# Can Good Politicians Compensate for Bad Institutions?

# EVIDENCE FROM AN ORIGINAL SURVEY OF ITALIAN MAYORS\*

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#### Abstract

Can competent political leaders bring significant policy changes to communities otherwise doomed by "bad" informal institutions? This question has remained unanswered because of the lack of a convincing measure of politicians' competence. I develop a novel survey technique to overcome this challenge and apply it in interviews to 306 Italian mayors. I study the impact of mayors' competence on the policies they enact using a difference-in-differences approach. Results show that more competent mayors are associated with better policies but the association is only present in cases where the quality of informal institutions is low. In these municipalities, the election of more competent mayors translates into a more effective use of funds, an increase in long-term investments, and better service provision without an increase in taxes. Results hold across different measures of institutional quality.

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# 1 Introduction

It is widely thought that the quality of institutions is a key determinant of the success or failure of communities.<sup>1</sup> Should we think of communities with poor institutions as doomed to poor policy outcomes? Or can competent individual leaders compensate for these deficiencies? While the role of leaders has been studied in the corporate context, political leaders as drivers of change have been largely overlooked in recent political economy literature.<sup>2</sup> The ability of a government to achieve an efficient delivery of public goods might largely depend on the competence of its politicians. As is the case with firms' managers, politicians must set out clear objectives for their government, monitor their implementation and incentivize the bureaucracy to reach these objectives. Competent politicians who can achieve these goals might be able to move their communities away from a "bad" governance equilibrium to a "good" one.

In this paper I use newly collected survey data to investigate whether competent politicians can compensate for low-quality institutions. I do this in three steps. First, I develop an original survey instrument to measure a novel dimension of politicians' competence: their ability as managers of their administration. I carry out a survey to collect data on this measure for a sample of 306 Italian mayors. Secondly, I examine whether more competent mayors make a more effective use of public funds and provide better services. Thirdly, I study if the importance of politicians' competence varies as a function of the quality of municipal institutions. Investigating the interaction between politicians' competence and institutional quality is at the center of this paper. The sign of this interaction is not ex-ante clear: politicians and institutions might be complements, *i.e.* it could be that competent politicians can only make a difference if they work within a supportive institutional environment, or substitutes, *i.e.* it could be that competent politicians can make a difference exactly where institutions are deficient. These two scenarios have very different implications and I try to adjudicate between them. I find that more competent mayors enact better policies - use funds more efficiently thus increasing long-term investments and offering better services where the quality of institutions at the local level is low.

As I conduct a within-country analysis, with municipalities operating under the same set of *formal* institutions, my focus in this paper is on *informal* institutions. While formal institutions (such as the powers vested in mayors, the rules governing the local bureaucracy,

<sup>&</sup>lt;sup>1</sup>See Acemoglu and Robinson (2012), Algan and Cahuc (2010), Greif (1994), Khwaja (2009), Knack and Keefer (1997), North and Thomas (1973), Tabellini (2008), Tabellini (2010).

<sup>&</sup>lt;sup>2</sup>See Bertrand and Schoar (2003) and Bloom and Van Reenen (2007) for the role of corporate leaders. A notable exception in the study of politicians is Jones and Olken (2005)'s cross-country study of leaders' deaths and their effect on economic growth, and more recently Berry and Fowler (2017) and Easterly and Pennings (2017).

the budgetary rules) are constant within Italy, their proper functioning at the local level is conditional on the presence of the appropriate informal institutions (Stokes 2006), intended here as the unwritten rules and norms of behavior creating or strengthening incentives to comply with formal institutions (Helmke and Levitsky 2004). Italy offers a unique setting for this study not only thanks to the level of executive power enjoyed by its mayors,<sup>3</sup> but also given its well-known regional differences in the unwritten rules of trust and reciprocity governing interpersonal relationships,<sup>4</sup> in the culture of impunity for those violating formal rules<sup>5</sup>, and in the prevalence of unlawful organizations operating outside of the state.<sup>6</sup>

An important reason for why the impact of politicians' competence on policies has remained largely unexplored is the difficulty in obtaining a convincing measure of competence. The existing literature in political science and economics has largely focused on human capital as a measure of politicians' quality.<sup>7</sup> As a growing body of research suggests however, human capital is an insufficient measure of political competence. On one side human capital can be confounded by class (Dal Bó et al. 2017). More importantly, there is little empirical evidence on the correlation between politicians' human capital and performance: more educated leaders are not less corrupt, do not pass more bills or govern wealthier nations (Carnes and Lupu 2015), and do not enact better policies (Gallego and Curto 2017, Lahoti and Sahoo 2017). Moreover, and perhaps more fundamentally, Dal Bó et al. (2017) show that politicians' level of education is only weakly correlated with measures of their cognitive ability and leadership skills.

In order to address these shortcomings I designed a survey instrument to measure the competence of politicians and I apply it in interviews with a random sample of 306 Italian mayors. My measure is constructed to assess the competence of each mayor with respect to the daily requirements of her job, rather than measuring her intrinsic characteristics or her output. The survey methodology is inspired by Bloom and Van Reenen's (2007) study of managerial competence in firms. In Bloom and Van Reenen (2007)'s study, managers are evaluated on a series of management practices which are grouped in four categories: *target setting, performance monitoring, operations* and *incentives*. I develop a novel version of this survey instrument that measures how well each mayor: *i* clearly defines the objectives of her

<sup>&</sup>lt;sup>3</sup>See Bracco et al (2013), Fabbrini (2001), and Scarciglia (1993).

 $<sup>^{4}\</sup>mathrm{See}$  the literature on social capital in the Italian context (Banfield 1958, Guiso et al 2006, Nannicini et al 2013, Putnam 1993).

<sup>&</sup>lt;sup>5</sup>See the literature on corruption and clientelism in the Italian South (Alesina et al. 2016, Chubb 1982, Golden and Chang 2001, Golden and Picci 2005, Schneider 1998)

<sup>&</sup>lt;sup>6</sup>See the literature on organized crime in the Italian context (Buonanno et al 2015, Gambetta 1993, Pinotti 2015)

<sup>&</sup>lt;sup>7</sup>See Besley et al. (2005), Besley and Reynal-Querol (2011), Ferraz and Finan (2011), Galasso and Nannicini (2011), Gagliarducci and Paserman (2012), Gratton et al. (2017), Kotakorpi and Poutvaara (2011), Merlo et al. (2010).

government mandate and assigns responsibilities for achieving them throughout the administration and the bureaucracy, *ii*) monitors the process of reaching the stated objectives, *iii*) knows the daily operations of the government enterprise, and *iv*) motivates and incentivizes the bureaucracy. My measure specifically focuses on the ability of executive politicians as managers of their government, i.e. their ability to perform the daily tasks involved in the planning and implementation of their government mandate. The methodological innovation of the survey lies in the fact that it tries to obtain unbiased responses by using a doubleblind survey technique devised to minimize both interviewer and interviewee-induced bias. Respondents are unaware of being scored and are asked open questions instead of closed ones so as not to clearly indicate a "best" and a "worst" answer. At the same time, the interviewers, who score the respondents' answers in real time using a grading scheme, are not given any information about the performance of the mayor or of her municipality.

My original measure of politicians' competence presents several interesting features.<sup>8</sup> First, I document that there is large variation in the competence of mayors. Moreover, the distribution of the competence score is remarkably similar across different Italian regions, with the majority of the overall variation in the score driven by within-region variation. Finally, despite being correlated to standard measures of politicians' human capital, these variables leave a sizeable portion of my competence score unexplained. This suggests that my measure captures a dimension of politicians' competence that is absent from the human capital-based measures that are prevalent in the literature.

With this measure at hand I go on to explore the relationship between the competence of each mayor and the policies she enacts and study how this relationship varies depending on the quality of the informal institutions at the municipality level. I start by focusing on one of the main dimensions of an efficient use of public funds in the Italian context: the municipal surplus. Italian municipalities are expected to run a balanced budget and, while very few mayors run deficits due to the presence of sanctions, a majority of mayors closes the budget with a surplus. A large surplus however, is undesirable because it entails leaving "on the table" unused revenues that often cannot be budgeted in the following fiscal years, representing a waste of resources accrued through citizens' taxation.<sup>9</sup> Therefore we expect more competent mayors to run smaller surpluses.

 $<sup>^{8}\</sup>mathrm{I}$  interviewed 306 mayors by contacting 610 mayors (representing around 20 percent of Italian municipalities) and obtaining a response rate of 50.2 percent.

<sup>&</sup>lt;sup>9</sup>During the summer of 2017 I conducted qualitative interviews with a sub-sample of the mayors interviewed in 2016. This sub-group draws mayors from both tails of the competence distribution across the three macro-regions analyzed in the paper: South, North and Center. My qualitative interviews with Italian mayors confirm that the ability of a mayor to spend all the funds collected through taxation and through transfers from the central government is considered to be the most relevant indicator of an efficient administration because of its importance and the challenges faced by mayors in trying to reach this objective.

To get causal traction on the effect of competence on the municipal budget, I build a panel of the municipalities in my sample exploiting the fact that data on the municipal surplus is available both before and and after the interviewed mayor was elected. The panel nature of the data allows me to do two things. First, I establish that municipalities that eventually elect a high vs. low-competence mayor exhibit similar *levels* of surplus in the years preceding the election. Secondly, I use a difference-in-differences model to show that i) municipalities that eventually elect a high vs. low-competence mayor exhibit similar trends in surplus in the years preceding the election, and ii) the effect of the competence of the interviewed mayor on surplus materializes only after her election. Results show that mayoral competence is significantly and sizeably correlated to the size of the municipal surplus only in Southern municipalities: a one point increase in the mean competence score (which ranges from 1 to 5) is associated with a decrease of between 1.9 to 3.2 percentage points in the surplus as a function of the overall budget size, corresponding to 20 to 34 percent of the surplus' standard deviation. Mayoral competence is not associated with different levels of surplus outside of the South. Therefore, results suggest that competence only matters in municipalities characterized by poor informal institutions. A long body of literature has considered the Italian South as deficient in terms of informal institutions (Putnam 1993) due to higher levels of corruption (Golden and Chang 2001, Golden and Picci 2005), a stronger presence of organized crime (Pinotti 2015) and clientelism (Alesina et al. 2016, Chubb 1982).

Moreover, I show that the result on surplus is entirely driven by an increase in capital expenditures, i.e. more competent mayors make more long-term investments, and this translates into a better quality of service provision. Mayors in the right tail of the competence distribution in the South bridge the North-South gap (consisting of more than one standard deviation) in the quality of service provision: they attain in their municipalities the average level of Northern municipalities' service quality.

Finally, I provide evidence that the differential impact of mayors' competence between the South and the rest of Italy is indeed driven by the difference in the quality of their informal institutions and not by any other South-specific characteristic that moderates the effect of competence. I first focus on social capital, namely the unwritten rules of trust and reciprocity affecting the functioning of democratic institutions (Putnam 1993). Secondly, I look at the presence of mafia organizations, that can be though of as the most prominent informal institutions competing with formal institutions in the Italian case. Third, I collect a behavioral measure of bureaucratic norms by sending a letter bearing an incorrect address to each municipality and checking if the postal office complies with the rule requiring the letter to be sent back to the sender. I show that the effect of competent mayors on the budget surplus is stronger in municipalities that score low on informal institutions, as measured separately by the three measures above.

By studying if competent politicians can compensate for bad institutions, this paper brings two strands of literature closer together. On one side, my paper builds on the literature on the role of individual political leaders for policy. Like Jones and Olken (2005) and Berry and Fowler (2017), I study the effect of individual politicians on economic outcomes. Other studies have investigated the policy impact of a series of personal characteristics of politicians, such as their class background (Carnes 2012), gender (Swers 2002), military experience (Gelpi and Feaver 2002), occupational background (Witko and Friedman 2008), personality (Ramey et al. 2016), whether they have daughters (Washington 2008), and even their smoking habits (Burden 2007). In my paper I isolate the role played by a specific trait of politicians: their competence. One the other side, much literature studies organizational capacity in the public sector across developed (Bolton et al. 2016, Huber and McCarty 2004, Krause and Woods 2014) and developing (Bertrand et al. 2018, Evans and Rauch 1999, Grindle 1997) countries.<sup>10</sup> In my paper, I establish how the role of politicians' competence on policy can be moderated by organizational capacity.

My paper also builds on a series of studies employing Bloom and Van Reenen's (2007) methodology to assess managerial practices in a variety of settings: bureaucrats (Rasul and Rogger 2017, Rasul et al 2017), school principals (Bloom et al. 2015, Di Liberto et al. 2015) and hospital managers (McConnell et al. 2015).

Finally, by studying the ability of local politicians to affect policies, my paper can contribute to the larger debate on the role of local politicians, which suggests that local governments might be an ideal locus of policy change (Ferreira and Gyourko 2009, Gerber and Hopkins 2011, Kirkland 2017).

The remainder of the paper is organized as follows. In the next section I briefly describe the institutional setting. In section 3, I present the survey methodology and the data collected. In Section 4, I describe the empirical analysis and present my results. Section 5 concludes.

 $<sup>^{10}\</sup>mathrm{See}$  also Pepinsky et al. (2017) for a recent review on the politics of the bureaucracy in developing countries.

# 2 Institutional Framework

Each of the 8,003 Italian municipal governments is composed of an elected mayor (*Sindaco*), an executive body (*Giunta*) appointed by the mayor, and an elected city council (*Consiglio*).<sup>11</sup> Municipal governments manage around 10 percent of Italian public expenditures and are responsible for a vast array of services, such as municipal roads and infrastructure, the creation and maintenance of school buildings, waste management, water supply, and social services. Here I describe the features of municipal governments that are relevant for the municipalities represented in my sample, namely municipalities whose government was elected after the year 2000 and having between 3,500 and 6,500 inhabitants.<sup>12</sup>

The mayor, elected with a single-round system to serve a 5-year mandate with a 2-term limit for consecutive terms, holds executive power at the municipal level and is responsible for the administration of the local government.<sup>13</sup> One of the main responsibilities of each mayor is to propose the annual budget to the municipal council that in turns approves it with majority rule.<sup>14</sup> The mayor enjoys a substantial amount of executive power and discretion over budget allocations (Bracco et al 2013, Fabbrini 2001, and Scarciglia 1993). Revenues can be divided in three main groups: tax revenues (municipalities can levy taxes on income and real estate, and for specific services such as trash collection), transfer revenues (received from the national or regional governments or from the European Union) and a residual category encompassing a range of non-tax revenues raised by the municipality through its assets or services (fees collected for services at the city hall, public transportation, touristic services, fines by the police, the use of municipal sport infrastructure).

Expenditures can be divided in two main categories. Current expenditures cover the municipality's "operating costs", such as wages and utilities, necessary to maintain the current level of services offered. Capital expenditures refer to investments on projects that typically span more than one budget year and are related to the building of infrastructure, such as roads and schools. The qualitative interviews carried out with a sub-sample of the inter-

<sup>&</sup>lt;sup>11</sup>The number refers to the number of municipalities as of January 1, 2016. The number can vary marginally year by year as new municipalities are formed by merging or separating existing ones, hence increasing or decreasing the total number.

<sup>&</sup>lt;sup>12</sup>The sample is representative of 84.3 percent of Italian municipalities in 2016.

 $<sup>^{13}</sup>$ Only mayors of municipalities with more than 100,000 inhabitants can appoint a separate managerial figure (*direttore generale*), similar to a city manager.

