics				
Population (Log)	7.223	0.867	6.548	0.916
Surface (Log, Km^2)	2.892	0.925	2.756	0.844
Latitude	43.415	2.434	43.262	2.424
Longitude	11.265	2.841	11.562	2.892

A.2.1 Last Name Weights

We implement a further pre-processing step on last names to avoid the possibility that highly frequent last names are driving our results. To increase confidence in our main measure, we built a continuous index that assigns a score to each last name, taking into account its frequency among the population. The idea is to discount highly frequent last names and give more relevance to uncommon last names. We simply divide the frequency of a last name by the total number of observations in the dataset of the entire population.

The table below shows the list of the 10 most common and 10 most uncommon last names of our large-family mayors according to the index explained in the previous section.

Table A.2: Last Names Scores

Last Name	Weight Normalized	Municipality
Rossi	0.01	Anzano di Puglia (FG)
Ferrari	0.01	Borghetto d'Arroscia (IM)
Conti	0.01	Viale d'Asti (AT)
Gallo	0.01	Martirano Lombardo (CZ)
Caruso	0.01	Ciminà (RC)
Giordano	0.01	Corbara (SA)
Fontana	0.01	Rezzoaglio (GE)
Marino	0.01	Pentone (CZ)
Galli	0.01	Cirimido (CO)
Focolari	0.99	Pozzaglia Sabina (RI)
Quasimodo	0.17	Igliano (CN)
Murranca	0.11	Pompu (OR)
Pisolo	0.09	Dosso del Liro (CO)
Sturabotti	0.08	Vallinfreda (RM)
Eroini	0.08	Valleve (BG)
Mabritto	0.07	Pecco (TO)
Cordeglio	0.06	Montegrosso Pian Latte (IM)
Risio	0.06	Cocullo (AQ)

Table A.3: Large-Family Mayor and Economic Performance, Robustness to Re-Weighting Index by Last Names' Frequence in Phone Directories

	EU Funds p.c. (Log)		Debt Repayment	
Large-Family Mayor	-0.62	-1.19*	-0.46***	-0.49***
	(0.70)	(0.64)	(0.12)	(0.13)
Observations	1,132	1,057	1,172	1,158
Effective Obs. (Left)	246	200	370	353
Effective Obs. (Right)	249	205	345	329
Bandwidth	.15	.13	.15	.16
Fixed Effects	YES	YES	YES	YES
Controls	NO	YES	NO	NO

Notes: *** p<0.01, ** p<0.05, * p<0.10. RDD estimates from Equation (2) with linear polynomial fit, triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al. 2014). The running variable is weighted by the inverse of the frequency of a candidate's last name in a municipality, according to the phone directories collected by ancestry.com. Standard errors in parenthesis, clustered at the municipality level. Controls include: sex of the mayor, age of mayor, population (Log), latitude, longitude, size of municipality, year FE and province FE.

Table A.4: Large-Family Mayors and Economic Performance in Previous Term

	EU Funds p.c. (Log) Lag		Debt Repayment Lag		Debt Accumulated Lag	
Large-Family Mayor	0.44	0.59	-0.31	-0.26	-0.03	-0.04
	(0.56)	(0.58)	(0.27)	(0.27)	(0.07)	(0.07)
Observations	684	627	791	732	904	832
Effective Obs. (Left)	207	194	275	257	279	265
Effective Obs. (Right)	190	171	254	232	275	259
Bandwidth	.19	.19	.26	.26	.24	.25
Fixed Effects	YES	YES	YES	YES	YES	YES
Controls	NO	YES	NO	YES	NO	YES

Notes: *** p<0.01, ** p<0.05, * p<0.10. RDD estimates from Equation (2) with linear polynomial fit, triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al. 2014). Standard errors in parenthesis, clustered at the municipality level. Controls include: sex of the mayor, age of mayor, population (Log), latitude, longitude, size of municipality, year FE and province FE.

