

# "ECONOMICS OF CULTURE, INSTITUTIONS, AND CRIME"

Hosted by **Fondazione Eni Enrico Mattei (FEEM)**

**Supported by**

FP6 Priority 7 "Citizens and governance in a knowledge-based society" Project: Sustainable Development in a Diverse World"(SUS.DIV) (Contract No. CIT3-CT-2005-513438)

University of Padua Research Project "Economic analysis of crime and social interactions"  
(grant CPDA071899)

Fondazione Eni Enrico Mattei (FEEM)

**Organized by**

SUS.DIV, FEEM, University of Padua and CEPR

**Milan; 20-22 January 2010**

## **Social Capital and Political Accountability**

Tommaso Nannicini, Andrea Stella, Guido Tabellini and Ugo Troiano

We are grateful to the following institutions for their financial and organizational support: SUS.DIV, FEEM, University of Padua and CEPR.

The views expressed in this paper are those of the author(s) and not those of the funding organization(s) or of CEPR, which takes no institutional policy positions.

# Social Capital and Political Accountability\*

**Tommaso Nannicini**

Bocconi University, IGER & IZA

**Andrea Stella**

Harvard University

**Guido Tabellini**

Bocconi University, IGER, CEPR & CIFAR

**Ugo Troiano**

Harvard University

January 2010

*Preliminary draft*

## **Abstract**

In this paper, we empirically investigate a channel through which social capital may improve economic wellbeing and the functioning of institutions: political accountability. The main idea is that voters who share norms of generalized trust are likely to demand higher standards of behavior on their elected representatives, are more willing to bear the cost of acquiring information, and are more likely to base their vote on criteria of social welfare rather than (narrow) personal interest. We take this conjecture to the data using information on the Italian members of Parliament in the postwar period (1948–2001). The empirical evidence shows that social capital—as measured by blood donation—is negatively associated with political misbehavior, such as receiving a request of criminal prosecution or shirking in parliamentary activity. Accordingly, the electoral punishment of political misbehavior by voters is considerably larger in electoral districts characterized by high social capital.

**JEL codes:** D72, D73, Z10.

**Keywords:** social capital, culture, political agency.

---

\*Financial support by the European Research Council (Grant No. 230088) is gratefully acknowledged. We thank seminar participants at CIFAR and IGER-Bocconi for helpful comments; Leonardo Borlini for legal advice; Mariaflavia Harari and Lucia Spadaccini for excellent research assistance. Address correspondence to: [guido.tabellini@unibocconi.it](mailto:guido.tabellini@unibocconi.it).

*Despotism (...) sees in the separation among men the guarantee of its continuance, and it usually makes every effort to keep them separate. (...) A despot easily forgives his subjects for not loving him, provided they do not love one another.*

Tocqueville (1840)

*In a society of amoral familists there will be few checks on officials, for checking on officials will be the business of other officials only.*

Banfield (1958)

## 1 Introduction

Several political scientists and economists have argued that social capital is an important determinant of economic development and of the functioning of institutions (Banfield 1958, Putnam 1993, 2000, Fukuyama 1995, Guiso, Sapienza, and Zingales 2008, Tabellini 2008, 2009, Algan and Cahuc 2010).<sup>1</sup> But what is the mechanism through which this happens? And what exactly does social capital stand for? Despite a large literature on these topics, the above questions remain largely unanswered.

The goal of this paper is to explore empirically one particular channel through which social capital can induce efficient political outcomes. The basic idea is that voters who share cultural traits of generalized trust and respect for others are more likely to hold politicians accountable to high standards of behavior, and are less tolerant of moral hazard or misbehavior by their political representatives. We exploit data on the behavior of Italian voters and political representatives in the postwar period to test these hypotheses.

Italy is ideally suited to ask these questions, because within Italy there are large differences in social capital and other related cultural traits. We compare the average behavior of voters and politicians in different electoral districts. Our main indicator of social capital is average per-capita blood donations in Italian provinces, although the results are robust to alternative measures of social capital. We rely on two indicators of misbehavior of political incumbents in national elections: the first is represented by prosecutors' requests to proceed with criminal investigation against a member of Parliament (*Richiesta di Au-*

---

<sup>1</sup>In particular, social capital—measured in a number of ways, from survey responses on the level of trust to blood donation—has been shown to be positively associated with economic development (Knack and Keefer 1997, Tabellini 2009), financial development (Guiso, Sapienza, and Zingales 2004), indicators of good government (Putnam 1993, La Porta et al. 1997), and work effort (Ichino and Maggi 2000).

*torizzazione a Procedere*, called RAP from here on); the second is the rate of absenteeism in electronic votes by members of Parliament during a legislative term.

According to both indicators, misbehavior by the incumbent is more frequent in electoral districts with less social capital. More importantly, the electoral punishment of the incumbent's misbehavior is stronger in districts with more social capital. Receiving a RAP for serious crimes reduces individual preference votes in the (open-list) proportional system before 1994 by 25% in districts with above-average social capital, while it has no impact in the others. An increase in the absenteeism rate equal to its standard deviation reduces the probability of being reelected in the same majoritarian (single-member) district after 1994 by 24 percentage points (about 42%) in provinces with above-average social capital, while it has a positive (although insignificant) impact in the others. Our estimates are robust to the use of a number of politician-specific and district-specific control variables (including income, education, and newspapers diffusion in the electoral district), as well as province of election and politician fixed effects in most specifications.

These results are related to the theoretical literature on political agency. Ferejohn (1986), Persson and Tabellini (2000), Alesina and Tabellini (2008), Besley (2006) study theoretical models where rational voters discipline moral hazard or adverse selection by the elected incumbent through retrospective voting. These works suggest two channels through which social capital might affect equilibrium political outcomes. The first channel is *information*. In these models, more informed voters are better able to discipline the incumbent or to select more competent representatives. Higher social capital might increase the willingness of any atomistic individual to bear the cost of gathering and processing information about the behavior of his political representative.<sup>2</sup> The second channel is *cooperation* amongst voters. Suppose that the political incumbent engaging in moral hazard can also provide targeted redistribution to specific groups of voters. Then Ferejohn (1986) and Persson and Tabellini (2000) show that the disciplining effect of elections breaks down, because each group finds it optimal to vote on the basis of a group-specific measure of wellbeing. To discipline the incumbent, voters must vote retrospectively and according to a criterion of aggregate (rather than group-specific) social welfare. But doing so requires some implicit cooperation between voters. Intuitively, voters must refrain from rewarding a corrupt or lazy politician despite receiving some targeted or clientelistic ben-

---

<sup>2</sup>Indeed, Alesina and Giuliano (2009) show that the more individuals rely on the family as a provider of services, insurance, transfer of resources, the lower civic engagement and political participation are.

efits from him, and this is not incentive compatible in a Nash equilibrium where different social groups do not cooperate.<sup>3</sup> Social capital might make cooperation sustainable and induce individuals to vote according to aggregate social welfare criteria. This is indeed one interpretation of our empirical findings. In our data, even if we control for voters' information, as measured by the district-specific readership of non-sport newspapers, the impact of social capital on the diffusion of political misbehaviors and their electoral punishment remains significant both in statistical and economic terms.

A few empirical studies have asked whether voters punish political corruption or other misbehaviors by their elected representatives.<sup>4</sup> Peters and Welch (1980) first tackled this issue by evaluating the impact of corruption charges on the reelection prospects of the US Representatives in the elections from 1968 to 1978. Their study finds that voters do indeed punish corrupt politicians, although corruption charges represent only one of the many factors concerning voters when casting their vote. Welch and Hibbing (1997) reach a similar conclusion, finding that corruption charges rarely cause incumbent US Representatives to resign, retire, or lose in primaries, although they often make politicians lose votes and occasionally elections. For Brazil, Ferraz and Finan (2008) exploit (random) audit reports on municipal governments and show that corruption disclosure is punished by voters in terms of decreased reelection probability. They also show that this punishment is more pronounced in municipalities with radio stations.

A contribution closely related to ours is represented by Chang, Golden, and Hill (2010), who study the first 11 legislative terms of the Italian Republic from 1948 to 1994. They assess the impact of receiving a RAP on the probability of being reelected in this postwar period, and find that being investigated for a potentially serious crime slightly decreases the probability of reelection, approximately by the same degree found by Peters and Welch (1980) for the US. Looking at the 11 legislative terms separately, however, they find that

---

<sup>3</sup>Alesina and Tabellini (2008) obtain similar results in a political agency model with adverse selection.

<sup>4</sup>Several theories have been advanced to understand why voters would support corrupt politicians. Rundquist, Strom, and Peters (1977), for instance, provide two explanations: the first relies on imperfect information and claims that voters are not able to discriminate between honest and dishonest politicians; the second assumes an explicit or implicit trade-off between ideology and corruption on the part of voters. Myerson (1993) emphasizes the same trade-off when comparing electoral systems, and claims that it is harsher under majoritarian elections because entry barriers are higher. A third explanation is instead provided by Peters and Welch (1980): corruption may be seen as a necessary evil, since it is functional to a smooth functioning of the State organization. A final explanation may be that there is some sort of collusion between politicians and voters, or a subset of them, as it would be the case with the clientelistic or divide-and-rule strategy of the Ferejohn's (1986) model discussed above.

corruption charges affect the reelection prospects of Italian Representatives only in two terms: the VII and XI legislatures, that is, when the principal opposition party, the Communist Party, was respectively an external supporter of the government and a politically acceptable alternative to the leading party, the Christian Democrats. Gagliarducci, Nannicini, and Naticchioni (2008a) also closely relate to our study. They show that political rent-seeking, measured as the absenteeism rate of members of Parliament, which is in turn correlated with their outside income, is more pronounced for politicians elected in the majoritarian system as opposed to politicians elected under (closed-list) proportional representation. These previous results are consistent with ours. These papers estimate the average effect of political misbehavior on election outcomes, however, and did not ask whether the election outcomes differ by electoral districts based on social capital, information, or other observable voters' features.

The outline of the paper is as follows. Section 2 describes the data. Section 3 presents the empirical results on how social capital influences political misbehavior. Section 4 discusses how social capital influences election outcomes. Section 5 concludes.