<sup>&</sup>lt;sup>14</sup>The municipal council is responsible for overseeing the legislative activity of the mayor and approving the proposed policies, most notably the annual budget proposed by the mayor, with majority rule. Two thirds of the seats in the municipal council are assigned to councillors in the mayoral coalition, and the remaining seats are assigned to the losing coalitions proportionally based on vote shares using the D'Hondt method. The size of the municipal council varies between 7 and 16 members depending on the year of the election given several statutory changes mandating different municipal council sizes. The executive body is composed of a maximum of 4 members chosen by the mayor among the elected councillors.

viewed mayors show that there is consensus among mayors regarding two aspects of capital expenditures. First, spending more on capital rather than current expenditures is more challenging as it involves more planning on the side of the mayor: capital expenditures span several years and require a series of permits and the presentation of a detailed project. Second, an increase in capital expenditures, conditional on being able to finance the necessary services, is desirable: 66 percent of the interviewed mayors list an investment project as one of the top priorities of their government mandate. The evidence from qualitative interviews is in line with trends found for U.S. mayors, who overwhelmingly list infrastructure project as their mandate's top priority (Einstein and Glick 2016).

Each municipality is expected to run a balanced budget.<sup>15</sup> While deviations from a balanced budget in the direction of a deficit (negative surplus) are subject to sanctions under certain conditions<sup>16</sup>, mayors do not face any restriction related to the size of the municipal surplus. Figure 1, shows that while only a limited number of mayors incur in a deficit, around 85 percent of mayors close the budget with a positive surplus (with 60 percent of mayors incurring in a surplus exceeding 10 percent of the budget, and 25 percent of mayors incurring in a surplus exceeding 20 percent of the budget). A large surplus however, is undesirable because it entails leaving "on the table" unused revenues that cannot be budgeted in the following fiscal years. Qualitative interviews confirm that i) a vast majority of mayors considers achieving a minimal surplus a primary objective and "the clearest indicator of a virtuous administration"<sup>17</sup>, but ii) only some manage to deliver given the inherent challenges in obtaining a minimal surplus, which requires a careful planning of revenues and expenditures for each budget year and constant monitoring to ensure that expenditures are timely undertaken.<sup>18</sup>

<sup>&</sup>lt;sup>15</sup>The balanced budget principle is imposed by the *Patto di Stabilità Interno* (Internal Stability Pact) that, starting in 1999, regulates the amount of debt that municipalities can reach through the yearly Financial Act. For instance, for the 2011-2013 period see Law 220/2010.

 $<sup>^{16}</sup>$ See Law 220/2010 (1, 120).

<sup>&</sup>lt;sup>17</sup>Qualitative phone interview conducted by the author, July 2017.

 $<sup>^{18}{\</sup>rm The}$  mean surplus is higher in Southern Italy with respect to Northern Italy by 14 per cent of a standard deviation in the surplus.

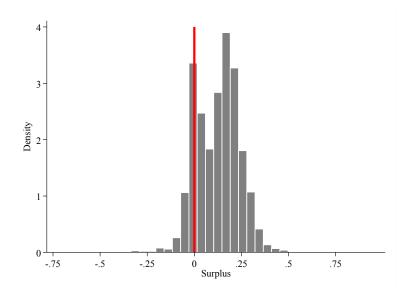


Figure 1: Distribution of the Municipal Surplus.

# **3** Measuring Competence

The competence of a politician is a complex concept encompassing a wide range of dimensions. The core of my survey is meant to measure the competence of executive politicians as managers of their government, i.e. their ability to perform the daily tasks involved in the planning and implementation of their government mandate. To the extent that acquiring skills requires effort, my measure captures both innate managerial skills and a politician's effort to become a successful administrator by learning the tools necessary to manage her polity. I do not claim that the competence score that my survey produces is a sufficient statistic of *all* the relevant characteristics that a high competence politician must possess. For instance, I neglect important characteristics that differentiate high from low quality politicians when running for office like, for instance, their ability to campaign and persuade voters. Similarly, my survey does not measure other relevant dimensions of politician's quality such as honesty (Besley 2005).

### 3.1 Survey Methodology

In order to obtain a reliable measure of politicians' competence I carried out an original survey of Italian mayors, with a methodology inspired by Bloom and Van Reenen (2007)'s study of managerial competence in firms. Surveys that build on Bloom and Van Reenen (2007) have been used to evaluate the management practices of bureaucrats (Rasul and Rogger

2017, Rasul et al 2017)<sup>19</sup>, school principals (Bloom et al. 2015, Di Liberto et al 2015), and hospital managers (McConnell et al. 2015). This survey methodology has two fundamental merits. First, it is designed to address three critical issues in measuring individual competence through a survey instrument: accurately scoring the competence of the interviewed, obtaining unbiased responses, and securing interviews. Second, it is not designed to measure "outputs", but rather the quality of the practices involved in producing said "outputs". This is a crucial requirement to accurately measure politician's competence, as the measure should be independent of any external factor that contributes to the final policy outcomes. Bloom and Van Reenen (2007)'s survey focuses on a set of four practices in the management of firms: target setting, performance monitoring, operations and incentives. This set of practices is also important for a politician's ability to implement good policies: a good politician needs to clearly set her objectives, constantly monitor the performance of the government in attaining these objectives, be knowledgeable of the daily operations of the government, and successfully administer the bureaucracy. A contribution of this study is to formulate a set of survey questions that measure the competence of local politicians in these four areas. In the next sections, I describe the details of the survey questions and how interviewed mayors were scored on the basis of their answers, as well as how the methodology addresses the important challenge of obtaining unbiased responses.

#### 3.1.1 Scoring Interviews

The main goal of the survey is to measure the competence of politicians as administrators of the local government. This is achieved by posing questions that do not focus on the "output" of the mayors but rather deal with the practices involved in producing said output. Using a scoring grid, answers to each of the seven questions are scored from one (worst answer) to five (best answer).

The seven practices are grouped in four categories, as in Bloom and Van Reenen (2007): target setting, performance monitoring, operations and incentives. The target setting section of the survey deals with the objectives that the mayor has set forth for her mandate. Respondents are evaluated on the basis of the clarity of their objectives (not the content of the objectives), whether their objectives translate into practical targets, the interconnection and time horizon of said targets, and the extent to which members of the administration and of the bureaucracy are given specific responsibilities in reaching the targets. The monitoring section deals with tracking the performance of the government in attaining its objectives. In particular it asks whether the monitoring is informed by data, how often this monitoring

 $<sup>^{19}\</sup>mathrm{Rasul}$  and Rogger (2017) study civil servants across 63 organizations of the Federal Civil Service in Nigeria and Rasul et al (2017) extend the study to Ghana's civil service

takes place and down to which level of the government machinery are people involved in the monitoring process. The operations section investigates the mayor's knowledge and oversight over the procurement procedures of her municipality (one of the most important and time consuming operations for municipal governments) and the efficiency in their implementation. Finally, the incentives section deals with assessing how well the mayor incentivizes the municipal bureaucracy, specifically by rewarding best performers and addressing/fixing worst performers among the bureaucrats.<sup>20</sup> Each answer is evaluated in real time by the interviewer who assigns a score ranging from one to five. The interviewer assigns the score based on a scoring grid containing the criteria that the mayor's answer has to satisfy in order to obtain each score. As a clarifying example, Table 1 shows the first question of the survey, that falls under the target setting practice, with its scoring grid and three anonymized examples of three answers that were given a score of one, three and five respectively.<sup>21</sup> The full survey instrument, with all questions divided by practice and relative scoring grid, is in the appendix and reflects the order in which questions were asked during the survey. I use the unweighted average across all individual scores assigned to each mayor as my measure of the mayor's overall competence.

Finally, additional data is collected on the mayor's party identification and years of government experience. These characteristics are collected at the end of the survey in order to minimize the interviewer's bias, as described in the next section.

#### 3.1.2 Collecting Unbiased Responses

The data collected on politicians' competence is potentially subject to two kinds of biases: interviewee and interviewer induced bias. On one side the interviewee could answer untruthfully, systematically gearing her answer toward what she believes is the best answer. On the other side the interviewer might systematically under or over score responses based on interviewees' characteristics and preconceptions he might have about the competence of the interviewee. In this section I describe how the use of a double blind survey technique based on Bloom and Van Reenen (2007) minimizes these two kinds of bias.

Interviewee bias, or bias from self reporting, is minimized in two ways: first of all mayors are unaware of being scored and secondly the questions they are posed are open (i.e. "What types of professional development opportunities are provided for top performers?") rather

<sup>&</sup>lt;sup>20</sup>Mayors do not have the power to fire the bureaucrats working in the municipal government but they have a host of incentives at their disposal to address the performance of the bureaucrats, like a fund for monetary incentives to be distributed among the top performers, disciplinary procedures against worst performers, and coaching methods. Moreover mayors can change bureaucrats' assignment to specific offices with some appointments being more desirable than others.

 $<sup>^{21}</sup>$ For the sake of clarity and comparability, Table 1 reports the anonymized answers of three mayors who listed a similar objective.

(1) Target Inter-Conne	ction		
	b) Which practical targets are associ	ectives that you set for your term in offi iated to each of these main objectives? own to individual members of the gove	
	Score 1	Score 3	Score 5
Scoring grid	Objectives and targets are very loosely defined. They do not cascade down throughout the administration.	Objectives are clearly defined and targets are defined for some of the objectives. They do cascade down but only to members of the administration.	Objectives have clearly defined associated targets. They cascade down to individual members of the admnistration and of the bureaucracy and increase in specificity as they cascade, defining individual expectations for each person.
Anonymized examples	Defines objective as "Tourism". Does not identify practical targets.	Defines the objective as "Increasing Tourism". Identifies two practical targets (redecorating the old town; establishing an info point for tourists). Assigns responsibilities to a member of the executive.	Defines the objective as "Reaching x tourists per year". Identifies three practical targets (redecorating the main square of the old town; establishing an annual festival; creating a bike path through the municipality's national park). Assigns responsibilities to a member of the executive and one bureaucratic office through a timetable.

Table 1: Example of question, scoring grid and anonymized answers

than being closed questions (i.e. "Do you provide professional development opportunities for top performers[yes/no]?") so as not to clearly indicate a "best" and a "worst" answer.

Bias on the side of the interviewer is limited by the fact that the interviewer has no information on the performance of the municipality, as this might affect his scoring. Moreover, since the mayors interviewed represent small and medium Italian municipalities, the interviewer is unlikely to have any information and therefore preconceptions about the mayor or her municipality. Each interviewer reported, for each interviewed municipality, whether he i) had ever heard about the municipality, ii) had visited the municipality, and iii) had any knowledge regarding the municipal administration. Interviewers reported, on average, having heard about 10 percent, having visited only 1.4 percent and having prior knowledge about 0 percent of the municipalities whose mayors were interviewed. Finally, all interviewers went through a training workshop during which much emphasis was placed on scoring each answer separately, based on the scoring grid rather than on the overall impression of the interviewee. I further validated the reliability of the data collected by double scoring a random subset of the interviews. The correlation coefficient between the quality scores assigned by 2 different interviewers on this subset of interviews is 67 percent.<sup>22</sup>

<sup>&</sup>lt;sup>22</sup>Moreover, each interviewer conducted an average of 40 interviews, allowing to account for interviewer fixed effects in the analysis. This controls for the general tendency of each interviewer to over- or under-score responses irrespective of the interviewees' characteristics. Including interviewer fixed effects produces results

#### 3.1.3 Obtaining Interviews

Obtaining a high response rate was key given the size of the target population vet challenging given the characteristics of the survey, such as the fact that mayors are busier and harder to reach than the average survey respondent, the interviewer has to pass a series of screens (telephone switchboard and secretary of the mayor), and participation was not compensated. The achieved response rate was of 50.2 percent, which is comparable to the response rate of 54 percent obtained in a similar setting in Bloom and Van Reenen (2007). Several steps were taken to maximize the response rate. Firstly, in order to encourage mayor's responses we portrayed their participation as least controversial as possible by i) presenting the interview as a "conversation" and without mentioning the word "interview" or "survey", ii) never mentioning or asking about the performance or fiscal soundness of the municipality, and *iii)* by stressing throughout that the project we were inviting the mayors to take part to was an academic endeavor. Moreover, questions were presented to the mayor with the least controversial questions leading the interview (question on target setting: "Which objectives did you set for your mandate and which practical targets are these objectives associated to? How are these targets cascaded down to the individual members of the administration and the municipal bureaucracy?"). Finally, securing the institutional endorsement of Anci (Association of Italian Municipalities), an apolitical non-profit organization representing Italian Municipalities, was key in proving to the mayors that they were being invited to participate in a worthwhile project with official support.

Each interviewed mayor was contacted by phone an average of 5 times before the actual interview. At the beginning of the process, each mayor was contacted by phone and received a short description of the project and an invitation to participate, followed by an email presenting the project in details and sharing the letter of support by the Association of Italian Municipalities. The body of the email and the letter of support are shown in the appendix. All subsequent phone calls were necessary to set up a date and time for the interview and to conduct the interview. Each mayor was contacted and interviewed by one interviewer only.

## 3.2 Competence Score and other data

The data on the competence of politicians was collected between March and September of 2016 and it comprises phone interviews to 306 Italian mayors. I complement the survey data with administrative records from the Italian Ministry of Interior on the budget outcomes of each municipality and on the demographic characteristics of the interviewed mayors. I

that are qualitatively similar to the ones presented here. These results are available upon request.

observe budget outcomes for each year during which the interviewed mayor is in power as well as for the four years preceding her first term in office. In this section I first describe the sampling frame and discuss the representativeness of the sample, secondly I describe the distribution of the measure of politicians' competence, I then discuss the validity and reliability of my competence measure.

Table 2 presents summary statistics for all available characteristics of the interviewed mayors and of their municipalities and for budget outcomes of the municipalities. Tables A1-A3 in the appendix present separate descriptive statistics for the same variables for each of the 3 Italian macro regions analyzed throughout the paper. Mayors are classified as having had an high-skilled job as previous employment if they were professionals (such as doctors and lawyers, engineers or architects), had a skill-intensive or administrative white collar occupation (such as high school professor) or were managers/self-employed. Jobs classified as having a low skill content are blue collar occupations and low skilled white collar occupation. I further distinguish mayors who were, before taking office, unemployed or outside of the labor force, such as pensioners or students. Table 2 shows that a large portion of the mayors interviewed held an high-skill profession. Moreover, more than half of the interviewed mayors hold a university degree. The interviewed mayors are experienced on average, with the mean number of years of government experience exceeding the length of two mandates. Mayors who identify as left-wing or center-left-wing represent 55 percent of the sample, while mayors who self-identify as right-wing or center-right wing represent 23 percent of the sample, similarly to those mayors who identify as centrist or independent. The variable Mafia *Presence* is an indicator recording if any business, building or good was confiscated in 2015 by the Italian police forces because of mafia involvement. The variable was obtained from Aqenzia Nazionale per l'Amministrazione e la Destinazione di Beni Sequestrati e Confiscati alla Criminalità Organizzata, the national authority in charge of assets confiscated from organized crime. The variable Low Social Capital is an indicator taking value one for municipalities having a value of the social capital index below the 25th percentile of the social capital index distribution, a value corresponding to the 40th percentile in the Italian South. The social capital index is an inverse covariance weighted index (Anderson 2008) constructed using data from Nannicini et al (2013) on blood donations, number on non profit organizations, number of non-sport daily newspapers sold, answer to trust and tolerance question in the World Value Survey, and turnout in the most recent referendum. The indicator Sent Letter Back is an original behavioral measure of the efficiency of the municipal postal office, as described in section 5.5.2. All budget variables are winsorized at the one percent level to reduce the influence of outliers but results shown in the paper are insensitive to this choice. The municipal surplus is expressed as a function of the total budget size. All budget variables are expressed in per capita euros. Table 2 shows that while being low on average, the municipal surplus shows a large variance.

