#### RESEARCH ARTICLE



# Anti-corruption Audits and Citizens' Trust in Audit and Auditee Institutions

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#### **Abstract**

Anticorruption audits may deter corruption and signal to citizens that institutions are proactively combating it. However, by detecting and reporting corruption, audits might also unintentionally erode trust in institutions. Therefore, the impact of audits potentially hinges on whether they uncover corruption. Audit institutions, not implicated in the corruption they uncover, might be less likely to experience a decline in trust compared to auditee institutions. This study uses survey and administrative data from Brazil, leveraging a federal anti-corruption program that randomly selects municipalities for auditing. Results do not support the claim that audits boost institutional trust. Individuals in audited municipalities show no different levels of trust in local government or the audit institution than those in non-audited municipalities, and the coefficients may even indicate a negative effect. Additionally, audit institutions may not be better insulated from the corrosive effects of uncovering corruption than the institutions they audit.

Keywords: Institutional trust; corruption; anti-corruption audits; Brazil

# Introduction

Corruption has a corrosive effect on different dimensions of institutional trust. When public officials from specific institutions are involved in corruption scandals, it negatively affects citizens' trust in such officials (Bowler and Karp 2004; Ares and Hernández 2017; Solé-Ollé and Sorribas-Navarro 2018). The corrosive effect of corruption also seems to span beyond the directly implicated institutions, shaping citizens' assessments of other institutions (Chang and Chu 2006) and democracy more generally (Seligson 2002; Weitz-Shapiro 2008). Thus, one of the goals of government anti-corruption efforts should be to harness institutional support among citizens (Johnston 2014; Mungiu-Pippidi 2016).

Top-down audits have been pointed out as one of the most successful anti-corruption strategies (Gans-Morse et al. 2018). Previous studies focusing on audits have investigated the extent to which it serves to prevent corruption (e.g. Olken 2007; Avis, Ferraz, and Finan 2018) and trigger electoral accountability (e.g. Ferraz and Finan 2008; Bobonis, Fuertes, and Schwabe 2016). However, not many studies have investigated whether and how governmental anti-corruption audits serve to promote institutional trust. At the same time, empirical evidence on different types of anti-corruption efforts points to a difficulty in promoting institutional trust (Bauhr and Grimes 2014; Peiffer and Alvarez 2016; Peiffer 2018; Zhang and Kim 2018). Many of these studies report that, paradoxically, efforts aimed at fighting corruption end up decreasing citizens' trust in institutions. It is thus crucial to determine how anti-corruption audits shape trust in institutions.

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How do anti-corruption efforts such as top-down audits shape institutional trust? This article tests the existence of two types of effects depending on whether audits find a corruption scheme. In general, audits are expected to be associated with more positive evaluations of public institutions by signaling to citizens that the government is committed to addressing corruption. However, by uncovering corruption schemes, audits may also make citizens believe that corruption is more widespread than ever. The corrosive effect of finding corruption schemes through auditing is expected to vary according to the role performed by the institution involved in the audit. In that sense, information about corruption schemes found by audits may be particularly harmful to auditee institutions but not to audit institutions. The hypotheses are tested using a Brazilian top-down audit program, in which municipalities are randomly selected to be audited by a federal anti-corruption agency. The data combine Brazil's 2006 and 2008 LAPOP survey and municipalities' administrative data, including information about whether the municipalities have been audited or not and the seriousness of the irregularities uncovered.

In summary, the findings in this article do not substantiate the assertion that audits foster trust in institutions. There is no apparent change in trust toward the audit and the auditee institution, and the results even exhibit a negative correlation, going against the expected direction. It could be that these adverse outcomes are influenced by the exposure of notably severe corruption schemes. However, against expectations, whether audits find a serious corruption scheme or not does not seem to affect trust in the auditee institution. Surprisingly, when a corruption scheme is uncovered it is the audit institution that seems to be most negatively affected. The results should be interpreted with caution, considering the limitations of the data at hand. The empirical strategy relies on the fact that audited municipalities are randomly selected, but it is of course not reasonable to assume that the selection of corrupt municipalities follows the same pattern. Potential explanations for the results might be baseline expectations about institutions, a possible local backlash mechanism, and citizen's growing perception of ineffectiveness in the realm of anticorruption. Unfortunately, it is not possible to appropriately test these possibilities with the data at hand, but the article suggests room for further research into these areas.

