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Guarding the Guardians: An Analysis of Investigations against Police

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Guarding the Guardians: An Analysis of Investigations against Police Officers in an Internal Affairs Division

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ABSTRACT

Internal affairs divisions are organizations crafted to monitor the behavior of police officers. However, like many other public bureaucracies, the police is plagued with the "who guards the guardians" dilemma, which is a typical organizational design problem that occurs when the agents to be monitored are appointed as monitors. Consequently, there are reasons to believe that investigations will be inherently biased towards of certain police officers and certain types of deviations. In this paper we examine reasons why some complaints against police officers are sustained or not and if these complaints foster or not consequential sanctions. We employ a distinct dataset containing detailed information on investigation processes against police officers performed by the internal affairs division of a police organization in Brazil. We find that while certain organizational procedures adopted by the internal affairs division increase the speed in which the investigation is concluded, certain officer-specific characteristics (such as the status and tenure of the officer) and the nature of the accusation significantly affect the final verdict, thus suggesting potential bias in the overall process.

Key words

Internal affairs divisions, police, organization of public services, accountability

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"I don't see how the division can investigate itself"

Al Pacino's line in the movie *Serpico*

"… it would be ridiculous for a *guardian* to need a guardian himself!"

Plato, *Republic* (translated by C. Reeve)

1. Introduction

Public services normally involve the delegation of complex activities to agents who can exert suboptimal effort and deviate in myriad ways. Recent calls for improved "accountability" of state bureaucracies are a manifestation of society's increased concern towards appropriate execution and satisfactory performance of public services (Moore 1995). Thus, public officials with record of absenteeism, involvement in corruption schemes or favoritism should be severely punished and even, in extreme cases, relieved from duty; anticipating this threat, the official would ideally refrain from engaging in any type of misconduct. However, the exercise of crafting effective control mechanisms in the context of public services is plagued with two key difficulties (Dixit 2002). First, in most cases, performance is difficult to measure and observe (e.g. "adequate" use of force by the police); establishing *ex ante* incentive mechanisms for proper execution is cumbersome. Second, the multiplicity and diffuse nature of "stakeholders" (citizens, government officials, nongovernmental organizations, etc.) greatly attenuates the intensity and effectiveness of direct monitoring.

In attempt to deal with these challenges, the oversight of public sector agencies is normally performed by a combination of internal supervisory mechanisms and external control performed by independent governmental agencies. But then the following question emerges: what guarantees that public bureaucrats will effectively monitor other public bureaucrats? In fact, we have here the classic organizational design problem of "who guards the guardians," "who watches the watchmen," or "who monitors the monitors." This dilemma is prevalent in several organizational contexts such as legislatures (Capeletti 1983), self-management teams (Alchian & Demsetz 1972), regulatory agencies (Stigler 1971), hybrid public-private arrangements (Cabral, Lazzarini & Azevedo forthcoming), among several others (see, for instance, Hurwicz 2008).

The "who guards the guardians" problem is particularly relevant when monitoring is performed *internally*, through supervisory bodies established within a given public organization; internal investigation committees in public legislatures and internal affairs divisions in the police are typically examples. These internal bodies will then have two types of individuals: *agent-executers*, responsible for executing the required public service tasks, and *agent-monitors*, in charge of monitoring agent-executers. Sometimes the problem is so acute that the same person occupies those two roles. Specifically in the context of internal affairs divisions (IADs), judgment and punishment tend to be in the hands of the very police officers who are supposed to be monitored (Prenzler 2000). Even when IAD officers are specialized in their monitoring function, in some cases they may be previous police officers (agent-executers) or return to normal police duties after the leave the IAD.

In this context, deviant officials may use various channels of influence to obstruct evidence collection and affect the final judgment; similarly, investigating commissions may refrain from punishing top colleagues and turn a blind eye to certain deviations that are considered as "normal" among police officers (for instance, deliberate aggression against suspects). Consequently, there are reasons to believe that investigations will be inherently biased towards of certain police officers and certain types of deviations (Liederbach, Boyd, Taylor & Kawucha 2007). Arguably, assigning external, police-independent governmental agencies to monitor IADs may help reduce those biases; however, the process of evidence collection usually starts internally and thus requires complementary action between internal and external investigation bodies (Stone 2007).

Although there is vast anecdotal evidence of police misconduct and biased judgment in several countries (Human Rights Watch 2009; Klockars, Kutnjak & Haberfeld 2006; Punch 2009), empirical research on IADs has been surprisingly scant.[1] Yet, understanding these factors is critical to inform the efficient design of monitoring and control devices within public bureaucracies such as the police. This void in the literature can be explained, in part, because of the confidential nature of investigations and the resistance of police departments to expose the work of internal affairs divisions to outside scrutiny (Liederbach et al. 2007).

In this paper, we employ a new and distinctive database containing detailed information on administrative processes against police officers who allegedly deviated. Our database includes extensive information on administrative process against officers between 1999 and 2006 in the internal affairs division of a police organization located in a particular State in Brazil. Our goal is to understand the reasons why some complaints against police officers are sustained or not and if these complaints foster or not consequential sanctions. The uniqueness of our database is due to its detailed information on internal investigations, allowing us to examine not only the likelihood that a process will be concluded after some time since it was initiated, but also the final outcome (namely, whether the process resulted in conviction or not, and the harshness of the associated punishment). Furthermore, we can relate these outcomes to several officer- and case-specific variables that are also available in

[1] Economists (Becker 1968; Glaser & Sacerdote 1999; Levitt & Donohue III 2001) and public administration scholars (Fleming 2008; Jobson & Schneck 1982; Needham 2009) have long studied criminal justice and law enforcement; however, issues related to the internal monitoring of the police remain relatively unaddressed. Previous work by sociologists (Mulcahy 1995) and criminologists (Kappeler, Sluder & Albert 1998; Klockars, Kutnjak & Haberfeld 2006; Liederbach et al 2007; Prenzler 2000; McElvain & Kposowa 2004; Prenzler & Lewis 2005; Walker 2006) has examined the functioning of internal divisions; however, to our best knowledge there is no specific study focusing on the factors that may facilitate or thwart the effective conclusion of processes against police officers who engage in deviations.

our database: officers' function in the police organization, their hierarchical status, the nature of the complaint, the type of investigation commission involved in the case, among several other variables of interest.

More specifically, we run the analysis in two stages: the first stage examines factors affecting the conclusion of investigations, and the second stage evaluates the determinants of the final judgment (conditional on conclusion). Procedures to guarantee a faster conclusion of investigations are crucial in our context: although, according to State Law, investigations should be concluded in at most four months, the majority of processes in our database lasted much longer. Thus, both the speed of conclusion and the final judgment are important dependent variables to be examined.

In our extensive econometric analysis, we find that the likelihood (and speed) of conclusion of investigations in the internal affairs division is influenced by the mechanism devised to craft investigation commissions. In particular, commissions formed with fixed, handpicked, specialized police officers tend to investigate and judge cases faster than commissions temporarily formed with rotating members, who normally act simultaneously as agent-monitors and agent-executors. We found no evidence, however, that those fixed members are susceptible to influence activity by the investigated officers with whom they have likely "ties"—for instance, agent-executors with a record of joint work with agent-monitors (commission members) who used to be agent-executers in the past.

Surprisingly, the position of officers in the hierarchy and their tenure does not significantly affect the speed of conclusion. Thus, it seems that officers are unable to use their internal "status" so as to obstruct the investigation process and postpone the conclusion of the case. However, our analysis of the determinants of the final judgment revealed that high-ranking, experienced officers are less frequently punished in a harsh way than their younger colleagues. Furthermore, we found differential effects associated with the type of accusation: for instance, police officers accused of using violence against suspects tend to receive milder punishment than officers accused of involvement in extortion practices (for example, requesting money from citizens in return for protection). Some interviewed officers revealed to us that some degree of violence is oftentimes seen as "acceptable" to effectively conduct criminal investigations, whereas extortion is a practice loathed by officers in the internal affairs division. Thus, this result suggests that informal norms and codes of conduct within the police do affect the extent to which deviant officers will be punished. Our data also reveal several other interesting factors that affect the conclusion and final judgment of investigations.

Our paper is structured as follows. The next section discusses the dynamics of internal affairs divisions. We then describe our context and data. The econometric results are subsequently presented and discussed. Concluding remarks follow.

2. The Dynamics of Internal Affairs Divisions

Within the so called "New Public Management" paradigm, public organizations seek to exert efforts to increase performance and conform to accountability standards (Barberis 1998). Police services are not immune to such a trend (Butterfield, Edwards & Woodall 2005). Although laws and internal norms guide police work (Licht 2009), the act of monitoring police officers' conduct is essential as myriad situations faced in daily activities may prompt wrongdoing. In fact, in order to prevent crime and to enforce criminal laws, police officer's duties frequently involve use of coercive force (Dick 2005); and, due to their inherent proximity with criminal activity, police officers may be particularly prone to illicit arrangements. A brief inspection in daily newspapers throughout the world unveils several cases of crimes committed by "criminals in uniform" (Punch 2000).

Stone (2007) argues that there are three levels of police accountability: internal, external and societal. Internal affairs divisions (IADs) correspond to the first sphere, while independent governmental bodies and civilian "watch" agencies represent external and societal monitoring mechanisms. In particular, IADs throughout the world have basically the objective of monitoring the actions and/or omissions of police officers that imply violation of law or departmental rules. In a nutshell, IADs investigate complaints against police officers, which may originate from diverse sources such as citizens, police departments' internal agents, and defense attorneys. Allegations of misconduct may be sustained or not; and, according to the IAD's specific rules, several possible punishments can be applied, including oral reprimand, suspension without pay, loss of promotional opportunity and termination of duty, among others (Klockars et al 2006; State of New Jersey 2000).