	Mean	Std. Dev.	Min.	Max.	Ν
Panel A: Cross-Sectional Variables	-				
Mayor characteristics					
Mean Competence Score	3	0.84	1	5	306
Age	52.37	10.33	28	81	306
Female	0.13	0.34	0	1	306
Job - High Skill	0.68	0.47	0	1	303
Job - Low Skill	0.19	0.4	0	1	303
Job - Unemployed/Pension	0.12	0.33	0	1	303
Education - Less than Highschool	0.05	0.22	0	1	306
Education - Highschool	0.42	0.49	0	1	306
Education - University	0.53	0.5	0	1	306
Years of Government Experience	13.02	7.9	0	41	306
Year in Office	2.43	0.84	1	5	306
Party - Left	0.17	0.37	0	1	306
Party - Centre Left	0.39	0.49	0	1	306
Party - Centre/Independent	0.22	0.41	0	1	306
Party - Centre Right	0.21	0.41	0	1	306
Party - Right	0.01	0.11	0	1	306
Municipality characteristics					
Population	4946.29	770.03	3555	6468	306
Low Social Capital	0.21	0.41	0	1	306
No Letter	0.15	0.36	0	1	306
Mafia Presence (in south)	0.07	0.25	0	1	75
Panel B: Panel Variables					
Surplus	0.13	0.11	-0.13	0.36	236
Total Expenditures (euros per capita)	1185.81	554.29	473.45	3863.21	236
Total Revenues (euros per capita)	1183.96	556.25	463.43	3798.69	236
Current Expenditures (euros per capita)	569.31	217.37	269.42	1562.92	236
Capital Expenditures (euros per capita)	259.84	302.47	12.25	1990.57	236
Other Expenditures (euros per capita)	208.05	212.83	46.47	1119.35	236
Tax Revenues (euros per capita)	441.85	181.84	104.65	1165.12	236
Transfer Revenues (euros per capita)	150.86	129.06	9.56	644.35	236
Other Revenues (euros per capita)	578	442.45	130.28	2661.91	236
Quality of Service Provision Index	6.17	2	1	10	190

Table 2: Summary statistics

#### 3.2.1 Sampling Frame and External Validity

In the survey, I focus on small and medium-sized municipalities as they make up for roughly 90 percent of all Italian municipalities.<sup>23</sup> From this population I extracted a random sample of 610 municipalities and invited the respective mayors to participate to the study. Of these, 306 accepted to participate to the interview. While the sample of mayors who were contacted was randomly selected, the subsample of those who accepted to participate was not. This raises the concern that the mayors surveyed and their municipalities might systematically differ from those who declined to be interviewed, threatening the external validity of the results of this study. Table 3 shows t-tests for the difference in means between the mayors who declined and those who accepted to be interviewed, for all available mayor and municipality-specific characteristics as well as municipality-level outcomes. Table 3 shows that the interviewed mayors (and their municipalities) do not systematically differ from those mayors the two groups within the Italian South, North and Centre separately.

#### 3.2.2 The distribution of mayors' competence

Panel A of Figure 2 plots the distribution of the mean competence score for each mayor for the entire sample. There is a large spread in competence, with a considerable number of mayors being scored extremely poorly or extremely well. Overall, the variation is high, with a variance in the overall sample of .84 for the competence measure ranging from 1 to 5.

Panels B, C, and D show the distribution of the competence score across the three Italian geographic macro-regions: South, North and Center. The mean value of the competence score as well as the spread of the distribution are comparable across the three areas, suggesting that a large portion of the variation shown in the full sample is driven by variation within the three areas rather than across them. While the mean value of the competence score is higher in Central Italy, followed by Northern and Southern Italy (corresponding to values of 3.14, 2.99, and 2.92 respectively), most of the overall variation shown in Panel A (standard deviation of .84) is coming from within-area variance (.83) rather than between-area variance (.11).

 $<sup>^{23}</sup>$ In 2016, municipalities having a resident population between 3,500 and 6,500 inhabitants made up 84.3 percent of all Italian municipalities.

	Declined Interview	Accepted Interview	Difference	s.e. of Difference
	111001 110 11	111001 110 11	21110101100	Dimoronoo
Panel A: Mayor characteristics Female	0.16	0.13	-0.02	(0.03)
				· · · ·
Age	51.46	52.37	0.91	(0.83)
Job - High Skill	0.72	0.68	-0.04	(0.04)
Job - Low Skill	0.14	0.19	0.06	$(0.03)^*$
Job - Unemployed/Pensioner	0.12	0.12	0.00	(0.03)
Education - Less than Highschool	0.06	0.05	-0.01	(0.02)
Education - Highschool	0.38	0.42	0.05	(0.04)
Education - University	0.57	0.53	-0.04	(0.04)
Panel B: Municipality characteristics				
Total Revenues (euros per capita)	1205.82	1192.59	-13.22	(41.76)
Total Expenditures (euros per capita)	1182.11	1172.74	-9.37	(40.57)
Surplus	0.19	0.19	-0.00	(0.00)
Observations	304	306	310	

# Table 3: Balance between interviewed and non-interviewed mayors

*Notes:* The number of observations for the variables *Job - High-skill*, *Job - Low-skill*, and *Job - Unemployed* is 289 for the non-interviewed sample. \*\*\* is significant at the 1 percent level, \*\* is significant at the 5 percent level, \* is significant at the 10 percent level.

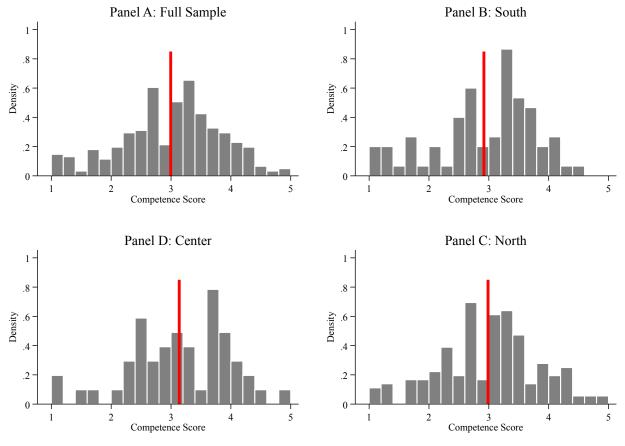


Figure 2: Distribution of the Competence Score across Italy.

*Notes*: The plots above represent the distribution of the competence measure of mayors for the full sample, and only mayors in Southern, Northern and Central Italy respectively. The red vertical lines mark the mean value for each of the four samples. The sample size in the four plots is 306 in the full sample, 75 in the South, 180 in the North, and 51 in the centre. The mean value of the competence score is 2.99 in the full sample, 2.92 in the South, 2.99 in the North, and 3.14 in the Centre.

#### 3.2.3 Validity of the Competence Score

My original measure of politicians' competence is valuable if it meets a minimum of two conditions: i it meaningfully captures the competence of a politician, and ii it explains a dimension of politicians' competence that is not captured by other readily available measures. In this section I provide two suggestive tests that my measure meets the two conditions mentioned above.

If my variable satisfies condition i, it should correlate with politicians' characteristics that intuitively correlate with their competence. If my variable satisfies condition ii, a substantial portion of its variation should be unaccounted for by the alternative measures of politicians' competence employed in the literature. I test these claims in Table 4 which shows coefficient estimates and the R-squared for a set of OLS regressions of my original measure of politicians competence on a series of mayor and municipality-specific characteristics. Column (1) shows that my measure of quality is negatively correlated with age and that female and male mayors do not seem to differ, on average, in terms of their managerial competence. Column (2) shows that both high school and university graduates have higher competence scores than mayors who have not completed high school.<sup>24</sup> Column (3) reports the correlation between the quality score and the skill content of the previous job held by the mayor before taking office. We can see that mayors with a high-skilled or low-skilled job perform better in terms of the quality score than those mayors who were unemployed or out of the labour force (like pensioners and students).<sup>25</sup> Columns (4) shows that, conditional on educational attainment and skill content of the previous job, the competence score is not correlated to the length of the mayor's career as a local administrator. Columns (5) to (7) suggest no systematic association between the politicians' self-declared party identification and their competence score.

Looking at the R-squared in columns (1) through (7), we can see how the residual variation in my measure of competence is sizeable. Columns (5) to (7) further include fixed effects for the party of the mayor, for the year of the term that the mayor is serving (one through five), and for the macro region where the mayor was elected (South, Centre, North). Column (7), in which the most comprehensive set of variables is included, shows that only 17 percent of the variation in the competence score is accounted for. Table 4 provides evidence that my original measure of politicians' competence is positively correlated to standard measures of politicians' human capital but at the same time the latter measures leave a sizeable portion of the politicians' competence unexplained. This is not surprising in light of the evidence that i human capital is an insufficient measures of competence (Carnes and Lupu 2015, Lahoti and Sahoo 2017, Dal Bó et al. 2017) that ii does not adequately capture at least two relevant dimensions of my competence score: leadership (Dal Bó et al. 2017) and effort.

#### 3.2.4 Reliability of the Competence Score

My measure of politicians' competence could suffer from measurement error. I present a series of tests that lends support to the reliability of my competence score measure.

First, I validated the reliability of the data collected by double scoring a random subset of 43 interviews. The inter-rater reliability, *i.e.* the correlation coefficient between the competence scores assigned by 2 different interviewers on this subset of interviews, is 0.675

 $<sup>^{24}</sup>$ The coefficients on *Education – HighSchool* and *Education – University* are indistinguishable from each other. I cannot reject that their difference is different from zero, with a p-value of 0.76.

 $<sup>^{25}</sup>$ The coefficients on Job - Highskill and Job - Lowskill are indistinguishable from each other. I cannot reject that their difference is different from zero with a p-values of 0.88.

	Ι	Dependent V	ariable: Me	ean Compe	tence Scor	9	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Age	-0.014***	-0.014***	-0.010**	-0.012**	-0.012**	-0.013**	-0.014**
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Female	-0.052	-0.066	-0.077	-0.058	-0.104	-0.125	-0.108
	(0.139)	(0.139)	(0.137)	(0.138)	(0.139)	(0.143)	(0.150)
Education - Highschool		$0.505^{**}$	$0.527^{**}$	$0.552^{**}$	$0.510^{**}$	$0.511^{**}$	$0.466^{**}$
		(0.225)	(0.226)	(0.227)	(0.228)	(0.230)	(0.231)
Education - University		0.476**	0.459**	0.488**	$0.450^{*}$	$0.445^{*}$	$0.458^{*}$
-		(0.223)	(0.230)	(0.231)	(0.235)	(0.236)	(0.239)
Job - High Skill		. ,	0.428***	0.403***	0.397**	0.395**	0.428***
5			(0.152)	(0.154)	(0.153)	(0.154)	(0.157)
Job - Low Skill			0.408**	0.401**	0.393**	0.403**	0.443**
			(0.182)	(0.182)	(0.182)	(0.184)	(0.187)
Years of Government Experience			. ,	0.007	0.007	0.006	0.006
-				(0.006)	(0.006)	(0.007)	(0.007)
Party - Left				× ,	0.249	0.253	0.269
U					(0.154)	(0.155)	(0.163)
Party - Centre Left					0.229*	0.230*	0.188
					(0.127)	(0.129)	(0.134)
Party - Centre Right					-0.009	-0.025	-0.066
					(0.146)	(0.149)	(0.158)
Party - Right					0.549	0.574	0.815*
					(0.422)	(0.424)	(0.431)
					()	(- )	()
Observations	306	306	303	303	303	303	303
R-squared	0.029	0.045	0.073	0.077	0.100	0.107	0.172
Year of Term FE						$\checkmark$	$\checkmark$
Area FE							√

Table 4: Correlates of the Competence Score

*Notes:* The education variables refer to the highest completed educational level. The excluded category is "Less than High School". The job variables refer to the last job held by the politician before taking office. I classify as high-skilled all professionals (lawyers, doctors, engineers, architects), self-employed and individuals holding administrative white collar jobs. Jobs classified as low skill are blue collar jobs and non-administrative white collar jobs. The excluded category includes individual who are unemployed or out of the labor force (pensioners, students, housewives). The excluded category for the party is an indicator taking value one if the mayor self-identifies as "centrist" or "independent". Year of term fixed effects control for the year (1 to 5) of the current mandate that the mayor is serving. Areas are North, Centre and South. \*\*\* is significant at the 1 percent level, \*\* is significant at the 5 percent level, \* is significant at the 10 percent level.

(p-value of 0.000). The relationship is shown graphically in Panel A of Figure 3. Moreover, as shown in Panel B of the same figure, there is no relationship between the degree of measurement error in the scoring and the competence score: this means that high scores are as likely to be well measured as average and low scores.

Second, I show that the four components of the competence score are strongly positively correlated. Table 5 shows the coefficients from a series of pairwise regressions of the components of the competence score: with an average coefficient of .432, these correlations suggest that mayors who score high in one of the components of the competence score are likely to score high also on the other components. Moreover, as an alternate measure of internal reliability consistency, I calculate the Cronbach's alpha (Cronbach, 1951) of the competence

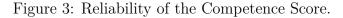
score which yields a value of .754.

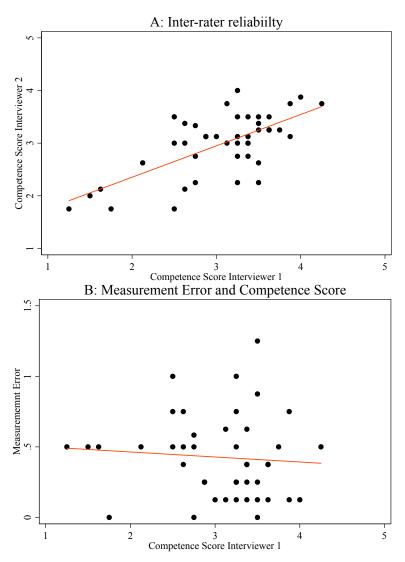
	Target Setting	Operations	Performance Monitoring
Operations	.382*** .405***	.456***	
Performance Monitoring Incentives	.405***	.402***	.486***

Table 5: Reliability of competence: pairwise correlations of components

*Notes:* Each coefficient reported in the table is from a regression of the variable reported in the column on the variable reported in the row and a constant term using the 306 observations in the cross-sectional dataset. \*\*\* is significant at the 1 percent level, \*\* is significant at the 5 percent level, \* is significant at the 10 percent level.

Finally, the results presented in the rest of the paper are not driven by any single component of the mean competence score: as shown in Table A7 in the Appendix, results are robust to excluding from the competence score, one at a time, i) each of the four management practices, or ii) each of the seven questions that compose the competence score.





*Notes*: Panel A shows the correlation between the competence scores assigned to the same mayor by the two different interviewers. Panel B shows the correlation between the measurement error in the competence score (calculated as the absolute value of the difference of the two scores in Panel A) and the competence score by interviewer 1.

# 4 Empirical Strategy and Results

In order to study the effect of the mayor's competence, I employ two empirical strategies. I first explore this relationship descriptively with a cross-sectional analysis controlling for a wide set of mayor-specific and municipality-specific characteristics. Second, to address the concern about unobservable determinants of both mayoral competence and budget outcomes, I use a difference-in-differences model exploiting the availability of the outcomes variables for the years preceding the election of the interviewed mayors. Throughout the section, the effect of mayoral competence on municipal outcomes is analysed as a function of the institutional environment in which the mayor operates.