Table A.5: Large-Family Mayors and Economic Performance, Robustness to Using Uniform Weighting Kernel

	EU Funds p.c. (Log)		Debt Repayment		Debt Accumulated	
Large-Family Mayor	-1.05**	-0.91*	-0.67**	-0.64**	-0.06	-0.06
	(0.47)	(0.47)	(0.30)	(0.28)	(0.09)	(0.09)
Observations	1,141	1,065	1,183	1,169	1,192	1,178
Effective Obs. (Left)	353	339	397	400	364	366
Effective Obs. (Right)	328	307	376	374	344	342
Bandwidth	.26	.26	.31	.29	.25	.25
Fixed Effects	YES	YES	YES	YES	YES	YES
Controls	NO	YES	NO	YES	NO	YES
Polynomial	2	2	2	2	2	2

Notes: *** p<0.01, ** p<0.05, * p<0.10. RDD estimates from Equation (2) with quadratic polynomial fit, triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al. 2014). Standard errors in parenthesis, clustered at the municipality level. Controls include: sex of the mayor, age of mayor, population (Log), latitude, longitude, size of municipality, year FE and province FE.

Table A.6: Large-Family Mayors and Economic Performance, Robustness to Using Uniform Weighting Kernel

	EU Funds p.c. (Log)		Debt Repayment		Debt Accumulated	
Large-Family Mayor	-0.92**	-0.73	-0.52**	-0.39	-0.09	-0.12
	(0.45)	(0.45)	(0.26)	(0.25)	(0.10)	(0.09)
Observations	1,141	1,065	1,183	1,169	1,192	1,178
Effective Obs. (Left)	265	255	310	295	320	357
Effective Obs. (Right)	268	251	297	293	315	337
Bandwidth	.12	.12	.12	.12	.15	.18
Fixed Effects	YES	YES	YES	YES	YES	YES
Controls	NO	YES	NO	YES	NO	YES

Notes: *** p<0.01, ** p<0.05, * p<0.10.RDD estimates from Equation (2) with linear polynomial fit, uniform kernel and data-driven optimal bandwidth selection (Calonico et al. 2014). Standard errors in parenthesis, clustered at the municipality level. Controls include: sex of the mayor, age of the mayor, population (Log), latitude, longitude, size of municipality, year FE and province FE.

Table A.7: Large-Family Mayors and Economic Performance,
Robustness to Using Coverage-Error Robust Bandwidth Selection

	EU Funds p.c. (Log)		Debt Repayment		Debt Accumulated	
Large-Family Mayor	-1.06***	-0.95**	-0.56**	-0.57**	-0.05	-0.03
	(0.38)	(0.39)	(0.26)	(0.27)	(0.08)	(0.08)
Observations	1,141	1,065	1,183	1,169	1,192	1,178
Effective Obs. (Left)	303	289	387	327	350	340
Effective Obs. (Right)	299	277	373	315	337	327
Bandwidth	.12	.13	.15	.12	.15	.15
Fixed Effects	YES	YES	YES	YES	YES	YES
Controls	NO	YES	NO	YES	NO	YES

Notes: *** p<0.01, ** p<0.05, * p<0.10. RDD estimates from Equation (2) with linear polynomial fit, triangular weighting kernel and coverage-Error Robust bandwidth selection (Calonico et al. 2014). Standard errors in parenthesis, clustered at the municipality level. Controls include: sex of the mayor, age of mayor, population (Log), latitude, longitude, size of municipality, year FE and province FE.

A.2.2 Family Power - Example

In this section, we show some anecdotal evidence of why it is necessary to take a function of the share of the last name squared. The market concentration index (HHI) is usually calculated as the sum of squares of each firm's market share. However, a raw implementation of the index would not capture the relative power of a single firm, or, in our case, family.

We show, here, that a last name with similar shares ends up with extremely different family power values depending on other last names' dispersion within the municipality. We extracted the last name's distribution from the municipality of Acquaviva d'Isernia (IS), in Molise, and the one from Arpaise (BN), in the Campania region. In the two municipalities the share of inhabitants with the last name *Rossi*, one of the most popular last names in Italy, is apparently extremely similar, as in both municipalities the share of people with that last name is around 13%. However, there are significant changes in the dispersion of the other last names, as we show in Table A.8, where we output the top-5 last names in both municipalities.

Now assume, we want to understand which Rossi is more powerful within their own municipalities since they have both a governing mayor. By looking at the raw share of relatives (namely 13.2%, compared to 12.7%), one would say that Arpaise's Rossi is more powerful than Acquaviva's. This is not true, as other Arpaise's families are even bigger. For this reason, we divide the share of relatives for the HHI. Using this index of family power, we can show that the power of Acquaviva's Rossi is even higher than the top-1 family in Arpaise, the Petrocelli, despite less inhabitants sharing that last name.