However, because IAD officers are normally detectives, inspectors and chiefs of the same law enforcement agency which they are supposed to monitor, the fundamental problem of "who will guard the guardians", posed by Plato in his seminal work *The Republic*, becomes critical. As noted in the introduction, whenever agent-monitors are assigned to supervise (and, eventually, punish) agent-executors, there is no guarantee that effective enforcement will occur. Agent-monitors, in this case, do not necessarily have proper incentives to punish deviants and may even be susceptible to influence activity by the accused colleagues (Girodo 1998; De Angelis & Kupchik 2009). Some even talk about an implicit "code of silence" in the police: a ploy to protect officers who have deviated (Herbert 1998). Loyalty and fear of retaliation are among the reasons for sustaining that code (Skolnick 2002). Officers who try to enforce the rule of law by "blowing the whistle" are often ostracized and may even be subject to retaliation by colleagues (Punch 2000). For this very reason, IAD officers are generally seen very negatively in the police force (Crank 1998; Rotwell & Baldwin 2007); in the United States, for instance, they are normally labeled by other police officers as “rats” and “cheese eaters,” among other depreciative adjectives (Skolnick 2002). To be sure, this problem of “who guards the guardians” is not exclusive of the police force; state leaders, politicians, legislators and public agents in general are thought to need a great deal of oversight (Hurwicz 2008).

Despite the fact that internal affairs organizations throughout the world differ in terms of internal rules and criteria to appoint agent-monitors, the same dilemma prevails: there is a perception that investigations are biased toward certain police officers under investigation (Lewis 1999). Not surprisingly, complaints of biased investigations have emerged in diverse countries such as Australia (Prenzler 2000), Brazil (Human Rights Watch 2009), Canada (Landau 1996), United Kingdom (Punch 2009; Waters & Brown 2000), Netherlands (Punch 2009), United States (Klockars et al 2006; Lasley 1994), among several others. It is true that, in more developed institutional environments, the coexistence of external (police-independent) and societal monitoring bodies may help provide checks and balances to the monitoring activity of IADs. However, even in those contexts, external monitoring will likely depend on the effectiveness of IADs. Most investigation processes, for instance, start with the action of police officers themselves, who can readily hide or destroy incriminating evidence (Human Rights Watch 2009; Punch 2009). Furthermore, independent supervisory bodies may have limited staff to successfully investigate deviations. For this reason, Stone (2007: 256) posits that “a strong system of police accountability needs well-functioning structures at internal, governmental and societal levels.”

Which factors could then potentially influence IADs’ monitoring and enforcement of internal rules? We outline in this study three general factors: officer-specific characteristics related to their position and history in the police bureaucracy; internal procedures adopted by IADs; and aspects related to the nature of the accusation. We discuss each in turn.

2.1. Officer-Specific Factors

Organizational scholars have advocated that an individual's position and experience in the hierarchy should affect his or her ability to influence decisions (Crozier 1963; Milgrom & Roberts 1990). In this sense, we expect that police officers in distinctive positions or positions appointed by other eminent individuals in the force have superior ability to influence bureaucrats involved in the analysis of internal cases. Likewise, agent-monitors working at IADs may refrain from recommending harsh punishment against such top officers fearing some form of retaliation. As in any other public or private organization, people in charge of verifying and denouncing wrongdoing can be harassed and ostracized (Miceli & Near 1994). Although external observers tend to judge that high-status wrongdoers deserve more severe punishment than low-status wrongdoers (Fragale, Rosen, Xu & Meredith 2009), punishment may be less likely when it involves high-status members of the organization (Near & Miceli 1987) and when "whistle blowers" believe that wrongdoers are more influent in the hierarchy (Gundlach, Douglas & Martinko 2003).

Age and experience in the police force may also influence investigation's outcomes. Thus, Ratcliffe, Biles, Green and Miller (2005) examined the incidence of drug-related complaints against police officers and found that these cases are most likely to be recorded against lower ranking, younger police officers. In another study, McElvain and Kposowa (2004) found that officers with five to nine years experience were eight times more likely to be investigated for the use of force than those with twenty or more years of experience. Thus, we expect that top officers and individuals with more experience in the police force will tend to exhibit higher ability to thwart the investigation process and avoid conviction. As a consequence, the incidence of nonsustained complaints may escalate and generate perceptions that investigations are poorly conducted and biased towards certain police officers (Liederbach et al 2007).

2.2. The Organization of IADs: Procedural Aspects

IAD investigators (agent-monitors) are normally officers who have previous field experience and who, in some cases, work exclusively on investigations of misconduct. However, there is substantial heterogeneity in the way IADs are organized, even within a given country. While some IADs act by simply investigating complaints that emerge in the police force, other agencies have more proactive roles in avoiding officers' misconduct. For example, the New York Police Department (NYPD) conducts (via its Internal Affairs Bureau) integrity tests where opportunities for officers to commit crimes are provided and the police officer's reactions are evaluated (Prenzler & Ransley 2002). In line with Stone's (2007) discussion of multiple levels of accountability, the NYPD has also promoted organizational innovations, such as the Investigative Review Unit (IRU), to perform constant evaluation of the investigations carried out by the Internal Affairs Bureau (CCPC 2000). In this case, there is some sort of "the police of the police of the police" crafted to assure the effectiveness of the investigations. The existence of these specialized, insulated structures should arguably be less subject to biased judgment—although, as we noted before, the performance of external supervisory agencies should still depend on well-functioning internal bodies (Stone 2007).

In some contexts, however, internal supervisory bodies may be precarious. Kelly (2003) shows that 87% of police departments in the United States consist of fewer than 25 sworn officers. Some departments may lack organizational capability to conduct effective investigations. We may not even observe, in some cases, a formal separation between agent-monitors and agent-executers: officers who are not familiar with the peculiarities of internal affairs investigations may be assigned to temporary investigative roles. Thus, even in countries with external oversight and stronger legal procedures to punish wrongdoing, one might find IAD structures that are neither specialized nor completely insulated from internal influence (Klockars et al 2006; Punch 2009; Walker 2000).

2.3. Accusation-Related Factors

The outcomes of the investigations conducted within IAD may also depend on some factors related to the case itself. The type of accusation has two critical features. First, it should be influenced by social norms and codes of conduct among police officers. Tolerance against misconduct—both external and internal—is likely to be greater when the malpractice is seen as necessary to preserve the integrity of officers in duty (Rappert 2002) and victims (Seron, Pereira & Kovath 2004). In fact, many police officers (and also some citizens) believe that "there is nothing wrong with police officers using foul, insulting, abusive, or threatening (though not racist) language in response to citizens who insult, defy, or resist them" (Klockars et al 2006: 5). As another example, some say that drug trafficking—a very profitable activity for deviant officers—is normally protected through a code of silence among colleagues thus discouraging the necessary complaints and investigations (Carter 1990).

Second, the type of accusation might be affected by its "saliency." Although most misconduct cases have low public visibility (Newburn 1999), certain deviations are more "salient" (e.g. brutal crimes or violence against innocent citizens) and, consequently, are more likely to be disseminated by the media. In fact, media portrayal of officer malpractice is thought to influence public opinion and shape the relationship between society and police departments (Graziano, Schuck & Martin 2010; Weitzer 2002). For example, the scenes of brutality and abuse of authority by officers of the Los Angeles Police Department against Rodney King in 1991 were considered the "most costly civil disturbance in the nation's history" (Jacobs 1996: 1240) and reinforced negative perceptions of police fairness (Lasley 1994). Public external pressure may thus prompt IAD officers to investigate such internal deviations, which increasing the odds of detection (Bac, 2001) and perhaps leading to more severe punishment.

3. Context and Data

We analyze 639 disciplinary processes against police officers conducted by the General Internal Affairs Division (GIAD) of the police force of a Brazilian State.[2] The GIAD is a unified agency responsible for overseeing all specialized divisions in the State: the civil police, the military police, and the technical police, which themselves have their own internal affairs bodies. GIAD is directly subordinated to State Public Security Secretary so as the other police forces. We, however, were granted access to investigations initiated at the civil police force, which is in charge of investigating crimes, preparing inquiries and supporting subsequent legal processes against the accused citizens (Paes-Machado & Noronha 2003).

Investigations normally start at those local internal affairs divisions associated with each specialized body of the police. Initially, after an accusation is received, an initial assessment of the facts is performed. If the body of evidence associated with the accusation is scant or weak, then the process is closed; otherwise, a commission is formed so as to listen to the defendant. This phase should last at most 60 days. If the punishment recommended by the commission involves suspension from duty for more than 30 days, termination of employment and even criminal prosecution, then it is necessary to set up a formal process to be conducted by the GIAD. Although the investigations commissions formed by the GIAD are not subordinated to any specific unit of the police, all commission members (agent-monitors) are previous officers (agent-executers). Agent-monitors working at the GIAD may also be reassigned to regular police activities and work again with the very agent-executors who they investigated in the past. This reinforces the notion that there is no clear separation, in our context, between those who should monitor and those who should be monitored.

The final recommendation of the commission should then be subject to the final evaluation by the Chief of the GIAD and by the State Secretary of Public Security, who have

[2] The name of the State is not revealed for confidentiality reasons.

discretionary power to sanction or not the recommendation. If the final decision involves termination of employment, then the State Attorney should also analyze the case before the final punishment is sanctioned by the State Governor. In spite of these various phases and requirements, State Law requires that investigations should be concluded in 120 days. However, as we shall see below, most processes last much longer.

Within this context, we accessed a list of all investigation processes against police officers that were submitted to the GIAD between 1999 and 2006, and observed the outcomes of these processes until December 2008. Our definition of “investigation process” is rather specific: we focus each *police officer* suffering an accusation. In some cases, as we discuss below, an accusation involves more than one police officer. We had access to 683 processes; however, due to missing data in some cases, our sample was reduced to 639 observations. In each case, we collected information on whether the process was concluded or not, the duration (in months) until its conclusion (if any), and the final outcomes of the concluded processes (i.e. whether the police officer was convicted or not). We were also granted access to officers’ individual files, with a track record of officers’ duties, personal data and accusations within their specific departments.

