In an effort to motivate firms to more rapidly detect potential misconduct, legislators, regulators, and prosecutors incentivize firms to have integrity or “whistleblowing” hotlines. These hotlines provide individuals an opportunity to report alleged misconduct and seek guidance about how to appropriately respond. Beyond some isolated examples, little is known about the responsiveness of hotlines to actual claims of alleged misconduct. I undertake a field study to investigate the efficacy of hotline reporting by making four different inquiries involving alleged misconduct to nearly 250 firms. One-fifth of firms have impediments (e.g. phone line disconnected, e-mail bounce back, direct to incorrect website) that hinder reporting. Once a report is made, however, most firms respond in a timely manner. Overall, my investigation illuminates numerous barriers associated with hotline reporting and differences between integrity hotlines “on paper” and how they actually function in practice.

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1. Introduction

Misconduct imposes considerable costs on both firms and society (Dechow, Sloan, and Sweeney 1996; Karpoff, Lee, and Martin 2008; Kedia and Philippon 2009; Dyck, Morse, and Zingales 2017). In an effort to more effectively prevent and detect misconduct, firms create compliance programs that include training programs, codes of conduct, analytic detection software, and integrity (i.e. “whistleblowing”) hotlines. Among these different compliance initiatives, hotlines have garnered especially significant attention from legislators, regulators, courts, and prosecutors: The Sarbanes-Oxley Act (SOX) requires firms to provide a means for employees to anonymously report alleged accounting misconduct, prosecutors at the Department of Justice (DOJ) consider the existence of a reporting hotline as one factor when deciding whether and how to charge a firm, and the United States Sentencing Commission (USSC) guides courts to consider more lenient sentencing for firms that have an effective hotline as part of their compliance program.

Integrity hotlines offer individuals an opportunity to report claims of alleged misconduct and to seek guidance about how to appropriately respond to potential misconduct. Prior evidence shows that hotlines can help more rapidly identify and address misconduct. Dyck, Morse, and Zingales (2010), for instance, show that misconduct is more frequently detected and reported by employees than by auditors, analysts, or the media. Similarly, the Association of Certified Fraud Examiners finds that nearly 40% of all cases of misconduct are detected through tips provided to organizations (ACFE 2016). By leading to swifter detection of violations, internal tips also reduce the duration of misconduct. The median duration of frauds detected through tips is 17 months, whereas frauds detected by external auditors or law enforcement last 24 and 36 months, respectively (ACFE 2016). By relying on insider knowledge of firm activity, hotline inquiries can provide valuable information to mitigate the adverse consequences associated with misconduct (Bowen, Call, and Rajgopal 2010).

While there are examples of misconduct being more rapidly detected and addressed because of hotline tips, there is also considerable skepticism that hotlines are, on average, responsive to allegations of misconduct. For example, even after receiving numerous hotline inquiries describing

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1 Firms utilize different names to describe their hotlines, with “ethics,” “integrity,” “whistleblowing,” and “reporting” used interchangeably. Weaver, Treviño, and Cochran (1999) examine the names of compliance-related telephone lines and find a variety of different names including “compliance hotline” and “helpline” rather than “hotline.” For simplicity, I utilize “integrity hotline” in subsequent discussion, although specific firms may utilize a different descriptor for their reporting mechanism.

2 The ACFE also finds that detecting fraud earlier tends to mitigate losses. As examples, fraud losses detected within 6 months average $50,000 (via monitoring); within 12 months, $108,000 (via internal audit); within 18 months, $130,000 (via tips); and within 24 months, $935,000 (via police, ACFE 2018).
the fraudulent creation of customer accounts, officers at Wells Fargo took no steps to follow up or mitigate the misconduct (Wells Fargo 2017). One prominent attorney more bluntly described the skepticism about integrity hotlines by noting that “many employers create hotlines merely to help insulate themselves from legal liability without ever following up on complaints” (Scheiber 2017). Numerous regulatory bodies including the Securities and Exchange Commission (SEC), Internal Revenue Service (IRS), and Equal Employment Opportunity Commission (EEOC) have created their own hotlines to encourage reporting, out of concern that firms’ own reporting systems may fail to detect misconduct or respond to inquiries. As evidence, 83% of those reporting allegations to the SEC’s whistleblower hotline had previously raised their concern internally (SEC 2018). More recently, in tacit acknowledgment that some firms create “paper” compliance programs where initiatives like hotlines fail to actually function in practice, the DOJ hired a dedicated compliance counsel to help evaluate the effectiveness of compliance programs (Soltes 2018a).³

Yet, beyond a few public anecdotes, little is known about how integrity hotlines actually function. In this paper, I conduct a field study to understand the availability and responsiveness of integrity hotlines by reporting four cases of alleged misconduct to nearly 250 firms. Two of these inquiries relate to financial reporting matters (financial statement manipulation and bribery), and two inquiries relate to workplace matters (harassment and discrimination). In each instance, my inquiry described a concern about potential misconduct and sought firm guidance on how to respond.

I examine the efficacy of hotlines by examining two dimensions of their performance: accessibility and responsiveness. While firms can describe the availability of an anonymous hotline “on paper,” simply listing its availability does not mean that the hotline is necessarily functioning. Specifically, if an individual cannot readily report on the hotline, the hotline cannot be viewed as an effective anonymous reporting channel. Across sample firms, I find 12 different obstacles impeding the reporting of misconduct, including web redirects to incorrect pages, e-mail bounce backs, and disconnected phone lines. Notably, many of these impediments cannot be seen as mere nuisances or minor delays in the reporting process. In some instances, the reporting channel itself is non-functional and would thwart reporting. I find that 20% of firms within my sample have at least one obstacle on their phone, web, or e-mail hotline. Thus, although firms may project “on paper” as having well-

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³ Internationally, anonymous hotlines to report concerns or misconduct are also increasingly required. For example, the UK Corporate Governance Code requires a means for employees to raise concerns anonymously (Financial Reporting Council 2018 and Financial Conduct Authority 2018).
functioning hotlines that are readily accessible, in practice those seeking to report on those hotlines often face obstacles.

The inquiries reported to each firm were framed as seeking the firm’s guidance on how to respond. Using this framing, I could evaluate whether firms were responsive to the inquiry or merely recording reports without seeking a resolution. In contrast to some arguments that firms simply use hotlines as window dressing (i.e. “many employers create hotlines merely to help insulate themselves from legal liability without ever following up on complaints”), I find that the vast majority of firms – more than 90% – respond in a timely manner to inquiries. Most firms seek additional detailed information about each inquiry before they are willing to provide guidance on whether to proceed with or halt the reported activity.

While some regulation – like SOX – focuses on offering hotlines to report potential accounting and auditing deficiencies, industry surveys suggest that integrity hotlines receive a far more diverse set of inquiries and allegations related to misconduct (NAVEX 2017). To investigate how firms potentially respond differently to issues relating to employee abuse, I report two inquiries related to harassment and discrimination to each sample firm. I find that firms are just as responsive to human resources (HR) concerns as to allegations of financial misconduct and bribery. Firms respond to financial manipulation and harassment inquiries marginally more rapidly than to the inquiries about bribery and discrimination. I also find that the length of the response to the financial misconduct allegation is the most extensive, but the average responses to the harassment and discrimination inquiries are longer than that for the bribery inquiry. Together, these findings suggest that firms do not see their hotlines as merely fulfilling their obligations under SOX, but instead as reporting channels for potential firm misconduct more broadly, including that related to HR. Moreover, the timeliness and length of responses seem to be more heavily a function of the type of inquiry than of the firm itself.

While regulation like SOX effectively mandates that firms have anonymous hotlines, firms need not encourage anonymity. Identifying callers can facilitate more rapid resolution of claims and limit frivolous allegations. However, psychological research suggests that anonymity encourages reporting by increasing individuals’ comfort and willingness to report allegations. Among sample firms, I find that 13% explicitly discourage anonymity (e.g. “You may remain anonymous subject to any local laws, although you are encouraged to identify yourself.”) Moreover, I find that firms that discourage anonymity are more likely to be those predicted to have internal control weaknesses. In addition, firms with more numerous recent regulatory violations are also more inclined to discourage
anonymity. Together, this evidence suggests that firms facing potentially greater risks of misconduct and compliance failures are also those discouraging anonymous reporting on their hotlines.

Overall, this investigation begins to illuminate the efficacy of hotlines by providing a better understanding of their accessibility and responsiveness. The frequent obstacles to reporting are disquieting, given their potential to thwart the timely reporting that can help mitigate corporate misconduct. At the same time, the overwhelming majority of firms handle inquiries in a timely and responsive manner, suggesting that arguments that firms tend to disregard allegations of misconduct are, on average, overstated.

This investigation has both scholarly and regulatory implications. It contributes to the growing academic literature on hotlines (Dyck, Morse, and Zingales 2010; Bowen, Call, and Rajgopal 2010; Miller 2006, Stubben, and Welch 2018).4 By exploring the impediments that different firms place in the path of whistleblowers who seek to use their hotlines, as well as the variation in firm responses, this investigation shows that hotlines are not homogenous in enabling employees, suppliers, vendors, and others to report allegations of misconduct. For researchers who seek to study the impact of hotlines on the detection of misconduct, understanding this variation in hotline design is crucial. As an example, Stubben and Welch (2018) investigate factors contributing to variation in the number of whistleblowing inquiries across nearly 1,000 publicly traded firms. To the extent that a firm “gates” its hotlines (i.e. places the hotline on its intranet), suppliers, vendors, and other non-employees will not be able to report allegations of misconduct. Thus, researchers who seek to investigate the effectiveness of hotlines in detecting misconduct should consider the hotline’s accessibility and responsiveness as potential factors enabling or inhibiting an individual’s ability to actually place a report.

This investigation also contributes to the broader governance literature. I find associations between an internal control weaknesses proxy and several hotline-related measures including a firm’s willingness to discourage anonymity and whether a firm has obstacles to reporting. Historically, internal control weaknesses have been examined quite narrowly as a set of accounting and auditing systems, which is why external auditors have excluded hotlines from their evaluation of internal controls (defined in SOX under §404) despite evidence that hotlines can help detect and mitigate fraud. Conceptually, however, internal control weaknesses may actually constitute a broader set of governance-related failures (e.g. preventing employees from reporting allegations of misconduct). Further research that could develop theory on the governance-related effects of internal control

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4 By examining regulatory rather than corporate hotlines, Lee (2017) and Wilde (2017) examine how reporting lines can deter misconduct. Relatedly, Call et al. (2017) examine how whistleblower involvement impacts enforcement actions.
weaknesses would extend our understanding of how different managerial systems interact within organizations.