### 4.1 Cross-Section

Using data on the quality of the mayors interviewed during the summer of 2016 and coupling it with administrative records on the budget of their municipality for all years during which the interviewed mayors were in power, I build an unbalanced panel of 306 municipalities over the 2010-2015 period. Using this data, I estimate the following model:

$$y_{it} = \beta MeanCompetenceScore_i + \alpha_r + \gamma' X_i + \varepsilon_{it}$$

$$(4.1)$$

where  $y_{it}$  is a budget outcome of municipality *i* for year t of the mandate of the interviewed mayor, the variable of interest *MeanCompetenceScore*<sub>i</sub> records the mean competence score of the mayor of municipality *i*. The variable  $\alpha_r$  represent region fixed effects,<sup>26</sup> while the matrix of controls  $X_i$  includes the party of the elected mayor, the mayor's age, gender, educational attainment, years of government experience and skill content of previous employment. Standard errors are clustered at the municipality level.

I start by studying the correlation between mayors' competence and the relative size of the municipal surplus which is, as explained in the institutional background section, one of the main dimensions of an efficient use of public funds in the Italian context: we expect more competent mayors to achieve a smaller surplus, all else constant.<sup>27</sup> Panel A of Table 6 presents results for the entire sample, while Panels B, C and D present results for the subset of municipalities in the Italian South, North and Center respectively. Mayors with higher competence scores are associated with a reduction in the municipal surplus in Southern Italy only. The coefficient of interest is consistent across specifications and the effect is sizeable in magnitude: a one point increase in the competence score ranging from 1 to 5 is associated with a decrease ranging from 1.9 to 3.2 percentage points in the surplus as a function of the overall budget size, an effect ranging between 20 percent to 34 percent of the dependent variable's standard deviation. Appendix Table A5 shows that the difference in the effect in

 $<sup>^{26}</sup>$  Italy's 8003 municipalities are divided among 20 regions. All regions are represented in the sample with the exception of Valle d'Aosta.

<sup>&</sup>lt;sup>27</sup>The variable is constructed as  $\frac{TotalRevenues-TotalExpenditures}{TotalExpenditures}$ 

the South vs. the rest of Italy is statistically significant.

	(1)	(2)	(3)	(4)
_	Surplus	Surplus	Surplus	Surplus
Panel A: Full Sample				
Mean Competence Score	0.001	0.001	0.002	0.002
L	(0.005)	(0.005)	(0.005)	(0.005)
Observations	939	927	927	927
Municipalities	306	303	303	303
R-squared	0.069	0.073	0.081	0.093
SD DV	0.0907	0.0911	0.0911	0.0911
Panel B: South				
Mean Competence Score	-0.019*	-0.028**	-0.033**	-0.032**
-	(0.011)	(0.014)	(0.014)	(0.014)
Observations	240	233	233	233
Municipalities	75	73	73	73
R-squared	0.138	0.180	0.211	0.230
SD DV	0.0934	0.0939	0.0939	0.0939
Panel C: North				
Mean Competence Score	0.008	0.009	0.010	0.011
	(0.006)	(0.006)	(0.007)	(0.007)
Observations	552	547	547	547
Municipalities	180	179	179	179
R-squared	0.090	0.096	0.111	0.118
SD DV	0.0892	0.0895	0.0895	0.0895
Panel D: center	0.001	0.014	0.007	0.004
Mean Competence Score	0.001 (0.008)	-0.014 (0.011)	-0.007 (0.014)	-0.004 (0.015)
	(0.000)	(0.011)	(0.011)	(0.010)
Observations	147	147	147	147
Municipalities	51	51	51	51
R-squared	0.099	0.222	0.246	0.262
SD DV	0.0916	0.0916	0.0916	0.0916
Mayor Controls		$\checkmark$	$\checkmark$	$\checkmark$
Party FE			$\checkmark$	$\checkmark$
Year of Term FE				$\checkmark$

Table 6:	Competence	Score and	Budget	Surplus

Notes: The dependent variable is the value of the per-capita municipal surplus relative to the budget size (total revenues minus total expenditures) over total expenditures, winsorized at the 1 percent level. The standard deviation of the dependent variable is reported in the table. All specifications include year and region fixed effects. Mayor controls include: i) the gender of the mayor, ii) the age of the mayor, iii) the mayor's previous occupation, and iv) the mayor's educational attainment. Standard errors clustered at the municipality level are shown in parenthesis. \*\*\* is significant at the 1 percent level, \*\* is significant at the 5 percent level, \* is significant at the 10 percent level.

## 4.2 Difference-in-Differences

The results presented in the cross-sectional analysis are subject to two related potential concerns: municipalities that elect a more competent mayor might be more likely to experience, in the pre-election years, i) lower *levels* of surplus, or ii) a decreasing *trend* in surplus. In this section I address these two concerns. Exploiting fact that information on each municipality's surplus is available also for the years preceding the election of the interviewed mayor and I build a panel in which each municipality is observed for a maximum of four years preceding and four years following the election of the interviewed mayor. Because of the staggered nature of local elections in Italy, the election year for the mayors in my sample ranges between 2005 and 2015. First, I establish that municipalities that eventually elect a high vs. low-competence mayor exhibit similar *levels* of surplus in the years preceding the election. This is evident from Table 7 which shows the average effect of mayoral competence on budget outcomes in each of the four years preceding the election of the mayor. Municipalities that eventually elect an high-competence mayor do not show on average any difference in the level of surplus with respect to municipalities that eventually elect a low-competence mayor, in any of the pre-election years.

	(1)	(2)	(3)	(4)
	Surplus	Surplus	Surplus	Surplus
	(Full Sample)	(South)	(North)	(Centre)
Mean Competence Score $\times$ year 1	-0.005	-0.003	-0.003	-0.016
	(0.007)	(0.017)	(0.011)	(0.011)
Mean Competence Score $\times$ year 2	0.008	0.021	0.003	-0.003
	(0.007)	(0.016)	(0.010)	(0.017)
Mean Competence Score $\times$ year 3	-0.007	0.000	-0.006	-0.021
	(0.007)	(0.016)	(0.009)	(0.014)
Mean Competence Score $\times$ year 4	-0.001	-0.003	0.000	-0.006
	(0.007)	(0.013)	(0.010)	(0.014)
Observations	1,212	293	586	201
Municipalities	305	74	147	51
R-squared	0.075	0.109	0.066	0.129
SD Surplus	0.106	0.115	0.104	0.0968

Table 7: No difference in pre-election surplus for high vs. low-competence mayors

*Notes:* the specification includes fixed effects for each year preceding the election year. Standard errors clustered at the municipality level are shown in parenthesis. \*\*\* is significant at the 1 percent level, \*\* is significant at the 5 percent level, \* is significant at the 10 percent level.

Second, I use a difference-in-differences model to show that i) municipalities that eventually elect a high-competence mayor exhibit similar *trends* in surplus in the years preceding the election, and ii) the effect of the competence of the interviewed mayor on surplus materializes only after her election. Intuitively, if the selection concern is valid, we would expect municipalities that elect better mayors to follow a different trend in terms of their surplus even before the election. We rule out this concern by incorporating a placebo test in the analysis shown above: I show that the quality of the mayor does not affect the municipal surplus before her election. Specifically, I compare the differential *change* in surplus before and after the election of the interviewed mayor between municipalities where better and worse mayors are elected.<sup>28</sup> I estimate:

$$y_{it} = \alpha_i + \beta_t + \gamma (MeanCompetenceScore_i \times Post_t) + \delta_y + \sum_{k=1}^m \lambda_k (x_{ki} \times Post_t) + \varepsilon_{it} \quad (4.2)$$

where t represents a normalized measure of years, indexing the number of years since the interviewed mayor of municipality i was elected, with t = 0 being the election year. Municipality fixed effects,  $\alpha_i$ , control for any time-invariant municipality-specific characteristic that has an effect on budget outcomes. Normalized year fixed effects,  $\beta_t$ , control for political budget cycles, addressing the possibility that the municipal surplus changes for all municipalities as the election approaches. The coefficient of interest,  $\gamma$ , captures the average difference in surplus for municipalities with better mayors after the mayor's election relative to before the election. The calendar year fixed effects,  $\delta_y$  control for year-specific effects. The k controls  $x_i$  are the ones in the matrix  $X_i$  in equation 4.1 and 4.2. Standard errors are clustered at the municipality level.

The crucial assumption of this design is that the budget of municipalities that elect better mayors would have evolved similarly to the budget of municipalities that elect worse mayors in absence of the treatment (i.e. the election of mayors with different competence levels). In order to provide evidence in support of this assumption, we can analyze whether there are differential pre-trends in surplus between municipalities that will elect mayors of different competence levels by estimating a version of equation (4.2) where the effect of  $MeanCompetenceScore_i$  is allowed to vary flexibly over time:

$$y_{it} = \alpha_i + \beta_t + \sum_{t=-4}^{+4} \gamma_t MeanCompetenceScore_i + \delta_y + \sum_{t=-4}^{+4} \lambda'_t X_i + \varepsilon_{it}$$
(4.3)

 $<sup>^{28}</sup>$ This is a similar approach used in Bandiera et al (2018) to evaluate the effect of CEO performance, measured in the cross-section through a survey, on firm productivity.

	(1) Surplus	(2) Surplus	(3) Surplus	(4) Surplus
-		Å	X	*
Panel A: Full Sample	0.001	0.000	0.000	0.001
Mean Competence Score $\times$ Post	-0.001 (0.004)	-0.002 (0.005)	-0.002 (0.005)	-0.001 (0.005)
	(0.004)	(0.005)	(0.005)	(0.005)
Observations	2,362	2,362	2,339	2,339
Municipalities	306	306	303	303
R-squared	0.690	0.697	0.869	0.699
SD Surplus Pre	0.109	0.109	0.109	0.109
Panel B: South				
Mean Competence Score $\times$ Post	-0.024***	-0.024***	-0.036***	-0.036***
-	(0.007)	(0.007)	(0.009)	(0.010)
Observations	588	588	571	571
Municipalities	75	75	73	73
R-squared	0.746	0.749	0.897	0.761
SD Surplus Pre	0.120	0.120	0.120	0.120
Panel C: North				
Mean Competence Score $\times$ Post	0.010	0.010	0.009	0.008
	(0.007)	(0.007)	(0.008)	(0.008)
Observations	$1,\!143$	$1,\!143$	1,143	1,143
Municipalities	147	147	147	147
R-squared	0.668	0.676	0.851	0.680
SD Surplus Pre	0.107	0.107	0.107	0.107
Panel D: center				
Mean Competence Score $\times$ Post	-0.002	-0.009	-0.017*	-0.003
	(0.009)	(0.009)	(0.010)	(0.015)
Observations	382	382	382	382
Municipalities	51	51	51	51
R-squared	0.703	0.718	0.907	0.747
SD Surplus Pre	0.0978	0.0978	0.0978	0.0978
Region FE		$\checkmark$	$\checkmark$	$\checkmark$
Mayor Controls			$\checkmark$	$\checkmark$
Party FE				$\checkmark$

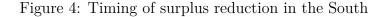
#### Table 8: Competence Score and Budget Surplus - Diff-in-Diff

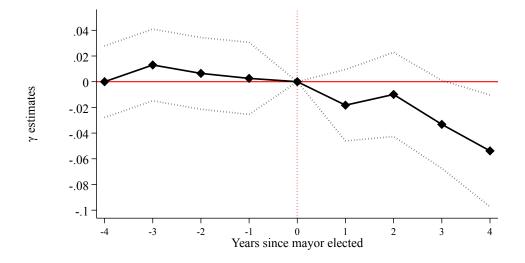
*Notes:* See Table 6 for table notes. The variable *Post* is an indicator taking value one for each year of the interviewed mayor's first term. The standard deviation of the dependent variable in the pre-period is reported in the table. All specifications include fixed effects for the municipality, the year since the mayor was elected, and the calendar year. All controls, as well as region and party indicators, are interacted with the *Post* indicator.

Table 8 confirms the cross-sectional results reported in Table 6, i.e. we see that better mayors are associated, in the Italian South only, with a reduction in the municipal surplus. The effect is consistent across specifications and economically meaningful: an increase in one unit of the competence score ranging between 1 and 5 leads to a reduction between 2.4

and 3.6 percentage points in the municipal surplus as a function of the budget size, effects corresponding to 20 percent and 30 percent of a standard deviation in the outcome in the period preceding the election of the interviewed mayor. Appendix Table A6 shows that the difference in the effect in the South vs. the rest of Italy is statistically significant.<sup>29</sup>

Crucially, Figure 4 shows that the decrease in surplus observed in municipalities that elect better mayors takes place precisely after the new mayor is elected, with no differential pre-trends in surplus in the years leading up to the election. Intuitively, the change in the surplus of each municipality in the years preceding the election does not predict the competence of the new mayor elected at time zero.





Notes: The coefficient plot above represents the coefficient estimates  $\gamma_t$  from the difference-in-differences model in equation (4.3). Dotted lines plot the 95 percent confidence intervals.

Table 4 has shown that the competence of the interviewed mayors is correlated to a number of their characteristics. Leveraging the availability of some of these characteristics (age, education level and skill content of the previous job) for the previous mayors for each municipality, Panel A of Table 9 shows that there is no correlation between the competence of the interviewed mayor and any of the available characteristics (age, education and skill content of previous job) of the previous mayor. Moreover, Panel B of Table 9 shows that there

<sup>&</sup>lt;sup>29</sup>The results presented in the rest of the paper are not driven by any single component of the competence score. Appendix Table A7 shows that results are robust to excluding from the competence score, one at a time, i) each of the four management practices, or ii) each of the seven questions that compose the competence score. Appendix Table A8 reports for the South the effect of each of the four components of the competence score, i.e. the scores received by the mayors for *target setting*, *performance monitoring*, *operations*, and *people management*, and shows that the four dimensions of competence contribute similarly to the effect reported in Panel B of Table 8.

is no persistence over time in the characteristics of elected mayors. The evidence presented in Table 9 suggests that the competence of the interviewed mayor should be uncorrelated to the competence of the previous mayor, further alleviating the selection concern.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
				Previous	Mayor's		
		$\operatorname{Job}$	$\operatorname{Job}$	Job	Education	Education	Education
	Age	High Skill	Low Skill	Unemployed	<highschool< td=""><td>Highschool</td><td>University</td></highschool<>	Highschool	University
Panel A							
Mean Competence Score	1.017	-0.003	0.003	-0.001	0.034	-0.061	0.027
	(1.021)	(0.068)	(0.049)	(0.059)	(0.023)	(0.064)	(0.066)
Observations	73	73	73	73	73	73	73
R-squared	0.014	0.000	0.000	0.000	0.030	0.013	0.002
Panel B			0.000*			0.404	0.4.44
Dependent Variable	0.121	0.105	0.220*	0.283	-	-0.104	-0.141
for interviewed Mayor	(0.083)	(0.160)	(0.123)	(0.302)	-	(0.122)	(0.125)
Observations	73	71	71	71	73	73	73
R-squared	0.029	0.006	0.044	0.013	0.000	0.010	0.018

Table 9: No Correlation with Previous Mayor's Characteristics in the South

*Notes:* See the data section for a description of the variables. The unit of observation is the municipality. The coefficient in column (5) of Panel B is missing because no previous mayor had completed less than highschool. \*\*\* is significant at the 1 percent level, \*\* is significant at the 5 percent level, \* is significant at the 10 percent level.

In light of the evidence presented in Table 4, on the correlation between the quality score and other characteristics of the mayor such as education and previous occupation, one might wonder if these characteristics have an effect on the budget surplus conditional on the competence score of the mayor. Table A9 in the Appendix shows that none of the available characteristics of the mayor have an effect on the municipal budget conditional on the mayor's competence score.

