IX ENCONTRO BRASILEIRO DE ADMINISTRAÇÃO PÚBLICA
ISSN: 2594-5688
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Sociedade Brasileira de Administração Pública

ARTIGO

WHAT "BAD APPLES" REMOVED FROM BARRELS CAN TELL US ABOUT CORRUPTION

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GRUPO TEMÁTICO: 01 Transparência, Accountability e Participação

IX Encontro Brasileiro de Administração Pública, São Paulo/SP, 5 a 7 de outubro de 2022.
Sociedade Brasileira de Administração Pública
Brasil

Disponível em: https://sbap.org.br/

What "bad apples" removed from barrels can tell us about corruption

This study identified the distribution of administrative penalties imposed between 2003 and 2014 in the federal executive in Brazil, and analysed which civil servants are most likely to be sanctioned for corruption and which conditions differentiate them from those punished for other serious offences. Statistical analyses were performed on the subsample of sanctioned civil servants using the variables of gender, job tenure, status (career civil servant or occupant of a position of trust), and gross earnings. Analyses also included qualitative data gathered through 24 semi-structured interviews with civil servants directly involved with disciplinary sanctions. As this paper used real measures, and not survey answers, experiments or aggregate indexes, it explored methodological challenges of convictions databases, by questioning what can be learned regarding both bureaucratic corruption and official responses to it. Findings suggest that those punished most often for corruption were men and those who were not in the first five years of their careers. Apart from providing accurate portrayals of those caught and punished that are still scarce in the literature on corruption studies, the analysis on sanctions can help agencies better prevent and respond to misconduct. This can be done by identifying in advance employees who can either change their conduct or be subject to removal from the workforce or by identifying disparities that may occur in the context of broader inequality of sanction enforcement.

Keywords: Brazil, Bureaucratic Corruption, Disciplinary Sanctions, Public Service

1.Introduction

The theoretical debate regarding integrity at the individual level in both public and private sectors has been dominated primarily by analogies of "bad apples," "bad barrels," and "bad orchards". When looking at corruption in the police services, for example, criminologists tend to reject the hypothesis that the issue is limited to a few rogue members (Newburn, 2015), and focus not on the individual but on institutional failure (Newburn, 2015; Punch, 2009). Indeed, the notion of bad apples can be dangerously misleading in tackling structural or institutional issues. At first glance, therefore, identifying who has been sanctioned for corruption may reveal little about how corruption operates in an organization. In an environment where corruption is very likely to be systemic, institutionalised, and/or tolerated to a certain extent, as it happens in Brazil – used here as a case study –, there are indeed those who were caught but are not punished, those who have never been caught, and those who may still be engaging in misconduct no matter the risks of being sanctioned. In addition, the use of investigations or convictions records as a cross-national corruption measure is considered ungainly not only due to the fact that the actual number of corruption acts are unknown but also due to the differences in legal definitions of corruption (Escresa and Picci, 2017).

Despite the limitations, pinpointing certain characteristics of those who were implicated in acts of corruption may reveal much about how accountability systems work by giving a reasonably accurate portrayal of those who were caught and punished and also by offering insights on official response to bureaucratic corruption. Even considering the existing differences between actual and observed corrupt transactions, the main features of those sanctioned are still comparable and can help agencies better prevent and respond to misconduct. As Odilla (2020) noted, penalising illicit behaviour and rewarding integrity still is the most straightforward approach to curb corruption. This is particularly the case of the public sector, where workers have a responsibility to adhere to

principles of ethical conduct and conduct-based actions are believed to maintain the integrity of the work environment. However, due to the nature of most public sector employment contracts, punishment is more likely to be seen as threats rather than a blunt weapon (Picci, 2014, p.8). Indeed, initiatives based on severe punishment still need to be better evaluated in the civil service (Gans-Morse et al., 2018, p. 174).

Therefore, this paper sheds light on bureaucratic corruption by asking who was sanctioned for corruption and which features differentiate them from those punished for other serious offenses and from the overall distribution of the public workforce. The main goal is to provide knowledge of the types of people who committed bureaucratic corruption and were punished. Accordingly, this paper explores a database of 5,005 administrative penalties imposed against 3,419 civil servants between January 2003 and November 2014 in the Brazilian federal executive – 68.5% of the sanctions imposed concerned acts of corruption (Odilla, 2020) – and combines the descriptive statistics of this database with interviews with 24 integrity enforcers responsible for investigating their peers and/or monitoring the work of the internal affairs units within the Brazilian federal executive.

In the Brazilian federal executive, the number of disciplinary sanctions resulting in civil servants being fired has risen from 0.055% to 0.075% of all workers between 2003 and 2014. In comparison, considering that around 260,000 people work in Canadian federal government departments and the total number of dismissals for both misconduct and incompetence, the proportion of sanctions varied from 0.040% to 0.065% of all civil servants in Canada between 2005 and 2006 and 2015 and 2016. These figures were published by the CBS News, that claimed it had exclusive access to the data on the number of government employees fired for misconduct or incompetence in Canada (Thompson, 2018). Data collected by the US Office of Personnel Management (OPM) also indicated a slight increase in the numbers of suspensions, removals and demotions from 2006 to 2016, period when the US government formally disciplined an average of 17,000 employees annually, or less than 1% of the federal government's 2.1 million employees, for misconduct (GAO, 2018). While these figures appear to be relatively small, we should consider that the majority of civil servants avoid violating legal or ethical standards. Yet, although the literature reminds us about the monitoring problem intrinsic in any principal-agent relationship, even a few cases of misconduct can have significant impacts on workplace morale, reputation and trust and change the outside perception of a public organization (Picci, 2014).

Regardless its relevance, data on corruption investigations or sanctions are not often open nor easily accessible (Cordis and Milyo, 2016). In addition, in many places, corruption prosecutions tend to be historically sporadic (Anechiarico and Jacobs, 1996). This may be some of the reasons that records from bureaucratic disciplinary systems still remain largely unexplored by academics and unknown by the civil society. In Brazil, convictions on bureaucratic corruption is also understudied, despite the fact that the Office of the Comptroller General (CGU, *Controladoria Geral da União*) keeps available the Federal Government's Dismissed Staff List (CEAF, *Cadastro de Expulsões da Administração Federal*) on its transparency portal (https://www.portaltransparencia.gov.br/sancoes/ceaf). The dataset on disciplinary action used here, however, added available information gathered through access to information to focus on gender, career length, and wages of those bureaucrat sanctioned.

It is worth saying that not only data on these type of variables are scarce but also literature has been offering segmented analysis or attempts to infer who is more likely to engage in corruption by a particular set of variables. For example, Van Rijckeghem and Weder (2001) examined the influence of lower salaries in making public officers

more prone to corruption; Dahlström et al. (2011, 2012) evaluated the impact of salaries, meritocratic recruitment, career stability, internal promotion and special legislation on corruption; De Graaf and Huberts (2008) looked at Dutch corruption cases in confidential criminal files to sketch a general profile of a corruption case; and Filgueiras and Aranha (2011) discussed the scale and the types of integrity violations with surveyed civil servants to measure experienced and perceived corruption in the work environment in the Netherlands and in Brazil, respectively. Decaroles et al. (2022) are among the few who look at datasets of people suspected of or arrested for corruption but limited their analyses on gender, finding that women are far less likely to be investigated for corruption than men in China and Italy. Others, such as Cordis (2014), Cordis and Milyo(2013, 2015, 2016) and Cordis and Warren (2014), looked at corruption prosecutions in the US to shed light to impacts of, for instance, public spending freedom of information legislation, political finance reforms or disasters aid on corruption without exploring any individual characteristics of those investigated or sanctioned for corruption – mainly because publicly available administrative records from the US Department of Justice do not identify individual defendants[1].

In Brazil, Ribeiro de Alencar and Gico Jr (2010) compared proven corruption cases punished by administrative committees with criminal and civil judicial responses to the same cases but did not provided individual level information of those sanctioned and Odilla (2020) only explored the disproportionate enforcement of sanctions for corruption and non-corruption across agencies in the federal executive. Due to the still limited literature on the issue of punishment for bureaucratic corruption, this study aims to open new avenues for exploring the topic at a more individual level. This paper presents a first step in portraying offenders. In this sense, this paper is largely exploratory. As the literature offers little guidance for exploring the problem at the individual level, it uses desegregated theoretical frameworks and tentative hypotheses in order to discuss correlations between sanctions for corruption and a set of variables such as gender, time working as a civil servant, working status (career civil servant, position of trust holder), gross earnings and agency where the misconduct happened.

This article is organised as follows: the next subsection provides an overview of the specific literature on the relationship between corruption and gender, and between corruption and working tenure, meritocratic recruitment and higher salaries for civil servants. Hypotheses are drawn, primarily from the previously documented empirical findings. Data and the mixed-method research design is detailed and, thereafter, the main findings reported. Final thoughts on the identified specific conditions for being sanctioned for corruption are presented. As this paper uses real measures and not survey answers, experiments or aggregate indexes, it also engages in the discussion of what we can learn from disciplinary punishment data, mainly about methodological challenges and empirical contributions to the anti-corruption field.