Table A.8: Comparing Family Power in Two Municipalities

Last Names	Share Cognome	HHI	Family Power
Rossi	**0.127**		**0.465**
Pignatiello	0.050		0.071
Miranda	0.044	347.059	0.056
Forni	0.044		0.056
Parrella	0.039		0.043

Acquaviva d'Isernia (IS)

Last Names	Share Cognome	HHI	Family Power
Petrocelli	0.211		0.363
Ciummo	0.184		0.277
Rossi	**0.132**	1222.299	**0.142**
Proni	0.092		0.069
Tartaglione	0.079		0.051

Arpaise (BN)

Table A.9: Share of Relatives and Funds For Streets

	Money for Own Street p.c.		Money for Relatives' Streets	
Share Relatives of Mayor	1492.23***	1419.51***	48.89	53.50*
	(532.66)	(532.38)	(32.76)	(31.00)
Observations	1,996	1,985	1,180	1,177
Fixed Effects	REGION	PROVINCE	REGION	PROVINCE
Controls	YES	YES	YES	YES

Notes: *** p<0.01, ** p<0.05, * p<0.10. OLS estimates from Equation (1). Standard errors in parenthesis, clustered at the municipality level. Controls include: sex of the mayor, age of the mayor, education of the mayor, share of votes of the mayor, white-collar mayor, native mayor, and dynastic mayor.

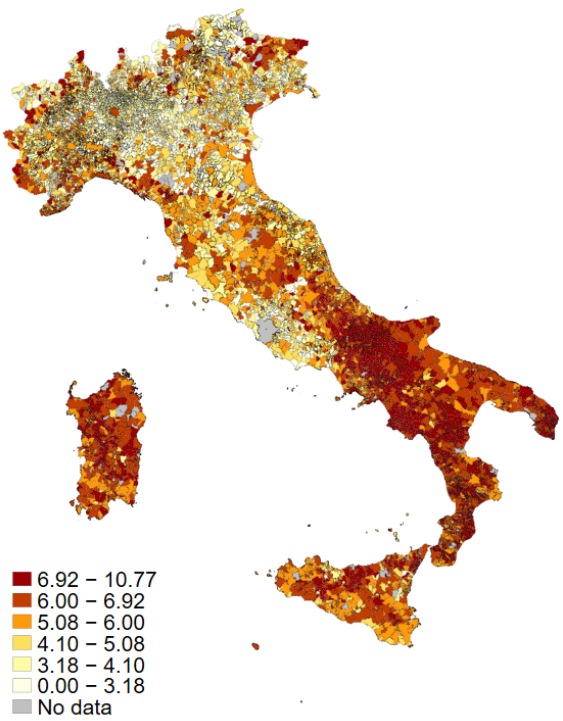
Table A.10: Share of Relatives and Vote Shares

	Vote Share		
	(1)	(2)	(3)
Share Relatives of Candidate	0.98***	0.97***	0.94***
	(0.04)	(0.05)	(0.05)
Observations	71,558	71,489	71,489
Controls	NO	NO	YES
Fixed Effects	NO	YES	YES

Notes: *** p<0.01, ** p<0.05, * p<0.10. OLS estimates. Standard errors in parenthesis, clustered at the municipality level. Controls include: a dummy if the candidate is affiliated with a right-wing party, year FE, and municipality FE.

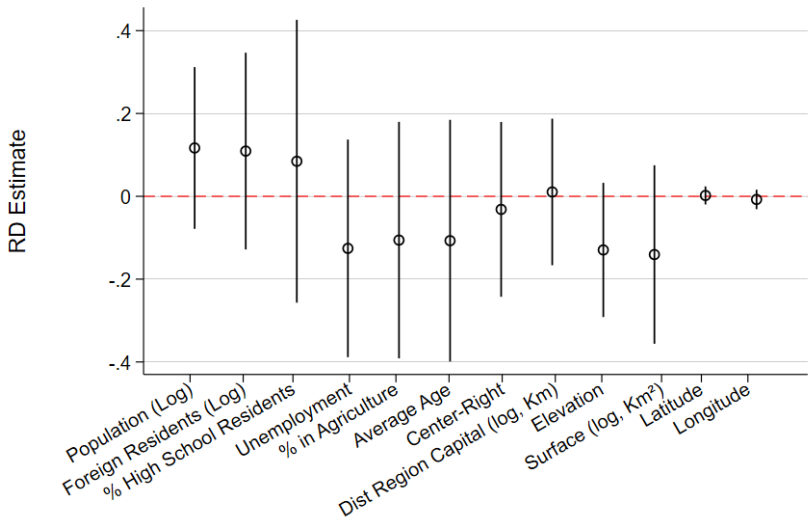
A.3 Additional Figures

Figure A.1: Log EU Funds p.c.