The estimates shown in Table 8 are calculated using an unbalanced sample. For instance, if an interviewed mayor was elected for the first time in 2013, the municipality of the mayor would appear in the dataset for the years 2009-2015, i.e. for the full four years preceding the mayor's election but for only two years following it. In order to rule out the concern that the results shown in Table 8 are driven by the composition of the sample in the pre and post election years, I estimate the model shown in equation (4.2) for the subset of municipalities whose budget data is available for the full  $\pm 4$  years window around the mayor's first term's election year. Table A10 in the Appendix shows that the results presented in Table 8 are robust to this sample restriction.

Finally, one possible concern regarding the results' interpretation is based on the fact that a small number of municipalities in the sample have a negative surplus, i.e. a deficit. We want to rule out the possibility that the negative effect on the municipal surplus of more competent mayors is driven by municipalities with a budget deficit. Appendix Table A11 shows that results are virtually unchanged if the absolute value of the municipal surplus is used as a dependent variable.

### 4.3 Better mayors and more long-term investments

Results show that more competent mayors manage the budget more efficiently by closing the gap between revenues and expenditures. In this section, I investigate how better mayors attain this reduction in surplus. Better mayors may affect the expenditure side of the budget, by raising capital or current expenditure of the municipality, or they may affect the revenue side, through taxation and transfers from the central government. The first column of Table 10 shows that mayors with a higher competence score are especially able to raise total expenditures. Columns (2) to (4) further show that the increase in total expenditures is explained by an increase in capital rather than current expenditures, i.e. better mayors are spending more in long term investments such as infrastructure building and multi-year projects. An increase of one unit in the Mean Competence Score is associated to an increase in capital expenditures of 92 euros per capita, corresponding to 26 percent of the mean value of capital expenditures in the South over the four years preceding the election of the interviewed mayors. The effect of competence on the ability to raise capital expenditures is consistent with evidence from my survey showing that 66 percent of the interviewed mayors listed undertaking at least one capital investment among the main objectives of their mandate. The higher likelihood of high competence mayors to deliver capital investments might stem from a longer time-horizon or from a greater ability to put together the necessary bureaucratic and monetary resources to approve more complicated projects. These results are in line with the evidence for U.S. mayors who overwhelmingly identify an increase in infrastructure investment projects as the top priority of their mandate (Einstein and Glick 2016).

Importantly, the increase in capital investment by more competent mayors is achieved without an increase in taxes (column 6). While there is a small increase in total revenue, which is marginally significant at the 10 percent level (p-value 0.09), this is not driven by an increase in taxes, but rather by a modest increase in the residual component of budget revenues, mostly consisting of fees collected for municipal services (among others fees collected for services at the city hall, public transportation, touristic services, fines by the police, the use of municipal sport infrastructure).

		Expend	litures			Revenues		
	Total	Current	Capital	Other	Total Taxes Transfer			Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean Competence Score $\times$ Post	150.244**	18.039	78.813**	54.462*	91.614*	-9.529	16.309	77.107
	(57.575)	(13.058)	(33.795)	(32.048)	(53.166)	(10.704)	(11.202)	(48.377)
Observations	571	571	571	571	571	571	571	571
Municipalities	73	73	73	73	73	73	73	73
R-squared	0.610	0.875	0.347	0.672	0.610	0.929	0.897	0.545
SD Surplus Pre	551.8	184.3	385.1	230.6	552.4	164.8	151.9	496.2

Table 10: Competence Score and Surplus Components in the South

*Notes:* See Table 8 for table notes. The dependent variables are expressed in per capita terms and are winsorized at the 1 percent level.

#### 4.4 Better mayors and better service provision

Do the lower surplus and higher capital expenditures associated with more competent mayors translate into better public goods for the municipality's citizens? In order to investigate this question I use data on the quality of service provision in each municipality in my sample. It is key to investigate the effect of competence on policies by coupling the data on public spending presented so far with data on the quality of service provision, since it is well documented that the cost of public investment does not directly translate into the value of existing capital (Golden and Picci 2005, Olken 2007, Pritchett 2000). Starting in 2010, the Italian Ministry of Economic Affairs and Finance, appointed a task force that gathered and analyzed data for each municipality on its expenditures and on the quantity and quality of services provided.<sup>30</sup> The resulting measure, available for the years 2010 and 2013 only, is a municipality-level index ranging between 1 and 10, which measures how virtuous each municipality is by weighting i) the quality of its services vis-à-vis the quality of services provided by comparable municipalities, and ii) the amount spent on these services vis-a-vis the expenditure of comparable municipalities.<sup>31</sup> Coefficients in Table 11 shows the effect of an increase in the quality of the elected mayor on the index of services quality in the Italian South (column 1), North (column 2) and Center (column3). While the small sample size limits the external validity of the results, Table 11 shows that, in line with results presented so far, the election of a high-quality mayor translates into better services provision only where the quality of institutions is lower. An increase of one unit in the Mean Competence Score of the elected mayor in the South leads to an increase, after the election, of .74 in the index of quality of service provision ranging from 1 to 10. The magnitude of the effect is

<sup>&</sup>lt;sup>30</sup>The reliability of the measure of service quality is subject to the caveat that performance measurement systems could be used as political discipline mechanisms even when performance measures are compiled by formally independent administrative agencies (Bertelli and John 2010).

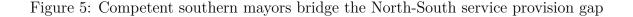
<sup>&</sup>lt;sup>31</sup>For a detailed methodological note on the index construction see Porcelli et al. (2016) and http: //www.mef.gov.it/ministero/commissioni/ctfs/.

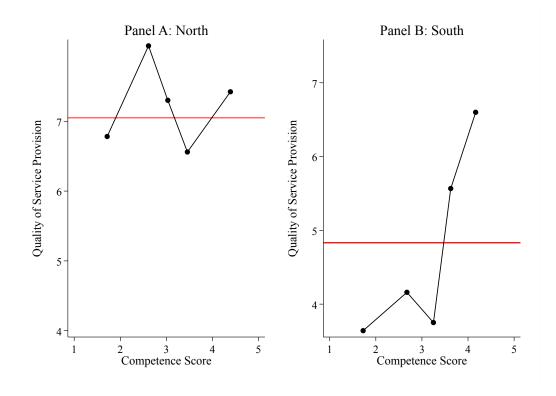
sizeable as it roughly corresponds to .4 of a standard deviation in the dependent variable. Effectively, competent mayors in the South bridge the North-South gap in the quality of service provision. This can be seen in Figure 5. Here the North-South gap is represented by the vertical distance between the two red lines. Southern mayors lying in the right tail of the competence distribution partly bridge this gap by achieving levels of the quality of service provision index that are within one standard deviation of the average level in the North (red line in Panel A).

	(1)	(2)	(3)
	Quality	Quality	Quality
	of Services	of Services	of Services
	(South)	(North)	(Centre)
Mean Competence Score $\times$ Post	0.744**	0.389	-0.386
	(0.347)	(0.313)	(0.496)
Observations	48	101	28
Municipalities	25	54	15
R-squared	0.794	0.752	0.725
SD DV Pre	1.862	1.714	1.875
Sample	South	North	Center

Table 11: Competence Score and Quality of Service Provision

*Notes:* The dependent variable is an index of service provision quality ranging from 1 to 10. All specifications include fixed effects for the municipality and the year since the mayor was elected. \*\*\* is significant at the 1 percent level, \*\* is significant at the 5 percent level, \* is significant at the 10 percent level.





*Notes*: The binned scatter plots above displays the relationship between the mean competence score and the quality of service provision index in 2013, when the interviewed mayors were in office. I construct 5 equally sized bins of the competence scores given to each mayor and, for each bin, plot the value of the service provision index of the mayor's municipality. The horizontal red lines represent the mean quality of service provision in the pre-election period, i.e in 2011, in the North (Panel A) and in the South (Panel B).

### 4.5 Alternative measures of institutions

More competent mayors in the Italian South use funds more effectively, make more long-term investments, and provide better services without increasing taxes. The same relationship between the mayors' competence and policies is absent in Northern and Central Italy. It is theoretically ambiguous whether the quality of institutions and that of politicians are complements or substitutes. On one hand, if better institutions enhance the ability of good mayors to operate, institutions and mayoral quality will act as complements. On the other hand, mayoral competence may play an increasingly significant role as the quality of institutions becomes worse. Intuitively, competent politicians could have a larger impact where low quality institutions leave more room for improvement, while high quality institutions might impose a ceiling effect on the marginal impact of a politician.<sup>32</sup>

The results of the last section seem to provide evidence in favour of the substitutability between politicians' and institutions' quality, showing that more competent politicians are effective in the Italian South only. I have so far attributed this heterogeneity to the lower quality of institutions in the South vis-a- vis the rest of Italy. However, the different effect of politicians competence in the South with respect to the rest of Italy could be due to many other South-specific characteristics that moderates the effect of competence. In this section, I strengthen my interpretation by employing three alternate municipality-level measures of institutional quality as an alternative to the crude distinction between the South and the North and I show that results are consistent across these three measures.

I focus on informal institutions, given that formal institutions are constant in within Italy. While formal political institutions (such as the powers vested in mayors, the rules governing the local bureaucracy, the budgetary rules) are the same throughout Italy, their proper functioning is conditional on the presence of the appropriate informal institutions (Stokes 2006), intended here as creating or strengthening incentives to comply with formal institutions (Helmke and Levitsky 2004). A long body of literature has emphasized that the South is more deficient in terms of informal institutions, due to the inherent difficulties presented by a setting with lower social capital (Putnam 1993) more corruption (Golden and Picci 2005), clientelism (Alesina et al. 2016, Chubb 1982), and a stronger presence of organized crime (Pinotti 2015). Measuring informal institutions is empirically challenging, given their unwritten nature (Helmke and Levitsky 2004). I focus here on three aspects of informal institutions that can be measured in a meaningful way at the municipality level in Italy. First, I measure social capital. Secondly, I look at the presence of organized crime. Thirdly, I collect a behavioral measure of bureaucratic norms. For each of the three measures of institutional quality, I estimate the equation below.

$$y_{it} = \alpha_i + \beta_t + \gamma (MeanCompetenceScore_i \times Post_t \times PoorInstitutions_i) + \\ + \delta (MeanCompetenceScore_i \times Post_t) + \lambda (PoorInstitutions_i \times Post_t) + \\ + \kappa_y + \sum_{k=1}^m \rho_k (x_{ki} \times Post_t) + \varepsilon_{it}$$

$$(4.4)$$

where  $PoorInstitutions_i$  is an indicator taking value one for every municipality *i* characterized by a low-level of institutional quality as measured by, respectively, social capital, mafia

<sup>&</sup>lt;sup>32</sup>Institutions have been found to operate as ceiling effects in a wide variety of contexts, such as economic reform (Acemoglu et al 2008), the effectiveness of hereditary rule (Besley and Reynal-Querol 2017), and development projects design (Khwaja 2009).

presence and bureaucratic norms. I describe each of these three measures in detail below.

#### 4.5.1 Social Capital

I test whether the effect of mayoral competence is heterogenous with respect to the level of social capital in a municipality. Social capital is intended to capture the unwritten rules of trust and reciprocity in a community that can affect the functioning of democratic institutions (Fukuyama 1995, Gambetta 1988, Knack and Keefer 1997, La Porta et al 1997, Putnam 1993). I use data on social capital at the municipality level from Nannicini et al (2013). I construct an inverse covariance weighted index of social capital (Anderson 2008) for each municipality in my sample based on the following variables: blood donations, number on nonprofit organizations, number of non-sport daily newspapers sold, answer to the trust question in the World Value Survey (WVS), and turnout in the most recent referendum. Based on this measure, I construct an indicator of low social capital, taking value one for all municipalities in the sample whose social capital is below the 25th percentile of the distribution, a value corresponding to the 40th percentile in the Italian South. Column (1) of Table 12 shows that a one unit increase in the mayor's competence score in municipalities characterized by low social capital decreases the municipal surplus by 2.8 percentage points, an effect equivalent to 28 percent of a standard deviation in the pre-election surplus, while we see no effect for the remaining municipalities. However, since social capital is lower in Southern municipalities as shown in Appendix Tables A1 to A3, it could be the case that Southern municipalities are driving the effect of the Low Social Capital indicator. To address this concern, column (2) presents a horserace between the South and the Low Social *Capital* indicators and shows that the effect of low social capital is not entirely driven by Southern municipalities. As expected, the coefficient in column (2) is smaller in magnitude with respect to column (1), since a low level of social capital is only one of the dimensions along which the lower quality of informal institutions in the Italian South can be measured. The remaining dimensions are captured by the *South* indicator.

#### 4.5.2 Mafia Presence

As a second test, I look at an additional dimension of informal institutions at the municipality level: the presence of mafia organizations (Collins 2003, Gambetta 1993, Lauth 2000). The presence of organized crime can affect the job of a mayor through several channels, such as eating up police resources or by making the procurement operations of the municipality more delicate given the threat of corruption. I employ a municipality-level measure of the number of businesses, goods and buildings confiscated for mafia involvement by the Italian police that however, given the distribution of organized crime in Italy, has a meaningful variation across and within regions in the South only.<sup>33</sup> Column (3) of Table 12 shows that the effect of more competent mayors on the budget surplus is stronger in municipalities with mafia presence. In municipalities with Mafia presence, a one-point increase in the Mean Quality Score leads to an average reduction in surplus of about 46 percent of a standard deviation, while the average reduction in municipalities without mafia presence is of 25 percent of a standard deviation.

#### 4.5.3 Letters experiment

Finally, I collect a behavioral measure of bureaucratic norms from a group of bureaucrats who are not under the mayor's supervision: postal office workers. While the rules governing the bureaucracy are formal institutions, their efficacy is affected by the informal norms of bureaucratic behavior (Hamilton-Hart 2000). In order to collect this behavioral measure of bureaucratic norms, I send to each of the municipality in my sample a letter addressed to a fictitious recipient at a fictitious address but bearing the correct municipality name and postal code.<sup>34</sup> Italian municipal postal offices are responsible for returning to the sender any letter mailed to an incorrect address. As in Chong et al (2014), I record whether each letter is returned and use it as a proxy for the quality of local institutions. This measure presents two clear advantages. First, it is available for the whole sample. Second, postal offices do operate in each municipality but do not depend from the mayor or the municipal government.<sup>35</sup> It is interesting to note that this source of variation in the functioning of local institutions is orthogonal to the North-South divide. Indeed, as shown in Tables A1-A2, the median return rate of my letters was similar across the North, South and Center. The analysis performed in column (4) is underpowered in light of the fact that for only 47 out of the 306 municipalities in the sample the letter was not returned to the sender. However, results presented in column (4) of Table 12 are qualitatively in line with those presented in columns (1) to (3) and confirm the substitutability between the quality of mayors and that of the local institutions by showing that the effect of high-competence mayors in the whole sample is driven by those municipalities whose postal office did not comply with the rule of sending the letter back to the sender.

 $<sup>^{33}\</sup>mathrm{More}$  details in the additional data section in the Appendix.

 $<sup>^{34}</sup>$ All letters were addressed to Giovanni Verde in Via Atlante 36 and were all sent from the same zip code on the same day.

 $<sup>^{35}\</sup>mathrm{As}$  per the DDL 261/1999 requiring 96 percent of Italian municipalities to have one postal office, all municipalities in my sample have a postal office.

	(1)	(2)	(3)	(4)
	Surplus	Surplus	Surplus	Surplus
-			(in South)	
Mean Competence Score $\times$ Post $\times$ Low Social Capital	-0.028***	-0.018*		
	(0.010)	(0.010)		
Mean Competence Score $\times$ Post $\times$ South		-0.022**		
		(0.011)		
Mean Competence Score $\times$ Post $\times$ Mafia Presence			-0.056**	
			(0.023)	
Mean Competence Score $\times$ Post $\times$ No Letter				-0.014
				(0.014)
Mean Competence Score $\times$ Post	0.006	0.008	-0.030***	0.000
	(0.005)	(0.006)	(0.011)	(0.005)
Observations	2,011	2,011	571	2,339
Municipalities	262	262	73	303
R-squared	0.689	0.689	0.898	0.870
SD DV Pre	0.110	0.110	0.120	0.109

#### Table 12: Heterogeneous effect with alternate measures of institutional quality

Notes: See table 8 for table notes.