2.Establishing links between corruption and certain individual characteristics

As Oliveros and Schuster (2017) remind us, bureaucratic behaviour in developing countries remains poorly understood. There is, however, a growing body of research seeking to recognise certain characteristics that are believed to be closely related to the propensity for corruption, despite the natural complexities of collecting data

[1] Decaroles et al. (2022) looked at the Italian Sistema D'Indagine Interforze (SDI) archive, used by the police and intelligence officers to identify potential targets for further investigation and at the list of Chinese officials targeted with investigation on the website of the Central Commission for Discipline Inspection, the top-anti-corruption authority in China. Cordis and Milyo(2013, 2015, 2016) and Cordis and Warren (2014) used the US administrative records via the Transactional Records Access Clearinghouse (TRAC), a non-profit organization dedicated to facilitating public access to federal data by the means of Freedom of Information request (Cordis and Milyo, 2016).

and measuring the phenomena due to frequently hidden manifestations. While there is no conclusive evidence or clearly established causal links, literature associate, for example, lower levels of corruption and greater women's rights and political participation in many countries (Swamy et al. 1999 and Dollar et al. 2001); lower salaries for civil servants and more chances for them engage in acts of corruption (Becker and Stigler 1974; Van Rijckeghem and Weder 2001); less misconduct and more experienced officers (Harris 2009 and 2010); and meritocratic recruitment and fewer practices related to personalism and cronyism (Rauch and Evans 2000; Dahlström et al. 2011; Pereira 2016). Based on the existing literature, we present next the rationale for each variable analysed in this study considering that those punished may be typical of the whole range of those engaging in corruption.

2.1 Gender and corruption

Since Swamy et al. (1999) and Dollar et al. (2001) initially shed light on the relationship between gender and corruption, finding that corruption tends to be lower in countries with a greater share of women occupying political positions, a range of studies have been finding differing patterns of behaviour and attitudes between women and men in how they experience, perceive and tolerate corruption (Albuquerque and Ramos, 2006; Frank et al., 2011; Rivas, 2012; Jha and Sarangi, 2015; Rothstein, 2016; Stensöta and Wängnerud 2018; Decaroles et al., 2022).Self-control, risk aversion and lack of opportunities are among the possible explanations provided by some scholars for such gender differences not only in violent crimes but also in corruption. Rothstein (2016), for example, suggests increasing gender equality to curb corruption. Experiments carried out by Rivas (2012) and Frank et al. (2011) found that women tend to behave more honestly than men when controlling for external factors such as "the risk of being caught".

Indeed, gender inequalities and lack of empowerment not only imply women's underrepresentation in political and public spheres but also that women are prevented from getting into senior or higher posts, as obstacles are created that impede women from reaching potentially corrupt environments or having access to corrupt networks (Goetz 2007; Branisa and Ziegler 2011; Sundström and Wüngnerud 2013). For these reasons, we could expect women being less likely to be sanctioned for any misconduct, especially for corruption. Alternatively, in male-dominated interactions, especially where corruption persists, it is possible to imagine women being held accountable in a harsher manner, as they are very likely to be perceived as outsiders, potential competitors, or simply amateurs. In this scenario, therefore, a higher number of sanctions against women could be expected, particularly for corruption. However, as previous research on investigations and punishment records had already found that women are less likely to be punished in China and Italy (Decaroles et al., 2022), this study testes the following hypothesis:

H1 – Men are more sanctioned for corruption than women.

2.2 Entry qualifications, special positions and corruption[2]

Recruitment through examinations rather than by discretionary appointment has been associated with lower corruption (Charron et al. 2016; Dahlström et al. 2011; Meyer-Sahling and Mikkelsen 2016; Rauch and Evans

[2] Under the 1988 Brazilian Constitution, a career within the civil service is obtained mostly if approved through a formal entrance examination. Apart from the formal exam, entry qualifications may vary within the same career and the year of entrance, depending on how the job description is formulated. Many governmental agencies have also started requiring a university degree (*curso superior*) and some of them analyse CVs (*prova de título*) as well. The only positions in the Brazilian federal bureaucracy open to non-career civil servants, i.e. those employees not approved in formal exams and, therefore, not-meritocratically hired, are the DAS slots (high-level management and advisory positions, or *Direção e Assessoramento Superior*). By law, however, a minimum of 60% of the DAS slots must be filled by career civil servants.

2000). Formal exams have been seen as a mechanism by which political appointments can be substituted by some form of "objective" evaluation of merit and therefore should be less susceptible to personalism and cronyism (Rauch and Evans 2000; Pereira 2016). However, Dahlström et al. (2011) argue that the aspect that really seems to matter the most is whether civil servants are employed on the basis of their skills and, therefore, neither formal examinations or the guarantee of lifelong careers, nor special regulations that differ from the country's general labour laws, seem to have a significant impact on corruption when controlling for meritocratic recruitment. While Bersch et al. (2017) suggest that shared norms and long-term socialisation processes may build resistance to the subversion of internal norms, Dahlström et al. (2011) did not find evidence that fostering the *esprit de corps (corporativismo)* has a significant effect on curbing corruption.

One can see that career bureaucrats working in disciplinary procedures are keen to clean the civil service and expunge "bad apples", especially those who have not passed through formal exams and therefore cannot be considered "one of them". The so-called *esprit de corps* may also work as a protection tool even for career civil servants who engage in misconduct, as opposed to the lesser condescending tolerance of the non-meritocratically hired employees. In this case, it is plausible to expect that non-career civil servants would be more likely to be sanctioned. Alternatively, non-meritocratically hired employees and career civil servants who hold positions of trust are more likely to have strong political ties and therefore less likely to be punished. Therefore, the following tentative hypothesis will be tested:

H2 – Career civil servants (meritocratically hired by a formal exam) are less sanctioned for corruption than non-career civil servants;

In Brazil, all the highest nominations for these positions of trust – for both career and non-career civil servants – are regarded as recipients of the president's or the cabinet minister's personal trust and are usually responsible for high-level decision-making and advice (D'Araújo 2009). In addition, the disciplinary system's internal norms considers that cases involving top-level civil servants and those who receive bonuses must be treated as priority and the anti-corruption agency CGU has the right to conduct the investigations against them as opposed to other procedures that are carried out within the ministries or the agencies where the misconduct happened. Therefore, it would be expected that both career and non-career civil servants who are DAS position holders, for example, are equally likely to be sanctioned. In addition, it is also possible to imagine a higher and significant correlation between penalties for corruption and being a special position holder. That said, this chapter tests the following hypotheses regarding special position holders:

H3 – Bureaucrats who hold special positions or receive bonuses are more sanctioned for corruption than those who do not.

2.3 Time working as civil servant and corruption

Some authors argue that inexperience and youth equate to less familiarity with the corrupt networks and transactions and that newcomers do not know the loopholes, which may limit their ability to engage in acts of corruption (Rheinbay and Chêne 2016). The counterargument could be that neophytes are more likely to test and break both formal and informal rules exactly because they still do not know which acts are expected, allowed, tolerated and/or restricted. It is also possible to imagine that time working as a civil servant may also provide bureaucrats with the ability to engage in corruption as a person's chance to get away with misconducts may increase

with time. The more familiar with the rules, networks, system's fragilities and loopholes the person gets, the easier it becomes to avoid punishment.

In this regard, however, this present study expects a different behaviour from new and veteran bureaucrats related to offences that can result in permanent exclusion from the civil service. Inexperienced civil servants, particularly the meritocratically hired, tend to comply with the rules more strictly at the beginning of their careers. In Brazil, as in many countries, career civil servants have a 36-month probationary period in which they can be fired easily. Consequently, any serious misconduct would be more likely to be both engaged in and noted in the years after probation – apart from those cases in which bureaucrats give up the civil service and leave their job without notice. In this specific case, they may abandon the job when they realise they do not like it or do not want to pursue a career within the bureaucracy. Thus, we believe that civil servants are less likely to engage in corruption in the first years of their careers. It is therefore plausible to expect that the chances of being caught and punished are higher in the mid-end of bureaucrats' tenures. Due to the paucity of theoretical and empirical research regarding newcomers and veterans and corruption within the civil service, this study tests the supposition:

H4 – Civil servants are less sanctioned for acts of corruption than for other serious offences at the beginning of their careers.

