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Retrieving Organs, Losing Motivation? The Response of Medical Staff to Corruption News

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Retrieving Organs, Losing Motivation?
The Response of Medical Staff to Corruption News*

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Abstract

This paper examines how media coverage of corruption scandals influences the behavior of public healthcare workers, specifically ICU medical staff involved in organ procurement. Using Italy's National Health Service as a case study, we investigate the behavioral responses of medical staff to two corruption scandals—one involving a hospital manager and the other a surgeon. By employing a difference-in-differences strategy across regions with varied exposure to media coverage, we isolate the impact of corruption-related news on reported organ donors. Our findings indicate that media coverage of the surgeon scandal, but not the manager scandal, significantly reduces reported donors, likely due to heightened sensitivity among staff to corruption within their professional ranks. Additional text analysis reveals no substantial semantic differences in reporting between the two scandals, suggesting that the observed effects stem from the shared professional mission among ICU staff rather than from media bias. The results underscore the indirect costs of corruption on public sector performance, with potential negative welfare implications for organ donation rates.

Keywords: Corruption; Worker motivation; Organ procurement.

JEL Codes: D64, D73, H41, I18

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1 Introduction

Workers' motivation and morale are essential to the effective functioning of the public sector, where low-powered incentive contracts and intrinsic rewards are the norms. Both motivation and morale can be fostered in various ways, from promotion incentives (Finan, Olken and Pande, 2017) to emphasizing the virtuous mission of public service (Besley and Ghatak, 2005). However, motivation and morale can also decline for several reasons. For example, Deserranno and León Ciliotta (2021) show that when promotions are not meritocratic, an increase in the pay gradient reduces productivity through adverse morale effects. Similarly, the disclosure of corrupt practices within the work environment can lead to discouragement among workers.

This paper evaluates whether media coverage of corruption news influences behavioral responses among public healthcare workers. Specifically, we focus on the behavior of Intensive Care Unit (ICU) medical staff involved in the organ procurement process. Corruption is a widespread phenomenon globally, impacting many areas, including healthcare (Vian, 2008). Examples of corrupt practices in healthcare systems include physicians accepting informal payments to promote certain drugs and equipment or doctors receiving bribes to move patients up on waiting lists (Vigdor, 2020; Scepanovic, 2006).[1] Corruption can have several *direct* effects, from inefficient spending to 'greasing/sanding the wheels' in highly regulated economies. Corruption can also have *indirect* effects once detected and publicized, such as lowering workers' motivation and morale and reducing trust among patients and citizens.[2]

This paper aims to answer two key questions: Does the behavior of medical staff change in response to the disclosure of corruption news affecting their healthcare system? Is the potential reaction different depending on the professional role of those involved in the corrupt practice?

We study the Italian National Health Service (NHS), focusing on corruption scandals involving two distinct hospital professionals: a manager and a surgeon. Within this framework, we analyze how media-driven perceptions of these scandals influence the behavior of medical staff in ICUs. Following Bottan and Perez-Truglia (2015) and Rizzica and Tonello (2020), we are *not* concerned

[1] Bergman, Grennan and Swanson (2022) highlight the important role of physician-firm interactions in hospitals' procurement of medical devices.

[2] A growing literature examines the impact of media on individuals affected by corrupt practices. Ferraz and Finan (2008) and Strömberg (2015) find significant effects on electoral outcomes for incumbent politicians following the disclosure of corruption. Daniele, Aassve and Le Moglie (2023) suggest a long-term impact of corruption on institutional trust, which also influences voting behavior. Bottan and Perez-Truglia (2015) report a significant decline in religious participation and charitable contributions following a clergy abuse scandal in the United States.

with corruption itself but rather with its media coverage. Accordingly, we conduct a detailed analysis of media content and language using text-analysis techniques.

We investigate the impact of media coverage of corruption news on the organ procurement process for several reasons. First, organ transplants—particularly kidney and liver transplants—are cost-effective compared to other treatments (Mendeloff et al., 2004; Jarl and Gerdtham, 2012). However, in Italy, as in many other countries, there is a significant shortage of organs (Becker and Elías, 2007).[3] A reduction in the number of reported donors may be a negative indirect effect of corruption, with clear welfare implications for patients and their families. For example, Jensen, Sørensen and Petersen (2014) find that avoiding dialysis through kidney transplantation yields 2.8 additional quality-adjusted life years and savings of about EUR 30,000 per patient. Second, the organ procurement process is highly trust-dependent; thus, a shock to perceived corruption might reduce individual trust and motivation, affecting medical staff behavior. Third, Italy is widely perceived as having a high level of corruption. In 2023, it ranked 42nd globally, with a Corruption Perception Index score of 56 out of 100. By comparison, France, a similar neighboring country, had a score of 71, ranking 20th (Transperancy International, 2023).

Our identification strategy builds on the structure of the Italian organ procurement process. In the initial stage, only the effort of the medical staff is involved, allowing us to isolate their reaction to the disclosure of corruption scandals. The effort required at this stage is substantial, and individual motivation is crucial for maximizing the probability of converting *potential* donors into *reported* donors. Specifically, ICU medical staff must identify *potential* donors—patients potentially progressing toward brain death—and keep them in a state between brain and clinical death to facilitate possible organ transplantation. A legally deceased person with no contraindications to donation and whose brain death has been verified by medical staff becomes a *reported* donor. At this stage, no other factors—such as family decisions or consent obstacles—interfere with the medical staff's decision. These additional factors—e.g., relatives' decisions or other obstacles—only influence the final number of *actual* donors, defined as deceased individuals whose organs are retrieved. This lack of interference allows us to isolate the response of ICU medical staff, measured by the number of reported donors affected by shocks to perceived corruption.

We focus on one of the most active regional Organ Procurement Centers: the center serving the northwestern regions of Piedmont and the Aosta Valley, hosted by the Hospital 'Molinette' in

[3]Italy ranks among the top fifteen countries globally for the number of actual donors.

Turin. Three main factors guide this choice. First, with 49.6 potential donors per million people (pmp) and 28.8 actual donors pmp in 2014, Piedmont and the Aosta Valley rank well above the Italian average of 39.4 potential and 23.2 actual donors pmp (Centro Nazionale Trapianti, 2014). Second, in 2001-2002, the Hospital 'Molinette' was struck by two major corruption scandals that received extensive media coverage. One scandal involved hospital management, while the other directly involved surgeons in the hospital's transplant center. The distinct roles of the professionals involved—management versus surgeons—allow us to analyze potential heterogeneous reactions to different types of scandals. Third, the Italian Constitution grants regions autonomy over healthcare policy. As a result, the regional Organ Procurement Center at Hospital 'Molinette' has full responsibility for organ procurement within its regional boundaries.

The analysis combines three newly created data sets. The first data set contains monthly information on potential, reported, and actual donors from 2001 to 2005 at the procurement center in Piedmont and the Aosta Valley, the center affected by the scandals. Hospitals are our unit of observation; thus, data on reported donors is collected at the hospital-month level. To build a counterfactual scenario, we construct a second data set comprising organ donation data from two neighboring regions not affected by the corruption scandals, Lombardy and Liguria. The third data set provides information on media coverage of the corruption scandals. Given the limited availability of social media at the time, we measure perceived corruption through the number (and content) of newspaper articles covering news on the local healthcare sector. To ensure that media outlet choice does not drive our results, we gather data on the same scandals from various media sources, including newspapers and television news.

To assess whether the corruption scandals affect medical staff behavior, we compare regions exposed to corruption scandals (Piedmont and the Aosta Valley) with unexposed neighboring regions (Lombardy and Liguria) using a difference-in-differences (DiD) design. Hospitals in these "control" regions are served by a different organ procurement center than those in the affected regions. Consequently, we do not expect any behavioral response to corruption news from medical staff in control-region hospitals. We use the number of newspaper articles covering the scandals as a proxy for the temporal and spatial diffusion of corruption news, allowing us to account for stronger responses in regions with higher exposure. The validity of our DiD approach relies on the assumption that, absent any scandal, organ procurement trends would have been similar between hospitals in exposed and unexposed regions. To test this "parallel trend" assumption, we conduct an event study analysis and find no evidence of pre-treatment differences between exposed and unexposed hospitals.

We begin by analyzing the aggregate *number* of articles on the two corruption scandals—CEO and surgeon—and find that this coverage negatively affects the monthly number of reported donors. However, the effect size is negligible and statistically insignificant. Nonetheless, the nature of the scandals appears to play a crucial role in influencing medical staff behavior. On one hand, there is no significant effect from the corruption case involving hospital management, likely because ICU staff may find the content of this news less relevant. On the other hand, we observe a significant adverse effect on the number of reported donors following the disclosure of the surgeon scandal. As surgeons are integral members of the medical staff and share the same professional mission, news of corruption within their ranks is likely to have a stronger impact on ICU staff.

We complement our analysis by examining the content of newspaper articles to validate our interpretation of the results. Using various text analysis techniques, we find no evidence that the reporting of the scandals differed along semantic or thematic dimensions beyond the basic categorization into CEO and Surgeon scandals. Thus, our observed effects—and our interpretation of them—are unlikely to be biased by differences in media portrayal of the scandals.

The effect of surgeon-related news is sizable and robust across different empirical strategies and estimation techniques, such as ordinary least squares and Poisson regression models. Increased media coverage, by about ten additional articles per month, reduces monthly reported donors by four units across all affected hospitals. To contextualize the effect size, we estimate that medical staff reported roughly 35 percent fewer donors over ten months than they would have in the absence of the scandal.

Returning to the nature of the scandal, the impact of corruption news appears to be short-lived, typically lasting about five to ten months after the initial coverage. Although the media resonance was national, difference-in-differences analyses focused on hospitals near regional borders suggest that the impact of the scandals was contained within the administrative boundaries of the Organ Procurement Center, though not limited to the city of Turin, where the scandals occurred.

We complete the analysis by examining the possible effect of media coverage of corruption scandals on opposition to donation and the number of actual donors—reported donors minus oppositions. Once medical staff identify a reported donor, relatives must decide whether to consent to donation or to oppose it. Relatives make this decision only if the potential donor has not previously registered their willingness (or refusal) to donate organs. The analysis reveals interesting insights: we find no significant effect of media coverage of scandals on organ opposition.[4] This lack of effect suggests that the choice to donate organs is likely influenced by moral and ethical factors that are minimally affected by corruption-related news. In other words, the decision to donate—and the attitudes of potential donors and their relatives—is an informed choice developed over time and is unlikely, at least in the short term, to be influenced by corruption scandals. The analysis of actual donors supports this finding. The impact of media coverage is negative and statistically significant when the empirical model does not account for medical staff behavior. However, when the response of medical staff is included—e.g., by incorporating predicted reported donors as a function of media coverage—the estimated effect of media coverage becomes precisely zero. This result confirms that, while medical staff behavior is influenced by the scandals, opposition to organ donation by non-medical parties remains unaffected by corruption news.

We conclude by providing a simple conceptual framework to discuss potential mechanisms behind the observed changes in behavior. We focus on three possible factors: (i) medical staff motivation, (ii) expected responses from families of the deceased, and (iii) peer pressure. A shock to perceived corruption, induced by media coverage of corruption scandals, is likely to undermine intrinsic motivation and morale and increase expected opposition from families, all of which could lead to a reduction in reported donors (by reducing the optimal effort of ICU staff). Conversely, the same shock may lower the cost of peer pressure, thereby increasing optimal effort and the number of reported donors. While we cannot empirically disentangle the contribution of each factor, our findings suggest that, at least in the short run, motivation and expected opposition have a stronger impact than the reduction in peer pressure.

Relationship to the literature. Our work contributes to several strands of literature. First, we add to the literature on physician behavior, focusing on preferences, productivity, and behavioral responses to different incentives. Regarding preferences, a key issue has been the study of intrinsic (or public service or pro-social) motivation in addition to private self-interest. The idea that physicians may have goals beyond maximizing their own utility dates back to Arrow (1963). While many theoretical studies have embraced this assumption, it is only in the past decade that empirical evidence has emerged on altruistic motivation among physicians. A general finding in

[4]The analysis of oppositions considers the endogenous response of medical staff to media coverage of corruption scandals.

this literature is that physicians exhibit both intrinsic and extrinsic motivations. However, they also show considerable heterogeneity, making them no more altruistic than the general population (e.g., Godager and Wiesen (2013); Li, Dow and Kariv (2017); Li (2018); Crea et al. (2019)).

Second, our paper provides evidence on the behavior of medical staff working in Intensive Care Units—a setting similar to the Emergency Department, where work organization and physicians' productivity, effort, and intrinsic motivation are crucial for outcomes (e.g., Kim et al. (2015); Cheng et al. (2024); Long and Mathews (2018); Chan, Farias and Escobar (2017)). Silver (2021) examines the impact of peer pressure on physician productivity in Emergency Department care, showing that individual behavior is strongly influenced by peer pressure: physicians work faster in high-speed peer-group environments, reducing time spent per case to keep pace with colleagues. In terms of incentives, the importance of extrinsic rewards is evident, as financial incentives increase physicians' output and motivate them to work harder (Clemens and Gottlieb, 2014). Furthermore, the Italian context analyzed in this study is characterized by fixed wages and a lack of financial incentives, making intrinsic rewards and peer pressure even more critical in driving optimal effort.

Third, we contribute to the economic literature on organ donations. While medical staff effort in identifying and supporting reported donors is emphasized in medical literature (Thompson et al., 1995), economic literature has focused almost exclusively on how institutional changes in default choices or allocation rules can improve organ supply (e.g., Johnson and Goldstein (2003); Abadie and Gay (2006); Kessler and Roth (2012); Li, Hawley and Schnier (2013); Li and Riyanto (2025)). In discussing allocation rules, economists have also argued for using incentives (especially financial incentives) to reduce or eliminate the organ supply shortage (Becker and Elías, 2007; Howard, 2007; Thorne, 2006; Byrne and Thompson, 2001; Kaserman and Barnett, 2002). Roth (2007) explores how moral constraints can limit the use of market incentives in organ allocation, while Elías, Lacetera and Macis (2015, 2019) provide experimental evidence on how information can shift moral attitudes. Recently, Akbarpour et al. (2020) proposed a new matching algorithm to eliminate timing constraints in kidney exchange. Our paper contributes to this literature by highlighting the role of medical staff effort in influencing organ supply, showing that prominent information on colleagues' behavior within the healthcare system substantially affects organ availability.

Fourth, we contribute to literature examining the impact of media on health outcomes and patients' perceptions. The media's role in shaping health-related behavior and outcomes is gaining increased attention. For instance, Ash et al. (2021) show that skeptical media narratives during the COVID-19 pandemic negatively affected individuals' health-related behaviors. The influence of media on organ donations has thus far been addressed primarily in medical literature, focusing on how media coverage affects public perceptions of transplants (Feeley and Vincent III, 2007; Morgan et al., 2007; Harbaugh et al., 2011). This literature provides evidence that sensationalized or exaggerated media reporting can shape negative attitudes and beliefs about organ donations.[5] Corruption and other unethical behaviors revealed by the media can also erode public trust in healthcare systems (Radin, 2013; Alsan and Wanamaker, 2018). Our study's key innovation relative to this literature is to provide heterogeneous estimates on reduced motivation among workers upon discovering that a colleague or hospital manager is corrupt. Additionally, we find that individual and family opposition to organ donation remains unaffected by corruption scandals, suggesting that organ donation decisions are informed choices that have developed over time.

2 Institutional Background

We aim to examine whether media coverage of corruption news influences the behavior of ICU medical staff. In this section, we provide essential background information on two main issues: the organ procurement process, in which ICU medical staff play a key role in determining the outcome of their work, and the corruption scandals that generated substantial media attention, potentially influencing perceived corruption among medical staff.

2.1 The Process of Organ Procurement in Italy

The Italian organ procurement system is part of the National Health Service (NHS), a universal public healthcare scheme for citizens. Similar to systems in other countries, such as Spain, the NHS assigns regional governments a central role in managing local healthcare resources (Turati, 2013). Although the legislative framework is defined at the national level, the organ procurement system is highly decentralized, relying heavily on regional Organ Procurement Centers to oversee organ donation, retrieval, and transplantation. This complex process involves numerous delicate technical steps, where a single error can jeopardize the outcome.

[5] This phenomenon, termed the "Panorama effect," originates from a 1980 BBC TV broadcast titled Panorama, which questioned the validity of brain death criteria. Widespread public outrage in the United Kingdom followed, leading to a sharp decline in organ donations that took over a year to recover from (Matesanz, 1996).

Figure 1 illustrates the main stages involved in turning a critically ill patient into an organ donor (Venettoni, 2007; Regione Lazio, 2008). The first step in the organ procurement process is the identification and continuous monitoring by ICU medical staff of patients who are irreversibly losing brain function; we refer to these individuals as *potential* donors (Step 1).[6] When brain death occurs, the anesthetist responsible for the patient must notify the hospital manager of the diagnosis and initiate an observation period of at least six hours, typically followed by a medical board's confirmation of death status (Step 2). This process, independent of the donation, serves to legally certify the patient's death. A deceased person with no medical contraindications to donation and whose brain death has been confirmed becomes a *reported* donor (World Health Organization, 2009). The ICU specialist or hospital's local coordinator must then promptly relay all information about the reported donor to the regional Organ Procurement Center to avoid delays in the process, minimize the risk of organ deterioration and *clinical* death (which occurs when the heart stops beating), and allow the Organ Procurement Center to consult allocation lists promptly (Step 3). During this stage, careful monitoring with mechanical ventilation and other life support measures is essential to prevent organ deterioration from cardiac arrest. Maintaining the reported donor requires active engagement and intensive effort from all involved staff, particularly ICU anesthetists. Staff motivation is critical in the time window between brain death, legal death certification, and the potential transplant.