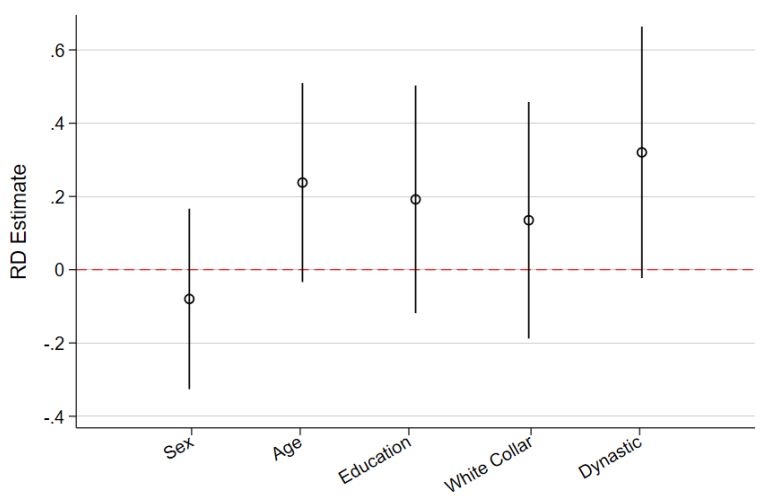
Notes: Spatial distributions of the log EU funds pc received by each municipality in the sample period.

Figure A.2: RDD on Covariates



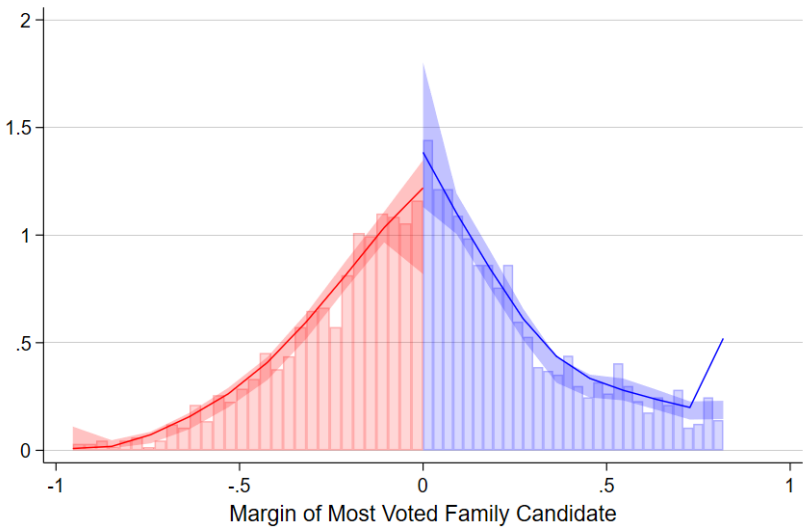
Notes: RDD estimates were obtained using the same framework of Equation (2) using the specification with only FEs. The dependent variables are standardized to enhance the comparability of coefficients' magnitudes. The outcome variable of each model is listed on the x-axis. Vertical bars are 95% confidence intervals, based on bias-corrected standard errors clustered at the municipality level.