2.4 Gross earnings and corruption

Finally, it is largely accepted that low salaries for civil servants may make them more prone to engage in acts of corruption (Becker and Stigler 1974; Van Rijckeghem and Weder 2001; Gagliarducci and Nannicini 2013). One of the main arguments on the link between wages and corruption is the intuitive belief that paying higher salaries is a way to reduce opportunities for corruption – not only because poorly paid bureaucrats are more vulnerable to illicit rent-seeking (Van Rijckeghem and Weder 2001; Lindner 2013: 2) but also because those who receive higher salaries would have fewer incentives to risk their well-paid jobs if caught and sanctioned for any misconduct. However, there is an increasing consensus that high salaries alone are not enough to deter corruption (Rauch and Evans 2000; Treisman 2000, 2007; Gong and Wu 2012; Lindner 2013; Foltz and Opoku-Agyemang 2015). For example, the experiment carried out by Foltz and Opoku-Agyemang (2015) in Ghana showed that increasing salaries of civil servants may actually increase bribe-taking by those civil servants. One possible explanation may be that a significant pay rise or a high salary may boost not only civil servants' expectations but also expectations of those around them, from greedy relatives to corrupt superiors. Consequently, a higher salary may lead those who are more likely to engage in corruption to risk more, to demand more money, or even to take part in larger illicit transactions to attend to both personal and external demands. There is thus a null supposition to be tested:

H5 – *There is no significant correlation between wage and reason for punishment*

3.Using conviction databases: Challenges, data and methods

Mungiu-Pippidi and Fazekas (2020) remind us that measures based on prosecutions and convictions have been developed but still represent only a part of cases, raising questions about what fraction of corruption is detected and, hence, creating issues for more comparative analysis. According to them, this type of measure tends to be more

reliable where anti-corruption is more developed, strong rule of law and independent judiciary. At the same time, more responsive administrations might be more inclined to spotlight corruption, thus increasing the number of scandals observed over a given time period and appearing as more corrupt than others less accountable (Lagunes et al., 2021, p.7). This reflection was also done in a previous study that also analysed the database used here. Odilla (2020) showed that there had been a rapid increase in the number of penalties enforced over the years with a great variance of corruption control across agencies, observed through disproportionate enforcement, not only of overall number of penalties but also of corruption and non- corruption-related sanctions. According to the analysis, the agencies that punished the most for corruption were the ones with workers more exposed to corruption opportunities but also with more structured and long-established internal affairs offices. Both systemic opportunity for engaging in corruption and the existence of internal resources to fight it may explain the fact that the Social Security (INSS), the Traffic Police (PRF), the Revenue Service (RF), the Federal Police (PF), the National Health Foundation (Funasa), the Institute of the Environment (Ibama) and the Labour Offices (*Delegacia do Trabalho*) are agencies that recommend more sanctions for corruption (over 67%) than for other serious offences.

Another complex endeavour relates to what we measure as certain behaviours may be or not sanctionable depending on local legislation. This study, for example, defines corruption as the "abuse of a trust, generally one involving public power, for private benefits which often, but by no means always, come in the form of money" (Johnston, 2005, p. 11). For methodological reasons, the Office of the Comptroller General's typology of corruption[3], which is limited to administrative legal types, is applied here. There are important limitations that need to be addressed. This study only looks at administrative punishment imposed at the federal executive, i.e. bureaucrats working directly for the central government in ministries, governmental bodies, foundations, and regulatory agencies that were fired. It does not encompass, for example, state and municipal bureaucrats or even those working for state-run companies such as the oil company Petrobras and the bank Banco do Brasil. Also, the data do not include court cases that in Brazil run in parallel with the ones conducted by internal affairs units neither procedures that resulted in bureaucrats being acquitted after the investigation nor that were closed without any sanction enforced for any other reason.

The secondary data used here was gathered on different sources. The Office of the Comptroller General provided a list of individuals who were dismissed along with additional information, such as full name, the social security number, the title of the position the individual held, the state and agency where the individual was working, the agency that conduct the disciplinary investigation, the procedure number, the date the sanction was published in the official gazette, and the laws and norms that were violated, which indicate whether the act can be categorised as corruption or other serious offence. The time period covered was January 2003 to November 2014 and data was provided by email in November 2014. From the Personnel Statistics Bulletin, a report released monthly and openly accessible on the Ministry of Planning website, it was possible to gather information on the general figures regarding the federal civil service, such as the size of workforce by gender, by positions of trust, and annual expenditure on

[3] The CGU's typology is available on *Relatório de Punição Expulsiva*(Dismissal Punishment Report). It classifies as corruption items IX, XII, XIII, XVI from article 117 and items IV, X, XI from article 132 in the Law 8112/1990 (Taking advantage of your position to obtain private gain (personal or for third parties), damaging the dignity of the public service; Accepting a bribe, commission, gift or advantage of any kind, by virtue of your position; Accepting a payment, job, or pension from a foreign state; Using personnel or material resources from the public department in private services or activities; Administrative impropriety; "Damaging" public coffers and wasting national assets; Corruption) and Items IX and LXI from article 43 in the Law 4878/1996 (Accepting bribes, payments, gifts or benefits and personal advantages of any kind and, under any pretext, by virtue of your position; Giving to a third person, outside the department and in circumstances not established by law, tasks that you or your subordinates were supposed to perform).

salaries. Additionally, using the social security number of those punished it was possible to we collected in the Ministry of Planning under a Freedom of Information Act request additional individual data, such as gender; date in which the civil servant started working started working in the federal executive; and gross monthly salary.

The focus is on the individual conditions that differentiate the sanctions for corruption from sanctions for other serious offences. It is worth stressing that all the sanctions enforced resulted in bureaucrats (both career and non-career) being excluded from the civil service. As civil servants are entitled to fair disciplinary administrative procedures, it is assumed that all penalties were enforced based on evidence of serious misconduct. For statistical purposes, the analysis is at penalty-individual level – i.e. we can observe the same bureaucrat more than once if he/she has been severely sanctioned more than once. A total of 5,005 penalties resulting in dismissal, demotion and/or loss of pension were enforced for acts of corruption and other serious offences enforced between January 2003 and November 2014. It was possible to identify a total of 4,174 individuals punished: 86.8% (N=3622) were sanctioned only once; 9.8% (N = 407) received two penalties and 3.5% (N = 145) received three or more sanctions in the whole period. In this study database, the maximum number of severe/super severe penalties enforced is 13 against a single civil servant, as explored in the methodology section.[4] Offenders can ask the ministry responsible for endorsing the sanction to reconsider it and/or an appeal to external judicial courts as an attempt to reverse sentences resulting in expulsions. It was possible to identify 339 sanctions (or 6.8% of the 5,005 enforced) being cancelled by court decisions and, therefore, resulting in civil servants being reinstated into the federal bureaucracy – 63.4% of all 339 reinstatement cases noted are related to civil servants charged for corruption. It is worth saying that the number of returns has been decreasing significantly across the years and most of them are more likely to be reinstated due to technical issues in the disciplinary procedures than because they were considered not guilty by criminal courts (Odilla, 2019).

In this study, the dependent variable is the reason for being dismissed (sanction for corruption or sanction for other serious offences).[5] The independent variables are: i) gender (male or female, according to the official records that unfortunately did not include other options such as gender neuter); ii) length of service (years working for the federal executive); iii) career or non-career civil servant (defined by having being approved or not in a formal entrance exam); iv) special position holder or not; or v) the individuals' salary levels paid in December 2016. Although "the last gross monthly salary paid" was requested for each name/social security number provided, the Ministry of Planning only released information regarding the payments made in 2016. Consequently, there is little available information on earnings of those who had not been reinstated into the civil service at that time and, therefore, findings regarding this variable will be presented considering that this study does not make inferences regarding who is corrupt or not but who is more likely to be punished.

In addition, the data made available for this study does not include, for example, age, education level, race/colour or political affiliation of civil servants who received sanctions. The quantitative analyses were made

[4] If a group of civil servants are engaging in misconduct together, their conduct can be targeted by one single procedure that will result, if they are found guilty, in one sanction against each of them. The type of sanction, however, can vary depending on the set of charges and evidence presented against each civil servant even if they are targeted by the same procedure. This means that one procedure can result in different types of sanctions, although it may only result in one sanction per civil servant. While a procedure is being carried out, it is also possible to open another Administrative Disciplinary Procedure (PAD in Portuguese) if, during the trial, another non-related possible offence is identified and linked to the same civil servant or group of civil servants who were under suspicion.

[5] Although this study collected data on punishment that resulted in 5,095 less severe sanctions (warnings, suspensions converted into fines and suspensions), it did not include this in the analyses because of the small number of these cases related to corruption (N =45). This is to avoid creating any statistical noise in the attempt to identify which conditions differentiate those punished for corruption from those punished for other serious offences.

through the variables' main frequencies and preliminary descriptive statistics. This paper also used subsamples whenever possible to compare similar cases as well as to avoid statistical noise and misinterpretation of the data. Bivariate correlations, statistical tests (chi-square and ANOVA) and logistic regression (see Appendix) were used as robustness testing to determine a good set of predictors. This was done due to the lack of theory and also due to the scarce amount of data available to consider the combination of independent variables used in this study to examine the control of bureaucratic corruption. We are also aware of the possible existence of endogeneity problems due to the sample that only includes those who have been fired and offers a limited number of independent variables.

Descriptive statistics was complemented with 24 semi-structured interviews with corruption fighters within the federal executive. As these bureaucrats are part of a hard-to-reach population, a respondent-driven sample was used to select them, once non-probability samples are largely accepted in cases of sensitive topics and accessibility issues (Bryman, 2008; Salganik and Heckathorn, 2004). Among the interviewees, there are those who helped to design and led the Brazilian anti-corruption agency CGU, representatives of the CGU responsible for monitoring the disciplinary system, heads of internal affairs units and members of disciplinary punitive committees (Administrative Disciplinary Procedures), in agencies/ministries with high, medium and low numbers of corruption-related sanctions. The interviews, which were conducted in Portuguese, took on average 1 hour 10 minutes and were recorded. Participants were asked about their career path in the civil service, how they started working in the disciplinary system, and about the most common type of defendant and administrative offences according to their experience. They were also shown and asked to comment on tables separating offences and offenders by corruption-related and non-corruption sanctions. To shed light on the key variables used here to profile those sanctioned, the analysis of the interviews combined deductive and inductive coding (Boyatzis, 1998).