## 5 Conclusion

In this paper, I ask to what extent politicians' competence as managers of the public administration matters for policy and if it can compensate for low-quality informal institutions. I develop a survey instrument to measure the competence of executive politicians and I administer it to a representative sample of Italian mayors. My measure specifically focuses on the ability of executive politicians as managers of their government, i.e. their ability to perform the daily tasks involved in the planning and implementation of their government mandate.

The election of more competent mayors translates into a more effective use of funds, an increase in long-term investments, and better service provision without an increase in taxes, only where the quality of institutions is low. This is true across a series of different measures of institutional quality: Southern versus Northern Italy, presence of organized crime, social capital, and a behavioral measure of the efficiency of local bureaucratic norms.

The results of my paper point to the fact that the quality of elected politicians and the quality of informal institutions act as substitutes rather than complements. Mayoral quality plays an increasingly significant role as the quality of institutions become worse, and the election of competent politicians becomes even more relevant in difficult settings. In light of these findings, efforts to increase the managerial competence of local politicians may represent a cost-effective way of increasing the quality of public goods provision.

While the focus of this paper is on Italian mayors, its findings are likely to be relevant

for a wide range of settings. The role of local governments and their executive politicians has recently drawn considerable attention in the U.S. context (Arnold and Carnes 2012, Tausanovich and Warshaw 2014), with local policies representing an increasing share of government activities (Trounstine 2009). Recent evidence suggests that local governments might be the very place where significant policy change can take place, given the lower relevance of partisan polarisation in this context (Ferreira and Gyourko 2009, Gerber and Hopkins 2011). Applying the methodology I developed in this paper to the study of politicians managing U.S. municipal governments represents a promising area of future research.

# References

Acemoglu, Daron, Simon Johnson, Pablo Querubin, and James A. Robinson. 2008. "When Does Policy Reform Work - The Case of Central Bank Independence." Brookings Papers on Economic Activity 1: 351-418.

Acemoglu, Daron, and James A. Robinson. 2012. Why Nations Fail? New York: Crown Publishers.

Alesina, Alberto, Salvatore Piccolo, and Paolo Pinotti. 2016. "Organized Crime, Violence, and Politics." NBER Working Paper No. 22093, National Bureau of Economic Research.

Algan, Yann, and Pierre Cahuc. 2010. "Inherited Trust and Growth." *American Economic Review* 100(5): 2060-2092.

**Anderson, Michael L. 2008.** "Multiple Inference and Gender Differences in the Effects of Early Intervention: A Reevaluation of the Abecedarian, Perry Preschool, and Early Training Projects." *Journal of the American Statistical Association* 103(484): 1481-1495.

Arnold, Douglas R., and Nicholas Carnes. 2012. "Holding Mayors Accountable: New York's Executives from Koch to Bloomberg." *American Journal of Political Science* 56(4): 949?963.

Bandiera, Oriana, Stephen Hansen, Andrea Prat, and Raffaella Sadun. 2018. "CEO Behavior and Firm Performance." NBER Working Papers 23248.

Banfield, Edward C. 1958. The Moral Basis of a Backward Society. New York: Free Press.

Berry, Christopher R., and Anthony Fowler. 2017. "Leadership or Luck? Randomization Inference for Leader Effects (RIFLE)." Working Paper https://www.dropbox.com/ s/ovtv71e8xcdreef/BerryFowler\_Leaders.pdf?dl=0.

**Bertelli, Anthony, and Peter John. 2010.** "Government Checking Government: How Performance Measures Expand Distributive Politics." *The Journal of Politics* 72(2): 545-558.

Bertrand, Marianne, and Antoinette Schoar. 2003. "Managing with Style: The Effect of Managers on Firm Policies." *The Quarterly Journal of Economics* 118(4): 1169-1208.

Bertrand, Marianne, Robin Burgess, Arunish Chawla, and Guo Xu. 2018. "The Glittering Prizes: Career Incentives and Bureaucrat Performance." Working Paper.

**Besley, Timothy. 2005**. "Political Selection." *Journal of Economic Perspectives* 19(3): 43-60.

**Besley, Timothy, Rohini Pande, and Vijayendra Rao. 2005**. "Political Selection and the Quality of Government: Evidence from South India." CEPR Discussion Papers 5201.

**Besley, Timothy, and Marta Reynal-Querol. 2011.** "Do Democracies Select More Educated Leaders?" *American Political Science Review* 105(3): 552-66.

— **2017.** "The logic of hereditary rule: theory and evidence." *Journal of Economic Growth* 22(2): 123-144.

Bloom, Nicholas, and John Van Reenen. 2007. "Measuring and Explaining Management Practices Across Firms and Countries." *Quarterly Journal of Economics* 122(4): 1351-1408.

Bloom, Nicholas, Carol Propper, Stephan Seiler, and John Van Reenen. 2015. "The Impact of Competition on Management Quality: evidence from public hospitals." *The Review of Economic Studies* 82(2): 457-489.

Bolton, Alexander, Rachel Augustine Potter, and Sharece Thrower. 2016. "Organizational Capacity, Regulatory Review, and the Limits of Political Control." *The Journal* of Law, Economics, and Organization. 32(2): 242-271.

**Bracco, Emanuele, Francesco Porcelli, and Michela Redoano. 2013.** "Political Competition, Tax Salience and Accountability: Theory and Some Evidence from Italy." CE-Sifo Working Paper No. 4167.

Burden, Barry C.. 2007. *Personal Roots of Representation*. Princeton: Princeton University Press.

**Carnes, Nicholas. 2012.** "Does the Numerical Underrepresentation of the Working Class in Congress Matter?" *Legislative Studies Quarterly* 37(1): 5-34.

**Carnes, Nicholas, and Noam Lupu. 2015**. "What Good is a College Degree? Education and Leader Quality Reconsidered." *The Journal of Politics* 78(1): 35-49.

Chubb, Judith. 1982. Patronage, power, and poverty in southern Italy. A tale of two cities. Cambridge: Cambridhe University Press.

Chong, Alberto, Rafael La Porta, Florencio Lopez-se-Silanes, and Andrei Shleifer. 2014. "Letter Grading Government Efficiency." *Journal of the European Economic Association* 12(2): 277-299.

Collins, Kathleen. 2003. "The political role of clans in Central Asia." *Comparative Politics* 35(2): 171-90.

Dal Bó, Ernesto, Frederico Finan, Olle Folke, Torsten Persson, and Johanna Rickne. 2017. "Who Becomes a Politician?" NBER Working Papers 23120, National Bureau of Economic Research.

**Di Liberto, Adriana, Fabiano Schivardi, and Giovanni Sulis. 2015**. "Managerial Practices and Students' Performance." *Economic Policy* 30(84): 683-728.

Einstein, Katherine L., and David M. Glick. 2016 "2015 Menino Survey of Mayors." Boston: Initiative on Cities, Boston University. **Evans Peter, and James E. Rauch 1999**. "Bureaucracy and growth: a cross-national analysis of the effects of "Weberian" state structures on economic growth." *American Sociological Review* 64(5): 748-765

**Fabbrini, Sergio. 2001.** "Features and Implications of Semi-Parliamentarism: The Direct Election of Italian Mayors." *South European Society and Politics* 6(2): 47-70.

Ferraz, Claudio, and Frederico Finan. 2011. "Motivating Politicians: The Impacts of Monetary Incentives on Quality and Performance." NBER Working Papers 14906, National Bureau of Economic Research.

Ferreira, Fernando, and Joseph Gyourko. 2009. "Do Political Parties Matter? Evidence from U.S. Cities." *The Quarterly Journal of Economics* 124(1): 399-422.

Fukuyama, Francis. 1995. Trust. New York: Free Press.

Gagliarducci, Stefano and Daniele M. Paserman. 2012. "Actions within Hierarchies: Evidence from the Political Arena." *Review of Economic Studies* 79(3):1021-1052.

Galasso, Vincenzo, and Tommaso Nannicini. 2011. "Competing on Good Politicians." *American Political Science Review* 105(1): 79-99.

Gallego, Aina, and Marta Curto. 2017. "Educated Politicians: Effects on Performance and Fiscal Policy." Working Paper.

Gambetta, Diego. 1993. The Sicilian Mafia: The Business of Private Protection. Cambridge, MA: Harvard University Press.

Gambetta, Diego. (ed.) 1988. Trust: Making and breaking cooperative relations. Cambridge: Blackwell.

Gelpi, Christopher, and Peter D. Feaver. 2002. "Speak Softly and Carry a Big Stick? Veterans in the Political Elite and the American Use of Force." *American Political Science Review* 96(4): 779-93.

Gerber, Elisabeth R., and Daniel J. Hopkins. 2011. "When Mayors Matter: Estimating the Impact of Mayoral Partisanship on City Policy." *American Journal of Political Science* 55(2): 326-339.

Golden, Miriam A., and Eric C. C. Chang. 2001. "Competitive corruption: factional conflict and political malfeasance in postwar Italian Christian Democracy." *World Politics* 53: 588?622.

Golden, Miriam A., and Lucio Picci. 2005. "Proposal for a new Measure of Corruption, illustrated with Italian Data." *Economics and Politics* 17(1): 37-75.

Gratton, Gabriele, Luigi Guiso, Claudio Michelacci, and Massimo Morelli. 2017. "From Weber to Kafka: Political Activism and the Emergence of an Inefficient Bureaucracy." No. 560, Working Papers, IGIER (Innocenzo Gasparini Institute for Economic Research), Bocconi University. **Greif, Avner. 1994.** "Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies." *Journal of Political Economy* 102 (5): 912-950.

**Grindle, Merilee 1997.** "Divergent cultures? When public organizations perform well in developing countries." *World Development* 25:481?95

Guiso, Luigi, Paola Sapienza and Luigi Zingales. 2006 "Does Culture Affect Economic Outcomes?" Journal of Economic Perspectives 20(2): 23-48.

Hamilton-Hart, Natasha. 2000. "The Singapore state revisited." *Pacific Review* 13(2): 195-216.

Helmke, Gretchen, and Steven Levitsky. 2004. "Informal Institutions and Comparative Politics: A Research Agenda." *Perspectives on Politics* 2(4): 725-740.

Huber, John D., and Nolan McCarty. 2004. "Bureaucratic Capacity, Delegation, and Political Reform." *American Political Science Review*. 98-3: 481-494.

Jones, Benjamin F., and Benjamin A. Olken. 2005. "Do Leaders Matter? National Leadership and Growth Since World War II." *The Quarterly Journal of Economics* 120 (3): 835-864.

Khwaja, Asim Ijaz. 2009. "Can Good Projects Succeed in Bad Communities?" *Journal of Public Economics* 93(7-8): 899-916.

Kirkland, Patricia A. 2017. "The Business of Being Mayor: Mayors and Fiscal Policies in U.S. Cities." *Working Paper Vanderbilt University*.

Knack, Stephen, and Philip Keefer. 1997. "Does social capital have an economic payoff? A cross-country investigation." *Quarterly Journal of Economics* 112 (4): 1251-1288.

Kotakorpi, Kaisa, and Panu Poutvaara. 2011. "Pay for Politicians and Candidate Selection: An Empirical Analysis." *Journal of Public Economics* 95(8): 877-85.

Krause, George A., and Neal D. Woods. 2014. "Policy Delegation, Comparative Institutional Capacity, and Administrative Politics in the American States." in *The Oxford Handbook of State and Local Government*. Donald P. Haider-Markel, ed. New York: Oxford University Press.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert W Vishny. 1997. "Trust in Large Organizations." American Economic Review Papers and Proceedings 87(2): 333-338.

Lauth, Hans-Joachim. 2000. "Informal institutions and democracy." *Democratization* 7(4): 21-50.

Merlo, Antonio, Vincenzo Galasso, Massimiliano Landi, and Andrea Mattozzi.
2010. "The Labor Market of Italian politicians." In Boeri, Tito, Antonio Merlo, and Andrea Prat (eds.) 2010. The Ruling Class: Management and Politics in Modern Italy. Oxford:

Oxford University Press.

Nannicini, Tommaso, Andrea Stella, Guido Tabellini, and Ugo Troiano. 2013. "Social Capital and Political Accountability." *American Economic Journal: Economic Policy* 5(2): 222-250.

North, Douglass C. 1990. "Institutions, Institutional Change, and Economic Performance." Cambridge: Cambridge University Press.

North, Douglas C., and Robert Paul Thomas. 1973. The Rise of the Western World: A New Economic History Cambridge: Cambridge University Press.

**Olken, Benjamin A. 2007.** "Monitoring Corruption: Evidence from a Field Experiment in Indonesia." *Journal of Political Economy* 115(2): 200-249.

Pepinsky, Thomas B., Jan H. Pierskalla, and Audrey Sacks. 2017. "Bureaucracy and Service Delivery." *Annual Review of Political Science*. 20: 249-268.

**Pinotti, Paolo. 2015.** "The Economic Costs of Organised Crime: Evidence from Southern Italy." *The Economic Journal* 125: 203-232.

**Porcelli, Francesco, Francesco Vidoli, Roberto Dispotico, and Danilo Ballanti. 2016.** "Measuring Public Sector Performance: A Four Quadrants Model to Monitor Local Governments' Efficiency" in Philippopoulos, Apostolis (ed.) *Public Sector Economics and the Need for Reforms.* Cambridge: The MIT Press.

**Pritchett, Lant. 2000.** "The tyranny of concepts: CUDIE (cumulated, depreciated, investment effort) is not capital." *Journal of Economic Growth* 5: 361-384.

Putnam, Robert D., Robert Leonardi, and Raffaella Y. Nanetti. 1993. Making Democracy Work: Civic Traditions in Modern Italy. Princeton: Princeton University Press.

Ramey, Adam J., Jonathan D. Klingler, and Gary E. Hollibaugh, Jr. 2016. "Measuring Elite Personality Using Speech." *Political Science Research and Methods* 1-22. doi:10.1017/psrm.2016.12.

Rasul, Imran, and Daniel O. Rogger. 2017. "Management of Bureaucrats and Public Service Delivery: Evidence from the Nigerian Civil Service." *The Economic Journal* forthcoming.

Rasul, Imran, Daniel O. Rogger, and Martin J. Williams. 2017. Management and Bureaucratic Effectiveness: a Scientific Replication. (Reference No. S-33301-GHA-1) London, UK: International GrowthăCenter, LSE.

Scarciglia, Roberto. 1993. Ś "Poteri del sindaco e del presidente della provincia Š." in Augusto Barbera (ed.), *Elezione diretta del sindaco* Rimini: Maggioli.

Stokes, Susan. 2006. "Do Informal Institutions Make Democracy Work? Accounting for Accountability in Argentina." In Helmke, Gretchen, and Steven Levitsky (eds.) *Informal Institutions and Democracy: Lessons from Latin America*. Baltimore: Johns Hopkins Uni-

versity Press.

Swers, Michele L. 2002. The Difference Women Make: The Policy Impact of Women in Congress. Chicago: University of Chicago Press.

**Tabellini, Guido. 2008.** "Presidential Address: Institutions and Culture." *Journal of the European Economic Association* 6(2-3): 255-294.

**Tabellini, Guido. 2010.** "Culture and Institutions: Economic Development in the Regions of Europe." *Journal of the European Economic Association.* 8(4): 677-716.

Tausanovich, Chris, and Christopher Warshaw. 2014. "Representation in Municipal Government." *American Political Science Review* 108(3): 605-641.