This article contributes to discussions about the impact of anti-corruption efforts disseminating information about corruption on institutional trust (Worthy 2010; Bauhr and Grimes 2014) and to discussions about signals of anti-corruption commitment (Peiffer 2018; Peiffer and Alvarez 2016). Moreover, it draws attention to potential shortcomings facing governmental attempts to control corruption and that it needs public support (Johnston 2014; Mungiu-Pippidi 2016).

# What Do We Know About The Consequences of Top-down Anti-corruption Audits?

Top-down anti-corruption audits refer to a systematic examination of the government's financial transactions conducted by higher authorities or external agencies to identify and prevent corruption. The term "top-down" implies that the audit is initiated and overseen by higher levels of authority, often governmental or regulatory bodies, and extends downward to assess the activities of lower-level entities within the organization or public sector. As explained by Gustavson and Rothstein,

The fundamental idea of establishing a public authority assigned to review other public authorities, such as auditing, is based on the assumption that it cannot be taken for granted that all publicly employed officials will execute their duties and administer the public resources in a completely efficient and correct manner. As it is usually difficult for citizens and politicians to obtain insights into administrative operations, requirements have been made to have external actors, auditors, to review the organization. (Gustavson and Rothstein 2013, 43)

A recent review concludes that top-down monitoring, such as audits, is among the most effective anti-corruption policies (Gans-Morse et al. 2018).

The criteria previous research adopts for assessing the successfulness of anti-corruption audits varies. One group of studies aims to determine whether anti-corruption audits serve as a deterrent for corruption, dissuading public officials from engaging in corruption when faced with the prospects of auditing (Di Tella and Franceschelli 2011; Avis, Ferraz, and Finan 2018; Zamboni et al. 2018; Gustavson and Sundstrom 2018). In general, the risk of being audited appears to reduce the likelihood of funds being diverted through corrupt practices (e.g. Olken 2007). Another group of studies focuses on the immediate electoral consequences of audits, investigating to what extent voters punish incumbents who were revealed to be corrupt by audits (Ferraz and Finan 2008; Bobonis, Fuertes, and Schwabe 2016; Chong et al. 2015; Arias et al. 2019), but then the evidence is mixed.

While existing literature has explored whether ordinary citizens lend credibility to information provided by audit institutions (e.g. Winters and Weitz-Shapiro 2017), the impact of anti-corruption audits on citizens' trust in democratic institutions remains unclear. Specifically, little research has been conducted to assess the extent to which audits shape trust in different institutions, including both the entities being audited (auditee) and the entities conducting the assessment (audit institution).

Although the studies previously mentioned do not focus on how audits shape institutional trust, they suggest potential consequences. For instance, if anti-corruption audits are a means to prevent corrupt practices and ensure compliance with relevant laws and ethical standards, they will have a relevant effect on how audited institutions operate. To the extent that citizens value institutions that operate according to principles of honesty, fairness, and ethical conduct (Rothstein 2011) audits may, in the long term, help foster institutional trust. Another possibility is that conducting regular audits is a way to demonstrate that there are public institutions committed to promoting transparency and accountability. Audits may thus have a short-term effect on citizens' perceptions of institutional integrity, thus also boosting institutional trust.

The first hypothesis posits that citizens perceive audits as a positive effort to combat corruption, resulting in an overall positive and undifferentiated response in terms of trust in the institutions involved in the audit. This is expected to manifest as higher levels of trust in both their local government (Hypothesis 1.1) and the audit institution (Hypothesis 1.2):

**Hypothesis 1.1:** Citizens in audited municipalities display higher levels of trust in the local government compared to citizens in municipalities that have not undergone audits.

**Hypothesis 1.2:** Citizens in audited municipalities display higher levels of trust in the audit institution compared to citizens in municipalities that have not undergone audits.

# **Unintended Consequences of Anti-corruption Efforts**

The primary goals of anti-corruption efforts such as audits are to promote transparency, accountability, and ethical behavior, and thus to dissuade corrupt practices and demonstrate that institutions are trustworthy. However, previous studies—not particularly focusing on audits—suggest a great risk of unintended consequences when it comes to shaping trust in institutions. That is, rather than boosting institutional support, there is a risk that they could inadvertently lead to a decline in such support (e.g. Bauhr and Grimes 2014).