## 2 The Data

Because Italian political institutions have changed in the postwar period, we use two samples and different measures of electoral outcomes and misbehavior in the two samples. In both samples, we have an unbalanced panel where the units of analysis are members of Parliament, and the period refers to legislative terms. As explained below, however, some variables refer to the electoral district where the incumbent stands for reelection.

Table 1 summarizes the two samples. The first sample refers to the legislative terms elected between 1948 (the first parliamentary election of the Italian Republic) and 1987; thus, the sample consists of legislatures I–X included. During this period, also known as *First Republic* by political analysts and the popular press, the electoral system for the Parliament was proportional representation with open party lists and the possibility of casting preference votes on individual candidates. We measure political outcomes by the difference between the number of preference votes received by the incumbent in the next election and the number of preference votes he obtained in the past election (expressed in logs), therefore available only for incumbents who stood for reelection. The source for this variable is the dataset used by Chang, Golden, and Hill (2010), which refers to the

House of Representatives only (therefore excluding the Senate).

The XI legislative term (1992–1994) marks the transition to the so-called *Second Republic*, following judicial scandals that destroyed the major political parties and the adoption of a mixed electoral system in 1993. This term is excluded from the analysis, because members of Parliament elected in 1992 (eventually) stood for reelection under a different electoral system. After dropping observations with missing values in the relevant variables, we end up with a sample of 5,849 representatives in the First Republic.

Throughout this period, elected representatives enjoyed immunity from criminal prosecution. This immunity could be waved by a vote of Parliament, at the request of the prosecutor. The prosecutor’s request to continue with its criminal investigation (RAP) was public knowledge, it typically received a lot of attention from the media, and it was always brought to Parliament for a final vote on the issue.<sup>5</sup> Our measure of misbehavior in this sample consists of a dummy variable equal to one if the incumbent representative received a RAP in the outgoing legislative term, and zero otherwise.<sup>6</sup> The source for this variable is again the dataset by Chang, Golden, and Hill (2010). Not all alleged criminal offenses brought against elected representatives were actually very serious, though. For instance, some RAP’s refer to crimes such as the promotion of meetings in public places without prior notice, the publication or spreading of false news, or road-traffic offenses. For this reason, we also coded a dummy variable that refers only to the more serious crimes (*serious* RAP), namely corruption, private interest in official duties, racketeering organization, fraud, and violence (including murder). In Appendix II, we give details on the offenses included in both measures. Table 2 shows that 24% of the representatives in our sample received at least one RAP, half of them (12% of the sample) for serious crimes. Figures 1 and 2 show the distribution of the two measures across areas (North, Center, and South). Representatives elected in the Southern districts are more likely to receive both types of criminal prosecutions, although the difference is not statistically significant.

The second sample refers to the legislatures XII and XIII in Second Republic, corresponding to the period 1994–2001. The XIV legislative term (2001–2006) is excluded from the analysis, because a new electoral reform in 2005 made the members of Parliament elected in 2001 (eventually) stand for reelection under a different rule. In 1993, as

---

<sup>5</sup>Parliamentary immunity and the RAP procedure were abrogated in 1993 by the XI legislature.

<sup>6</sup>Many representatives actually received more than one RAP, but the results reported below are robust to replacing the dummy variable with the actual number of RAP’s received.

said, there was a first electoral reform, and in this second sample the electoral system was mixed: about 75% of both the House of Representative and the Senate were elected in single-member districts under plurality rule. The remaining 25% fraction was elected under proportional representation with closed party lists (i.e., without preference votes) for the House, and under proportional representation selecting the best losers in the single-member districts for the Senate. Since we expect accountability to be stronger under plurality rule, we focus only on incumbents that stand for reelection in single-member districts.<sup>7</sup> We thus measure political outcomes in this second sample as a dummy variable that equals one if the incumbent is reelected in the *same electoral district*, and zero otherwise. We comment below on the robustness of the results if the dummy variable is redefined as equal to one if the incumbent is reelected, irrespective of whether in the same or in another district. Table 3 shows that 50% of members of Parliament were reelected, 32% in the same (majoritarian) district. There are no significant differences in reelection patterns across the different areas of Italy (North, Center, and South).

Because of the abrogation of parliamentary immunity in 1993, as a measure of political misbehavior in the Second Republic, we instead use the rate of absenteeism of the incumbent in the outgoing term. Absenteeism is defined as the percentage of votes missed in the outgoing legislature without a legitimate reason. The source for this variable is the dataset used by Gagliarducci, Nannicini, and Naticchioni (2008a). Absenteeism is clearly a less important form of misbehavior, compared to being accused of criminal offenses. It is also less widely publicized. Nevertheless, it is still a breach of the implicit contract between the representative and his voters, and it corresponds closely to the theoretical constructs of the political agency literature on moral hazard. As a matter of fact, Gagliarducci, Nannicini, and Naticchioni (2008b) show that the absenteeism rate is positively associated with the amount of outside income by members of Parliament, therefore capturing shirking or rent-seeking. As shown in Table 3, the average absenteeism rate is about 34%. Figure 3 displays its distribution in the North, Center, and South of Italy. There is no pronounced difference in the distribution of this variable between macroregions, although members of Parliament elected in the Southern districts tend to make more absences.

For both samples, we also observe several features of political incumbents. We report

---

<sup>7</sup>Persson and Tabellini (2000) study a theoretical model based on career concerns, that predicts accountability to be stronger under plurality rule than under closed-list proportional representation. Persson, Tabellini, and Trebbi (2003) and Gagliarducci, Nannicini, and Naticchioni (2008a) show that this prediction is consistent with the empirical evidence.

them in Table 2 and Table 3 for the earlier and later sample, respectively. These observed characteristics can be grouped in three broad categories. First, we know their individual features, such as gender, age, marital status, and education. Over 90% of incumbents are male, their average age is about 50 (a bit younger in the earlier sample, and a bit older in the latter sample), and most of them have college education (63% in the earlier sample, 70% in the later one). Second, we know the recent political history of each incumbent, and in particular whether they belonged to the majority coalition, whether they had a role in national or local government, or in a parliamentary committee, or in their party, and whether they were freshmen or not. Third, we know their pre-election occupation. More such variables are available in the second sample than in the first one. Their sources are the datasets mentioned above for the First Republic and Second Republic.

Finally, we also collected data on the district in which the incumbent stands for re-election. In the first sample there are 32 districts, in some cases consisting of a single province, in other cases consisting of several provinces. In the second sample there are 475 single-member districts in the House and 230 in the Senate. For the First Republic, we measure social capital in the district by taking the weighted average of per-capita blood donations in the provinces included in that district, in the year 1995. For the Second Republic, we impute to each single-member district the level of per-capita blood donations in the province containing that district. This variable has been used in previous studies as an indicator for social capital, for instance Guiso, Sapienza and Zingales (2004). As shown in Figure 4, its distribution in Northern and Southern Italy is starkly different.<sup>8</sup>

As additional control variables at the district level, we also collected data on per-capita income in 2003, and the percentage of the over-19 population with a high school degree in 2003. Their source is the National Statistical Office (ISTAT). As a proxy for voters' information about politics, we retrieved data on the diffusion of non-sport newspapers in 2001–2002. The source is the dataset collected by Cartocci (2007). All of these data also refer to the province and are aggregated to the district as described above. We have non-missing data for 92 Italian provinces. Table 4 displays summary statistics and correlation coefficients for blood donations, per-capita income, education, and newspapers

---

<sup>8</sup>We also collected alternative indicators of social capital, such as generalized trust (the percentage of individuals who think that most people can be trusted, according to the World Value Surveys in 1990-91 and 1995-97); how individuals have voted in the 1946 referendum on the monarchy; the number of sport associations; the percentage of individuals enrolled in sport associations out of the provincial population. Most of the results are robust to the use of these alternative indicators of social capital.

diffusion at the province level. Clearly, social capital is positively correlated with economic development and voters' information, although it displays a negative correlation with the level of education attained in the province.

### 3 Social capital and political misbehavior

This section investigates the link between political misbehavior and social capital. There are at least two ways in which social capital might influence political misbehavior. The first one operates through the social capital “embedded” in the representatives themselves. The behavior of political representatives also reflects their values and preferences. An environment with low social capital might breed political representatives who are more opportunistic and less likely to internalize true social welfare. The second channel operates through voters' behavior. As argued in the introduction, in an environment with low social capital, voters are less likely to be informed. Moreover, even if informed, voters may be more tolerant of political abuses. As a result, elected representatives face weaker incentives to please the voters, and are selected based on criteria other than honesty and competence. Both mechanisms lead to similar predictions: less social capital is correlated with a worse agency problem and more political abuses. The two channels are hard to disentangle, however, also because voters' behavior affects the intrinsic qualities of politicians through selection effects.

Motivated by these priors, we estimate a regression where the dependent variable is political misbehavior by political incumbents. The regressors of interest are social capital in the district of election and/or in the province of birth. In principle, looking at social capital where elected and where born might allow us to separately identify the two channels mentioned above. In practice, however, only relatively few representatives are elected in districts where they are not born. And even for such (self-selected) individuals, we do not know whether the district of election is actually where they grew up.

The basic regression we estimate is thus:

$$Y_{ijt} = \delta_t + \tau SC_j + \underline{X}'_{ijt}\beta + \underline{Z}'_j\alpha + \epsilon_{ijt}, \quad (1)$$

where subscript  $i$  refers to the politician,  $j$  to the area of election,  $t$  to the legislature; the dependent variable  $Y$  measures either having received a RAP, or absenteeism, both in the current legislature. The variable of interest is social capital in the area of election,  $SC_j$ .

Throughout we also control for a set of observable individual features listed in Tables 2 and 3 (the vector  $X$ ), and of district-specific variables listed in Table 4 (the vector  $Z$ ). Estimation is by Probit, when the dependent variable is the binary variable RAP, or OLS, when the dependent variable is the rate of absenteeism.<sup>9</sup>

Equation (1) is a reduced form, in the sense that, as already noted, the coefficient of interest  $\tau$  reflects the social capital of both politicians and voters. Moreover, the effect of voters' social capital might operate both directly (it discourages moral hazard by the incumbent) or indirectly, through sorting (incumbents who are more likely to misbehave choose to stand for election in areas with low social capital). In our case, however, self-selection is exactly a component of the effect we want to identify.