The research design used here mixes qualitative and quantitative analyses into an independent but complementary fashion. The integration of qualitative and quantitative methods allow one to draw on their complementary strengths and to use one method to check the assumptions underlying the other method (Howe 2012; and Seawright 2016). Findings presented next combine this mixed-method to test the hypotheses presented before.

4.Who are the civil servants more likely to be punished?

The main frequencies of the variables were analysed according to the reason for the sanction enforced, i.e., act of corruption or other serious offence. The analysis combines the percentages of the total number of sanctions enforced resulting in dismissal, demotion and loss of pension. Table 1 provides the number of sanctions by individual characteristics available and, whenever possible, contrasts the sample available with the distribution of the total population of active civil servants in order to provide parameters of comparison. The distribution of sanctions is not similar to the distribution of the workforce for all variables, apart from those who receive bonus or have any type of special position (*Cargos e Funções de Confiança e Gratificações*) that is slightly similar. There is, for example, a slightly higher number of men who received punishment for acts of corruption when compared to women sanctioned for corruption. In December 2014, after decreasing 0.5 percentage points from 2003 to 2014, the number of male workers represented 54% of the active workforce while the male civil servants received 73.93% of the total sanctions enforced during the period of 2003 and November 2014.

Table 1 – Sample and the main frequencies at individual-sanction level by reason of the penalty enforcement (corruption or other serious offence), January 2003-November 2014

Variable	n* Sanctions Enforced (by variable)	%** Sanctions Enforced (by variable)	Acts of Corruption n (%)	Other Serious Offences n (%)	Total Size of Work Force in Dec.2014[1] (by variable) N (%)	Total Size of Work Force in Dec.2003[1] (by variable) N (%)
Gender						
Female	1,289	26.07%	847 (24.9%)	442 (28.6%)	263,078 (46%)	207,737 (45.5%)
Male	3,655	73.93%	2,551 (75.1%)	1,104	309,356 (54%)	249,243 (54.5%)
TOTAL	**4,944**	**100%**	**3398**	**1546**	**572,434**	**456,980**
Career civil servant						
No-formal entrance exam	440	8.8%	258 (7.5%)	182 (11.6%)	5,935 (1.03%)	4,823 (1.1%)
Formal entrance exam	4,557	91.2%	3,167 (92.5%)	1,390 (88.4%)	566,499 (98.97%)	452,157 (98.9%)
TOTAL	**4,997**	**100%**	**3,425**	**321**	**572,434**	**456,980**
DAS holders						
No-formal entrance exam	403	87.4%	238 (81.79%)	165 (97%)	5,935 (25.88%)[3]	4,823 (27.5%)[3]
Formal entrance exam	58	12.6%	53 (18.21%)	5 (3%)	16,991 (74.85%)[3]	11,747 (66.9%)[3]
TOTAL	**461**	**100%**	**291**	**170**	**22,926**	**16,570**
Holding any special position and/or bonuses[4] * **						
No	4,333	86.7%	2,985 (87.2%)	1,348 (85.7%)	473,200 (82.7%)	38,9206 (85.1%)
Yes	665	13.3%	440 (12.8%)	225 (14.3%)	99,234 (17.3%)	67,774 (14.9%)
TOTAL	**4,998**	**100%**	**3,425**	**1,573**	**572,434**	**456,980**
Job Ternure (time working in the federal executive)						
0-5 years			460 (13.9%)	405 (28.4%)		
6-10 years			642 (19.4%)	282 (19.8%)		
11-15 years			454 (13.7%)	208 (14.4%)		
16-20 years			428 (12.9%)	178 (12.3%)		
21-25 years			529 (15.9%)	145 (10%)		
26-30 years			526 (15.8%)	124 (8.6%)		
31-35 years			199 (6%)	57 (3.9%)		
Over 36 years			67 (2%)	27 (1.9%)		
TOTAL	**4,731**		**3,305**	**1,426**		
Gross earnings BRL[6] (December 2016) TOTAL						
0-5,000			22 (5.7%)	18 (6.5%)		
5001-10,000			47 (12.2%)	67 (24.1%)		
10,001-15,000			89 (23.1%)	57 (20.5%)		
15,001-20,000			30 (7.8%)	38 (13.7%)		
20,001-25,000			69 (17.9%)	31 (11.2%)		
Over 25,001			128 (33.2%)	67 (24.1%)		
TOTAL	**663[5]**		**385**	**278**		

Sources: Author's own compilation based on data released by the CGU and by the Ministry of Planning and BEP (Jan.2004 and BEP Jan.2015)
*Missing values excluded
**Valid percent
*** Includes both career and non-career civil servants
1 Ministry of Planning/Boletim Estatístico de Pessoal, table 2.7 (BEP 94 Jan.2004 and BEP 225 Jan. 2015)
2 Counting only those with DAS positions (Ministry of Planning/Boletim Estatístico de Pessoal) who are not career civil servants in any level or branch and who are working for the federal executive – Ministry of Planning/Boletim Estatístico de Pessoal (BEP 93 table 5.10 and BEP 225 Jan. 2015 - table 6.4).
3 Counting only DAS holders (Ministry of Planning/Boletim Estatístico de Pessoal) but those occupied by pensioners in 2003. In Dec.2014, DAS positions N=22,926 (225 Jan. 2015 (table 6.4) in Dec 2003, DAS positions N = 17,559 (BEP 93 table 5.10).
4 Ministry of Planning/Boletim Estatístico de Pessoal (table 5.2 - Quantitativo e Idade Média dos ocupantes de Cargos e Funções de Confiança e Gratificações do Poder Executivo Federal, segundo o sexo); It includes DAS, CA, CAS, CCT, CD, CGE, FCI, FCT, FG, FGR, GR, NES as positions with special compensation. Federal, segundo o sexo); It includes DAS, CA, CAS, CCT, CD, CGE, FCI, FCT, FG, FGR, GR, NES as positions with special compensation.
5 Top-up salaries such as vacations or even 13th salary might be included.
6 BRL = Brazilian reals, R$

Correlational analysis were used to examine the bivariate relationship between the reason for punishment and five individual characteristics of those penalised, as well as the correlation between each pair of independent variables. Findings suggest that correlations were statistically significant for four out of five independent variables when analysing their individual relationship with penalties for corruption, although the level of association appears to be low, as Table 2 illustrates.

Table 2 – Bivariate correlations and descriptive statistics of sanctions enforced, January 2003-November 2014

Variable	Reason for Enforcing the Sanction	Gender	Gross Earnings	Job Tenure (Years)	Special Position or Bonuses	Career CS	DAS Holder
Sanction/Reason (1 = corruption)	-						
Gender (1 = man)	.039**	-					
Gross Earnings (BRL Dec.2016)	.141***	.186***	-				
Job Tenure (years)	.180***	-.137***	-.160***	-		.	.
Special Position or Gratification (1 = Yes)	-.020	.039**	.038	-.138***	-		
Career Civil Servant (1 = Yes)	.066**	-.068***	-.006	.238***	-.794***	-	
DAS Holder (1 = Yes)	-.038**	.064***	.031	-.201***	.815***	-.884***	-
M	.69	.74	R$ 19,873.87	15.73	.91	.13	.09
SD	.465	.439	12,689.76	10.214	.283	.340	.289
Observations (N)	5005	4944	663	4771	4998	4997	5005

***p< .001; **p < .01 ; *p < .05

Notes:

1) Reason for punishment (Corruption = 1; No-corruption = 0);
2) Gender (Male = 1; Female = 0);
3) Gross earnings paid in December 2016;
4) Years working as a CS = date the target became a civil servant according to information released by the Ministry of Planning *minus* date sanction was enforced;
5) Whether procedures' target has 'special position or bonuses' (*Funções de Confiança e Gratificações*) (Yes = 1; No = 0);
6) 'Career civil servant' stands for those sanctions targeting who were meritocratically hired. Those who were not meritocratically hired but hold a DAS (high-level management and advisory, or *Direção e Assessoramento Superior*) are classified as 'non-career civil servant (yes for career civil servant = 1; no for non-career civil servant but DAS holder = 0);
7) DAS (high-level management and advisory, or *Direção e Assessoramento Superior*) holders can be both meritocratically hired or not (yes for holding a DAS = 1; no for no DAS position = 0);
8) A chi-square test of association was used to determine if being punished for corruption was significantly associated with gender, individuals with special position or bonuses and with individuals who are career civil servants. In addition, this was initially analysed using one-way analysis of variance (ANOVA) for job tenure and salary. Both tests were significant at .001 level.
9) BRL = Brazilian reals, R$

As observed, the bivariate correlations and the statistical tests (chi-square and ANOVA) also indicate a positive and statistically significant relationship between severe punishment for corruption and all other variables except the "holding special position or gratification" (r = -.020, p > .05) – the only variable that is not statistically significant. In addition, among the variables, the enforcement of sanctions for corruption is more consistently and positively associated with the time a civil servant has been working for the government (r = .185, p < .001), meaning the longer one works for the government the higher one's chances are of being sanctioned for corruption. The logit regression results based on the four models described in the Appendix also suggested that there are greater chances of men being sanctioned for corruption as opposed to women, performing as a statistically significant predictor even when controlling for agencies and disaggregating the job tenure by year bands. The same applies to job tenure, which is also a statically significant predictor. Those in the first five years of their careers are shown to be less likely

to receive a penalty for corruption compared to the other five-year bands. When controlling for those who have any special position or bonuses or just for those who are holders of high-level management or advisory positions, we observe that these two predictors are statistically significant. Unfortunately, as expected, the explainability of these models are low due to the small number of predictors (the highest was $R^2 = .220$).