The extent to which anti-corruption efforts can harness institutional trust will be challenging for at least two reasons. One is that corruption corrodes the government's legitimacy to address it, as citizens lose confidence that their governments are able or willing to address corruption (Morris and Klesner 2010; Sharafutdinova 2010; Pavão 2018). The government's attempts to fight corruption can thus be understood merely as "cheap talk." Another related reason is that a

consequence of many anti-corruption efforts is to uncover information about corruption, which may paradoxically signal to citizens that corruption is rampant (Peiffer and Alvarez 2016; Peiffer 2018; Cheeseman and Peiffer 2022). Disclosing information about corruption can be disempowering because citizens may not believe that they could do something against it (Bauhr and Grimes 2014). So anti-corruption efforts that disclose corruption information can unintendedly lead citizens to believe that corruption is pervasive.

Most studies distinguishing the consequences of anti-corruption efforts to different institutions investigate the phenomenon in authoritarian countries. Chinese citizens display higher levels of trust in the national government than local government because anti-corruption policies are targeted against local officials (Wu and Wilkes 2018). Another study in the same country shows that public support for the top national leader who initiated the anti-corruption campaign against high-ranking officials significantly exceeded other institutions (Zhu, Huang, and Zhang 2019). Although the motivation behind anti-corruption efforts is arguably different in more democratic settings, these studies suggest that anti-corruption efforts have different effects depending on whether institutions are targeted or are promoting it. Particularly, it points to the possibility of increased trust in those institutions that promote anti-corruption efforts.

Additionally, the corrosive effect of uncovering corruption schemes, and disseminating that kind of information, seems to be more object-specific, affecting more directly the institutions implicated in the scandal. In Spain, a natural experiment shows that exposure to a localized scandal made citizens less trusting of politicians in general (Ares and Hernández 2017). Another study shows that news about a corruption scandal implicating the incumbent is associated with lower levels of trust in the local government (Solé-Ollé and Sorribas-Navarro 2018). Evidence from the United States and the United Kingdom shows scandals involving a few members of congress or parliament to be associated with lower levels of trust in these institutions (Bowler and Karp 2004).

It is also important to take into account baseline beliefs that citizens may hold about institutions, particularly concerning the local governments. In an experimental study set in Mexico, Chong and colleagues (2015, 56) found that for the most part, providing survey respondents with information about corruption did not affect the corruption perceptions at the municipal level. It was only when respondents were exposed to particularly high levels of corruption that beliefs about municipal corruption increased. They also found that exposing high levels of corruption led to larger behavioral effects than exposing low levels of corruption. In Brazil, figures from Transparency International's Global Corruption Barometer from 2017 and 2019 indicate that citizens also hold negative beliefs about the local governments. Roughly between 55 and 65% of respondents in a nationally representative survey believe that most local officials are corrupt. The figures are comparable to that of members of parliament and larger than all the other institutions surveyed. Thus, instances of maladministration and even petty corruption uncovered by audits may not be enough to affect public opinion in Brazilian municipalities. As in the study in Mexico, only particularly serious corruption schemes should stand out to affect public opinion.

Inspired by the previously mentioned findings, hypothesis 2 (H2) states that the association between audits and institutional trust varies. This variation depends on whether the institution promotes or is monitored by the auditing process and on whether corruption is uncovered. For institutions monitored by the auditing process, uncovering a serious corruption scheme negatively affects trusts. Conversely, for institutions advancing anti-corruption efforts, uncovering corruption could potentially lead to increased institutional trust. This hypothesis is translated into two subhypotheses:

**Hypothesis 2.1:** Citizens living in municipalities where audits uncover a serious corruption scheme display lower levels of trust in the local government than those living in municipalities where audits did not find a serious corruption scheme.

**Hypothesis 2.2:** Citizens living in municipalities where audits uncover a serious corruption scheme display higher levels of trust in the audit institutions than those living in municipalities where audits did not find a serious corruption scheme.

## A Brazilian Top-down Anti-corruption Audit Program

The top-down anti-corruption audit whose consequences to trust in institutions this article investigates is a federal program in Brazil that randomly selects municipalities to be audited. The Monitoring Program through Public Lotteries (*Programa de Fiscalização por Sorteios Públicos*) is a program implemented by the Office of the Comptroller General (*Controladoria Geral da União or* CGU). The CGU was created in 2001 to control corruption and fraud within the Federal Executive Branch. The use of public lotteries to draw municipalities to be audited by the CGU, concerning their use of federal funds, was instituted as a permanent program in June 2003, lasting in its original form until 2015. The Monitoring Program through Public Lotteries is an attempt to advance greater transparency in government, to ensure the correct application of public resources for the benefit of the population, to combat corruption, and to foster social accountability. Although there have been slight changes in every round of the program (e.g. the number of draws per year or the number of municipalities per draw), it maintained the crucial aspect of random selection and field inspections until 2014. In these 11 years, 40 draws were organized, and over 2,000 municipal audits were conducted.