To shed more light on the interplay between voters' and politicians' social capital, we also try to bring into the picture politicians' place of birth ( $k$ ) and the associated social capital ( $SC_k$ ). Thus, we estimate alternatively

$$Y_{ijkt} = \gamma_k + \delta_t + \tau SC_j + \underline{X}'_{ijkt}\beta + \underline{Z}'_j\alpha + \epsilon_{ijkt}, \quad (2)$$

to control for the time-invariant characteristics of politicians' place of birth (including social capital, which is usually assumed to be persistent in time), and

$$Y_{ijkt} = \delta_t + \tau SC_j + \gamma SC_k + \underline{X}'_{ijkt}\beta + \underline{Z}'_j\alpha_1 + \underline{Z}'_k\alpha_2 + \epsilon_{ijkt} \quad (3)$$

in the subsample of *migrants*, namely politicians who stand for election in an area ( $j$ ) different from that of birth ( $k$ ), for whom  $SC_j \neq SC_k$ .<sup>10</sup> This last regression, however, should be interpreted with caution, because migrants are a (very) self-selected subsample, meaning that they are not a random draw from the original population in the province of birth and  $SC_k$  could thus be uninformative about their true social capital.

### 3.1 Criminal prosecutions

Table 5 reports the estimates when the dependent variable is the binary variable RAP (marginal effects are reported). The upper panel measures RAP by the more comprehensive definition, while the lower panel refers to serious crimes.

---

<sup>9</sup>As the absenteeism rate is bounded between 0 and 1, we also estimated equation (1) with the GLM estimator proposed by Papke and Wooldridge (1996), and results were quantitatively the same.

<sup>10</sup>As a reference, we also look at the social capital of birth in isolation:

$$Y_{ijkt} = \gamma_j + \delta_t + \gamma SC_k + \underline{X}'_{ijkt}\beta + \underline{Z}'_k\alpha_2 + \epsilon_{ijkt},$$

controlling for the (time-invariant) characteristics of the district of election.

The first two columns include social capital in the district of election. Column 1 is the most parsimonious specification, that includes however per capita income and education in the district, as well as dummy variables for five macroregions (North-West, North-East, Center, South, Islands). Hence the estimated coefficient of interest only reflects variation across districts and within each macroregion. Given the high correlation between social capital and the other district specific variables, and considering that there only 32 districts, this is already a demanding specification. The estimates reveal that the incidence of both general and serious RAP are significantly lower in districts with more social capital. In particular, according to the baseline specification in column 1, an increase in social capital equal to its standard deviation would reduce the incidence of receiving a RAP by about 16%, and the incidence of a RAP for serious crimes by about 7%. Moving from the lowest level of social capital (recorded in the Southern province of *Caltanissetta*) to the average level would reduce RAP by 20%, and serious RAP by 9%. Moving from the lowest to the highest level of social capital (recorder in the Northern province of *Cremona*) would reduce RAP by 75%, and serious RAP by 35%.

Column 2 adds newspapers circulation in the district as a regressor. Its estimated coefficient is always statistically significant in both panels. The estimated coefficient of social capital shrinks, and remains statistically significant when RAP refers to the general definition (upper panel), but not with regard to serious crimes (lower panel). This suggests that at least part of the effect of social capital in the district of election reflects the channel of information diffusion.

The remaining columns attempt to disentangle the effect of social capital in the district of election versus the region of birth. Column 3 starts by adding to the basic specification a dummy variable for the region of birth.<sup>11</sup> The estimated coefficient in the district of election does not change at all (in the upper panel) or it shrinks a little (in the lower panel), and it remains statistically significant only with regard to general RAP. Overall, this suggests that social capital where elected plays an important role, irrespective of the region of birth. This inference is reinforced by the remaining three columns. When social capital in the district of election is replaced by social capital in the region of birth, the latter is statistically significant in both panels if fixed effects for the district of election are omitted (column 4), but not if they are included (column 5). Moreover, when both

---

<sup>11</sup>Unfortunately, the Second Republic sample does not contain information on the province of birth.

social capital where elected and at birth are included (column 6), restricting the sample to migrants only, the estimated coefficient of social capital remains negative and very large in absolute value, although imprecisely estimated, and it is significant with regard to general RAP; the estimated coefficient of social capital at birth, instead, either has the wrong sign or is very close to zero, and it is never significant.

The effect of social capital on criminal prosecutions thus seems a feature of where the incumbent is elected, and not of where he comes from. Both this and the relevance of newspapers diffusion suggest that the effect captures the behavior of voters, rather than inherited norms of the candidates. Nevertheless, we cannot be sure because we lack information on where the candidate grew up. Moreover, intrinsic features of the candidate might still play a role if more demanding voters' behavior induce sorting by the candidates across districts with different social capital. This is indeed part of the effect of social capital on political misbehavior that we are identifying.

A final concern with the above estimations is that social capital discourages criminal prosecution through the behavior of the judiciary, rather than of voters. A priori this does not seem very likely, because the effect might go in the opposite direction: more zealous judges in districts with higher social capital might increase the likelihood of RAP's, not necessarily reduce it. Anyway, because of this concern, we now turn to absenteeism, a misbehavior that hurts the voters but does not correspond to any criminal wrongdoing.

## 3.2 Absenteeism

Table 6 has the same structure of Table 5, except that there is only one measure of misbehavior. Moreover, the specification here includes more individual-specific variables, since this more recent dataset has more information on the candidates, including the province of birth (instead of simply the region). Finally, social capital and the other district-specific variables vary over a larger number of areas, namely 92 provinces.

The results are qualitatively very similar to those obtained for RAP, although they are more precisely estimated and social capital where elected remains always statistically significant. In particular, columns 1 and 2 refer to social capital in the province of election. Absenteeism is always significantly lower in districts with more social capital. In particular, according to the baseline specification in column 1, an increase in social capital equal to its standard deviation would reduce absences in parliamentary votes by about 14%. Moving

from the lowest to the average level of social capital would reduce absences by 17%, and moving from the lowest to the highest level of social capital by 64%. A large newspapers circulation also discourages absenteeism, but here unlike for RAP the estimated coefficient of social capital increase marginally when this additional regressor is included.

Columns 3-6 try to disentangle the effect of social capital in the province of election versus the province of birth. As for RAP, the effect of social capital where elected remains large in absolute value and statistically significant even with the inclusion of fixed effects for the province of birth (column 3), or if both kinds of social capital are included in the estimation with migrants only (column 6). The effect of social capital at birth, on the other hand, is not statistically significant as soon as the province of election is controlled for (column 5). Overall, therefore, these results support the inference that absenteeism is discouraged by the social capital of voters—both directly and indirectly, through the endogenous sorting of candidates in each district—rather than by inherited norms of the candidates as measured by the social capital at birth.

## 4 Social capital and election outcomes

A plausible interpretation of the results in the previous section is that voters are more tolerant of political abuses in districts with low social capital, so that political representatives face weaker incentives to pursue social welfare, or are poorly selected. If this interpretation is correct, we should see that voters in districts with high social capital are more willing to punish incumbents who misbehaved. This section tests this hypothesis, again looking at how voters react to both RAP and absenteeism.

Starting with RAP, the basic specification we estimate is:

$$\Delta VOT_{ijt} = \delta_t + \gamma_j + \tau RAP_{ijt} \cdot SC_j + \lambda RAP_{ijt} \cdot Z_j + \theta RAP_{ijt} + \underline{X}'_{it} \beta + \epsilon_{ijt}, \quad (4)$$

where the dependent variable is the difference of log votes ( $\Delta VOT_{ijt}$ ) received by incumbent  $i$  in district  $j$  between the elections at the end and beginning of term  $t$ . The coefficient of interest is  $\tau$ , namely the effect of social capital in the district of election interacted with the corresponding RAP. We expect  $\tau < 0$ : electoral punishment for misbehavior is harsher where there is more social capital. Throughout we control for legislative term and district fixed effects, individual features of the incumbent ( $X$ ) and the interaction of RAP with other district-specific variables  $Z$  (namely per-capita income, education, and newspapers

diffusion). Estimation is by OLS, and robust standard errors are clustered by district. As in the previous section, we estimate (4) with two different measures of RAP, referring to general and serious offenses, respectively.

Implicitly, with this specification we assume that voters' punishment is permanent, that is, the incumbent is permanently punished for additional RAP's received in the current legislature. The advantage of this specification is that, taking differences in preference votes between two consecutive elections, we take care of unobserved and time-invariant individual variables potentially correlated with RAP. Nevertheless, as an additional check, we also estimate equation (4) by adding individual (legislator-specific) fixed effects. In this case, the identification comes from *movers*, namely candidates who stand for election in different districts in different legislative terms.

Since we are interested in the interaction between RAP and social capital, however, district and individual fixed effects do not entirely remove the problem of unobserved variables that vary across both individuals and districts, and that might be correlated with RAP. In other words, the estimation of equation (4) may suffer from a possible self-selection problem into the treatment RAP. In the previous section, we have argued that the evidence suggests that voters are more effective in discouraging misbehavior in districts with higher social capital, either because incumbents are more self-restrained, or because politicians with a lower propensity to misbehave enter politics anticipating voters' behavior. Here, this means that misbehavior by the incumbent is not random, but could be systematically correlated with the error term of equation (4).

As we are interested in estimating  $\tau$ , this self-selection would be a major problem only if the arising bias were different in areas characterized by different levels of social capital. To control for that, as discussed in Appendix II, we should include a full set of interactions between individual and district fixed effects. This specification is too demanding for our data. We therefore rely on an alternative specification that may be described as a good approximation, where we basically demote the degrees of freedom problem by reducing social capital to a binary variable. In particular, we estimate equation (4) with (and without) individual fixed effects and omitting the interaction variable (i.e., constraining  $\tau = 0$ ), but in two different samples: the districts with social capital above and below the mean, respectively.<sup>12</sup> We then test whether the estimated coefficient on *RAP* ( $\hat{\theta}$ ) is

---

<sup>12</sup>Results are robust to the use of different cutoffs: the median, the 25<sup>th</sup>, and the 75<sup>th</sup> percentile.

the same in the two samples. Hence, in the specification with individual fixed effects, the identification comes from politicians who have been repeatedly elected in areas with the same social capital and have received a RAP in one term but not in another.