Figure A.3: Threats to PCRD - Other Characteristics of Large-Family Mayors



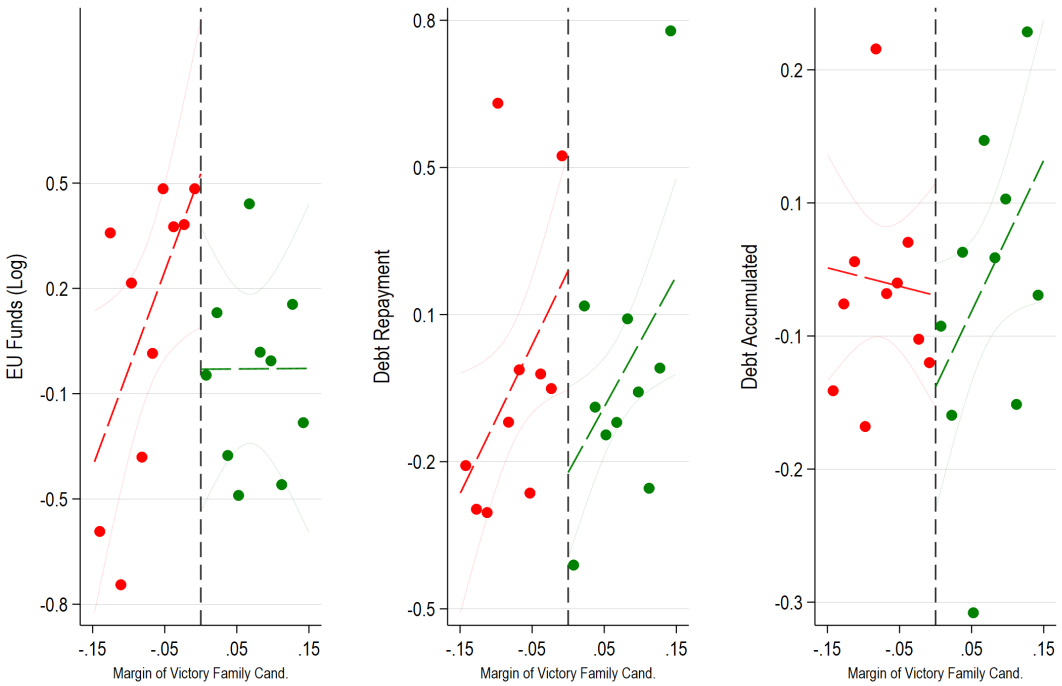
Notes: RDD estimates were obtained using the same framework of Equation (2) using the specification with only FEs. The dependent variables are standardized to enhance the comparability of coefficients' magnitudes. The outcome variable of each model is listed on the x-axis. "Education" is an indicator for a candidate holding any post-high school educational title. Vertical bars are 95% confidence intervals, based on robust, bias-corrected standard errors clustered at the municipality level.

Figure A.4: Manipulation Test



Notes: The plot shows the standard manipulation test proposed by McCrary (2008) for the margin of victory/loss of the most voted large-family candidate, computed using the package `rddensity` with a first-degree polynomial. Each dot represents the density of the margin of victory of the most voted large-family candidate for the corresponding bin. The curve represents kernel approximations of the density, fitted separately on each side of the cutoff, with the relative 95% confidence intervals.

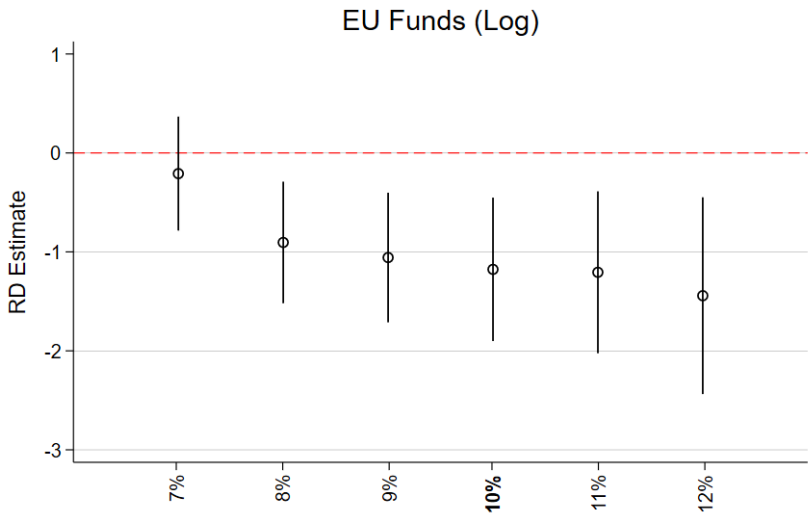
Figure A.5: RDD Economic Performance



Notes: Visual estimates from Table 3, using the specification with only FEs. Each dot is the average outcome over a mayoral term, for a given bin of margin of victory of the most voted family candidate. The solid lines are linear polynomials in the margin of victory, fitted separately on each side of the cutoff. The dashed lines are 95% confidence intervals.