Accounting and finance researchers have historically focused on financial misconduct when examining corporate malfeasance and governance failures. However, this analysis indicates that hotlines originally created for reporting accounting and auditing matters under SOX are equally effective for reporting allegations of non-financial misconduct (e.g. harassment, discrimination). As demonstrated by the recent rise of the #MeToo movement against sexual harassment and assault, non-financial misconduct issues can significantly impact firm management and reputation (e.g. Stephen Wynn resigned as Chairman and CEO of Wynn Resorts in early 2018 due to allegations of sexual misconduct). Thus, there is the opportunity to view these internal control and governance systems as even broader controls that firms implement to prevent not only financial, but other types of misconduct. In particular, when examining the impact of hotlines and other compliance systems, researchers can consider the impact on mitigating both financial misconduct and other types of malfeasance that arise within organizations.

This investigation also contributes to regulators’ assessments of hotlines and highlights opportunities for future research on corporate compliance programs. When a firm is facing allegations of misconduct, the DOJ can provide significant relief, including the possibility of a declination or a reduction of up to 95% in fines, if the firm is deemed to have an effective compliance program. Hotlines are one central component of a firm’s compliance program (DOJ 2017). Historically, the DOJ has assessed the effectiveness of a firm’s compliance program, including the functioning of a firm’s hotline, at the time of charging and/or sentencing, rather than at the time the misconduct arose. As such, an evaluation often takes places years after an investigation begins. Managers, knowing their firms are under investigation, are thus given substantial time – often years – to improve their compliance program prior to being formally evaluated. During this time, firms can “fix” their hotline and other compliance systems and thereby receive credit, even when those systems were not functional or effective at the time of the misconduct. This investigation highlights the frequency with which firms have reporting obstacles that do not conform with the expectations of an effective, well-publicized, anonymous hotline. To avoid inadvertently giving credit to a firm for only recent improvements in its hotline, prosecutors ought to investigate the hotline prior to charging, to ascertain whether it is effective and to further verify the firm’s own assessment of its hotline’s efficacy.5 Practically, by

5 The evaluation of compliance programs after charging can provide perverse incentives for firms to underinvest prior to detection and then overinvest during the sentencing process to reduce sanctions (see Soltes 2018a).
conducting a test similar to that described in the paper, regulators and enforcement agencies can verify that a hotline fulfills its purpose in allowing individuals to anonymously report alleged misconduct. As a hotline is only one of several components of a compliance program that regulators and enforcement agencies seek to evaluate, I describe additional compliance and internal control systems that future research can examine in the concluding section of the paper.

2. Assessing the Goals of Integrity Hotlines

Firms have both legal and reputational incentives to maintain compliance with laws, rules, and regulations (for an overview, see Soltes 2018a). To assure compliance, firms deploy a variety of internal controls and processes to guide appropriate behavior (Simons 1991, Simons 1995). These controls align the incentives and conduct of managers and employees with the goals of the firm. However, achieving perfect control is untenable due to both costs and individual objectives (Merchant 1985). Psychologists have further documented a number of behavioral biases that undermine control and compliance processes (Gino 2013, Bazerman and Tenbrunsel 2011).

As part of their control and compliance systems, firms employ audit and analytic systems that seek to monitor behavior and detect misconduct. Firms can also rely directly on employees, suppliers, clients, and other agents connected to the firm who are positioned to observe and report misconduct (Treviño et al. 1999, Near and Miceli 1985). By acting on these reports, managers can respond to the allegations and seek to prevent the behavior from continuing or escalating.

An integrity hotline is a telephone, web page, or e-mail system for centrally collecting reports and inquiries. When an individual provides information to the hotline, his or her report is directed to the part of the organization that is most capable of handling and responding to that allegation (general counsel, internal audit, occupational safety, HR, etc.). Several studies have provided evidence that such reporting systems can detect potential fraud and misconduct (Johansson and Carey 2016, Lee and Fargher 2013, Calderón-Cuadrado et al. 2009).

A number of different regulations, courts, and institutions offer benefits to firms that create hotlines. For example, if a firm later finds itself facing prosecution, the firm could face considerably fewer sanctions if the firm had an anonymous reporting hotline – along with other components of an effective compliance system – at the time of the misconduct. Fines, for example, could be reduced

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6 Even if a firm is prosecuted, the Sentencing Commission acknowledges that the firm could still have an overall effective compliance program. Specifically, “such compliance and ethics program shall be reasonably designed, implemented, and enforced so that the program is generally effective in preventing and detecting criminal conduct. The failure to prevent or
by as much as 95 percent if the system was in place at the time of the alleged misconduct (Soltes 2018a). Even more directly, SOX effectively mandates hotlines for publicly traded firms by stating that firms are required to have a process to receive “confidential, anonymous submissions by employees of the issuer of concerns regarding questionable accounting or auditing matters” (SOX §301). Appendix 1 provides more detail on the specific development and requirements for firms around the design and creation of hotlines.

Although legislative and regulatory bodies provide both incentives and requirements to encourage reporting misconduct, regulators, courts, and prosecutors have provided little prescriptive guidance about how firms should create an anonymous hotline. As a result, the responsibility for design and implementation has effectively fallen upon firms, leading to heterogeneity in practices.

To assess hotlines in practice, I seek to address several questions. The first set of questions surrounds accessibility: whether the firm has an anonymous reporting line and whether it is accessible. To the extent that firms follow legislation (i.e. SOX), exchange rules (e.g. on NYSE, NASDAQ), and incentives from prosecutors/regulators (e.g. DOJ Evaluation of Corporate Compliance Programs), all publicly traded firms should have hotlines that facilitate anonymous inquiries. Some legal scholars suggest that many compliance systems are mere “paper” programs that do not actually work in practice (Laufer 2017, Krawiec 2003). Anecdotal examples also suggest that firms sometimes list hotlines that are effectively inaccessible to potential callers. Moreover, to the extent that hotlines are not commonly reexamined, it is feasible for firms to either design non-responsive hotlines or hotlines that fall out of compliance (i.e. were once functional, but now are no longer). Thus, in practice, it is not clear how many firms actually have accessible, functional anonymous hotlines and what barriers there may be to reporting on them.

The second set of questions focuses on firm responsiveness. To the extent a firm responds to an inquiry, I examine how long they take to respond, the length of the response, and whether the firm potentially approves of the conduct in question. It should be noted that the investigative process is separate and distinct from the hotline itself. That is, a firm can have a functioning hotline (e.g. the phone line works) and a “broken” investigative function. As an example, the forensic audit manager

detect the instant offense does not necessarily mean that the program is not generally effective in preventing and detecting criminal conduct” (Chapter 8 Sentencing of Organizations, §8B2.1).

7 As an example, in response to allegations that 21st Century Fox knew of inappropriate conduct of one of its television hosts, but chose to ignore it, 21st Century responded that no employee had ever reported allegations of misconduct on its anonymous hotline. However, according to several people familiar with the firm’s practices, there was no discussion of the firm having a hotline. In response, 21st Century said it had a hotline for more than a decade, but only recently started to “highlight” its existence to employees. See Scheiber 2017.
from ADT, a large security systems company, described how his firm failed to investigate allegations that it received on its hotline:

The ethics hotline of the company I work for, which provides home automation and security systems, annually received more than 100 allegations of fraud. However, prior to 2014, no one adequately investigated actionable information, and no one investigating the allegations communicated with other departments. The lack of communication became obvious during an investigation in which we identified more than seven hotline calls going back two years that, if we’d investigated, could’ve led to the early discovery of an asset misappropriation scheme. The inaction cost our company more than $100,000. Had we properly investigated the first allegation the loss to the scheme might have been only $7,000. (Wahlstrom 2017)

By making several inquiries to each firm, I can evaluate whether the response is a function of firm characteristics or more heavily related to the type of inquiry made. Normally, it is difficult to assess whether a firm responds to a report alleging misconduct since the resolution occurs internally. To overcome this limitation and observe a portion of the resolution process, I make inquiries about potential misconduct that might occur or continue to occur pending guidance the firm offers in its response.

3. Assessing Hotlines: Field Study Design

In Section 3, I describe the methodology underlying the design of the study. Additional information related to study design is also described in the appendices as referenced in this section. In 3.1, I describe the sample selection of firms included in the study. In 3.2, I explain the process of designing the inquiries. In this sub-section, I also describe a number of the moral and legal issues considered while designing the study. In 3.3 and 3.4, I explain the process of reporting the inquiries on hotlines and collecting firm responses.

3.1 Firm Sample

In order to make the field study manageable given the costs of placing inquiries, I sought to restrict the ultimate number of firms to which inquiries would be sent, while not overly hampering

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8 Due to concerns about litigation and privacy, even when a firm takes action (e.g. fires an employee), the individual who made the report is typically not made aware of the outcome. Several companies explicitly noted that they would not share the outcome of an investigation. As an example, one firm noted, “[T]he company would not be able to share disciplinary action steps regarding another employee. Any information you would like to provide would be investigated and appropriate action taken.” To the extent that the individual making a report would learn of the outcome, this would likely occur through secondhand information.
the generalizability of the study. I began with all firms listed on The Center for Research in Security Prices (CRSP) as of December 31, 2016. The allegations described in the vignettes were devised to be applicable to operating entities, so I removed real estate investment trusts (SIC = 6798). Furthermore, to assure that firms were aware of the regulatory environment of integrity hotlines in the United States, I excluded firms that were not incorporated in the United States, leaving 3,643 firms.

Small publicly traded firms created potential barriers to conducting a field study for two reasons. First, I sought to submit more than one inquiry to each firm, and smaller firms are more likely to find multiple inquiries unusual, which could impact their responses. Second, I sought to place requests on web-based or e-mail hotlines to remove the variability created by oral reporting on phone hotlines (I describe this criterion in more detail in the subsequent section). Smaller firms are less likely to have a non-phone hotline available. Consequently, I further restricted my potential population to firms within the S&P 500 or S&P 400 midcap index. Although this restriction reduces the generalizability of the field study, the direction of this bias is likely to make hotlines appear to have greater efficacy since larger firms are, on average, more likely to have dedicated compliance departments (instead of a partial role fulfilled by the general counsel). With this additional consideration, I have 685 potential firms.

Making each hotline report is time-intensive, and I also sought to make multiple reports to each sample firm. Thus, I determined that to feasibly conduct the field study, I would need to sample from this population of firms. I sought a sufficiently large number of firms to appropriately capture the range and heterogeneity of firm practices, balanced against a reasonable amount of resources that could be applied to the project. In the end, I drew a simple random sample (SRS) of 250 firms.