To convert a *reported* donor into an *actual* donor, medical personnel must conduct two separate evaluations. The first is a legal evaluation to confirm consent for donation (Step 4). If the deceased has not expressed their wishes regarding donation, the family must give or deny consent. If the deceased is a ward of the state, judicial permission is required. The second evaluation is clinical, assessing both the suitability of the potential donor for donation and the functionality of the organs (Step 5). If there is no opposition from the patient or relatives and the patient is deemed clinically suitable, medical staff proceed with organ retrieval, making the patient an actual donor.[7] Finally, a transplant can involve multiple organs, so an actual donor typically benefits more than

[6] Brain or encephalic death is the "irreversible cessation of cerebral and brain stem function characterized by the absence of electrical activity in the brain, blood flow to the brain, and brain function as determined by clinical assessment of responses. A brain-dead person is dead, although cardiopulmonary functioning may be artificially maintained for some time (World Health Organization, 2009)."

[7] The precise definition of an actual donor is: "A deceased or living person from whom at least one solid organ or part of it has been recovered for transplantation" (World Health Organization, 2009). Here, we consider only cadaver donations. Note that, although kidney donations from living persons have been permitted by Law 458/1967, they remain relatively rare in Italy (Frascà et al., 2009).

one patient on the waiting list.

2.2 The Corruption Scandals

To measure the impact of media reporting on perceived corruption and its effect on reported donors, we build on data and findings from Le Moglie and Turati (2019). This study provides a map of corruption episodes in the Italian healthcare sector reported at the regional level over the past twenty years. According to the authors, most episodes involve petty corruption, with a single news article at most. However, two cases stand out for receiving the highest media coverage, both affecting the regional healthcare system in Piedmont and the Aosta Valley, two northwestern Italian regions (see Figure A.1).[8] The two high-profile cases involved Turin's Hospital 'Molinette,' the largest hospital in Piedmont and the third-largest nationwide, which hosts the Regional Procurement Center serving Piedmont and the Aosta Valley. These scandals implicated senior hospital personnel and allow for a comparison between two types of corruption episodes: one involving a hospital manager and another directly involving surgeons.

News about the scandals made media headlines at local and national levels. The first scandal outbreak dates back to December 2001 (Figure 2), when the hospital CEO Luigi Odasso was caught accepting bribes in his office. In January 2002, Odasso was accused of favoring a patient on a waiting list for a kidney in exchange for bribes. Although corruption was aimed at influencing the transplant activity, the events did not directly involve the specific units responsible for organ donations or any hospital medical staff.

In November 2002, Hospital 'Molinette' was again in the spotlight due to a new corruption scandal. Michele Di Summa, a well-known heart surgeon heading the regional Heart Transplant Center, was accused of accepting large sums of money in exchange for using cardiac valves from *For.Med* Padova (which supplied Brazilian valves produced by the company *Tri Technologies*) and *Ingegneria Biomedica* (which supplied locally produced devices). This news also received extensive media coverage. Figure 3 shows the front page of 'La Stampa' on November 5, 2002, with the main article covering the corruption scandal involving Di Summa.[9] When defects were discovered

[8] Despite being administratively separate since 1948, when the Aosta Valley gained its special autonomous status, the two regions remain closely connected. For example, until regional autonomy was granted, municipalities in the Aosta Valley were part of Turin's province. Today, many people commute between Piedmont and the Aosta Valley, and patients from the Aosta Valley often seek care in Turin, known for its highly specialized hospitals and located only 120 kilometers from Aosta.

[9] 'La Stampa' is the most-read newspaper in Piedmont and the Aosta Valley. Section 3.1 will provide more details on newspaper diffusion across Italy.

in some of these valves, particularly those produced by the Brazilian company, Di Summa and his colleague Poletti were arrested. Di Summa was charged with knowingly overlooking the defects in the Brazilian valves and failing to promptly deliver the list of recipients to the Ministry of Health following its decision to withdraw the valves from the market. The Brazilian valves were initially believed to have caused the deaths of patients who had them implanted; however, judges later determined this was not the case. Nevertheless, the scandal had significant regional and national resonance and, as reported in Section 3.2, was widely covered by both local and national media.

3 Empirical Strategy

3.1 Data and Preliminary Descriptive Evidence

We construct a new data set based on multiple sources of information. First, to conduct counterfactual analyses, we focus on the geographical area where the scandals occurred—specifically, the regions of Piedmont and Aosta Valley—and the two bordering regions, Lombardy and Liguria. Figure A.1 displays a map of Italy highlighting the regions analyzed in this study.

We begin by collecting data on the number of reported and actual donors provided by the three relevant regional Organ Procurement Centers for Piedmont and the Aosta Valley, Lombardy, and Liguria. Data are collected at the hospital level on a monthly basis, covering the period from 2001 to 2005 and spanning both the pre- and post-scandal periods.

To capture media coverage of the corruption scandals, we retrieve all articles published by the two daily newspapers, 'La Stampa' and 'Il Corriere della Sera.'[10] We conduct a dual analysis on the number of articles and, through text analysis, on their content. Figure 4 illustrates the choice of 'La Stampa' and 'Il Corriere della Sera' by showing market shares for the five leading Italian daily newspapers. Figure 4-a shows newspaper circulation in the two regions directly affected by the scandals, while Figure 4-b focuses on the bordering regions. Figure 4-c depicts national newspaper circulation. At the national level, the top five newspapers report coverage rates between 3 and 11 percent, with 'Il Corriere della Sera' having the largest share. In Piedmont and the Aosta Valley, 'La Stampa' is the clear market leader, accounting for around 50 percent of readership. It represents one out of every two newspapers distributed in the regions impacted by

[10] We also include the provincial editions of 'La Stampa' to capture provincial variation in news coverage. The newspaper features a national section, a regional section common to Piedmont and the Aosta Valley, and a specific provincial section for each area.

the corruption scandals relevant to this study. 'Il Corriere della Sera' is the market leader in the bordering regions of Lombardy and Liguria. This evidence supports the use of 'Il Corriere della Sera' and 'La Stampa' to approximate media coverage. We use specific keywords to search the online archives, particularly 'Odasso', 'Di Summa', and 'heart valves,' to retrieve articles about the two corruption cases.

We address potential concerns regarding the selection of these two specific newspapers. First, to account for differences in their circulation, we construct a province-specific weighted average of the number of articles in 'La Stampa' and 'Il Corriere della Sera,' using the local coverage rate of each newspaper as a weight.[11] Second, we test the robustness of our findings by incorporating alternative sources of information. Specifically, we collect news coverage of both scandals broadcasted by the *Telegiornale Regionale* (TGR), the regional daily TV news.[12] Table 1 reports the correlation between the number of articles or news items covering the corruption case involving the surgeon at the Heart Transplant Center (*Surgeon Scandal*) and those covering the corruption case involving the CEO of Hospital 'Molinette' (*CEO Scandal*). The high correlation between different sources of information shown in the table supports the notion that our choice of information sources is unlikely to introduce bias into our framework.

Table 2 reports summary statistics for all variables in our sample.[13] Data are collected monthly from 2001 to 2005 for all 22 spoke hospitals under the Organ Procurement Center, which serves as the hub of the system in Piedmont and the Aosta Valley (affected regions). Additionally, the same data are collected for the 50 spoke hospitals within the Organ Procurement Centers in Lombardy and Liguria (bordering regions).

The average number of reported donors per hospital in the affected regions is 0.73 per month, higher than the 0.55 observed in bordering regions. The average number of articles on the surgeon scandal is 1.53 per month over the entire period, with a standard deviation of 5.5, reflecting variability in scandal coverage over time. Similarly, during the analysis period, we observe approximately 1.64 articles per month on the CEO scandal, with a standard deviation of 6.4. Regarding

[11] All results in the subsequent analyses are robust to using the raw number of articles instead of the weighted number.

[12] Information on corruption cases with a strong geographic link is typically discussed in the regional daily TV news. The regional news is broadcast by the national television channel *Rai 3*, which airs region-specific segments for the TGR three times per day. Our focus on two traditional media sources, newspapers and TV news, is justified by the relatively low internet penetration rates—27 percent in 2001 and 35 percent in 2005—during this period, as well as the absence of social media.

[13] Appendix Tables A.1 and A.2 present descriptive statistics, distinguishing between regions exposed to corruption scandals and unexposed bordering regions, both before and after the corruption scandals.

newspaper circulation, there are over 50 copies of 'La Stampa' per 1,000 inhabitants in the affected regions, compared to about six copies in bordering regions. The picture differs for 'Il Corriere della Sera,' with around 4.7 copies per 1,000 inhabitants in the affected regions and approximately 37.3 copies per 1,000 inhabitants in the bordering regions.

Figure 5 provides an initial descriptive analysis of the possible relationship between the total number of reported donors (black line) and media coverage of the two corruption cases in both the affected (Figure 5-a) and bordering (Figure 5-b) regions. Despite fluctuations due to the low frequency of reported donors, the analysis for affected regions reveals three distinct periods. The first period, beginning in January 2001, is marked by a stable average level of reported donors. The onset of the corruption case involving the Hospital 'Molinette' CEO (first vertical gray line) does not appear to affect the number of reported donors. The second period starts in November 2002 (second vertical gray line) with the onset of the scandal involving surgeon Di Summa. Coinciding with media coverage of this case (yellow line), the average number of reported donors decreases. Furthermore, peaks in article numbers are often coupled with opposite peaks in reported donors—for example, in November 2002 and, conversely, in May 2003. The third period, beginning in August 2003, shows levels of reported donors similar to or even higher than those observed before November 2002. Figure 5-b supports our identification strategy, as it shows a stable yet erratic trend over the analyzed period for regions not directly impacted by the scandals. This stability suggests a negligible impact of corruption news when the scandals involve other regional healthcare systems.

3.2 Empirical Model

Our baseline analysis examines the effect of media coverage of the two corruption cases on the number of reported donors. We employ a standard difference-in-differences (DiD) model to identify the impact of perceived corruption on medical staff behavior. Here, media reporting on corruption scandals serves as the "treatment" that may influence perceived corruption. We consider Piedmont and the Aosta Valley—the regions where the scandals occurred—as "treated" regions, and we use the bordering regions of Lombardy and Liguria as "control" regions. Specifically, the DiD model takes the following form:

$$D^R_{ht} = \beta_1 N^C_{p(h)t} + \beta^2 N^S_{p(h)t} + \beta_3 N^C_{p(h)t} \times I_h + \beta_4 N^S_{p(h)t} \times I_h + \boldsymbol{X}_{p(h)t}\gamma + f(\theta_h, \delta_t) + \varepsilon_{ht} \quad , \tag{1}$$

where D_{ht}^{R} represents the monthly number of reported organ donors identified by the medical staff in each hospital h in period (month-year) t. We use the number of newspaper articles covering the two scandals at Hospital 'Molinette' between 2001 and 2005 to proxy the perception of corruption. Specifically, $N_{p(h)t}^{C}$ denotes the weighted number of newspaper articles in province $p(h)$ at time t referring to the CEO scandal, and $N_{p(h)t}^{S}$ represents the weighted number of articles about the surgeon's case. We consider N as a measure influencing the effort of ICU medical staff. I_h is an indicator variable equal to one for treated regions, specifically if hospital h is located in Piedmont or the Aosta Valley. The vector $\boldsymbol{X}_{p(h)t}$ includes controls for population, newspaper circulation at the provincial level, and hospital-specific time trends. The model also includes various combinations of hospital, month, and year fixed effects.[14] Finally, ε_{ht} is the error term of the model.

We are interested in the coefficients β_3 and β_4, which represent the interaction of the treatment indicator with the monthly weighted average number of articles about the CEO and surgeon scandals. These coefficients will shed light on the possible differential effect of corruption scandal coverage on the behavior of medical staff in regions where the healthcare system was directly impacted by scandals versus regions where the healthcare system was unaffected.

The validity of our DiD specification depends on the parallel trend assumption: that control and affected regions would have followed parallel trends in organ procurement in the absence of any scandal. In addition to including a comprehensive set of fixed effects and other covariates, we use an event-study design to formally test for parallel trends. We estimate the following specification:

$$\text{Donors}_{ht} = \alpha_t + \alpha_h + \sum_{\substack{\tau=-a \\ \tau\neq 0}}^{b} \beta_\tau \mathbb{1}\{\text{Affected}\} \cdot \mathbb{1}\{t = \text{Scandal} + \tau\} + \boldsymbol{X}_{p(h)t}\boldsymbol{\gamma} + \varepsilon_{ht} \quad . \tag{2}$$

Our main variables of interest are a set of binary indicators distinguishing treated and control regions and capturing the temporal distance from each of the two scandals.

We run the test on each scandal separately. First, Figure 6 displays event-study estimates for the CEO scandal. We do not find any significant pre-treatment differences between the treated and control regions. We cannot reject the hypothesis that all pre-treatment coefficients are jointly zero (p-value = 0.19). This indicates no significant differences in organ procurement between the affected and control regions before the CEO scandal occurred.

Second, Figure 7 presents the event-study estimates for the surgeon scandal. Here as well,

[14]It is worth noting that no within-hospital staff changes were observed during our sample period.

the figure suggests that hospitals in both treated and control regions procured a similar number of organs before the occurrence of the surgeon scandal. The joint F-test on the hypothesis that all pre-treatment coefficients are zero yields a p-value of 0.91, indicating no evidence of any pre-treatment differences between the treated and control regions.[15,16]

4 Results

4.1 Baseline Estimates

Table 3 displays estimates of Equation 1. Columns (1)–(3) report OLS estimates, while columns (4)–(6) report Poisson regression estimates to account for the count data nature of our dependent variable. Columns (1) and (4) include controls for population and newspaper circulation. Columns (2) and (5) add hospital, month, and year fixed effects. Columns (3) and (6) further incorporate month-hospital fixed effects. Standard errors are bootstrapped with 1,000 replications and are clustered at the hospital level using wild clustering.

Panel A reports estimates for the effect of the aggregate number of articles about the two corruption scandals on the number of reported donors. OLS estimates in columns (1)–(3) indicate that the effect of the total number of articles is consistently negative. However, this negative effect is small—ranging between 0.002 and 0.004—and statistically non-significant. Despite varying the sets of control variables, the magnitude of the coefficients remains remarkably similar across specifications. Results from the Poisson regression model in columns (4)–(6) suggest similar insights.

Panel B reports estimates that consider news coverage of the two corruption cases separately. OLS estimates highlight three important findings. First, the effects of different scandals on reported donors vary. On the one hand, the interaction coefficient for the number of articles covering the surgeon case is consistently negative, sizable, and statistically significant. In affected regions, an additional article on this specific corruption case reduces the number of reported donors by 0.015–0.018 units relative to unaffected (bordering) regions. On the other hand, the number of articles on the CEO case shows no effect on reported donors, with the interaction coefficient close

[15] In Appendix Figure A.3, we conduct a joint event study using the CEO scandal as a reference point, further confirming all previous results.

[16] The empirical design, based on two distinct treatments, deviates from standard event-study setups, which assume absorbing treatment status and do not account for multiple treatments. However, our setting still allows for consistent estimates. This is supported by our prior analysis, showing no effect of the CEO scandal and only short-lived changes following the surgeon scandal.

to zero and statistically non-significant. Second, the Poisson regression models in columns (4)–(6) yield similar results. The interaction coefficient for the surgeon case articles remains negative, while the number of articles on the CEO case has no impact on reported donors. Third, as suggested by the similarity of point estimates across columns, the results are robust to including different sets of control variables in the model.[17]

The evidence is further strengthened by the two event studies. For the CEO case, Figure 6 demonstrates the absence of significant effects during the post-treatment period. In contrast, for the surgeon scandal, Figure 7 shows an average decrease of 0.32 in reported donors over a ten-month period, compared to hospitals in the control regions during the post-treatment period.

To better illustrate the effect size underlying our analysis, we graphically visualize the results in Figure 8. To evaluate the total loss in reported donors implied by media coverage of corruption news and the subsequent behavioral responses by the medical staff, we define a counterfactual scenario in which the scandal did not occur. This counterfactual scenario is defined by setting the estimates for the effect of the number of articles on each corruption scandal to zero.[18] In the second step, we subtract the actual number of reported donors from the predicted number of reported donors under the counterfactual scenario. Figure 8 plots the corresponding aggregated time series. In Figure 8-a, we analyze the CEO scandal in affected regions. In Figure 8-b, we analyze the surgeon scandal in affected regions.

The graphical analysis shows that the CEO scandal (first vertical line) does not result in any response from reported donors. This is true for both affected regions (Figure 8-a) and, as expected, for bordering regions (Appendix Figure A.2-a). In contrast, Figure 8-b illustrates that the second vertical line, corresponding to the surgeon scandal, predicts a sizable drop in reported donors in affected regions. This drop lasts for 5 to 10 months following the onset of the surgeon,Äôs corruption case. The yellow-shaded area represents the aggregate loss in reported donors caused by the surgeon's corruption scandal. Compared to the counterfactual scenario with no scandal, medical staff reported roughly 50 fewer donors, with about 22 fewer donors in the first five months. This corresponds to approximately 35 percent of the number of reported donors in Piedmont and

[17]Appendix A.1 presents results from a preliminary analysis limited to affected regions, Piedmont and Aosta Valley. The findings discussed in this section are largely confirmed, with a similar effect magnitude. OLS coefficients imply a drop of 0.015–0.016 in the number of reported donors for each additional article on the surgeon case, while the CEO case coefficient remains statistically non-significant. Table A.4 re-estimates baseline models using TV news as a measure of perceived corruption, showing results are robust to the news source.