A few weeks after its random selection, the municipality is the object of an on-site inspection by a CGU audit team comprising 13 federal civil servants and one supervisor (Ferraz and Finan 2008). The CGU hires permanent civil servants from a pool of university-educated staff via highly competitive processes of public exams, which reinforces its programmatically oriented nature. The inspection involves analyzing expenditure documents funded by federal resources, such as public procurement documents, invoices, and interviews of officials, members of social accountability councils, and ordinary citizens. The fieldwork usually lasts slightly over a week, and a few weeks after its conclusion, the audit team produces a report summarizing the findings in each municipality.

The results of the municipal audits are widely publicized. The CGU's findings are shared with federal and municipal officials, in the executive and legislative branches, with the Public Prosecutor's Office, the Office of the Attorney-General, and the Federal Accounts Court. A summarized report is also available for public consultation on the CGU website. Other than formally being at the disposal of consultation by ordinary citizens, anecdotal evidence suggests that the audits reverberate in the local and regional media at various stages of the process: once municipalities are selected to be audited (*Estado de Minas* 2013) when CGU teams arrive at the municipalities (*A Gazeta* 2015), and after the results are published as a way to highlight irregularities found (*G1 Notícias* 2014; *Estado de Minas* 2015). Ferraz and Finan (2008) have also suggested that the reports were used extensively in political disputes within the municipalities,

<sup>&</sup>lt;sup>1</sup>The original version of the program was replaced in 2015 by a program with different forms of municipal selection and mixed monitoring strategies.

<sup>&</sup>lt;sup>2</sup>Decree CGU nº 247, published on June 20, 2003.

<sup>&</sup>lt;sup>3</sup>The size of municipalities is related to the auditing program in two ways: the probability of being audited and the area within the municipality audited. Not all municipalities are equally subjected to being audited. Until the eighth cycle, only municipalities with less than 300,000 inhabitants were eligible, then this was extended to municipalities with up to 500,000 inhabitants, with state capitals not being eligible. In municipalities with up to 20,000 inhabitants, all expenditure functions are evaluated, whereas, in the others, only education, health, and social assistance expenditures are analyzed. In municipalities with a population between 20,000 and 100,000 inhabitants, another area of expenditure beyond the three mentioned is also selected.

such as in the 2004 Municipal elections. There is anecdotal evidence that media reporting attributes the subsequent investigations to the anti-corruption agency (G1 RN 2016).

### Data and Empirical Strategy

The empirical strategy relies on a combination of survey data and administrative data. Starting from municipalities surveyed between 2006 and 2008 by LAPOP, I created a dataset using survey data and combined it with information about the Monitoring Program through Public Lotteries. Because only municipalities with a population size under 300,000 were eligible for the program up to the eighth round, survey information from municipalities with a larger population was excluded from the sample. When municipalities are surveyed both before and after audits, I keep only observations from the survey wave fielded after the audit. The final dataset encompasses 85 municipalities and 1,602 respondents.

The dependent variables measure trust in the audit institution (the CGU),<sup>6</sup> and trust in the auditee (the local government). Trust in the audit institution is measured by asking the question: "How much do you trust the CGU?" Trust in the local government is measured using the question "How much do you trust the local government?" In both cases, answers range from 1 (nothing) to 7 (a lot). The mean levels of trust are quite similar across both institutions: 4.05 and 3.99 respectively. However, there are more missing values in the variable measuring trust in the CGU (336) than in the local government (35).<sup>7</sup>

There is one independent variable to test H1.1. and H1.2 and another to test H2.1 and H2.2. For H1 the independent variable is a dummy indicating that a survey respondent lives in a municipality that was audited by the CGU before the survey. For H2 the independent variable is a dummy indicating that CGU audits have unveiled an extremely serious corruption scheme in an audited municipality.

Out of the 85 municipalities in the dataset, 21 have been audited before the survey, that is roughly 25%. On average in the dataset, surveys are fielded in municipalities in less than three years after audits are conducted, but this window varies. In one extreme, municipalities where the audits were conducted between May and mid-July 2007, and the survey was fielded in late July 2007. In another, the audits took place in 2003, and the survey in 2008 (see Figure 1 in the supplementary material).