**Trounstine, Jessica. 2009.** "All Politics Is Local: The Reemergence of the Study of City Politics." *Perspectives on Politics* 7(3): 611-18.

Washington, Ebonya L.. 2008. "Female Socialization: How Daughters Affect Their Legislator Fathers." *American Economic Review* 98(1): 311-32.

Witko, Christopher, and Sally Friedman. 2008. "Business Background and Congressional Behavior." Congress & The Presidency 35(1): 71-86.

# Appendix

	Mean	Std. Dev.	Min.	Max.	Ν
Panel A: Cross-Sectional Variables	-				
Mayor characteristics					
Mean Competence Score	2.92	0.85	1	4.5	75
Age	53.59	10.21	31	81	75
Female	0.07	0.25	0	1	75
Job - High Skill	0.84	0.37	0	1	$\overline{7}$
Job - Low Skill	0.14	0.35	0	1	$\overline{7}$
Job - Unemployed/Pension	0.03	0.16	0	1	$\overline{7}$
Education - Less than Highschool	0.01	0.12	0	1	$\overline{7}$
Education - Highschool	0.25	0.44	0	1	$\overline{7}$
Education - University	0.73	0.45	0	1	7
Years of Government Experience	13.24	6.82	0	31	7
Year in Office	2.63	1.09	1	5	7
Party - Left	0.16	0.37	0	1	7
Party - Centre Left	0.43	0.5	0	1	7
Party - Centre/Independent	0.29	0.46	0	1	7
Party - Centre Right	0.09	0.29	0	1	7
Party - Right	0.03	0.16	0	1	7
Municipality characteristics					
Population	4811.07	784.64	3622	6462	7
Low Social Capital	0.41	0.5	0	1	7
No Letter	0.12	0.33	0	1	7
Panel B: Panel Variables					
Surplus	0.13	0.12	-0.13	0.36	58
Total Expenditures (euros per capita)	1276.95	589.80	473.45	3863.21	58
Total Revenues (euros per capita)	1287.35	596.41	463.43	3798.69	58
Current Expenditures (euros per capita)	528.59	190.94	269.42	1516	58
Capital Expenditures (euros per capita)	342.83	379.73	12.25	1990.57	58
Other Expenditures (euros per capita)	249.11	245.14	61.24	1119.35	58
Tax Revenues (euros per capita)	391.93	176.66	104.65	1165.12	58
Transfer Revenues (euros per capita)	208.44	159.81	9.56	644.35	58
Other Revenues (euros per capita)	674.95	524.02	130.28	2661.91	58
Quality of Service Provision Index	4.75	1.78	1	8.80	4

## Table A1: Summary statistics for Southern Italy

	Mean	Std. Dev.	Min.	Max.	Ν
Panel A: Cross-Sectional Variables	-				
Mayor characteristics					
Mean Competence Score	2.99	0.83	1	5	180
Age	51.7	10.26	28	76	180
Female	0.17	0.38	0	1	180
Job - High Skill	0.63	0.49	0	1	179
Job - Low Skill	0.23	0.42	0	1	179
Job - Unemployed/Pension	0.14	0.35	0	1	179
Education - Less than Highschool	0.07	0.26	0	1	180
Education - Highschool	0.51	0.5	0	1	180
Education - University	0.42	0.49	0	1	180
Years of Government Experience	12.89	8.26	2	41	180
Year in Office	2.39	0.78	1	5	180
Party - Left	0.15	0.36	0	1	180
Party - Centre Left	0.34	0.48	0	1	180
Party - Centre/Independent	0.22	0.41	0	1	180
Party - Centre Right	0.28	0.45	0	1	180
Party - Right	0.01	0.11	0	1	180
Municipality characteristics					
Population	4988.85	783.71	3555	6468	180
Low Social Capital	0.1	0.3	0	1	180
No Letter	0.11	0.32	0	1	180
Panel B: Panel Variables	_				
Surplus	0.12	0.11	-0.13	0.36	1143
Total Expenditures (euros per capita)	1053.65	510.59	473.45	3863.21	1143
Total Revenues (euros per capita)	1044.53	504.23	463.43	3798.69	1143
Current Expenditures (euros per capita)	548.22	222.68	269.42	1562.92	1143
Capital Expenditures (euros per capita)	206.17	236.91	12.25	1990.57	1143
Other Expenditures (euros per capita)	169.81	166.19	46.47	1119.35	1143
Tax Revenues (euros per capita)	443.03	186.95	117.31	1165.12	1143
Transfer Revenues (euros per capita)	120.33	104.9	9.56	644.35	1143
Other Revenues (euros per capita)	463.49	327.68	130.28	2661.91	114:
Quality of Service Provision Index	7.13	1.63	2.8	10	101

Table A2: Summary statistics for Northern Italy

	Mean	Std. Dev.	Min.	Max.	Ν
Panel A: Cross-Sectional Variables	_				
Mayor characteristics					
Mean Competence Score	3.14	0.85	1	4.88	51
Age	52.94	10.78	34	77	51
Female	0.1	0.3	0	1	51
Job - High Skill	0.67	0.48	0	1	51
Job - Low Skill	0.14	0.35	0	1	51
Job - Unemployed/Pension	0.2	0.4	0	1	51
Education - Less than Highschool	0.02	0.14	0	1	51
Education - Highschool	0.35	0.48	0	1	51
Education - University	0.63	0.49	0	1	51
Years of Government Experience	13.16	8.22	2	41	51
Year in Office	2.29	0.58	2	5	51
Party - Left	0.24	0.43	0	1	51
Party - Centre Left	0.49	0.5	0	1	51
Party - Centre/Independent	0.12	0.33	0	1	51
Party - Centre Right	0.16	0.37	0	1	51
Party - Right	0	0	0	0	51
Municipality characteristics					
Population	4994.92	686.05	3819	6332	51
Low Social Capital	0.31	0.47	0	1	51
No Letter	0.35	0.48	0	1	51
Panel B: Panel Variables					
Surplus	0.13	0.1	-0.13	0.36	382
Total Expenditures (euros per capita)	1453.32	613.56	623.31	3863.21	382
Total Revenues (euros per capita)	1455.75	621.07	629.54	3798.69	382
Current Expenditures (euros per capita)	642.94	219.49	269.42	1562.92	382
Capital Expenditures (euros per capita)	327.38	354.83	12.25	1990.57	382
Other Expenditures (euros per capita)	282.78	281.99	55.51	1119.35	382
Tax Revenues (euros per capita)	480.46	167.2	169.78	1078.65	382
Transfer Revenues (euros per capita)	167.39	129.61	9.56	644.35	382
Other Revenues (euros per capita)	798.33	556.04	130.28	2661.91	382
Quality of Service Provision Index	5.23	1.88	1	8.19	28

Table A3: Summary statistics for Central Italy

	Declined	Accepted		s.e. of
-	Interview	Interview	Difference	Difference
Panel A: South				
Age	52.20	53.59	1.39	(1.45)
Female	0.10	0.07	-0.04	(1.43) (0.04)
Job - High Skill	0.82	0.84	0.02	
Job - Low Skill	0.02	$0.34 \\ 0.14$	0.02 0.05	(0.06) (0.05)
	0.09	$0.14 \\ 0.03$	-0.06	(0.03) (0.04)
Job - Unemployed/Pensioner Education - Less than Highschool	0.09 0.03	$0.03 \\ 0.01$	-0.06	(0.04) (0.02)
	0.03 0.30	$0.01 \\ 0.25$	-0.01	
Education - Highschool				(0.07)
Education - University	0.67	0.73	0.06	(0.07)
Total Revenues (euros per capita)	1425.05	1412.17	-12.88	(84.27)
Total Expenditures (euros per capita)	1378.61	1375.84	-2.77	(82.13)
Surplus	0.20	0.20	0.00	(0.01)
Observations	106	75	181	
Panel B: North				
Age	51.81	51.58	-0.23	(1.33)
Female	0.19	0.13	-0.06	(0.04)
ob - High Skill	0.70	0.66	-0.04	(0.06)
lob - Low Skill	0.16	0.20	0.05	(0.05)
lob - Unemployed/Pensioner	0.13	0.14	0.00	(0.04)
Education - Less than Highschool	0.09	0.08	-0.01	(0.03)
Education - Highschool	0.44	0.50	0.05	(0.06)
Education - University	0.47	0.42	-0.04	(0.06)
Total Revenues (euros per capita)	957.04	998.73	41.69	(48.65)
Total Expenditures (euros per capita)	950.43	988.71	38.27	(47.90)
Surplus	0.19	0.19	-0.00	(0.01)
Observations	120	147	267	
Panel C: Center				
Age	49.92	52.67	2.74	$(1.54)^*$
Female	0.18	0.20	0.02	(0.06)
Job - High Skill	0.62	0.59	-0.03	(0.08)
Job - Low Skill	0.18	0.23	0.05	(0.06)
Job - Unemployed/Pensioner	0.15	0.18	0.03	(0.06)
Education - Less than Highschool	0.05	0.02	-0.03	(0.03)
Education - Highschool	0.37	0.44	0.07	(0.08)
Education - University	0.58	0.54	-0.04	(0.08)
Total Revenues (euros per capita)	1,290.61	1,335.79	45.18	(79.10)
Total Expenditures (euros per capita)	1,230.01 1,271.49	1,313.44	41.95	(77.10)
Surplus	0.19	0.19	0.00	(0.01)
Observations	78	84	162	

#### Table A4: Balance between interviewed and non-interviewed mayors

*Notes:* The number of observations for the variables *Job - High-skill*, *Job - Low-skill*, and *Job - Unemployed* is 176 (103 not interviewed and 73 interviewed) in Panel A, 261 (114 not interviewed and 147 interviewed) in Panel B, and 155 (72 not interviewed and 83 interviewed) in Panel C. \*\*\* is significant at the 1 percent level, \*\* is significant at the 5 percent level, \* is significant at the 10 percent level. \*\*\* is significant at the 5 percent level, \* is significant at the 10 percent level.

	(1)	(2)	(3)	(4)	
-	Surplus	Surplus	Surplus	Surplus	
Mean Competence Score $\times$ South	-0.024**	-0.031**	-0.028**	-0.029**	
-	(0.012)	(0.013)	(0.013)	(0.013)	
Mean Competence Score	0.007	0.007	0.008	0.008	
-	(0.005)	(0.005)	(0.005)	(0.005)	
Observations	939	927	927	927	
Municipalities	306	303	303	303	
R-squared	0.077	0.085	0.091	0.103	
SD DV	0.0907	0.0911	0.0911	0.0911	
Mayor Controls		$\checkmark$	$\checkmark$	$\checkmark$	
Party FE			$\checkmark$	$\checkmark$	
Year of Term FE				$\checkmark$	

Table A5: Competence Score and Surplus: south vs. rest of Italy
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Notes: The dependent variable is the value of the per-capita municipal surplus relative to the budget size (total revenues minus total expenditures) over total expenditures, winsorized at the 1 percent level. The variable South is an indicator taking value one for all municipalities in southern Italy and value zero for municipalities in northern and central Italy. All specifications include year and region fixed effects. The South indicator is absorbed by region fixed effects. The standard deviation of the dependent variable is reported in the table. Mayor controls include: i) the gender of the mayor, ii) the age of the mayor, iii) the mayor's previous occupation, iv) the mayor's educational attainment, and v) fixed effects for the year of the mayor's current mandate (1-5). Standard errors clustered at the municipality level are shown in parenthesis. \*\*\* is significant at the 1 percent level, \*\* is significant at the 5 percent level, \* is significant at the 10 percent level.

	(1)	(2)	(3)	(4)
_	Surplus	Surplus	Surplus	Surplus
Mean Competence Score $\times$ Post $\times$ South	-0.030***	-0.027***	-0.030***	-0.030***
-	(0.008)	(0.009)	(0.010)	(0.010)
Mean Competence Score $\times$ Post	0.006	0.004	0.005	0.005
	(0.005)	(0.005)	(0.005)	(0.005)
Post $\times$ South	0.084***	. ,	. ,	
	(0.024)			
Observations	2,362	2,362	2,339	2,339
Municipalities	306	306	303	303
R-squared	0.693	0.699	0.870	0.700
SD Surplus Pre	0.109	0.109	0.109	0.109
Region FE		$\checkmark$	$\checkmark$	$\checkmark$
Mayor Controls			$\checkmark$	$\checkmark$
Party FE				$\checkmark$

#### Table A6: Competence Score and Surplus (Diff-in-Diff): south vs. rest of Italy

Notes: The dependent variable is the value of the per-capita municipal surplus (total revenues minus total expenditures) relative to the budget size, winsorized at the 1 percent level. The variable *Post* is an indicator taking value one for each year of the interviewed mayor's term following the mayor's first election. The variable *South* is an indicator taking value one for all municipalities in southern Italy and value zero for municipalities in northern and central Italy. In columns (2)-(3) the variable *Post* × *South* is absorbed by region fixed effects interacted with the *Post* dummy. The standard deviation of the dependent variable in the pre-period is reported in the table. All specifications include fixed effects for the municipality, the year since the mayor was elected and the calendar year. Mayor controls include the mayor's age, gender, educational attainment, years of government experience and skill content of previous employment. All controls, as well as region and party indicators, are interacted with the *Post* indicator. Standard errors clustered at the municipality level are shown in parenthesis. \*\*\* is significant at the 1 percent level, \*\* is significant at the 5 percent level, \* is significant at the 10 percent level.