[18]To simulate the counterfactual scenario in the absence of the surgeon case, we set the coefficients β_2 and β_4 in Equation 1 to zero.

Aosta Valley during the same 10-month period just before the scandal erupted. Bordering regions show no significant effect following the surgeon scandal (Appendix Figure A.2-b).

4.2 Text Analysis: Is it All About How the Media Report the Scandals?

One potential source of bias in our interpretation of the results relates to how corruption scandals are reported in the media. If the two scandals are presented, for instance, with differing tones, the medical staff's differential response might be influenced by variations in reporting between the two cases. We explore this possibility by conducting a text analysis on all newspaper articles covering these scandals. Articles were collected by searching major Italian newspaper archives for either the CEO or Surgeon scandal, resulting in a sample of 247 articles: 143 covering the CEO scandal, 83 covering the Surgeon scandal, and 20 covering both scandals.

The analysis proceeds in two steps. First, we evaluate the semantic similarity between articles on the CEO and Surgeon scandals. Specifically, we assess whether the tone of the articles differs between the two cases or if distinct language is used to describe each scandal. We measure semantic similarity using three metrics. *Subjectivity* measures the degree to which a piece of text expresses personal opinions, feelings, or judgments rather than factual information. It ranges from 0 to 1, where 0 represents an objective, factual statement, and 1 represents a highly subjective, opinionated statement. *Polarity* measures the sentiment expressed in a piece of text, ranging from -1 to 1, with negative values indicating negative sentiment and positive values indicating positive sentiment. Finally, we provide a measure of language *similarity*. For this, we represent each article as a word embedding—a vector representation of the text in continuous space. Articles with similar word embeddings are likely to use similar language. To test for differences in embeddings between CEO and Surgeon articles, we retrieve each article's word embedding using a pre-trained language model.[19] We then extract the first principal component from the embeddings of all articles. All three measures are standardized to a mean of zero and a standard deviation of one, so that a one-unit increase corresponds to a one-standard-deviation increase in the respective measure.

To test for statistical differences across these measures, we estimate the following regression

[19]Specifically, we use the 'paraphrase-multilingual-MiniLM-L12-v2' language model, which encodes multilingual sentences and paragraphs into a 384-dimensional dense vector space.

equation:

$$Y_{it} = \alpha_{n(i)} + \alpha_t + \beta Surgeon_i + \varepsilon_{it} \quad , \tag{3}$$

where Y_{it} represents a text metric of article i published at time t. $Surgeon_i$ is an indicator variable equal to one if the article covers the Surgeon scandal. We include $\alpha_{n(i)}$ and α_t to account for unobserved newspaper-specific and time-specific effects, respectively.

Table 4 presents the analysis, with columns (1)–(3) suggesting that the articles do not differ across any of the three analyzed dimensions. For all measures, we find a small and statistically non-significant effect for the coefficient of the variable $Surgeon$, indicating that articles covering the Surgeon and CEO scandals use similar semantics and language.

Moving beyond semantics, we aim to analyze whether the content structure of articles differs by scandal. Although the articles mechanically differ in the type of scandal they report on, we are interested in whether the scandals are also contextualized differently. For instance, one scandal might emphasize individual misconduct, while the other highlights institutional implications. As a first step, we display the most frequently used words in the newspaper articles in Figure 9. Panel (a) displays word clouds for all articles. The size of each word is proportional to its relative frequency within the articles. Panels (b) and (c) show word clouds separately for the CEO and Surgeon scandals. Both scandals occurred at Molinette Hospital in Turin, which is prominently featured in all word clouds. Unsurprisingly, the CEO-related articles mention hospital manager Luigi Odasso, who accepted bribes to manipulate organ waiting lists, while the surgeon articles focus on Michele Di Summa, a surgeon who accepted money to use defective heart valves. Beyond these specific references, there is no evidence that the articles are contextualized differently.

We analyze the content structure in greater detail by training a topic model on the article corpus. A topic model is a statistical tool designed to uncover abstract topics within a collection of documents or texts. Widely used in natural language processing and machine learning, it helps identify underlying themes or topics in a set of documents. The goal is to automatically extract meaningful patterns and associations among words, enabling the categorization and better understanding of text content. Intuitively, a topic model algorithm generates a word embedding for each article and then clusters articles that are close in vector space. We train a topic model using the 'BERTopic' Python module with default settings on all newspaper articles covering either the CEO or Surgeon scandal. After training, we extract a topic distribution for each article across the identified topics. To compare the topic distributions of articles on the CEO scandal, we extract the first two principal components of the topic distribution and use them as outcome variables in Equation 3. The topic model identifies two main topics, represented by the keywords 'odasso, molinette, hospital' and 'summa, cardiac, valves.' We visualize the topic distribution in Figure 10-a, with each dot representing an article along the first two principal components of the topic distribution. The color of the dots indicates attribution to one of the two identified topics. The topics are clearly separated in space, with minimal to no overlap. Accordingly, as shown in column (4) of Table 4, we observe a strong statistical difference between CEO and Surgeon articles along the first principal component of the topic distribution. However, we do not find evidence of differences along the second principal component, as shown in column (5) of Table 4. Thus, the model does not indicate further contextual distinction beyond categorizing articles into CEO and Surgeon scandals.

The reason the model identifies only two topics could be due to the default hyperparameter settings, which may provide a global topic perspective that overlooks subtle differences within topics. To allow a more localized view, we reduce the number of neighboring sample points parameter in the topic model, which is used during the manifold approximation process. A higher value of this parameter yields a more comprehensive representation of the embedding structure, providing a global perspective, while a smaller value offers a more localized view. However, as shown in panels (b) to (c) of Figure 10, even with a reduced parameter, the model continues to recover only two topics with a similar topic distribution. Only after further reducing the parameter, as shown in panel (d), does the model identify five additional topics. However, these new topics appear to be unstructured subsets of the previously identified ones, represented by similar keywords that do not suggest different contextualizations of either scandal.

In summary, the text analysis provides no evidence that the reporting of the scandals differed along semantic or thematic dimensions beyond the basic categorization into CEO and Surgeon scandals. We interpret this as suggestive evidence that the observed effect may be driven by the shared professional mission of medical staff and surgeons.

4.3 Robustness Checks

4.3.1 Distance to Border

We test the robustness of our estimates by applying different sample restrictions. Up to this point, all hospitals in both affected and bordering regions have been included in the analysis. As a first robustness test, we limit the sample in the DiD analysis to "neighboring" hospitals located on each side of the regional borders separating affected and unaffected regions. This test provides additional insights into the spatial dimension of the effects of corruption news.

Table 5 reports the estimates of Equation 1 with the sample restricted to hospitals within specified distances from the border. Column (1) applies a 150 km cutoff and replicates the full sample of the baseline analysis, emphasizing the relatively compact geographical area under study. Column (2) restricts the sample to hospitals within 120 km of the border, column (3) to within 90 km, and column (4) to within 60 km.[20]

The analysis confirms that, in affected regions, articles covering the CEO case do not impact the number of reported donors. Conversely, results show that the point estimate for the effect of the surgeon corruption scandal remains similar in magnitude and significance when limiting the sample to hospitals close to the border. The reduced sample size in column (4) makes the coefficient smaller and less precise.

Overall, the stability of the coefficients suggests that the administrative boundary of the treated regions limits the response of medical staff. This is likely explained by the institutional structure of the Italian NHS: with healthcare systems managed by regional governments, corruption news pertaining to one region is perceived as relevant only within that region and does not spillover into other regions or jurisdictions.

4.3.2 Epicenter of Scandals

Table 6 provides a second test for the spatial dimension of our findings. Specifically, we examine whether the effect of the corruption scandals is primarily driven by the hospital directly involved in the scandal (Hospital 'Molinette') or if it is also evident in other hospitals operating as spokes within the same regional coordination center. Hospital 'Molinette' is the largest organ donation center in the Piedmont and Aosta Valley region, with a monthly average of 2.7 reported donors; it also hosts the regional coordination center. The monthly average for other hospitals in the area is approximately 0.64 donors.

Columns (1) and (2) of Table 6 replicate the analysis, excluding either Hospital 'Molinette' or all hospitals in the city of Turin, where Hospital 'Molinette' is located and which serves as the regional capital of Piedmont. To complement this approach, column (3) focuses exclusively

[20]The sample size becomes considerably small with further restrictions on distance from the border.

on dynamics at Hospital 'Molinette' by excluding all other hospitals in affected regions. The estimates confirm that our results are not solely driven by the involvement of some medical staff at Hospital 'Molinette', though the response remains strongest there. Columns (4) and (5) apply an inverse-distance weighting approach, assigning more weight to hospitals closer to the scandal's epicenter. Weights are constructed as $w_i^* = \frac{w_i}{\sum_{i=1}^{N} w_i}$ where $w_i = \frac{1}{d(h^*, h_i)^\alpha}$. Here $d(h^*, h_i)^\alpha$ represents the linear distance from hospital i, located at coordinates h_i, to the hospital at the center of the scandals, located at h^*. Column (4) weights observations with a power parameter of $\alpha = 1$, while column (5) assigns even more weight to closer hospitals by using $\alpha = 2$. All results are consistent with the baseline analysis, though the use of weights slightly decreases coefficient magnitudes.

4.3.3 Time Window around Corruption Scandals

The time window around the corruption scandals selected for analysis may also influence and potentially confound the empirical results. In principle, we would expect the medical staff's reaction to occur close to the timing of the corruption scandals. To account for this, we test how the effect size of the impact of corruption news varies when different time windows are analyzed.

Figure 11 presents the analysis for four different time windows around each case: 12, 9, 6, and 3 months.[21] All four time windows are symmetrical to the onset of each corruption case. The figure reports the results for the Poisson regression model (Table 3, column (2)) and shows the coefficients for the number of articles on the two corruption cases, surgeon and CEO, along with their respective 95 percent confidence intervals, constructed using bootstrapped (1,000 replications) and wild-clustered standard errors at the hospital level.

The analysis highlights that the point estimates obtained across the four sub-samples are similar in size to those from the baseline estimates for the entire 2001–2005 period, shown on the left side of the figure. This similarity holds for both the CEO and surgeon scandals. The fact that, even in the 3-month window, the effect size remains close to that of the larger time windows—albeit slightly less precisely estimated—suggests an immediate reaction by the medical staff, likely an 'emotional reaction' to the onset of the scandal.

[21] This analysis involves a trade-off, as estimate precision may be affected by the reduced sample size.

4.3.4 Staggered and Multiple Treatment Considerations

Our empirical setting does not account for staggered treatment adoption, as highlighted in recent work by Goodman-Bacon (2021) and de Chaisemartin and D'Haultfœuille (2020). Indeed, Equation 1 does not address staggered treatment adoption across units but rather incorporates multiple treatments within units. By explicitly modeling both scandals and including a substantial number of never-treated control hospitals, the two-way fixed effects estimator in Equation 1 avoids relying on 'forbidden comparisons' that could lead to inconsistent estimators in cases of staggered treatment adoption (Borusyak, Jaravel and Spiess, 2021). Our results, therefore, remain robust under these considerations. However, as discussed in de Chaisemartin and D'Haultfœuille (2023), contamination bias can also occur in settings with multiple treatments within units when treatment effects are heterogeneous. In our context, estimates based on Equation 1 may be contaminated if healthcare workers' response to the surgeon scandal is influenced by their prior exposure to the CEO scandal.

Following de Chaisemartin and D'Haultfœuille (2023), Table 7 provides evidence that the effect of the surgeon scandal is not driven by prior exposure to the CEO scandal. Column (1) presents our baseline results, corresponding to column (2) in Panel B of Table 3. In column (2), we interact the number of articles on the surgeon scandal with the average coverage of the CEO scandal. First, we construct a measure to proxy province-specific exposure to the CEO scandal. For each province p, we compute the average number of articles on the CEO scandal in the 20 months following the scandal, $\bar{N}_p^C$. We then interact this measure with N_{pt}^S and re-estimate our main regression model. If part of the effect is indeed driven by prior exposure to the CEO scandal, then the coefficient of the interacted measure should increase relative to our main result. However, as shown in column (2), the effect becomes smaller, suggesting that provinces with less exposure to the CEO scandal drive the effect. Similarly, in column (3), we add the interaction of the two treatments to the regression. Reassuringly, the estimated coefficients are insignificant, while the effect of the surgeon scandal increases in magnitude, implying that, if anything, our baseline regression estimate is biased toward zero. Column (4) further supports this finding by considering the cumulative number of articles on the surgeon and CEO scandals.

4.3.5 Placebo Estimates

As a final robustness test, we perform a placebo test by randomly shifting the timing of the two corruption scandals. We construct placebo time series for the number of articles on the surgeon and CEO scandals through a two-step procedure. First, we shift each regional time series on the surgeon case backward or forward. Second, given a specific shift of the surgeon scandal articles, we compute all possible backward and forward shifts for the regional CEO article time series. We repeat this exercise for all possible shifts of the surgeon time series.[22] In total, we conduct 6,012 placebo regressions based on the regression model in Table 3, column (2).

Figure 12-a reports the distribution of the DiD point estimates for the surgeon case. The placebo estimates are normally distributed and centered around zero. Our baseline DiD point estimate is located in the lower tail of the distribution, suggesting that it is unlikely to be primarily driven by random error. Figure 12-b shows the corresponding distribution of the placebo p-values. As expected under random assignment, the estimated p-values are approximately uniformly distributed.

5 Discussion and Mechanisms

In this section, we investigate the potential impact of corruption-related news on the behavior of other actors involved in the procurement process, with a particular focus on opposition by relatives. Additionally, we outline a conceptual framework to support our interpretation of the results.

5.1 Oppositions to Organ Donation

Our analysis reveals a decline in the number of reported donors linked to media coverage of corruption scandals. However, other participants in the organ donation process are also influenced by news of corruption. Once a reported donor is identified, medical authorities must verify whether the deceased patient registered their consent for organ donation. In the absence of expressed consent, the decision falls to the patient's relatives, who may either approve or deny the donation. While we can reasonably exclude any influence of corruption scandals on the decisions of deceased

[22] The number of possible shifts is limited by the number of observations per hospital, i.e., 60 months. We also omit shift combinations in which the DiD coefficient for the surgeon or CEO scandal is not identified due to multicollinearity.

patients, it is plausible that family members might respond to such news. To test this hypothesis, we examine the effect of media coverage of corruption scandals on oppositions to donation as well as on the number of actual donors—defined as reported donors minus oppositions (see Figure 1).

Panel A of Table 8 reports an analysis of the impact of media coverage of corruption scandals on the number of oppositions, using the DiD framework in Equation 1. For brevity, we report only the results from OLS specifications. Given the observed impact of corruption scandal coverage on reported donors, the initial step in the organ donation process, we explore alternative approaches to isolate the effect of interest. In column (1), we estimate Equation 1 using the number of oppositions as the outcome variable, though these estimates may be biased due to endogeneity in the number of reported donors. To address potential endogeneity, column (2) includes a control for the actual number of reported donors. In column (3), rather than the observed number of reported donors, we incorporate the predicted number of reported donors based on the model in column (2) of Table 3. To further mitigate endogeneity, columns (4) and (5) redefine the number of oppositions to better capture behavioral responses by reported donors and their families to media coverage. Specifically, column (4) uses a three-month moving average of oppositions instead of raw counts, while column (5) uses the proportion of oppositions relative to the number of reported donors as the outcome variable. Both columns (4) and (5) include controls for the number of reported donors.

The analysis of oppositions in Panel A of Table 8 suggests three main findings. First, the CEO case shows no impact on opposition levels, regardless of the specification used. Following the CEO scandal, affected and bordering regions exhibit similar behaviors: like the medical staff, patients and their relatives appear unaffected by hospital management scandals. Second, the surgeon's case does not influence the behavior of reported donors or their families. The interaction term between the number of articles on the surgeon case and the indicator for affected regions remains consistently close to zero and statistically non-significant. Third, the point estimates are highly similar across different empirical specifications. This stability suggests that the results for oppositions are robust to various approaches for addressing the endogeneity of the number of reported donors.

The analysis of oppositions provides a detailed overview of the impact of media coverage of corruption scandals on organ donation. Additionally, it highlights the actors within the process most affected by these scandals. While the behavior of medical staff appears responsive to the scandals, non-medical opposition to organ donation remains unaffected. This latter result likely stems from two main factors. First, corruption news has no impact on the presence of previously registered consent to donation by the reported donor. Since 1999, Italian citizens have had various ways to record their consent to donation, such as including it on their Identity Card, a decision that relatives cannot override. Second, in the absence of explicit donor consent, relatives' decisions regarding organ donation are typically well-considered and based on moral values, making them unlikely to be swayed by the negative—and likely temporary—emotions generated by corruption scandals.

