The Political Economy of Religious Spending

Luca Vitale*

Massimo Pulejo†

October 4, 2024

Abstract

Religious institutions are major providers of public goods, with investments that can affect public policy and political competition. But is religious spending driven by political considerations? To tackle this question, we build a novel index for individual religious values, and use it to gauge the religiosity of 85,358 mayoral candidates in 45,797 municipal elections, held in Italy between 1995 and 2021. With a regression discontinuity design, we show that the Catholic Church doubles its investments in municipalities governed by religious mayors. This boost in Church's investments is likely motivated by strategic complementarities with the spending decisions of mayors. Using data on more than 6 million procurement contracts, we show that religious mayors significantly increase municipal spending for religious goods and services, especially in the field of education. This shift in public goods provision significantly boosts citizens' attachment to religion, and it increases their propensity to enroll children in religious schools and to donate money to religious NGOs. These findings shed new light on the interactions between the state and religious institutions, and their downstream effects on citizens' attitudes and socioeconomic choices.

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

†University of Milan and CLEAN Unit, Baffi-Carefin Research Center, Bocconi University. Email: massimo.pulejo@unimi.it

We thank Gianmarco Daniele, Gemma Dipoppa, Gabriele Gratton, Federico Masera, Carlo Medici, Leonid Peisakhin, Pablo Querubín, Arturas Rozenas, Shanker Satyanath, and seminar participants at New York University, Bocconi University, Catholic University of Milan, ASREC Europe 2023 and Petralia Workshop 2023 for their comments and suggestions.

1 Introduction

The role of the state as the central provider of public goods is challenged by a wide range of non-state institutions. Religious organizations are among the wealthiest and most influential non-state actors (Barro and McCleary, 2019), making substantial investments in fundamental public goods, such as education (Chaudhary and Rubin, 2011, Meyersson, 2014, Bazzi et al., 2020, 2023, Becker and Won, 2024) and social welfare (Hungerman, 2005, Gruber and Hungerman, 2007, Huber and Stanig, 2011, Masera, 2021).

These investments have been shown to have important social, economic, and political repercussions. Religious investments can crowd out state expenditures (Hungerman, 2005, Gruber and Hungerman, 2007) and shape electoral competition (Huber and Stanig, 2011, Bazzi et al., 2020). Furthermore — as congregations are clubs (Iannaccone, 1992, Carvalho, 2019) — the goods and services offered by religious institutions are major determinant of individuals' religious participation (Huber and Stanig, 2011, Gaskins et al., 2013, Masera, 2021).

This literature has focused on how spending by religious congregations affects elections and policymaking. Yet, little is known as to whether and to what extent religious investments are themselves affected by political considerations. Furthermore, extant work typically considers the case in which secular and religious leaders are rivals, and thus compete to increase their influence. However, ideological alignment between religious and secular authorities has been frequent across time and space (Meyersson, 2014, Corbi et al., 2022, Bentzen and Gokmen, 2023). Does politicians' religiosity affect how religious institutions spend their wealth? And, if yes, in what direction?

To shed light on these questions, this paper studies how mayors' religiosity drives the local investments of the Italian Catholic Church. We study the geographic allocation of funds for the *8xMille*, a large and long-standing program of economic interventions run by the Italian Catholic Church. To this end, we scrape information at the municipality level for the 13,111 projects initiated between 1995 and 2020, for a total value of more than 2 billion euros.

To gauge mayors' religiosity, we develop a novel proxy for the intensity of parents' religious attachment, and apply it to the 85,358 mayoral candidates competing in the 45,797 municipal elections held during our sample period. Namely, we code a mayoral candidate as "religious" if her name matches the one of the patron saint of her municipality. This name-based measure follows research suggesting that a child's name captures parents' cultural background and values (Fryer Jr and Levitt, 2004, Knudsen, 2019, Assouad, 2020) that they aim at passing on to their offspring (Bisin and Verdier, 2001). Indeed, other recent studies in the economics of religion have used name-based indexes to proxy for parental religiosity (Andersen and Bentzen, 2022, Berkes et al., 2023).

Before using it as a basis for the empirical analyses, we perform an extensive battery of tests to gauge the validity of our measure. First, we document that highly religious individuals are significantly more likely to be named after their town's patron saint. Namely — compared to the Italian population as a whole — the incidence of patrons' names is significantly higher among: *(i)* Former Christian-Democratic politicians; *(ii)* Local leaders of *Azione Cattolica Italiana*, the largest association of Italian Catholic activists; *(iii)* Catholic priests; and *(iv)* Catholic bishops. Second, — among the mayors in our sample with a verified account on X[1] — we show that those named after the patron saint are significantly more likely to follow the Pope (@Pontifex).

Third, after compiling a novel data set of active Italian priests, we show that mayoral candidates with a patron's name are significantly more likely to share the last name with priests within their diocese, which we take as a proxy for having family ties to the local Catholic hierarchy. Fourth, with an original data collection and a large text analysis effort, we document that mayors named after the patron are significantly more likely to mention religious activities in their CV, such as having been members of religious associations, or having received a religious education. Finally, using four different proxies for religiosity at the municipal level — including the name-based index proposed in Andersen and Bentzen (2022) — we show that towns with candidates named after their

[1]Formerly Twitter.

patron display a higher attachment to Christianity and the Catholic Church. Overall, these exercises confirm that our novel index — which we also re-weight to account for names' frequency — does well at capturing individuals' religiosity in contemporary Italy.

After validating the index, we employ it in a close-election regression discontinuity design (Lee and Lemieux, 2010), to gauge the impact of electing a religious mayor on the amount of Church's investments in a municipality. The results of the RDD analyses indicate that the Catholic Church invests significantly more in a town — about 15 additional euros per capita — following the election of a religious mayor. This result is robust to several alternative specifications, as well as to a large battery of placebo and robustness tests. We also provide evidence that our estimates are unlikely to be picking up other characteristics of the winning politician aside from religiosity, as these other traits do not change discontinuously at the RDD cutoff. The coefficients also remain stable when using the alternative version of our religiosity index, that gives more relevance to names that are relatively infrequent among mayoral candidates or in the municipal population.

To dig deeper into the dynamics behind the baseline effect, we present the upshots of three heterogeneity analyses. We begin by inquiring differences by project type. Using the categorization of projects provided by the Catholic Church, we document that the increase in religious investments is driven by funds for building or renewing Church-owned infrastructure. By way of contrast, while the RDD estimate remains positive, funding for welfare programs does not significantly increase at the cutoff.

Next, we investigate heterogeneous effects by towns' size. The analyses reveal that the increase in religious investments is three times as large in municipalities with a population below the sample median. This is consistent with the Church targeting funds toward mayors in smaller communities, with whom it may have a more direct acquaintance. Consistent with this, our third heterogeneity test shows that the magnitude of the baseline effect is four times as large in towns where the mayor — on top of being named after the local patron — shares the last name with one or more diocesan priests.

Is mayor's religiosity the actual driver of the observed increase in religious invest-

ments? On top of being more religious, mayors named after the local patron may simply be more attached to their municipality, and put more effort into attracting external funding from any sources, not just religious investments. Yet, two sets of additional analyses do not support this alternative explanation. First, re-running our RDD regressions using European Union funds, governmental transfers, and tax donations as dependent variables delivers null effects. Second, to proxy for the local attachment of candidates, we construct an alternative index capturing how much a first name — except the one of the patron — is specific to a municipality. RDD analyses show that the narrow election of a mayor with a highly local name does not affect the amount of funds spent by the Catholic Church in a municipality.

Why is the Church increasing its investments in municipalities governed by religious mayors? We evaluate two alternative mechanisms, drawing from work in political economy and public economics. The first is an electoral channel: religious authorities may want to keep religious politicians in office (Pulejo, 2022, Lanzara et al., 2023, Troncone and Valli, 2024, Solá, 2024). If this is the case, the Church would strategically allocate its investments to favor the re-election of religious mayors. Two complementary pieces of evidence do not support this potential mechanism. First, the increase in Church's investments remains significant — and it is also larger in magnitude — in towns governed by religious mayors who cannot be re-elected due to term limits. Second, there is no evidence of electoral cycles driving the effect: if anything, the effect is larger in the early years of a mayoral term, and tends to attenuate as the next election approaches.

As a second potential mechanism, we inquire whether the increase in Church's investments is motivated by strategic complementarities with mayors' own spending decisions. Under this scenario, the Church would expect religious mayor's to top up 8xMille funds with public money, thereby increasing the returns on the Church's investments in their municipality. To evaluate this channel, we use a dictionary-based method to classify more than 6 million procurement contracts offered by municipal administrations between 2007 and 2020. Analyzing the title of each contract, we code whether it

contributes to the provision of public goods by the Catholic Church.

Our RDD analyses show that religious mayors shift procurement spending toward the purchase of religious goods and services. The effect is driven by the share of contracts funding religious education, which increases by 7 percentage points — i.e., it more than doubles — to the right of the cutoff. Analyzing the timing of this boost in municipal spending for religious goods and services, we show that it already emerges during the first part of a mayoral term, and it slightly increases in magnitude during the second part. Therefore, the increases in Church's and mayoral spending follow similar patterns, suggesting that they are complementary investments funding the provision of religious goods and services.

We conclude our extensive empirical exploration by looking at whether — consistent with a long-standing literature identifying religious congregations as clubs (e.g., Azzi and Ehrenberg, 1975, Iannaccone, 1992, 1998, Chen, 2010, Iyer, 2016, Carvalho, 2019) — the overall increase in religious spending triggered by the election of a religious mayor fosters citizens' attachment to the Catholic Church. Using survey data and administrative records, we find that — following the election of a religious mayor — municipal residents perceive religion as more important for their lives, and are more likely to donate to religious NGOs and to enroll their children in a Catholic school.

This paper provides three main contributions. First, we add to the literature on the interaction between state and non-state actors (Gambetta, 1996, Acemoglu et al., 2013, Sánchez De La Sierra, 2020, Masera and Yousaf, 2022). In particular, this study seeks to expand our knowledge of the interplay between the state and religious institutions, and understand how the religiosity of secular leaders shapes public goods' provision (Meyersson, 2014, Chaudhary and Rubin, 2016). In this strand of scholarship, we take an original perspective by studying dynamics of co-production, while extant work has focused on competition and crowding out (Hungerman, 2005, Gruber and Hungerman, 2007, Huber and Stanig, 2011, Bazzi et al., 2023). Our evidence points at how, when ideologically aligned, politicians and religious leaders can make complementary investments

to fund the provision of religious goods.

Second, our study fits within the literature trying to identify the effects of politicians' religiosity on public policy and citizens' attitudes. Our findings are an important complement to those of Meyersson (2014) for Turkey and Bhalotra et al. (2014) for India, as we demonstrate that politicians' religiosity can shape citizens' behavior even in societies that have long been secular. We also add to scholarship on the effects of religious public goods on citizens' attitudes and behavior. While economic theory has longed link religious attachment to the availability of religious club goods (Azzi and Ehrenberg, 1975, Iannaccone, 1992, 1998, Iyer, 2016), this relationship had thus far been empirically assessed only by Bentzen and Sperling (2020) for the United States. Besides considering a different country, we also complement their work by studying effects on a novel set of behavioral outcomes, which tap onto the economic and educational choices of citizens.

Finally, on the methodological side, we propose and validate a novel index for religiosity, based on matching individuals' names with those of the patron saint of their municipality. This index holds great promise to constitute a complement to the one recently proposed by Andersen and Bentzen (2022). Namely, it provides a way to capture religiosity in more recent times and for a different set of countries, potentially expanding the scope of future studies in the economics of religion aimed at quantifying the effect of individuals' religiosity on socioeconomic outcomes. Furthermore, our name-based proxy allows to pin down politicians' individual religiosity, while extant work on the political economy of religion has employed more general measures, such as partisan affiliation (see Fourati et al., 2024 for a review) or group identity (Bhalotra et al., 2014, 2021).[2] As secularization moves at a fast pace and traditional, religious-based parties move out of the political arena, our approach provides a way to identify religiosity in a subtler and more precise manner, especially in Western democracies.

[2] A notable exception in this regard is Costa et al. (2023) for Evangelical politicians in Brazil.

2 Politicians' Religiosity and Religious Spending

States across the globe have to deal with a number of non-state actors offering similar goods and services. In most instances, these non-state actors are violent organizations, such as terrorists (Masera and Yousaf, 2022), armed rebels (Sánchez De La Sierra, 2020), paramilitaries (Acemoglu et al., 2013), and organized criminal groups (Gambetta, 1996). As these armed actors challenge the state's monopoly of violence, scholars have naturally considered them as competitors of the state in the provision of public goods.

Religious organizations are among the oldest and most relevant non-state providers of public goods. In spite of not challenging the state's monopoly of violence, these organizations have still been regarded mostly as competitors of the state, particularly in the provision of education (Bazzi et al., 2023) and welfare (Scheve et al., 2006). As a result, research has shown that state and religious investments may crowd each other out (Hungerman, 2005, Gruber and Hungerman, 2007), with important consequences for electoral competition (Huber and Stanig, 2011).

Although rivalries between state and religious institutions are indeed widespread, secular and religious leaders also frequently have aligned ideologies and coinciding interests. Yet, extant scholarship has focused on how these convergences may legitimize political power (Bentzen and Gokmen, 2023), mobilize religious voters (Tuñón, 2020, Pulejo, 2022, Lanzara et al., 2023), and shape moral and ethical policy (Meyersson, 2014). On the other hand, little is know as to whether the election of religious politicians may affect the economic investments of religious organizations and, if yes, in what direction.

Nevertheless, there are at least two reasons to think that religious organizations do take politicians' religiosity into account when deciding where to invest their resources. A first reason has to do with electoral considerations. Namely, given their shared interests and cultural backgrounds, religious leaders may prefer more religious politicians in power (Pulejo, 2022, Lanzara et al., 2023, Troncone and Valli, 2024, Solá, 2024). Given that religious investments provide citizens with valuable public goods, religious institutions may then strategically target investments to favor the re-election of religious politicians.

Additionally, politicians' religiosity may also foster religious investments based on economic considerations. In fact, politicians decide if and how much to contribute to religious activities within their jurisdiction. Iannaccone and Bose (2010) contend that these contributions — which are very generous in most nations (Pew, 2017) — are likely to play a central role in shaping religious finance. Also, Barro and McCleary (2019) underscore their likely importance in determining people's religious participation, which is of utmost relevance to any congregation. Since religious politicians are likely to increase spending toward religious organizations (Corbi et al., 2022), their election should also affect the ways in which these organizations allocate their own resources.

According to economic theory, this effect may go in two directions. On the one hand, an increase in state spending may push the religious organization to increase its own investments, if religious investments and state spending are strategic complements (Frankel et al., 2003). This would be the case if, for instance, the religious organization funds infrastructure (e.g., churches, religious schools) while the state contributes to the activities carried out within such infrastructure (e.g., religious festivals, educational and recreational activities). In other words, the religious organization may increase its investments if it expects them to yield higher returns in localities governed by a religious politician. This would also happen if religious politicians sponsor the activities carried out by the religious organization, for instance, by partaking or using public money to publicize them among citizens. Taken together, these factors may induce crowding in (Aschauer, 1989, Hatano, 2010), whereby higher spending by religious politicians are met by increased investments by the religious organization.

On the other hand, more generous state spending may also induce religious institutions to cut funding to localities governed by religious politicians, and re-invest these resources elsewhere. This kind of crowding out mechanisms have been found to be at work for both donations to (Eckel et al., 2005) and expenditures of (Gruber and Hungerman, 2007) religious and secular charities, also via reduced fundraising efforts (Andreoni and Payne, 2003, 2011).