A.3.1 Robustness to Different Definitions of Large-Family Candidates

Figure A.6: Coefplot on Different Definitions Relatives - EU Funds (Log)

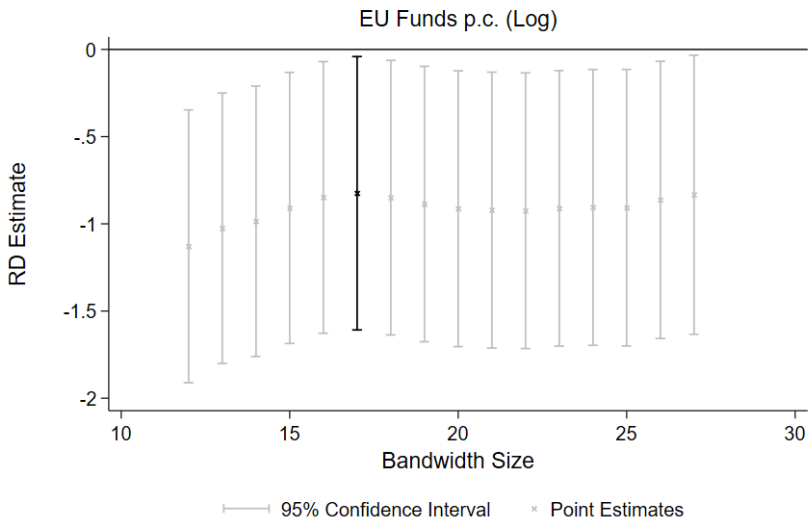


Notes: RDD estimates from Equation (2) with linear polynomial fit, triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al. 2014). The x-axis represents the threshold of *share relatives* after which a candidate is classified as a large-family candidate. Vertical bars show 95% confidence intervals. Controls include: sex of the mayor, age of the mayor, population (Log), latitude, longitude, size of municipality, year FE, and province FE.

Figure A.7: Coefplot on Different Definitions Relatives - Debt Repayment

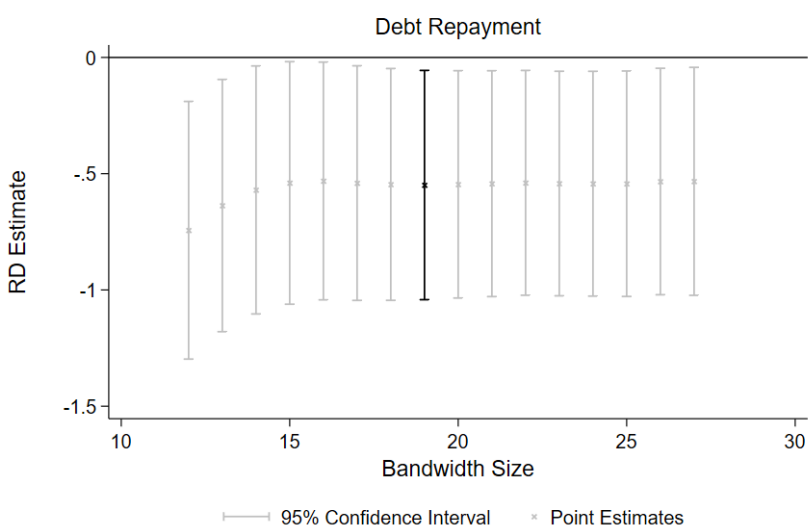
Notes: RDD estimates from Equation (2) with linear polynomial fit, triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al. 2014). The x-axis represents the threshold of *share relatives* after which a candidate is classified as a large-family candidate. Vertical bars show 95% confidence intervals. Controls include: sex of the mayor, age of the mayor, population (Log), latitude, longitude, size of municipality, year FE, and province FE.