We could also observe very few immediate and complete responses from the interviewees about the profile of those punished. Twenty out of 24 interviewees answered the question based on their own experience and/or perception, and reacted differently[6]. Three out of 20 said they would not be able to describe characteristics of those who were punished, admitting they had no data or there were difficulties in addressing the question, and 14 said "it depends" or "it varies" on the agencies or on the nature of the job, and did not provide much detail. For most of the interviewees, however, there was no straightforward answer – a long pause after the question was observed in six cases.

Only three interviewees directly presented a profile referring to gender, age, career status and tenure of those who received a penalty. Two of them (10 and 16) used the Donald Cressey[7] (1953) theory on the "fraud triangle" as a clear attempt to provide theoretical support to their answers, as follows:

> 'A few years ago, we studied the profile of those punished by the CGU and it somehow fits with what Donald Cressey shows in the fraud triangle theory. The majority is male, from 35 to 45 years old and with an average of 10 years working as a civil servant and occupying a position of trust. These variables do not say much though. The most important variables are the ones that remain unknown. Imagine a civil servant who has large debts. This person's vulnerability in accepting a bribe or in engaging in any illegal act is much higher than another civil servant who is not in the same situation.' (**Interviewee 16)**.

> 'First of all, men.
>
> *Interviewer: Why?*
>
> 'There is a subjective aspect and an objective aspect. Many cases are related to management positions. Not top-level ones, but bosses in regional divisions… these positions are mostly occupied by men and if there are more men [occupying these positions there will be more men being punished]. What does it take to engage in corruption? This theory is very cool if you want to use it in your study. The first variable [to explain corruption] is opportunity and since men in general are occupying certain positions... Actually, the first variable is incentives, and everyone has desires and wishes and, eventually, there are those who illegally seek income. The second and most important variable is opportunity. From the moment men have more access to management or top positions they do have more opportunities. And, finally, there is the rationalisation that it is a cost-benefit analysis that we all make...' (**Interviewee 10**)

> 'More men, undoubtedly. Maybe it is [so] because in these areas [where there is a higher number of sanctions] the percentage of men is higher. In the

[6] Two interviewees did not answer the question and two others were not asked.

[7] American criminologist Donald Cressey (1953) developed a theory – the fraud triangle – that explains occupational fraud and other unethical behaviours based on three key elements: pressure (need or greed), opportunity (usually a temporary situation arises where there is a chance to commit the act without a high chance of being caught and punished), and rationalisation (individuals manage to justify what he or she is about to do).

> Revenue Service and in the police, for sure there are more men than women. Status varies depending on agency. In certain places the hierarchy makes the difference. The sanctioned civil servant is more or less in the middle of their career. There are those who engage in misconduct just in the beginning, but there are people who wait to know the agency better before breaking the rules. It is a middle age civil servant, between 35 and 50 years old...' (**Interviewee 6**)

In general, the majority of the interviewees – 12 out of 20 – shared the perception that men and those who are not in their early career are more likely to be punished. Many also highlighted that position-of-trust holders are among those who are sanctioned the most. Only two interviewees (interviewees 4 and 22) pointed out that, apart from being a man, not being a career civil servant also creates an incentive for engaging in corruption, arguing that the non-meritocratically hired have less to lose because their jobs are temporary and thus they tend towards more risk-taking behaviour.

In order to better assess the relationships between sanctions and gender; sanctions and career length; sanctions and career qualification; and sanctions and wages, this study will disaggregate these variables, discussing them in detail as well as combining the statistics with thematic content analysis of the interviews. In doing so, the goal is providing empirical data on the chances of being sanctioned for corruption as well as to test the hypotheses already presented. Unfortunately, some of the possible predictor variables mentioned by the interviewees, such as age, educational degree, political affiliation and personal motivation for engaging in misconduct, could not be included in the models due to the lack of available data, highlighted as a limitation in the methodology section.

4.1 Gender

Although 12 out 20 interviewees said "men" when requested to say who is the most sanctioned by gender, they provided different explanations for answering that men are more likely to be sanctioned than women. Three main justifications appeared among the answers, sometimes combined, sometimes presented individually: 1) women are more risk averse; 2) women occupy less important positions and therefore have less opportunity to engage in misconduct, especially in corruption; and, finally, 3) women are more honest than men. There was a clear attempt among the interviewees to avoid controversial answers – most clearly tried to measure their words to try to explain possible differences regarding the gender distribution of sanctions and one showed very curious about why this study is examining the gender of those punished. There were those who highlighted that they do not see any difference in the behaviour of men and women and, to them, the only reason there are more men sanctioned for corruption is because there are more male civil servants in command positions. This type of answer suggests that misconduct is merely a matter of opportunity and being sanctioned is owing to the fact that these positions that are occupied by men are more likely to be monitored by the internal control system due their importance..

Interviewees 2 and 6, on the other hand, provided an alternative explanation suggesting that those agencies that punish the most have more men than women and therefore the figures on sanctions may show these distributions. Nonetheless, data provided by the Ministry of Planning contradicts, in part, the assumption that the number of women being sanctioned is proportional to the number of women working in the agencies that punish the most. The distribution of female and male workforce by governmental bodies indeed varies greatly but does not vary in a way that can justify the assumption that more men are being sanctioned because the agencies that punish

the most have a much higher male workforce. When ranking ten agencies with the largest number of penalties enforced against corruption in the period under analysis, only the Ministry of Health and the INSS have more women than men when analysing the total population of civil servants. In these two governmental bodies, it is possible to observe a higher proportion of sanctions being enforced against men than against women. In addition, the proportion of penalties enforced against women is lower than the proportion of female civil servants in all 10 agencies. Even in departments such as the PF and the PRF where the female workforce is indeed the minority, the proportion of sanctions against women is even lower than the proportion of the total population of female civil servants.

Finally, regarding the distribution of special positions or managerial positions, the data made available by the Ministry of Planning shoed that the perception that there are far more men occupying these ranks is partially correct. The distribution of special positions and bonus, for example, shows that in December 2014 men held 56.48% (or 55,891) of these positions and women 43.51% (43,063), whilst the distribution of the total active workforce was slightly different – 46% of women and 54% of men, as shown in Table 6.1. However, there are proportionally much fewer women occupying the top positions within the DAS spectrum (DAS5 and 6). In any case, those with DAS-5 and DAS-6 represent a small proportion of the punished and, therefore, perception that women are less punished because they are occupying less command positions does not seem to be represented by the data analysed.

Considering the empirical data presented, there is strong evidence to state that the distribution of sanctions enforced against women and men are not proportional to the female and male working population. Data suggests, therefore, that gender has an effect on likely sanction with women being both less sanctioned than men and also less likely to be punished for corruption when we control for job tenure, career status, wage, agency where the misconduct happened, ministry that enforced the sanction and special position. There is therefore evidence to support hypothesis **H1** – ***Men are more sanctioned for corruption than women.*** However, it is not clear why. The multiple and, sometimes, contradictory explanations presented by the interviewees suggest that this topic requires further analysis in order to establish any causal relation.