3 Background and Data

3.1 Measuring Individual Religiosity

3.1.1 Index Definition

In Catholicism, Anglicanism, and Eastern Orthodoxy, a patron saint is a saint who is regarded as the heavenly advocate of a nation, town, craft, activity, class, clan, family, or person. The devotion to the patron saint has characterized Italian cities since late antiquity, and has shaped their institutional, political and social development over the centuries. Nowadays, each Italian municipality has a patron saint, who is constantly referred to in the official liturgy, and annually celebrated by the local community in a dedicated religious festival called *Festa Patronale*. In most cases, the chosen saint had a connection to the place. For example, the saint may have been born or died, lived and preached, left his relics, or performed miracles in the municipality.

Our index for candidates' religiosity is based on the correspondence between candidates' first names and the first name of the patron saint of their municipality. Namely, we define a mayoral candidate as "religious" if his/her first name corresponds to the one of the patron saint of his/her municipality.[3] This results in identifying 1,535 unique religious candidates (about 1.4% of the total candidates) — of which 537 are elected mayor at least once — running in 1,239 unique municipalities (15.6% of all Italian municipalities).

The rationale for this index is that cultural values affect the way parents name their children (Fryer Jr and Levitt, 2004, Knudsen, 2019, Assouad, 2020), and that religiosity is known to be one of the main traits that parents wish to pass on to their offspring (Francis and Brown, 1991, Francis, 1993, Masera, 2021) through vertical transmission (Bisin and Verdier, 2001). Indeed, using several waves of the International Social Survey Program, Masera (2021) shows that being raised by religious parents who participated in Church's

[3]Specifically, we code a candidate as "religious" if her name matches the one of the patron of the municipality where she was born or the one of the municipality where she runs for mayor. Since most saints are men, we code as "religious" also female candidates whose first name is the feminine of the name of their town's patron. In Section 5.2, we show that our results stand when matching candidates only to the patron of their birthplace and when ignoring correspondences with feminine names.

activities is strongly correlated with being religious as an adult, even after controlling for many observables.

As any other name-based index, our measure is not immune from the occurrence of both false positives — i.e., candidates named after a patron whose parents are not religious — and false negatives — candidates not named after the patron whose parents are religious. Yet, the assumption behind our index is simply that parents who name their child after a patron saint are *on average* more religious than those who do not. Specific occurrences of false positives and false negatives will — if anything — introduce attenuation bias into our estimates.

Figure A.1 shows the distribution of towns with at least one candidate matching the patron's first name during our sample period. To account for the fact that not all names are equally common in Italy or in specific towns, we will also use a weighted version of the index, which gives more relevance to relatively uncommon names. Section A.2.1 in the Appendix gives more details on how such weights are built. Table A.2.1 shows the names with the highest weights.

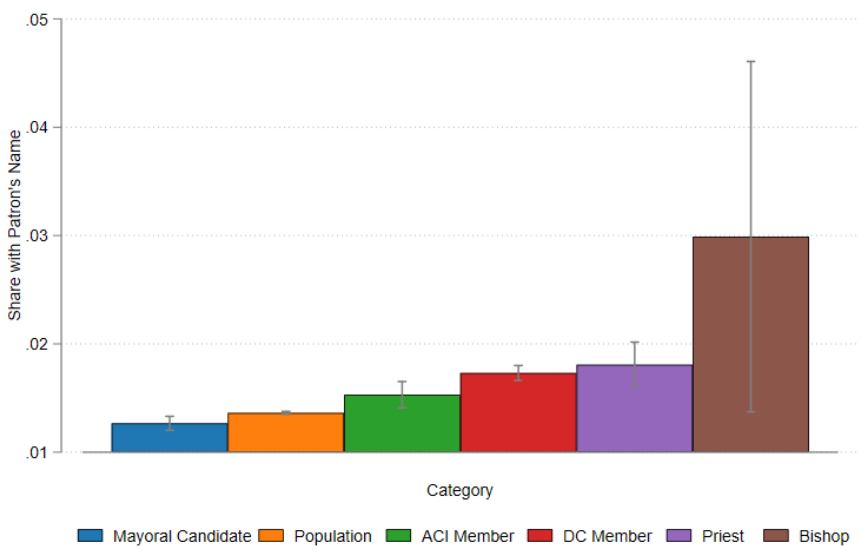
To the best of our knowledge, this is the third instance of a name-based religiosity index in the literature, after those proposed in Andersen and Bentzen (2022) and Berkes et al. (2023). The Andersen-Bentzen index is based on the similarity between individuals' names and the names of medieval churches or medieval religious figures. In a highly religious context like Italy, this index is likely too broad to identify religiosity, especially in the last two decades. Yet, throughout the paper, we will still use the Andersen-Bentzen index for validation exercises and robustness checks.

3.1.2 Index Validation

To evaluate the accuracy of our religiosity index, we check the prevalence of patron saints' names within four groups of highly religious individuals: *(i)* 409 Italian bishops; *(ii)* 118,405 members of the 306 diocesan boards of Azione Cattolica Italiana (ACI, hence-

forth) for the period 1920-1991[4]; *(iii)* 97,672 Christian Democratic (DC) local politicians in office between 1986 and 1994; and *(iv)* 42,010 Italian priests, deacons and nuns, in office as of March 2024. We then compare the share of individuals named after the patron saint among religious individuals with the share of individuals named after the patron saint among *(i)* Mayoral candidates and *(ii)* The entire Italian population.[5] Figure 1 presents the results of these exercises.

Figure 1: Share of Individuals Named after Patron Saint of their Birthplace, by Category



These comparisons strongly support the idea that being named after the local patron predicts individual religiosity. Indeed, the plot shows that patrons' names are highly prevalent among the Catholic hierarchy (bishops and priests), and among both lay and religious Catholic activists (ACI members and DC local politicians). By way of contrast, the pool of mayoral candidates and the general population feature a significantly lower share of people named after patron saint of their birthplace.

To further buttress the predictive power of our proxy for religiosity, we conduct

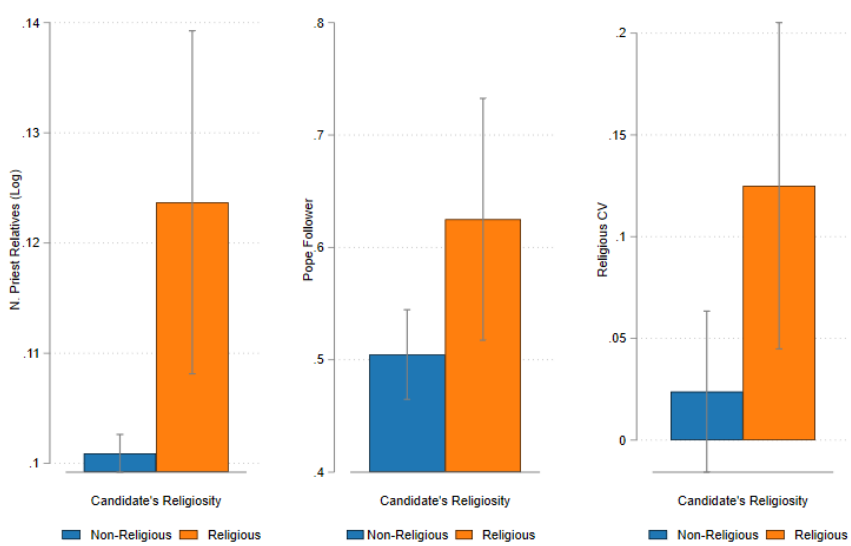
[4]Founded in 1905, ACI is the largest Catholic association in Italy (Casella, 2014), that aims to promote Catholic views on social and political issues. ACI is divided into diocesan branches, each with its own directive board (*Giunta Diocesana.*) led by the local bishop, featuring both lay and religious members. The list comes from Pulejo (2022).

[5]Sourced from the phone directories of 2011, available on the website ancestry.com.

three additional tests. First, we build an original data set with the demographics of 42,010 Italian priests, deacons, and nuns, in office as of March 2024. Then, to proxy for a candidate's family ties to the local Catholic hierarchy, we match her to all the priests within her diocese who share her last name. The left panel of Figure 2 shows that — according to our proxy — religious candidates have significantly more family ties to the local Catholic hierarchy than their non-religious colleagues.

Second, we collect a novel data set of X accounts of mayoral candidates. We identified and verified 58 accounts of religious candidates and 430 accounts of non-religious candidates.[6] To measure religiosity, we code whether each of these 488 verified mayors' accounts follows the official account of the Pope (@Pontifex). The idea is that following the Pope on X implies an interest in religious messages and updates, indicating that a person values staying informed about the Pope's guidance and perspectives. The central panel of Figure 2 shows that religious candidates are more likely to follow the Pope, with a probability of 62.5% against a probability of 51% for non-religious candidates.

Figure 2: Religious Candidates and Religiosity Measures



[6]We thank Paul Bose for sharing the X data with us and matching candidates to their accounts.

Third, we collect the curriculum vitae of 921 mayors, and build a religious dictionary to identify the presence of religious activities in the curriculum[7]. Examples of these activities include catholic-inspired associationism, catechism at the local parish, or collaborations with the religious newspaper *Avvenire*. To increase confidence in our results, we limit the control pool of CVs to those of mayors who ended up in close elections where a religious candidate was also running. This restricts the sample to 90 CVs, 48 for religious mayors and 42 for non-religious mayors. The right panel of Figure 2 documents how religious mayors are far more likely to mention religious activities in their curricula (13% against 3%).

To complement these descriptive exercises, the Appendix (Tables from A.1 to A.3) presents the findings of more systematic regression analyses, using OLS models and, whenever feasible, RDD estimates. The results of these additional tests confirm that carrying the patron's name of one's birthplace is a good predictor of individual religiosity.

To conclude our battery of validation tests, Table A.4 in the Appendix displays correlations between different proxies of religiosity at the municipal level and a cross-sectional version of our index. Namely, we code an indicator equal to 1 if the municipality has one or more mayoral candidates sharing the patron's name in at least one of the elections in our sample, and 0 otherwise. The coefficients on this indicator are positive and statistically significant across all the four proxies for municipal religiosity we use as outcome variables.[8] Again, this supports using patron saints' names as a proxy for individual religiosity.

[7]Religious dictionary: *'chiesa', 'abbazi', 'monastero', 'monasteri', 'relig', 'eccles', 'dioces', 'cattolic', 'parroc', 'campanil', 'di culto', 'canonic', 'battister', 'cattedr', 'episcop', 'vescov', 'convento', 'sacro cuore', 'patronale', 'santua', 'suora', 'suore', 'beata vergin', 'santiss', 'congregaz', 'divin', 'gesu", 'gesú', 'gesù', 'gesuit', 'francescan', 'benedettin', 'domenican', 'agostinian', 'carmelitan', 'teresian', 'cistercens', 'orsolin', 'clarisse', 'pallottin', 'oblat', 'cappuccin', 'immacolat', 'santi apost', 'apostolic', 'spiritu', 'spirito san', 'collegiat', 'annunciaz', 'vergine mar', 'frati min', 'campanaria', 'nativita', 'presepe', 'caritas', 'centro di asc', 'centri di asc', 'curia', 'pastoral', 'musica sacr', 'oggetti sacr', 'sacra famigl', 'azione catt', 'unitalsi', 'agesci'.*

[8]Log number of churches per capita, share of candidates with religious or highly religious names according to the index by Andersen and Bentzen (2022), and share of children attending religious schools.

3.2 Data on Catholic Church's Investments

To construct our main dependent variable, we assemble a novel dataset of 13,111 projects, initiated by the Italian Catholic Church between 1999 and 2020 in the context of the *8xMille* program (www.8xmille.it), for a total value of close to 2.1 billion euros. Italian tax payers can indeed choose to allocate 0.8% of their income taxes to religious congregations, that have to reinvest them. The Italian Catholic Church uses these resources to finance two types of projects: pastoral projects (72.7% of the total number of projects, receiving 83.6% of the total funds disbursed) and charity projects (27.3% of projects, 16.4% of funds). Pastoral projects are mostly aimed at preserving, restoring, and improving local public goods owned by the Church, such as religious buildings and facilities. Charity projects, on the other hand, finance new or existing development programs benefiting disadvantaged individuals. A map of the funding for these projects is in the Appendix, Figure A.2. Summary statistics on the number, type, and value of 8xMille projects in our data are in the Appendix, Table A.5.

3.3 Data on Municipal Spending

To analyze the effects of mayors' religiosity on public spending for religious goods and services, we leverage official procurement data from the Italian National Anti-Corruption Authority (ANAC).[9] We draw information on procurement by Italian municipalities between 2007 and 2022, which amounts to more than 6 million contracts. To identify contracts funding religious projects, we evaluate each contract's title against a large dictionary of religious terms, which we compiled for this project, and that we report in the Appendix, Section A.2.2. With this dictionary-based method, we retrieve 318,274 contracts related to religious spending (5.3% of all contracts), for a total value of about 12 billion euros.

After obtaining this repository of religious contracts, we refine our dictionary to further classify them into four spending categories: religious festivals and celebrations

[9]Datasets available at: `dati.anticorruzione.it/opendata`.

(37% of religious contracts), religious education (27%), religious welfare (19%), and other religious contracts (25%). Next, for each municipality i at each mayoral term t, we divide the total value of religious contracts by the total value of all contracts, which gives us the share of procurement spending allocated toward the purchase of religious goods and services at the municipality-term level. Summary statistics for these variables, which will constitute our outcomes of interest in the analyses of mechanisms (Section 6.2) are in the Appendix, Table A.5.

3.4 Additional Data Sources

On top of records on Church's investments and municipal spending, our analyses draw data from a variety of sources, some of which are the result of novel collection and digitization efforts, and may thus constitute a valuable asset for scholars of the economics of religion in the future. The largest of such efforts is the compilation of a novel repository containing demographics for 42,010 Catholic priests, deacons and nuns active in Italy as of March 2024, which we compile by manually collecting information from the official websites of 213 dioceses.

We obtain data on the universe of municipal elections, mayoral candidates, and their party affiliations from the Historical Electoral Archive of the Ministry of the Interior. We use the Registry of Local Administrators for other information on mayors (e.g., job, gender, and level of education), and data from the Italian Statistical Bureau (ISTAT) for both cross-sectional and time-varying municipal characteristics. Data on European Union funds are drawn from opencoesione.gov.it. We collect information about the patron saint of each municipality from different sources[10], and data on the municipal distributions of first names from ancestry.com. Data on central government transfers to municipality are drawn from finanzalocale.gov.it

Data on ACI's Diocesan Boards are from Pulejo (2022). We collect and geolocate Italian churches from *Censimento delle Chiese delle Diocesi italiane*. Information

[10] comuni-italiani.it, santodelgiorno.it and wikipedia.org.

on Italian bishops are from the official website of the Italian Episcopal Conference (www.chiesacattolica.it/vescovo) and from the online repository Catholic Hierarchy (www.catholic-hierarchy.org). Finally, for the analyses in Section 6.2, we use four waves of survey data (2001, 2006, 2008, 2013) from ITANES, as well as administrative records of tax donations (*5xMille*) from the Italian Tax Authority (available here), and data on school enrollment from the Italian Ministry of Education (dati.istruzione.it). Descriptive statistics for the variables that we will use as outcomes in our analyses are in Table A.5.

4 Empirical Strategy

4.1 Identification Strategy

The main goal of this paper is to assess whether electing a religious mayor – as proxied by her name – increases the amount of funds spent by the Church in a given municipality. Clearly, the presence and the success of religious candidates depend on many observable and unobservable features of a municipality, that may in turn affect the amount of Church's investments it receives. One obvious such confounder is the overall level of religiosity among the population, which is likely to increase the supply of religious candidates, boost their electoral performance, while also increasing Church's investments in the municipality.