The process of gathering information took more than 160 hours, between January and February 2009; during this period one of us had the opportunity to share the same room of some GIAD officers, thus facilitating interaction and allowing for a deeper understanding of the mechanisms and procedures within the division. We also conducted nine semi-structured interviews with GIAD members. Each interview took between 40 and 150 minutes. In addition, we organized a focus group with 30 officers (including detectives and chiefs) to identify their perceptions about police behavior and the work of internal affairs divisions. Finally, we were allowed to observe two actual interrogation sessions; each session took around 120 minutes. The extra qualitative information obtained in these interactions was not used to make any particular inference about mechanisms or outcomes involved in the GIAD; rather, our goal was to improve our understanding of the local context of the GIAD so as to facilitate the interpretation of our quantitative findings.

4. Estimation Methods and Variables

Given that we have information on both whether the process was concluded or not and the outcome of the judgment (conditional on conclusion), we analyze our data in two stages (Figure 1). We start by examining factors that will lead or not to the conclusion of the process, and the duration of the process until its conclusion (if any); and then, focusing on the investigations that were concluded, we assess how various factors influence the final outcome of the process. In particular, we verify whether the police officer was punished or not. Punishment, in turn, is associated with two possible outcomes: suspension or termination of duty. Officers under suspension are not allowed to perform its activities. Their guns, badges and internal identification codes are removed. And, during the period of the penalty suspended officers do not get paid, and the suspension may negatively interfere in future job promotions within the force. Yet, suspension is seen as a much milder punishment than termination.

Because the second-stage analysis is conditional on conclusion, there might be bias due to unobserved factors influencing both conclusion and the final outcome of the judgment. For instance, cases that are perceived to be more "serious" may be completed faster and lead to harsher punishment. As we discuss later, we adopt some econometric procedures to control for this possibility.

<<Figure 1 around here>>

Table 1 presents a description of our variables. Our dependent variables are basically measures coding the conclusion and outcomes of the investigations. *Conclusion* is a dummy variable coded 1 if the process was concluded or not and 0 otherwise; *Length* is the time (in months) between the starting date of the process and its conclusion date (or, in the case of processes that were not concluded, the last date of our data collection, December 2008). *Suspension* and *Termination* are dummies coded 1 if the police officer was convicted through suspension and termination of duty, respectively. Following our previous theoretical discussion, we employ three sets of explanatory variables: officer-specific characteristics related to their position and experience in the police; procedural aspects adopted by the internal affairs division to judge the case; and variables related to the case itself, such as the type of accusation and number of people implicated. We also add a set of officer-specific characteristics serving as control variables. We discuss each group of variables in turn.

<<Table 1 around here>>

Officer-specific, job-related variables. We collected data on several job-related aspects that might affect the propensity to punish or not an officer. *Staff*, *Chief* and *Special chief* are dummies coding, in an increasing order, officers' position in the hierarchy; special chiefs, in particular, are chiefs who have longer tenure in the police force**.** The baseline category, not included in our regressions, involves detectives, who usually work for the most part on the streets, outside the internal bureaucracy. *Commissioned job*, in turn, is a dummy related to a particular feature of the Brazilian bureaucracy: in some cases, officers are hired through referrals from other top officers to assume some critical functions; these officers are not hired through the normal process of recruiting involving competing candidates for the same opening and standardized tests. If these commissioned officers are under investigation, other top bureaucrats who appointed them might also be implicated, thereby creating incentives for those top bureaucrats to also vigorously act as a way to avoid conviction. Thus, one can think of a commissioned job as an indirect status of high position in the hierarchy. Finally, *Tenure* measures the time, in years, since the officer joined the force, evaluated at the process' starting date.

Procedural aspects. Cases within the GIAD are judged through two distinct procedures. *Permanent commissions* are comprised of fixed police officers with longer tenure (generally with more than twenty years) and with good reputation in the force; these officers are responsible for judging various processes and are expected to follow the usual judicial procedures (e.g. scheduling hearings for the accused officers and witnesses, documenting the overall process, etc.). The baseline case involves commissions formed on a case-by-case basis, without a fixed appointment of the involved officials. Therefore, in this case, officers participating in a given judgment are not specialized in the task of judging others; in other words, they are both agent-monitors and agent-monitors at the same time. In either configuration (fixed or temporary commission), it is possible that certain accused officers with past or current ties to current commission members will try to influence decisions. To verify this possibility, we also consider in our analysis two related variables: *Commission member*, which codes whether the accused officer previously worked in an investigation commission, and *Tie with commission member*, which is coded 1 if the accused officer worked in the past in the same police station jointly with any current member of the commission investigating his or her case.

Our interviewees indicated that permanent commissions have been usually applied to cases that occurred in the capital of the State and cases in the countryside that were lasting too long to be concluded. The view of the GIAD was that permanent commissions were more effective in investigating and judging more complex cases. Therefore, there is a potential endogeneity problem with this variable: unobserved factors that may affect the "difficulty" to conclude the case may cause a spurious correlation between the presence of permanent commissions and the likelihood of conclusion. We later discuss how we dealt with this problem.

Accusation-related variables. The variable *Number of accused* and *Number of accusations* code respectively the number of police officers under investigation in the process and the number of accusations involved the case (e.g. whether police officers are accused of a single type of deviation or multiple deviations). We then add a set of dummy variables coding the type of accusation: homicide, extortion, traffic, administrative fault, abuse and aggression. Typical examples of these violations from actual cases can be found in Table 2; in our subsequent regressions, we had to drop the dummies for abandon of duty and escape of prisoners because of the low incidence of these deviations in our database. Finally, we employ the dummy variable *Media coverage*, which indicates whether the case was covered by local newspapers or other media. As discussed before, external pressure may increase commission members' willingness to quickly conclude the case and eventually punish the officers implicated; or, alternatively, extensive media coverage can be an indicator of how "serious" was the deviation, which can also exert an influence in the final judgment.

Other control variables. We also code police officers' gender (*Sex* = 1 if the officer is male) and age (variable *Age*, measured in years assessed at the process' starting date). *Previous accusations* and *Previous convictions* code, respectively, the number of previous accusations in the GIAD and/or in other internal affairs division at lower levels of the state police, and the number of previous condemnations that the officer received, also evaluated at the process' starting date.

All these variables can possibly affect both the conclusion and the final outcome of the process. However, our two-stage analysis allows us to examine the differential effects of these variables on the conclusion of the process and the final judgment of the investigation commission. For instance, it is possible that police officers with high status in the hierarchy may adopt influence tactics so as to thwart or postpone the conclusion of a process; but it is also possible that such officers will want to influence commission members so as to avoid harsh punishment. Separating the analysis in two stages allows us to more precisely understand the dynamics of the internal affairs division under analysis. Below we describe the estimation methods used to model each stage.

First stage. Because we have information not only on whether a given process is concluded or not but also on the speed of its conclusion (namely, the final duration of the overall process), the use of survival analysis techniques appears to be appropriate in our context. Specifically, we model how the hazard rate function, $h(t)$, of cases entering the internal affairs division—more specifically, the rate at which an investigation process will be concluded given that it "survived" up to a particular month t—varies according to our independent variables described before (along these lines, see Kiefer 1988; Petersen 1993). The use of survival analysis allows us to effectively examine the impact of our independent variables on the speed of conclusion precisely because the analysis is conditional on whether a given concluded process was still pending up to a certain period. The so-called Cox proportional hazards model, in particular, adopts the following specification (Cox 1972):

$$h(t|\mathbf{x}) = h_0(t)exp(\mathbf{x}\boldsymbol{\beta}),$$

where $h(t)$ is the hazard rate function, $h_0(t)$ is the "baseline" hazard function (which is not parameterized), $\mathbf{x}$ is a vector of independent variables and $\boldsymbol{\beta}$ is a vector of their corresponding coefficients. The model also accommodates the possibility of "right censoring": investigations that were not concluded by the end of the temporal window of the database. Because our unit of analysis is an accusation associated with a particular officer, and because multiple officers may be implicated in the same accusation, we adjust the estimates of the standard errors so as to consider possible correlation between observations from officers associated with the same case.

Second stage. In the second stage, which models the final outcome of the process (judgment) conditional on conclusion, we use a variety of qualitative dependent variable models (Maddala 1983). We first treat the type of punishment (if any) in an ordinal fashion and employ an order probit model where the dependent variable assumes value of 0 if there was no conviction, 1 if the officer was suspended, and 2 if there was termination of duty. We then employ a multinomial logit model in order to examine how the coefficients of our independent variables may have differential effects in cases that involved suspension and termination (the baseline case being no conviction). Finally, because, as discussed before, the second stage is conditional on conclusion (which may therefore bias second-stage estimates), we employ a Heckman correction procedure (Heckman 1979) where the first stage (conclusion) and the second stage (incidence of suspension or termination) are specified as probit models. Both the first and second stages are jointly estimated through maximum likelihood (StataCorp 2009).

5. Results and Discussion

We first start with the descriptive analysis of our data and then turn to our more detailed econometric analyses.

5. 1. Descriptive analysis

Figure 2 shows the distribution of the investigation processes in our data according to their starting date; although most pending processes started in more recent years, we have instances of pending processes dating back to the beginning of our temporal window (1999). Focusing on the investigations that were effectively concluded, Figure 3 shows the distribution of the conclusion length (duration of the process). Although, by State Law, processes were required to be concluded in four months, the modal conclusion length in our sample is around 18 months and we have instances of investigations that lasted more than 100 months (let alone processes that were not even concluded by the time we finalized our data collection). This reinforces the view that a critical aspect in the GIAD's investigations has to do not only with the final outcome (whether the officer was punished or not), but also with the speed or duration of the overall process.