The sampling process produced a final sample of firms that are larger, as expected, than the population of listed firms overall. Specifically, the mean market capitalization of my sample firms (n=250) is $32,430 million at the end of 2016, compared to an average for the overall CRSP population (n=4,669) of $6,620 million. Notably, however, the SRS draw of 250 firms yielded a sample that is not statistically different in market capitalization from that produced by the sampling process itself (n=685). In particular, the market capitalization for the potential firm sample (n=685) is $26,454 million, with a t-statistic for the difference in means between the potential and final sample of 1.3.

Table 1 provides descriptive statistics of the final sample. Revenue, age, excess returns, and sales growth were computed from CRSP/Compustat as described in the variable definitions in Appendix 2.
Table 1 also shows the number of publicly disclosed regulatory violations incurred per firm over the prior three years. For each firm in the sample, violation is a binary variable if the firm engaged in a civil (e.g. SEC) or criminal (e.g. DOJ) violation. Notably, 27% of all firms in the sample have at least one violation during this time. When this is restricted to only serious criminal violations, I find that 4% of the sample has at least one criminal violation. In addition, more than 10% of the sample is recidivist, with multiple violations in the prior three years. The frequency of firm violations in the sample suggests that Sutherland’s (1949) conclusions about the perceived ubiquity of corporate misconduct in the early 20th century continues to be true even to this day.

3.2 Designing the Hotline Report Scenarios

I sought to design hotline inquiries with several competing criteria in mind. Specifically, the four considerations taken into account were making the inquiries realistic, having inquiries that would be broadly applicable to a typical operating firm, framing the inquiry in a manner that would prompt a firm response, and minimizing liability concerns.

To begin creating a set of hypothetical inquiries, I started by reading numerous practitioner publications (e.g. *Fraud Magazine, HR Magazine*) and media reports (e.g. *The New York Times*) that describe situations reported to firms on their integrity hotlines. NAVEX, one of the leading third-party operators of compliance hotlines, also produces an annual report (*Ethics & Compliance Hotline & Incident Management Benchmark Report*) describing the frequency of different kinds of reports on hotlines. Based on these sources, I devised an initial set of plausible situations, which I then expanded into plain-language reports. I circulated this set of possible scenarios to several experienced compliance officers, who provided feedback both on the realism of the request and the construction of the language. Based on their feedback, I chose the four scenarios that received common agreement as being both realistic and highly plausible based on their experience. I also heavily revised the language and formatting of the requests to make it resemble a more typical report.

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9 Compliance officers who provided feedback were not employees of any firms in the study. While I did state that I was creating these scenarios for a study broadly related to hotlines, I did not provide details of the study. I did not engage in a more formal feedback process to evaluate these scenarios with a larger group of compliance officers out of concern that my study could leak to members in the compliance community more generally and impact the responses I would receive from their firms. Thus, my requests were made informally to compliance officers I knew from prior research and could depend on to not share the sample scenarios with others in the compliance community as I requested.

10 The first versions of my scenarios were viewed as too precise and “well-formatted.” From a research perspective, the careful and detailed articulation of the concern is appealing so that there is little ambiguity as to what is being reported. At the same time, this kind of request is less representative of what actual reports tend to look like. Thus, after iteration and rewriting, the final scenarios represent an effort to make the report more “casual” in line with what employee hotline
The final inquiries covered four different sources of potential misconduct: financial misconduct, bribe/kickback, harassment, and discrimination. Copies of these inquiries are available from the paper’s author upon request. The two non-financial scenarios were included to examine whether a firm’s hotline was potentially better suited to address HR-related inquiries than financial-related inquiries (see Section 4.4 for discussion).11 I also sent multiple scenarios to each sample firm in an effort to ascertain the responsiveness of their hotline overall, rather than to a specific inquiry at a particular time. For example, if I happened to send a scenario at a time when other events at the firm potentially caused a hotline inquiry to be overlooked, I did not want that to be the sole data point on the firm. At the same time, it was untenable to send multiple different financial reporting inquiries to a firm over a short period of time. NAVEX (2017) reports that less than 2% of all hotline reports are around accounting, auditing, and financial reporting matters. Thus, diversifying inquiries to include other business integrity and workplace conduct issues facilitated my ability to report multiple inquiries to sample firms.

One additional and significant consideration also influenced the design of the inquiries. The project was deemed as not human subject research by my university’s institutional review board.12 However, given the potential deception involved in the study, I faced a subsequent review by the university’s general counsel that raised concerns regarding liability associated with the project. The most salient of these concerns was around fraudulent misrepresentation (i.e. a false representation of material fact with knowledge of its falsity, made for the purpose of inducing the plaintiff to act on it, which the plaintiff relied upon to its damage). To mitigate the potential for damages, the scenarios were designed in a way to make it unlikely that a firm could engage in a substantive or costly investigation without additional information. Specifically, the inquiries were framed around pending behavior that could become more serious misconduct depending on subsequent decisions. I also included additional language in the inquiries, like “suppose,” to help reinforce the scenario as an

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11 The two financial-related inquiries also potentially place the firm itself in violation of the law (i.e. not just its employees). Under respondeat superior, companies can be held criminally liable for the acts of their employees when those illicit acts benefit the company. For example, an employee who bribes a foreign minister and wins a contract creates liability for the company (since the company profits from winning the contract) even if the majority of the benefits associated from the bribe accrue to the employee personally.

12 As viewed by the Institutional Review Board (IRB), reporting scenarios to corporate hotlines is not submitting to “people,” but rather to “firms.” Under Department of Health and Human Services and Food and Drug Administration regulations that guide IRBs, this would not be human subject research. For a similar exemption from an IRB for observation of “firms” rather than “humans,” see Nunley et al. (2016).
inquiry, rather than report. In this regard, the inquiries can be viewed as a means to understand how a company would respond if the situation in question were to occur in practice.\textsuperscript{13}

I also sought to mitigate deceptive representation in my inquiries by caveating and providing additional information to avoid misrepresentation. For example, firms would sometimes ask if the report was being made by an employee. If I had stated that the inquiry was not being made by an employee, the inquiry was unlikely to be viewed with the firm’s typical degree of responsiveness, thus undermining the investigation. At the same time, expressing that I was an employee would have been unambiguous misrepresentation. To address this, I would select the default employee designation if required, but then I would additionally state that I sought to inquire about my concern anonymously without providing my actual position. In this way, to the extent that a firm inferred that the inquiry was made by an employee of its firm, this would simply be an assumption since the desire to not provide the reporter’s actual position was explicitly noted.

As an additional consideration, I agreed to not publish the names of the firms that were contacted. This addressed the concern that some firms, depending on their response, could view publication of their names as causing damage to firm reputation. Specifically, while the direct costs for a firm to respond to a particular inquiry was likely small and inconsequential, the reputational costs could conceivably be much larger if a particular firm response was viewed negatively by external observers or regulators. As there was limited research benefit to publishing firm names, but substantive legal and ethical concern, I agreed to keep these names confidential for the purposes of the project.\textsuperscript{14}

3.3 Reporting Process

For each sample firm, I began by finding the location of its hotline. As a typical practice, firms provide the contact information for their hotline in their codes of conduct. The NYSE and NASDAQ require firms to publicly post their codes of conduct, making this a readily available means to locate

\textsuperscript{13} I appreciate the reviewer’s thoughtful discussion of the ethics of conducting this study. As the reviewer pointed out, it seems reasonable – and ethical – for an employee of a company to want to understand how his or her employer would actually handle a situation like those in the vignettes if one arose in practice.

\textsuperscript{14} The ethical considerations of submitting what some might argue were false claims to an integrity hotline was not lost on the author. The final design of both the reporting scenarios and how they were processed reflects a desire not only to submit realistic reports, but also to lessen the potential for perceived misrepresentation in a moral and legal sense. For a discussion of how the author viewed the morality of engaging in this and related work on corporate misconduct, see Soltes (2019a).
In some instances, the codes of conduct did not have the hotline information provided. In these cases, I would manually search the two dominant third-party hotline providers’ (NAVEX and Convercent) listings of their clients’ reporting pages. If I could not find this information online, I would call the firm (telephone hotline, general counsel’s office, etc.) and ask for contact information for the anonymous hotline.

Firms offer hotlines in a variety of mediums including telephone, web-based, e-mail, and letter, with telephone and web-based being the most common. Initially, I planned to report both on phone and web-based hotlines. However, in initial piloting of the project, relying on phone reporting to produce a homogenous report of each inquiry proved exceedingly difficult. The proficiency of the individual taking down the report would significantly influence what information the firm would receive. Given my desire that all firms would receive the same information about each scenario, rather than varied information dependent on the individual who took down the report, I decided to report exclusively through online reporting systems. Specifically, I would preferentially use a web-based reporting hotline. If this was not available, but the firm provided an e-mail address for hotline requests, I would use that as an alternative. Although this restriction further reduced the number of sample firms (as per the sample selection in Section 3.1), it significantly improved both the precision and consistency of reporting inquiries to different organizations. To send out the reports, I created a randomization protocol where each scenario was assigned a number. I spread the inquiry reports to sample firms over a two-month period and randomized the order in which firms received different scenarios to avoid making several reports to the same firm within a short period of time (i.e. same day or within several days).

15 In some instances, a firm would have multiple codes of conduct available online. In this case, I would utilize the most recent code of conduct to locate contact information.

16 The individual taking the report would reread the report in its entirety to make sure the reporter was satisfied with how it was taken down. There was considerable heterogeneity in how well reports were initially captured. I initially considered correcting each report while on the phone so they were the same (thereby assuring homogeneity in reports), but such a process would not be representative of the actual process of reporting to that firm (given that most people would not seek that level of precision) and this would also be extremely time-intensive (in some instances, expected to take more than 30 minutes per inquiry per firm). Understanding how the recording of hotline inquiries influences a firm’s response could be an interesting study in its own right, but was not the primary focus here. An additional obstacle to phone reporting was an unusual degree of “hang-ups.” For example, for one firm I was unexpectedly disconnected first after 11 minutes and then again after 13 minutes on the call when the firm representative answering the call said he was finding a password to provide the follow-up. It is unclear whether this was simply a coincidence (i.e. at the exact same portion of the call when the firm representative was verifying the report and finding a password) or some more deliberate attempt to hinder reporting. Ultimately, such time-consuming impediments made it impractical to conduct a large-sample field study using telephone hotlines.
For web-based reports, firms often required additional information beyond the actual complaint or inquiry. This included information about location, the nature and timing of the incident, who knew about its occurrence, an assessment of magnitude, and the number of times the misconduct occurred. In an effort to homogenize the information provided, additional information about each inquiry was created (e.g. the impact was expected to be material). If required, firms were provided with this additional information for each inquiry. Appendix 3 describes this supplemental information.17

When a web-reporting channel was not available, I submitted the inquiry to the e-mail channel (if available). To do this, four different e-mail accounts were created and each account was used for the submission of one inquiry type. Firms received the same description of each inquiry as in the web-based reports. As with the web-based reports, the ordering and timing with which e-mail inquiries were submitted to firms was randomized.