Furthermore, it should be noted that, as discussed in Appendix II, the baseline specification of equation (4), under plausible assumptions, estimates a lower bound of  $\tau$ , as the above source of possible endogeneity works against us. Intuitively, as long as politicians who have a high electoral support (and can therefore afford to be punished) are more likely to misbehave in areas with high social capital, the mean selection bias in areas with low social capital is smaller. As a result, the estimated difference between the electoral punishment in areas with high versus low social capital is smaller as well.

An additional problem with equation (4) is non-random sample selection, as we only observe preference votes for incumbents who choose to run for reelection. But incumbents who obtained very severe RAP's in districts where voters are very demanding might choose to opt out of the election. Nevertheless, in the data, the decision of whether or not to run for reelection is uncorrelated with RAP, social capital, and their interactions, suggesting that this is not a serious problem.

To avoid this problem, however, in the sample of the Second Republic, where misbehavior is measured by absenteeism, we redefine the dependent variable as being reelected in the same district ( $REELE_{ijt}$ ). We thus estimate:

$$REELE_{ijt} = \delta_t + \gamma_j + \tau Y_{ijt} \cdot SC_j + \lambda Y_{ijt} \cdot Z_j + \theta Y_{ijt} + \underline{X}'_{ijt} \beta + \epsilon_{ijt} \quad (5)$$

where  $Y_{ijt}$  refers to absenteeism. Here, an incumbent who chooses not to run is coded as not reelected, so that sample selection is not an issue. Estimation is by Probit, with standard errors clustered by district. The specification is otherwise the same as with RAP in equation (4), except that in this sample we have a richer set of observable individual features. An important reason why in this sample we can look at election outcomes, rather than just preference votes, is that here the electoral rule is plurality rule in single-member districts. Therefore, the link between votes and election outcomes is more powerful than in the proportional electoral system with open lists of the First Republic, where the order in the list is often the main determinant of the final outcome.

This sample has a drawback relative to the First Republic, however: since there are only two legislatures, the number of movers is way too small to identify the parameter of interest when individual fixed effects are included.

## 4.1 Criminal prosecutions

Table 7 reports the estimates of equation (4). Again, the upper panel refers to the general and broader definition of RAP, while the lower panel refers to serious RAP. The coefficient of interest is that on the interaction between RAP and social capital (i.e.,  $\hat{\tau}$ ). Column 1 estimates the basic specification, where RAP is interacted with social capital but not with other district-specific variables. The estimated coefficient of interest is negative and statistically significant, as expected, and the effect is stronger in the case of serious RAP, as one might also have expected. Column 2 adds the interactions between RAP and other district-specific variables (per-capita income, education, newspapers diffusion). The effect of the interaction between RAP and social capital becomes even larger in absolute value and gains significance, in both panels.

According to the specification in column 2, receiving a RAP is going to decrease the amount of preference votes by 21% in areas with average social capital and by 28% in areas with the highest level of social capital, while it has no significant impact where social capital is completely lacking. For serious RAP, the impact is minus 9% on average and minus 56% in areas with the highest social capital, while it is again insignificant in areas with the lowest social capital.

Furthermore, the remaining two columns (3 and 4) repeat the same exercise but add individual fixed effects, thus drawing inferences from the incumbents who moved across districts. The estimated coefficient of serious RAP interacted with social capital remains stable and significant, while that of general RAP interacted with social capital becomes negligible and insignificant.

Table 8 estimates a similar specification in the split sample, again for general and serious RAP. Columns 1 and 3 refer to districts with social capital above the mean, columns 2 and 4 to districts below the mean. We are interested in whether the estimated coefficient of RAP is different in the two samples, as reported by the p-value of the Wald tests at the bottom of each panel. The estimates are consistent with those of Table 7. When individual fixed effects are omitted (columns 1 and 2), the difference between the two samples is highly significant, according to both definitions of RAP. When individual fixed effects are included (columns 3 and 4), the difference in the estimated coefficients of RAP is statistically significant only for serious RAP, although even in the general definition the estimated coefficient of RAP is only significant and larger in absolute value in the

high social capital sample. Looking at our preferred specification with individual fixed effects, receiving a RAP approximately reduces preference votes by 12% in areas with above-average social capital, while it has no impact in areas with below-average social capital. Similarly, being prosecuted for serious crimes reduces preference votes by 25% in areas with above-average social capital and has no impact in the others.

Finally, in Figures 5 and 6, we visually inspect whether our results are driven by outlying electoral districts. Within each of the 32 districts we estimate the electoral punishment of RAP and serious RAP controlling for individual-specific variables. We then separately regress the electoral punishment on both social capital and the other district-specific variables ( $Z$ ). The figures plot the scatter and linear correlation between the residuals of these last two regressions, that is, the correlation between the electoral punishment of political misbehavior and social capital partialing out the impact of other district-specific characteristics. The negative correlation is always highly significant and does not appear to be driven by outliers.

Overall, the above estimates are in line with the priors and suggest that indeed voters in districts with high social capital are more willing to punish political misbehavior, especially when it involves prosecution for serious crimes.

## 4.2 Absenteeism

Table 9 reports the estimates of equation (5). The coefficient of interest is that on the interaction between the absenteeism rate and social capital ( $\hat{\tau}$ ). In the specification of column 1, absenteeism is interacted with social capital but not with other district-specific variables. The estimated coefficient of interest is again negative and statistically significant. As in the case of RAP, when we add the interactions between absenteeism and other district-specific variables in column 2, the effect of the interaction between absenteeism and social capital becomes even larger in absolute value. For the sake of completeness, we also report the estimates with individual fixed effects in columns 3 and 4, but they are inclusive because of the low amount of within variation, as the panel consists of only two legislative terms in the Second Republic. According to the specification in column 2, the effect of shirking parliamentary duties on reelection is positive (although insignificant) where there is no social capital. An increase in the absenteeism rate equal to its standard deviation reduces the probability of being reelected in the same (single-member)

district by 1 percentage point (about 2%) in areas with average social capital, and by 22 percentage points (about 70%) in areas with the highest level of social capital.<sup>13</sup>

Table 10 further looks at the association between the electoral punishment of shirking and social capital using the split-sample specification. As for RAP, columns 1 and 3 refer to districts with social capital above the mean, columns 2 and 4 to districts below the mean. We are interested in whether the estimated coefficient of the absenteeism rate is different in the two samples, as reported by the p-value of the Wald test. When individual fixed effects are omitted (columns 1 and 2), the difference between the two samples has the expected sign and is highly significant. In particular, an increase in the absenteeism rate equal to its standard deviation reduces the probability of being reelected in the same (single-member) district by 24 percentage point (about 42%) in areas with above-average social capital, and it has a positive (although insignificant) effect in areas with below-average social capital. When individual fixed effects are included (columns 3 and 4), the difference in the estimated coefficients of absenteeism has no longer the expected sign, but it is statistically insignificant according to the Wald test.

In Figure 7, we visually inspect whether the above results are driven by outlying provinces of election. Looking at the 92 Italian provinces in our sample, we repeat the two-step estimation strategy implemented for RAP and serious RAP in Figures 5 and 6, respectively. The correlation between the electoral punishment of shirking and social capital—partialing out the impact of other district-specific characteristics—is negative (as expected), highly significant, and does not appear to be driven by outliers.

Overall, although the limited panel dimension of the Second Republic sample hampers the consistent implementation of the specifications with individual fixed effects, the available empirical evidence is again in line with the priors and suggests that members of Parliament elected in districts with high social capital cannot safely expect to shirk their duties without being punished in terms of reelection probability.

---

<sup>13</sup>Using reelection—instead of reelection in the same district—as dependent variable in the estimation of equation (5) provides results that are similar in terms of statistical significance but lower in magnitude (available upon requests). This means that political parties may decide to “save” some misbehaving politicians by letting them run for reelection in a different electoral district. Furthermore, estimating (5) in the sample of 25% members of Parliament elected under (closed-list) proportional representation, which are excluded from our analysis, provides no significant results (available upon request).

## 5 Conclusions

In this paper, we have empirically investigated the impact of social capital or cultural traits shared by voters on the degree of political accountability. Using data on Italian members of Parliament in the postwar period, we have shown that political misbehavior—measured by both criminal prosecution and absenteeism in Parliament votes—is negatively correlated with the social capital of the district where politicians have been elected. More importantly, the electoral punishment of political misbehavior is considerably more pronounced in districts with high social capital. We interpret this as evidence that social norms of generalized trust on the part of voters are an important factor in keeping elected officials accountable for their actions. We are aware, however, that the finding that the electorate is more demanding in districts with high social capital might reflect not only a different value system of voters, but also the fact that, where social capital is low, the political opponent is also corrupt (i.e., voters have no alternative).

Our findings can thus explain why political corruption and clientelism seem to be much more prevalent in countries and regions with low social capital. If voters are more tolerant of political misbehavior, their elected representatives face weaker incentives to pursue social welfare. Moreover, political representatives are less likely to be selected on criteria of honesty and general competence. Our results also point to a possible interaction between social capital and institutions in keeping politicians accountable. Indeed, the negative correlation we detect between political misbehavior and social capital is at work only for members of Parliament elected either under open-list proportional representation or in majoritarian (single-member) districts, while it is not present for members of Parliament elected under closed-list proportional representation, where voters' monitoring and information on politicians' quality are likely to be lower.

## References

- Alesina, A., and P. Giuliano (2009), “Family Ties and Political Participation,” NBER Working Paper No.15415.
- Alesina, A., and G. Tabellini (2008), “Bureaucrats or politicians? Part II: Multiple policy tasks,” *Journal of Public Economics*, 92, 426–447.
- Algan, Y., and P. Cahuc (2010), “Social Attitudes and Economic Development: An Epidemiological Approach,” *American Economic Review*, forthcoming.
- Banfield, E. (1958), *The Moral Basis of a Backward Society*, New York, NY: Free Press.
- Besley, T. (2005), *Principled Agents? The Political Economy of Good Government*, Oxford: Oxford University Press.
- Chang, E.C., M.A. Golden, and S.J. Hill (2010), “Legislative Malfeasance and Political Accountability,” *World Politics*, forthcoming.
- Ferejohn, J. (1986), “Incumbent Performance and Electoral Control,” *Public Choice*, 50, 5–25.
- Ferraz, C., and F. Finan (2008), “Exposing Corrupt Politicians: The Effect of Brazil’s Publicly Released Audits on Electoral Outcomes,” *Quarterly Journal of Economics*, 123, 703–745.
- Fukuyama, F. (1995), *Trust: The Social Virtues and the Creation of Prosperity*, New York, NY: Free Press.
- Ichino, A., and G. Maggi (2000), “Work Environment and Individual Background: Explaining Regional Shirking Differentials in a Large Italian Firm,” *Quarterly Journal of Economics*, 115, 1057–1090.
- Gagliarducci, S., T. Nannicini, and P. Naticchioni (2008a), “Electoral Rules and Politicians’ Behavior: A Micro Test,” IZA Discussion Paper No.3348.
- Gagliarducci, S., T. Nannicini, and P. Naticchioni (2008b), “Outside Income and Moral Hazard: The Elusive Quest for Good Politicians,” IZA Discussion Paper No.3295.
- Guiso, L., P. Sapienza, and L. Zingales (2004), “The Role of Social Capital in Financial Development,” *American Economic Review*, 94, 526–556.
- Guiso, L., P. Sapienza, and L. Zingales (2008), “Social Capital as Good Culture,” *Journal of the European Economic Association*, 6, 295–320.