			Depen	Dependent Variable : Surplus	le : Surplus		
<b>Panel A</b> - Mean Competence Score excludes practice:	Tan Set	Target Setting	Operations	Perfor Moni	Performance Monitoring	Ir	Incentives
Mean Competence Score (excluding one practice) $\times$ Post	-0.0 0.0)	$-0.035^{***}$ (0.010)	$-0.033^{***}$ (0.011)	-0.02 (0.0	$-0.027^{***}$ (0.009)	1	$-0.035^{***}$ $(0.010)$
Observations R-squared SD Surplus Pre	0.1 0.1	$571 \\ 0.762 \\ 0.120$	$571 \\ 0.761 \\ 0.120$	0.7	571 0.758 0.120		571 0.762 0.120
<b>Panel B</b> - Mean Competence Score excludes question:	(1)	(2)	(3)	(4)	(5)	(9)	(2)
Mean Competence Score (excluding one question) $\times {\rm Post}$	$-0.037^{***}$ (0.010)	$-0.036^{***}$ (0.010)	$-0.035^{**}$ (0.010)	$-0.032^{***}$ (0.010)	$-0.034^{**}$ (0.010)	$-0.037^{***}$ (0.010)	$-0.037^{***}$ (0.011)
Observations R-squared SD Surplus Pre	$571 \\ 0.762 \\ 0.120$	$571 \\ 0.762 \\ 0.120$	$571 \\ 0.761 \\ 0.120$	$571 \\ 0.760 \\ 0.120$	$571 \\ 0.760 \\ 0.120$	$571 \\ 0.762 \\ 0.120$	$571 \\ 0.762 \\ 0.120$
e above replicates results sho alternate Competence Scores, paper. Panel B shows results impetence Score used through i.e. party indicators, region i	for the Italia l as the avera ate Compete All columns nayor contro	n south only ge of three of nce Scores, e show results I variables in	) using altern ut of the fou ach calculate for the full s teracted with	ate definition r practices u d as the aver pecification the <i>Post</i> ir	ns of the Co sed to calcul age of all bu including pa dicator). **	mpetence Sco late the Comj tt one of the 7 urty and regio	wn in Table 8 (for the Italian south only) using alternate definitions of the Competence Score. Panel A shows each calculated as the average of three out of the four practices used to calculate the Competence Score used for seven alternate Competence Scores, each calculated as the average of all but one of the 7 questions used to out the paper. All columns show results for the full specification including party and region fixed effects and indicators and mayor control variables interacted with the <i>Post</i> indicator). *** is significant at the 1 percent

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	(1)	(2)	(3)	(4)
-	Surplus	Surplus	Surplus	Surplus
Panel A				
Target Setting $\times$ Post	-0.012*	-0.011	-0.019**	-0.017*
0	(0.007)	(0.007)	(0.010)	(0.010)
Observations	<b>588</b>	<b>588</b>	571	571
R-squared	0.741	0.745	0.894	0.756
Panel B				
$\overrightarrow{\mathbf{Performance Monitoring} \times \mathbf{Post}}$	-0.019***	-0.020***	-0.027***	-0.028***
č	(0.006)	(0.007)	(0.007)	(0.009)
Observations	588	588	571	571
R-squared	0.747	0.751	0.897	0.762
Panel C	0 01 4***	0.01.4**	0.017**	0.010**
Operations $\times$ Post	-0.014***	-0.014**	-0.017**	$-0.018^{**}$
	(0.005)	(0.006)	(0.007)	(0.007)
Observations R-squared	$\begin{array}{c} 588 \\ 0.743 \end{array}$	$\begin{array}{c} 588 \\ 0.747 \end{array}$	$571 \\ 0.895$	$571 \\ 0.758$
n-squared	0.745	0.747	0.895	0.758
Panel D				
Incentives $\times$ Post	-0.013*	-0.012	-0.016**	-0.013
	(0.007)	(0.007)	(0.008)	(0.008)
Observations	588	588	571	571
R-squared	0.742	0.746	0.894	0.755
Municipalities	75	75	73	73
SD Surplus Pre	0.120	0.120	0.120	0.120
Region FE		$\checkmark$	$\checkmark$	$\checkmark$
Mayor Controls			$\checkmark$	$\checkmark$
Party FE				$\checkmark$

#### Table A8: Competence Score components (in South)

*Notes:* Each panel replicates Panel B table 8 using one of the four management practices or components of the Mean Competence Score in lieu of the Mean Competence Score. \*\*\* is significant at the 1 percent level, \*\* is significant at the 5 percent level, \* is significant at the 10 percent level.

	(1)	(2)	(3)
	Surplus	Surplus	Surplus
_	South	North	Centre
Mean Competence Score $\times$ Post	-0.036***	0.010	-0.005
-	(0.011)	(0.007)	(0.013)
Female $\times$ Post	-0.043	-0.005	0.038
	(0.027)	(0.015)	(0.027)
$Age \times Post$	-0.001	0.000	0.000
0	(0.001)	(0.001)	(0.001)
Job - High Skill $\times$ Post	-0.021	-0.003	-0.028
	(0.022)	(0.012)	(0.020)
Education - University $\times$ Post	0.013	0.005	0.021
-	(0.019)	(0.012)	(0.020)
Years of Government Experience $\times$ Post	-0.001	0.000	-0.000
-	(0.001)	(0.001)	(0.001)
Observations	571	1,143	382
Municipalities	73	147	51
R-squared	0.759	0.679	0.728
SD Surplus Pre	0.120	0.107	0.0978
Region FE	$\checkmark$	$\checkmark$	$\checkmark$
Party FE	$\checkmark$	$\checkmark$	$\checkmark$

## Table A9: Competence Score and Human Capital Measures

Notes: See Table 8 for table notes. \*\*\* is significant at the 1 percent level, \*\* is significant at the 5 percent level, \* is significant at the 10 percent level.

	(1)	(2)	(3)	(4)
	Surplus	Surplus	Surplus	Surplus
Panel A: Full Sample				
Mean Competence Score $\times$ Post	0.002	0.001	-0.000	-0.000
	(0.005)	(0.005)	(0.006)	(0.006)
Observations	1,296	1,296	1,287	1,287
Municipalities	144	144	143	143
R-squared	0.731	0.739	0.846	0.742
SD Surplus Pre	0.0844	0.0844	0.0845	0.0845
Panel B: South				
Mean Competence Score $\times$ Post	-0.013**	-0.014**	-0.028***	-0.030**
I I I I I I I I I I I I I I I I I I I	(0.006)	(0.007)	(0.009)	(0.011)
Observations	333	333	324	324
Municipalities	37	37	36	36
R-squared	0.811	0.814	0.904	0.829
SD Surplus Pre	0.0935	0.0935	0.0942	0.0942
Panel C: North				
Mean Competence Score $\times$ Post	0.013	0.011	0.009	0.007
	(0.009)	(0.009)	(0.011)	(0.011)
Observations	639	639	639	639
Municipalities	71	71	71	71
R-squared	0.684	0.696	0.809	0.700
SD Surplus Pre	0.0842	0.0842	0.0842	0.0842
Panel D: Centre				
Mean Competence Score $\times$ Post	-0.007	-0.008	-0.018*	-0.021*
	(0.007)	(0.007)	(0.010)	(0.011)
Observations	189	189	189	189
Municipalities	21	21	21	21
R-squared	0.786	0.787	0.895	0.804
SD Surplus Pre	0.0705	0.0705	0.0705	0.0705
Region FE		$\checkmark$	$\checkmark$	$\checkmark$
Mayor Controls		·	$\checkmark$	$\checkmark$
Party FE			-	

## Table A10: Robustness to Balanced Sample

Notes: The Table replicates Table 8 using a balanced panel sample. See Table 8 for additional table notes.

	(1)	(2)	(3)	(4)
	Surplus (Absolute Value)	Surplus (Absolute Value)	Surplus (Absolute Value)	Surplus (Absolute Value)
Panel A: Full SampleMean Competence Score $\times$ Post	0.000	-0.000	-0.001	-0.000
Mean Competence Score × 1 050	(0.004)	(0.004)	(0.001)	(0.004)
Observations	2,362	2,362	2,339	2,339
Municipalities	306	306	303	303
R-squared	0.684	0.692	0.900	0.696
SD Surplus Pre	0.0937	0.0937	0.0937	0.0937
			•	
Panel B: South	0.000***	0.000***	0.000***	
Mean Competence Score $\times$ Post	-0.022***	-0.022***	-0.029***	-0.027***
	(0.006)	(0.007)	(0.008)	(0.009)
Observations	588	588	571	571
Municipalities	75	75	73	73
R-squared	0.763	0.767	0.920	0.781
SD Surplus Pre	0.110	0.110	0.110	0.110
Panel C: North			• •	
Mean Competence Score $\times$ Post	0.009	0.008	0.004	0.004
Mean Competence Score × 1 0st	(0.007)	(0.003)	(0.004)	(0.004)
Observations	1,143	1,143	1,143	1,143
Municipalities	147	147	147	147
R-squared	0.634	0.646	0.889	0.651
SD Surplus Pre	0.0865	0.0865	0.0865	0.0865
			•	
Panel D: Centre	0.000	0.000	0.010	0.000
Mean Competence Score $\times$ Post	$0.002 \\ (0.007)$	-0.002 (0.008)	-0.013 (0.009)	-0.002 (0.015)
Observations	382	382	382	382
Municipalities	51	51	51	51
R-squared	0.736	0.743	0.931	0.774
SD Surplus Pre	0.0890	0.0890	0.0890	0.0890
Marran Controla	/	/		
Mayor Controls	$\checkmark$	$\checkmark$	$\checkmark$	
Region FE		$\checkmark$	$\checkmark$	

Table A11: Results not driven by more competent mayors generating negative deficit

Notes: The Table replicates Table 8 using a the absolute value of the municipal surplus as dependent variable. See Table 8 for additional table notes.

Open Questions				
Target Setting				
<b>1) Target Inter-Connection</b> <i>Tests whether objectives are associated to</i>	are the practical targets asso	main objectives did you set fo ociated to each of these main scaded down to individual me		
practical and measurable targets and how well they cascade down to each member of the government and bureaucracy Score: 1 2 3 4 5	not cascade down throughout the administration	Score 3: Objectives are defined and targets are defined but only for some objectives; They do cascade, but only to members of the government.	Score 5: Objectives have clearly defined associated targets; They are cascaded to individual members of the government and bureaucracy and increase in specificity as they cascade, defining individual expectations for members.	
<b>2) Time Horizon of Targets</b> <i>Tests whether the administration has a</i>	<ul><li>a) What kind of time scale are you looking at with your targets?</li><li>b) Which goals receive the most emphasis?</li><li>c) Are the long-term and short-term goals set independently?</li></ul>			
rational approach to planning and setting targets Score: Lo 2o 3o 4o 5o .o	Score 1: The administration's main focus is on short-term targets	Score 3: There are short and long- term goals for every area; as they are set independently, they are not necessarily linked to each other	Score 5: Long-term goals are translated into specific short-term targets so that short-term targets become a 'staircase' to reach long- term goals	
Operations				
<b>3) Efficiency of Procurement</b> Tests efforts towards optimizing process of ensuring conformity to law of supplier	<ul> <li>a) Could you talk me through the process of writing a call for tender in your administration?</li> <li>b) How early do you typically issue a call for tender?</li> <li>c) How standardized is this procedure across different areas of the administration? In particular, how standardized is the procedure to make sure that the call for tender is law-compliant?</li> </ul>			
communication Score: 1 2 3 4 5	Score 1: mayor has vague understanding of the process.	Score 3: mayor know the process well and call for tender are programmed in advance.	Score 5: mayor knows the process very well; call for tender are programmed in advance; there are common official guidelines.	

Monitoring				
<b>4) Performance Tracking</b> Tests whether municipality performance is	<ul><li>a) What kind of main indicators do you use to track your performance in reaching your mandate objectives? What sources of information are used to inform this tracking?</li><li>b) How frequently are these measured? Who gets to see this performance data?</li></ul>			
measured with the right methods and frequency Score: 1 2 3 4 5	Score 1: Tracking does not happen	Score 3: Some performance indicators are tracked formally; Data is gathered for some objectives; tracking is overseen by the government leadership only.	Score 5: Performance is tracked systematically; data is measured and communicated, both formally and informally to a large number of members.	
<b>5) Performance Review</b> Tests whether performance is reviewed	<ul> <li>a) How often do you review the performance of the municipality-formally or inform with staff (executives, legislators, bureaucrats)?</li> <li>b) Tell me about a recent meeting.</li> <li>c) Who is involved in these meetings? Who gets to see the results of this review?</li> <li>d) What sort of follow-up plan would you leave these meetings with?</li> </ul>			
with appropriate frequency and follow-up Score: 1 2 3 4 5	Score 1: Performance is not reviewed or reviewed infrequently and in an unstructured way.	Score 3: Performance is reviewed periodically with successes and failures identified; results are only communicated to main government members; no clear follow up/ action plan is adopted	Score 5: Performance is continually reviewed, based on indicators; all aspects are followed up to ensure continuous improvement; results are communicated to both government and bureaucracy.	
	People Managem	ent		
6) Building a High-Performance Culture Tests whether there is a systematic approach to identifying good and bad performers and rewarding them proportionately Score: 1 2 3 4 5	<ul> <li>a) Do you have an appraisal system?</li> <li>b) How can the members of your staff evaluate their performance against that of the other members?</li> <li>c) Are there any rewards for the best performers across all staff groups? How does it work?</li> <li>d) What types of professional development opportunities are provided for top performers?</li> </ul>			
	Score 1: No appraisal system. Staff members cannot coompare their performance. No type of reward for top-performers	Score 3: There is an evaluation system which allowa comparison and awards good performance but awards are never awarded or are not based on performance.	Score 5: There is a formal evaluation system with public evaluations which rewards individuals based on performance; rewards are awarded as a consequence of well-defined achievements	

7) Managing Poor Performers	a) If you had a staff member who was struggling or who was not willing to do his/ he job, what would you do? Can you give me a recent example?		
Tests whether the administration is able to deal with underperformers			-
	Score 1: Poor performance is not	Score 3: Poor performance is	Score 5: Repeated poor
	addressed.	addressed, but only with formail	performance is frequently
		complaints that d not translate into	addressed, beginning with targeted
		action or with limited coaching	interventions using a variety of
Score:		methods.	methods (coaching; change of
10 20 30 40 50 .0			assignments)



#### Gentile Sindaco,

siamo un team di ricerca della New York University (NYU) che sta lavorando a un progetto di ricerca, diretto da Maria Carreri e supportato dall'Anci, sulle pratiche e stili amministrative nelle amministrazioni locali in Italia. Crediamo fermamente che gli amministratori giochino un ruolo di fondamentale importanza per il successo di un comune e per il benestare dei suoi cittadini. È proprio per questa convinzione che siamo interessati a comparare diverse pratiche e stili amministrativi in Italia e il suo contributo sarà prezioso. La invitiamo a partecipare attraverso una conversazione telefonica sulla sua esperienza nelle amministrazioni locali in Italia.

Benefici per lei includono:

- Una copia dei risultati della nostra ricerca accademica, prima che vengano resi pubblici.
- L'opportunità di contribuire a uno studio accademico che ha il potenziale di informare e suggerire *best practices* nelle amministrazioni locali.
- Altri sindaci hanno apprezzato la nostra intervista e l'hanno considerata un'ottima opportunità per discutere di e riflettere sul loro stile e pratiche amministrative in un ambiente confidenziale.

La nostra conversazione toccherà 4 macro tematiche relative alle pratiche amministrative: targets, monitoraggio della performance, gestione delle operazioni e gestione del personale. Inoltre le faremo delle brevi domande sul suo carattere. La conversazione sarà di 25 minuti. Non è prevista una ricompensa e né il sindaco né il comune incorreranno in alcuna spesa relativa alla partecipazione al progetto. Infine, tutte le sue risposte saranno confidenziali per garantire l'assenza di alcun rischio legato alla sua partecipazione a questo studio accademico. Né la sua identità né quella del suo comune potranno essere menzionate nel nostro studio accademico. Saremo felici di rispondere a ogni sua domanda in ogni momento. La invitiamo anche a contattare Maria Carreri, che supervisiona il progetto. Ovviamente, lei ha il diritto di cancellare il nostro appuntamento telefonico e la sua partecipazione al nostro studio in qualunque momento.

La contatteremo telefonicamente ma qualora fosse più conveniente per lei saremmo felici le lei volesse contattarci via mail a <u>maria.carreri@nyu.edu</u> oppure telefonicamente (recapito della dottoressa Carreri qui sotto) per fissare un appuntamento telefonico o anche per porci qualunque domanda sul progetto.

La ringraziamo ancora per la sua disponibilità,

1 Manue

Maria Carreri Telefono: +1 (857) 445-2367 Email: maria.carreri@nyu.edu



Roma, 12 Maggio 2016

All'attenzione del Sindaco.

Oggetto: Lettera di supporto al progetto di ricerca sulle pratiche e gli stili amministrativi nelle amministrazioni locali in Italia della New York University.

Gentile Sindaco,

in qualità di Capo Ufficio Studi dell'Anci confermo il valore della ricerca della New York University diretta da Maria Carreri e sottoscrivo il supporto dell'Anci a questo progetto. Lo studio della New York University (che trova descritto nell'allegato) parte dalla convinzione che gli amministratori giochino un ruolo di fondamentale importanza per il successo di un comune e per il benessere dei suoi cittadini. Per questo motivo, il progetto di ricerca intende comprendere e comparare le diverse pratiche amministrative presenti oggi nelle amministrazioni locali in Italia.

La invito a contribuire a questo studio accademico rendendosi disponibile a partecipare ad una conversazione telefonica, della durata media di 25 minuti, sulla sua esperienza nelle amministrazioni locali.

Cordiali saluti,

Paolo Testa apo Ufficio Studi Anci