We complete the analysis by examining the number of actual donors, defined as the number of reported donors minus oppositions. Panel B of Table 8 extends the analysis from Panel A by using the number of actual donors as the outcome variable. The results confirm that media coverage of corruption scandals primarily influences the behavior of medical staff, while the impact on patients and their relatives remains minimal. In column (1), media coverage of the surgeon's case is shown to reduce the number of actual donors in affected regions compared to unaffected regions, with each additional article on the surgeon case decreasing the number of actual donors by 0.013 units. Columns (2)–(5) address the endogeneity of reported donors, affirming that the negative effect is primarily driven by medical staff's responses to corruption scandals. In all specifications that account for the impact of media coverage on medical staff behavior, the effect of the surgeon case shifts to a precisely estimated zero. Once the behavioral response of medical staff is controlled for, the impact of media coverage of corruption scandals on the number of actual donors effectively disappears.

5.2 Conceptual Framework

We now present a conceptual framework to interpret the behavioral response by medical staff to corruption news. We build on the work of Kolstad (2013) and Cornelissen, Dustmann and Schönberg (2017), considering an individual effort-choice model for medical staff working in ICUs that accounts for the institutional characteristics of the Italian NHS. We characterize healthcare workers as both extrinsically and intrinsically motivated. In the Italian NHS, all public hospital workers, including physicians and nurses, are employed under fixed-wage contracts.[23]

[23] Current regulations also allow for merit-based pay tied to various performance indicators, which are selected and vary by hospital. However, the merit-based portion is so minor compared to the fixed salary that assuming a fixed-wage contract remains reasonable.

The total benefit B for medical staff is determined by the fixed salary w and an intrinsic reward Γ. Both a higher salary and a higher intrinsic reward increase the total benefit B. We assume that the intrinsic reward is related to the number of reported donors D, which is a direct function of individual effort e. In turn, individual effort is influenced by perceived corruption Ω, both directly and indirectly, through expected oppositions O. Greater effort enhances intrinsic utility by increasing the number of reported donors. However, perceived corruption reduces effort e both directly and by raising expected oppositions, driven by the anticipation of possible changes in family members' behavior due to shifting perceptions of corruption. The total cost C depends on individual effort e and peer pressure p. Peer pressure is defined as the difference between the expected effort of peers and the individual's own effort. Since each worker cannot directly observe colleagues' efforts, they form noisy beliefs about their colleagues' effort levels within the hospital. The higher the expected effort of peers, the greater the cost to match that effort. Individual i's net utility in each period t is then represented as follows:

$$U_{it} = B_{it}(w_{it}, \Gamma_{it}[D_{it}(e_{it}(\Omega_{it}, \mathbb{E}(O_{it}|\Omega_{it})))]) - C_{it}(e_{it}, p(\mathbb{E}(e_{-it}|\Omega_{it}) - e_{it})) \quad . \tag{4}$$

For each worker i in each period t, the optimal effort e^*_{it} is determined by equating marginal benefit with marginal cost. To ensure the concavity of the problem, we assume that individual effort (i) increases intrinsic motivation Γ at a decreasing rate, (ii) raises the cost at an increasing rate, and (iii) reduces peer pressure p at a decreasing rate. The optimal effort e^*_{it} is implicitly defined by the following equation:

$$\frac{\partial B_{it}}{\partial \Gamma_{it}} \frac{\partial \Gamma_{it}}{\partial D_{it}} \frac{\partial D_{it}}{\partial e_{it}} = \frac{\partial C_{it}}{\partial e_{it}} + \frac{\partial C_{it}}{\partial p_{it}} \frac{\partial p_{it}}{\partial e_{it}} \quad . \tag{5}$$

For each individual, media reporting about corruption episodes in each period t shifts the level of individual perceived corruption in the public health care sector Ω. More articles published by newspapers on corruption episodes increase Ω, or, in other words, increase perceived corruption. This, in turn, implies an update of beliefs about the effort of peers: a higher perceived corruption within the health care sector reduces the expected effort of peers.

Thus, perceived corruption Ω influences optimal individual effort e^*_{it} through three channels. The first channel is the reduction of intrinsic motivation, which decreases intrinsic reward: $\frac{\partial \Gamma it}{\partial D_{it}} \frac{\partial D_{it}}{\partial e_{it}} \frac{\partial e_{it}}{\partial \Omega_{it}} < 0$. This is a direct effect resulting from changes in perceived corruption driven by media reports.

The second channel is an indirect effect of media reporting through its impact on expected oppositions. Medical staff anticipates an increase in oppositions by families, attributed to reduced trust following corruption news, thus decreasing their effort in response: $\frac{\partial \Gamma_{it}}{\partial D_{it}} \frac{\partial D_{it}}{\partial e_{it}} \frac{\partial e_{it}}{\partial \mathbb{E}(O)it} \frac{\partial \mathbb{E}(O)it}{\partial \Omega_{it}} < 0$.[24]

The third channel operates on the cost side: as perceived corruption increases, it updates information on the effort of other workers, reducing the cost associated with peer pressure: $\frac{\partial \mathbb{E}(e_{-it})}{\partial \Omega_{it}} < 0$. Information about corruption in the healthcare sector makes staff aware that others within the system are exerting 'bad' effort to seek rents rather than 'good' effort to use resources efficiently and effectively.

This framework helps rationalize our results. For instance, it clarifies that articles published by newspapers reporting on corruption within the healthcare sector have different effects on both Γ and $\mathbb{E}(e_{-it})$, depending on their informative value for ICU medical staff. This implies that media coverage of a corrupt surgeon is likely more informative than news about a corrupt hospital manager, as indicated by our empirical findings.

Individual effort, along with idiosyncratic individual ability a, is essential for maintaining brain-dead patients—who are not yet clinically dead—in the condition necessary for organ donation and for identifying potential donors D to report to the reference Organ Procurement Center. Clearly, both higher ability a and effort e^* increase D. The number of reported donors D in hospital h in each period t can thus be expressed as:

$$D_{ht} = A_h + E^*_{ht} + \epsilon_{ht} \quad , \tag{6}$$

where A and E^* represent the average ability and average optimal effort of ICU staff in each hospital h, and ϵ reflects output variability beyond the control of the workers.

Consider now the impact on D of media reporting on corruption scandals in period t. With increased coverage of corruption scandals, Ω will rise, thereby reducing both the marginal benefit of effort (through intrinsic motivation and expected oppositions) and the marginal cost (through updated information on peers' effort). Consequently, the optimal e^* at the individual level may either decrease or increase, depending on the relative strength of these two effects. This implies that the sign of $\frac{\partial D_{ht}}{\partial \Omega}$ is not a priori clear; it depends on how the effects on marginal cost and benefit

[24] Notice that this would imply that ICU staff report fewer donors directly, ruling out effects of perceived corruption on oppositions.

influence medical staff behavior and how these effects aggregate at the hospital level. Our findings suggest that the impact on marginal benefit outweighs the impact on marginal cost. Therefore, the reduction in intrinsic motivation—both directly due to perceived corruption and indirectly through expected oppositions—explains the decrease in the number of reported donors.

Our framework can also be used to analyze the duration of effects. We find that the impact of Ω on intrinsic reward is stronger than its impact on peer pressure, but it is short-lived, likely reflecting an emotional reaction affecting medical staff morale. In this case, the model predicts a decrease in the number of reported donors in the very short run due to the decline in motivation and the increase in potential oppositions. However, once the diminishing effect on Γ subsides, D will rise to a level *higher* than before the scandal. This occurs because the cost of effort is now lower, as beliefs about peers' efforts have been adjusted downward in response to the scandal. This discussion helps to explain Figure 5.

6 Conclusion

Corruption is pervasive, and the healthcare sector is no exception. In this paper, we show that the negative welfare consequences of corruption extend beyond inefficient public spending or inequitable access to care. Instead, we must also consider the indirect costs imposed by media coverage of corruption scandals on the behavior, motivation, and morale of medical staff.

Our analysis focuses on the organ procurement process in Italy, examining the behavioral responses of medical staff to two corruption scandals at one of Italy's largest hospitals. We differentiate between a high-profile case involving a renowned heart surgeon's use of defective heart valves and a broader case involving the hospital CEO, who accepted bribes to favor certain patients on the waiting list.

We quantify the medical staff's response to these scandals using a difference-in-differences (DiD) design, comparing hospitals in affected and control regions before and after the scandals, with perceived corruption levels measured by the number of media articles on these scandals. Our identification strategy is reinforced by the unique role of intensive care unit (ICU) staff in maintaining reported donors in a condition suitable for organ donation, as well as the exogeneity of the scandals relative to reported donors. An event study analysis supports the parallel trend identifying assumption.

Our findings reveal substantial effects of the surgeon's corruption case on organ donation rates, driven by shifts in health professionals' behavior. In contrast, we observe no significant effects related to the management corruption case involving the CEO. Using text analysis, we find no evidence that the reporting of the scandals differed in semantic or thematic dimensions beyond the basic categorization of CEO and Surgeon scandals. This further supports the interpretation that the observed effect may be driven by the shared professional mission of medical staff and surgeons. These findings are robust to different measures of media coverage and several robustness checks. We show that the results are not influenced by the specific media outlet or the timing window chosen to measure the corruption shock. The impact is short-lived and confined to the administrative boundaries of the affected procurement center; despite national media coverage, no effects are found in regions neighboring those affected by the scandals.

Our results have significant policy implications. First, since corruption in healthcare impacts medical staff motivation and morale, there is an added imperative to combat corruption. Welfare losses from a single corruption case imply that numerous patients may be unable to receive transplants, leading to increased healthcare costs and serious health consequences for patients left on waiting lists. For example, in the case of long kidney transplant waiting lists, Becker, Elias and Ye (2022) estimates a total cost of approximately $650,000 in present value for each patient on dialysis, plus the added value of 15 additional years of life for transplanted individuals. Second, our findings underscore the importance of medical staff motivation and expectations. While discussions around organ donation often center on patient and family trust, healthcare workers' motivation is equally critical, particularly in large hospital settings. Implementing effective auditing policies or encouraging whistleblowing could be essential for promoting patient health in a transparent and ethical hospital environment.

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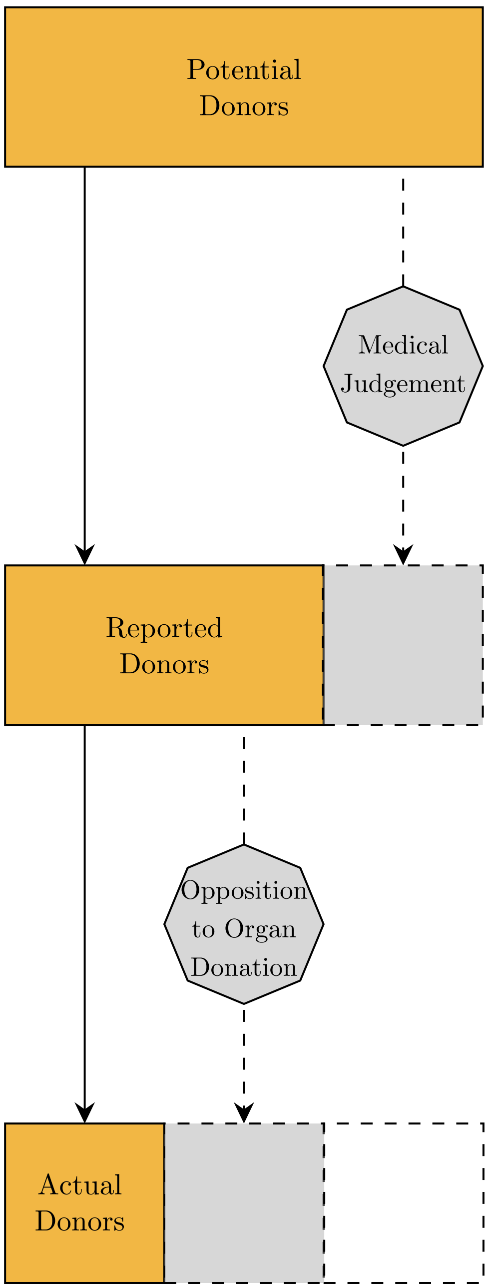
Figures

Figure 1: The Process of Organ Procurement in Italy



1. **Donors identification and monitoring**

   Health personnel in ICUs identify and monitor patients in potential evolution toward brain death.

2. **Brain death diagnosis, assessment, and certification**

   Brain death is always diagnosed when there is an irreversible cessation of all brain function, independently of organ donation. It follows an observation period of at least 6 hours to assess the persistence of the state of the death, which ends with death certification.

3. **Report to the reference coordination center**

   The intensive care specialist and/or the local coordinator promptly report potential donors to the regional or interregional coordination center, which will proceed to consult the allocation lists.

4. **Legal evaluation of the donor: detection of consent**

   In the absence of the patient's expressed will, consent to donation is asked for from the family. Permission of the judicial authority is needed in case the potential donor is a ward of the state.

5. **Clinical evaluation of the donor**

   A clinical evaluation has to be carried out in order to determine the suitability of the potential donor to donate and the functionality of the single organs.

Note: The figure shows the structure and different steps of the process of organ procurement in Italy.

Figure 2: The Corruption Scandal in the Newspaper: The CEO Scandal

LA STAMPA GIOVEDÌ 20 DICEMBRE 2001 5 CRONACHE

REAZIONI GIUNTA REGIONALE STRAORDINARIA E I COMMENTI DELLE FORMAZIONI POLITICHE

DOMANI UN SOSTITUTO

Breve riunione straordinaria ieri sera della Giunta piemontese. L'esecutivo non ha nominato né un sostituto né un commissario straordinario per l'ospedale: dalla Procura non è giunto ancora l'atto ufficiale sull'arresto del manager. Forse verrà nominato domani

«NON FERMIAMO TUTTO»

An esprime «profonda amarezza» per l'arresto del direttore generale delle Molinette. E sottolinea come ora sia importante che «l'ospedale non abbia a subire alcun rallentamento nelle prestazioni». L'ha detto il capogruppo in Consiglio regionale, Ennio Galasso

SUBITO UN COMMISSARIO

«La situazione è gravissima, e in particolare è gravissimo che la giunta non abbia ancora provveduto a nominare un commissario». Così il consigliere regionale Ds, Pietro Marcenaro, è intervenuto all'assemblea piemontese sulla vicenda Odasso

COMMISSIONE D'INCHIESTA

«Una commissione d'inchiesta»: l'ha chiesto in Consiglio regionale il gruppo di Rifondazione. «Episodi di tale gravità - ha detto Mario Contu - sollevano dubbi sull'efficacia dei controlli che la Regione dovrebbe esercitare sull'operato dei manager»

Arrestato mentre incassa la tangente da 15 milioni

Torino, in carcere il direttore generale dell'ospedale «Molinette»

Alberto Gaino

TORINO

L'INFORMATRICE FARMACEUTICA

E' stato ripreso da una telecamera nascosta mentre riceve la somma da un'imprenditrice. La donna ha confessato la corruzione. Altri otto indagati

Luigi Odasso mentre viene portato via in auto. A destra l'imprenditrice che ha confessato

I PARTICOLARI DELL'INCHIESTA CONDOTTA DALLA GUARDIA DI FINANZA NEL CAPOLUOGO PIEMONTESE

Odasso ieri mattina dietro al giudice Giuseppe Ferrando mentre viene arrestato nel suo ufficio alle Molinette. In basso finanzieri con gli scatoloni di documenti sequestrati nell'ospedale

le indagini

Mesi di microspie e di filmati «Così lo abbiamo incastrato»

Pedinato da settembre dopo la denuncia fatta dal parente di un fornitore corrotto

Le voci registrate: «Le ho portato il contenuto». La mamma di Odasso «Solo una bolla di sapone»

Note: The figure shows an article covering the CEO corruption scandal. Source: 'La Stampa' - December 20, 2001. Title: Arrested While Cashing In a 15 Billion Bribe.

Figure 3: The Corruption Scandal in the Newspaper: The Surgeon Scandal

IMPRENDO
Soluzioni pensate per la piccola impresa.

LA STAMPA

MARTEDÌ 5 NOVEMBRE 2002. ANNO 136. N. 303. € 0,90 IN ITALIA [PREZZI TANDEM ED ESTERO IN ULTIMA] • SPEDIZIONE ABB. POSTALE 45% ART. 2 COMMA 20/B LEGGE 662/96 - TO • www.lastampa.it

TROVI IMPRENDO PRESSO: UniCredit Banca · UniCredit Banca · UniCredit Banca · UniCredit Banca · UniCredit Banca · UniCredit Banca · UniCredit Banca · Local

ISLAMICI AL POTERE

L'Europa: giudicheremo la Turchia in base ai fatti

L'EUROPA ENTRA NELLA COMUNITA' TURCA

BRUXELLES. «L'Europa sbaglierebbe a giudicare il prossimo governo turco per il fatto che è espressione di una base islamica».

SONO ACCUSATI DI CONCUSSIONE. I PRIMARI ARRESTATI IERI POMERIGGIO, ALL'USCITA DALLA SALA OPERATORIA

Torino, due cardiochirurghi in cella per tangenti

Avrebbero preso mazzette per la fornitura di valvole cardiache alle Molinette

TORINO. Sono stati arrestati ieri pomeriggio i due cardiochirurghi dell'ospedale Molinette al centro di un'inchiesta per tangenti. Il professor Michele Di Summa, tra l'altro responsabile del centro trapianti della Regione Piemonte, e il suo collega Giuseppe Poletti, responsabile della seconda camera operatoria di Cardiochirurgia, sarebbero accusati di concussione. Entrambi sono anche docenti universitari. I due primari, che ieri hanno regolarmente lavorato in sala operatoria, avrebbero preteso tangenti (si parla di 750 milioni di vecchie lire) per assegnare, in quanto componenti della commissione aggiudicatrice, la fornitura di valvole cardiache a due diverse società.