<<Figures 2 and 3 around here>>

Table 2 reports how investigations varied in terms of type of accusation. Considering all investigations (concluded or not), we observe that the most frequent accusations involve extortion (29.7%), abuse (27.4%) and aggression (27.5%). The frequencies reported in Table 1 do not sum up to 100% precisely because we have instances of multiple accusations; indeed, in 30.4% of the processes officers were accused of more than one type of accusation. The last three columns in Table 2 show the most frequent types of accusations according to the final outcome of the process. For instance, among all investigations that did not result in conviction, 27.3% and 24.8% were associated with aggression and abuse respectively. Likewise, among all investigations resulting in suspension, the most frequently observed deviations were extortion (34.8%), abuse (31.0%), administrative fault (29.3%), and aggression (29.3%). Finally, the majority of processes that resulted in termination of duty involved extortion (46.5%).

Our interviews revealed that extortion is, in particular, a type of behavior abhorred within the police force (a typical example of extortion is when an officer requests monetary payments from entrepreneurs in return for protection). In contrast, abuse and aggression against suspects are apparently seen as behaviors that are more "acceptable" if the officer is acting so as to actively solve a case and arrest the implicated criminals; hence their more frequent occurrence among investigations that resulted in no conviction or mild punishment (suspension).[3] It is also interesting to note the low incidence of cases involving drug trafficking, even though our informal discussions with GIAD members indicated that this is a

[3] This result is consistent with the survey by Klockars and colleagues among U.S. police officers. The authors find that officers consider corruption and extortion much more serious than aggression and abuse of force (Klockars et al 2009). We shall get back to this discussion after we present our more detailed econometric results.

profitable deviant activity for officers. This may echo some discussions in the literature suggesting that drug trafficking is oftentimes “protected” among officers, thus discouraging complaints within the system (Landau 1994). However, because we only have data about the process that entered the GIAD, we cannot make any inference about deviations that did not result in formal complaints.

Figure 4 depicts the breakdown of concluded investigations according to the final judgment and the year when the process was started. Although the outcome varies according to the starting year of the process, the majority of cases resulted in no conviction or suspension. Termination of duty, which is a much harsher punishment, was generally observed in around 20% of the concluded investigations. Notice, again, that our database covers only cases that escalated to the GIAD, which means that local (departmental) IADs already recommended conviction for the accused officers. Unfortunately, we were not granted access to processes initiated (and terminated) at local IADs.

<<Figure 4 around here>>

5.2. First stage: Determinants of the speed of conclusion

Table 3 reports regressions corresponding to our first stage (Cox regressions). The only difference between models (1) and (2) is that, in the latter, we specify the *Tenure* and *Age* variables as ranges based on some prespecified levels, so as to detect possible nonlinear effects (along these lines, see McElvain & Kposowa 2004). Models (1) and (2) show that the only variables that consistently display significant effects are *Permanent commission* and *Number of accused*. Model (2), for instance, shows that the presence of a permanent commission increases the rate of conclusion by around 36.9% (p < 0.05), whereas each additional officer involved in the process reduces the rate of conclusion by 11.5% (p < 0.05). No strong significant effect is found for officer-related variables such as their position in the hierarchy, their tenure, and other specific characteristics (such as age, sex or previous accusations); likewise, no consistent effect is found for case-related variables, except for *Number of accused* and *Media coverage*—although the latter is only moderately significant ($p < 0.10$).

Thus, results suggest that fixed, specialized, handpicked officers commonly found in permanent commissions tend to be more effective in the conduction of investigations than the variable, non-specialized ones found in commissions that are temporarily formed to judge a certain case. The insignificance of both *Commission member* and *Tie with commission member* further indicates that accused officials who used to be commission members and who worked in the past with some current member are apparently unable to use their knowledge of judgment processes and possible social ties with current commission members so as to postpone the conclusion of the investigation. Likewise, there is no evidence that commission members postpone the conclusion of the investigation when former colleagues are implicated. The negative, significant effect of *Number of accused*, in turn, points to the escalating difficulty in investigating multiple individuals. Our interviewees indicated that the process of collecting evidence against multiple individuals is much more complicated than in the case with a single accused officer.

<<Table 3 around here>>

Models (3) to (5) adopt alternative specification so as to check for the robustness of the effect of *Permanent commission*. The proportional hazards specification assumes that the ratio of hazard rates for two observations with distinct values of the independent variables is constant over time. However, certain variables may have differential effects according to the observed length of the process, thereby violating the proportional hazards assumption. A possible way to verify the existence of such time-varying effects is to compute the residuals of the Cox regression and see how they vary according to the lifetime of the process; this is the so-called test of Schoenfeld residuals (Cleves et al. 2004: 200-203). Indeed, the test rejects the proportional hazards assumption and indicates that this rejection is mostly due to the variable *Permanent commission*.

We thus proceed by specifying, in model (3), the variable *Permanent commission* as a time-varying covariate. i.e., adding in the regression a multiplicative term *Permanent commission* × *Time* which allows us to model how the effect of the variable changes according to the observed length (in months) of the process. Estimates indicate a positive, strongly significant time-varying effect of the permanent commission ($p < 0.01$): the positive effect of this type of commission in accelerating the rate of conclusion increases by around 3.6% with each additional month in the lifespan of the process. In other words, permanent commissions are particularly effective for investigations that are expected to last long.

Model (3), however, shows a negative, significant effect of *Permanent commission* jointly with a positive, significant effect of *Permanent commission* × *Time*. Given the difficulty in interpreting results when both time-invariant and time-varying effects are observed, we perform two additional analyses. We first analyze graphically how the probability of "survival" of investigations varies according to time and distinct regimes associated with the presence or not of a permanent commission judging the case. The log-log graph in Figure 5 shows that the effect of permanent commission in accelerating the conclusion of investigations (thus reducing their "survival" over time) is mostly for processes that tended to last longer than average.[4] Following the technique suggested by Golub & Steunenberg (2007), we then split the sample of investigations in the median duration of 25 months (including both concluded and non-concluded processes), and then fit separate Cox

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[4] To understand the log-log specification, notice that the proportional hazards assumption implies that $\ln[S(t)]/\ln[S'(t)] = \exp[(\mathbf{x} - \mathbf{x}')\boldsymbol{\beta}]$ where $\mathbf{x}$ and $\mathbf{x}'$ are distinct vectors of the covariates (observations with and without a permanent commission) and $S(t)$ and $S'(t)$ are the associated survival functions (the cumulative probability that processes will not be concluded beyond month t). Taking logs at both sides we obtain $\ln\{-\ln[S(t)]\}\ln\{-\ln[S'(t)]\} + [(\mathbf{x} - \mathbf{x}')\boldsymbol{\beta}]$. Thus, if the proportional hazards assumption holds, then the probability of non-conclusion ("survival") as a function of time when the commission is permanent should be graphically parallel to the function when the commission is not permanent. If these functions are not parallel, as shown in Figure 5, then there is likely violation of the proportional hazards assumption. See, for instance, Cleves et al. (2004).

regressions in each subsample (models (4a) and (4b)). Consistent with our discussion above, we see that the effect of *Permanent commission* is only significant in the case of investigations that lasted more than 25 months. The effect is also larger in magnitude than in the case of the overall sample: the presence of the permanent commission, in the subsample of investigations that lasted longer, is expected to increase the rate of conclusion by 231.3%.[5]

<<Figure 5 around here>>

As discussed earlier, the use of permanent commissions may be endogenously given unobserved factors affecting the "difficulty" of the case. Namely, the GIAD apparently reassigns some problematic cases in the countryside to permanent commissions established in the capital of the State. If this is true, then the coefficient of *Permanent commission* in the early regressions will be inconsistent. To verify this possibility, we run an instrumental variable probit model where *Permanent commission* is modeled as an endogenous variable and the overall system is jointly estimated through maximum likelihood.[6] Our analysis indicated that *Tenure* is a strong predictor of *Permanent commission*, although it does not significantly affect the likelihood of conclusion. The explanation is that officers with longer tenure are normally assigned to police units in the capital (where they usually prefer to live); thus, the likelihood that they will be judged by a permanent commission will increase. We therefore employ *Tenure* as an instrument for *Permanent commission*. Results (not reported here, but available upon request) indicate that the coefficient of *Permanent commission* remains strongly significant ($p < 0.01$) even with this simultaneous model specification; and there is no evidence of relevant bias, according to a Wald test of exogeneity (see Wooldridge 2002: 472-477). Thus, we believe that our observed effect of the permanent commission on

[5] Although the significance of some variables changed especially in the subsample (4a), we refrain from drawing any particular conclusion because our test of Schoenfeld residuals, discussed before, indicated relevant time-varying effects mostly associated with *Permanent commission*.

[6] We use a probit specification because the use of instrumental variable estimation in this type of model is more established in the literature than in the case of survival analysis techniques.

conclusion is likely due to the superior efficacy of those handpicked, fixed members specifically appointed to judge cases.

To conclude our analysis of the first stage, it also informative to verify how the baseline hazard rate of the Cox model varies with time. Figure 6 depicts such baseline function, i.e., how the rate of conclusion changes according to the lifetime of the process (all else constant).[7] We see that the rate of conclusion increases up to a certain period (around 22 months) and then decreases. This pattern possibly occurs because, over time, only the most complex cases "survive"—investigations that have a lower than average rate of conclusion due to the difficulty to collect evidence or other factor that make the investigation more cumbersome. However, after around 80 months, the rate of conclusion starts to increase again. A possible explanation, which emerged in our interviews, is that, up to a certain point, there is internal pressure within the GIAD to conclude investigations that are lasting too long.