3.4 Recording Firm Responses

After making each initial report, I returned to the hotline to access the firm’s response approximately two weeks later. The date of the firm’s response and the response itself were recorded. In some instances, the firm sent multiple responses, each of which was recorded. In order to focus on how the firm resolved the inquiry, automated responses (e.g. “Thank you for your submission. We are now investigating your report and will return…”) to the initial inquiry were discarded.

In some instances, firms closed an inquiry without responding. As the firm had received the inquiry, but chose not to respond, this was coded as the firm closing the inquiry without a response. In addition, if the firm did not respond to the inquiry within 14 days, I also deemed the investigation closed. Given the desire for a resolution of each inquiry, two weeks was viewed as an adequate amount of time for the firm if they were going to respond.18

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17 I find that the vast majority – more than 90% – of phone hotlines are managed by third-party providers. Curiously, 11 hotlines would disclose that they were a representative from a third-party provider (i.e. not a firm employee), but would not name which company they worked for. The inability to ascertain to whom one is giving potentially sensitive information could undermine a reporter’s comfort in providing information on a hotline. Four firms also utilized answering machines/services where allegations of misconduct could be left. In such instances, while reports of misconduct could be made anonymously, there was no way for the firm to collect additional information without the caller exposing his or her identity. The diversity of website providers is even more limited, with more than 90% of firms in the sample utilizing the services of two third-party providers, NAVEX and Convercent, to run their web reporting. Notably, this finding contrasts with Treviño et al. 1999 (“the findings of this study suggest that it is better for the company to keep responsibility for reporting and investigation in-house” p. 148).

18 In some instances, firms were found to respond to inquiries after two weeks. However, some of the inquiries – Inquiries 1 (bribery) and 2 (financial manipulation) in particular – were time-sensitive. For instance, one firm responded to the bribery inquiry three weeks later with “I apologize for the delay, something happened with the mailbox. This is definitely a conflict of interest issue and since it is a government official, it is even more problematic.” However, a firm responding nearly three weeks or more after the initial inquiry is not particularly helpful for an individual seeking guidance about how
Beyond each original inquiry, no additional follow-up was provided to the firm. After some initial piloting, it was deemed that providing additional information or consuming more firm time would increase the risks associated with making inquiries on the hotline. Thus, the final coding reflects the firms’ responses to only the information provided in the initial inquiry on the hotline. While this limited the ability to entirely see how a firm would resolve the inquiry, as some firms sought additional information before offering specific guidance, it also made the information provided to each firm homogenous and avoided significantly increasing the potential liability associated with the project.

4. Hotline Analysis

While anonymous hotlines can appear to function effectively “on paper,” how they actually function in practice could differ and is the focus of the field investigation. In this section, I begin by examining how firms present their hotline to prospective callers by encouraging or discouraging anonymity. I then examine, in 4.2 and 4.3, the obstacles encountered when reporting alleged violations and how firms respond. Finally, in 4.4, I examine how responses vary across the financial and HR vignettes.

4.1. Discouraging Anonymity in Hotline Reporting

Research by psychologists finds that offering individuals the opportunity to anonymously report alleged misconduct encourages reporting (Miceli, Near, and Dworkin 2009; Treviño et al. 1999; McDonald 1999). Following this line of research, SOX requires firms to have an anonymous process for submitting allegations of misconduct (SOX §301). Nevertheless, while the legislation requires firms to make an anonymous reporting process available, firms are not required to actually encourage anonymous submission.

Given this flexibility, some firms choose to discourage anonymous reporting. Several possible explanations can account for this decision. First, hotlines may be used to make frivolous complaints and allegations. By requiring the individual to identify him or herself, the potential cost of making false or exaggerated complaints rises, thereby reducing their frequency (Near and Miceli 1996). Second, anonymous reports can be more time-consuming and expensive to investigate. Thus, having the identity of the employee, supplier, or client making the report helps expedite the investigation (NAVEX 2017). Finally, it is not clear whether firms that have violations actually desire to detect
them. By discouraging anonymous reporting, it also potentially discourages whistleblowing and facilitates managerial efforts to conceal misconduct.

To examine the characteristics of firms that encourage or discourage anonymity, I find the language pertaining to the hotline within each code of conduct. I classify the language referring to anonymity as either encouraging (or agnostic) or discouraging. Examples of language that encourages or is agnostic about anonymous reporting include:

- Your call is confidential and you may remain anonymous.
- You may, of course, make your report without revealing your identity. Anonymous reports will be investigated as thoroughly as reports for which the caller is identified.

In contrast, example statements by firms that discourage anonymous reporting on hotlines include:

- It may be difficult or impossible for [firm name] to thoroughly investigate reports that are made anonymously. [Firm name] therefore encourages employees to share their identity when reporting.
- You may remain anonymous subject to any local laws, although you are encouraged to identify yourself.

In Table 2 Panel A, I find that 13% of my sample firms, or 33 companies, explicitly discourage individuals from reporting anonymously. While these represent a relatively small portion of firms, such discouragement is potentially significant in that it implicitly undermines the spirit of having an “anonymous” hotline.

To better understand the types of firms that discourage anonymity in reporting, I regress whether the firm discourages anonymity on firm characteristics in Panel B of Table 2. I find that firms that are predicted as more likely to have internal control weaknesses are significantly more likely to discourage anonymity. ‘ICW’ is the scaled rank of fitted values of the determinants as described in Doyle et al. (2007) and also used in the examination of whistleblowing target characteristics in Bowen, Call, and Rajgopal (2010). The association between potential internal control weaknesses (i.e. “a significant likelihood that a material misstatement of the annual or interim financial statements will

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19 Given the relatively small sample, codes were manually rather than algorithmically coded. This permitted us to capture the more nuanced language and differences across codes that could discourage anonymity. However, a number of common language elements helped delineate whether to classify a code as discouraging anonymity. These include: “encourage[s/ed] [to identify oneself],” “does not allow complete anonymity,” “limit our ability [to investigate] if anonymous,” “anonymity cannot be guaranteed,” “prefer that you identify,” “to the extent possible [protect anonymity].” If a hotline is not discussed in the code of conduct, but the firm has a hotline, I record the hotline as being agnostic toward anonymity.
not be prevented or detected,” PCAOB 2004) and firms that explicitly discourage anonymous whistleblowing is significant, since the firms that are most likely to have deficiencies are more likely to be the same firms that are undermining a reporting channel to identify these weaknesses (by discouraging the anonymous use of their hotline).

I further investigate the recent history of firms that encourage or discourage anonymity. Although firms that simply have a recent violation are statistically no less inclined to discourage anonymity (in Model 1), I find that firms with more violations are more inclined to discourage anonymity in Model 2. An approximately one-standard deviation in the number of violations (from one violation to three violations) increases the likelihood of discouraging anonymity by 6% (from 11% to 17%). In Model 3, I examine whether financial or employment violations are associated with firms that discourage anonymity and find an association only with recent financial violations. In summary, while SOX requires firms to have a means to anonymously report potential misconduct, firms that have recent financial misconduct are also the ones that discourage anonymity.20

4.2 Obstacles Associated with Hotline Reporting

A firm may explicitly encourage or discourage anonymity in referring to its hotline, but the hotline can still function as an anonymous reporting system. Yet, whether a firm permits anonymous reporting without impediments is a separate question. By contacting hotlines with the sample vignettes, I seek to understand whether hotlines function as described by firms in their documentation (i.e. one simply needs to call a particular number, e-mail a specific address, or fill out a web-based form).

To systematically examine obstacles to anonymously reporting on hotlines, every phone and web-based hotline in the sample was investigated. Phone hotlines were tested by calling each firm. Once the call was answered, I stated that I would like to make an anonymous report of potential misconduct. Once the respondent to the call said it was possible to make the report, I noted that I would call back later and ended the call. For web-based hotlines, I followed the link for each website cited by the firm as their anonymous reporting channel. As it was not possible to effectively test an e-mail hotline unless an inquiry was sent, e-mail hotlines were only tested if the company was a sample

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20 I also examined whether a number of additional governance-related variables (dual class stock, classified board, percentage required to amend the charter, presence of a golden parachute, and poison pill) are associated with encouraging or discouraging anonymity. I do not find a statistically significant relationship with any of these factors. I also conduct multiple hypothesis tests using Bonferroni (1935) and Holm (1979) and find that the p-values remain below .05 in all variations of these procedures.
firm to which I planned to send an inquiry via e-mail. In this regard, I was able to more comprehensively test phone and web-based hotlines as compared to e-mail hotlines.

Panel A in Table 3 describes the obstacles that were encountered across the three mediums and the number of times each impediment occurred (see Appendix 4 for detailed descriptions of each obstacle type). Although some of the obstacles were infrequent (e.g. person answering the hotline was unaware that it was the anonymous reporting line), the detailed categorization sought to capture each limitation encountered when trying to place a report.

In some instances, these obstacles explicitly undermined the anonymity of the hotline. Notably, there were several instances in which firms violated the anonymous reporting channel provision in SOX §301. As examples from the field study:

**Firm utilizes caller ID to identify “anonymous” caller:** When the integrity hotline listed in the code of conduct was called, an employee of the firm answered. The employee stated that they believed the reporter had the wrong number since she did not believe it was her responsibility to record such allegations. After hanging up, the employee later – using the caller identification function from the firm’s phone – called back to note that she had been mistaken and the correct number had been called. If still desired, she could create an “anonymous” report.

**“Anonymous” hotline only permits allegations from identified employees:** When an e-mail was sent to the firm’s hotline, an automated response was sent back saying that the “anonymous” hotline only accepted e-mails sent from identifiable e-mail accounts owned by the firm.

By requiring individuals to use their company-issued e-mail account to make reports, the second firm is effectively ensuring that anonymity is not preserved. Beyond being a violation of SOX §301, the identification requirement is also likely to raise employee concerns of potential retaliation when reporting claims of misconduct. As Debra Katz, a prominent civil rights attorney, has noted, “unsophisticated people [who] provide the company an e-mail will frequently become the subject of investigation themselves” (Scheiber 2017).