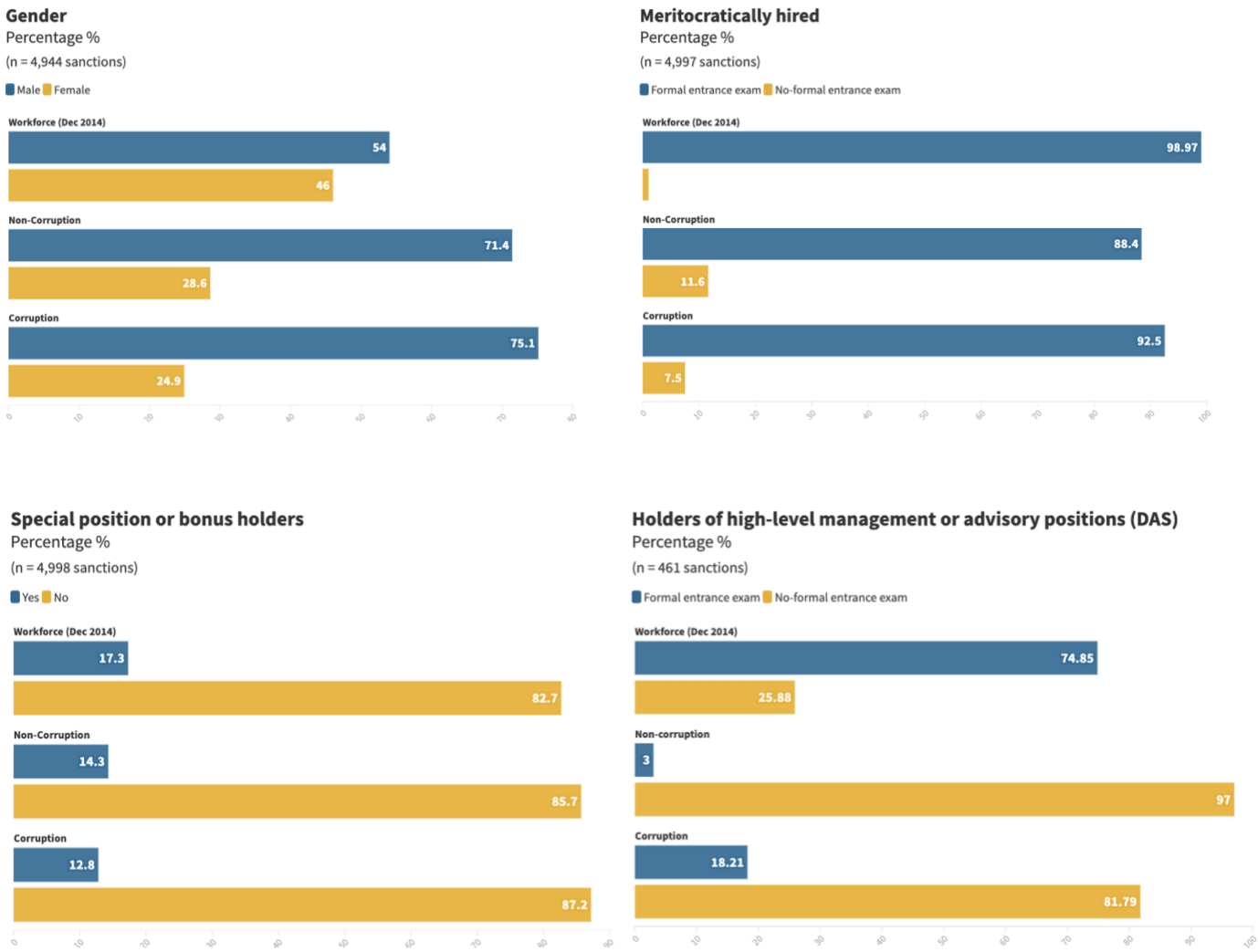
4.2 Career vs non-career bureaucrats and holders of special positions and bonus

When the variable under analysis is differences between sanctions enforced against those hired meritocratically and those hired non-meritocratically, what emerges is a complex and contradictory scenario. Only three interviewees manifested their thoughts. Two of them suggested that non-career civil servants are more likely to engage in misconduct as they have less to lose as they are less likely to enjoy long tenure – the non-meritocratically recruited have temporary jobs and they are very likely to be linked to political connections. The other expressed the opposite feeling. Descriptive statistics suggest that those who are career-civil servants are more likely to be punished for corruption than for non-corruption related acts, but the overall distribution is not proportional to the overall active workforce, as Table 1 and Figure 1 illustrate. Having been approved or not in a formal exam, however, may be strongly associated with holding a special position. This is so because those who are not career civil servants, i.e. those who did not passed in a formal exam, are only allowed to hold DAS high-level management and advisory positions. When a subsample of DAS slots is analysed, the distribution of sanctions for both corruption and other serious offences suggests the opposite, i.e., that non-career civil servants were the ones proportionally most punished compared to the overall population of DAS holders. The data collected does not

offer strong evidence to reject the hypothesis **H2 – *Career civil servants (meritocratically hired) are less sanctioned for corruption than non-career civil servants***.

It was possible to observe that the distribution of those punished for both corruption and non-corruption is lower than the overall population of civil servants holding special positions or receiving bonuses. However, the difference between sanctions for corruption and non-corruption misconduct is not significant. Again, data analysed in this study do not allow us to support the hypothesis **H3 – *Civil servants who hold special positions or receive bonuses are more sanctioned for corruption than those who do not*.** Figure 1 illustrates these differences between the proportion of the sanctions enforced and the overall population of active civil servants analysed regarding gender, career-status, and holding special positions and receiving bonuses.

Figure 1 – Distribution of sanctions enforced by gender, career-status, and holders of special position and bonus by type of misconduct in comparison with the activeworkforce



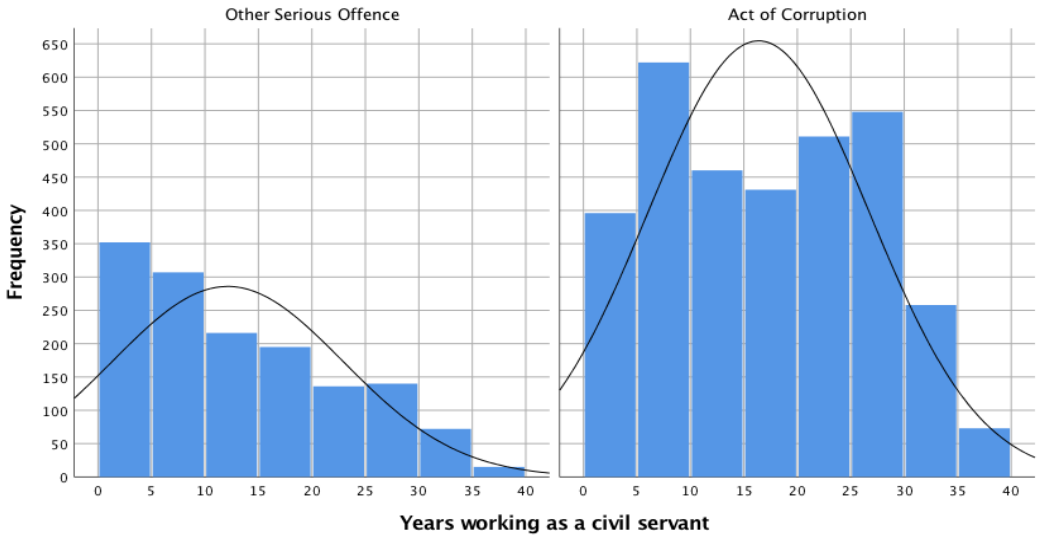
4.3 Career length

In general, interviewees pointed out that, based on their perception and experience, early career civil servants are less likely to engage in misconduct, especially in acts of corruption. Overall, the interviewees said it is necessary to have time to learn how the system works and what its loopholes are and that it takes time to be included

by networks. The quantitative analysis supports this perception showing seniority as a civil servant to be a predictor of being sanctioned for corruption as opposed to other types of misconduct. Those who are in the first five years of their careers are less likely to be sanctioned for corruption than any other civil servant with more years of experience. Sanctions for corruption were enforced against civil servants working for an average of 16.85 years (N = 3322, sd = 9.968), as compared with 13.17 years (N = 1449, sd = 10.311) for those punished by procedures that resulted in a severe sanction for other misconduct. The output of the ANOVA analysis shows that the difference in job tenure by type of sanction is statistically significant (p<.001).

Figure 2 below illustrates the distribution of punishments by years of work experience as a government worker. As can be seen, the service length varies depending on the reason for the sanction (act of corruption or other misconduct). Indeed, those with shorter tenures were punished for other serious offences more than for corruption in the period under analysis. Between January 2003 and November 2014, 49% of the 1,449 are punishments enforced for misconduct not related to corruption against those civil servants with up to ten years of civil service.