5.3 Second stage: Determinants of the final judgment

Table 4 shows how the independent variables affect the final outcome of the investigations that were effectively concluded. Model (1) adopts an ordered probit specification where the dependent variable indicates how harsh the final judgment was (in an increasing order, no conviction, suspension and termination). Regression results show a moderately significant effect of *Special chief* and *Tenure* ($p < 0.10$) in reducing the likelihood of harsh punishment. The most significant results, however, are associated with the accusation-related variables. As in the case of conclusion, an increase in the number of accused officers reduces the likelihood of punishment ($p < 0.01$). Apparently, the difficulty in collecting evidence and judging multiple individuals not only reduce the speed of the overall process, but also reduce the odds that the implicated officers will be punished. Also

[7] Figure 6 is different from Figure 5 because the latter corresponds to the probability of "survival" or non-conclusion. The hazard rate function, in contrast, is the conditional likelihood of conclusion, given that processes lasted until period t. Mathematically, the hazard function is $h(t) = f(t)/S(t)$, where $S(t)$ is the survival function and $f(t)$ is the density function indicating how processes are concluded over time.

consistent with our previous discussion, we see that cases involving extortion are treated more harshly in the internal affairs division. Finally, there is a strong positive effect of *Media coverage* ($p < 0.01$): cases with publicly disseminated information in the media tend to result in more severe punishment—which, as discussed before, can be either due to external pressure to punish deviants or to the fact that more salient, shocking cases (naturally more prone to receive harsh treatment) tend to be covered by newspapers and other media.

<<Table 4 around here>>

Models (2) and (3) adopt a multinomial logit specification which allows us to examine the effect of the covariates separately on the likelihood of suspension and termination. As in Table 3, the only difference between those models is that, in model (3), the tenure and age variables are measured piecewise so as to detect possible nonlinear effects. Models (2b) and (3b) indicate a strong, negative effect of *Special chief* ($p < 0.01$): top officers are generally not punished with termination of duty. Indeed, in our database we have no instance of a special chief who was fired. In model (2b), *Tenure* also shows significance ($p < 0.05$) and indicates that officers with higher experience in the force tend to be less fired at the end of the investigation. Model (3b), in turn, shows that the effect of tenure is indeed nonlinear: the reduction in the likelihood of termination occurs especially in the case of officers with tenure longer than five years. Although the coefficients of the tenure variables appear to be increasingly negative (e.g. -1.540 for $5 \leq \mathit{Tenure} \leq 9$ versus -2.127 for $\mathit{Tenure} \geq 20$), they are not statistically different from each other. Thus, it appears that *some* experience in the force is already sufficient to avoid a severe outcome: estimates from model (3b) indicate that, after five years, the likelihood that the officer will be fired (rather than receiving no conviction) is reduced by 78.5%.

Collectively, these results suggest that top, experienced officers can use their superior knowledge and possible connections within the force to influence the decision of investigation commissions; or, alternatively, that commissions are reluctant to severely punish more experienced officers. Some interviewed investigation commission members indeed noted that termination of duty is seen as a drastic outcome of the investigation, and that they think twice before recommending that certain senior officers, with history within the force, should be fired. In any case, the position and experience of officers in the hierarchy do appear to influence their final judgment of the process. This result is consistent with previous anecdotal evidence; thus, an officer from the Charlotte-Mecklenburg Police Department interviewed by Klockars et al. (2009: 222) asserted that "the higher the rank – the lighter the punishment. There is little consistency in the punishment that is meted out."

Models (2) and (3) also confirm that accusation-related variables matter in affecting the final outcome of investigations. As before, accusations involving multiple individuals are less likely to result in punishment ($p < 0.01$), while accusations involving extortion ($p < 0.05$) and with media coverage ($p < 0.01$) tend to more likely result in punishment either through suspension or termination. The new finding here is that other types of accusation become relevant; namely, cases involving administrative fault, abuse and aggression tend to be less severely punished through termination, more likely resulting in suspension. This result is also consistent with our descriptive analysis shown in Table 2 and with our previous discussion that certain deviations, such as aggression and violence against suspects, are seen by police officers in general as a more or less "acceptable" given their objective to effectively conclude a case. Extortion, in contrast, was voiced by our interviewees as a despicable behavior that stains the reputation of the force and hence deserves condemnation. The organization seems to tolerate aggression but not extortion. Therefore, in line with our theoretical discussion in section 3, these results appear to indicate that informal norms and codes of behavior within the police organization are important determinants of the final outcome of investigation processes in internal affairs divisions.[8]

We noted before that our second stage, being conditional on investigations that were concluded, may be subject to self-selection bias. As a robustness check, models (4a) and (4b) show second-stage, probit Heckman estimates controlling for self-selection and estimating separately the effect of the covariates on the likelihood of suspension and termination. The first stage probit regression (omitted here, but available upon request) uses as an instrument a variable indicating whether the GIAD intervened to change the investigation commission in cases where processes were seen as excessively delayed. As should be expected, this variable is strongly associated with conclusion ($p < 0.01$) but does not significantly affect the final judgment of the process. When termination was the second-stage outcome (model (4b)), we were unable to implement our maximum likelihood estimation with the variable *Special chief* in the model because we have no instance of special chief who was fired as a result of the investigation. Thus, we decided to drop this variable in model (4b).

The estimated correlation between the error terms for the conclusion and outcome (judgment) equations, denoted as ρ, is used as a test for potential self-selection bias. Specifically, we perform Wald tests to verify whether this correlation is significantly different from zero by comparing the full maximum Heckman estimation against the independent estimation of the probit regessions for conclusion and outcome variables. Because ρ is not significantly different from zero for the outcomes involving both suspension (model (4a)) and termination (model (4b)), we conclude that there is no evidence of self-selection bias in our context. Nevertheless, the significant effects detected in the Heckman specifications are more or less similar with those obtained in the previous models.

[8] It is interesting to note the absence of significance involving the variables *Previous accusations* and *Previous convictions*, even though some authors have observed that internal affairs divisions may be more willing to convict "problem officers" who normally receive repeated complaints (Terrill & McCluskey 2002).

6. Conclusion

Several organizational contexts—particularly contexts involving public services—are plagued with the issue of "who guards the guardians," which is an organizational design problem that occurs when the very agents to be monitored are appointed as monitors. Whenever agents become responsible for accountability functions in bureaucracies, there is a concern that they will bias their judgment in favor of certain colleagues or certain types of deviations that they deem "acceptable." Agent-monitors may exert suboptimal effort in the investigation process, thereby resulting in impunity and severe attenuation of incentives towards superior service performance. Thus, judges can turn a blind eye on other colleagues' misconduct; members of the House of Representatives may avoid detailed investigation of internal wrongdoing; police officers may adopt a "code of silence" when other members of the force are engaged in deviant activity; and so on.

In this sense, our unique database comprising 639 investigations against police officers in an internal affairs division of a Brazilian State did reveal that decisions are influenced by a host of officer- and accusation-related characteristics whose effect suggest bias in the outcomes of the processes. Thus, in the subsample of investigations that were concluded, we observed that high-ranking, experienced officers (with longer tenure in the police bureaucracy) are punished less harshly than their younger colleagues. This result confirms that the position and tenure of the officer in the bureaucracy matter. We also observed that certain types of deviations that are interpreted as a normal "side effect" of police action (such as aggression against suspects) are treated less harshly than other deviations that internal affairs members view as abominable (such as extortion). This result suggests that norms and codes of conduct within the police bureaucracy also matter. In addition, we found that extensive media coverage of officers' deviations increase the odds that the implicated officers will be convicted—either because only the most serious cases are covered by the media or because there is higher external pressure from the local society to convict the accused officers.

We also obtained interesting results regarding the factors that affect the speed with which investigations will be concluded. In general, officer- and accusation-related variables do not significantly affect the rate of conclusion, except for the number of accused people involved in the case (which, arguably, makes the process of evidence collection and hearing more difficult). Thus, it seems that accused officers are unable to use their position in the bureaucracy to obstruct the process of investigation and postpone the conclusion of the process (although, as noted above, their position has an influence in the final judgment). We found, however, that the mechanism adopted to form the investigation commission does influence the speed of conclusion. Namely, investigation commissions comprised of fixed, specialized officers with good reputation in the force—known in our context as "permanent" commissions—yield faster conclusion than commissions temporarily formed with rotating officers. We also found no evidence that commissions are prone to influence activity by the investigated officers who have possible ties with commission members. Thus, at least in our context, the creation of permanent investigation commissions appears to have beneficial effects in accelerating the conclusion of investigations—which is particularly critical given that the observed length of concluded processes in the internal affairs division examined by our study are much longer than what is expected and required by State Law.

In sum, although the effects of the position of the officer in the bureaucracy and the nature of the accusation do suggest that there is likely bias in the judgment of police officers, there is also evidence that internal choices involving the composition of the investigation commissions can, at least, positively influence the efficiency of the overall investigation and judgment process. Our results thus indicate that police divisions, as well as other public service organizations, can carefully craft internal mechanisms to guarantee faster judgment and open up their data to public scrutiny so as to reveal judgment patterns. We hope that similar efforts are also carried out in other contexts so as to verify the generalizability of our findings and allow us to learn from practices adopted by other internal affairs divisions and other public bureaus where agents are appointed to monitor other agents.