- Knack, S., and P. Keefer (1997), “Does Social Capital Have an Economic Payoff? A Cross-Country Investigation,” *Quarterly Journal of Economics*, 112, 1251–88.
- La Porta, R., F. Lopez de Silanes, A. Shleifer, and R. Vishny (1997), “Trust in Large Organizations,” *American Economic Review*, 87, 333–338.
- Myerson, R.B. (1993), “Effectiveness of the Electoral Systems for Reducing Government Corruption: A Game-Theoretic Analysis,” *Games and Economic Behaviour*, 5, 118–132.
- Papke, L.E., and J.M. Wooldridge (1996), “Econometric Methods for Fractional Response Variable with an Application to 401 (K) Plan Participation Rates,” *Journal of Applied Econometrics*, 11, 619–632.
- Persson, T., and G. Tabellini (2000), *Political Economics*, Cambridge, MA: MIT Press.
- Persson, T., G. Tabellini, and F. Trebbi (2003), “Electoral Rules and Corruption,” *Journal of the European Economic Association*, 1, 958–989.
- Peters, J.G., and S. Welch (1980), “The Effects of Charges of Corruption on Voting Behavior in Congressional Elections,” *American Political Science Review*, 74, 697–708.
- Putnam, R. (1993), *Making Democracy Work. Civic Traditions in Modern Italy*, Princeton, NJ: Princeton University Press.
- Putnam, R. (2000), *Bowling Alone*, New York: Simon and Schuster.
- Rundquist B., G. Strom, and J. Peters (1977) “Corrupt Politicians and Their Electoral Support: Some Experimental Observations” *American Political Science Review*, 71, 954-963.
- Tabellini, G. (2008), “The Scope of Cooperation: Values and Incentives,” *Quarterly Journal of Economics*, 123, 905–950.
- Tabellini, G. (2009), “Culture and Institutions: Economic Development in the Regions of Europe,” *Journal of the European Economic Association*, 6, 255–294.
- Toqueville, A. (1840), *Democracy in America*.
- Welch, S., and J.R. Hibbing (1997), “The effects of charges of corruption on voting behavior in Congressional elections, 1982-1990,” *Journal of Politics*, 59, 226–239.

## Appendix I: Main offenses included in our measures of criminal prosecution (*RAP* and *serious RAP*)

- List of serious offenses included in both the broad and narrow definition of RAP:
  - Corruption.
  - Private interest in official acts or official duties.
  - Tax evasion, tax dodging.
  - Violation of the new laws on combating criminality; criminal conspiracy; confederation to commit a crime; racketeering organization.
  - Trade fraud.
  - Abuse, word of abuse.
  - Forgery in public acts and public duties.
  - Handling (receiving) stolen goods.
  - Homicide, murder.
  - Attempted domestic violence (brutality); violence or threat to public officer.
  - Criminal damage; damage of public building.
  - Defamation, insult, libel; false allegations.
  - Bouncing a check.
  - Embezzlement of public property or public funds.
  
- List of other offenses included only in the broad definition of RAP:
  - Unlawful assembly; disturbance in an election meeting.
  - Destruction or damage to bill-posting; unlawful bill-posting.
  - Road-traffic offenses.
  - Impediment, hindrance, or obstruction to free movement.
  - Instigation to fascism.
  - Bodily injury.
  - Contempt (*oltraggio a pubblico ufficiale*).
  - Publication or spreading false news.
  - (Unlawful) interruption of public utility.
  - Destruction of propaganda placards or notices; breach of the rules on electoral propaganda.

## Appendix II: Nature and direction of self-selection bias

Using a potential-outcome framework, define  $\Delta VOT_i(1)$  as the potential outcome of politician  $i$  in case he received a RAP, and  $\Delta VOT_i(0)$  as the potential outcome in case he did not receive a RAP.<sup>14</sup> Conditional on the level of social capital of the district of election ( $SC = k$ , with  $k = H, L$  and  $H > L$ ), potential outcomes can be written as:

$$\Delta VOT_{ik}(1) = \mu_{1k} + U_{ik}(1)$$

$$\Delta VOT_{ik}(0) = \mu_{0k} + U_{ik}(0),$$

where  $\mu_{1k} - \mu_{0k}$  captures the common electoral punishment for receiving a RAP in district  $k$  and  $U_{ik}(1) - U_{ik}(0)$  is the idiosyncratic punishment of individual  $i$  in district  $k$ .

If we regress the observed outcome on the received RAP by OLS within every district (or we control for district fixed effects in a saturated model), the estimated coefficient provides a biased estimate of the average treatment effect on the treated in district  $k$  ( $\tau_k = E[\Delta VOT_{ik}(1) - \Delta VOT_{ik}(0)|RAP = 1, SC = k]$ ), and the mean selection bias is:

$$MSB_k = E[U_{ik}(0)|RAP = 1, SC = k] - E[U_{ik}(0)|RAP = 0, SC = k],$$

that is, respectively, the average idiosyncratic electoral outcome in the case of no treatment for politicians who end up receiving a RAP and politicians who do not receive it.

As we are interested in the comparison between  $\tau_k$  in districts characterized by different levels of social capital, assuming that the idiosyncratic electoral outcomes of each politician are constant across time, we could remove the mean selection bias in each district by including politician fixed effects within every district (or by saturating the model with a full set of interactions between politician and district fixed effects).

If we cannot do that because of data restrictions, however, we can still predict the direction of the bias when comparing the estimated treated effects in districts with high versus low social capital. In particular, it is easy to show that, as long as the mean selection bias in districts with high social capital is larger than the mean selection bias in districts with low social capital, that is,  $MSB_H > MSB_L$ , the estimated difference between  $\tau_H$  and  $\tau_L$  is going to be a *lower bound* of the true difference (i.e., of the true interaction between RAP and social capital in deciding the electoral outcome).

At the end of the day, to obtain a lower bound interpretation of our estimates, we need to assume that, where social capital is high, politicians who would experience favorable electoral outcomes *without* RAP are more likely to self-select into RAP: in other words, where the expected punishment is higher, only those who can afford the (electoral) price

---

<sup>14</sup>We summarize the main identification issues in the framework of the First Republic, i.e., with the log difference of preference votes as outcome variable and RAP as treatment of interest. The reasoning easily extends to the Second Republic framework, with reelection as outcome and absenteeism as treatment.

of receiving a RAP decide to misbehave. Of course, we would obtain an upper bound interpretation with the opposite assumption, namely that, where the expected punishment is higher, only those who are desperate and would end up not being reelected anyway decide to misbehave. We believe that the lower bound assumption is plausible in our context, where most incumbents effectively compete for reelection, although we cannot completely rule out the opposite hypothesis.

## Tables and Figures

Table 1: The two samples at a glance

Legislative term	Obs.
I (1948–1953)	549
II (1953–1958)	547
III (1958–1963)	579
IV (1963–1968)	594
V (1968–1972)	598
VI (1972–1976)	587
VII (1976–1979)	599
VIII (1979–1983)	596
IX (1983–1987)	599
X (1987–1992)	601
Total (“First Republic” sample)	5,849
XII (1994–1996)	618
XIII (1996–2001)	596
Total (“Second Republic” sample)	1,214

Notes. Non-missing observations across legislative terms since 1948. *“First Republic” sample*: House of Representatives only. *“Second Republic” sample*: House of Representatives and Senate; majoritarian members of Parliament only. The XI legislative term (1992–94) marks the transition from the First to the Second Republic, and it is dropped because members of Parliament were (re)elected under a different electoral system in the XII term. The XIV legislative term (2001–2006) is dropped because members of Parliament were (re)elected under a different electoral system in the XV term.

Table 2: Individual characteristics of members of Parliament – *First Republic*

	Mean	S.d.	Min	Max	Obs.
Male	0.93	0.25	0.00	1.00	5,849
Age	48.33	9.44	18.00	98.00	5,849
Years of schooling	15.24	5.30	0.00	21.00	5,849
Government appointment	0.16	0.36	0.00	1.00	5,849
Local experience	0.61	0.49	0.00	1.00	5,849
Freshman	0.38	0.49	0.00	1.00	5,849
Majority coalition	0.50	0.50	0.00	1.00	5,849
Migrant	0.21	0.41	0.00	1.00	5,849
Lawyer	0.16	0.37	0.00	1.00	5,849
Executive	0.04	0.20	0.00	1.00	5,849
Politician	0.17	0.37	0.00	1.00	5,849
Entrepreneur	0.03	0.16	0.00	1.00	5,849
Teacher	0.12	0.32	0.00	1.00	5,849
Physician	0.04	0.19	0.00	1.00	5,849
RAP	0.24	0.43	0.00	1.00	5,849
Serious RAP	0.12	0.32	0.00	1.00	5,849
Candidate	0.70	0.46	0.00	1.00	5,849
Reelected	0.54	0.50	0.00	1.00	5,849

Notes. All variables are dummies, except *Age* (in years) and *Years of schooling*. *Government appointment* includes ministers and vice-ministers. *Local experience* stands for previous government experience at the local level (e.g., mayor). *Freshman* means that the previous parliamentary tenure is zero. *Majority coalition* identifies the government coalition. *Migrant* identifies politicians elected in a province different from that of birth. Job dummies refer to the preelection occupation. *RAP* is equal to one if the politician receives a request for the removal of parliamentary immunity because suspected of criminal wrongdoing. *Serious RAP* refers to a request for serious crimes (see Appendix I). *Candidate* is equal to one if the member of Parliament stands for reelection in the next term. *Reelected* is equal to one if the member of Parliament wins the bid for reelection.