The measure of corruption is based on the content of the audit report. In their influential article, Ferraz and Finan (2008) measure corruption by taking into account the occurrence of three specific types of irregularities: fraud in the procurement of goods and services, diversion of funds, and over-invoicing of goods and services. But there are other studies (i.e., Brollo 2013; Zamboni and Litschig 2018), adopting a broader definition of corruption to also include instances of mismanagement. Indeed, as Zamboni and Litschig (2018) remind us, corruption [...] requires a relatively high standard of proof (2018, 1919). This is not to say, however, that most municipalities can be considered "absolutely clean." In the dataset used in this article, only three out of the 21 audited municipalities were explicitly deemed by the audits as "clean" or having "merely formal irregularities." For this article, as baseline beliefs about municipal corruption are relatively high, a more stringent measurement of corruption is in order, a point I discussed in more detail when outlining H2. Using this stringent approach which prioritizes serious corruption schemes<sup>8</sup>—and

<sup>&</sup>lt;sup>4</sup>After 2004 municipalities with a population of up to 500,000 inhabitants were eligible.

<sup>&</sup>lt;sup>5</sup>This only happens with six municipalities in the dataset.

<sup>&</sup>lt;sup>6</sup>The survey question was only asked in the 2006 and 2008 rounds of LAPOP.

<sup>&</sup>lt;sup>7</sup>In the supplementary material (Table 6), I show that individuals living in audited municipalities are more likely to know the CGU, that is, they are less likely to answer "don't know" to the trust in the CGU question.

<sup>&</sup>lt;sup>8</sup>The serious allegations concern irregularities pointing to the potential existence of schemes of public procurement fraud or over-invoicing involving large sums of money.

	Municipalities	Individuals
Audited	21	347
Not Audited	64	1,255
Serious Corruption Scheme	10	162
Others	75	1,440
Observations	85	1,602

Table 1. Observations Across Treatment Indicators

not mismanagement more generally—10 out of the 21 audited municipalities are considered corrupt.

Table 1 displays the observations across treatment indicators in terms of municipalities and individual survey respondents.

Two notes of caution about the identification strategy to test both hypotheses are needed. First, as discussed in the previous subsection, audits are randomized. As this randomization occurs at the municipal level, and not at the individual level, one could argue that a more straightforward research design would aggregate results at the municipal level. Nevertheless, while the LAPOP survey gathers data from respondents across various municipalities, the average number of observations per municipality is relatively small, ranging from 10 to 25. Also, considering municipalities instead of individuals would lead to a smaller number of observations (as there are only 85 municipalities) rendering less statistical power for inferences. As such, I analyze the data using its original structure, measuring the average levels of trust in local government and the CGU depending on whether individuals live in a municipality that was audited or not, instead of striving to generate institutional trust estimates at the municipal level.

For hypothesis 2, the empirical strategy involves comparing audited municipalities where a serious corruption scheme was uncovered and audited municipalities where no serious corruption scheme was uncovered to municipalities that were not audited. A second important issue is that, even if audits are randomized, corruption is not randomly distributed. This is to say that there can be many unobserved factors associated with municipal corruption and trust in the local government and the CGU. I address this issue by including municipal-level controls that potentially influence municipal corruption as well as trust in institutions, as identified in the previous literature. First, using data from the Brazilian National Treasury I calculate the share of resources obtained via the municipal participation fund, as federal transfers to local governments in Brazil have been shown to increase the incidence of corruption and reduce the quality of mayors (Brollo et al. 2013). Second, I include a control for bureaucratic autonomy taken from the Brazilian Institute of Geography and Statistics (IBGE), measured as the share of municipal staff that is a permanent statutory worker. Recent evidence from the Global South suggests that when bureaucrats are politically appointed, they are more susceptible to suffering pressure from corrupt politicians, and are thus more prone to facilitate corrupt behavior, also affecting the quality of public services (Brierley 2020; Oliveros and Shuster 2017) Third, as political competition can be a means to corruption and also shape institutional trust (Johnston 2014) I compute the margin of victory in the local elections preceding the survey using data from the Brazilian Superior Electoral Court (TSE). Lastly, I also include basic indicators of population and GDP per capita. Important to note, however, that even by including these controls, it is not the case that the empirical strategy vields causal estimates.

At the individual level, I also include pre-treatment controls that have been shown by previous research to be some of the most important drivers of institutional trust, namely, age, gender, education, and an indicator measuring one's objective socioeconomic condition.

	(1)	(2)	(3)
	Trust in the Local Government		
Audited	-0.155 (0.124)	-0.132 (0.121)	-0.129 (0.118)
Individual Controls	no	no	yes
Municipal Controls	no	yes	yes
Observations	1,567	1,567	1,541

Table 2. H2.1—Audits and Trust in the Local Government

Note: Clustered and robust standard errors in parentheses. + p<0.1, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001.