Beyond impediments that interfere with the anonymity of hotlines, a variety of other impediments also encumber actual use and reporting on hotlines. As examples from the field study:

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21 The obstacles analyzed in this section are those observed externally when a reporter seeks to contact a firm. The analysis therefore provides an underestimate of all the obstacles arising in the reporting process, since some may only be observable on the firm side. For example, one firm started their response by saying, “I apologize for the delay, something happened with the mailbox.” Thus, the firm admitted that there was some problem associated with their reporting line; however, this was only observable from the firm’s perspective.
Incorrect routing of request: The integrity hotline web link provided in a firm’s code of conduct rerouted to the firm’s home page.

Wrong or incomplete phone number provided: A firm provided a link to a third-party hotline provider, but no information about how to access the actual hotline. When the reporter dialed phone numbers on the linked page, he was connected to a customer specialist who stated that the reporter had reached the wrong number and would need to talk to his firm to find the appropriate hotline location.

Broken reporting link: A firm provided a web address to anonymously report, but the address was incorrect, leading to a “web page not found” error.

As shown in Table 3, Panel A, web hotlines had the greatest number of obstacles. The two most common obstacles were generic third-party links and non-functioning websites. Generic links make it difficult to locate the correct place to report: the links direct the reporter to a page for a hotline service that, when called, tells the reporter to contact the firm to acquire the correct hotline location. In this case, the impediment arises from the firm not providing the correct reporting information. In contrast, non-functioning websites are an impediment created by the website host. Nearly all online hotlines are supported by third-party providers, suggesting that some deficiencies in their services have not caught the attention of their clients (i.e. the firms that hire third-party providers to create functioning reporting hotlines). Some of the impediments entirely break the functioning of a particular reporting medium. For example, four e-mail hotlines had e-mails bounce back (i.e. “server not configured” error from the recipient’s server).

Panel B of Table 3 shows the number of firms with no obstacles and with at least one obstacle. Four firms had more than one impediment to readily reporting on their anonymous hotline. Because some firms “gated” their hotlines (i.e. required the reporter to log into an intranet to view contact information), I was not able to test hotlines for 19 firms in the sample. Gating also prevents outsiders (e.g. suppliers, vendors, customers) from reporting potential violations to the firm. According to the

22 One concern is whether the information provided on a firm’s website was outdated, thereby causing these impediments. In this case, some firms might argue that the obstacles are not genuinely present since the code of conduct document or website was no longer the one being currently distributed to employees (e.g. the firm has not updated information for employees on its webpage, but internally provided a newer document). Even if this was the case, such an explanation does not address many of the impediments found (e.g. firm representative does not know that he or she is the designated hotline representative). Moreover, given that the contact information used in the field study is still widely presented by the firm and readily accessible, it is not improbable that individuals seeking to use the hotline would also attempt to use the outdated, non-functioning contact information. It is likely that many of these hotlines were fully functional at one point, but to the extent that the firm does not update documentation about utilizing the reporting channel as changes are made, it creates the types of impediments described here.
ACFE, 32% of substantiated fraud tips come from non-employee outsiders (ACFE 2018), and thus such gating may be appropriately viewed as a significant impediment. Consequently, the finding that 20% of firms had some obstacle is likely to be a conservative estimate (Appendix 5 provides a Venn diagram showing the number of firms with phone, web, and e-mail hotlines). It should also be noted that even if a firm does not have an obstacle to reporting, this does not imply that firm representatives respond to inquiries in a timely manner. Rather, the absence of impediments simply indicates that an individual can readily make a report on any of the firm’s reporting channels.

As impeded hotlines undermine their own effectiveness by making it more difficult to report, Panel C of Table 3 examines the characteristics of firms that had obstacles associated with reporting. Firms that are smaller, less likely to have internal control weaknesses, and have recent criminal convictions are more likely to have reporting obstacles. The negative association between internal control weaknesses and obstacles suggests that firms that seek to better maintain their internal controls actually seem to overlook potential obstacles to reporting. To the extent that a firm has stronger internal controls, it may be less inclined to have users of the hotline, which is one potential explanation for this relationship.

The positive association, albeit weaker at the 10% level, between firms with recent criminal convictions and reporting obstacles is surprising, given that as part of organization sentencing after a criminal conviction, a firm normally has a review of its compliance program. Oftentimes such a review is done with the guidance of court-appointed monitors (Khanna and Dickinson 2007). However, to the extent that the firm continues to have reporting obstacles, this suggests that the accountability placed on the firm by a corporate monitor is not always effective in ensuring a fully functioning compliance program in the future.

In Model 2 of Panel C, I limit the dependent variation to only equal one when a firm has such a serious obstacle that the hotline is broken, meaning that it is effectively impossible to readily submit

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23 Outside entities, such as suppliers, vendors, or customers, that observe a serious violation are unable to report if a hotline is gated on an employee intranet. At the same time, after informally inquiring about gated hotlines with students who work at firms with gated hotlines, it appears that employees are potentially able to report anonymously, given it is only the contact information of the hotline that is gated (the employee could utilize the hotline contact information to report at work or elsewhere, like the employee’s home).

24 To the extent that firms offered more than one means of reporting, five firms had impediments across all hotline forms that were explicitly tested (e.g. phone, web, and/or e-mail).

25 One example of this arising in practice is Siemens. “For more than six months, from fall 2014 to spring 2015, several whistleblower websites set up by Siemens to receive reports of wrongdoing were not functioning. Users were directed to an external website, but it was not possible to submit evidence of information from there. Siemens spokespersons did not provide an explanation for the problems, which were corrected only after questions from 100Reporters” (100Reporters, 2015).
an anonymous report (e.g. e-mail bounce back). In this case, there is no longer a statistically
significant relationship between recent criminal conviction and having a broken reporting channel,
suggesting some amount of accountability post-conviction. However, I continue to find that firms less
likely to have internal control weakness are more likely to have broken reporting channels.

In summary, Table 3 shows that despite many firms stating that they have reporting channels,
a significant proportion – 20% of the sample – had an impediment that hindered actual reporting.
Some of these obstacles were serious, and effectively blocked reporting on the channel altogether. In
numerous instances, these obstacles also served to undermine a firm’s ability to fulfill its obligation to
provide an anonymous reporting channel under SOX §301. Taken together, these findings suggest
that there is considerable heterogeneity in the ease of accessing different reporting lines.

4.3. Firm Responses to Hotline Inquiries

By framing each report as a question, each hotline inquiry was designed to prompt a firm
response. Firms could respond to the report by answering the question explicitly (e.g. conduct is
appropriate and it is acceptable to proceed) or seeking additional information before providing
guidance. A firm could also close the investigation and choose not to respond. If a firm either closed
the investigation (which was sometimes viewable in an online system) or did not respond within two
weeks, I viewed the investigation as closed.

In Table 4, I examine the characteristics associated with closing investigations by looking at
organizations that close Inquiry 1 (bribery-related) or Inquiry 2 (financial manipulation-related)
without any response. I find that firms less prone to have weaknesses in their internal controls were
more likely to close an inquiry. One reason for this relationship is that firms with stronger internal
controls may have investigated the matter and found no need to continue asking additional
information to resolve the matter. In addition, I find that firms ranked more favorably by employees
(as indicated by Glassdoor, a popular site for employees to review the quality of their firms) were less
likely to close inquiries.

Inquiry 1 described how a city council member requested to utilize the firm’s parking lot for
an event held by his child’s school. However, the inquiry noted a concern that such conduct could be
viewed as inappropriate given that the council member could influence future zoning decisions related

26 Serious obstacles that effectively prevent anonymous reporting include misconfigured e-mail accounts, must use internal
e-mail address, incorrect phone number, phone line disconnected, firm contact unaware of hotline, redirect to incorrect
webpage, and website errors.
to the company. The majority of firms sought additional information (e.g. location of school, name of council member) before they were willing to reach a conclusion. However, 46 firms provided an explicit answer without requiring any further information than that given in the inquiry, and 52% of the responses approved the proposed parking lot use. Most of these approval responses to Inquiry 1 were short and direct. As an example:

*The Ethics Office sees no reason to object to the request of using our parking lot for school purposes as it is another way for [firm name] to be a good steward to the community and supporter of local functions.*

Several responses provided explicit detail on how the compliance and ethics office arrived at their approval decision. One particularly detailed account stated:

*Individual Council members may have influence but no single council person can act independently. Even the mayor, in this case, is mostly a titular role and he doesn't have the authority to act singularly. Let's say we wanted to rezone part of [firm building] for some different kind of use. We would present a proposal to the planning department who then reviews all of the information in accordance with the city master plan. They make their comments and we work back-and-forth with them until we have something that can then be presented to the Planning Commission. The Planning department is staffed with employees not elected officials. Once it moves through the planning department then it can go to the planning commission for a vote. There will be public comments at this meeting and then a vote by the commission. The issue may or may not go to the City Council. If it ever came up to the Council for a vote, we should ask that the Council person recuse himself/herself from the vote. So we, therefore, do not see a conflict of interest in this case.*

In contrast to these approval responses, slightly less than half (47%) of firms that responded said that the requested parking lot use would be inappropriate and not to proceed. As examples:

*We have researched your question and strongly believe [firm name] should not take the action of allowing the use of the parking lot based upon a request from a local government official. This is specifically prohibited under both our FCPA and Lobbying policies. This could be construed as an improper payment and is not allowed.*

*The action you describe would not be appropriate.*

The number of firms providing an explicit answer to Inquiry 1 was small (n=46), limiting the power of an analysis to understand factors associated with this variation in firm response. When I run a model (untabulated) with the dependent variable equal to one when the firm said granting the parking lot was acceptable and zero if they stated it would not be appropriate, I do not find any firm characteristics loading at more than a marginally significant 10% level. However, the potential significance of a firm “missing” a potential bribery case is significant. Under the DOJ’s Foreign Corrupt Practice Act (FCPA) voluntary disclosure program (Justice Manual 9-47.120: FCPA
Corporate Enforcement Policy), when a company voluntarily discloses a FCPA matter to the DOJ, “there will be a presumption that the company will receive a declination absent aggravating circumstances.” If a firm “misses” an allegation of bribery on their hotline and the whistleblower brings that claim to the DOJ, the firm will no longer be eligible for this potential credit and declination (i.e. a case that would have been prosecuted or criminally resolved except for the company’s voluntary disclosure). As an indication of the magnitude of the potential benefits of this declination, the median fine for organizations charged with FCPA matters is $7.05 million.27

Inquiry 2 reported a potential concern about holding back invoices. The inquiry was deliberately vague about the specific nature of the incident and whether it was impacting accruals or simply cash flows (or both). With a limited number of exceptions, firms requested additional information to investigate. However, some firms saw the report as quite serious (n=17), while others viewed it as non-threatening and likely acceptable. Some of the language that firms used when they viewed the inquiry as serious included:

The situation you described may be a very serious one. If the invoices received are not entered into the AP system in the period they are received, our expenses are not properly recorded, which is a form of financial fraud.