Accossato, Ballario, Gaino, Longo, Pietropinto e Tropeano A PAGINA 7 E IN CRONACA

PERSONAGGI

LO STAKANOVISTA E IL TESSITORE

Una media di 500 interventi l'anno Avevano creato un reparto d'avanguardia punto di riferimento e di speranza per centinaia di malati

Angelo Conti A PAGINA 7

Lorenzo Mondo

LA CADUTA DEI FALSI EROI

E' tanto grossa che vien da dire: non è vero. Lascia sbigottiti che le Molinette si trovino un'altra volta a fare rima con manette. Quelle strette ai polsi di due cardiochirurghi, accusati di avere preteso tangenti da fornitori di valvole cardiache, oltretutto di dubbia qualità. Sarebbero tangentari come Odasso, scivolato tra le braccia della giustizia meno di un anno fa. Come se la Sanità contemplasse, insieme alle trasfusioni, speciali pratiche vampiriche.

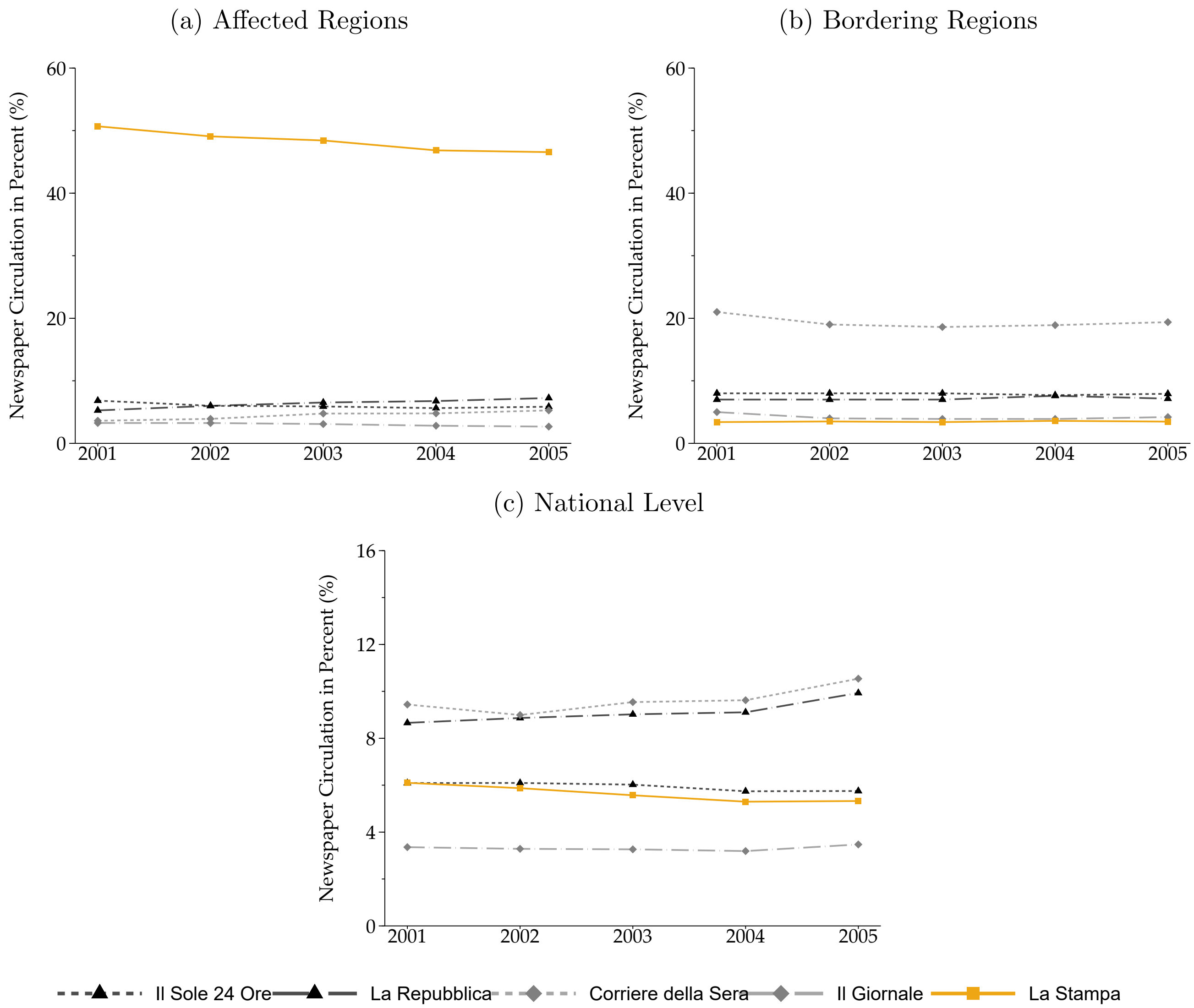
Odasso faceva il manager, il contabile, non aveva un rapporto diretto con i pazienti e sconvolge meno l'idea che pasticciasse con i soldi. Ma un medico, uno che le viscere dell'uomo le vede palpitare?

Nella mattinata avevano ancora eseguito due delicati interventi. E sono tanti i malati che, dopo esserci passati o in attesa di farlo, si prodigavano in benedizioni, li salutavano come angeli salvatori. Questi specialisti di gran nome, capaci di aggiustarti il cuore rotto, avrebbero il loro cuore irrimediabilmente guasto? Erano così certi dell'impunità da trascurare la premonitrice caduta di Odasso? E non sentivano l'orgoglio di lavorare in un ospedale di eccellenza, apprezzato in Italia e all'estero per le sue prestazioni, immeritevole di colpi bassi? Si affaccendavano ad arrotondare i loro non ignobili guadagni senza abbassare gli occhi, per pudore, davanti a tanta gente doppiamente povera, di soldi e di salute, che gli passava davanti ogni giorno?

Non è vero. Si tratterà, come dicono, di maldicenza o congiura. Non hanno contribuito minimamente a sfigurare il volto di una città che ha già troppe afflizioni. A smentire un costume antico, forse remoto, di severa correttezza. Vale per loro come per ogni cittadino la normale, civile presunzione di innocenza. Ma al di là di questo ci sono troppe altre ragioni per augurarsi che la nuvola di maleficio di dissolva. Per loro, per le Molinette, per Torino.

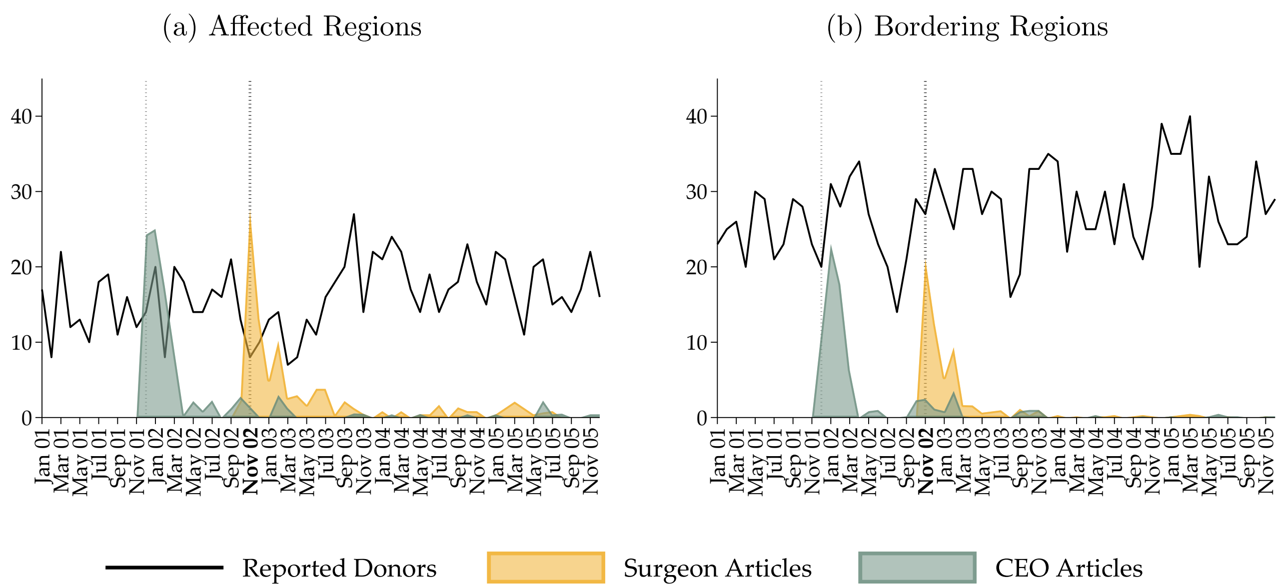
Note: The figure shows an article covering the surgeon corruption scandal. Source: Front page of 'La Stampa' - November 5, 2002. Title: Turin, Two Heart Surgeons Behind Bars for Receiving Bribes.

Figure 4: Newspaper Coverage in Italy



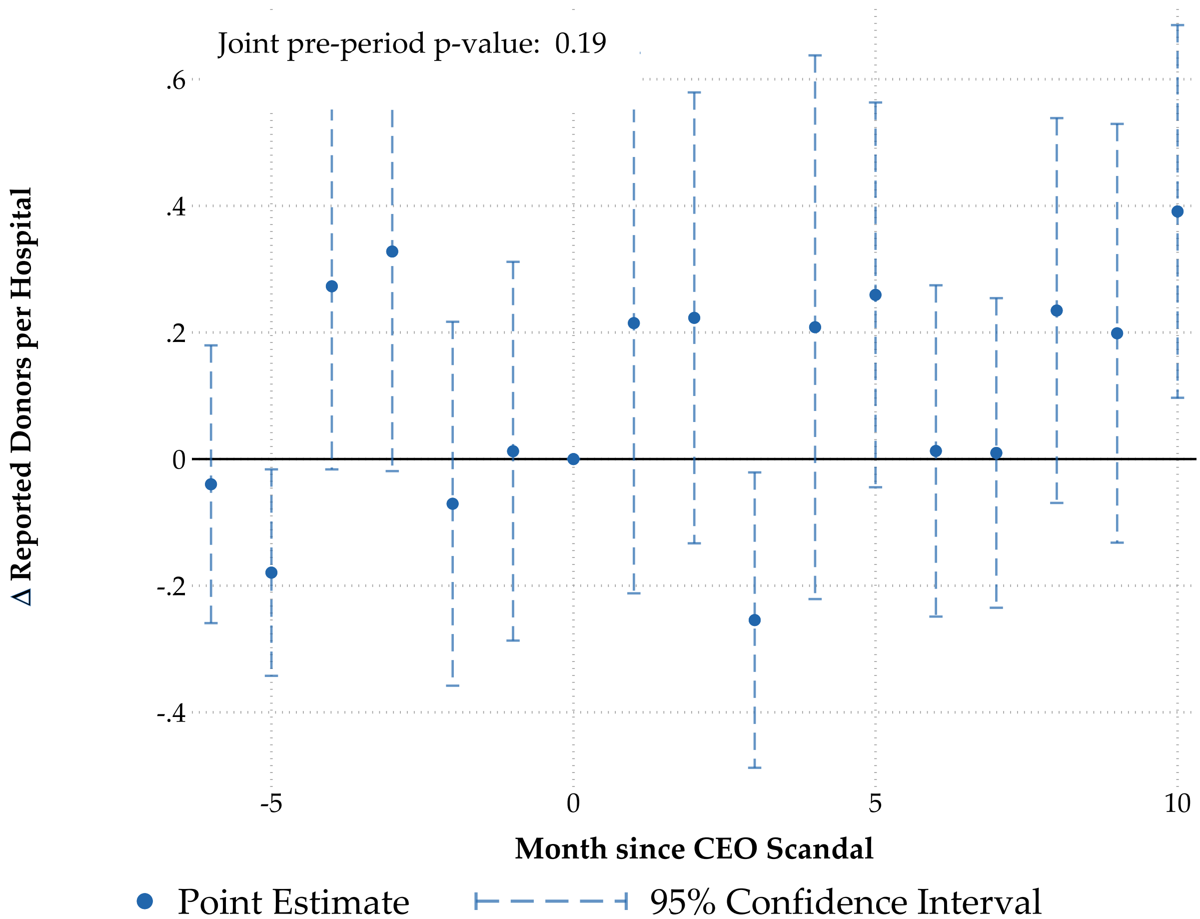
Note: The figure shows newspaper circulation in Italy disaggregated across the five largest newspaper outlets. Sports newspapers are excluded from the analysis. Affected regions include Piedmont and the Aosta Valley. Bordering regions include Lombardy and Liguria. Data for bordering regions for 2005 are missing. In constructing the weighted number of newspaper articles we impute the 2005 data by the mean of the preceding four years.

Figure 5: Media Coverage and Reported Donors



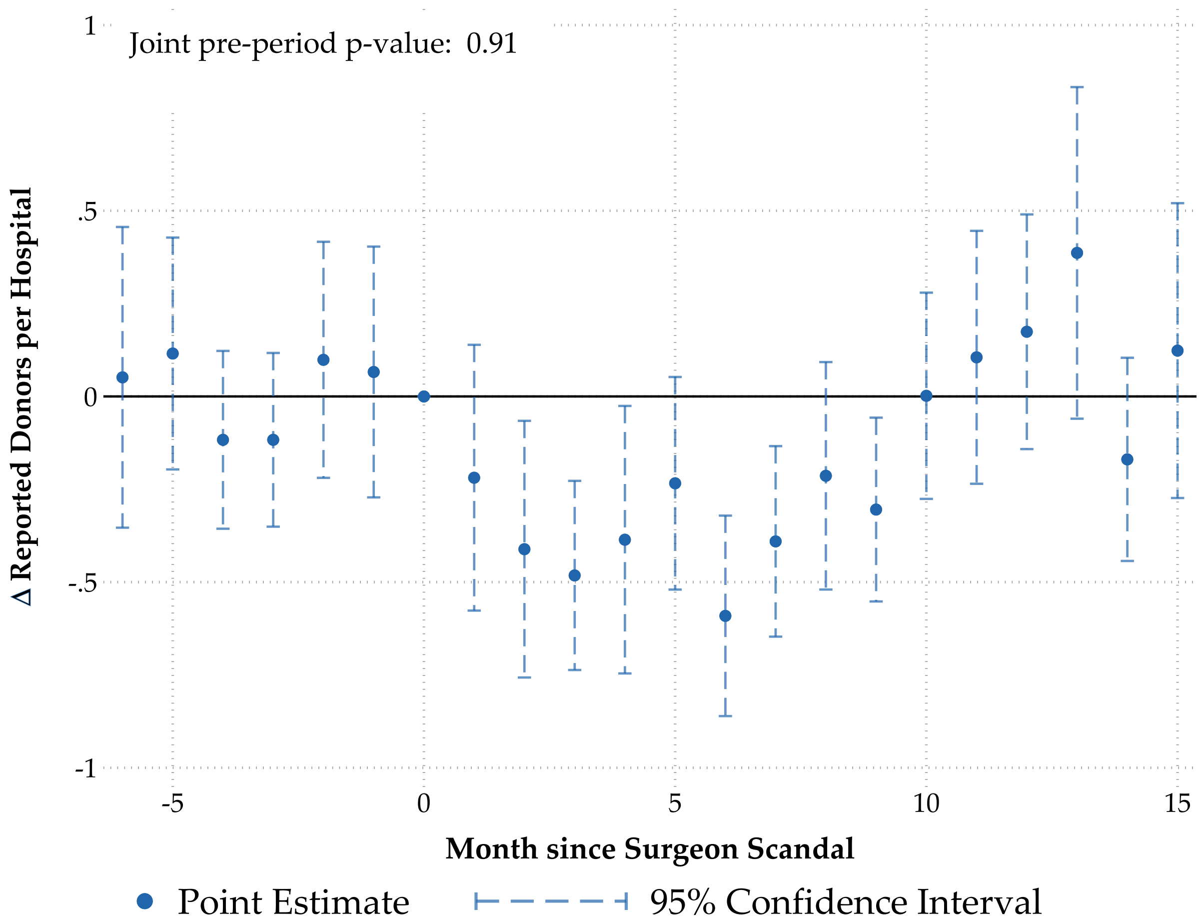
Note: The figure shows the number of reported donors (solid black line) and the weighted number of newspaper articles related to the surgeon (yellow) and CEO (green) corruption scandals in affected and bordering regions. The weighted number of newspaper articles is constructed by weighting the provincial number of newspaper articles on both scandals by the respective yearly newspapers market shares shown in Figure 4. The first vertical dashed line refers to the occurrence of the CEO scandal, while the second vertical dashed line marks the occurrence of the surgeon scandal.

Figure 6: Event-study Estimates – CEO Scandal



Note: The figure displays point estimates and 95 percent confidence intervals on the effect of the Surgeon scandal on the number number of reported donors. All estimates are based on the regression model in Equation 2. Standard errors are clustered at the hospital level.