Table 3. H1.2.—Audits and Trust in the CGU

	(1)	(2)	(3)
	Trust in the CGU		
Audited	-0.133 (0.112)	-0.094 (0.111)	-0.097 (0.106)
Individual Controls	no	no	yes
Municipal Controls	no	yes	yes
Observations	1,266	1,266	1,246

Note: Clustered and robust standard errors in parentheses. + p<0.1, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001.

The empirical strategy is to run OLS regressions using robust standard errors, also clustered at the municipal level, and including the independent variables and relevant individual and municipal-level controls. The descriptive statistics are displayed in the supplementary material (Table 1). As the dependent variables are initially on different scales, they are standardized before the regressions.

#### Results

This article tests how anti-corruption audits relate to institutional trust. Previously I outlined two hypotheses. The first one, comprising two sub-hypotheses, poses that audits are associated with higher levels of trust both in the local government (H1.1) and in the CGU (H1.2)

I begin by testing H1.1, concerning trust in the local government. Model 1 shows the bivariate results, and the other two models progressively include municipal and individual-level controls. Only the coefficient for the main independent variable is displayed. The full regression tables can be found in the supplementary material.

Results in Table 2 go against the predictions of H2.1. Not only are audits not associated with increased trust in the local government, the effect goes in the negative direction. As the dependent variable is standardized, the size of the coefficient indicates that living in an audited municipality variable is associated with, on average, a decrease of 0.129 standard deviations in trust in the local government. However, the results are not statistically significant.

Next, we proceed to test H1.2. Which repeats the analysis in Table 3, but takes trust in the CGU as the dependent variable.

	(1) Trust in Local Government	(2) Trust in the CGU
Audited + No Corruption	-0.094 (0.128)	0.083 (0.105)
Audited + Corruption	-0.072 (0.230)	-0.385* (0.183)
Individual Controls	yes	yes
Municipal Controls	yes	yes
Observations	1,541	1,246

Table 4. H2.1 and H2.2—Unintended Effects of Uncovering Corruption

Note: Clustered and robust standard errors in parentheses. + p<0.1, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001.

In Table 3, the coefficients concerning trust in the CGU are, as in the case of trust in the local government, negative, which also goes against H1.2. Including individual and municipal-level controls decreases the coefficient considerably, showing that other than small, the results are not robust.

Taken together, results in Tables 2 and 3 fail to support H1, which posits that auditing serves as a driver of institutional trust in both the auditee and the audit institution. More than that, the results even go in the wrong direction, particularly regarding trust in local government, which displays larger coefficients.

I proceed then to test H2.1 and H2.2, which consider the unintended effects of audits by articulating that the effect may be contingent on whether audits uncover corruption. For local governments, institutional trust is contingent on whether these audits unveil corruption. In that case, trust in the local government is expected to be more negative. According to H2.2, uncovering a serious corruption scheme is expected to boost support for the monitoring institution, the CGU.

Table 4 shows the results for both dependent variables, trust in local government (H2.1) and trust in the CGU (H2.2). The table displays two coefficients for each model. The first coefficient indicates the average effect of living in municipalities that were audited and no corruption was found, and the second of living in municipalities that were audited and corruption was found. The omitted category refers to those living in non-audited municipalities.

H2 posited that the association between audits and trust in local government was contingent on audits uncovering corruption, but not for trust in the CGU. The results in Model 1 also fail to support H2.1. For local governments, uncovering corruption does not seem to moderate how audits affect institutional trust. Both coefficients are very small and not significant. Model 2 shows results concerning H2.2, which involves trust in the CGU. This hypothesis stated that when audits uncover corruption, there would be an increase in trust in the CGU. As in the case of Model 1, the "audit + no corruption" coefficient is also small and not significant but goes in the positive direction. The "audit + corruption" coefficient, however, goes in the negative direction and is larger, positive, and it is significant at the 5% level.

In stark opposition to what was advanced in H2, uncovering serious corruption schemes in audits does not seem to be negatively associated with trust in local government, but rather with trust in the institution monitoring corruption, the CGU. Why could that be the case?

Regarding the absence of effects for trust in the local government, a potential explanation might be related to citizens' prior beliefs. A field experiment in Mexico finds that even moderate levels of malfeasance were regarded by citizens as good news, as they have, in general, pessimistic expectations about the performance of local governments (Arias et al. 2019). As such, it might be that, in general, citizens have negative expectations regarding how widespread corruption is at the local level. Thus,

<sup>&</sup>lt;sup>9</sup>In the supplementary material (Table 7) I report an exploratory analysis where instead of a corruption indicator I use an "absence of corruption indicator," that is, a reference to municipalities that the monitoring institution explicitly reported as

information about corruption could not be enough to affect citizens' evaluations of institutional performance.