Figure 1 – Distribution of sanctions enforced by years working as a civil servant when punished with dismissal, demotion, and/or loss of pension (January 2003- November 2014)



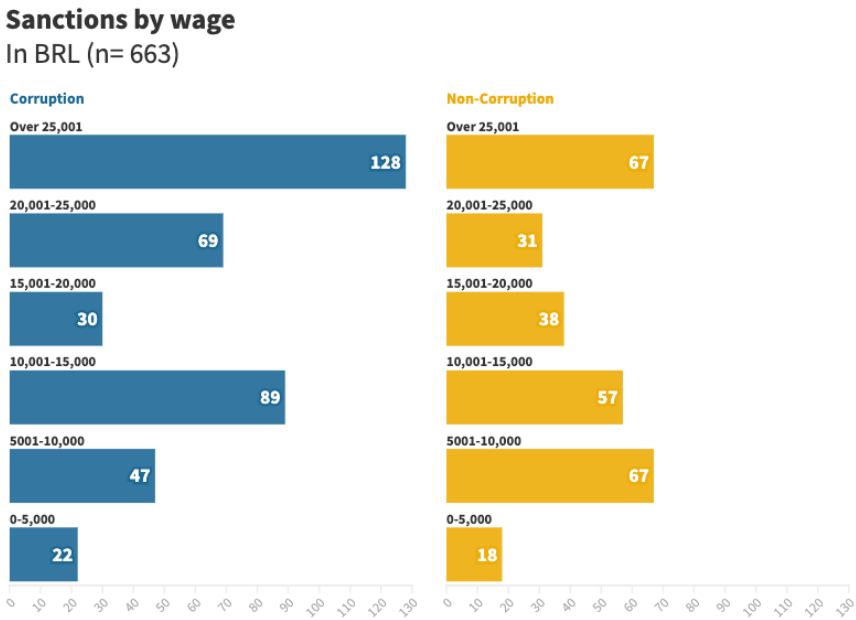
It is worth saying the distribution of penalties when controlled by career length and reason for punishment (corruption and non-corruption related penalties) varies greatly depending on where the civil servant works. When the sanctions are ranked by the public bodies that punished the most for corruption and for other serious offences, it is possible to observe that there is also a variation between the bands of time working as a civil servant. Still, this study found statistically significant evidence that allows us to state that veterans are more likely to be punished for corruption than beginners (from zero to five years' tenure), supporting, therefore, the hypothesis **H4 – *Civil servants are less sanctioned for acts of corruption than for other serious offences at the beginning of their careers.***

4.4 Gross earnings

No interviewees linked lower salaries with higher chances of engaging in misconduct and therefore higher rates of punishment. However, some referred to having financial debts as a potential motivation for wrongdoings.

Although the variable of gross earnings can be considered weak in this study (as already explained in section 3), it appeared positive and statistically significant for being sanctioned for corruption in the bivariate correlations and the statistical tests (chi-square and ANOVA)as well as in the logistic regression. However, the data available on gross earnings also represent the cases of reinstatements, i.e. civil servants who appealed and returned to public office that are majority. In any case, this variable was analysed here because they refer to a group of civil servants initially sanctioned, regardless the subsequent analysis of courts that understood the punishment should be declared void. Figure 2 illustrates the distribution of sanctions enforced and the average monthly wage of those fired between 2003 and 2014.

Figure 2 – Distribution of sanctions by wage of those sanctioned and by type of misconduct (corruption and non-corruption)



As illustrated by Figure 2, sanctions for corruption are concentrated among those who receive over 25,001 BRL and between 10,001 – 15,000 BRL, i.e. above the month average salary of 10,500 BRL paid to Brazilian civil servants working for the federal executive in the 2003-2014 period. In the case of sanctions nonrelated to corruption they are concentrated among those with higher salaries and also among those whose wages vary from 5,001 and 10,000 BRL. Due to the limitations of the data, however, the evidence provided is not strong enough to allow us to reject hypothesis **H5 – *There is no significant correlation between wage and reason for punishment***. Yet, as it was mentioned, as the data on gross earnings refers to the payments made in 2016, findings suggest that those with higher salaries were the ones more likely to revert the punishment and return to office, and this is an important finding that should be further investigated.

5. Discussion and final thoughts

The primary purpose of this paper is to discover whether there are important differences in the demographic characteristics among those civil servants who were caught and punished in the Brazilian federal executive,

categorizing them by sanctions against corruption and against other serious offenses. Despite the scarcity of data, it was possible to identify key determinants of punishment for corruption: senior men are more likely to be sanctioned for corruption compared to other serious misconduct. Although additional research is necessary to test the reasons the civil servants with these characteristics are the most likely targets for sanctions for corruption, findings support with empirical evidence the growing literature on bureaucratic corruption.

This is particularly the case of gender and corruption. Depending on which variables we control for, the OR shows that Brazilian male federal bureaucrats are between 1.4 to 1.9 times more likely to receive a penalty for corruption (see Appendix), corroborating what had been already identified in Italy and China by Decaroles et al. (2022). A possible explanation for the lower level of sanctions against women is that they engage in less misconduct, especially in corruption. Or they are simply less punished than men because integrity enforcers perceive them as less corrupt. Why that happens exactly, however, was not possible to identify. Interviewees did perceive that women engage in less misconduct than men, but their observations and justifications varied a lot and were not completely accurate in this regard. In addition, it does not seem that increasing gender equality would be an important means of reducing corruption in government, as Rothstein (2016) suggests. Recruiting more women into government could only have a short-term effect on corruption because it is very likely to fade once women became more integrated into political and economic networks. Therefore, it seems more important to understand what the opportunities and incentives are for both male and female civil servants as well as for those who are supposed to enforce control and punishment.

Findings also challenge part of the literature that suggests the connection between less problematic behaviour and more experienced officers (Harris 2009 and 2010). Length of service is a variable that performs differently in the case of civil servants sanctioned for corruption and of civil servants punished for other serious offences. Evidence suggest that civil servants at the beginning of their careers are less likely to be punished for corruption than for other offences that result in expulsions. However, in the case of acts of corruption data is statistically significant only for those in the first five years of their careers when compared to those in the last years of their careers. There is high frequency of sanctions for corruption among those with six to ten years' job tenure as well as for those with 20-30 years of experience, what deserves further analysis, especially observing the agencies that recommended the sanctions. The data also indicates that overall those recruited non-meritocratically are punished the most, although there is neither strong nor statistically significant evidence they are more likely to be sanctioned for corruption than for other serious offences. There are still doubts whether they engage more in misconduct or they are framed more often for not being part of the *esprit de corps*. However, this result may provide empirical support to complement the literature on the relationship between recruitment through examinations rather than by discretionary appointment and lower corruption (Charron et al. 2016; Dahlström et al., 2011; Meyer-Sahling and Mikkelsen 2016; Rauch and Evans 2000).

At the same time the analysis of disciplinary sanctions in the Brazilian executive brings empirical contributions to the anti-corruption it also allows us to reflect on the limitations and benefits of using this type of data. There are clear challenges not only due to a wide accessibility issues to investigations and conviction records but also to differences in criminal and administrative legislations, investigative and prosecutorial efforts, and in record-keeping standards, just to mention a few. Although we agree that official crime statistics in general, or disciplinary sanctions as it is the case of this study, cannot be considered a full measure of corruption, data on punishment may offer new possibilities of analysis of who is being caught and punished that are still largely

unexplored. This study suggests that the analysis of disciplinary sanctions allows, for example, identifying and discussing whether disciplinary and internal affairs departments have been punishing for corruption more men than women, more experienced bureaucrats than inexperienced ones, more career civil servants than those in positions of trust, and more people who receive top up salaries. Data on sanctions, therefore, help to offer a better understanding of the overall profile individuals that were caught and punished that agencies can use to better prevent and respond to misconduct.

Apart from providing accurate portrayals of those caught and punished that are still scarce in the literature on corruption studies, the analysis on sanctions can help agencies better prevent and respond to misconduct. This can be done by, for example, identifying in advance employees who can either change their conduct or be subject to removal from the workforce or by identifying disparities that may occur in the context of broader inequality of sanction enforcement. In addition increased transparency on sanctions enforced seems also necessary to encourage scholars to analyse this type of data in a more comparative fashion not only within different branches and levels of government but also across countries. Giving access to this type of data, even considering sharing agreements in the case of sensitive data, can break down the silos of government storage and ensure relevant information on sanctions is open for analyses. This kind of transparency could help to deliver change in the public sector. Further research on this topic might also facilitate an agency-driven redesign of control and discipline measures, perhaps focusing on the particular profile of sanctioned civil servants and the factors that might encourage them to engage in corruption or dissuade them from doing so.

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Appendix

The baseline multiple logistic regression equation will be as follows:

$$P\,(Yi = 1) = \alpha + Xi\beta + Zi\theta + \mu i$$

This equation assesses individual and institutional variables on the odds of being punished for corruption (Yi _=1) compared to severe sanctions for other offences resulting in 'expulsive' sanctions.

Yi _is a dummy variable, with a value of 1 if the misconduct involves corruption and 0 if it does not, according to the Office of the Comptroller General's parameters;

For each individual i, $\boldsymbol{X}$ is a vector of observable individual key explanatory variables detailed below. In turn, $\boldsymbol{Z}$ is a vector of control variables of more institutional characteristics (such as the agency that conducted the investigation, and the agency and the state where the civil servant worked).

In addition, $\boldsymbol{\mu}$ _is the error term; β and θ are the drop and α _the vertical intercept.

As the database contains all the sanctions enforced that resulted in dismissals, demotions or pension withdrawal in response to misconduct on the part of civil servants, *punishment* for corruption or other serious offences will be my (categorical) dependent variable. The following variables, which the literature suggests are likely to affect the punishment, will be tested here.

Below, accordingly, is a list of explanatory variables. The classification is mine.