Table 3: Individual characteristics of members of Parliament – *Second Republic*

	Mean	S.d.	Min	Max	Obs.
Male	0.92	0.28	0.00	1.00	1,214
Married	0.77	0.42	0.00	1.00	1,214
No. of children	1.53	1.20	0.00	9.00	1,214
Age	49.50	9.44	27.00	84.00	1,214
Years of schooling	16.11	2.43	5.00	20.00	1,214
National politician	0.25	0.44	0.00	1.00	1,214
Government appointment	0.06	0.24	0.00	1.00	1,214
Parliament appointment	0.13	0.34	0.00	1.00	1,214
Local experience	0.54	0.50	0.00	1.00	1,214
Freshman	0.55	0.50	0.00	1.00	1,214
Majority coalition	0.58	0.49	0.00	1.00	1,214
Migrant	0.20	0.40	0.00	1.00	1,214
Lawyer	0.14	0.34	0.00	1.00	1,214
Executive	0.13	0.33	0.00	1.00	1,214
Politician	0.12	0.32	0.00	1.00	1,214
Entrepreneur	0.10	0.30	0.00	1.00	1,214
Teacher	0.10	0.30	0.00	1.00	1,214
Self-employed	0.10	0.30	0.00	1.00	1,214
Physician	0.10	0.29	0.00	1.00	1,214
Preelection income	0.12	0.35	0.00	11.32	1,214
Absenteeism rate	0.36	0.24	0.00	0.98	1,214
Reelected	0.50	0.50	0.00	1.00	1,214
Reelected same district	0.32	0.47	0.00	1.00	1,214

Notes. All variables are dummies, except *No. of children*, *Age* (in years), *Years of schooling*, and *Preelection income* (in million of Euros, 2004 prices). *National politician* stands for being a member of the party executive committee at the national level. *Government appointment* includes ministers and vice-ministers. *Parliament appointment* captures whether the politician is president or vice-president of the Parliament, or of a single committee. *Local experience* stands for previous government experience at the local level (e.g., mayor). *Freshman* means that the previous parliamentary tenure is zero. *Majority coalition* identifies the government coalition. *Migrant* identifies politicians elected in a province different from that of birth. Job dummies refer to the preelection occupation. *Preelection income* is the total gross income in the last year before being elected. *Absenteeism rate* is the percentage of votes missed without any legitimate reason during the legislative term. *Reelected* and *Reelected same district* (with the latter referring to single-member districts in majoritarian elections) are dummies equal to one if the politician wins the bid for reelection. Majoritarian members of Parliament only.

Table 4: Social capital measure and other characteristics of Italian provinces

	Mean	S.d.	Min	Max	Blood	Income	Education	Newspapers
Blood donation	2.80	2.21	0.00	10.52	1.00			
Income	15.33	3.21	10.04	20.72	0.52	1.00		
Education	31.70	3.41	25.10	46.29	-0.32	0.06	1.00	
Newspapers	7.91	3.90	1.94	17.54	0.33	0.69	0.11	1.00

Notes. The left panel reports descriptive statistics of the variables; the right panel reports the correlation coefficients between them. *Blood donation* is the number of blood bags (about 16oz) every 100 inhabitants in 1995 (source: Guiso, Sapienza, and Zingales, 2004). *Income* is per-capita income in 2003, measured in thousand of Euros (source: Istat). *Education* is the share of people over 19 with a high-school degree in 2003, expressed in percentage points (source: Istat). *Newspapers* is the diffusion of non-sport newspapers every 100 inhabitants in 2001–2002 (source: Cartocci, 2007). Number of provinces: 92.

Table 5: The impact of social capital on malfeasance – *First Republic*

	(1)	(2)	(3)	(4)	(5)	(6)
<b>Dependent variable: RAP</b>						
Social capital of election	-0.017*** [0.004]	-0.010** [0.005]	-0.017** [0.007]			-0.027*** [0.008]
Social capital of birth				-0.013*** [0.005]	0.002 [0.010]	0.004 [0.011]
Newspapers		-0.008*** [0.003]				
Years of schooling	-0.001 [0.001]	-0.001 [0.001]	-0.001 [0.001]	-0.001 [0.001]	-0.001 [0.001]	-0.004 [0.004]
Government appointment	-0.066*** [0.015]	-0.067*** [0.015]	-0.067*** [0.016]	-0.066*** [0.016]	-0.065*** [0.015]	-0.062* [0.034]
Local experience	0.019 [0.020]	0.020 [0.021]	0.019 [0.020]	0.017 [0.021]	0.021 [0.021]	-0.011 [0.029]
Freshman	-0.050*** [0.011]	-0.050*** [0.011]	-0.048*** [0.011]	-0.050*** [0.011]	-0.049*** [0.011]	-0.083*** [0.025]
Majority coalition	-0.099*** [0.016]	-0.100*** [0.016]	-0.097*** [0.016]	-0.096*** [0.016]	-0.099*** [0.017]	-0.126*** [0.032]
Other control variables	Yes	Yes	Yes	Yes	Yes	Yes
Region of birth dummies	No	No	Yes	No	No	No
District of election dummies	No	No	No	No	Yes	No
Obs.	5,849	5,849	5,849	5,849	5,849	1,217
<b>Dependent variable: Serious RAP</b>						
Social capital of election	-0.004*** [0.001]	-0.001 [0.001]	-0.003 [0.002]			-0.004 [0.003]
Social capital of birth				-0.003** [0.001]	-0.001 [0.003]	-0.001 [0.004]
Newspapers		-0.003*** [0.001]				
Years of schooling	0.000 [0.001]	-0.000 [0.001]	0.000 [0.001]	0.000 [0.001]	-0.000 [0.001]	-0.001 [0.001]
Government appointment	-0.010* [0.006]	-0.010* [0.006]	-0.011* [0.005]	-0.010* [0.006]	-0.010* [0.006]	-0.001 [0.019]
Local experience	0.003 [0.007]	0.003 [0.007]	0.003 [0.007]	0.002 [0.007]	0.004 [0.007]	-0.006 [0.013]
Freshman	-0.007* [0.004]	-0.007* [0.004]	-0.007* [0.004]	-0.007* [0.004]	-0.007* [0.004]	-0.007 [0.011]
Majority coalition	-0.026*** [0.007]	-0.026*** [0.006]	-0.025*** [0.006]	-0.026*** [0.007]	-0.026*** [0.007]	-0.041** [0.017]
Other control variables	Yes	Yes	Yes	Yes	Yes	Yes
Region of birth dummies	No	No	Yes	No	No	No
District of election dummies	No	No	No	No	Yes	No
Obs.	5,849	5,849	5,849	5,849	5,849	1,217

Notes. Probit estimations; marginal effects reported. Estimation (6) is restricted to migrants (i.e., politicians elected in a region different from that of birth). Dependent variables: dummy equal to one if the politician received a request for the removal of parliamentary immunity because suspected of any criminal wrongdoing (*RAP*), or because suspected of a serious crime (*Serious RAP*). Social capital is measured as blood donation. *Other control variables* include: age, age squared, legislative term dummies, job dummies, district-specific income and education, macro-region dummies (North-West, North-East, Center, South, Islands). Robust standard errors clustered at the district of election level are in brackets. Significance at the 10% level is represented by \*, at the 5% level by \*\*, and at the 1% level by \*\*\*.

Table 6: The impact of social capital on shirking – *Second Republic*

	(1)	(2)	(3)	(4)	(5)	(6)
	<b>Dependent variable: Absenteeism rate</b>					
Social capital of election	-0.022*** [0.005]	-0.024*** [0.004]	-0.029*** [0.006]			-0.019* [0.011]
Social capital of birth				-0.009* [0.005]	-0.000 [0.006]	0.008 [0.006]
Newspapers		-0.008** [0.003]				
Years of schooling	0.001 [0.003]	0.001 [0.003]	0.002 [0.003]	0.001 [0.004]	0.001 [0.003]	-0.026*** [0.007]
National politician	0.036** [0.015]	0.035** [0.015]	0.032** [0.014]	0.034** [0.014]	0.038*** [0.014]	0.101*** [0.032]
Government appointment	0.045* [0.023]	0.046** [0.023]	0.041 [0.025]	0.049* [0.026]	0.040 [0.028]	-0.039 [0.053]
Parliament appointment	0.046** [0.022]	0.049** [0.022]	0.047** [0.023]	0.049** [0.024]	0.055** [0.025]	0.014 [0.038]
Local experience	-0.012 [0.012]	-0.012 [0.012]	-0.015 [0.013]	-0.011 [0.014]	-0.019 [0.014]	-0.016 [0.028]
Freshman	-0.030* [0.015]	-0.031** [0.015]	-0.035** [0.015]	-0.028* [0.015]	-0.034** [0.014]	-0.017 [0.033]
Majority coalition	-0.161*** [0.014]	-0.162*** [0.014]	-0.167*** [0.015]	-0.160*** [0.014]	-0.169*** [0.014]	-0.193*** [0.032]
Preelection income	0.074*** [0.027]	0.075*** [0.028]	0.078*** [0.026]	0.076*** [0.020]	0.070*** [0.020]	0.064*** [0.012]
Other control variables	Yes	Yes	Yes	Yes	Yes	Yes
Province of birth dummies	No	No	Yes	No	No	No
Province of election dummies	No	No	No	No	Yes	No
Obs.	1,214	1,214	1,214	1,214	1,214	248

Notes. OLS estimations. Estimation (6) is restricted to migrants (i.e., politicians elected in a region different from that of birth). Dependent variable: absenteeism rate (i.e., percentage of votes missed without any legitimate reason during the term). Social capital is measured as blood donation. *Other control variables* include: age, age squared, married, number of children, legislative term dummies, job dummies, district-specific income and education, macro-region dummies (North-West, North-East, Center, South, Islands). Robust standard errors clustered at the province of election level are in brackets. Significance at the 10% level is represented by \*, at the 5% level by \*\*, and at the 1% level by \*\*\*.