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TABLE 1
Summary statistics and description of variables

Variable	Mean (std. dev.)	Min.	Max.	Description
Conclusion	0.681 (0.467)	0	1	Dummy variable coded 1 if the process was concluded and 0 otherwise.
Length	31.105 (22.294)	4	118	Length (in months) between the starting date of the process and either its conclusion date or the final date of data collection (December 2008).
Suspension	0.288 (0.453)	0	1	Dummy variable coded 1 if the process resulted in suspension and 0 otherwise.
Termination	0.135 (0.342)	0	1	Dummy variable coded 1 if the process resulted in termination of duty and 0 otherwise.
Chief	0.116 (0.320)	0	1	Dummy variable coded 1 if the police officer is a chief and 0 otherwise.
Special chief	0.025 (0.156)	0	1	Dummy variable coded 1 if the police officer is a "special" chief (with a higher position in the hierarchy) and 0 otherwise.
Staff	0.074 (0.261)	0	1	Dummy variable coded 1 if the police officer holds a staff (clerical) position.
Commissioned job	0.336 (0.473)	0	1	Dummy variable coded 1 if the police officer was appointed by other top individuals in the hierarchy.
Tenure	11.114 (8.358)	1	39	Number the years since the officer joined the police force at the process starting date
Permanent commission	0.465 (0.499)	0	1	Dummy variable coded 1 if the process was judged by a commission composed of officers responsible for evaluating multiple cases.
Commission member	0.128 (0.335)	0	1	Dummy variable coded 1 if the officer under investigation was him or herself also an internal affairs commission member in the past.
Tie with commission member	0.156 (0.364)	0	1	Dummy variable coded 1 if the officer under investigation worked in the past in the same police station of any member of the investigation commission responsible for the case.
Number of accused	2.243 (1.487)	1	8	Number of police officers implicated in the same case.
Homicide	0.139 (0.347)	0	1	Dummy variable coded 1 if the accusation involves homicide of any kind.
Extortion	0.297 (0.457)	0	1	Dummy variable coded 1 if the accusation involves extortion of any kind.
Traffic	0.030 (0.170)	0	1	Dummy variable coded 1 if the accusation refers to the officer's involvement in drug traffic.
Administrative fault	0.205 (0.404)	0	1	Dummy variable coded 1 if the accusation involves administrative fault.
Abuse	0.274 (0.446)	0	1	Dummy variable coded 1 if the accusation involves abuse of power or authority
Aggression	0.275 (0.447)	0	1	Dummy variable coded 1 if the accusation involves aggression towards suspects.
Media coverage	0.097 (0.296)	0	1	Dummy variable coded 1 if the incident was covered by local newspapers or other media.
Number of accusations	1.330 (0.533)	0	4	Number of deviations included in the process against the officer.
Sex	0.944 (0.231)	0	1	Dummy variable coded 1 if the officer is male and 0 otherwise.
Age	40.690 (8.164)	25	69	Age of the police officer, in years at the process starting date
Previous accusations	0.912 (2.960)	0	50	Number of previous accusations that the officer received.
Previous convictions	1.235 (3.218)	0	53	Number of previous convictions.

N = 639. Each unit of observation is a process against a particular police officer; a particular case may involve multiple accusations towards more than one officer.

TABLE 2

Types of accusations in the database and their incidence, according to the final outcome of the observed investigation processes

	Typical examples from actual cases	Incidence (overall)	Incidence according to final outcome of the process		
			Not condemned	Suspension	Termination
Drug traffic	Policeman arrested with marijuana and cocaine in the car.	3.0%	3.0%	0.5%	4.7%
Extortion	Policeman accused of threatening a small businessman who refused to pay a certain amount of money in return for protection.	29.7%	15.2%	34.8%	46.5%
Administrative fault	Policeman accused of treating his chief in a disrespectful way.	20.5%	17.6%	29.3%	8.1%
Abuse	Policeman accused of arresting illegally an innocent citizen without a warrant.	27.4%	24.8%	31.0%	12.8%
Aggression	Policeman accused of brutality against suspects under custody in police stations.	27.5%	27.3%	29.3%	10.5%
Homicide	Policemen accused of murdering an innocent.	13.9%	18.2%	9.2%	20.9%
Abandon of duty	Policeman who did not show up in his unit for a period superior to 30 days.	5.0%	5.5%	1.6%	11.6%
Escape	Policemen accused of facilitating the escape of inmates in police stations by negligence.	5.9%	10.9%	1.6%	3.5%
Multiple accusations	Policeman accused of kidnapping and murdering a citizen.	30.4%	21.8%	35.3%	18.6%

TABLE 3

Factors affecting the conclusion of the observed investigation processes (Cox regressions)

	All investigations			Length ≤ 25	Length > 25
	(1)	(2)	(3)	(4a)	(4b)
Chief	-0.136	-0.185	-0.135	0.031	0.321
	(0.209)	(0.208)	(0.202)	(0.219)	(0.346)
Special chief	-0.357	-0.390	-0.399	-0.977*	-1.175
	(0.377)	(0.382)	(0.393)	(0.429)	(0.887)
Staff	-0.029	-0.017	-0.134	-0.047	0.188
	(0.231)	(0.229)	(0.235)	(0.215)	(0.533)
Commissioned job	0.085	0.088	0.034	0.124	-0.340†
	(0.118)	(0.121)	(0.119)	(0.142)	(0.195)
Tenure	0.006		0.011	-0.010	0.030
	(0.013)		(0.013)	(0.014)	(0.023)
5 ≤ Tenure ≤ 9		-0.181			
		(0.189)			
10 ≤ Tenure ≤ 19		-0.125			
		(0.210)			
Tenure ≥ 20		0.015			
		(0.237)			
Permanent commission	0.284†	0.314*	-0.541*	-0.127	1.198**
	(0.152)	(0.156)	(0.262)	(0.191)	(0.393)
Commission member	-0.138	-0.128	-0.144	0.190	0.057
	(0.167)	(0.169)	(0.172)	(0.247)	(0.239)
Tie with commission member	0.011	0.031	0.004	0.234	-0.130
	(0.158)	(0.157)	(0.156)	(0.164)	(0.267)
Number of accused	-0.123*	-0.116*	-0.122*	-0.019	-0.001
	(0.058)	(0.058)	(0.058)	(0.073)	(0.095)
Homicide	-0.350	-0.346	-0.426†	0.007	-0.875†
	(0.230)	(0.234)	(0.240)	(0.332)	(0.528)
Extortion	-0.023	-0.014	-0.065	0.145	-0.558
	(0.215)	(0.214)	(0.221)	(0.282)	(0.489)
Traffic	-0.656	-0.688	-0.621	1.367*	-0.957
	(0.448)	(0.445)	(0.444)	(0.627)	(0.731)
Administrative fault	-0.139	-0.152	-0.116	0.305	-0.679
	(0.208)	(0.214)	(0.213)	(0.282)	(0.483)
Abuse	0.234	0.229	0.193	0.311	-0.480
	(0.215)	(0.216)	(0.219)	(0.264)	(0.444)
Aggression	0.041	0.049	0.049	0.642*	-0.352
	(0.232)	(0.231)	(0.235)	(0.271)	(0.630)
Number of accusations	-0.072	-0.069	-0.026	-0.559*	0.821
	(0.232)	(0.229)	(0.234)	(0.284)	(0.516)
Media coverage	0.313†	0.330†	0.327†	-0.027	0.195
	(0.183)	(0.181)	(0.192)	(0.222)	(0.299)
Sex	0.230	0.174	0.110	0.144	1.170†
	(0.306)	(0.307)	(0.300)	(0.232)	(0.657)
Age	-0.002		-0.002	0.010	0.003
	(0.011)		(0.011)	(0.014)	(0.019)
31 ≤ Age ≤ 40		-0.157			
		(0.196)			
41 ≤ Age ≤ 50		-0.160			
		(0.235)			
Age ≥ 51		-0.083			
		(0.278)			
Previous accusations	0.101	0.073	0.088	0.038	0.256†
	(0.089)	(0.089)	(0.087)	(0.100)	(0.154)

Previous convictions	-0.086 (0.085)	-0.059 (0.086)	-0.078 (0.083)	-0.042 (0.093)	-0.248 (0.154)
Permanent commission × Time			0.035** (0.010)		
Number of investigations	639	639	639	324	315
Number of concluded investigations	435	435	435	289	146
p (Wald test)	< .001	< .001	< .001	< .001	.078

** $p < .01$ * $p < .05$ † $p < .10$. The table shows parameter estimates and robust standard errors in parenthesis (clustered on each case involving investigations against multiple officers). All models include dummy variables indicating the year when the process was started (not reported here).

TABLE 4
Factors affecting the final judgment of investigation processes that were concluded

	Ordered Probit[a]	Multinomial Logit[b]				Heckman[c]	
		Suspension	Termination	Suspension	Termination	Suspension	Termination
	(1)	(2a)	(2b)	(3a)	(3b)	(4a)	(4b)
Chief	-0.068	0.321	-0.438	0.390	-0.342	0.190	-0.262
	(0.217)	(0.487)	(0.605)	(0.524)	(0.667)	(0.231)	(0.315)
Special chief	-0.792†	-1.240	-45.551**	-1.635†	-31.839**	-0.518	
	(0.455)	(0.886)	(1.367)	(0.927)	(0.827)	(0.482)	
Staff	-0.069	0.270	-0.354	0.200	-0.429	0.153	-0.302
	(0.273)	(0.594)	(0.833)	(0.592)	(0.806)	(0.305)	(0.367)
Commissioned job	0.004	0.292	-0.241	0.242	-0.186	0.089	-0.232
	(0.143)	(0.336)	(0.384)	(0.338)	(0.388)	(0.173)	(0.232)
Tenure	-0.027†	-0.030	-0.096*				
	(0.014)	(0.030)	(0.039)				
5 ≤ Tenure ≤ 9				-0.220	-1.540**	0.293	-0.777**
				(0.466)	(0.595)	(0.219)	(0.290)
10 ≤ Tenure ≤ 19				0.692	-1.981**	0.881**	-1.380**
				(0.564)	(0.655)	(0.270)	(0.347)
Tenure ≥ 20				-0.014	-2.127**	0.466	-1.189**
				(0.637)	(0.754)	(0.321)	(0.389)
Permanent	0.020	0.759*	-0.160	0.680†	0.060	0.204	-0.307
commission	(0.163)	(0.349)	(0.428)	(0.359)	(0.434)	(0.201)	(0.265)
Commission member	0.167	0.142	0.797	-0.046	0.724	-0.137	0.307
	(0.197)	(0.427)	(0.596)	(0.456)	(0.584)	(0.241)	(0.305)
Tie with commission	-0.063	0.110	-0.325	0.050	-0.245	0.067	-0.139
member	(0.184)	(0.430)	(0.542)	(0.417)	(0.528)	(0.188)	(0.243)
Number of accused	-0.292**	-0.520**	-0.758**	-0.537**	-0.771**	-0.162**	-0.245**
	(0.068)	(0.123)	(0.209)	(0.123)	(0.211)	(0.062)	(0.095)
Homicide	0.091	0.865	0.000	0.819	-0.154	0.362	-0.089
	(0.321)	(0.704)	(0.660)	(0.724)	(0.682)	(0.305)	(0.322)
Extortion	0.787**	2.614**	1.466*	2.623**	1.281*	1.076**	0.107
	(0.286)	(0.656)	(0.613)	(0.689)	(0.607)	(0.293)	(0.278)
Traffic	0.037	-0.377	-0.515	-0.490	-1.051	-0.037	-0.211
	(0.651)	(1.222)	(1.006)	(1.261)	(1.021)	(0.629)	(0.615)
Administrative fault	-0.060	1.886**	-1.356*	1.836**	-1.594*	1.203**	-1.280**