The described activity is a violation of company policy. It is absolutely not okay to delay payment on invoices and it is very important that we are made aware of the department and amounts involved as soon as possible so the matter can be addressed.

You should not hold off or delay reviewing or paying any invoices – even if your supervisor asks you to. You should open all mail, review all invoices, and approve invoices for payment promptly without regard to budget.

In contrast, other firms inferred that this was likely acceptable cash-flow management and therefore not serious. As examples of firms that viewed the inquiry as less serious:

There is nothing wrong with this practice as long as invoices are accrued for. It is simply managing cash flow.

As long as all amounts are accrued properly, there is no violation of the law or our policies. Delaying payment does not affect our numbers.

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27 In order to calculate the level of FCPA fines, I utilized The Corporate Prosecution Registry, created by Brandon Garrett and now updated by the Legal Data Lab at the University of Virginia School of Law and Duke University School of Law (see Garrett 2014). The data includes all federal organizational case trial convictions, pleas, deferred prosecution agreements, and non-prosecution agreements. The median fine is based on the 171 criminal FCPA cases prosecuted by the DOJ within this database. See Soltes 2019b for additional background.
I examine a model (untabulated) of the characteristics of firms with responses indicating that the allegation in Inquiry 2 is serious. As with Inquiry 1, the firm characteristics I include in the model provide limited explanatory power into understanding how a firm responds. Nevertheless, as with Inquiry 1, there is significant variation in how firms perceive similar allegations, with some seeing the allegations as potentially serious – even criminal – violations, while others interpret them as acceptable. The inability for firms to consistently assess the severity of the alleged claims when presented with the exact same information underscores concerns around regulatory ambiguity in the white-collar context (Soltes 2016, Soltes 2018b).

4.4. Financial Misconduct versus Human Resource Hotline Inquiries

In the wake of several financial scandals, considerable emphasis has been placed on having hotlines available for submitting concerns around accounting and auditing matters. In particular, the passage of SOX mandates the creation of such anonymous reporting systems. However, firms face considerable liability concerns associated with non-financial matters that hotlines can also help manage. These non-financial matters include employment issues related to harassment and discrimination. By providing a reasonable care defense in negligence-based suits, hotlines can also manage the firm’s legal exposure to such incidents. Thus, firms may utilize anonymous hotlines to detect HR-related problems in additional to potential financial misconduct (Feldblum and Lipnic 2016, McHard and Mohr 2011). Given the potential competing roles of hotlines in resolving both financial reporting and HR-related allegations of misconduct, one question is whether firms’ responsiveness differs based on the nature of the alleged misconduct.

Beyond the two inquiries related to bribery and financial manipulation, I submitted two additional HR-related allegations of misconduct to understand how firms respond to such claims. Inquiry 3 related to seeing a photograph of a co-worker participating in a neo-Nazi rally and holding a swastika sign. The inquiry described the reporter’s fear of working with such an individual and asked if participation in the neo-Nazi rally violated company policy. Inquiry 4 described a situation where co-workers were drinking with a client. To better satisfy the client, the firm’s manager assigned co-workers who also liked to consume alcoholic beverages to the account. The reporter, who did not

28 Occupational, safety, and environmental violations are other significant areas of misconduct that are not examined here (see Levine and Toffel 2010 and Short and Toffel 2007 for a discussion of these types of misconduct). In most instances, employees can also report these issues to hotlines. Given the more specific nature of these allegations (e.g. a financial institution, chemical company, and consumer products firm are unlikely to have the same kinds of occupational or environmental concerns), testing these types of allegations would require a different field-study methodology.
drink for religious reasons, saw a potential tradeoff between upholding religious convictions (and not drinking) and succeeding at the firm.

To examine differences between financial and HR inquiries, I compare the likelihood of closure, response time, and length of the firm’s response in Table 5. In Panel A, I provide the descriptive statistics across the four inquiries. I find that marginally fewer inquiries around financial manipulation were closed (7.5%) compared to either the harassment (11.6%) or discrimination (11.2%) inquiries. However, these differences in closure rates are not statistically significant (chi-squared test), suggesting that firms’ hotlines were equally adept at responding to claims of financial misconduct and HR concerns.

The response time was measured as the number of days between the original report and the first non-automated response from the firm. Firms responded more rapidly to inquiries of financial manipulation over claims of bribery and discrimination. Moreover, this difference is statistically significant with one-sided p-values of .01 and .03, respectively. The faster response time underscores the perceived importance of more immediately resolving the potential allegation. I find that firms are just as rapid at responding to Inquiry 3 regarding the neo-Nazi rally as Inquiry 2 of financial manipulation. One potential reason for this similar urgency in addressing Inquiry 3 is that the time period of the field study (Summer/Fall 2017) coincided with considerable media coverage of white-supremacy rallies as well as extensive discussion of whether societal views ought to impact firm decisions (e.g. firing James Damore at Google for writing an alleged anti-diversity memo).

The length of responses was also considerably greater for allegations of financial misconduct than for other scenarios, reflecting the relatively greater complexity of the inquiry. Word counts included all responses with the exception of automated responses, which were excluded. The mean word count for Inquiry 2, 175 words, was longer than for either of the three other inquiries, and this difference was statistically significant (one-sided p-values of .00, .01, and .01 for the differences in word count between Inquiry 2 and Inquiries 1, 3, and 4, respectively). The response to the bribery claim, by contrast, is shorter on average than responses to either the harassment or discrimination claim (statistically significant with p-values of .04 and .00, respectively). Thus, response depth appears to be driven by the type of inquiry rather than a difference in perceived importance between financial and HR inquiries.

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29 The calculated amount of time in this analysis is total days between the submission of the inquiry and the response. If only business days are included, the median response time falls by approximately one day across inquiries.
In Panel B of Table 5, I aggregate financial (Inquiry 1 and Inquiry 2) and HR allegations (Inquiry 3 and Inquiry 4) to compare the categories more directly. When I examine closure, response time, and the length of response between the aggregated financial vs. HR concerns, I find no statistical difference, suggesting that firms view and respond similarly to financial and HR concerns.30

In Panel C of Table 5, I regress closure, response time, and response length on firm characteristics. As multiple responses for the same firm are included in the panel, regressions are clustered by firm. I find some evidence that more rapidly growing firms (as indicated by sales growth) are more likely to close inquiries and have slower response times. Further, in line with the univariate statistics, Inquiries 2 and 3 have more rapid response times than the excluded category (Inquiry 4). The relatively few firm-level determinants that explain how a firm responds suggest that the nature of the inquiry itself, rather than the type of firm, more significantly explains how a firm responds to reports on its hotline.

Overall, Table 5 indicates that integrity hotlines respond to allegations of financial misconduct and HR concerns in a broadly similar manner. Although the claim of financial manipulation has a marginally faster response time on average than the discrimination claim, this difference is not large economically (i.e. approximately one day on average). Moreover, the harassment claim has a similar response time as the financial manipulation claim. Ultimately, this suggests that while regulation (e.g. SOX) focuses on the financial and accounting role of integrity hotlines, firms are adept and seek to respond to other claims of misconduct in a similar manner in terms of timeliness and length of response. These results suggest that some claims like “many employers create hotlines merely to help insulate themselves from legal liability without ever following up on complaints” (Scheiber 2017) are somewhat exaggerated, since the majority of firms responded in a timely manner to most inquiries.

In fact, the role that HR plays in resolving allegations of misconduct might even marginalize the role that internal audit, accounting, and finance play in responding to inquiries. The largest third-party provider of hotlines shows that the vast majority of all reports to integrity hotlines – 72% in 2016 – relate to HR issues, suggesting that some firms may see their hotline primarily as a system for resolving HR concerns (NAVEX 2017). Such an orientation toward HR concerns could lead some firms to mis-categorize non-HR hotline inquiries. Responses from two firms about Inquiry 2 (financial

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30 One caveat to this analysis is that the seriousness of the two financial inquiries and two HR inquiries may not be interpreted in the same way across firms. Thus, variation (or lack thereof) in responsiveness to the allegations may be due to differences in perceived seriousness rather than category differences.
manipulation) show how firms can mistakenly classify a financial concern by seeing it simply as a communication issue with a supervisor.

Thank you for contacting the Office of Business Practices. Please raise this matter to the attention of your local Human Resources Manager to address - especially if you are not comfortable following the direction of your supervisor.

For this type of issue, we suggest you work with your local HR representatives.

Notably, these were exceptions to the more typical responses to Inquiry 2. Many of the responses explicitly showed that firms specifically sought to understand the issue and desired to investigate the allegation (“We spoke to our Corporate CFO regarding your question…”, “I spoke with our Vice President, Finance of North America…”, “the Company has engaged the services of a third party forensics expert to perform further analysis”). However, for these two firms, the hotline inappropriately viewed the issue as one related to HR rather than accounting or auditing. These examples indicate how finance-related misconduct issues could potentially be missed or overlooked as a result of a firm’s varied use of a hotline.

5. Conclusion and Opportunities for Future Compliance Research

Integrity hotlines provide an opportunity for allegations of misconduct to be reported. Despite their ubiquity, however, little is known about how such hotlines perform. By conducting a field study, this investigation explores the barriers that arise when employees seek to report misconduct as well as how firms actually respond to reported allegations and inquiries. The results indicate considerable obstacles associated with reporting, but a high degree of responsiveness once an allegation is made.