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, religiosity. Our regression equations have the form:

$$\begin{aligned} Log(8xMillePC)_{i,t} = \beta ReligiousMayor_{i,t} + \gamma f(Margin)_{i,t} + \\ +\lambda(ReligiousMayor \cdot Margin)_{i,t} + \theta Z'_{i,t-1} + \psi X'_{i,t-1} + \tau_t + \phi_p + \epsilon_{i,t}, \end{aligned} \tag{1}$$

The parameter of interest is β, i.e., the effect of electing a religious mayor on the

log per-capita 8xMille funds received 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 religious candidate $(Margin_{i,t})$, thus comparing municipalities where she narrowly won with those where she narrowly lost. Equation (1) also has diocese fixed effects (ϕ_p) and election-year fixed effects (τ_t), so it compares municipalities close to the cutoff within the same diocese[11], holding elections in the same year.

The vectors $Z_{i,t-1}$ and $X_{i,t-1}$ contain pre-election characteristics of the previous mayor and the municipality,[12] respectively. Finally, $f(Margin_{i,t})$ is a polynomial in the margin of victory of the most voted religious candidate, also interacted with the indicator for she winning the election $(ReligiousMayor_{i,t})$. Throughout the paper, we present results using a linear polynomial approximation. The results with a quadratic polynomial approximation are presented in the Appendix. The size of the bandwidth around the cutoff is 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.

4.2 Identification Checks

Threats to internal validity can be classified in two groups: standard threats to RDD, and possible compund effects and compensating differentials (Sekhon and Titiunik, 2012, Marshall, 2022). The main assumption is that municipalities where a religious candidate slightly won against a non-religious candidate are comparable to municipalities where a religious candidate slightly lost against a non-religious candidate. To assess whether this is likely to hold, Figure A.4 presents the results from estimating Equation (1) 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

[11] As of 2023, there are 226 dioceses and 107 provinces in Italy.
[12] Log population, area, latitude, longitude, mayor's age, mayor's gender.

below. Also, the margin of victory of the best-performing religious candidate shows no jumps around 0, as confirmed by the formal test proposed by Cattaneo et al. (2018), displayed in Figure A.5.

On top of evaluating these standard RDD assumptions, we test for an additional identifying condition which is specific to PCRD designs. Namely, as recommended by Sekhon and Titiunik (2012) and Marshall (2022), we verify that religious mayors are not significantly different from non-religious mayors along other dimensions. This is needed to make sure that $\hat{\beta}$ from Equation (1) is isolating the effect of electing a religious mayor, without conflating the effects of other potentially correlated characteristics. To test for it, Figure A.6 displays the results of estimating Equation (1) using as outcome each of seven mayoral attributes other than religiosity. Only one outcome is unbalanced: narrowly elected religious mayors are more likely to be above the median of the age distribution. To assess whether this affects our identification, we check whether this age differential matters for our outcome of interest. Table A.6 in the Appendix shows RDD estimates of the effect of narrow victories of above-median age candidates on Church's spending. Reassuringly, all the coefficients are small and insignificant. Given these checks, we are confident in interpreting $\hat{\beta}$ from Equation (1) as the effect of electing a religious mayor on Church's spending in a municipality.

5 Results

5.1 Mayors' Religiosity and Church's Investments

Table 1 displays estimates of $\hat{\beta}$ from six variants of Equation (1). Across all specifications, the results show that municipalities that narrowly elected a religious mayor receive more 8xMille funds per capita than those where a religious candidate narrowly lost. According to our preferred specification – column (3), which uses a first-order polynomial and includes the full set of fixed effects and controls – electing a religious mayor increases the log amount of religious funds by 0.40, or 0.26 standard deviations. In columns from

(4) to (6), we use the amount of funds per capita as dependent variable. In our preferred specification, narrowly electing a religious mayor increases Church's spending by 15.46 euros per capita, i.e., it basically doubles the baseline per-capita investments of the Church in the average municipality to the left of the cutoff (which recevies 16.78 euros per inhabitant). Table A.7 in the Appendix shows that the effect plays out also on the extensive margin: A religious mayor increases the probability of her municipality hosting at least one project by 9 percentage points, or 0.22 standard deviations (column 6).

Table 1: Religious Mayors and Church's Spending

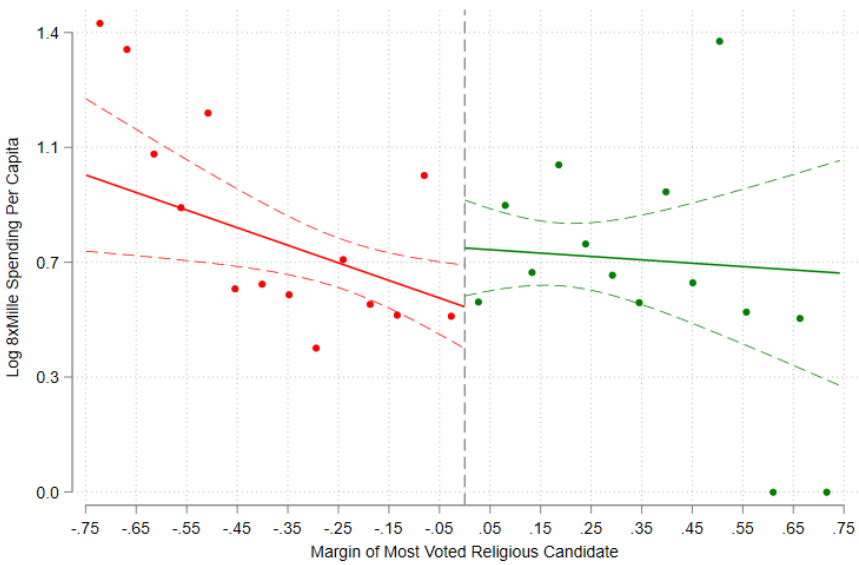
	8xmille per capita (Log)			8xmille per capita		
Religious Mayor	0.33*	0.40**	0.40**	13.48**	14.80***	15.46***
	(0.17)	(0.18)	(0.18)	(5.49)	(5.53)	(5.51)
Mean Depvar	0.68	0.75	0.70	15.88	16.50	16.78
SD Depvar	1.53	1.60	1.55	65.27	66.76	67.44
Observations	1885	1858	1857	1885	1858	1857
Effective Obs. (Left)	290	294	290	345	321	314
Effective Obs. (Right)	283	285	284	326	314	305
Bandwidth	.1	.11	.1	.12	.12	.11
Fixed Effects	YES	YES	YES	NO	YES	YES
Mayor Controls	NO	YES	YES	NO	YES	YES
Municipality Controls	NO	NO	YES	NO	NO	YES

Notes: RDD estimates of β from Equation (1), with linear polynomial fit, triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: Log population, area, latitude, longitude, gender of the mayor, age of the mayor, year FEs and diocese FEs. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

A representation of the effect is in Figure 3, which shows a jump in the log 8xMille funds per capita at the cutoff. To shed more light on this result, we conduct some additional tests. First, in Panel A of Figure 4, we decompose the effect by type of project. This decomposition reveals that the effect is mainly concentrated on pastoral projects, that is, interventions to construct or renew buildings and infrastructure owned by the Catholic Church (see Section 3.2). By way of contrast, the plot documents a much smaller increase

in the funding of religious charity projects. Here, it is important to note that charity interventions are much less frequent and much less generous than pastoral projects — 71 cents against 14.7 euros per capita in our effective RD sample, see Table A.5 — so we may simply be underpowered to detect an effect at such a small scale.

Figure 3: Religious Mayors and Church's Spending, RDD Plot



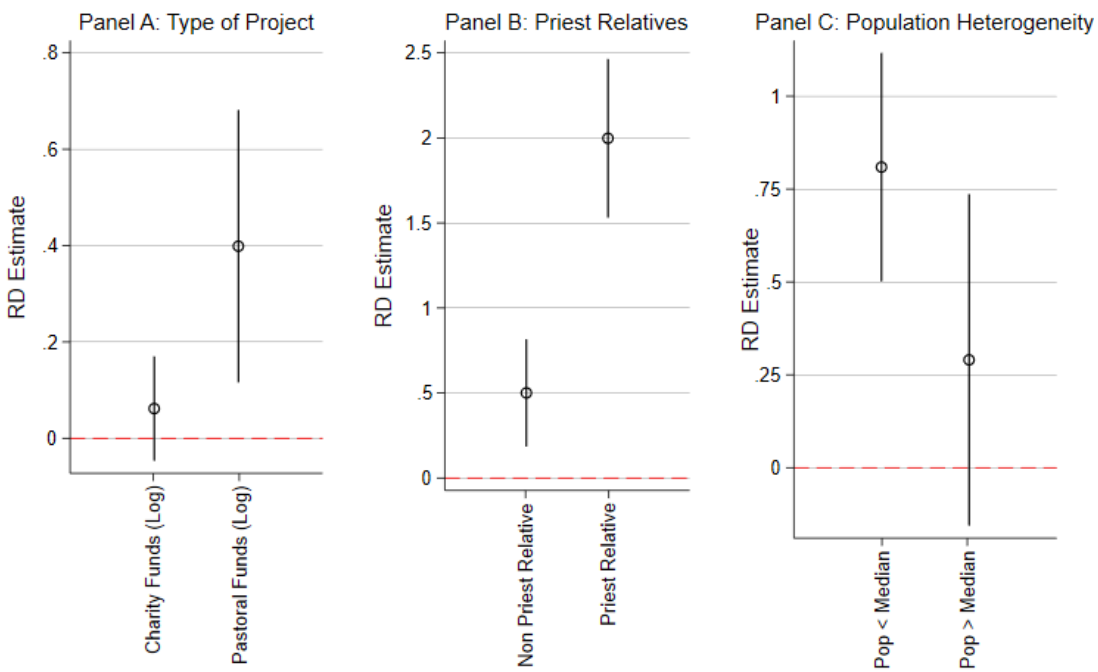
Notes: Each dot is the log 8xMille funds per capita invested in municipality i over term t, for a given bin of margin of victory of the most voted religious candidate. The solid lines are linear polynomials in the margin of victory of the best-performing religious candidate, fitted separately on each side of the cutoff. The dashed lines are 90% confidence intervals.

On top of decomposing the baseline effect by type of project, we also inquire how contextual factors may foster the increase in Church's investments. As a first exercise, we use our novel data set of Italian priests (see Section 3.4) to explore the role of personal connections between religious mayors and the local clergy. To do so, we re-estimate Equation (1) separately for mayors who share the last name with at least one priest within their diocese of residence and mayors who do not match the last name with any priest. Panel B of Figure 4 suggests that these (proxied) family ties have a role in driving Church's investments. Indeed, the effect of narrowly electing a religious mayor on the log of 8xMille funds per capita is about four times bigger when the mayor matches the

last name of at least one priest in the local clergy.

To further dig into the role of personal connections, we also re-estimate Equation (1) for municipalities below and above the median population[13], as connections to the local clergy are likely to be stronger in smaller municipalities. Panel C of Figure 4 confirms the intuition. The effect on Church's funds per capita is mainly driven by municipalities with a population below the median, where acquaintances between politicians and religious leaders should be more solid.

Figure 4: Religious Mayors and Church's Spending, Heterogeneities



Notes: RDD estimates of β from Equation (1). The dependent variable is the log of the 8xMille funds per capita invested in municipality i during term t. Vertical bars are 90% confidence intervals, based on robust, bias-corrected standard errors clustered at the municipality level.

5.2 Placebo and Robustness Checks

In this section we discuss a battery of robustness tests aimed at reinforcing the causal interpretation of the estimates in Table 1. First, we re-estimate our RDD regressions, but

[13] 3,150 inhabitants.

using as outcome the amount of per-capita 8xMille expenditures in the term *prior* to the election of a religious mayor. The aim of this test is to verify that religious mayors do not systematically win close elections in towns where the Catholic Church had already been allocating more resources. Table A.8 in the Appendix shows that this is not the case, corroborating the idea that our main results gauge the effects of electing a religious mayor, rather than simply picking up the continuation of existing spending patterns.

Second, we test the robustness of the results to the use of a weighted version of our name-based index for candidates' religiosity. In short, this entails moving from a binary to a continuous measure of religiosity, whereby individuals sharing the name of the patron saint are assigned a religiosity score that decreases with the frequency of that name among the lists of mayoral candidates or 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 infrequent names are in Table A.2.1. Reassuringly, repeating our RDD giving more weight to candidates with less frequent patron names does not change the direction and significance of the coefficients while increasing the magnitudes, as shown in Tables A.9 and A.10. In a similar vein, we also replicate Table 1 using only mayoral candidates with names above the median value of the religiosity index. Tables A.11 and A.12 display the results. The coefficients of interest are between 3 and 6 times bigger, and always statistically significant at the 1% level.

Third, in Table A.13, we show that our results are robust to the inclusion of fixed effects at the municipality rather than the diocese level. Fourth, we implement a battery of sensitivity tests related to the RDD algorithm. Table A.14 shows that the coefficients are largely robust to the use of a uniform kernel. Next, Table A.15 shows that our conclusions stand when using a Coverage Error Robust (CER) algorithm for bandwidth selection (Calonico et al., 2020). Figure A.7 re-estimates Equation (1) using 13 different bandwidth sizes, both smaller and larger than those selected by the algorithm in Table 1. Reassuringly, the estimate of the treatment effect remains positive and statistically significant across all replicates. Table A.16 performs the estimation with a second-degree

polynomial. Coefficients are positive and very close to the ones shown in the main analysis. Figure A.8 uses different placebo cutoffs. The graph shows that about 80% of the results using different cutoffs, ranging from -15 to 15 percentage points of the vote share, are not significant. Last, to make sure that the coefficients are not driven by a handful of observations, Figure A.9 shows that the estimate of the treatment effect remains consistent regardless of which region (Panel A) or which election year (Panel B) is excluded from the sample.

Finally, we run two tests to make sure that the results do not hinge on the choices made when constructing our index for individual religiosity. Reassuringly, the estimates remain stable when: *(i)* Re-defining as "not religious" female candidates with the feminine correspondent of a male's patron name (Table A.17); *(ii)* Defining candidates as "religious" only if their name matches the name of the patron saint of their birthplace, not of the patron of the municipality they run for (Table A.18).

5.3 Alternative Explanations

We posit that the increase in religious funds documented in Table 1 is due to the religiosity of the sitting mayor. In this section, we evaluate two alternative explanations for our main result.

First, besides religiosity, sharing the name of the patron saint could imply a stronger attachment to one's birthplace. This may push a mayor to exert more effort in searching for funds to finance local public goods, including lobbying for Church's investments. To test for this possibility, we identify the first name that is most specific to each municipality — while not being the name of its patron — using phone directories collected from ancestry.com. To do so, we calculate how much a name is widespread in municipality i with respect to its overall frequency at the national level (see details in Section A.1.3 in the Appendix). We then gauge the effect of electing a mayor with the most typical name in municipality i using the RDD framework of Equation (1). Reassuringly, as shown in Table A.19, electing candidates with municipality-specific names does not significantly

affect the amount of 8xMille funds received.

Relatedly, the coefficients in Table 1 could be due to religious mayors being more skilled at attracting any type of funds, not only religious investments. To check for this possibility, we collect data on European Union funds, governmental transfers, and taxpayers' donations to municipalities during our sample period, and use them as outcomes in Equation (1). Tables from A.20 to A.22 show that the narrow election of a religious mayor has no effects on each of these three sources of external funding.

6 Mechanisms

6.1 Electoral Motives

We begin by evaluating whether the increase in investments by the Catholic Church is based on electoral considerations. Under this scenario, the aim of the Church is to allocate money so as to favor the re-election of mayors with a religious background. Religious organizations have indeed been shown to be powerful electoral mobilizers, that can activate both material and non-material resources to favor their preferred candidates on election day (Tuñón, 2020, Pulejo, 2022, Lanzara et al., 2023, Solá, 2024).