	(0.270)	(0.595)	(0.680)	(0.629)	(0.693)	(0.288)	(0.378)
Abuse	0.071	1.810**	-0.864*	1.738*	-1.201†	0.970**	-1.022**
	(0.267)	(0.641)	(0.615)	(0.680)	(0.627)	(0.312)	(0.329)
Aggression	-0.224	1.509*	-1.406*	1.600*	-1.801**	1.025**	-1.276**
	(0.279)	(0.621)	(0.634)	(0.673)	(0.677)	(0.308)	(0.379)
Number of	0.100	-1.001	0.597	-1.044	0.865	-0.567†	0.642†
accusations	(0.294)	(0.710)	(0.652)	(0.741)	(0.676)	(0.311)	(0.339)
Media coverage	0.831**	1.547**	2.436**	1.646**	2.660**	0.254	0.849*
	(0.209)	(0.593)	(0.644)	(0.622)	(0.674)	(0.223)	(0.350)
Sex	0.312	0.377	0.767	0.372	0.872	-0.050	0.395
	(0.293)	(0.611)	(0.787)	(0.661)	(0.763)	(0.319)	(0.468)
Age	-0.001	-0.016	0.014				
	(0.012)	(0.031)	(0.032)				
$31 \leq$ Age ≤ 40				-0.044	-0.244	0.077	-0.029
				(0.464)	(0.534)	(0.242)	(0.274)
$41 \leq$ Age ≤ 50				-1.193*	-0.088	-0.626*	0.415
				(0.606)	(0.636)	(0.303)	(0.328)
Age ≥ 51				-0.226	0.578	-0.176	0.365
				(0.758)	(0.794)	(0.362)	(0.447)
Previous accusations	0.023	0.116	0.115	0.134	0.046	0.047	-0.024
	(0.100)	(0.200)	(0.256)	(0.207)	(0.271)	(0.117)	(0.145)
Previous convictions	0.013	-0.033	0.013	-0.073	0.053	-0.032	0.060
	(0.095)	(0.192)	(0.239)	(0.197)	(0.253)	(0.109)	(0.136)
N	435	435		435		435	435
p (Wald test)	< .001	< .001		< .001		< .001	< .001
Pseudo R^2	0.138	0.235		0.267			
ρ (Heckman)						-0.430	-0.298
						(0.345)	(0.693)

** $p < .01$ * $p < .05$ † $p < .10$. The table shows parameter estimates and standard errors in parenthesis; in the case of the Ordered Probit and Multinomial Logit models, standard errors are robust and clustered on each case involving investigations against multiple officers. All models include dummy variables indicating the year when the process was started (not reported here).

[a] Dependent variable is equal to 0 if no conviction occurred, equal to 1 if the officer was suspended, and equal to 2 if there was termination of duty.

[b] Baseline case involves lack of conviction.

[c] Two-stage Probit Heckman. Only results for the second stage (final judgment, conditional on conclusion) are reported; first stage results (modeling the probability of conclusion) are omitted, but available upon request. In model (5), the variable coding whether the officer is a special chief is excluded because there is no instance of termination when the judged subject is a special chief.

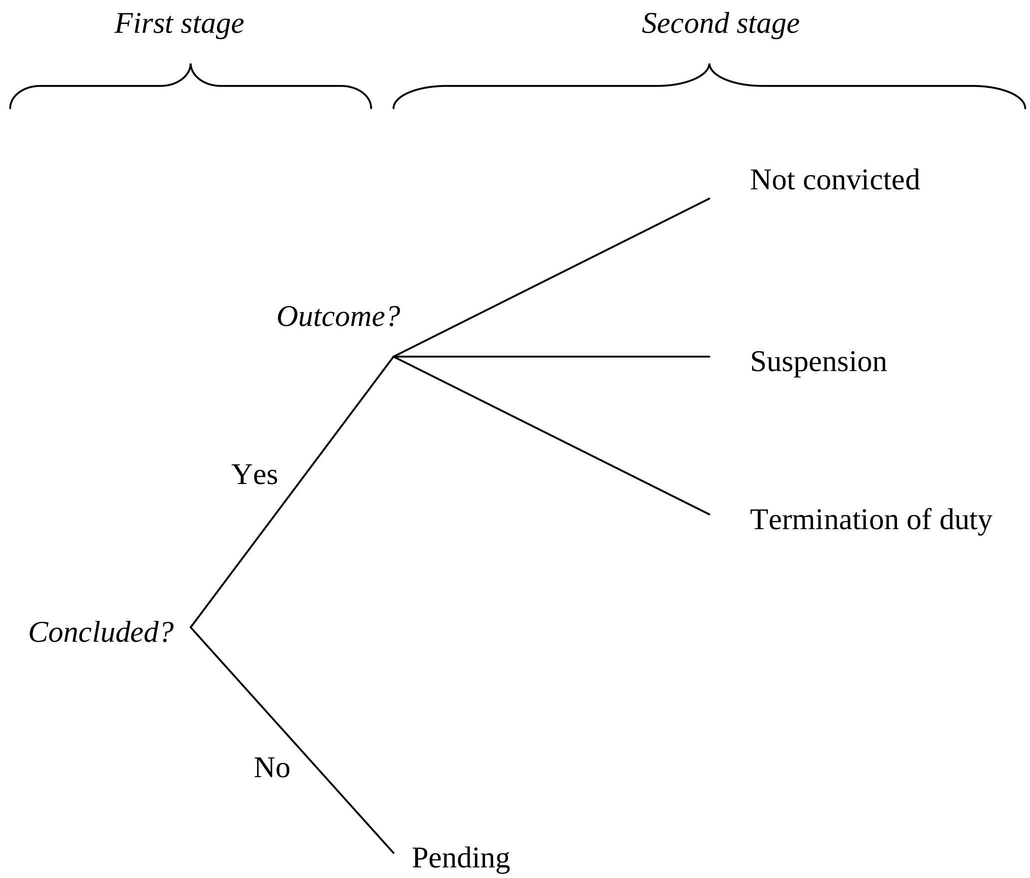

Figure 1. – Two-stage analysis: possible outcomes of investigation processes in the internal affairs division

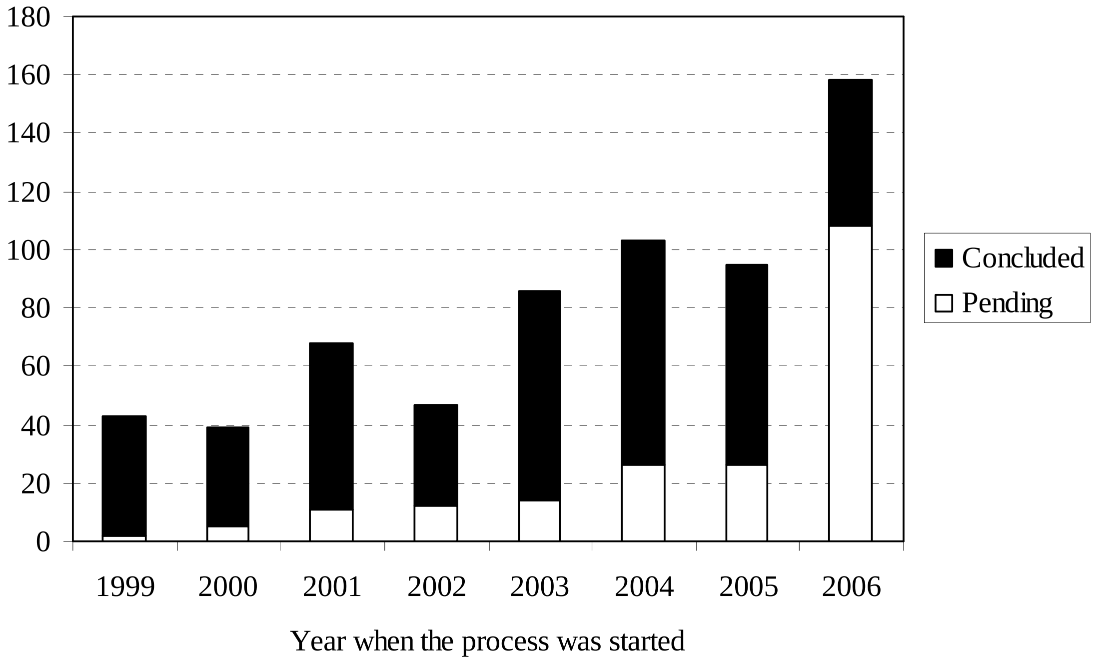

Figure 2. – Number of investigations according to the year when they were started in the internal affairs division, and the eventual outcome in terms of conclusion