The frequency with which impediments arise with hotlines illustrates the disconnect that can occur between regulatory policy and practice. As has been noted by Ball (2009) and others, jurisdictions can design policy, but if enforcement of that policy is weak, the regulation is unlikely to be effectively implemented or followed by firms. While SOX mandates that firms have an anonymous reporting system under §301, neither regulators nor auditors have historically verified whether firms are actually implementing effective anonymous hotlines. The obstacles documented in this paper indicate that leaving implementation and enforcement to firms creates the potential for gaps between the goals of a regulatory policy and how that policy is executed in practice. To the extent that auditors already examine a firm’s internal controls under SOX, a feasible extension would be to also examine the hotline reporting channel.
While the field method employed in the paper cannot directly assess why such obstacles arise, one hypothesis is that firms initially create well-functioning hotlines that degrade and lose functionality over time. In this scenario, it is not a matter of firms necessarily intending to hinder their reporting process, but rather a failure of maintaining their reporting channels. Under the current incentives offered to firms by regulatory and enforcement bodies, this inattention to hotline functionality can also be viewed as rational. In particular, in the instances where regulators do evaluate a firm’s hotline, the evaluation is part of a broader examination of the firm’s compliance program during charging/sentencing. In many instances, this can be years after the misconduct occurred and the regulatory investigation commenced. Managers, knowing that they face scrutiny, can use this time to invest in their hotline and other compliance initiatives so they can then present an effective compliance program at the time of sentencing to receive credit (e.g. declination or fines reduced by up to 95%). This analysis uncovers several kinds of impediments that frequently arise with hotlines but tend to not be observed by regulators, since firms “fix” their hotlines in advance of presenting their compliance program. Evaluating compliance programs at the time that the misconduct is detected, rather than at sentencing, would avoid crediting firms for compliance initiatives that were enhanced only after a firm came under regulatory scrutiny.

While this investigation identifies one area where firms’ corporate compliance processes in practice differ from their appearance “on paper,” there are numerous other regulatory areas for further research. As the DOJ’s “Evaluation of Corporate Compliance Programs” document (DOJ 2017) and other similar regulatory memos (e.g. DOJ Antitrust RoundTable 2018, HCCA-OIG 2017) lay out, when determining whether to credit firms for their compliance efforts, regulatory and enforcement bodies examine training initiatives, codes of conduct, incentive designs, employee screenings, risk assessments, and analytic processes. While these initiatives may appear homogeneous “on paper,” like hotlines, heterogeneity in their performance is likely to arise in practice. For example, codes of conduct seek to inform employees about firm polices in order to align employee conduct with outside regulatory expectations. However, there is considerable heterogeneity in how codes are created, with some being short legal documents and others being elaborate booklets. Regulatory agents are placed in the position of evaluating whether a firm’s code is effective in changing behavior (e.g. in the April 2019 DOJ Antitrust roundtable meeting, one proposal suggested giving a company’s code of conduct a grade of A-F when conducting an evaluation). In spite of the significant firm implications of having
a code of conduct – or any other compliance initiative – deemed effective or ineffective, there is little empirical evidence to support that one type of code has a different impact than others.\\footnote{31 Areas outside of accounting have also explored internal controls and compliance processes. For a survey, see Parker and Nielsen (2009).}

Accounting researchers are well positioned to more rigorously evaluate the efficacy of different compliance initiatives. While some insight may be garnered through more descriptive analyses of firm practices, a more thorough measurement of the impact of different compliance initiatives would require causal models. Developing such models will require a variety of different methodological approaches, since field experiments conducted within one firm may not generalize to others and lab experiments conducted with students may have limited external validity to actual firms. Thus, researchers have the opportunity to employ different, but complementary, methodologies to draw an externally generalized causal assessment of different firm practices. Ultimately, by examining how compliance processes actually perform in practice, accounting researchers can contribute more directly to evidence-based regulatory and enforcement policy.
References


Table 1: Descriptive Statistics

Table 1 provides descriptive statistics for major variables used in the hotline analysis. Section 3.1 of the paper describes the selection process leading to the final hotline sample (n=250). Variable definitions are described in Appendix 2.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Q1</th>
<th>Median</th>
<th>Q3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (millions)</td>
<td>250</td>
<td>15,578</td>
<td>31,402</td>
<td>2,213</td>
<td>4,890</td>
<td>12,020</td>
</tr>
<tr>
<td>Firm Age</td>
<td>250</td>
<td>40</td>
<td>22</td>
<td>24</td>
<td>35</td>
<td>51</td>
</tr>
<tr>
<td>Excess Returns</td>
<td>250</td>
<td>0.05</td>
<td>0.23</td>
<td>-0.09</td>
<td>0.05</td>
<td>0.18</td>
</tr>
<tr>
<td>Sales Growth</td>
<td>250</td>
<td>0.02</td>
<td>0.19</td>
<td>-0.04</td>
<td>0.02</td>
<td>0.07</td>
</tr>
<tr>
<td>ICW</td>
<td>250</td>
<td>0.46</td>
<td>0.20</td>
<td>0.33</td>
<td>0.47</td>
<td>0.58</td>
</tr>
<tr>
<td>Violation (1/0)</td>
<td>250</td>
<td>0.27</td>
<td>0.45</td>
<td>0.00</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Criminal Violation (1/0)</td>
<td>250</td>
<td>0.04</td>
<td>0.19</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Total Violations</td>
<td>250</td>
<td>0.62</td>
<td>1.98</td>
<td>0.00</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Firm Rating</td>
<td>250</td>
<td>3.4</td>
<td>0.4</td>
<td>3.1</td>
<td>3.4</td>
<td>3.7</td>
</tr>
</tbody>
</table>
Table 2: Discouraging Anonymity

Table 2 examines firms that discourage anonymous reporting on their hotline. Panel A shows the number of firms that encourage or discourage anonymity as discussed in Section 4. Firms that have a fully anonymous hotline, but do not provide any language referencing it, are classified as ‘agnostic’ in regards to anonymity. Panel B regresses firms that discourage anonymity on firm characteristics. Discourage Anonymity is an indicator equal to one if the firm discourages anonymity when reporting on the hotline. Additional variables are described in Appendix 2. All models are probit and ***, ***, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

### Panel A: Firm Language around Anonymity

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encourage or Agnostic Anonymity</td>
<td>217</td>
<td>87%</td>
</tr>
<tr>
<td>Discourage Anonymity</td>
<td>33</td>
<td>13%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>250</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Panel B: Firm Characteristics & Anonymity

<table>
<thead>
<tr>
<th></th>
<th>(1) Discourage Anonymity</th>
<th>(2) Discourage Anonymity</th>
<th>(3) Discourage Anonymity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (log)</td>
<td>0.0281</td>
<td>-0.105</td>
<td>-0.0848</td>
</tr>
<tr>
<td>Age (log)</td>
<td>-0.0126</td>
<td>-0.0294</td>
<td>-0.00620</td>
</tr>
<tr>
<td>ICW</td>
<td>2.080***</td>
<td>2.293***</td>
<td>2.270***</td>
</tr>
<tr>
<td>Excess Returns</td>
<td>0.0481</td>
<td>-0.243</td>
<td>-0.205</td>
</tr>
<tr>
<td>Sales Growth</td>
<td>0.862*</td>
<td>1.005**</td>
<td>0.990**</td>
</tr>
<tr>
<td>Violation</td>
<td>-0.156</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Violations</td>
<td>0.128***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Financial Violations</td>
<td>-0.0123</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Employment Violations</td>
<td>0.146***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm Rating</td>
<td>-0.0442</td>
<td>-0.0292</td>
<td>-0.0599</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.222</td>
<td>-1.346</td>
<td>-1.422</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>250</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td><strong>R-Squared</strong></td>
<td>0.09</td>
<td>0.12</td>
<td>0.13</td>
</tr>
</tbody>
</table>
Table 3: Obstacles to Reporting Allegations of Misconduct

Table 3 investigates obstacles to reporting on web-based, phone, and e-mail hotlines. Panel A describes the number of each type of obstacles encountered. Obstacles are described in additional detail in Appendix 3. The sample includes all firms that have at least one hotline available, n=231. Panel B shows the number of firms with at least one obstacle in the sample. Panel C regresses whether a firm has an obstacle on firm characteristics. Obstacle to Reporting is an indicator variable equal to one when any of the obstacles described in Panel A are present. Broken Reporting Channel is an indicator variable equal to one when misconfigured e-mail accounts, must use internal e-mail address, incorrect phone number, phone line disconnected, firm contact unaware of hotline, redirect to incorrect webpage, or website errors are present for a firm. Additional variables are described in Appendix 2. Models (1) and (2) are probit and ***,**,* indicate statistical significance at the 1%, 5%, and 10% level, respectively.

### Panel A: Categorization of Obstacles

<table>
<thead>
<tr>
<th>Obstacle Type</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web-based obstacles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Website Error</td>
<td>6</td>
<td>14%</td>
</tr>
<tr>
<td>Generic third-party link</td>
<td>20</td>
<td>47%</td>
</tr>
<tr>
<td>Intermediate accessibility</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>Redirect to incorrect webpage</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Incomplete/non-functioning website</td>
<td>13</td>
<td>30%</td>
</tr>
<tr>
<td>Conflicting links</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>43</td>
<td></td>
</tr>
<tr>
<td>E-mail-based obstacles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misconfigured e-mail account/bounceback</td>
<td>4</td>
<td>80%</td>
</tr>
<tr>
<td>Must use internal e-mail address</td>
<td>1</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Phone-based obstacles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorrect phone number</td>
<td>1</td>
<td>20%</td>
</tr>
<tr>
<td>Phone line disconnected</td>
<td>2</td>
<td>40%</td>
</tr>
<tr>
<td>Firm contact unaware of hotline</td>
<td>1</td>
<td>20%</td>
</tr>
<tr>
<td>Intermediate accessibility</td>
<td>1</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Total Number Obstacles</td>
<td>53</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Panel B: Firms with Obstacles

<table>
<thead>
<tr>
<th>Firms with Obstacles</th>
<th># Firms</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No obstacles with reporting</td>
<td>182</td>
<td>73%</td>
</tr>
<tr>
<td>Some obstacles (&gt;=1)</td>
<td>49</td>
<td>20%</td>
</tr>
<tr>
<td>Unable to test hotline</td>
<td>19</td>
<td>8%</td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>100%</td>
</tr>
</tbody>
</table>

Panel C: Firm Characteristics and Obstacles to Reporting

<table>
<thead>
<tr>
<th>Obstacle to Reporting</th>
<th>(1) Revenue (log)</th>
<th>(2) Age (log)</th>
<th>(3) ICW</th>
<th>(4) Excess Returns</th>
<th>(5) Sales Growth</th>
<th>(6) Criminal</th>
<th>(7) Firm Rating</th>
<th>(8) Constant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0.147* (0.0837)</td>
<td>-0.252 (0.299)</td>
<td>-1.133** (0.517)</td>
<td>0.322 (0.433)</td>
<td>0.371 (0.458)</td>
<td>0.802* (0.445)</td>
<td>0.155 (0.238)</td>
<td>0.967 (1.294)</td>
</tr>
<tr>
<td>Broken Reporting Channel</td>
<td>-0.0573 (0.108)</td>
<td>-0.233 (0.429)</td>
<td>-1.646** (0.701)</td>
<td>0.605 (0.638)</td>
<td>-0.910 (0.935)</td>
<td>0.705 (0.508)</td>
<td>0.219 (0.325)</td>
<td>-0.525 (1.689)</td>
</tr>
</tbody>
</table>

| N | 231 | 231 |
| R-Squared | 0.05 | 0.08 |
Table 4: Firm Responses to Allegations of Misconduct