We test for this possibility by means of two complementary exercises. First, we exploit the existence of binding term limits for Italian mayors,[14] and re-estimate Equation (1) separately for municipalities whose sitting mayor can run for re-election and municipalities with a term-limited mayor. If funding decisions are motivated by political considerations, one would expect re-eligible religious mayors to drive the baseline effect, as receiving more funds might help these mayors secure re-election. Figure A.10 shows that this is not the case. The positive effect at the RDD cutoff is present for all mayors. If anything, the RDD coefficient is larger for mayors who can not run for re-election. To further corroborate this idea, we estimate Equation (1) using the probability

[14]Italian mayors can stay in office for up to two consecutive terms, so that mayors in their second term face a binding term limit at the end of their mandate. Starting in 2014, the number of maximum consecutive terms was increased to three for the mayors of municipalities below 3,000 residents.

of being reelected as the dependent variable. Table A.23 shows that religious mayors do not have a higher probability of being reelected.

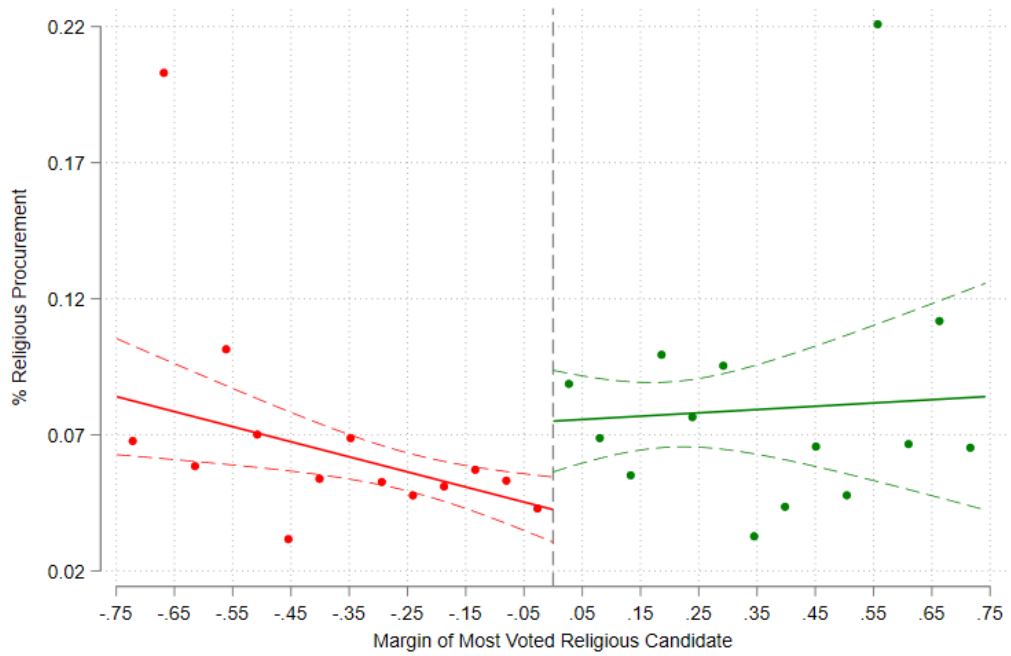
Relatedly, if the Church is funneling money to favor the re-election of religious mayors, one would expect the observed increase in 8xMille investments to follow the municipal electoral cycle. Yet, as shown in Panel A of Figure A.12, the effect is remarkably stable and almost identical in magnitude between the first and the second half of the mayoral term. In other words, there is no evidence that the Catholic Church strategically increases its investments as the next mayoral election approaches.

6.2 Complementarities with Municipal Spending

As outlined in Section 2, a prominent potential mechanism is that religious politicians and religious institutions may co-finance the production of religious public goods. The assumption is that religious mayors, given their cultural background, may be more inclined than their colleagues to complement Church's investments with public spending, thereby increasing the marginal productivity of the Church's investments.

To assess whether this is the case, we re-estimate Equation (1), using as outcome the share of procurement expenditures for religious goods by municipality i over term t (details on the construction of this variable are in Section 3.3). Before turning to regression results, Figure 5 plots the distribution of this variable around the RDD cutoff. The plot suggests that municipalities narrowly electing a religious mayor increase the share of resources devoted to the purchase of religious goods and services.

Figure 5: Religious Mayors and Procurement Spending for Religious Goods and Services



Notes: Each dot is the share of procurement expenditures by municipality i over term t purchasing religious goods or services, for a given bin of margin of victory of the most voted religious candidate. The solid lines are linear polynomials in the margin of victory of the best-performing religious candidate, fitted separately on each side of the cutoff. The dashed lines are 90% confidence intervals.

To more systematically inquire this relationship, Table 2 provides estimates of β from Equation (1), using the share of procurement for the purchase of religious goods and services as the outcome. All the specifications confirm the insights from the RDD plot: The share of money allocated to religious procurement increases by between 6 and 7 percentage points to the right of the cutoff. Given a baseline share of 5%, this essentially means that religious mayors more than double the percentage of procurement expenditures for religious goods and services.

To better characterize this result, and to evaluate whether it may reflect the hypothesized co-production dynamics, we run two additional tests. First, Figure A.13 shows the effects for subsets of religious goods and services. This decomposition reveals that the baseline effect is driven by expenditures on education, an area that is often characterized by co-production dynamics between public and religious institutions (Yohalem et al., 2010, Kataoka and Vandell, 2013). Interestingly, religious mayors *decrease* mu-

nicipal spending on religious welfare services, for which we also found no significant increases in 8xMille investments by the Catholic Church (see Figure 4, Panel A).

Table 2: Religious Mayors and Procurement Spending for Religious Goods and Services

	% Religious Procurement		
Religious Mayor	0.06***	0.06***	0.07***
	(0.02)	(0.02)	(0.02)
Mean Depvar	0.05	0.05	0.05
SD Depvar	0.09	0.09	0.09
Observations	1117	1092	1029
Effective Obs. (Left)	191	191	271
Effective Obs. (Right)	189	187	253
Bandwidth	.12	.13	.19
Fixed Effects	YES	YES	YES
Mayor Controls	NO	YES	YES
Municipality Controls	NO	NO	YES

Notes: RDD estimates of β from Equation (1), with triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

Next, we inquire the dynamics of the increase in religious procurement throughout a mayoral term. As shown in Figure A.12, Panel B, the dynamics closely mirror those found for the increase in Church's investments. In fact, the increase is strong and remarkably stable throughout the term. Therefore, the Catholic Church and the municipal administration appear to simultaneously and persistently boost their financial efforts toward increasing the provision of religious goods and services in the municipality.

7 Effects on Citizens' Attitudes and Behavior

Overall, the analyses presented in Sections 5.1 and 6.2 show that the election of a religious mayor triggers a substantial increase in the provision of religious goods and services within a community. This boost is the result of a co-production effort, whereby

higher investments by the Catholic Church are met with more generous spending for religious goods and services by the municipal administration.

A natural question is whether this richer set of religious assets induces citizens to develop a stronger attachment to their provider, i.e., the Catholic Church. Such a dynamic would be consistent with long-standing theoretical literature on religious markets, suggesting that the club nature of religious goods will determine a higher attachment to religious institutions when the offer of such goods is richer (Azzi and Ehrenberg, 1975, Iannaccone, 1992, 1998, Huber and Stanig, 2011, Iyer, 2016, Carvalho, 2019). While theoretically grounded for decades, this intuition has thus far been tested empirically only for the United States. (Bentzen and Sperling, 2020).

We test for this using three proxies for the religious attachment of citizens within the context of our study, which allow us to capture both attitudinal and behavioral effects. The first measure comes from four consecutive waves (2001, 2006, 2008, 2013) of ITANES, a large, representative survey of the Italian population that has been conducted before each general election since 1968. To gauge respondents' attachment to religion, we use the item asking "*How important is religion in your life?*" on a discrete scale from 1 to 4. Since ITANES does not cover enough municipalities to adopt an RDD, we exploit the panel structure of the data and fit two-way fixed effect models of the form:

$$Importance_{i,j,t} = \rho ReligiousMayor_{j,t} + \lambda X'_{i,t} + \alpha_t + \delta_j + \epsilon_{i,j,t}, \tag{2}$$

via OLS. The parameter of interest is ρ, the differential perceived importance of religion for respondent i from municipality j in years in which her municipality is governed by a religious mayor, holding constant respondents' demographics ($X_{i,t}$). Standard errors are clustered by municipality-term, the level at which the treatment — having a religious mayor — is assigned.

Table 3 reports estimates of ρ for four different specifications of Equation (2). All models concur in showing that — when their municipality is led by a religious mayor — respondents perceive religion to be a significantly more important component of their

lives. The effect is about a quarter of a point on the 1-4 scale provided. Benchmarked against the sample mean of 2.96, the coefficient in Column (4) thus amounts to an 8.1% increase in the perceived importance of religion for the average respondent. In the Appendix (Table A.24) we show that these results are robust to the use of the DID_M estimator proposed by De Chaisemartin and d'Haultfoeuille (2020) to take into account issues generated by heterogeneous treatment timing within difference-in-differences settings.

Table 3: Religious Mayors and Perceived Importance of Religion, TWFE Estimates

	Importance of Religion			
Religious Mayor	0.23***	0.22***	0.24**	0.24**
	(0.06)	(0.07)	(0.11)	(0.10)
Mean Depvar	2.96	2.96	2.96	2.96
SD Depvar	0.91	0.91	0.91	0.91
Observations	11626	11626	10422	10418
Year Fixed Effects	NO	YES	YES	YES
Municipality Fixed Effects	NO	NO	YES	YES
Controls	NO	NO	NO	YES

Notes: The dependent variable is measured on a discrete scale from 1 to 4. Controls: respondent's gender, age, age squared. Robust standard errors in parentheses, clustered at the municipality-term level. *** p<0.01, ** p<0.05, * p<0.10.

Does this attitudinal shift translate into a change in socioeconomic behavior? To answer this question, we employ two sets of relevant behavioral outcomes for which municipality-year data are available during our sample period. The first is the donation of 0.5% of income (known as "*5xMille*") that each taxpayer must make every year. Namely, when filing her tax declaration, Italian citizens can choose from a long list of third-sector organizations, several of which are in the orbit of the Catholic Church. After gathering and digitizing the universe of donation data (2006-2022), we manually code religious associations based on their names and our own knowledge. This results in the identification of 9,953 religious NGOs (9.37% of all the NGOs in the data), operating in 3,149 unique municipalities.

As a second behavioral outcome, we consider the choice between secular and reli-

gious schooling, which can be consequential for both individual attitudes and human capital accumulation (Becker et al., 2024). We use administrative records on school enrollment from the Italian Ministry of Education, which are available for the years 2015-2021. Since the data does not report whether a school is run by the Catholic Church, we employ the same approach used for the donation records, and manually code religious schools based on their names.[15] This way, we identify 6,449 religious schools (8.7% of all schools), located in 2,186 unique municipalities.

With this two novel data sets at hand, for each municipality at each term, we compute the share of donations accruing to religious NGOs over the total amount of donations, and the share of students enrolled in religious schools. We then use the first difference of these shares as outcomes in the RDD framework of Equation (1). The results of this exercise are reported in Table 4.

Table 4: Religious Mayors and Citizens' Religiosity, RDD Estimates

	% Religious Students			% Donations Relig. NGOs		
Religious Mayor	0.00**	0.01***	0.01***	0.09***	0.06**	0.05
	(0.00)	(0.00)	(0.00)	(0.03)	(0.03)	(0.03)
Mean Depvar	-0.00	-0.00	-0.00	-0.04	-0.04	-0.04
SD Depvar	0.01	0.00	0.00	0.19	0.19	0.19
Observations	339	333	280	727	709	649
Effective Obs. (Left)	55	40	31	101	101	98
Effective Obs. (Right)	58	42	28	92	96	90
Bandwidth	.13	.09	.08	.09	.1	.1
Fixed Effects	YES	YES	YES	YES	YES	YES
Mayor Controls	NO	YES	YES	NO	YES	YES
Municipality Controls	NO	NO	YES	NO	NO	YES

Notes: The dependent variables are the first difference between term t and term $t-1$ of the share of students enrolled in religious schools (columns 1 to 3) and of the share of donations accruing to religious NGOs (columns 4 to 6). The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: log of population, area, latitude, longitude, gender of the mayor, age of the mayor, year FEs and diocese FEs. Robust, bias-corrected standard errors in parentheses, clustered at municipality level. *** p<0.01, ** p<0.05, * p<0.10.

[15]For both NGOs and schools, the number we code as religious is probably a lower bound, since some may be of Catholic inspiration while not featuring words related to religion in their names, while the opposite is less likely to happen. These false negatives will induce some attenuation bias into our estimates.

For both sets of outcomes, the estimates show that the election of a religious mayor significantly boosts citizens' attachment to the Catholic Church. Namely — columns from (1) to (3) — the share of children enrolled in religious schools increases by about 1 percentage point, a 17% raise from a baseline of 6%. On the other hand — columns from (4) to (6) — the share of donations to religious NGOs increases by between 5 and 9 percentage points.

Overall, the results in this section concur in indicating that — besides relevant changes in the allocation of both municipal and Church's investments — the election of a religious mayor produces a significant shift in the attitudes and behaviors of the members of her community. This suggests that, amidst a generalized decline in religiosity across Western societies, the delegation of executive power to religious individuals may significantly slow down secularization, at least at the local level. Interestingly, the concurrent positive effects on both perceived importance of religion and charitable giving to religious organizations imply that — different from other contexts (Gruber, 2004, Andreoni and Payne, 2003, 2011) — increasing public spending for religious institutions does not crowd out attendance and private donations.

8 Discussion and Conclusion

This paper studies whether and how incumbent politicians' religiosity drives the investments of religious institutions. Our novel approach proxies for the religiosity of 85,358 Italian mayoral candidates for the period 1995-2020, by matching their names to the name of the patron saint of their municipality. We then use a regression discontinuity design in close elections to gauge the effects of narrowly electing a mayor named after the local patron saint. Using data on 13,111 development projects by the Italian Catholic Church, we find that electing a religious mayor essentially doubles Church's investments in a municipality, increasing them by about 15 euros per capita.

This choice by the Catholic Church is likely motivated by efficiency considerations.

In fact, we find that religious mayors significantly increase the share of procurement used to purchase religious goods and services, thus raising the marginal returns of Church's investments within their jurisdictions. These co-production dynamics ultimately produce sizable effects on citizens' attitudes and behavior. Namely, they significantly boost the perceived importance of religion, and raise the propensity to enroll children in religious schools and to donate money to religious NGOs.

Our findings are an important complement to several strands of scholarship in political economy and the economics of religion. In particular, we are among the first to document that — when they are ideologically aligned — secular and religious leaders may collaborate toward the production of specific public goods, rather than competing over it. Thus far, extant work had only focused on how politicians may increase the provision of religious public goods to compensate religious leaders for electoral mobilization (Troncone and Valli, 2024).

Furthermore, our results on the effects of electing religious politicians on citizens' religiosity show that delegating power to religious individuals may have tangible socioeconomic consequences. Over the medium to long term, these effects may significantly slow down secularization, and contribute to endure the cultural influence and financial stability of religious institutions.

Finally, while providing important new insights on the potential for economic collaboration between politicians and religious authorities, some of our findings also raise new questions for future scholarship. For instance, the heterogeneity analyses suggests that the extent of this co-operation might depend on both personal and contextual factors, such as the degree of personal acquaintance between politicians and religious leaders. Future work should thus try to unpack what components of a politician's religious background are key to granting her a privileged channel of collaboration with religious authorities. This is particularly interesting given that an individual's religiosity typically shapes both her spiritual values and life experiences — especially in her early years — building personal connections that can significantly affect her choices in her professional

or political career.