(1) Reason/Law Violated (R): a set of dummy variables for each one of the nine types of corruption, in accordance with the CGU's parameters;
(2) Types of severe sanctions: (t): a set of dummy variables for dismissal, demotion or pension withdrawal
(3) Salaries (judiciary): individual salaries for those working in December 201627;
(4) Entry qualification (q): individual dummy for those who are *career civil servants* (0) and for those who instead had a position of trust (1);
(5) Advisory position DAS (das): individual dummy for the civil servant who did not occupy a DAS/ other high-level position (0) and for those who had senior/advisory positions (1).
(6) Gender (g): individual dummy for *woman* (0) and for *man* (1);
(7) Number of years taken to open and complete a disciplinary procedure (d);
(8) Number of years working as a civil servant (judiciary);
(9) Year Controls (yc): a set of year dummy variables for the punishment date (between 2003 and 2014);
(10) Disciplinary Procedure Controls (pc): individual dummy for those who were the subject of more than one disciplinary procedure (0), for only one procedure (1);
(11) Other factors Z;
- Agency that conducted the investigation;
- Agency where the punished individual worked;
- Agency that endorsed the sanction;
- State where the punished individual worked.

The regression analysis (as well as the whole preliminary descriptive analysis) was **performed using a standard statistical software package (SPSS) and the model described above will be primarily estimated as a Logit via maximum likelihood estimation**. This analysis delivers estimated coefficients for the explanatory variables considered – a measure of the marginal impact of a 1-unit change on the latter probability of being severely punished. The magnitude and statistical significance of these estimates will be assessed at the conventional levels of significance.

Model 1 → P (y = 1, sanction for corruption) = α + $\beta_1$gender (1 = male) + $\beta_2$grossearnings + $\beta_3$job_tenure_years + $\beta_4$career_CS (1 = yes) + $\beta_5$special_position

Model 2 → P (y = 1) = α + $\beta_1$gender (1 = male) + $\beta_2$job_tenure_years + $\beta_3$career_CS (1 = yes) + $\beta_4$special_position (1 = yes)

Model 3 → P (y = 1) = α + $\beta_1$gender (1 = male) + $\beta_2$career_CS (1 = yes) + β_3DAS_holder (1 = yes) + $\beta_4$job_tenure_years (by 5 year-bands; 0-5 years = 0)

Model 4 → P (y = 1) = α + $\beta_1$gender (1 = male) + $\beta_2$career_CS (1 = yes) + $\beta_3$special_position (1 = yes) + $\beta_4$job_tenure_years (by 5-year bands; 0-5 years = 0) + $\beta_5$agency_act_happened (1 = INSS, National Institute for Social Security) + $\beta_6$agency_act_happened (1 = DPRF, Traffic Police) + $\beta_7$agency_act_happened (1 = MF, Ministry of Finance) + $\beta_8$agency_act_happened (1 = FUNASA, National Body for Health and Sanitation) + $\beta_9$agency_act_happened (DPF, Federal Police) + β_{10}agency_act_happened (MS, Ministry of Health)

Table Appendix 1 – Binary logistic regression of gender, job tenure, meritocratic recruitment, special position/bonus /gratification holder, DAS holder, gross earnings, and agency in which the sanctioned act happened on being punished for corruption compared to other serious offences

	Model 1			Model 2			Model 3			Model 4		
Predictor	B	SE	OR	B	SE	OR	B	SE	OR	B	SE	OR
Constant	-1.682**	0.653	0.186	- .776***	0.217	0.46	-1.051***	.277	.349	-1.021***	.235	.360
Gender (1 = male)	.646***	0.203	1.909	.353***	0.073	1.423	.361***	.073	1.435	.384***	.081	1.468
Career CS	1.222*	0.589	3.395	.805***	0.206	2.236	.911***	.267	2.486	.200	.220	1.222
Any Special Position or Earning Bonus (1= yes)	.955*	0.485	2.599	.538**	0.18	1.712				.575**	.190	1.777
DAS Holder (1 = yes)							.728**	.266	2.070			
Gross Earnings	.000**	0	1									
Job Tenure (years)	-0.004	0.008	0.996	.037***	0.003	1.037						
0-5 years (reference category, 0 = yes)												
6-10 years							.716***	.098	2.046	.555***	.108	1.742
11-15 years							.666***	.109	1.947	.826***	.119	2.284
16-20 years							.778***	.114	2.176	.937***	.125	2.553
21-25 years							1.193***	.118	3.298	1.198***	.129	3.314
26-30 years							1.353***	.123	3.869	1.389***	.134	4.012
Over 31 years							1.052***	.144	2.862	1.188***	.155	3.280
INSS (Social Security)										1.521***	.101	4.577
Traffic Police (DPRF)										2.388***	.183	10.888
Ministry of Finance										1.473***	.176	4.363
FUNASA (Health and Sanitation)										.473**	.150	1.605
Federal Police (DPF)										.362**	.155	1.437
Ministry of Health (MS)										-.808***	.155	.446
Test												
- 2LL	715.53			5672.642			5621.105			5038.957		
Nagelkerke R2	.066			.050			.065			.220		
Hosmer and Lemeshow	Chi-square 11.430 ; df = 8; p = .178			Chi-square 37.138 ; df 8 =; p = .000			Chi-square 225.013; df=9; p = .000			Chi-square 806.438; df=15; p = .000		
Classification Accuracy (%)	63.3			69.4			70.6			72.6		
Observations (N)	551			4762			4763			4762		

***p<0.001; **p < .01 ; *p < .05

Notes:

1) Reason for punishment (Corruption = 1; Other serious offence = 0);
2) Gender (Male = 1; Female = 0);
3) Job tenure (Years working as a civil servant) = date the target became a civil servant according to information released by the Ministry of Planning *minus* date sanction was enforced;
4) 'Career Civil Servant' stands for those sanctions which targeted a position of trust (DAS) or who are career civil servants (yes for career civil servant = 1; just position of trust = 0).
5) Gross earnings paid in December 2016;
6) Whether procedures' target has 'special position or bonuses' (*Funções de Confiança e Gratificações*) (Yes = 1; No = 0);
7) Agency where the act happened (INSS, National Institute for Social Security = 1; other agencies = 0);
8) Agency where the act happened (DPRF, Traffic Police = 1; other agencies = 0);
9) Agency where the act happened (MF, Ministry of Finance = 1; other agencies = 0);
10) Agency where the act happened (FUNASA, National Body for Health and Sanitation = 1; other agencies = 0);
11) Agency where the act happened (DPF, Federal Police = 1; other agencies = 0)

Table 3. Binary logistic regression of gender, job tenure, meritocratic recruitment, special position/bonus /gratification holder, DAS holder, gross earnings, and agency in which the sanctioned act happened on being punished for corruption compared to other serious offences.

	Model 1			**Model 2**			**Model 3**			**Model 4**		
Predictor	B	SE	OR	B	SE	OR	B	SE	OR	B	SE	OR
Constant	-1.682**	0.653	0.186	- .776***	0.217	0.46	-1.051***	.277	.349	-1.021***	.235	.360
Gender (1 = male)	.646***	0.203	1.909	.353***	0.073	1.423	.361***	.073	1.435	.384***	.081	1.468
Career CS	1.222*	0.589	3.395	.805***	0.206	2.236	.911***	.267	2.486	.200	.220	1.222
Any Special Position or Gratification (1= yes)	.955*	0.485	2.599	.538**	0.18	1.712				.575**	.190	1.777
DAS Holder (1 = yes)							.728**	.266	2.070			
Gross Earnings	.000**	0	1									
Job Tenure (years)	-0.004	0.008	0.996	.037***	0.003	1.037						
0-5 years (reference category, 0 = yes)												
6-10 years							.716***	.098	2.046	.555***	.108	1.742
11-15 years							.666***	.109	1.947	.826***	.119	2.284
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21-25 years							1.193***	.118	3.298	1.198***	.129	3.314
26-30 years							1.353***	.123	3.869	1.389***	.134	4.012
Over 31 years							1.052***	.144	2.862	1.188***	.155	3.280
INSS (Social Security)										1.521***	.101	4.577
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Test												
- 2LL	715.53			5672.642			5621.105			5038.957		
Nagelkerke R2	.066			.050			.065			.220		
Hosmer and Lemeshow	Chi-square 11.430 ; df = 8; p = .178			Chi-square 37.138 ; df 8 =; p = .000			Chi-square 225.013; df=9; p = .000			Chi-square 806.438; df=15; p = .000		
Classification Accuracy (%)	63.3			69.4			70.6			72.6		

Observations (N)	551	4762	4763	4762

***p<0.001; **p < .01; *p < .05

Notes:

1) Reason for punishment (Corruption = 1; Other serious offence = 0);

2) Gender (Male = 1; Female = 0);

3) Job tenure (Years working as a civil servant) = date the target became a civil servant according to information released by the Ministry of Planning *minus* date sanction was enforced;

4) "Career Civil Servant" stands for those sanctions that targeted a position of trust (DAS) or who are career civil servants (yes for career civil servant = 1; just position of trust = 0).

5) Gross earnings paid in December 2016;

6) Whether procedures' target had "special position or bonuses" (*Funções de Confiança e Gratificações*) (Yes = 1; No = 0);

7) Agency where the act happened (INSS, National Institute for Social Security = 1; other agencies = 0);

8) Agency where the act happened (DPRF, Traffic Police = 1; other agencies = 0);

9) Agency where the act happened (MF, Ministry of Finance = 1; other agencies = 0);

10) Agency where the act happened (FUNASA, National Body for Health and Sanitation = 1; other agencies = 0);

11) Agency where the act happened (DPF, Federal Police = 1; other agencies = 0)