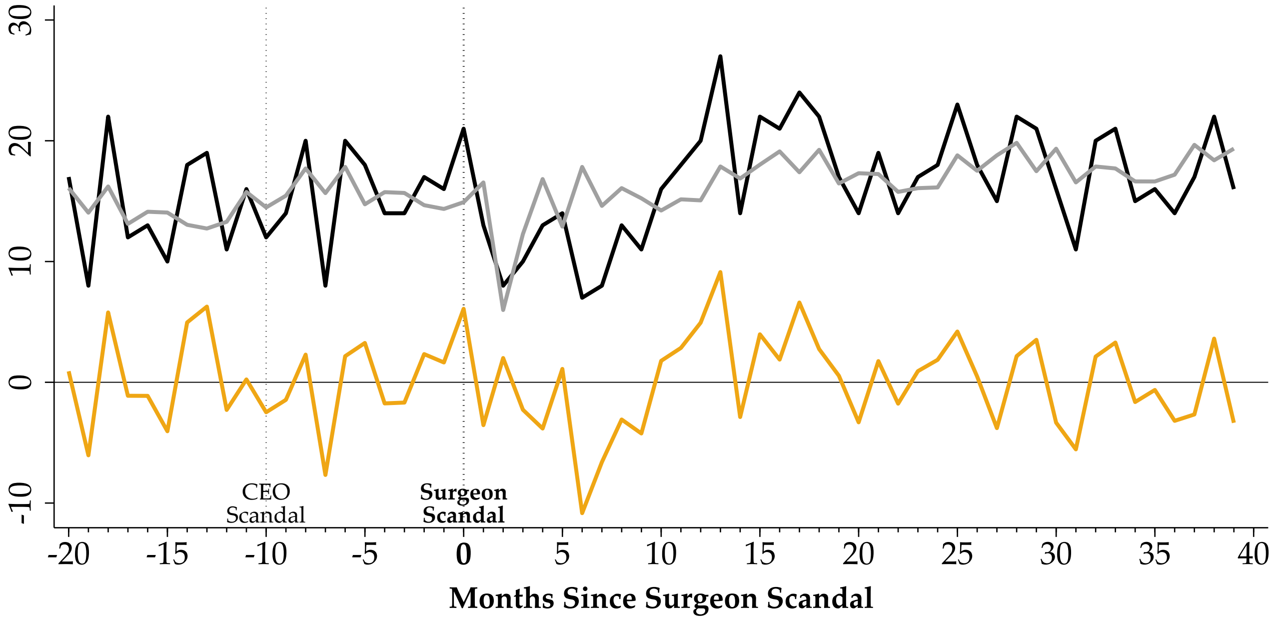
Figure 7: Event-study Estimates – Surgeon Scandal



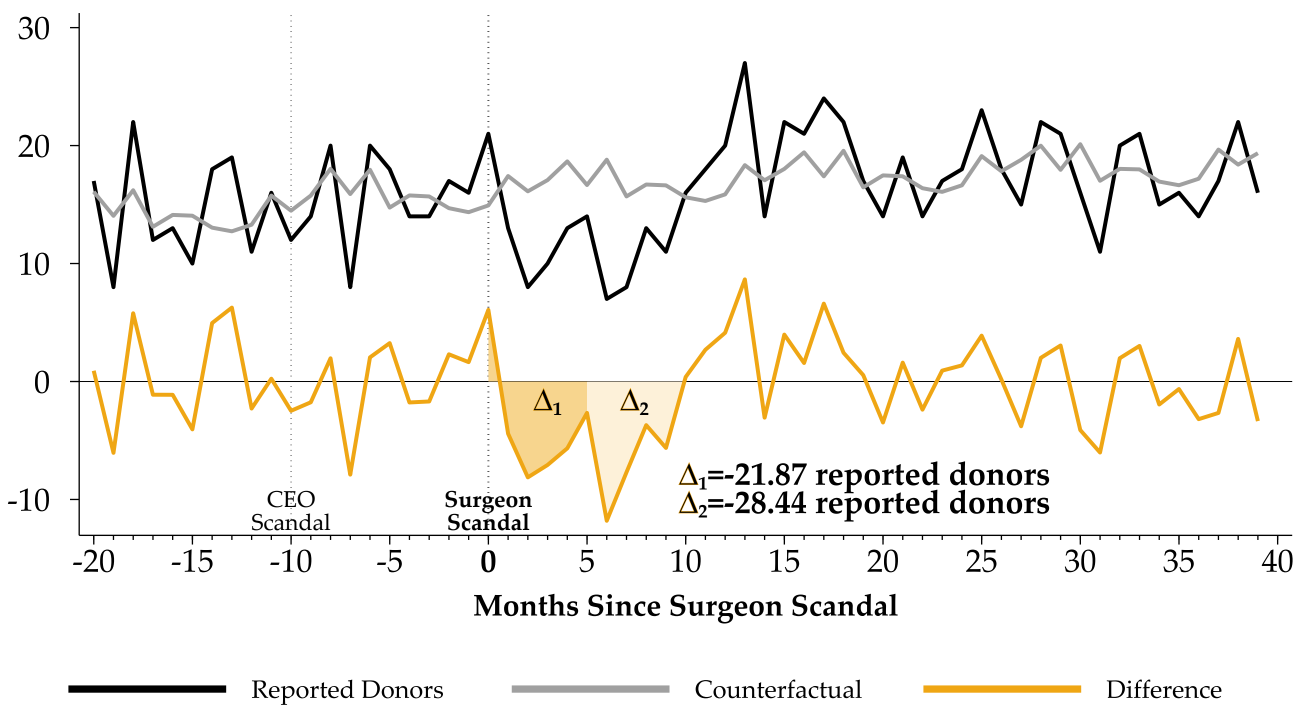
Note: The figure displays point estimates and 95 percent confidence intervals on the effect of the Surgeon scandal on the number number of reported donors. All estimates are based on the regression model in Equation 2. Standard errors are clustered at the hospital level.

Figure 8: Counterfactual Effects by Time: The Case of Affected Regions

(a) Affected Regions: CEO Scandal



(b) Affected Regions: Surgeon Scandal



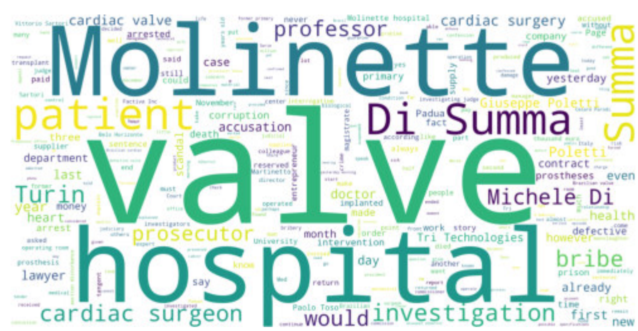
Note: The figure depicts actual and counterfactual reported donors across time for the case of affected regions. The counterfactual is constructed by predicting reported donors using the estimates from Table 3, column (2) and by setting to zero the coefficient for the number of articles on the surgeon case. The time series on reported donors results from averaging the hospital level data in the affected regions by year-month and subsequently centering it around the onset of the surgeon scandal.

Figure 9: Word cloud of Newspaper Articles

(a) All Articles

(b) CEO Articles

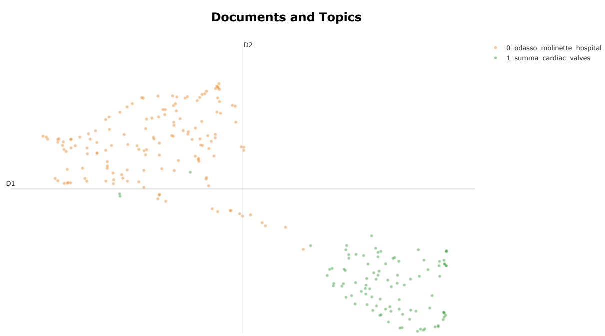
(c) Surgeon Articles



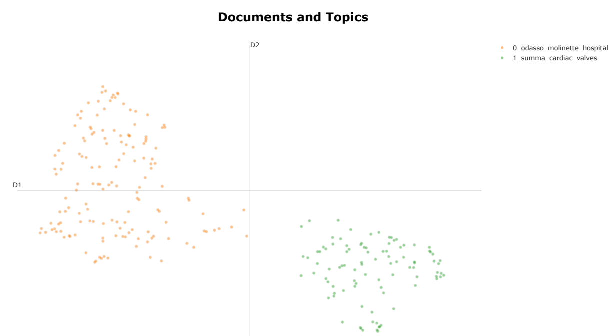
Note: The figure displays word clouds depicting the most frequently used words in the newspaper articles discussed in Section 4.2. The articles have been translated into English, and common stopwords have been excluded. The size of each word is proportional to its relative frequency within the articles.

Figure 10: Identified Topics and Topic Distribution

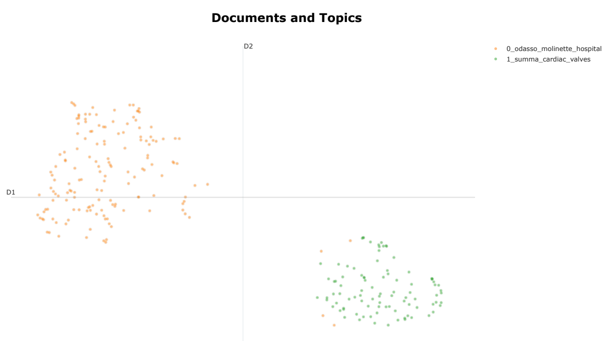
(a) Neighboring Sample Points (=15)



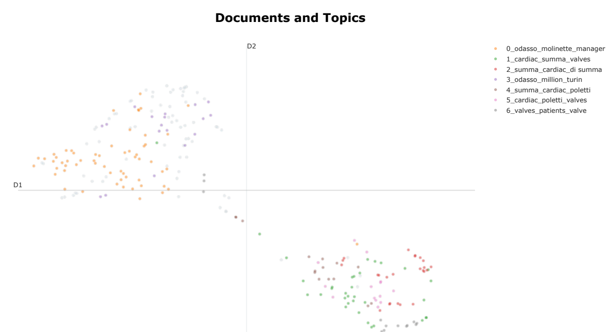
(b) Neighboring Sample Points (=10)



(c) Neighboring Sample Points (=5)

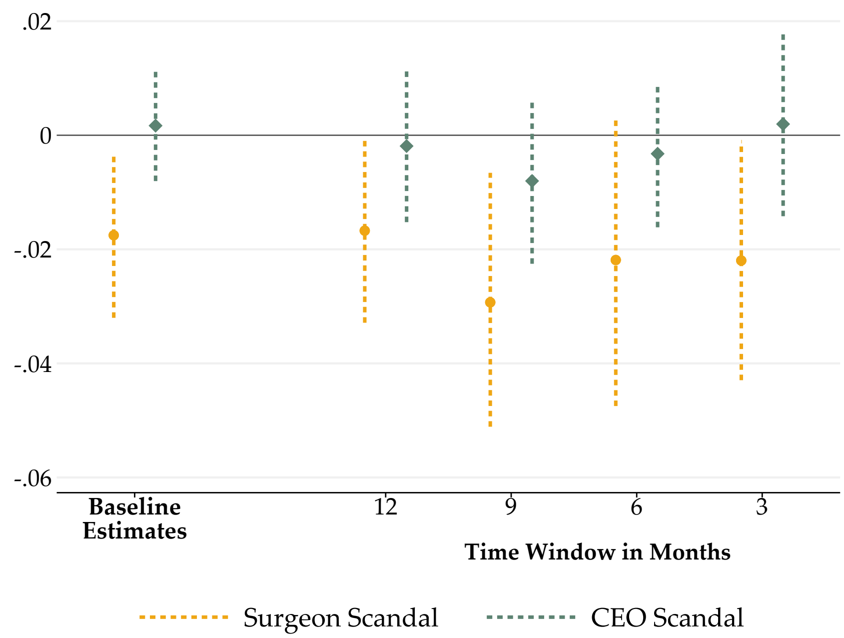


(d) Neighboring Sample Points (=2)



Note: This figure shows topic distributions across newspaper articles, employing various topic model parametrizations. Each dot represents an article with colors indicating attribution to topics along the first two principal components of the topic distribution. The topic distributions results from first training the topic model on the article text corpus and then computing article-specific distribution across topics. The graphs in panels (a)–(d) differ by the number of neighboring sample points, which internally is used during the manifold approximation process. A higher value tends to yield a more comprehensive representation of the embedding structure, offering a global perspective. Conversely, smaller values provide a more localized view. Typically, elevating neighbors leads to the formation of larger clusters in the resulting embedding.

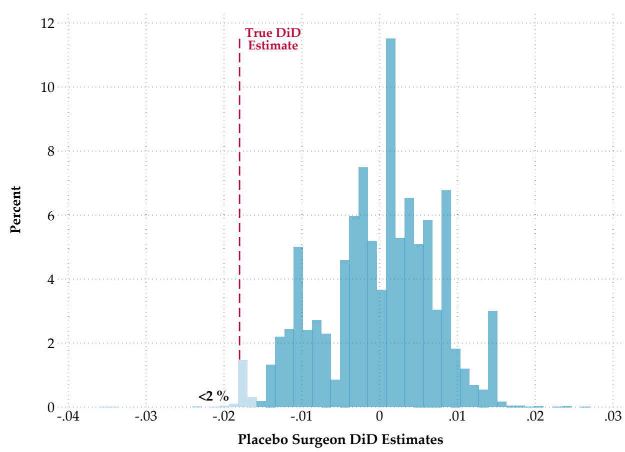
Figure 11: Time Windows Around the Corruption Scandal



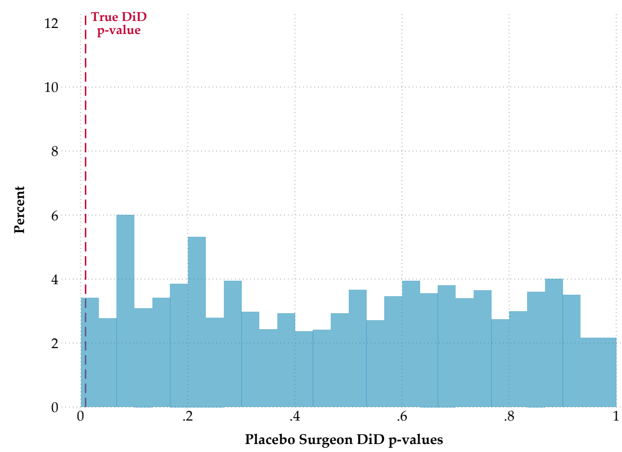
Note: The figure shows point estimates and 95 percent confidence intervals for the effect of the number of newspaper articles about the corruption scandals on the number of reported donors. All estimates coefficients and standard errors are based on the regression model in Table 3, column (2). Coefficients are obtained by using four different symmetrical time windows (12-,9-, 6-, and 3-months) around the onset of the corruption scandal.

Figure 12: Placebo Difference-in-Differences Estimates

(a) Placebo Coefficients



(b) Placebo p-values



Note: The figure shows the distribution of placebo point estimates and p-values for the effect of the number of newspaper articles about the surgeon scandal on the number of reported donors. Placebo time series on the number of surgeon and CEO articles result from a two-step procedure. First, each regional time series on the surgeon case is shifted back or forward. Second, given a particular shift of the surgeon scandal articles, all possible back- and forward-shifts for the regional CEO article time series are computed. The exercise is repeated for all possible back- and forward-shifts of the surgeon time series. The figure represents 6,012 placebo time series based on the regression model in Table 3, column (2). The red dashed line highlights the true point estimate and p-value as in Table 3, column (2).