Table 7: Social capital and the electoral punishment of malfeasance (A) – *First Republic*

	(1)	(2)	(3)	(4)
<b>Dependent variable: Log difference of votes</b>				
RAP	-0.014 [0.033]	-0.148 [0.256]	-0.040 [0.059]	0.111 [0.517]
RAP × social capital	-0.015* [0.009]	-0.022** [0.011]	-0.009 [0.020]	0.005 [0.029]
Years of schooling	0.001 [0.002]	0.001 [0.002]	0.000 [0.000]	0.000 [0.000]
Government appointment	0.148*** [0.023]	0.149*** [0.023]	0.054 [0.034]	0.057* [0.034]
Local experience	0.006 [0.018]	0.005 [0.018]	0.000 [0.000]	0.000 [0.000]
Freshman	0.074*** [0.018]	0.075*** [0.018]	0.088*** [0.031]	0.087*** [0.031]
Majority coalition	0.028 [0.018]	0.030 [0.018]	-0.037 [0.064]	-0.040 [0.064]
Other control variables	Yes	Yes	Yes	Yes
District of election dummies	Yes	Yes	Yes	Yes
RAP × $Z_j$	No	Yes	No	Yes
Individual fixed effects	No	No	Yes	Yes
Obs.	3,913	3,913	3,913	3,913
<b>Dependent variable: Log difference of votes</b>				
Serious RAP	0.088** [0.039]	0.081 [0.397]	0.064 [0.069]	0.734 [0.579]
Serious RAP × social capital	-0.045*** [0.012]	-0.061*** [0.015]	-0.064*** [0.023]	-0.058* [0.033]
Years of schooling	0.001 [0.002]	0.002 [0.002]	0.000 [0.000]	0.000 [0.000]
Government appointment	0.152*** [0.023]	0.152*** [0.023]	0.052 [0.034]	0.056* [0.034]
Local experience	0.003 [0.017]	0.002 [0.017]	0.000 [0.000]	0.000 [0.000]
Freshman	0.076*** [0.018]	0.077*** [0.017]	0.089*** [0.030]	0.088*** [0.030]
Majority coalition	0.034* [0.019]	0.033* [0.019]	-0.036 [0.063]	-0.037 [0.063]
Other control variables	Yes	Yes	Yes	Yes
District of election dummies	Yes	Yes	Yes	Yes
Serious RAP × $Z_j$	No	Yes	No	Yes
Individual fixed effects	No	No	Yes	Yes
Obs.	3,913	3,913	3,913	3,913

Notes. OLS estimations. Dependent variable: log difference of number of votes (between past and future elections); members of Parliament who run for reelection only. *RAP* is equal to one if the politician receives a request for the removal of parliamentary immunity because suspected of criminal wrongdoing. *Serious RAP* refers to a request for serious crimes (see Appendix I). *Other control variables* include: age, age squared, legislative term dummies, job dummies, macro-region dummies (North-West, North-East, Center, South, Islands). The district-specific characteristics  $Z_j$  include: income, education, and newspapers. Social capital is measured as blood donation. Robust standard errors clustered at the district of election level are in brackets. Significance at the 10% level is represented by \*, at the 5% level by \*\*, and at the 1% level by \*\*\*.

Table 8: Social capital and the electoral punishment of malfeasance (B) – *First Republic*

	(1)	(2)	(3)	(4)
	Above-mean social capital	Below-mean social capital	Above-mean social capital	Below-mean social capital
<b>Dependent variable: Log difference of votes</b>				
RAP	-0.108** [0.037]	-0.019 [0.025]	-0.116* [0.060]	-0.035 [0.044]
Years of schooling	0.002 [0.003]	-0.000 [0.002]	0.000 [0.000]	0.000 [0.000]
Government appointment	0.138*** [0.041]	0.151*** [0.030]	0.106* [0.058]	0.024 [0.042]
Local experience	-0.026 [0.026]	0.027 [0.024]	0.000 [0.000]	0.000 [0.000]
Freshman	0.083** [0.028]	0.064** [0.026]	0.087* [0.048]	0.072* [0.040]
Majority coalition	0.021 [0.037]	0.040 [0.024]	0.022 [0.089]	-0.148 [0.092]
Other control variables	Yes	Yes	Yes	Yes
District of election dummies	Yes	Yes	Yes	Yes
Individual fixed effects	No	No	Yes	Yes
Obs.	1,645	2,268	1,645	2,268
<i>Wald test p-value</i>	<i>0.025</i>		<i>0.226</i>	
<b>Dependent variable: Log difference of votes</b>				
Serious RAP	-0.139** [0.056]	0.042 [0.035]	-0.247*** [0.072]	-0.005 [0.052]
Years of schooling	0.002 [0.003]	-0.000 [0.002]	0.000 [0.000]	0.000 [0.000]
Government appointment	0.142*** [0.042]	0.154*** [0.029]	0.103* [0.057]	0.024 [0.042]
Local experience	-0.025 [0.027]	0.023 [0.023]	0.000 [0.000]	0.000 [0.000]
Freshman	0.085*** [0.027]	0.067** [0.026]	0.088* [0.048]	0.075* [0.040]
Majority coalition	0.028 [0.037]	0.045* [0.024]	0.018 [0.088]	-0.148 [0.092]
Other control variables	Yes	Yes	Yes	Yes
District of election dummies	Yes	Yes	Yes	Yes
Individual fixed effects	No	No	Yes	Yes
Obs.	1,645	2,268	1,645	2,268
<i>Wald test p-value</i>	<i>0.003</i>		<i>0.004</i>	

Notes. OLS estimations in different subsamples (districts with social capital above/below mean); social capital is measured as blood donation. Dependent variable: log difference of number of votes (between past and future elections); members of Parliament who run for reelection only. *RAP* is equal to one if the politician receives a request for the removal of parliamentary immunity because suspected of criminal wrongdoing. *Serious RAP* refers to a request for serious crimes (see Appendix I). *Other control variables* include: age, age squared, legislative term dummies, job dummies, macro-region dummies (North-West, North-East, Center, South, Islands). The *Wald test* evaluates whether the coefficient of the absenteeism rate is different in the two subsamples (above/below mean). Robust standard errors clustered at the district of election level are in brackets. Significance at the 10% level is represented by \*, at the 5% level by \*\*, and at the 1% level by \*\*\*.

Table 9: Social capital and the electoral punishment of shirking (A) – *Second Republic*

	(1)	(2)	(3)	(4)
	<b>Dependent variable: Reelected same district</b>			
Absenteeism rate	0.066 [0.109]	0.297 [0.568]	-0.708* [0.382]	-3.037 [1.914]
Absenteeism rate $\times$ social capital	-0.087** [0.035]	-0.117** [0.054]	0.107 [0.096]	0.086 [0.127]
Years of schooling	0.012 [0.008]	0.012 [0.008]	0.051 [0.057]	0.063 [0.058]
National politician	-0.013 [0.036]	-0.012 [0.036]	-0.267*** [0.095]	-0.262*** [0.096]
Government appointment	0.054 [0.067]	0.054 [0.067]	-0.020 [0.126]	-0.015 [0.128]
Parliament appointment	0.057 [0.047]	0.054 [0.047]	0.100 [0.089]	0.071 [0.092]
Local experience	0.098*** [0.031]	0.099*** [0.030]	0.184 [0.128]	0.197 [0.129]
Freshman	-0.032 [0.034]	-0.032 [0.034]	-0.089 [0.083]	-0.091 [0.084]
Majority coalition	-0.202*** [0.035]	-0.202*** [0.035]	-0.111** [0.055]	-0.098* [0.057]
Preelection income	-0.006 [0.032]	-0.006 [0.033]	-0.781 [0.571]	-0.751 [0.573]
Other control variables	Yes	Yes	Yes	Yes
Province of election dummies	Yes	Yes	Yes	Yes
Absenteeism rate $\times Z_j$	No	Yes	No	Yes
Individual fixed effects	No	No	Yes	Yes
Obs.	1,214	1,214	1,214	1,214

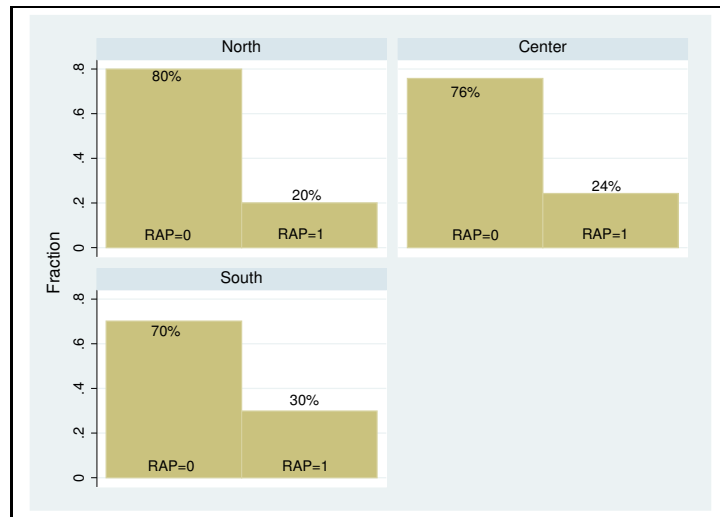
Notes. Probit estimations; marginal effects reported. Dependent variable: dummy equal to one if the member of Parliament is reelected in the same (majoritarian) district in the next term. *Absenteeism rate* is the percentage of votes missed without any legitimate reason during the legislative term. *Other control variables* include: age, age squared, married, number of children, legislative term dummies, job dummies, macro-region dummies (North-West, North-East, Center, South, Islands). The district-specific characteristics  $Z_j$  include: income, education, and newspapers. Social capital is measured as blood donation. Robust standard errors clustered at the province of election level are in brackets. Significance at the 10% level is represented by \*, at the 5% level by \*\*, and at the 1% level by \*\*\*.