Still, in Table 4, the stronger and more negative effects for the monitoring institution are somewhat surprising. One possible explanation for the results in Model 2, Table 4 would be that of a local backlash. Previous studies have shown that local incumbents respond strategically to the release of information by audits and attempt to protect themselves from possibly negative repercussions (Arias et al. 2019). Additionally, it has been noted that local incumbents exert tremendous control over media in Brazil, particularly local radios (Boas and Hidalgo 2011). Therefore, local incumbents would be in a better position than federal institutions to frame the interpretation of audit results in small municipalities in Brazil, claiming, for instance, to be unfairly targeted. However, it was not possible to corroborate those claims with additional qualitative evidence, such as news reports from municipalities where audits uncovered serious corruption scandals. The difficulty in gathering that kind of information may be because, as previously noted, most local media is not written, but radio-based. If anything, the scant online news mentioning the CGU in audited municipalities, as referred to in a previous section of this article, is about the audits taking place, their findings, or subsequent developments in terms of judicial consequences.

Another possible answer may be that if citizens perceive that the CGU is unable to prevent or eliminate corruption despite its audits, they may lose trust in its effectiveness as an anti-corruption effort. This perception can arise if corruption persists or if the outcomes of the audits do not lead to meaningful consequences, such as prosecutions and policy changes. A possibility might be to test whether, within audited municipalities, the time passed since the survey displays a negative trend. The results are displayed in the supplementary material (Table 5) and corroborate this claim. Essentially, I include the same individual and municipal-level controls with robust and clustered standard errors as before and find that as the number of days passed between the audit and the survey increases, trust in both local government and the CGU decreases. However, this exploratory analysis should be interpreted with caution, as the number of observations drops significantly, and thus the test might be underpowered.

Qualitative evidence about the time frame of judicial consequences triggered by CGU reports suggests that losing trust in the effectiveness of anti-corruption efforts could be a potential explanation. As an executive agency, the CGU can only go so far in advancing anti-corruption efforts. Its responsibilities are more focused on internal control, prevention, and oversight. Although the CGU collaborates with investigative entities, it cannot directly prosecute local officials. This responsibility rests with the prosecuting offices. Other than that, the judiciary system has to handle the legal proceedings and ensure that those implicated in corruption face the appropriate legal consequences, which may take several years.

A couple of cases illustrate this situation well. First, the case of the municipality of Água Clara, in the state of Mato Grosso do Sul. This municipality was randomly selected to be audited in the twenty-fifth draw, taking place in October 2007. The fieldwork lasted until December 2007. Over 50 irregularities were described in the audit report, among which were what appeared to be serious cases of over-invoicing and fraud in public procurement. The audit findings then led to the beginning of a joint investigation with the federal police about a large-scale fraud scheme in public procedures. However, only in 2014 was the investigative team able to execute search and seizure warrants related to the investigation of the crimes of fraud and corruption in Água Clara (Assessoria de Comunicação Social da Controladoria Geral da União 2014). This was roughly seven years after the audits were published and it was still in the investigative phase. Also in Nova

<sup>&</sup>quot;clean." These results should be interpreted with caution, as the indicator is starkly skewed (only three municipalities in the dataset). The results are also not statistically significant, but the coefficients are much larger than in Table 4 and in cases where audits find municipalities to be "clean" the coefficients of both trust in local government and the CGU are positive, whereas when they are not clean, the coefficient is negative.

Lima, in the state of Minas Gerais, it took a long time for audit findings to lead to judicial consequences. In the report referring to the fieldwork developed in January 2008, the audits uncovered a potentially serious case of inflated costs related to the construction of a sewage treatment plant. The audits took place after the 2007 municipal elections and the then-mayor was re-elected with 63% of the votes (*O Tempo* 2008). Only in 2016, was the former mayor of Nova Lima sentenced for the irregularities in the case (*O Tempo* 2016). Although this is just anecdotal evidence of two cases, it is corroborated by findings from a larger study (Aranha 2017), showing that irregularities uncovered by the CGU audits take considerable time to be converted into investigative and judicial proceedings, and the proceedings involving corruption tend to be even slower.