Figure A.8: Large-Family Mayor and EU Funds (Log), Robustness to Different Bandwidths



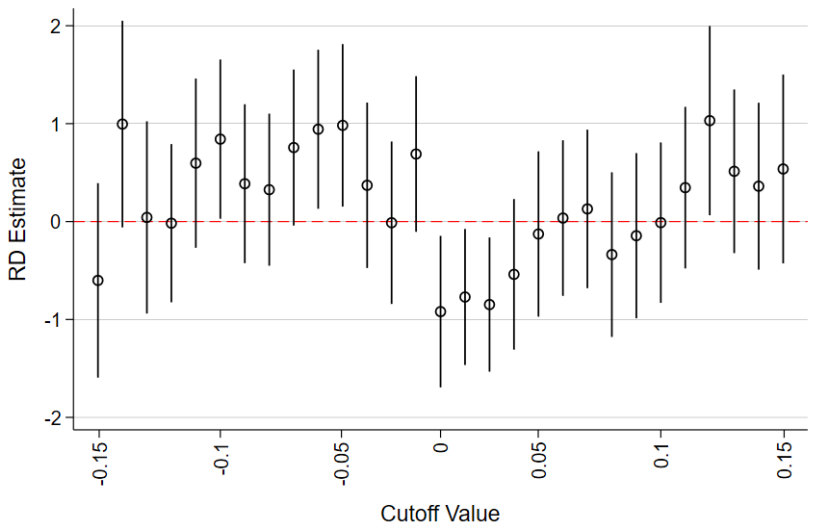
Notes: Each cross represents one RD estimate from fitting Equation (2), using a bandwidth (on each side of the cutoff) of the size indicated on the horizontal axis. Vertical bars are 95% confidence intervals, based on robust standard errors clustered at the municipality level. The dependent variable is the amount of Log EU Funds per capita in municipality i during term t.

Figure A.9: Large-Family Mayor and Debt Repayment, Robustness to Different Bandwidths



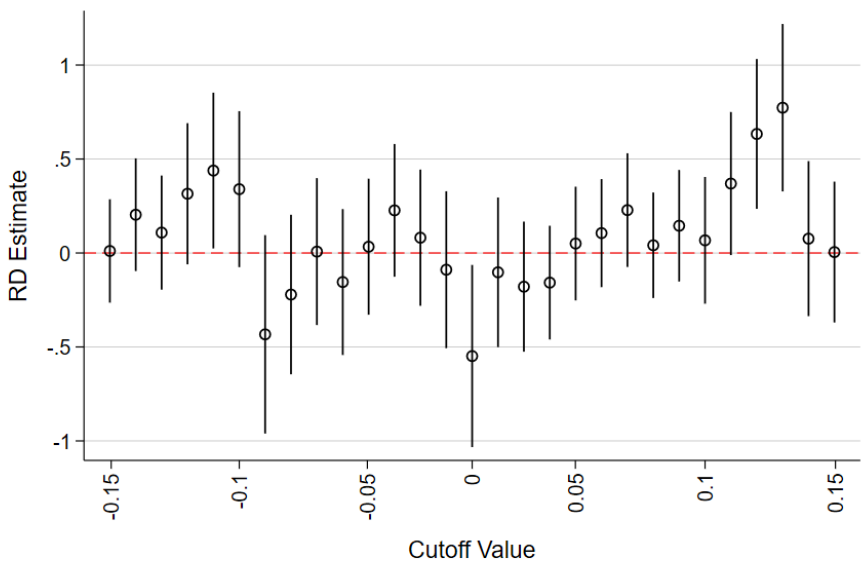
Notes: Each cross represents one RD estimate from fitting Equation (2), using a bandwidth (on each side of the cutoff) of the size indicated on the horizontal axis. Vertical bars are 95% confidence intervals, based on robust standard errors clustered at the municipality level. The dependent variable is the amount of Debt Repayment in municipality i during term t.

Figure A.10: Falsification Test – Large-Family mayor and EU Funds, Effects at Irrelevant Cutoffs of the Running Variable