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A Appendix

A.1 Additional Tables

Table A.1: Mayor's Religiosity and Likelihood of Having Relatives in Diocesan Clergy

	Priests Relatives >0			Priests Relatives (Log)		
Religious Mayor	0.07	0.16***	0.17***	0.07	0.15***	0.16***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.05)
Mean Depvar	0.15	0.16	0.15	0.13	0.13	0.13
SD Depvar	0.35	0.37	0.36	0.37	0.34	0.34
Observations	1697	1697	1697	1697	1697	1697
Effective Obs. (Left)	310	224	238	324	244	249
Effective Obs. (Right)	295	228	246	301	249	250
Bandwidth	.12	.09	.09	.13	.1	.1
Fixed Effects	YES	YES	YES	YES	YES	YES
Mayor Controls	YES	YES	YES	YES	YES	YES
Municipality Controls	YES	YES	YES	YES	YES	YES
Weights	No	Ancestry Pop.	Mayors Pop.	No	Ancestry Pop.	Mayors Pop.

Notes: RDD estimates of β from Equation (1), with triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). In columns from (1) to (3), the dependent variable is an indicator for the mayor sharing the same last name with at least one member of the clergy of her diocese. In columns from (4) to (6), the dependent variable is the log number of members of the diocesan clergy with whom the mayor shares the last name. The mean and standard deviation of the dependent variables are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

Table A.2: Mayor's Religiosity and Likelihood of Following the Pope on X

	Pope Follower		
Religious Candidate	0.12*	0.08	0.14*
	(0.07)	(0.08)	(0.07)
# Following Accounts			0.00***
			(0.00)
# Following Account Squared			-0.00***
			(0.00)
Sex of Candidate			0.04
			(0.05)
Observations	484	482	429
Controls	NO	NO	YES
Fixed Effects	NO	YES	YES

Notes: All models are estimated via OLS. In all columns, the dependent variable is an indicator for the mayor following the Pope's account (@Pontifex) on X. Robust standard errors in parentheses. Fixed effects include year and region FEs. *** $p<0.01$, ** $p<0.05$, * $p<0.10$.

Table A.3: Mayor's Religiosity and Likelihood of Mentioning Religious Activities in CV

	Religious CV		
Religious Mayor	0.04	0.08**	0.08*
	(0.03)	(0.05)	(0.05)
Sex Mayor (Dummy)			0.00
			(0.02)
Age Mayor			-0.00
			(0.00)
Native Mayor (Dummy)			0.02
			(0.02)
Observations	908	866	860
Fixed Effects	NO	NO	YES
Controls	NO	YES	YES

Notes: All models are estimated via OLS. In all columns, the dependent variable is an indicator for the CV of the mayor mentioning at least one religious activity. Standard errors in parentheses, clustered at region level. Fixed effects include year and diocese FEs. *** $p<0.01$, ** $p<0.05$, * $p<0.10$.

A.1.1 Municipality-Level Validation of Index for Individual Religiosity

To further validate our patron-based religiosity measure, we collect a number of municipal-level proxies for religiosity:

- Number of churches per capita in the municipality.
- Share of candidates with religious names according to the Andersen-Bentzen index.
- Share of candidates with highly religious names according to the Andersen-Bentzen index (score above median).
- Share of children attending Religion in schools in the year 2018-2019.

Table A.4 shows correlations between these municipal proxies for religiosity and the prevalence of candidates sharing the name of the patron saint. As the proxies listed above have little variation over time, we correlate them with a cross sectional version of our index. Namely, we code an indicator equal to 1 if the municipality has one or more mayoral candidates sharing the patron's name in at least one of the elections in our sample, and 0 otherwise. Correlations are positive and statistically significant across all four proxies for municipal religiosity. The patron saint dummy strongly correlates with churches per capita, share of children attending religion in schools and, most importantly, both versions of the Andersen-Bentzen Index.

Table A.4: Presence of Candidates with Patron's Name and Municipal Religiosity

	Log Churches p.c.	Bentzen Rel. Name	Bentzen High Rel. Name	Share Rel. Children
Patrono Dummy	0.017*	0.055***	0.035***	0.018*
	(0.00)	(0.01)	(0.01)	(0.00)
Population (Log)	-0.468***	0.193***	0.246***	-0.319***
	(0.00)	(0.00)	(0.01)	(0.00)
Area (Log)	0.252***	0.092***	0.091***	0.019
	(0.00)	(0.00)	(0.01)	(0.00)
Right Wing Mayors	0.077**	0.154***	0.189***	-0.000
	(0.00)	(0.07)	(0.14)	(0.02)
Income p.c. (Log)	0.024	0.030	0.045*	0.097***
	(0.00)	(0.02)	(0.05)	(0.01)
Latitude	2.348	0.120	-1.682	-0.401
	(0.00)	(0.00)	(0.00)	(0.00)
Longitude	0.794	0.200	-0.066	0.312
	(0.00)	(0.00)	(0.00)	(0.00)
Latitude*Longitude	-3.075	-0.162	1.441	0.435
	(0.00)	(0.00)	(0.00)	(0.00)
Observations	7,628	7,628	7,628	7,628
Fixed Effects	Province	Province	Province	Province

Notes: All models are estimated via OLS. Standard errors in parentheses, clustered at the province level. *** $p<0.01$, ** $p<0.05$, * $p<0.10$.

Table A.5: Summary Statistics, Whole and Effective RDD Sample

	Whole Sample		Effective Sample	
Variable	Mean	SD	Mean	SD
8xMille per capita	15.52	100.30	15.39	60.17
Charity 8xMille per capita	0.64	14.14	0.71	6.11
Pastoral 8xMille per capita	14.88	98.63	14.69	59.63
Share Procurement	0.06	13.67	0.06	13.13
Share Religious Festivals Contracts	0.44	0.35	0.45	0.34
Share Religious Education Contracts	0.05	0.13	.05	0.14
Share Religious Welfare Contracts	0.23	0.33	0.25	0.33
Religious Margin	-3.53	32.74	-3.53	32.74
Surface (km^2)	36.83	50.07	46.23	66.57
North	0.49	0.49	0.32	0.47
Center	0.27	0.44	0.19	0.39
South	0.24	0.43	0.48	0.49
Population	7,406.95	41,340	9603.32	38680
EU Funds p.c.	184.16	650.19	261.48	690.87
State Funds p.c.	1,131.15	970.45	1,177.28	999.79
% Donations Religious 5xmille	10.01	22.53	10.34	23.40
% Enrollment Religious Schools	0.60	3.55	0.56	2.81

Notes: Observations are at the municipality-election year level. The whole sample comprises 1,885 observations, i.e., all elections in which at least one religious candidate competed. The effective RD sample only includes the 616 observations employed in the regression of Table 1, column (6).

Table A.6: Mayor's Age and 8xMille Funds, RDD Estimates

	8xmille per capita (Log)			8xmille per capita		
Religious Mayor	0.06	0.05	0.05	-0.69	-0.88	-0.91
	(0.07)	(0.07)	(0.07)	(4.75)	(4.78)	(4.76)
Mean Depvar	0.69	0.69	0.69	13.45	13.35	13.32
SD Depvar	1.51	1.51	1.50	57.82	57.61	57.55
Observations	23713	23446	23437	23715	23448	23439
Effective Obs. (Left)	4525	4825	4641	5103	5096	5122
Effective Obs. (Right)	4428	4678	4513	4953	4932	4951
Bandwidth	.15	.17	.16	.18	.18	.18
Fixed Effects	YES	YES	YES	YES	YES	YES
Mayor Controls	NO	YES	YES	NO	YES	YES
Municipality Controls	NO	NO	YES	NO	NO	YES

Notes: RDD estimates of β from Equation (1), with triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). The running variable is the difference between the vote share of the most voted candidate with an age above the sample median for all candidates and the vote share of the most voted candidate with an age below the sample median for all candidates. The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

Table A.7: Mayor's Religiosity and Likelihood of Hosting 8xMille Projects

	8xmille (Extensive Margin)		
Religious Mayor	0.07	0.10**	0.09**
	(0.05)	(0.05)	(0.04)
Mean Depvar	0.20	0.20	0.20
SD Depvar	0.40	0.40	0.40
Observations	1885	1858	1857
Effective Obs. (Left)	306	297	303
Effective Obs. (Right)	290	287	291
Bandwidth	.11	.11	.11
Fixed Effects	YES	YES	YES
Mayor Controls	YES	YES	YES
Municipality Controls	YES	YES	YES

Notes: RDD estimates of β from Equation (1), with triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). In all models, the dependent variable is an indicator for the Church starting at least one 8xMille project in municipality i during term t. The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

Table A.8: Mayor's Religiosity and 8xMille Spending in Previous Term

	8xmille per capita Lag (Log)			8xmille per capita Lag		
Religious Mayor	-0.01	-0.11	-0.23	1.47	-5.71	-4.52
	(0.22)	(0.22)	(0.23)	(9.25)	(9.28)	(9.25)
Mean Depvar	0.94	0.92	0.94	26.13	23.69	25.91
SD Depvar	1.77	1.77	1.77	84.70	80.22	84.37
Observations	1251	1223	1171	1251	1223	1171
Effective Obs. (Left)	250	250	235	229	249	217
Effective Obs. (Right)	197	198	187	186	196	178
Bandwidth	.12	.13	.12	.11	.12	.12
Fixed Effects	NO	YES	YES	YES	NO	YES
Mayor Controls	NO	YES	YES	YES	NO	YES
Municipality Controls	NO	YES	YES	YES	NO	YES

Notes: RDD estimates of β from Equation (1), with triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

Table A.9: Mayor's Religiosity and 8xMille Spending, Robustness to Re-Weighting Index by Names' Frequency in Phone Directories

	8xmille per capita (Log)			8xmille per capita		
Religious Mayor	0.30	0.40*	0.40**	22.40***	24.06***	23.25***
	(0.21)	(0.21)	(0.20)	(5.78)	(5.89)	(5.84)
Mean Depvar	0.63	0.62	0.64	12.98	13.81	12.79
SD Depvar	1.47	1.46	1.49	61.78	62.56	61.20
Observations	1885	1858	1857	1885	1858	1857
Effective Obs. (Left)	270	267	273	253	255	251
Effective Obs. (Right)	273	272	273	255	259	257
Bandwidth	.09	.1	.1	.09	.09	.09
Fixed Effects	YES	YES	YES	YES	YES	YES
Mayor Controls	NO	YES	YES	NO	YES	YES
Municipality Controls	NO	NO	YES	NO	NO	YES
Weights	Ancestry Pop.	Ancestry Pop.	Ancestry Pop.	Ancestry Pop.	Ancestry Pop.	Ancestry Pop.

Notes: RDD estimates of β from Equation (1), with 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 name in a municipality, according to the phone directories collected by ancestry.com. The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

Table A.10: Mayor's Religiosity and 8xMille Spending, Robustness to Re-Weighting Index by Names' Frequency among Mayoral Candidates

	8xmille per capita (Log)			8xmille per capita		
Religious Mayor	0.13	0.24	0.23	14.90**	15.86***	14.26**
	(0.21)	(0.21)	(0.20)	(5.95)	(6.02)	(5.95)
Mean Depvar	0.61	0.63	0.63	13.34	13.08	12.98
SD Depvar	1.44	1.48	1.48	63.53	62.01	61.78
Observations	1885	1858	1857	1885	1858	1857
Effective Obs. (Left)	254	255	262	238	244	246
Effective Obs. (Right)	256	259	269	242	248	253
Bandwidth	.09	.09	.09	.08	.09	.09
Fixed Effects	YES	YES	YES	YES	YES	YES
Mayor Controls	NO	YES	YES	NO	YES	YES
Municipality Controls	NO	NO	YES	NO	NO	YES
Weights	Mayor Pop.	Mayor Pop.	Mayor Pop.	Mayor Pop.	Mayor Pop.	Mayor Pop.

Notes: RDD estimates of β from Equation (1), with 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 name in the pool of municipal mayoral candidates across all the municipal elections in our sample. The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

Table A.11: Mayor's Religiosity and 8xMille Spending,
Robustness to Excluding Common Names in Phone Directories

	8xmille per capita (Log)			8xmille per capita		
Religious Mayor	1.53***	1.68***	1.99***	87.26***	96.08***	99.20***
	(0.23)	(0.22)	(0.20)	(8.26)	(8.14)	(8.11)
Mean Depvar	0.64	0.64	0.63	13.29	13.29	13.34
SD Depvar	1.48	1.49	1.48	63.40	63.40	63.53
Observations	910	900	899	910	900	899
Effective Obs. (Left)	137	138	133	121	118	117
Effective Obs. (Right)	139	141	132	119	120	118
Bandwidth	.09	.1	.09	.08	.09	.08
Fixed Effects	YES	YES	YES	YES	YES	YES
Mayor Controls	NO	YES	YES	NO	YES	YES
Municipality Controls	NO	NO	YES	NO	NO	YES
Weights	Ancestry Pop.	Ancestry Pop.	Ancestry Pop.	Ancestry Pop.	Ancestry Pop.	Ancestry Pop.

Notes: RDD estimates of β from Equation (1), with triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). Mayoral candidates are considered as "religious" only if they have the name of the patron saint of their municipality and this name is below the median frequency of all names in the phone directories on ancestry.com. The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

Table A.12: Mayor's Religiosity and 8xMille Spending,
Robustness to Excluding Common Names among Mayoral Candidates

	8xmille per capita (Log)			8xmille per capita		
Religious Mayor	1.01***	1.10***	1.17***	46.83***	47.22***	47.61***
	(0.21)	(0.21)	(0.19)	(6.68)	(6.85)	(6.59)
Mean Depvar	0.63	0.63	0.64	13.24	12.98	13.24
SD Depvar	1.47	1.47	1.48	62.37	61.78	62.37
Observations	925	913	912	925	913	912
Effective Obs. (Left)	137	135	135	129	128	126
Effective Obs. (Right)	136	138	140	127	128	126
Bandwidth	.09	.09	.09	.09	.09	.09
Fixed Effects	YES	YES	YES	YES	YES	YES
Mayor Controls	NO	YES	YES	NO	YES	YES
Municipality Controls	NO	NO	YES	NO	NO	YES
Weights	Mayor Pop.	Mayor Pop.	Mayor Pop.	Mayor Pop.	Mayor Pop.	Mayor Pop.