Tables

Table 1: Correlation Matrix for Different Sources of News

	Coverage of Surgeon Scandal				**Coverage of CEO Scandal**			
	La Stampa	Corriere	Weighted	TV News	La Stampa	Corriere	Weighted	TV News
La Stampa	1				1			
Corriere	0.851***	1			0.750***	1		
Weighted	0.955***	0.848***	1		0.894***	0.834***	1	
TV News	0.675***	0.899***	0.692***	1	0.732***	0.874***	0.747***	1

Note: This table shows the pairwise correlation of coverage of corruption scandals by different newspapers and media outlets. The weighted number of newspaper articles is constructed by weighting newspaper articles related to the scandals according to the market share shown in Figure 4. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 2: Descriptive Statistics

	Affected Regions		Bordering Regions		
	Mean (1)	SD (2)	Mean (3)	SD (4)	Difference (5)
Organ Donations					
Reported Donations	0.733	1.125	0.546	1.121	0.267***
Opposed Donations	0.214	0.500	0.110	0.389	0.200***
Actual Donations	0.470	0.816	0.379	0.841	0.050***
Newspaper Coverage					
Articles on Surgeon Scandal	1.529	5.532	0.994	3.331	2.052***
Articles on Surgeon Scandal (3 Month Average)	1.581	4.458	1.027	2.676	2.124***
Articles on CEO Scandal	1.637	6.406	1.261	3.979	1.774***
Articles on CEO Scandal (3 Month Average)	1.686	5.618	1.302	3.439	1.822***
Newspaper Circulation / 1,000 inhabitants					
La Stampa	51.389	11.552	6.676	12.967	61.167***
Il Corriere Della Sera	4.710	1.040	37.329	73.353	-5.875***
Observations	1,320		3,000		
Hospitals	22		50		

Note: This table shows descriptive statistics for the sample analyzed in this study. The difference reported in column (5) is the coefficient obtained by regressing an indicator for affected regions on the respective variable controlling for year, month, and hospital fixed effects. Significance levels are constructed from bootstrapped (1,000 replications) and wild clustered standard errors at the hospital level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 3: Corruption News and Reported Donors: Difference-in-Differences Estimates

	Dependent Variable: Number of Reported Donors					
	OLS Model			Poisson Model		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Total Number of Articles						
Total Articles	-0.002	-0.004	-0.004	-0.003	-0.006	-0.005
	(0.003)	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)
Observations	4,320	4,320	4,320	4,320	4,320	4,320
Panel B: Disaggregated Number of Articles						
Surgeon	0.002	0.001	0.000	0.004	0.002	0.000
	(0.004)	(0.005)	(0.005)	(0.006)	(0.008)	(0.009)
Surgeon × Affected	-0.015**	-0.018**	-0.016**	-0.028**	-0.034***	-0.031***
	(0.006)	(0.007)	(0.007)	(0.012)	(0.011)	(0.010)
CEO	0.001	-0.001	-0.002	0.002	-0.001	-0.002
	(0.004)	(0.004)	(0.005)	(0.007)	(0.008)	(0.008)
CEO × Affected	0.002	0.002	0.003	0.001	0.001	0.003
	(0.006)	(0.005)	(0.006)	(0.008)	(0.007)	(0.008)
Observations	4,320	4,320	4,320	4,320	4,320	4,320
Controls	✓	✓	✓	✓	✓	✓
Fixed Effects						
Hospital	-	✓	✓	-	✓	✓
Month	-	✓	✓	-	✓	✓
Year	-	✓	✓	-	✓	✓
Month × Hospital	-	-	✓	-	-	✓

Note: This table shows the DiD estimates of the effect of the media coverage of the CEO and surgeon scandals on the number of reported donors. The dependent variable is the number of reported donors at the hospital-month-year level. The weighted number of newspaper articles is constructed by weighting the provincial number of newspaper articles on both scandals by the respective yearly newspapers market shares shown in Figure 4. Affected regions include Piedmont and Aosta Valley. Specifications in columns (1)–(3) are estimated using OLS, and columns (4)–(6) are estimated as Poisson regression models. In columns (1)–(6) we include controls for population and newspapers circulation. In columns (2) and (5), we additionally include year, month, and hospital fixed effects. In columns (3) and (6), we additionally interact month and hospital fixed effects. Bootstrapped (1,000 replications) and wild clustered standard errors at the hospital level are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 4: Text Analysis of Newspaper Articles

	Semantics			Topic Distribution	
	1st Principal Component	Subjectivity	Polarity	1st Principal Component	2nd Principal Component
	(1)	(2)	(3)	(4)	(5)
Surgeon Articles	-0.027	0.067	0.024	5.631***	-0.252
	(0.056)	(0.084)	(0.278)	(0.637)	(0.206)
Observations	245	245	245	245	245
Fixed Effects					
Year	✓	✓	✓	✓	✓
Month	✓	✓	✓	✓	✓
Newspaper	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓

Note: This table shows estimates from regressing various text-based metrics on an indicator of Surgeon Articles. The sample includes newspaper articles covering the Surgeon or CEO scandal published in the major Italian newspaper. Columns (1)–(3) consider semantic metrics as described in Section 4.2. Columns (4)–(5) consider the first two principal components of the topic model trained on the article corpus. All specifications include year, month, and newspaper fixed effects. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 5: Distance to Border and Estimates Sizes

	Dependent Variable: Number of Reported Donors			
	(1)	(2)	(3)	(4)
Surgeon	0.001	0.001	0.001	0.003
	(0.005)	(0.005)	(0.005)	(0.006)
Surgeon × Affected	-0.018**	-0.017***	-0.018***	-0.009
	(0.007)	(0.007)	(0.007)	(0.019)
CEO	-0.001	-0.001	-0.001	-0.005
	(0.004)	(0.004)	(0.005)	(0.006)
CEO × Affected	0.002	0.002	0.002	-0.008
	(0.005)	(0.005)	(0.005)	(0.009)
Observations	4,320	4,140	4,020	2,880
Distance to border in km	< 150	< 120	< 90	< 60
Number of Hospitals				
Treatment	22	22	21	12
Control	50	47	46	36
Controls	✓	✓	✓	✓
Fixed Effects				
Hospital	✓	✓	✓	✓
Month	✓	✓	✓	✓
Year	✓	✓	✓	✓

Note: This table replicates DiD estimates by restricting the sample to only include hospitals from affected (bordering) regions within a certain range to the closest border of a bordering (affected) region. The dependent variable is the number of reported donors at the hospital-month-year level. The weighted number of newspaper articles is constructed by weighting the provincial number of newspaper articles on both scandals by the respective yearly newspapers market shares shown in Figure 4. Distance between each hospital and the border is measured as the linear distance to the closest border of a bordering (affected) region. All specifications are estimated using OLS. Specifications in columns (1)–(3) are estimated using OLS, and columns (4)–(6) are estimated as Poisson regression models. In columns (1)–(6) we include controls for population and newspapers circulation. In columns (2) and (5), we additionally include year, month, and hospital fixed effects. In columns (3) and (6), we additionally interact month and hospital fixed effects. Bootstrapped (1,000 replications) and wild clustered standard errors at the hospital level are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 6: Sensitivity Analysis with respect to Scandal Epicenter

	Dependent Variable: Number of Reported Donors				
	OLS Model			Weighted OLS Model	
	(1)	(2)	(3)	(4)	(5)
Surgeon	0.001	0.002	-0.001	-0.003	-0.006
	(0.005)	(0.005)	(0.006)	(0.007)	(0.008)
Surgeon × Affected	-0.016***	-0.018**	-0.054***	-0.016**	-0.013*
	(0.006)	(0.007)	(0.005)	(0.008)	(0.007)
CEO	-0.000	-0.000	-0.002	0.001	0.000
	(0.004)	(0.004)	(0.004)	(0.012)	(0.017)
CEO × Affected	0.002	0.000	-0.005	0.009	0.014
	(0.005)	(0.006)	(0.176)	(0.008)	(0.011)
Observations	4,260	4,020	3,060	4,260	4,260
Controls	✓	✓	✓	✓	
Fixed Effects					
Hospital	✓	✓	✓	✓	✓
Month	✓	✓	✓	✓	✓
Year	✓	✓	✓	✓	✓
Treatment Exclusion Set					
Molinette Hospital	✓	✓	-	✓	✓
Torino Hospitals	-	✓	✓	-	-
Other Hospitals	-	-	✓	-	-
Weighting Parameters					
ID-Weighting	-	-	-	✓	✓
Weighting Exponent	-	-	-	1	2

Note: This table replicates the DiD analysis by considering the possible attenuation of the effects of corruption for hospitals distant from the epicenter of the scandals. The dependent variable is the number of reported donors at the hospital-month-year level. The weighted number of newspaper articles is constructed by weighting the provincial number of newspaper articles on both scandals by the yearly newspaper market shares shown in Figure 4. Column (1) excludes the scandal epicenter (Hospital 'Molinette') from the sample. Column (2) additionally excludes the remaining four hospitals located in Turin. Column (3) excludes all treatment hospitals except the scandal epicenter (Hospital 'Molinette'). Columns (4) and (5) apply, in addition to excluding the scandal epicenter, weighted linear probability models by assigning hospitals closer to the scandal epicenter inverse-distance weights. Weights are calculated as $w_i^* = \frac{w_i}{\sum_{i=1}^{N} w_i}$, where $w_i = \frac{1}{d(h^*, h_i)^\alpha}$. $d(\cdot,\cdot)^\alpha$ represents the linear distance of hospital i, located at h_i, to the scandal epicenter, located at h^*. The exponent α represents the power parameter to assign more weight to hospitals closer to the scandal epicenter. In column (3) a power parameter $\alpha = 1$ is assumed, and in column (4) a power parameter $\alpha = 2$ is assumed. All specifications include population and newspaper circulation controls and year, month, and hospital fixed effects. Bootstrapped (1,000 replications) and wild clustered standard errors at the hospital level are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 7: Sensitivity Analysis of Surgeon Coefficients with respect to CEO Shock

	Dependent Variable: Number of Reported Donors			
	Baseline	Interaction	Multiplicative	Cumulative
	(1)	(2)	(3)	(4)
Surgeon	0.001	0.012	0.001	0.021
	(0.005)	(0.013)	(0.006)	(0.108)
Surgeon × Affected	-0.018**	-0.037**	-0.010*	-0.044
	(0.007)	(0.015)	(0.005)	(0.100)
CEO	-0.001	-0.000	-0.001	0.001
	(0.004)	(0.004)	(0.005)	(0.004)
CEO × Affected	0.002	0.001	0.001	0.001
	(0.005)	(0.005)	(0.005)	(0.005)
Surgeon × CEO	-	-0.005	-	-
	-	(0.005)	-	-
Surgeon × CEO × Affected	-	0.007	-	-
	-	(0.005)	-	-
Observations	4,320	4,320	4,320	4,320
Test for Equality of Surgeon Coefficients				
Chi-Square Statistic	-	-	10.644	0.061
Chi-Square p-value	-	-	0.001	0.805
Controls	✓	✓	✓	✓
Fixed Effects				
Hospital	✓	✓	✓	✓
Month	✓	✓	✓	✓
Year	✓	✓	✓	✓

Note: This table evaluates the sensitivity of our baseline estimates when adjusting for multiple treatments. For comparison, column (1) replicates the baseline estimates shown in column (2) in Panel B of Table 3. In column (2), we additionally controls for the interaction of surgeon articles and CEO articles as proposed in de Chaisemartin and D'Haultfœuille (2023). In column (3) Surgeon articles are multiplied with the total number of CEO articles published in the month before the occurrence of the Surgeon scandal. Column (4) considers the cumulative article count. All specifications include population and newspaper circulation controls and year, month, and hospital fixed effects. Bootstrapped (1,000 replications) and wild clustered standard errors at the hospital level are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 8: Media Coverage of Corruption Scandals and Opposed and Actual Donations

	Raw Number			Average	Share
	(1)	(2)	(3)	(4)	(5)
Panel A	Dependent Variable: Oppositions to Organ Donation				
Surgeon	-0.002	-0.003	-0.002	-0.001	-0.001
	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)
Surgeon × Affected	-0.005	-0.001	-0.005	-0.001	-0.001
	(0.003)	(0.002)	(0.003)	(0.002)	(0.001)
CEO	-0.002	-0.002	-0.002	-0.002	-0.000
	(0.002)	(0.002)	(0.003)	(0.002)	(0.001)
CEO × Affected	0.002	0.002	0.002	0.002	0.000
	(0.003)	(0.003)	(0.003)	(0.002)	(0.002)
Observations	4,320	4,320	4,320	4,176	4,320
Panel B	Dependent Variable: Actual Donors				
Surgeon	0.004	0.003*	0.003	0.000	0.002
	(0.004)	(0.002)	(0.004)	(0.002)	(0.002)
Surgeon × Affected	-0.013***	-0.001	0.004	-0.004	-0.002
	(0.005)	(0.002)	(0.005)	(0.002)	(0.002)
CEO	0.004	0.004*	0.005	-0.000	0.003*
	(0.003)	(0.002)	(0.004)	(0.003)	(0.002)
CEO × Affected	-0.002	-0.003	-0.004	0.002	-0.004**
	(0.004)	(0.002)	(0.004)	(0.003)	(0.002)
Observations	4,320	4,320	4,320	4,176	4,320
Controls	✓	✓	✓	✓	✓
Fixed Effects					
Month	✓	✓	✓	✓	✓
Year	✓	✓	✓	✓	✓
Hospital	✓	✓	✓	✓	✓
Control for Reported Donors					
Reported Donors	-	✓	-	✓	✓
Predicted Reported Donors	-	-	✓	-	-

Note: This table shows the DiD estimates of the effect of the media coverage of the CEO and surgeon scandals on oppositions to organ donation (Panel A) and on the number of actual donors (Panel B). The dependent variable is the number of oppositions to organ donation (Panel A) and the number of actual donors (Panel B) at the hospital-month-year level. The weighted number of newspaper articles is constructed by weighting the provincial number of newspaper articles on both scandals by the respective yearly newspapers market shares shown in Figure 4. Affected regions include Piedmont and Aosta Valley. All specifications are estimated using OLS. The specification in column (2) controls for the number of reported donors. The specification in column (3) controls for the predicted number of reported donors as predicted by the estimates in Table 3, column (2). In column (4), the dependent variable is the three-month moving average of oppositions to organ donation (Panel A) and actual donors (Panel B). In column (5), the dependent variable is the share of oppositions to organ donation (Panel A) or actual donors (Panel B) over the number of reported donors. All specifications include population and newspaper circulation controls and year, month, and hospital fixed effects. Bootstrapped (1,000 replications) and wild clustered standard errors at the hospital level are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Appendix

A.1 OLS Model

Additionally to the DiD specification described in Section 3.2 we estimate the following specification:

$$D^R_{ht} = \beta N_{p(h)t} + \boldsymbol{X}_{p(h)t}\gamma + f(\theta_h, \delta_t) + \varepsilon_{ht}, \tag{A.1}$$

where D^R_{ht} represents the monthly number of reported organ donors identified by the medical staff in each hospital h located in province $p(h)$ in period (month-year) t. We proxy the perception of corruption with the number of newspaper articles dealing with the two scandals at Hospital 'Molinette' between 2001 and 2005. N is the weighted number of monthly (t) newspaper articles about the two corruption cases circulated in province p. We consider N as a shifter for optimal effort e^*. $\boldsymbol{X}_{p(h)t}$ is a vector of controls for population, newspaper circulation at the provincial level, and hospital-specific time trends. Finally, several combinations of hospital, month, and year fixed effects are included in the model. β is the coefficient of interest for the analysis as it represents the effect of an extra article on the corruption scandals on the number of reported donors.

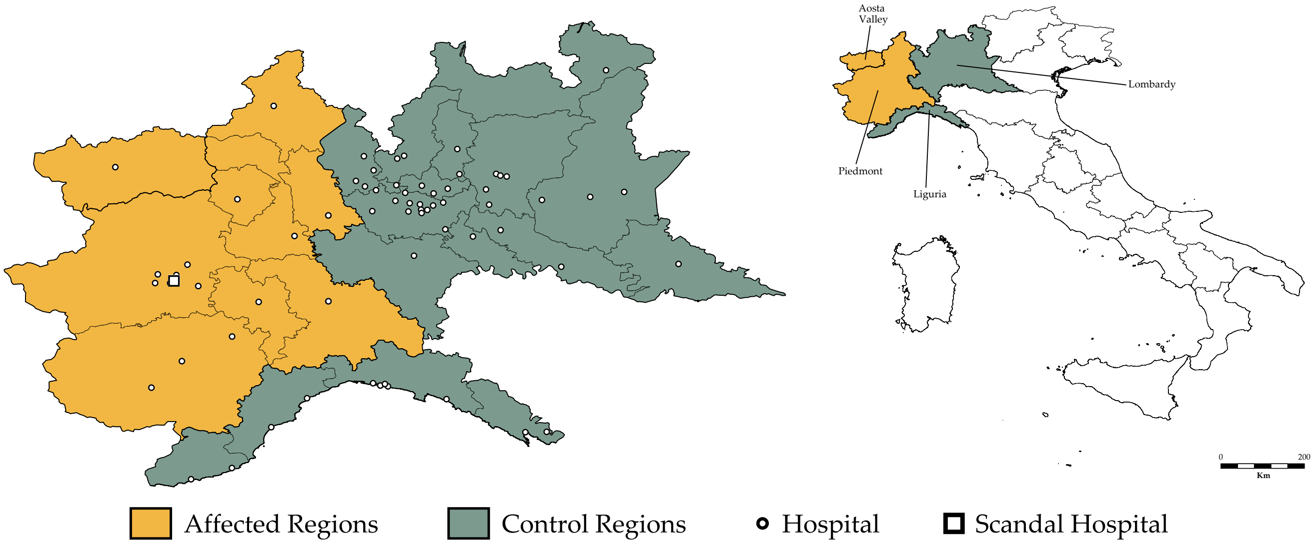
Cases of corruption involving different actors in the organ donation process imply differential effects on reported donors, e.g., the medical staff may perceive the information content of a case involving a surgeon versus a CEO differently. Therefore, we enrich the previous model by considering the two cases of corruption separately:

$$D^R_{ht} = \beta_1 N^C_{p(h)t} + \beta_2 N^S_{p(h)t} + \boldsymbol{X}_{p(h)t}\gamma + f(\theta_h, \delta_t) + \varepsilon_{ht} \tag{A.2}$$

where N^C is the weighted number of newspaper articles referring to the corruption case involving the hospital CEO, and N^S is the weighted number of newspaper articles about the case of corruption involving the hospital surgeon. In this case, we are interested in the coefficients β_1 and β_2 that measure the effect on the number of reported donors given an extra article on the CEO and surgeon scandal, respectively.