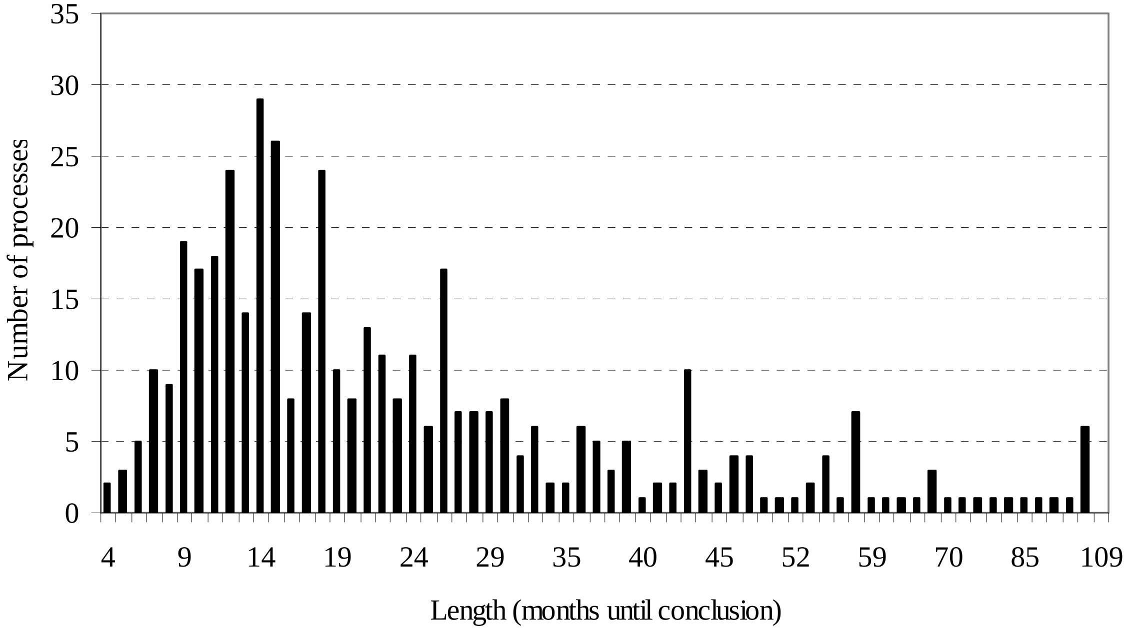

Figure 3. – Number of concluded investigation processes, according to the length (in months) between start and conclusion

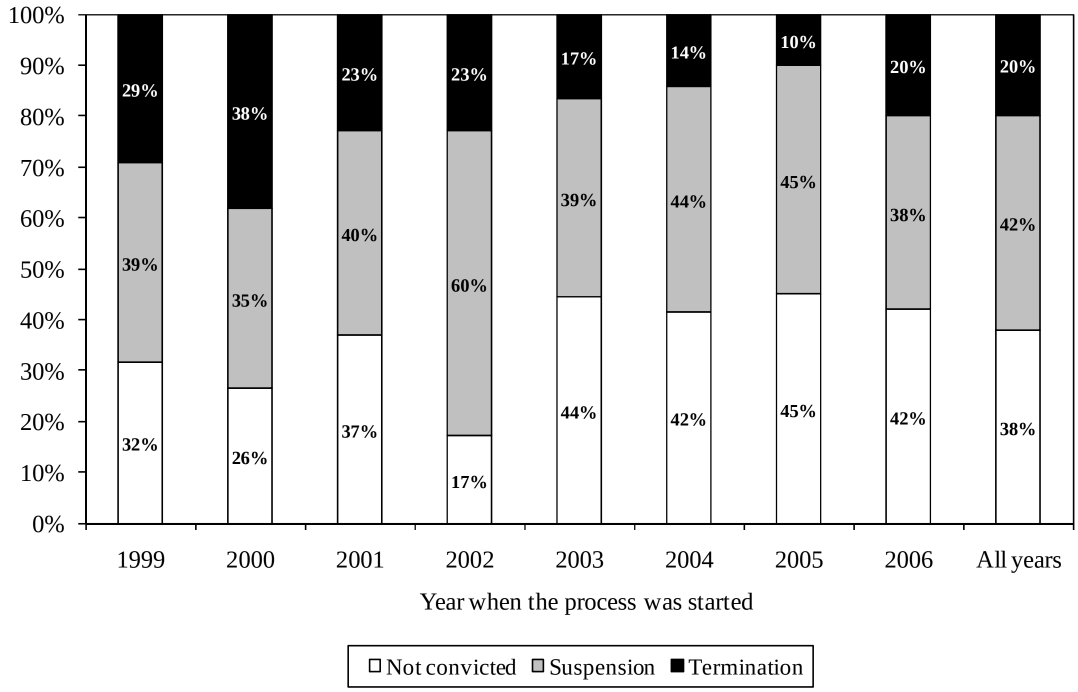

Figure 4. – Final outcome of the concluded investigation processes, according to the year when they were started

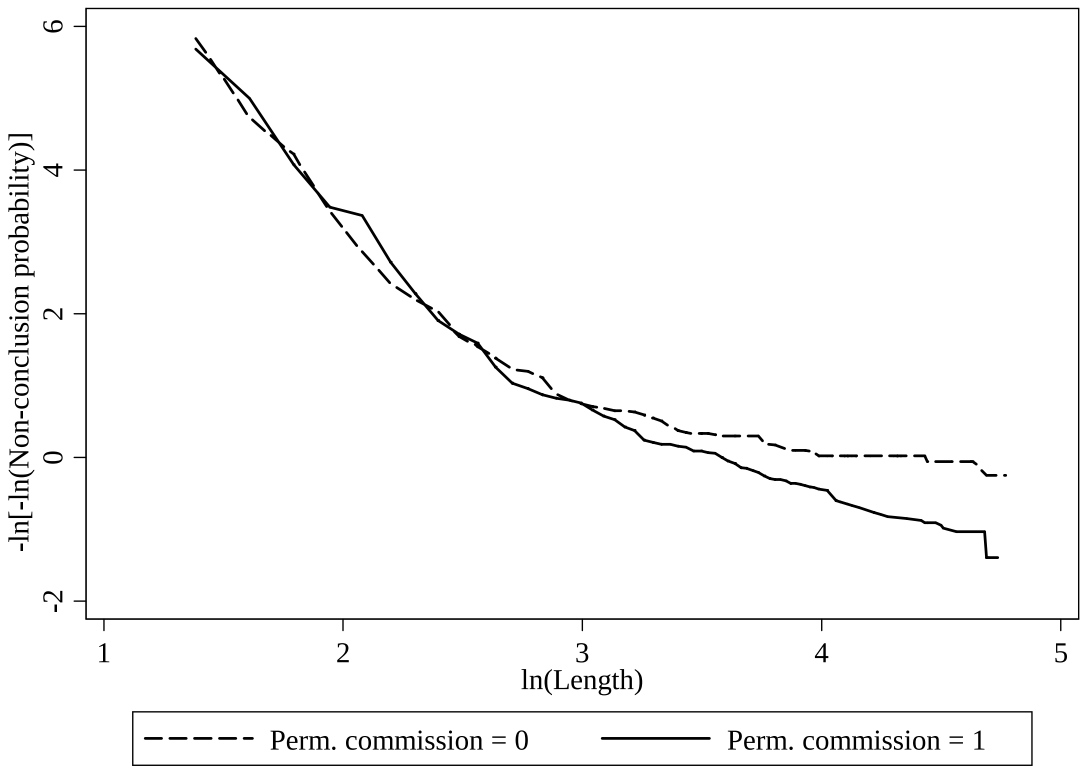

Figure 5. – Log-log graph indicating how the probability that the investigation process will not be concluded varies with time (months) and type of investigation commission

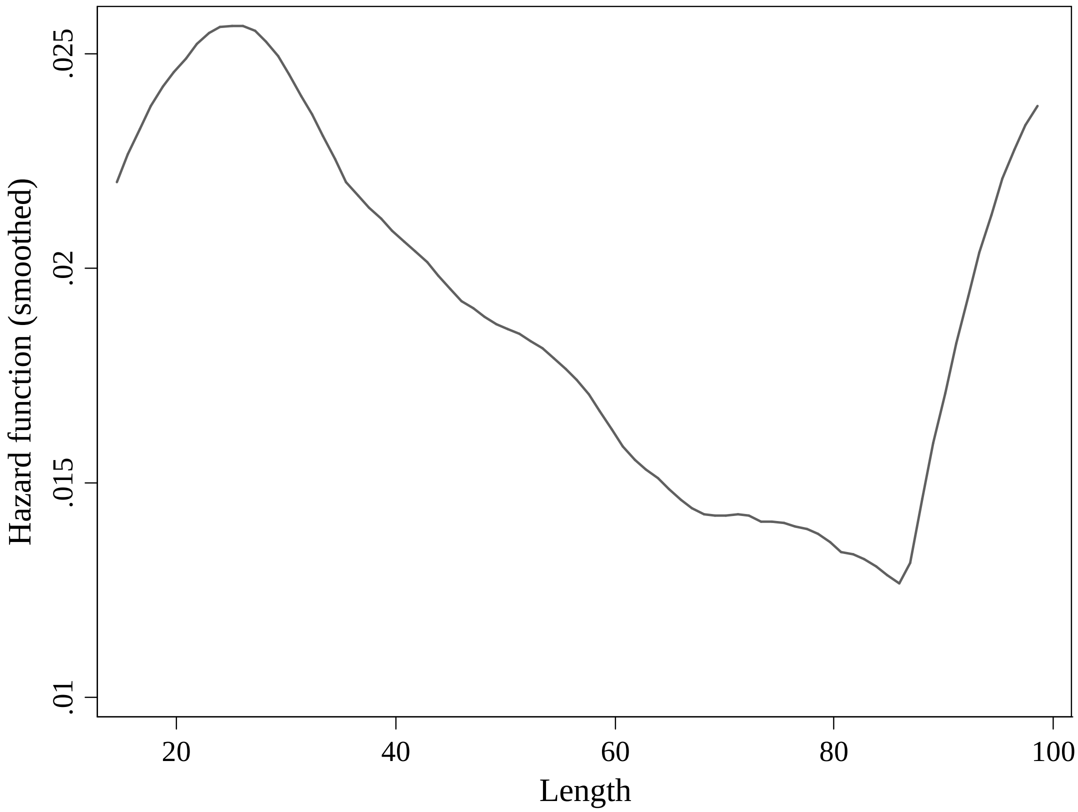

Figure 6. – Baseline hazard function from the Cox model