Notes: RDD estimates of β from Equation (1), with triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). Mayoral candidates are considered as "religious" only if they have the name of the patron saint of their municipality and this name is below the median frequency of all names in the pool of all mayoral candidates in our sample. The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

Table A.13: Mayor's Religiosity and 8xMille Spending, Robustness to Including Municipality Fixed Effects

	8xmille p.c. (Log)			8xmille per capita		
Religious Mayor	0.65***	0.63***	0.94***	35.16***	74.31***	43.96***
	(0.09)	(0.09)	(0.19)	(3.05)	(2.93)	(2.79)
Mean Depvar	0.51	0.59	0.52	12.88	13.96	14.55
SD Depvar	1.38	1.49	1.39	67.64	72.98	67.91
Observations	1888	1861	1860	1888	1861	1860
Effective Obs. (Left)	164	134	158	360	272	393
Effective Obs. (Right)	186	161	180	335	273	356
Bandwidth	.06	.05	.06	.07	.05	.07
Fixed Effects	YES	YES	YES	YES	YES	YES
Mayor Controls	NO	YES	YES	NO	YES	YES
Municipality Controls	NO	NO	YES	NO	NO	YES

Notes: RDD estimates of β from Equation (1), with triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and municipality FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

Table A.14: Mayor's Religiosity and 8xMille Spending, Robustness to Using Uniform Weighting Kernel

	8xmille per capita (Log)			8xmille per capita		
Religious Mayor	0.20	0.65***	0.48**	7.90	14.35**	16.59**
	(0.20)	(0.20)	(0.21)	(6.23)	(6.31)	(6.60)
Mean Depvar	0.60	0.63	0.63	13.47	13.34	14.34
SD Depvar	1.44	1.47	1.48	61.33	63.53	66.55
Observations	1885	1858	1857	1885	1858	1857
Effective Obs. (Left)	239	203	208	274	231	211
Effective Obs. (Right)	245	217	223	275	238	227
Bandwidth	.09	.07	.08	.1	.08	.08
Fixed Effects	YES	YES	YES	YES	YES	YES
Mayor Controls	NO	YES	YES	NO	YES	YES
Municipality Controls	NO	NO	YES	NO	NO	YES

Notes: RDD estimates of β from Equation (1), with uniform weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

Table A.15: Mayor's Religiosity and 8xMille Spending, Robustness to Using Coverage-Error Robust Bandwidth Selection

	8xmille per capita (Log)			8xmille per capita		
Religious Mayor	0.34*	0.35**	0.39**	12.96**	13.17**	13.31**
	(0.18)	(0.18)	(0.18)	(5.54)	(5.63)	(5.70)
Mean Depvar	0.57	0.61	0.58	13.34	13.43	13.83
SD Depvar	1.43	1.48	1.44	63.53	64.04	65.25
Observations	1885	1858	1857	1885	1858	1857
Effective Obs. (Left)	197	198	197	238	227	218
Effective Obs. (Right)	209	214	214	242	236	231
Bandwidth	.07	.07	.07	.08	.08	.08
Polynomial Degree	1	1	1	1	1	1
Fixed Effects	YES	YES	YES	YES	YES	YES
Mayor Controls	NO	YES	YES	NO	YES	YES
Municipality Controls	NO	NO	YES	NO	NO	YES

Notes: RDD estimates of β from Equation (1), with triangular weighting kernel and Coverage-Error Robust optimal bandwidth selection (Calonico et al., 2020). The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

Table A.16: Mayor's Religiosity and 8xMille Spending, Robustness to Fitting Quadratic Polynomial of the Running Variable

	8xmille per capita (Log)			8xmille per capita		
Religious Mayor	0.20	0.39*	0.37*	8.50	7.68	5.08
	(0.20)	(0.21)	(0.21)	(7.09)	(7.40)	(7.68)
Mean Depvar	0.64	0.64	0.69	15.12	14.76	14.43
SD Depvar	1.48	1.46	1.51	61.98	60.89	60.25
Observations	1885	1858	1857	1885	1858	1857
Effective Obs. (Left)	631	512	423	387	394	403
Effective Obs. (Right)	530	452	392	350	362	370
Bandwidth	.24	.19	.15	.14	.14	.15
Fixed Effects	YES	YES	YES	YES	YES	YES
Mayor Controls	NO	YES	YES	NO	YES	YES
Municipality Controls	NO	NO	YES	NO	NO	YES
Polynomial Degree	2	2	2	2	2	2

Notes: RDD estimates of β from Equation (1), fitting a quadratic polynomial of the running variable, with triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

A.1.2 RDD Power

Sävje (2023) assesses the validity of 36 studies using RDD published in top political science journals, and finds that most studies are poorly powered to detect anything but large effects. To corroborate the validity of our identification strategy, we conducted power analysis with the method implemented in the `rdpower` package (Cattaneo et al., 2019). We estimate the power of a two-tailed test both at the 5% and at the 10% significance level. We use the default settings of the package and investigate power with respect to an effect size equal to the one estimated and reported in the body of the paper. The table below reports the statistical power to detect such effects. Results signal that our specification has enough power to estimate meaningful effects. Power for the outcomes ranges between 70% and 99%. The standard threshold is considered 80%.

Outcome	Target Effect Size	Alpha	Power Conv.	Power Robust
Log 8permille p.c.	0.40	0.05	97.8%	69.0%
Log 8permille p.c.	0.40	0.1	99.0%	79.2%
8permille p.c.	15.46	0.05	90.6%	98.8%
8permille p.c.	15.46	0.1	99.0%	92.6%

Table A.17: Mayor's Religiosity and 8xMille Spending, Robustness to Removing Correspondences to Feminine Names

	8xmille per capita (Log)			8xmille per capita		
Religious Mayor	0.34*	0.42**	0.35**	12.42**	13.59**	12.32**
	(0.18)	(0.18)	(0.18)	(5.57)	(5.63)	(5.61)
Mean Depvar	0.74	0.77	0.72	16.47	18.49	16.53
SD Depvar	1.60	1.62	1.57	67.35	70.85	67.46
Observations	1810	1783	1782	1810	1783	1782
Effective Obs. (Left)	287	285	275	283	282	275
Effective Obs. (Right)	277	275	271	274	274	270
Bandwidth	.11	.11	.1	.1	.11	.1
Fixed Effects	YES	YES	YES	YES	YES	YES
Mayor Controls	NO	YES	YES	NO	YES	YES
Municipality Controls	NO	NO	YES	NO	NO	YES

Notes: RDD estimates of β from Equation (1), with triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). Female mayoral candidates are *not* considered as "religious" if their name is the feminine of the name of the patron of their municipality. The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

Table A.18: Mayor's Religiosity and 8xMille Spending, Robustness to Considering only Patron Saint of Candidate's Birthplace

	8xmille per capita (Log)			8xmille per capita		
Religious Mayor	0.54***	0.60***	0.52***	16.34**	14.92**	11.49*
	(0.20)	(0.20)	(0.19)	(6.53)	(6.46)	(6.20)
Mean Depvar	0.66	0.66	0.64	14.22	13.23	12.63
SD Depvar	1.47	1.48	1.47	51.57	48.70	47.66
Observations	1258	1237	1236	1258	1237	1236
Effective Obs. (Left)	155	148	144	259	288	301
Effective Obs. (Right)	161	158	153	227	247	265
Bandwidth	.08	.08	.08	.13	.14	.15
Fixed Effects	YES	YES	YES	YES	YES	YES
Mayor Controls	NO	YES	YES	NO	YES	YES
Municipality Controls	NO	NO	YES	NO	NO	YES

Notes: RDD estimates of β from Equation (1), with triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). Mayoral candidates are considered as "religious" only if their name matches the name of the patron saint of their municipality of birth, not of the municipality they run for. The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

A.1.3 RDD with Localist Candidates

Table A.19 uses a localist score to identify names (and thus candidates) that signal localism rather than religiosity. The data used are the ones explained in Section A.2.1. In the same spirit of the name-weighting version of the religiosity index, we compute the number of individuals with a given name in each municipality and in the whole sample. The most localist name of a town is then defined as the name with the highest ratio of the two.[16] Intuitively, a high ratio signals an imbalance of individuals with that given name in the municipality, compared to the rest of the country. The formula is as follows:

$$Localism\_score_i = \frac{Fr(mun)_i}{Fr(pop)_i}$$

where i is a first name, $Fr(mun)_i$ is the frequency of candidates with first name i in municipalities i and $Fr(pop)_i$ is the frequency of candidates with first name i in the whole population. Reassuringly, the effect of electing a localist candidate on 8xMille funds is small and not statistically significant.

Table A.19: Placebo Test – Mayor's Localism and 8xMille Spending

	8xmille per capita (Log)			8xmille per capita		
Religious Mayor	0.01	0.29	0.35	-23.59***	-19.53**	10.49
	(0.19)	(0.19)	(0.23)	(8.50)	(8.88)	(8.79)
Mean Depvar	0.70	0.71	0.65	13.76	13.91	16.83
SD Depvar	1.53	1.57	1.50	58.00	58.69	67.54
Observations	1185	1161	1161	1185	1161	1161
Effective Obs. (Left)	224	189	154	267	255	187
Effective Obs. (Right)	195	169	146	224	212	168
Bandwidth	.13	.12	.1	.16	.16	.11
Fixed Effects	YES	YES	YES	YES	YES	YES
Mayor Controls	NO	YES	YES	NO	YES	YES
Municipality Controls	NO	NO	YES	NO	NO	YES

Notes: RDD estimates of β from Equation (1), with triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

[16] To avoid capturing mistakes in phone directories (i.e. names of shops or companies) and too rare names, we dropped all the names that appear less than 0.5% of times in the municipality.

A.1.4 RDD EU Funds

We assemble a novel dataset of 75,164 EU-funded projects, between 2007 and 2021, for a total value of close to 20.7 billion euros. Data are drawn from opencoesione.gov.it. 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. In Italy, the allocation of Cohesion Funds to municipalities follows a multi-level governance structure involving the EU, national, regional, and local authorities. Funds are allocated to specific initiatives through calls for proposals managed by regional authorities or designated managing authorities. Municipalities can apply for funding for projects such as infrastructure improvements, urban development, environmental sustainability, and social inclusion.

Table A.20: Placebo Test – Mayor's Religiosity and EU Funds

	EU Funds per capita (Log)			EU Funds per capita		
Religious Mayor	-0.02	-0.04	-0.28	125.55*	101.36	-66.23
	(0.34)	(0.33)	(0.35)	(67.98)	(67.80)	(86.40)
Mean Depvar	3.44	3.46	3.30	229.85	222.90	198.61
SD Depvar	2.40	2.42	2.40	481.09	474.95	441.13
Observations	1121	1102	1102	1121	1102	1102
Effective Obs. (Left)	208	206	153	219	209	133
Effective Obs. (Right)	202	201	162	208	202	135
Bandwidth	.13	.13	.1	.13	.13	.08
Fixed Effects	YES	YES	YES	NO	YES	YES
Mayor Controls	NO	YES	YES	NO	YES	YES
Municipality Controls	NO	NO	YES	NO	NO	YES

Notes: RDD estimates of β from Equation (1), with triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

Table A.21: Placebo Test – Mayor's Religiosity and Government's Transfers

	State Funds per capita (Log)			State Funds per capita		
Religious Mayor	0.06	0.02	0.04	71.15	34.32	37.65
	(0.06)	(0.05)	(0.05)	(74.16)	(71.14)	(56.64)
Mean Depvar	6.91	6.89	6.89	1166.95	1166.95	1166.36
SD Depvar	0.62	0.62	0.64	814.27	814.27	813.05
Observations	1836	1810	1809	1857	1831	1830
Effective Obs. (Left)	402	425	279	316	308	309
Effective Obs. (Right)	370	393	275	296	294	298
Bandwidth	.15	.16	.1	.11	.11	.11
Fixed Effects	YES	YES	YES	NO	YES	YES
Mayor Controls	NO	YES	YES	NO	YES	YES
Municipality Controls	NO	NO	YES	NO	NO	YES

Notes: RDD estimates of β from Equation (1), with triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

Table A.22: Placebo Test – Mayor's Religiosity and 5xMille Donations to Municipal Administration

	% Donations to Municipality		
Religious Mayor	-0.01	-0.07	-0.02
	(0.06)	(0.06)	(0.05)
Mean Depvar	-0.03	-0.03	-0.03
SD Depvar	0.28	0.27	0.28
Observations	727	709	649
Effective Obs. (Left)	120	122	105
Effective Obs. (Right)	123	123	108
Bandwidth	.12	.12	.11
Fixed Effects	YES	YES	YES
Mayor Controls	NO	YES	YES
Municipality Controls	NO	NO	YES

Notes: RDD estimates of β from Equation (1), with triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). In all models, the dependent variable is the share of 5xMille donations made to municipality i during mayoral term t. The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

Table A.23: Mayor's Religiosity and Re-Election Probability

	Mayor Reelected		
Religious Mayor	-0.06	-0.05	-0.04
	(0.06)	(0.06)	(0.06)
Mean Depvar	0.27	0.27	0.27
SD Depvar	0.44	0.45	0.45
Observations	1409	1384	1357
Effective Obs. (Left)	398	344	364
Effective Obs. (Right)	362	328	344
Bandwidth	.18	.16	.17
Fixed Effects	YES	YES	YES
Mayor Controls	NO	YES	YES
Municipality Controls	NO	NO	YES

Notes: RDD estimates of β from Equation (1), with triangular weighting kernel and data-driven optimal bandwidth selection (Calonico et al., 2014). The mean and standard deviation of the dependent variable are measured within the left half of the optimal bandwidth selected by the algorithm for each model. Controls: population (Log), area, latitude, longitude, sex of the mayor age of mayor, year FE and diocese FE. Robust bias-corrected standard errors clustered at the municipality level in parentheses. *** p<.01, ** p<.05, * p<.1.

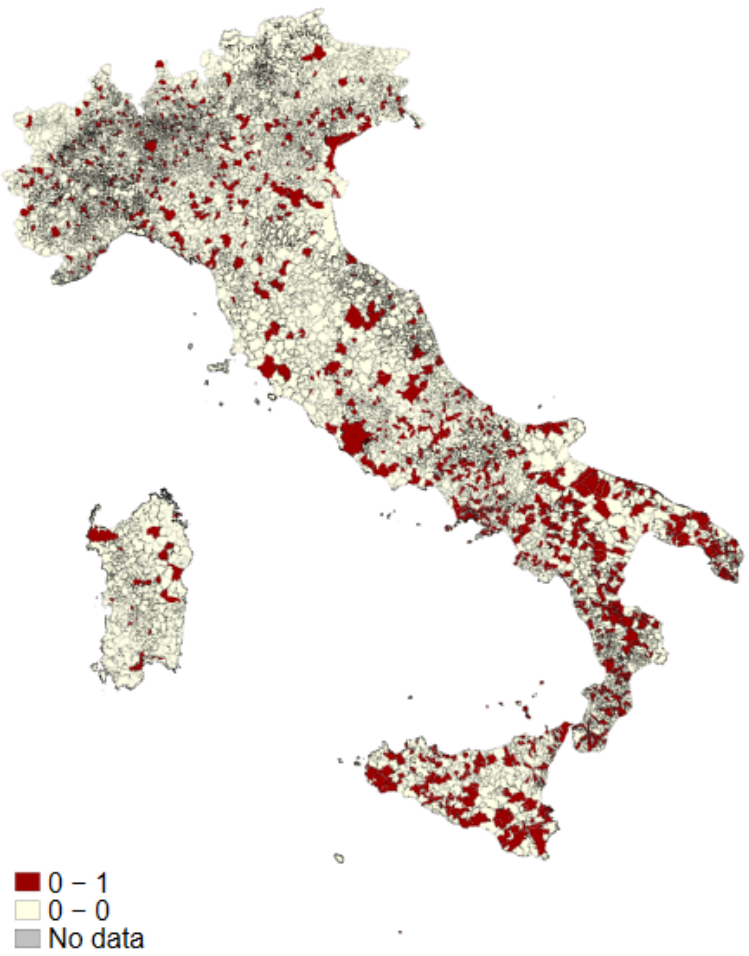
Table A.24: Mayor's Religiosity and Perceived Importance of Religion, Robustness to Using DID_M Estimator

	Estimate	SE	LB CI	UB CI	N	Switchers
Effect	0.915**	0.409	0.113	1.717	1,284	33

Notes: We report the result from re-estimating Equation (A.24) using the DID_M estimator developed by De Chaisemartin and d'Haltfoeuille (2020). Estimation is carried out via the didmultiplegt command in Stata. Standard errors are bootstrapped, setting the number of draws to 100. *** p<.01, ** p<.05, * p<.1.