A.2 Additional Figures

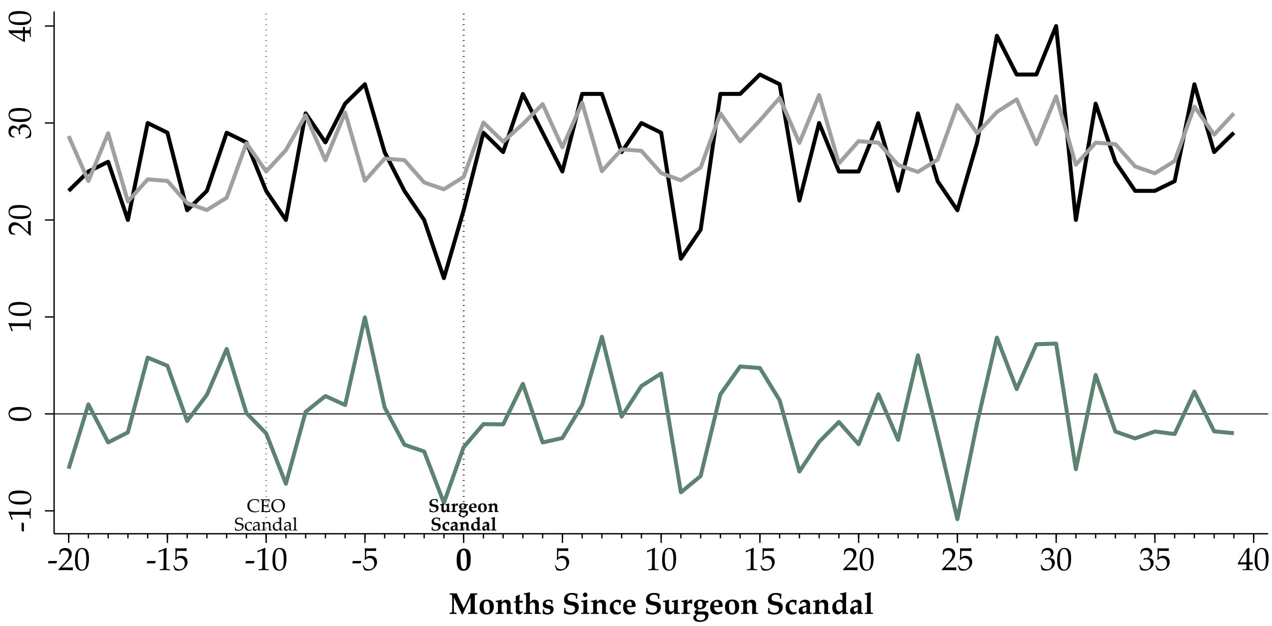
Figure A.1: Hospital and Region Locations



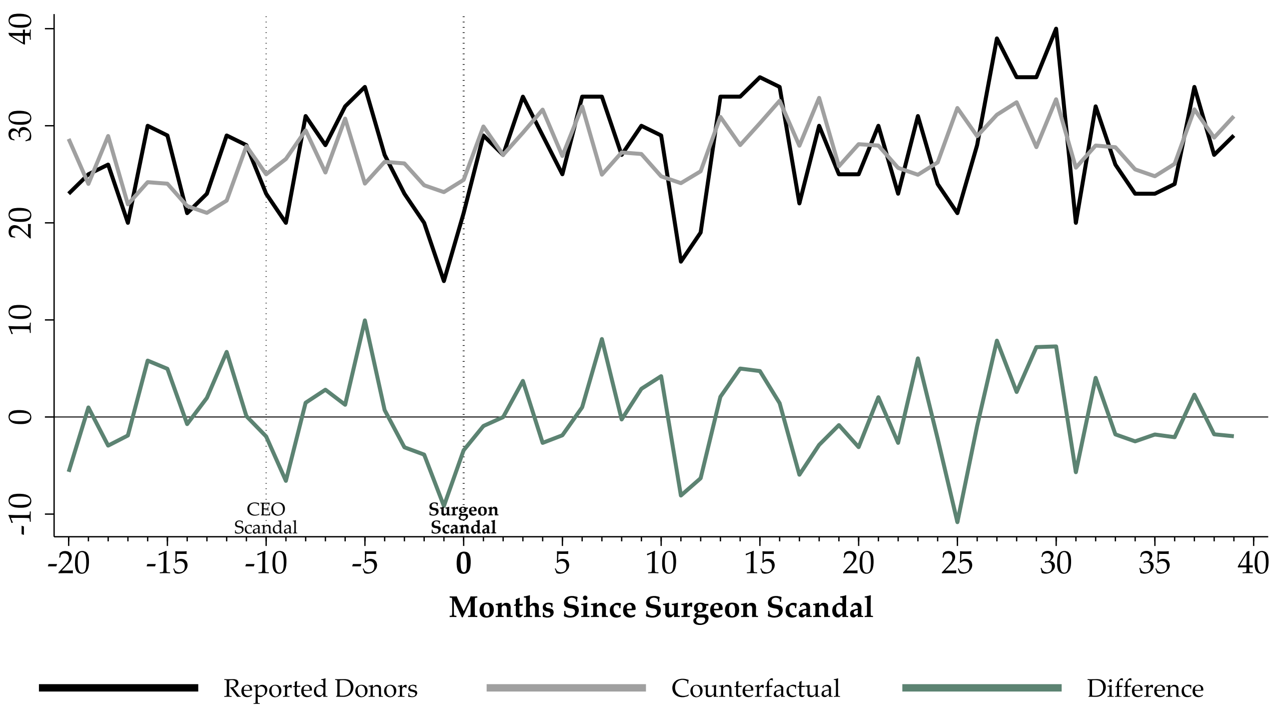
Note: This map shows the location of Piedmont and Aosta Valley (yellow) as well as Lombardy and Liguria (green). The map also illustrates the exact location of organ transplant units in the regions analyzed in this study.

Figure A.2: Counterfactual Effects by Time: The Case of Bordering Regions

(a) Bordering Regions: CEO Scandal

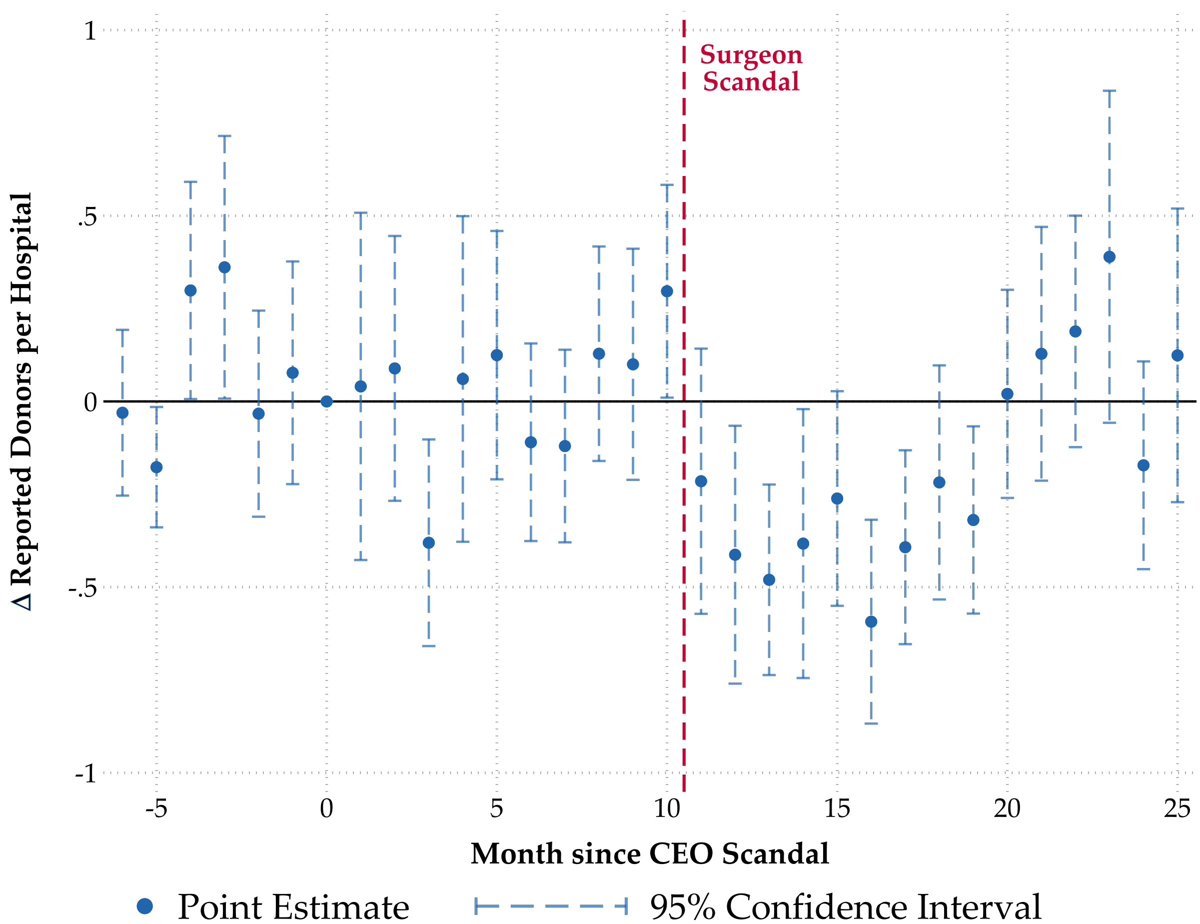


(b) Bordering Regions: Surgeon Scandal



Note: The figure depicts actual and counterfactual reported organ donations across time for the case of bordering regions. The counterfactual is constructed by predicting reported donors using the estimates from Table 3, column (2) and by setting to zero the coefficient for the number of articles on the surgeon case. The time series on reported donors results from averaging the hospital-level data in the bordering regions by year-month and subsequently centering it around the onset of the surgeon scandal.

Figure A.3: Joint Event-study Estimates



Note: The figure displays point estimates and 95 percent confidence intervals on the effect of the Surgeon scandal on the number number of reported donors. All estimates are based on the regression model in Equation 2. Standard errors are clustered at the hospital level.

A.3 Additional Tables

Table A.1: Descriptive Statistics – Pre- and Post-CEO Scandal

	Affected Regions		Bordering Regions		
	Mean (1)	SD (2)	Mean (3)	SD (4)	Difference (5)
Panel A: Pre-CEO Scandal					
Organ Donations					
Reported Donations	0.653	1.087	0.504	1.074	0.091***
Opposed Donations	0.169	0.437	0.095	0.365	0.091***
Actual Donations	0.463	0.840	0.342	0.777	0.091***
Newspaper Coverage					
Articles on Surgeon Scandal	0.000	0.000	0.000	0.000	0.000
Articles on Surgeon Scandal (3 Month Average)	0.000	0.000	0.000	0.000	0.000
Articles on CEO Scandal	0.000	0.000	0.000	0.000	0.000
Articles on CEO Scandal (3 Month Average)	0.000	0.000	0.000	0.000	0.000
Newspaper Circulation / 1,000 inhabitants					
La Stampa	58.641	12.778	7.013	14.632	69.353***
Il Corriere Della Sera	4.178	0.910	43.318	90.376	-7.916***
Observations	242		550		
Hospitals	22		50		
Panel A: Post-CEO Scandal					
Organ Donations					
Reported Donations	0.745	1.129	0.556	1.131	0.306***
Opposed Donations	0.224	0.513	0.113	0.394	0.224***
Actual Donations	0.472	0.811	0.388	0.854	0.041***
Newspaper Coverage					
Articles on Surgeon Scandal	1.872	6.069	1.217	3.649	2.513***
Articles on Surgeon Scandal (3 Month Average)	1.872	4.794	1.216	2.872	2.514***
Articles on CEO Scandal	2.004	7.037	1.544	4.353	2.172***
Articles on CEO Scandal (3 Month Average)	1.995	6.062	1.541	3.692	2.156***
Newspaper Circulation / 1,000 inhabitants					
La Stampa	49.761	10.603	6.576	12.431	58.909***
Il Corriere Della Sera	4.829	1.031	35.549	67.396	-5.270***
Observations	1,078		2,450		
Hospitals	22		50		

Note: This table shows descriptive statistics for the sample before and after the CEO scandal. The difference reported in column (5) is the coefficient obtained by regressing an indicator for affected regions on the respective variable controlling for year, month, and hospital fixed effects. Significance levels are constructed from bootstrapped (1,000 replications) and wild clustered standard errors at the hospital level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.2: Descriptive Statistics – Pre- and Post-Surgeon Scandal

	Affected Regions		Bordering Regions		
	Mean (1)	SD (2)	Mean (3)	SD (4)	Difference (5)
Panel A: Pre-CEO Surgeon					
Organ Donations					
Reported Donations	0.693	1.126	0.502	1.065	0.095***
Opposed Donations	0.223	0.515	0.092	0.357	0.143***
Actual Donations	0.444	0.815	0.349	0.796	-0.000
Newspaper Coverage					
Articles on Surgeon Scandal	0.000	0.000	0.000	0.000	0.000
Articles on Surgeon Scandal (3 Month Average)	0.000	0.000	0.000	0.000	0.000
Articles on CEO Scandal	3.930	10.362	2.880	6.334	4.379***
Articles on CEO Scandal (3 Month Average)	4.299	9.229	3.178	5.497	4.748***
Newspaper Circulation / 1,000 inhabitants					
La Stampa	56.515	12.462	6.905	13.928	66.792***
Il Corriere Della Sera	4.222	0.912	40.481	82.389	-6.313***
Observations	462		1,050		
Hospitals	22		50		
Panel A: Post-Surgeon Scandal					
Organ Donations					
Reported Donations	0.747	1.120	0.570	1.149	0.359***
Opposed Donations	0.210	0.493	0.119	0.404	0.231***
Actual Donations	0.485	0.817	0.396	0.864	0.077***
Newspaper Coverage					
Articles on Surgeon Scandal	2.352	6.720	1.529	4.032	3.157***
Articles on Surgeon Scandal (3 Month Average)	2.352	5.268	1.528	3.144	3.159***
Articles on CEO Scandal	0.402	1.024	0.390	0.770	0.371***
Articles on CEO Scandal (3 Month Average)	0.413	0.746	0.388	0.576	0.396***
Newspaper Circulation / 1,000 inhabitants					
La Stampa	48.629	10.003	6.498	12.169	57.228***
Il Corriere Della Sera	4.972	1.010	34.878	65.396	-5.541***
Observations	858		1,950		
Hospitals	22		50		

Note: This table shows descriptive statistics for the sample before and after the Surgeon scandal. The difference reported in column (5) is the coefficient obtained by regressing an indicator for affected regions on the respective variable controlling for year, month, and hospital fixed effects. Significance levels are constructed from bootstrapped (1,000 replications) and wild clustered standard errors at the hospital level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.3: The Effect of Corruption News on the Number of Reported Donors

	Dependent Variable: Number of Reported Donors					
	OLS Model			Poisson Model		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Total Number of Articles						
Total Articles	-0.005*	-0.006	-0.006	-0.006	-0.008*	-0.008
	(0.003)	(0.004)	(0.004)	(0.003)	(0.005)	(0.005)
Observations	1,320	1,320	1,320	1,320	1,320	1,320
Panel B: Disaggregated Number of Articles						
Surgeon	-0.016***	-0.016***	-0.015***	-0.029***	-0.029***	-0.029***
	(0.005)	(0.006)	(0.005)	(0.009)	(0.007)	(0.007)
CEO	0.003	0.001	0.001	0.004	0.000	0.000
	(0.004)	(0.005)	(0.005)	(0.004)	(0.005)	(0.006)
Observations	1,320	1,320	1,320	1,320	1,320	1,320
Controls	✓	✓	✓	✓	✓	✓
Fixed Effects						
Hospital	-	✓	✓	-	✓	✓
Month	-	✓	✓	-	✓	✓
Year	-	✓	✓	-	✓	✓
Month × Hospital	-	-	✓	-	-	✓

Note: This table shows the effect of the media coverage of the CEO and surgeon scandals on the number of reported donors. The dependent variable is the number of reported donors at the hospital-month-year level. The weighted number of newspaper articles is constructed by weighting the provincial number of newspaper articles on both scandals by the yearly newspaper market shares shown in Figure 4. Specifications in columns (1)–(3) are estimated using OLS, and columns (4)–(6) are estimated as Poisson regression models. In columns (1)–(6) we include controls for population and newspaper circulation. In columns (2) and (5), we include year, month, and hospital fixed effects. We interact with month and hospital fixed effects in columns (3) and (6). Bootstrapped (1,000 replications) and wild clustered standard errors at the hospital level are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.4: Media Coverage of Corruption and Reported Donors: The Case of TV News

	Dependent Variable: Number of Reported Donors					
	OLS Model			Poisson Model		
	(1)	(2)	(3)	(4)	(5)	(6)
Surgeon	-0.015***	-0.017***	-0.017***	-0.029***	-0.033***	-0.033***
	(0.005)	(0.006)	(0.006)	(0.009)	(0.010)	(0.010)
CEO	-0.000	-0.002	-0.002	0.001	-0.003	-0.003
	(0.003)	(0.004)	(0.004)	(0.004)	(0.006)	(0.006)
Observations	1,320	1,320	1,320	1,320	1,320	1,320
Controls	✓	✓	✓	✓	✓	✓
Fixed Effects						
Hospital	-	✓	✓	-	✓	✓
Month	-	✓	✓	-	✓	✓
Year	-	✓	✓	-	✓	✓
Month × Hospital	-	-	✓	-	-	✓

Note: This table shows the effect of the media coverage of the CEO and surgeon scandals on the number of reported donors. The dependent variable is the number of reported donors at the hospital-month-year level. TV coverage is measured as the number of news about the two corruption scandals broadcasted by the regional TV news in Piedmont and the Aosta Valley. Specifications in columns (1)–(3) are estimated using OLS, and columns (4)–(6) are estimated as Poisson regression models. In columns (1)–(6) we include controls for population and newspaper circulation. In columns (2) and (5), we additionally include year, month, and hospital fixed effects. In columns (3) and (6), we additionally interact with month and hospital fixed effects. Bootstrapped (1,000 replications) and wild clustered standard errors at the hospital level are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.