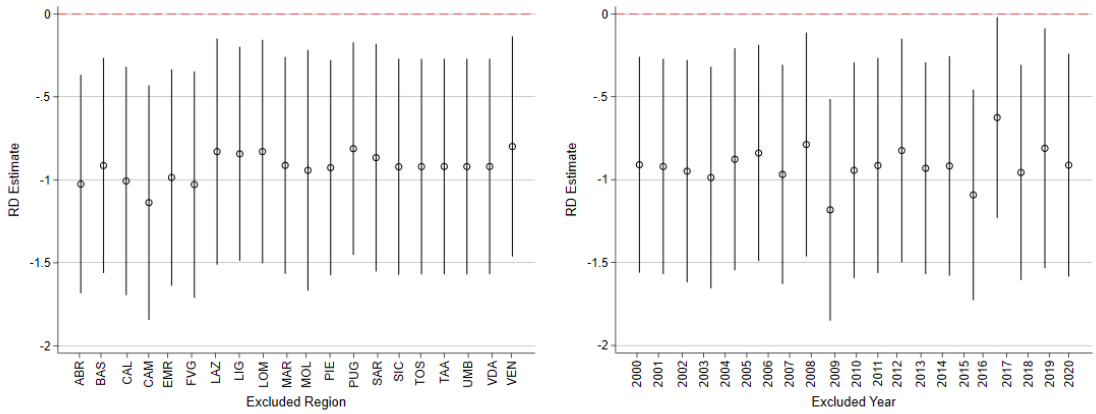
Notes: Each dot represents one RD estimate from fitting Equation (3) with the full set of controls, using the cutoffs for the running variable – margin of victory/loss of the most voted large-family candidate – indicated on the horizontal axis. Vertical bars are 95% confidence intervals, based on robust, bias-corrected standard errors clustered at the municipality level. The dependent variable is the log of EU funds per capita invested in municipality i during term t.

Figure A.11: Falsification Test – Large-Family mayor and Debt repayment, Effects at Irrelevant Cutoffs of the Running Variable



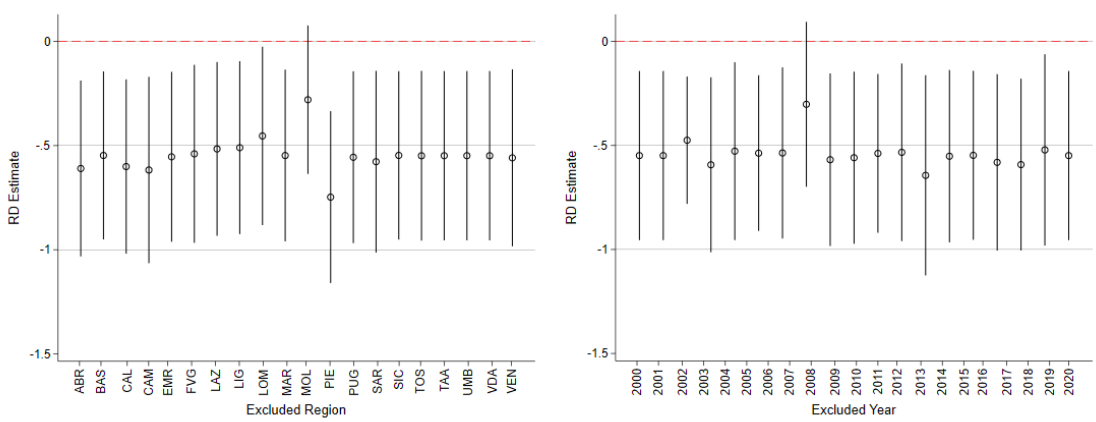
Notes: Each dot represents one RD estimate from fitting Equation (3) with the full set of controls, using the cutoffs for the running variable – margin of victory/loss of the most voted large-family candidate – indicated on the horizontal axis. Vertical bars are 95% confidence intervals, based on robust, bias-corrected standard errors clustered at the municipality level. The dependent variable is the log of EU funds per capita invested in municipality i during term t.

Figure A.12: Robustness Test – Large-Family Mayor and EU Funds, Jackknife Excluding Regions and Election Years



Notes: In both panels, the dependent variable is the log of EU funds per capita invested in municipality i during term t. In Panel A, each dot represents one RDD estimate from Equation (2), excluding all municipalities within the region indicated on the horizontal axis. In Panel B, each dot represents one RDD estimate from Equation (2), excluding all municipalities holding elections during the year indicated on the horizontal axis. Vertical bars are 95% confidence intervals, based on robust, bias-corrected standard errors clustered at the municipality level.

Figure A.13: Robustness Test – Large-Family Mayor and Debt Repayment, Jackknife Excluding Regions and Election Years



Notes: In both panels, the dependent variable is the debt repayment in municipality i during term t. In Panel A, each dot represents one RDD estimate from Equation (2), excluding all municipalities within the region indicated on the horizontal axis. In Panel B, each dot represents one RDD estimate from Equation (2), excluding all municipalities holding elections during the year indicated on the horizontal axis. Vertical bars are 95% confidence intervals, based on robust, bias-corrected standard errors clustered at the municipality level.