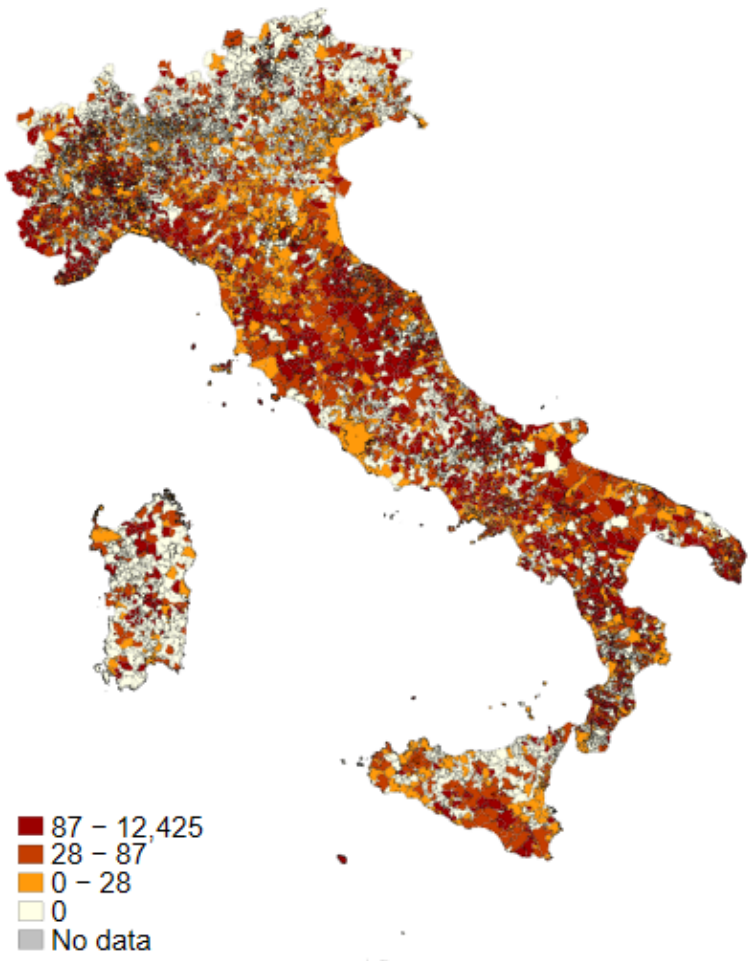
A.2 Additional Figures

Figure A.1: Presence of Candidates with Patron's Name, 1994-2020



Notes: The map shows the spatial distribution of municipalities with at least one candidate between 1995 and 2020 matching the patron saint's first name.

Figure A.2: Amount of 8xMille Funds Per Capita, 1999-2020



Notes: The map shows the spatial distribution of 8xMille funds for the period 1999-2020.

A.2.1 Religious Index Weights

We implement a further pre-processing step on first names to avoid the possibility that highly frequent names are driving our results. If a given patron name is very common, indeed, the likelihood that it just signals parents' religiosity is lower. To increase confidence in our main religiosity measure, we built a continuous index that assigns a score to each first name, taking into account its frequency among the population. The idea is to discount highly frequent names (e.g., Giuseppe, Francesco) and give more relevance to uncommon first names (e.g., Lidano, Procolo). We use the following formula:

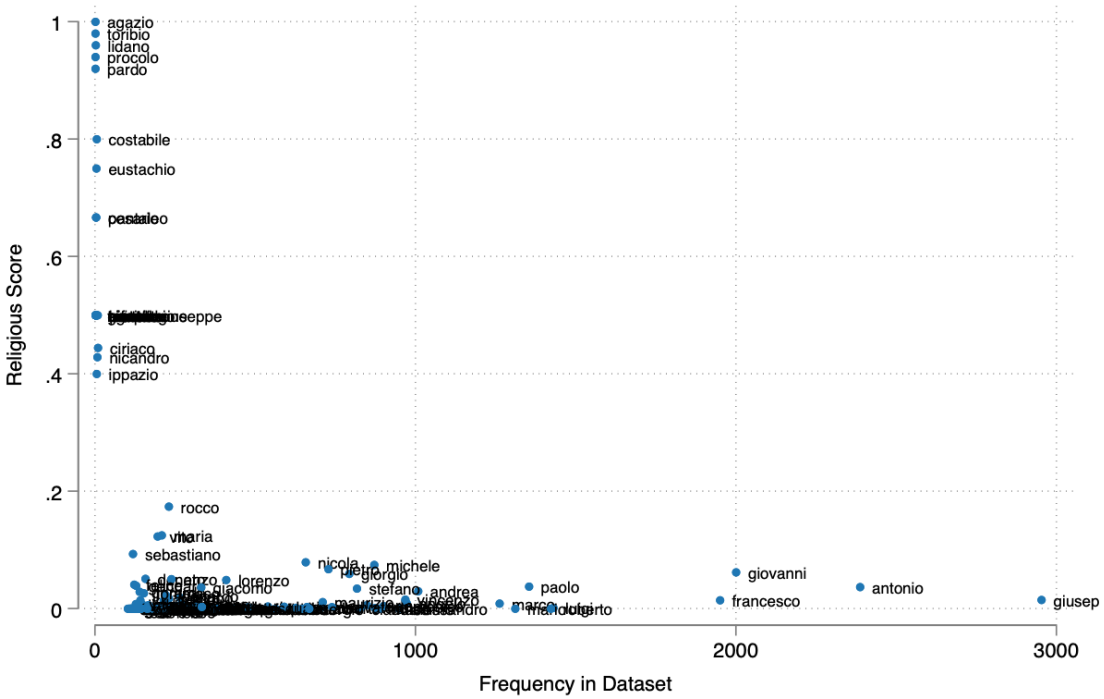
$$Rel\_score_i = \frac{Fr(mun)_i}{Fr(pop)_i}$$

where i is a first name, $Fr(mun)_i$ is the frequency of candidates with first name i in municipalities where the patron name is i, and $Fr(pop)_i$ is the frequency of candidates with first name i in the whole population. The index thus discounts very frequent names in the population.

We propose two versions of the index. First, we collected data on phone directories of 2011 from ancestry.com. For each municipality, we collected up to 5,000 entries of first names and created a novel dataset of first names' distribution for the entire country. The full sample consists of 7,681,554 observations. the set. We use the entire population to build the weights. However, mayoral candidates could be a selected sample of the entire population. To avoid this issue, we use the set of mayoral candidates as population to build a different version of the index.

Figure A.3 shows how common names behave with the measure built using mayoral candidates as population: very common names such as Giuseppe are heavily discounted, while very rare names such as Agazio take higher values. Table A.2.1 in presents a comprehensive list of highly religious names with their associated score.

Figure A.3: Example of Candidates' Names Matching Patron Saint's Names



Notes: The graph shows the correlation between first name's frequency and the religiosity score defined above. The y-axis shows the value of the religiosity score, while the x-axis shows the frequency of a given first name in the pool of mayoral candidates. The graph only includes a selected subsample of first names for illustration purposes.

Names Scores			
Name	Weight Ancestry Pop.	Weight Mayor Pop.	Municipality
Pancrazia	1	1	Campoli Appennino
Cassiano	1	1	La Salle
Niceta	0.63	0.5	Melendugno
Lidano	0.53	1	Sezze
Leucio	0.51	0.51	San Leucio del Sannio
Tammaro	0.5	0.43	Villa Literno
Trifone	0.43	1	Marzano di Nola
Agazio	0.40	1	Squillace
Costabile	0.4	0.8	Castellabate
Pancrazio	0.39	0.2	San Pancrazio Salentino
Agapito	0.39	0.5	Sant'Agapito
Orante	0.36	0.5	Ortucchio
Pardo	0.35	1	Larino
Primiano	0.32	1	Lesina
Procolo	0.32	1	Pozzuoli
Nicandro	0.29	0.5	Venafro
Girio	0.29	1	Potenza Picena
Potito	0.28	1	Ascoli Satriano
Cirino	0.22	0.5	Trecastagni
Alfio	0.22	0.5	Lentini
Restituta	0.20	0.5	Lacco Ameno
Quirico	0.19	0.25	Ussaramanna
Cataldo	0.18	0.29	Montenero Sabino
Pantaleone	0.18	0.5	Limbaudo

Notes: The table below shows the list of the most religious names according to the religiosity score illustrated above.

A.2.2 Religious Dictionary for Procurement Contracts

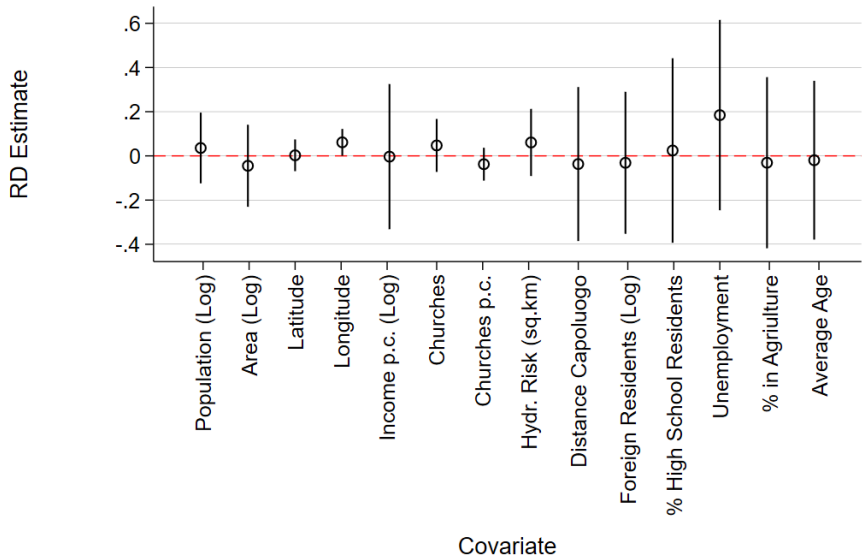
To code procurement contracts purchasing religious goods or services, we begin by checking each contract's title contains at least one of the following regular expressions:

chiesa, chiese, abbazi, monastero, monasteri, relig, eccles, dioces, cattolic, parroc, campanil, di culto, canonic, battister, cattedr, episcop, vescov, convento, transett, altare, absid, navat, fronton, pronao, chiostro, sagrest, sacro cuore, patronale, santua, suora, suore, beata vergin, basilic, basilich, sagrat, duomo, santiss, congregaz, divin, gesu', gesu', gesù, gesuit, francescan, benedettin, domenican, agostinian, carmelitan, teresian, cistercens, orsolin, clarisse, pallottin, oblat, cappuccin, immacolat, oratorio, santi apost, apostolic, spiritu, spirito san, collegiat, annunciaz, delle graz, crocefiss, via crocefiss, crocifiss, via crocifiss, madre teres, madonna, madonnin, vergine mar, maria verg, frati min, campanaria, nativita, presepe, caritas, centro di asc, centri di asc, curia, visita pastoral, musica sacr, arte sacr, canto sacr, canti sacr, concerto sacr, concerti sacr, oggetti sacr, sacra famigl, santo patr, festa patr, festeggiamenti patr, festivita' patr, festa per san, feste per san, festeggiamento per san, festeggiamenti per san, festivita' per san, festa per s., feste per s., festeggiamento per s., festeggiamenti per s., festivita' per s., festa di s., feste di s., festeggiamento di s., festeggiamenti di s., festivita' di s., processione, natalizi, santa croc, sacrament, don bosco, don milani, salesian, miserico, confrater, vincenzian, emmaus, sales, pio ix, pio x, pio xi, leone x, gregorio vi, gregorio magn, del carmin, del rosar, cristo, nostra sign, ausiliatric, redentor, redempto, schust, cardinal, preziosissimo sang, maria assun, sorelle del, murialdo, giovanni pao, giovanni xx, paolo vi, stimmat, santa maria, maria ss, suffrag, mater dei, calasanz, monsig, figlie di, santa rita, rita da cas, vincenzo de' pa, divino amor, charit, maria della pac, vangel, regina coe, regina mun, regina pac, nostra sign, missionar, discepol, nazaret, mantellat, beata mar, san giovanni bat, riparatric, stella maris, lourd, elisabettin, domenico sav, della merced, francesco d'assi, catechis, cateches, caterina da sie, addolor, del carmel, compassion, marcellin, espiatric, espiazio, canoss, della graz, delle graz, pia casa, trinit, maestre pie, pie filipp, paoline, giovanni bosc, betlem,

aportian, maria della nev, ancelle del, kolbe, gerardine, maria bambin, papa lucian, buon pastor, degli angel, padre pio, visitazion, don guanel, leone magno, adorator, adoratric, gratia, antonio abat, della presentaz, don gnoc, domenico sav, carlo borrom, del calvario, consolatr, consolazio, vincenzo pallott, pallottin, divini amor, divino amor, di bonaria, angelo cust, angeli cust, monastic, acquasantie, tabernac, battesim, cappella, cappellina, certosa di, cappelletta, complesso di san, liturg, santa messa, presbiter, clerical, cristianes, clero , curia , samaritan, acli , cisl , opera pia , patronale, pasqua, epifania, immacolata conc, pentecos, quares, natale, fiera san, fiera di san, fiera per san, fiera per s., fiera di s., palio san, palio di san, palio per san, palio per s., palio di s., charit, missionar, pia casa, vincenzo de' pa, vincenzo de'pa, opera san, opera dioc, samaritan, guanella, fratres, fraternit, centro italiano femminile, centro della sofferenza, betania, compagnia delle oper, pia casa, patronato, a.c.l.i. , c.i.s.l. , oratorio, canossian, don gnoc, maestre pie, pie filipp, vincenzo pallott, pallottin, rosmini, lorenzo milani, centro sportivo italiano, csi , csi , primo mazzolari, circolo noi, libertas, pgs, pio istituto, teolog, paola di rosa, san a, san b, san c, san d, san e, san f, san g, san i, san l, san m, san n, san o, san p, san q, san r, san s, san t, san u, san v, san w, san y, san z, santa a, santa b, santa c, santa d, santa e, santa f, santa g, santa i, santa l, santa m, santa n, santa o, santa p, santa q, santa r, santa s, santa t, santa u, santa v, santa w, santa y, santa z, sant'a, sant'e, sant'i, sant'o, sant'u, sant' a, sant' e, sant' i, sant' o, sant' u.

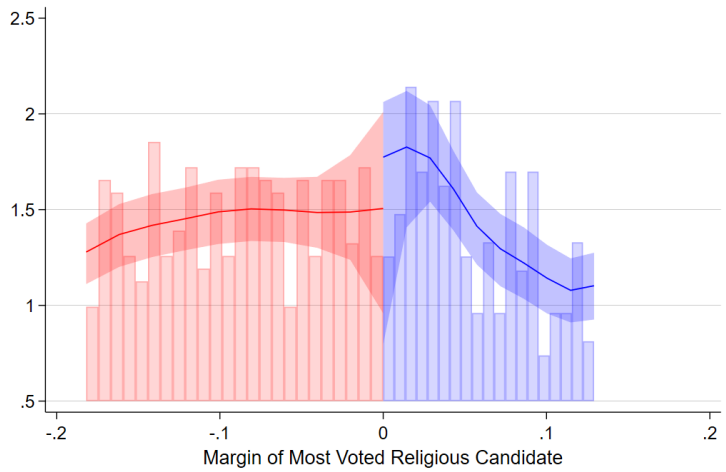
Next, we implement some manual corrections to reduce false positives, most of which are contracts that mention names of streets that feature the name of a religious figure of the past.

Figure A.4: Balance Checks: Mayor's Religiosity and Municipal Characteristics



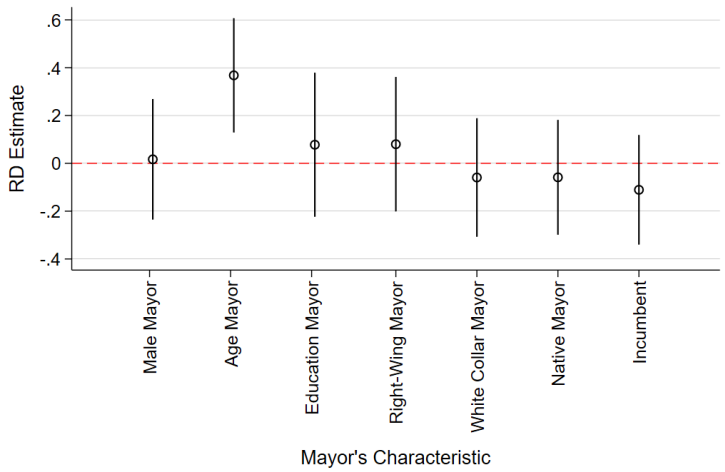
Notes: Bias-corrected RD estimates with robust variance estimator Calonico et al. (2014), obtained from fitting Equation (1) using a first-order polynomial. The outcome variable of each model is listed on the x-axis. All regressions include election-year and province fixed effects. Robust standard errors clustered at the municipal level in parentheses.