#### Conclusion

This article studies the public-opinion consequences of anti-corruption efforts in the form of top-down anti-corruption audits. Audits, which scrutinize the allocation of public resources for policies and services, not only act as a potential deterrent to corruption by dissuading public officials from engaging in crimes like embezzlement but also serve as a demonstration of an institution's commitment to transparency, accountability, and integrity. So how do audits relate to institutional trust? Are audits associated with an overall positive and undifferentiated response in terms of trust in the auditee and the audit institution? Or rather, is the association between auditing and institutional trust contingent on uncovering corruption? Moreover, are audit institutions better insulated from potentially corrosive effects on the institutional trust of uncovering corruption when compared to auditee institutions?

The analysis relies on a dataset combining public-opinion survey and administrative data from Brazil. The empirical strategy explores the occurrence of a top-down anti-corruption audit program in which a federal monitoring institution—the CGU—randomly selects municipalities to be audited.

The results do not lend support to the claims that audits boost institutional trust in general terms. When audits are considered regardless of the content of the irregularities they uncover, not only do they not boost institutional trust, but the coefficients are even negative. This finding needs to be interpreted in conjunction with the hypotheses about the unintended effects. When the models distinguish between audits that uncover serious corruption and those that do not, it appears that the potential impact of audits on institutional trust depends on whether they reveal major corruption schemes. However, it is not clear that the institution conducting the audit is insulated from backlash resulting from uncovering corruption. Particularly, the CGU, that is, the audit institution, seems to suffer from lost trust as a consequence of audits that uncover serious corruption schemes. The same cannot be said concerning local governments, for which uncovering corruption or not does not seem to affect institutional trust as much.

I discuss two potential explanations for that negative effect concerning the monitoring institution. First, a local backlash mechanism, by which local incumbents may seek to disqualify monitoring institutions that uncover corruption. Second, there is the possibility that the distrust affecting the audit institution may be linked to a perception of ineffectiveness. Unfortunately, given the limitations of the data at hand, I am not able to appropriately test either of these possibilities. I do find, however, a negative trend related to the time passed between surveys and audits. Further research could delve into a more detailed investigation of how citizens' evaluations of the CGU and local government evolve over time.

Evidence from autocratic contexts (Wu and Wilkes 2018; Zhu, Huang, and Zhang 2019) suggests that anti-corruption efforts have different effects depending on whether institutions are targeted or are promoting it. Conversely, other studies conducted in more democratic environments show a more generalized corrosive effect of uncovering corruption on institutional trust (Ares and Hernández 2017; Solé-Ollé and Sorribas-Navarro 2018; Bowler and Karp 2004).

The findings in this article fail to demonstrate that the effect of audits on institutions changes depending on the role of these institutions. Instead, it seems more likely that either both the audit and the auditee institution benefit in the short term from a boost in trust, but also both suffer from decreased optimism in the longer-run, in cases where audits uncover corruption. It does not seem to be the case, at least from the analysis in this article, that the audit institution is in a better position to profit from the audits in terms of institutional trust as compared to local governments, the auditee institution.

In summary, the findings align with the concept of unintended effects discussed in prior literature. Bauhr and Grimes (2014) argue that in regions marked by extensive corruption, transparency reforms alone may not catalyze widespread public accountability. They advocate for the necessity of combining transparency initiatives with participatory processes and systems to identify and rectify irregularities, thereby promoting public engagement and trust in institutions. The current study, employing different measures, focusing on a particular policy, and examining a distinct government level, supports and reinforces their conclusion.

One important limitation of this study is that it relies on observational data, and as such, it is not possible to claim that publishing the reports effectively causes changes in citizens' perceptions of institutional performance and institutional trust. Moreover, the estimates of municipal corruption are not randomly allocated and are also skewed, and as such they have to be interpreted with caution. The findings observed here are obtained within a sample of the same size municipalities randomly allocated to audits. I control for several individual and municipal-level characteristics that may correlate to evaluations of institutional performance and institutional trust. Still, it could be that an unobserved factor drives the results.

Even if the results in this article cannot be causally interpreted, the article sheds light on the complex ways in which institutional trust is affected by different aspects of anti-corruption efforts. It is often taken for granted that monitoring institutions driving anti-corruption efforts stand to profit from that endeavor in terms of a boost in institutional trust. Yet, there is not a lot of evidence supporting the existence of that mechanism in a democratic context. This is thus a topic that merits more investigation, to the extent that control of corruption can only endure with public support (Johnston 2014; Mungiu-Pippidi 2016).

Supplementary material. To view supplementary material for this article, please visit https://doi.org/10.1017/lap.2024.10

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