Table 10: Social capital and the electoral punishment of shirking (B) – *Second Republic*

	(1)	(2)	(3)	(4)
	Above-mean social capital	Below-mean social capital	Above-mean social capital	Below-mean social capital
<b>Dependent variable: Reelected same district</b>				
Absenteeism rate	-0.558*** [0.123]	0.131 [0.098]	-0.410 [0.588]	-0.669* [0.383]
Years of schooling	0.011 [0.012]	0.011 [0.010]	0.002 [0.138]	0.098 [0.068]
National politician	0.048 [0.043]	-0.101** [0.049]	-0.324* [0.164]	-0.258** [0.126]
Government appointment	0.106 [0.105]	0.053 [0.076]	0.053 [0.239]	-0.073 [0.155]
Parliament appointment	0.018 [0.071]	0.142* [0.075]	0.081 [0.140]	0.105 [0.124]
Local experience	0.049 [0.054]	0.129*** [0.048]	0.348 [0.226]	0.147 [0.165]
Freshman	0.005 [0.051]	-0.104** [0.052]	0.009 [0.152]	-0.116 [0.113]
Majority coalition	-0.387*** [0.058]	-0.045 [0.067]	-0.211* [0.120]	-0.094 [0.067]
Preelection income	0.415*** [0.118]	-0.108 [0.220]	1.145 [1.418]	-1.197* [0.636]
Other control variables	Yes	Yes	Yes	Yes
Province of election dummies	Yes	Yes	Yes	Yes
Individual fixed effects	No	No	Yes	Yes
Obs.	616	598	616	598
<i>Wald test p-value</i>	<i>0.014</i>		<i>0.205</i>	

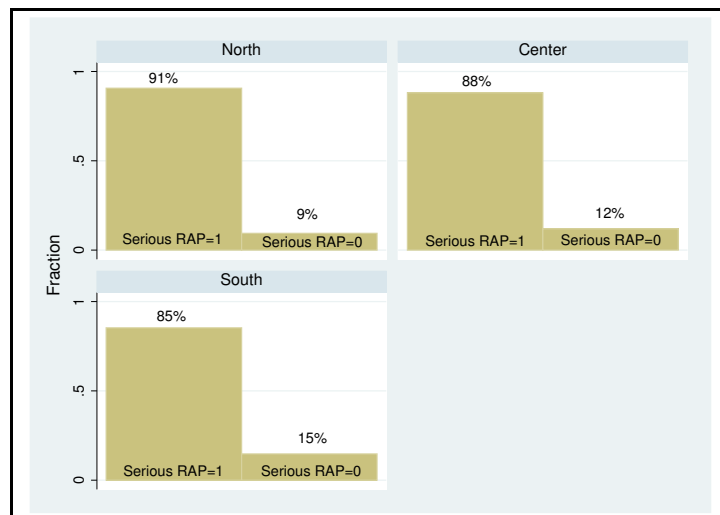
Notes. Probit estimations in different subsamples (provinces with social capital above/below mean); social capital is measured as blood donation; marginal effects reported. Dependent variable: dummy equal to one if the member of Parliament is reelected in the same (majoritarian) district in the next term. *Absenteeism rate* is the percentage of votes missed without any legitimate reason during the legislative term. *Other control variables* include: age, age squared, married, number of children, legislative term dummies, job dummies, macro-region dummies (North-West, North-East, Center, South, Islands). Robust standard errors clustered at the province of election level are in brackets. The *Wald test* evaluates whether the coefficient of the absenteeism rate is different in the two subsamples (above/below mean). Significance at the 10% level is represented by \*, at the 5% level by \*\*, and at the 1% level by \*\*\*.

Figure 1: RAP across areas



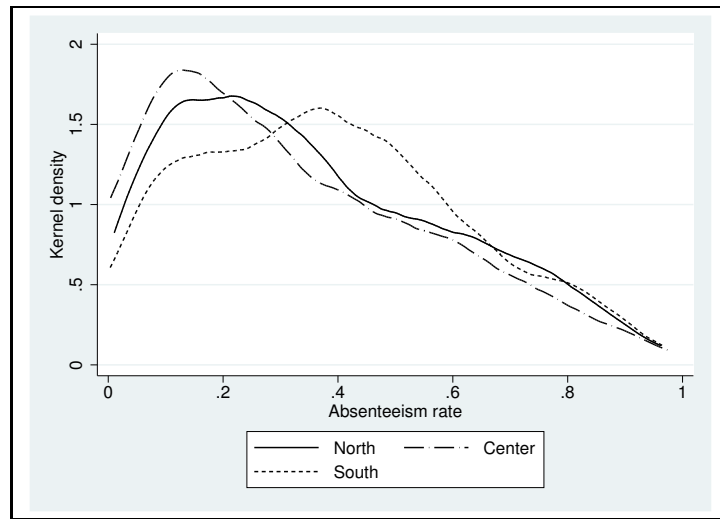
Notes. Fraction of members of Parliament receiving a RAP in the provinces of the North, Center, and South of Italy (Istat classification).

Figure 2: Serious RAP across areas



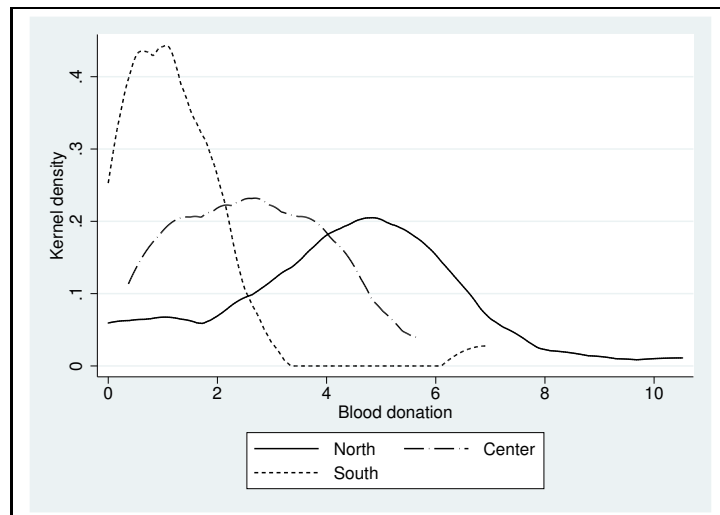
Notes. Fraction of members of Parliament receiving a RAP for serious crimes (see Appendix I) in the provinces of the North, Center, and South of Italy (Istat classification).

Figure 3: Absenteeism rate across areas



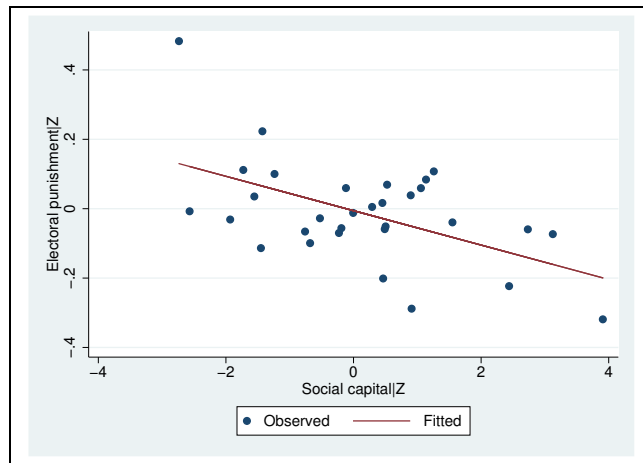
Notes. Kernel density of the absenteeism rate of the members of Parliament elected in the provinces of the North, Center, and South of Italy (Istat classification).

Figure 4: Social capital across areas



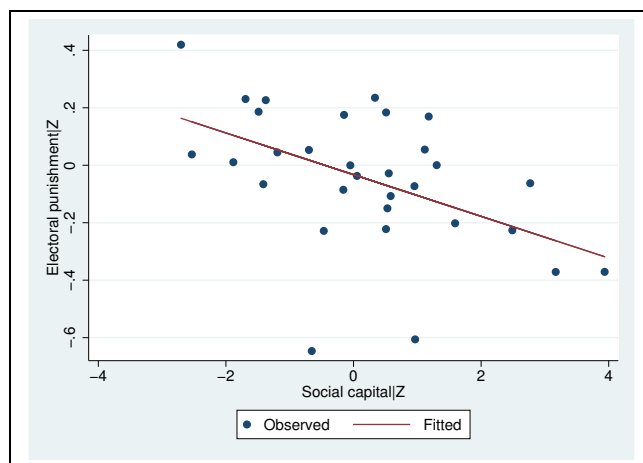
Notes. Kernel density of the social capital measure (number of blood bags every 100 inhabitants) in the provinces of the North, Center, and South of Italy (Istat classification).

Figure 5: Social capital and the electoral punishment of RAP



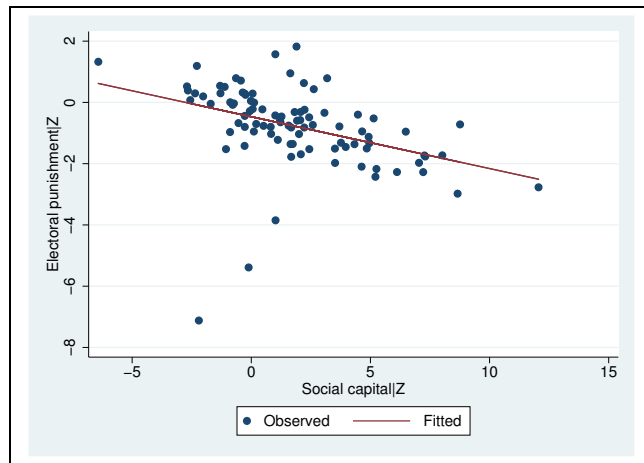
Notes. *Electoral punishment* is the district-specific effect of receiving a RAP on the log difference of future versus past votes. *Social capital* is measured as the number of blood bags every 100 inhabitants. The district-specific characteristics  $Z_j$  include: income, education, and newspapers. The slope coefficient is equal to -0.050 (p-value: 0.011).

Figure 6: Social capital and the electoral punishment of serious RAP



Notes. *Electoral punishment* is the district-specific effect of receiving a RAP for serious crimes on the log difference of future versus past votes. *Social capital* is measured as the number of blood bags every 100 inhabitants. The district-specific characteristics  $Z_j$  include: income, education, and newspapers. The slope coefficient is equal to -0.073 (p-value: 0.000).

Figure 7: Social capital and the electoral punishment of shirking



Notes. *Electoral punishment* is the province-specific effect of the absenteeism rate on reelection. *Social capital* is measured as the number of blood bags every 100 inhabitants. The district-specific characteristics  $Z_j$  include: income, education, and newspapers. The slope coefficient is equal to -0.169 (p-value: 0.000).