Figure A.5: Identification Test – Manipulation of Running Variable



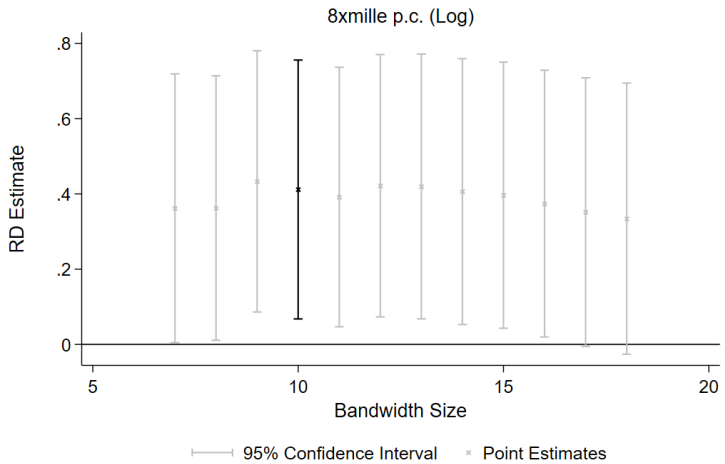
Notes: The plot below shows the standard manipulation test proposed by Cattaneo et al. (2018) for the margin of victory/loss of the most voted religious candidate, computed using the package `rddensity` with a first-degree polynomial (p-value=0.89). Each dot represents the density of the margin of victory of the most voted religious 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.6: Identification Test – Mayor's Religiosity and Other Mayoral Characteristics



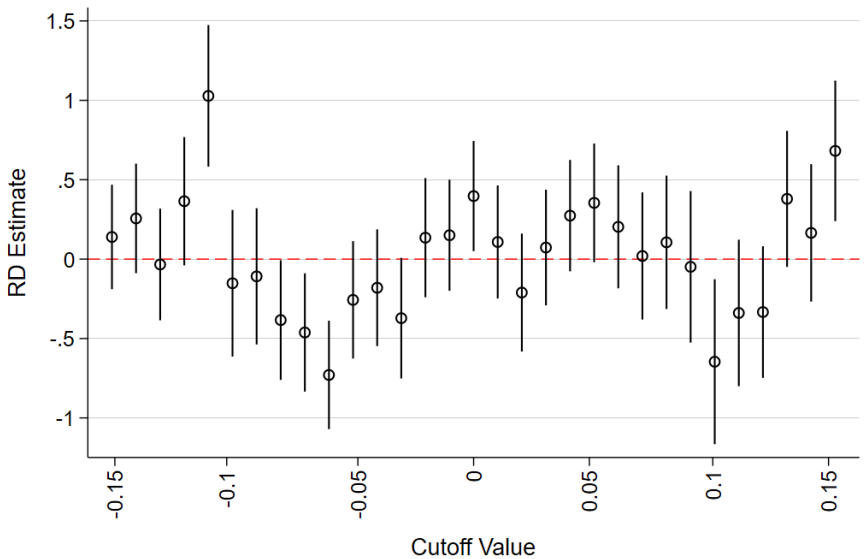
Notes: Each dot represents one RD estimate from fitting Equation (1). The dependent variables are standardized to enhance the comparability of coefficients' magnitudes. "Education" is an indicator for a candidate holding any post-high school educational title. "Native" is an indicator for the mayor being born in the municipality that she administers. Vertical bars are 95% confidence intervals, based on robust, bias-corrected standard errors clustered at the municipality level.

Figure A.7: Mayor's Religiosity and 8xMille Funds, Robustness to Different Bandwidths



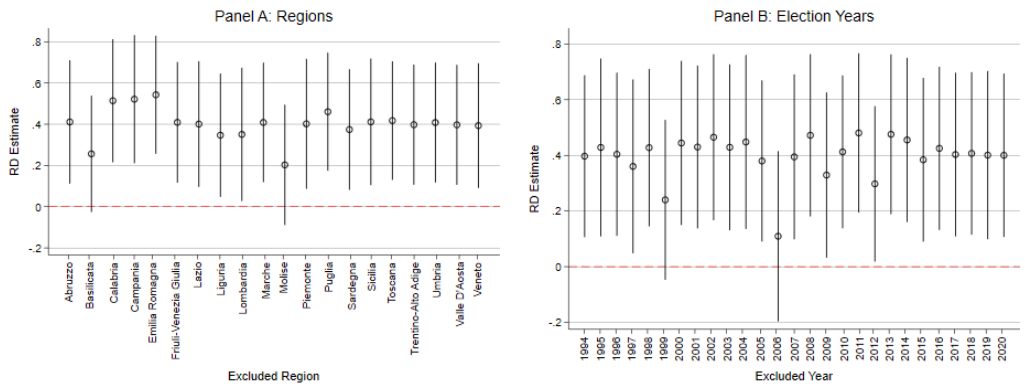
Notes: Each cross represents one RD estimate from fitting Equation 1, using a bandwidth (on each side of the cutoff) of the size indicated on the horizontal axis. Vertical bars are 95% confidence intervals, based on robust standard errors clustered at the municipality level. The dependent variable is the amount of 8xMille funds per capita invested in municipality i during term t.

Figure A.8: Falsification Test – Mayor's Religiosity and 8xMille Funds, Effects at Irrelevant Cutoffs of the Running Variable



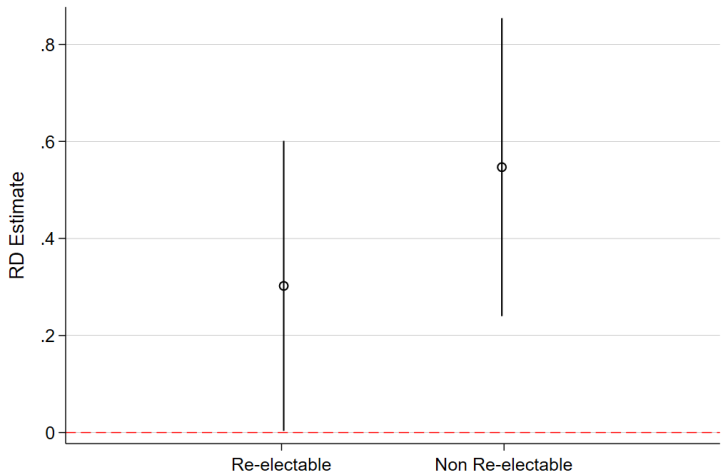
Notes: Each dot represents one RD estimate from fitting Equation (1) with the full set of controls, using the cutoffs for the running variable – margin of victory/loss of the most voted religious candidate – indicated on the horizontal axis. Vertical bars are 95% confidence intervals, based on robust, bias-corrected standard errors clustered at the municipality level. The dependent variable is the log of 8xMille funds per capita invested in municipality i during term t.

Figure A.9: Robustness Test – Mayor's Religiosity and 8xMille Funds, Jackknife Excluding Regions and Election Years



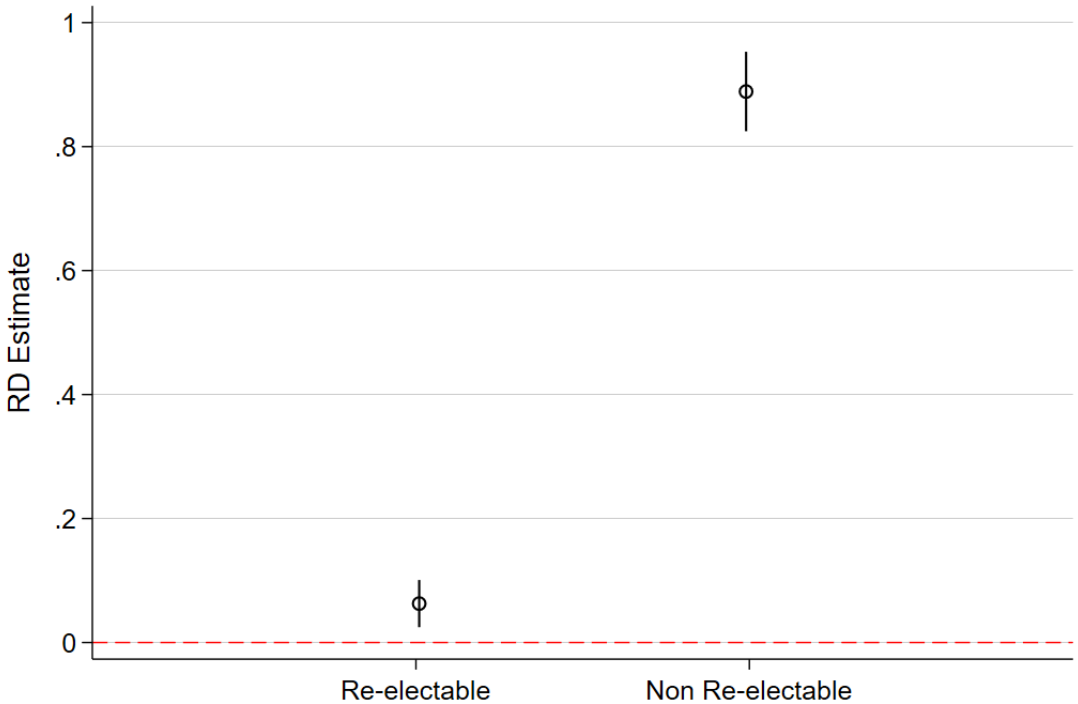
Notes: In both panels, the dependent variable is the log of 8xMille funds per capita invested in municipality i during term t. In Panel A, each dot represents one RDD estimate from Equation (1), excluding all municipalities within the region indicated on the horizontal axis. In Panel B, each dot represents one RDD estimate from Equation 1, 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.10: Mayor's Religiosity and 8xMille Funds, Heterogeneity by Term Limits



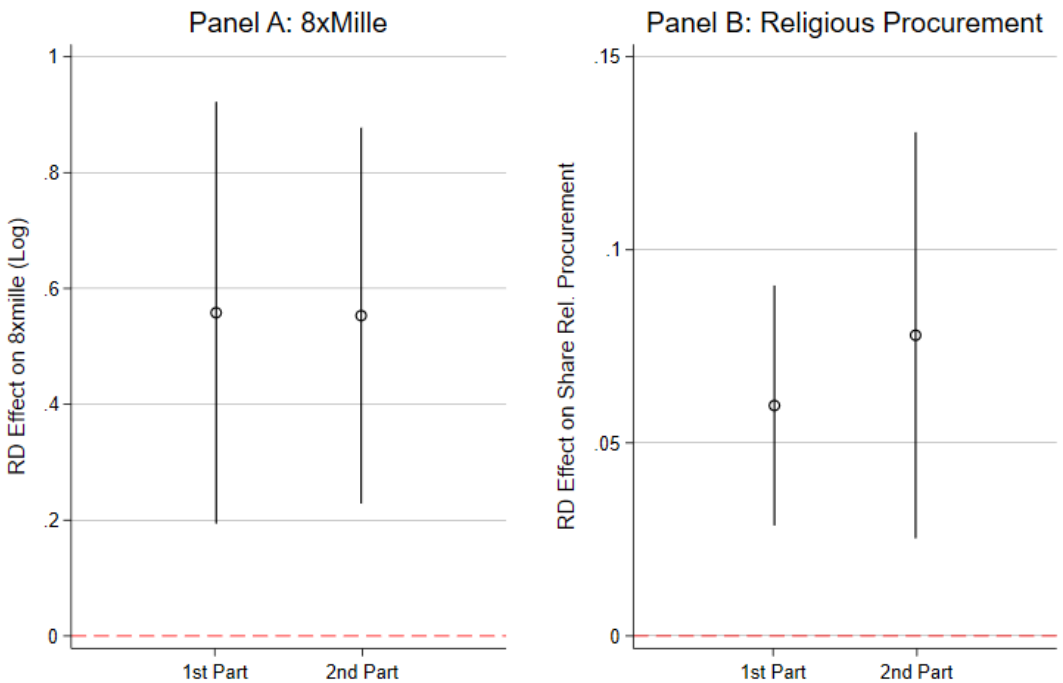
Notes: RDD estimates of β from Equation (1). The dependent variable is the log of the 8xMille funds per capita invested in municipality i during term t. Vertical bars are 90% confidence intervals, based on robust, bias-corrected standard errors clustered at the municipality level.

Figure A.11: Mayor's Religiosity and Procurement Spending for Religious Goods and Services, Heterogeneity by Term Limits



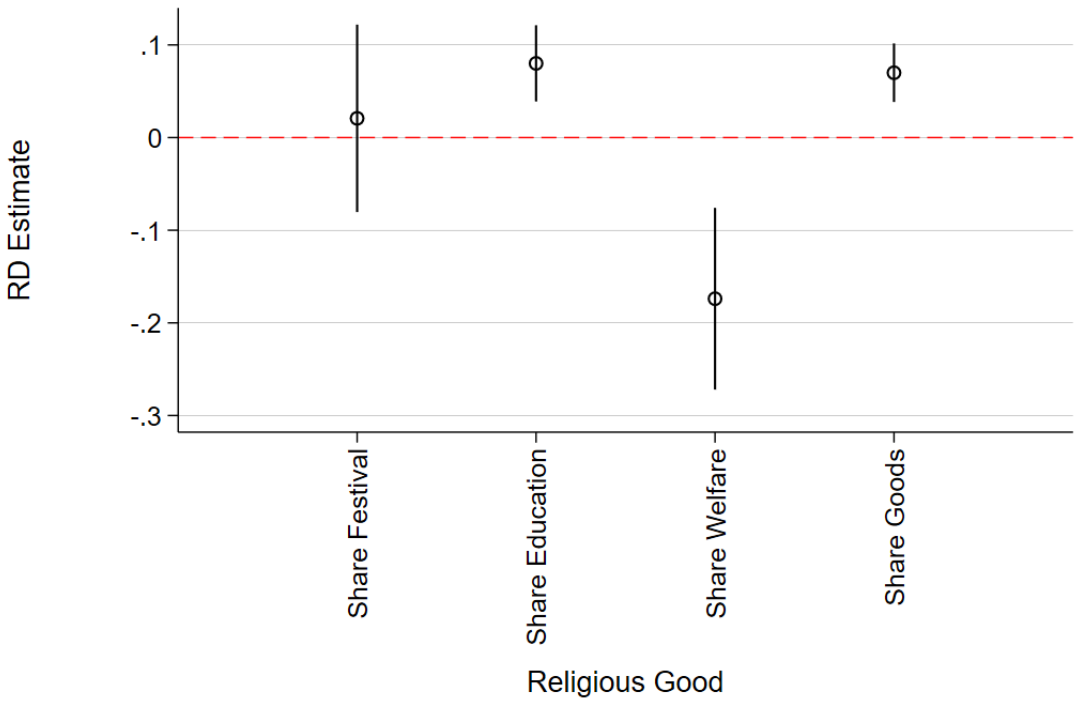
Notes: RDD estimates of β from Equation (1). The dependent variable is the share of procurement expenditures by municipality i over term t purchasing religious goods or services. Vertical bars are 90% confidence intervals, based on robust, bias-corrected standard errors clustered at the municipality level.

Figure A.12: Mayor's Religiosity, 8xMille Spending and Procurement Spending for Religious Goods and Services, Heterogeneity by Part of Term



Notes: RDD estimates of β from Equation (1), by part of the term. In Panel A, the dependent variable is the log of 8xMille funds per capita invested in municipality i during term t. In Panel B, the dependent variable is the share of procurement expenditures by municipality i over term t purchasing religious goods or services. Vertical bars are 90% confidence intervals, based on robust, bias-corrected standard errors clustered at the municipality level.

Figure A.13: Mayor's Religiosity and Procurement Spending
for Religious Goods and Services, Heterogeneity by Area



Notes: RDD estimates of β from Equation (1), by area of procurement spending. Vertical bars are 90% confidence intervals, based on robust, bias-corrected standard errors clustered at the municipality level.