Table 4 examines how firms respond to the two financial-related inquiries (Inquiry 1 and Inquiry 2 as described in Appendix 2). Close Financial Inquiry is equal to one when company ended the investigation without any follow-up (as shown on its website) or no response was provided within two weeks of the inquiry’s submission. Additional variables are described in Appendix 2. All models are probit and ***, **, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

<table>
<thead>
<tr>
<th></th>
<th>Close Financial Inquiry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (log)</td>
<td>-0.0718</td>
</tr>
<tr>
<td></td>
<td>(0.105)</td>
</tr>
<tr>
<td>Age (log)</td>
<td>-0.430</td>
</tr>
<tr>
<td></td>
<td>(0.336)</td>
</tr>
<tr>
<td>ICW</td>
<td>-1.216*</td>
</tr>
<tr>
<td></td>
<td>(0.670)</td>
</tr>
<tr>
<td>Financial Violation</td>
<td>0.166</td>
</tr>
<tr>
<td></td>
<td>(0.438)</td>
</tr>
<tr>
<td>Excess Returns</td>
<td>-0.0827</td>
</tr>
<tr>
<td></td>
<td>(0.559)</td>
</tr>
<tr>
<td>Sales Growth</td>
<td>-0.347</td>
</tr>
<tr>
<td></td>
<td>(0.685)</td>
</tr>
<tr>
<td>Firm Rating</td>
<td>-0.500*</td>
</tr>
<tr>
<td></td>
<td>(0.290)</td>
</tr>
<tr>
<td>Constant</td>
<td>2.707</td>
</tr>
<tr>
<td></td>
<td>(1.722)</td>
</tr>
<tr>
<td>N</td>
<td>187</td>
</tr>
<tr>
<td>R-Squared</td>
<td>0.04</td>
</tr>
</tbody>
</table>
Table 5: Comparing Financial and HR Inquiries

Table 5 compares responses to hotline inquiries related to financial (bribery and financial manipulation) and HR (harassment and discrimination) matters. Panel A shows whether an inquiry was closed, the response time, and the length of response for each inquiry (as described in Appendix 2). A closed inquiry is one in which the company ended the investigation without any follow-up (as shown on its website) or no response was provided within two weeks of the inquiry’s submission. Response Time is the number of days between the submission and first, non-automated, response by the firm. Length of Response is the total length, in words, of all non-automated responses by the firm to each inquiry. Panel B aggregates the financial (Inquiry 1 and Inquiry 2) and HR allegations (Inquiry 3 and Inquiry 4). Panel C shows a multivariate regression of closure, response time, and response length. Closure is equal to one if an inquiry was closed and the regression is a probit model. Models for response time and response length (logged) are OLS. Inquiry 1, 2 and 3 are indicator variables for responses related to each inquiry. Additional variables are described in Appendix 2. All models are clustered by firm. ***,**, indicate statistical significance at the 1%, 5%, and 10% level, respectively.

### Panel A: Descriptive Statistics of Closure, Response Time, and Response Length

<table>
<thead>
<tr>
<th>Inquiry</th>
<th>N</th>
<th>Closed</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inquiry 1: Bribery</td>
<td>152</td>
<td>15</td>
<td>9.9%</td>
</tr>
<tr>
<td>Inquiry 2: Financial Manipulation</td>
<td>161</td>
<td>12</td>
<td>7.5%</td>
</tr>
<tr>
<td>Inquiry 3: Harrassment</td>
<td>164</td>
<td>19</td>
<td>11.6%</td>
</tr>
<tr>
<td>Inquiry 4: Discrimination</td>
<td>161</td>
<td>18</td>
<td>11.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>638</td>
<td>64</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inquiry</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inquiry 1: Bribery</td>
<td>152</td>
<td>5.1</td>
<td>4.9</td>
</tr>
<tr>
<td>Inquiry 2: Financial Manipulation</td>
<td>160</td>
<td>4.1</td>
<td>4.4</td>
</tr>
<tr>
<td>Inquiry 3: Harrassment</td>
<td>160</td>
<td>4.2</td>
<td>4.7</td>
</tr>
<tr>
<td>Inquiry 4: Discrimination</td>
<td>156</td>
<td>5.3</td>
<td>4.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>628</td>
<td>4.7</td>
<td>4.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inquiry</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inquiry 1: Bribery</td>
<td>146</td>
<td>116</td>
<td>85</td>
</tr>
<tr>
<td>Inquiry 2: Financial Manipulation</td>
<td>157</td>
<td>175</td>
<td>130</td>
</tr>
<tr>
<td>Inquiry 3: Harrassment</td>
<td>150</td>
<td>135</td>
<td>99</td>
</tr>
<tr>
<td>Inquiry 4: Discrimination</td>
<td>145</td>
<td>145</td>
<td>94</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>598</td>
<td>143</td>
<td>106</td>
</tr>
</tbody>
</table>

### Panel B: Aggregated Financial vs. HR Allegations

<table>
<thead>
<tr>
<th>Financial vs. HR Inquiries</th>
<th>Sample</th>
<th>N</th>
<th>Closed</th>
<th>Mean</th>
<th>SD</th>
<th>χ² / t-stat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closed Inquiry</td>
<td>Financial</td>
<td>313</td>
<td>27</td>
<td></td>
<td></td>
<td>1.3</td>
</tr>
<tr>
<td></td>
<td>HR</td>
<td>325</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Response Time</td>
<td>Financial</td>
<td>312</td>
<td>.</td>
<td>4.6</td>
<td>4.7</td>
<td>0.75</td>
</tr>
<tr>
<td></td>
<td>HR</td>
<td>316</td>
<td>.</td>
<td>4.7</td>
<td>4.8</td>
<td></td>
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<tr>
<td>Length of Response</td>
<td>Financial</td>
<td>303</td>
<td>.</td>
<td>146.6</td>
<td>144.4</td>
<td>0.46</td>
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<tr>
<td></td>
<td>HR</td>
<td>295</td>
<td>.</td>
<td>140.2</td>
<td>96.9</td>
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### Panel C: Regression Analysis of Closure, Response Time, and Response Length

<table>
<thead>
<tr>
<th></th>
<th>(1) Close Inquiry</th>
<th>(2) Response Time</th>
<th>(3) Response length</th>
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<tbody>
<tr>
<td>Revenue (log)</td>
<td>-0.0993</td>
<td>0.0488</td>
<td>-0.0702**</td>
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<tr>
<td></td>
<td>(0.0797)</td>
<td>(0.203)</td>
<td>(0.0354)</td>
</tr>
<tr>
<td>Age (log)</td>
<td>-0.298</td>
<td>-0.748</td>
<td>-0.0434</td>
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<tr>
<td></td>
<td>(0.248)</td>
<td>(0.634)</td>
<td>(0.154)</td>
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<tr>
<td>ICW</td>
<td>-0.733</td>
<td>-0.160</td>
<td>0.00708</td>
</tr>
<tr>
<td></td>
<td>(0.552)</td>
<td>(1.475)</td>
<td>(0.239)</td>
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<tr>
<td>Excess Returns</td>
<td>0.103</td>
<td>0.403</td>
<td>-0.421*</td>
</tr>
<tr>
<td></td>
<td>(0.309)</td>
<td>(0.921)</td>
<td>(0.227)</td>
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<tr>
<td>Sales Growth</td>
<td>0.370*</td>
<td>1.916**</td>
<td>-0.0805</td>
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<tr>
<td></td>
<td>(0.212)</td>
<td>(0.772)</td>
<td>(0.170)</td>
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<tr>
<td>Violation</td>
<td>0.336*</td>
<td>0.507</td>
<td>-0.0401</td>
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<td></td>
<td>(0.198)</td>
<td>(0.601)</td>
<td>(0.102)</td>
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<tr>
<td>Firm Rating</td>
<td>-0.364</td>
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<td>0.0465</td>
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<td>(0.248)</td>
<td>(0.636)</td>
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<tr>
<td>Inquiry 1: Bribery</td>
<td>-0.0626</td>
<td>-0.115</td>
<td>-0.305***</td>
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<tr>
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<td>(0.173)</td>
<td>(0.479)</td>
<td>(0.0856)</td>
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<td>Inquiry 2: Reporting Manipulation</td>
<td>-0.238</td>
<td>-1.174**</td>
<td>0.143**</td>
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<tr>
<td></td>
<td>(0.175)</td>
<td>(0.476)</td>
<td>(0.0684)</td>
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<tr>
<td>Inquiry 3: Harrassment</td>
<td>0.0327</td>
<td>-1.059**</td>
<td>-0.122*</td>
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<tr>
<td></td>
<td>(0.160)</td>
<td>(0.473)</td>
<td>(0.0682)</td>
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<tr>
<td>Constant</td>
<td>1.777</td>
<td>6.936*</td>
<td>5.338***</td>
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<tr>
<td></td>
<td>(1.488)</td>
<td>(3.832)</td>
<td>(0.699)</td>
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</table>

**N**: 638, 628, 598  
R-Squared: 0.04, 0.03, 0.06
Appendix 1: Background on Integrity Hotlines and Corporate Compliance

In 1991, the United States Sentencing Commission amended the Federal Sentencing Guidelines to create incentives for firms to create “effective compliance programs.” Among the initiatives that the Commission stated that firms should design were hotlines where individuals could anonymously report misconduct and seek guidance. Specifically, the Commission’s Guidelines stated that firms should “have and publicize a system, which may include mechanisms that allow for anonymity or confidentiality, whereby the organization’s employees and agents may report or seek guidance regarding potential or actual criminal conduct without fear of retaliation” (USSC Chapter 8 Sentencing of Organization, §8B2.1).

In the following years, a series of memorandums from different Deputy Attorney Generals furthered the potential advantages associated with having an integrity hotline and other components of a compliance program. In particular, prosecutors could take into consideration whether the firm had an effective compliance program when deciding to even charge a firm for wrongdoing. The rise of deferred and non-prosecution agreements spurred the use of court-appointed monitors who oversaw compliance efforts that often created anonymous reporting hotlines as part of their court mandate (Garrett 2014, Khanna and Dickinson 2007). In an effort to help firms believe they had attained an “effective compliance program” and to satisfy the DOJ if they ever faced prosecution, a consulting industry blossomed to provide integrity hotline services (Haugh 2017, Wellner 2005, Laufer and Strudler 2007).

With the exception of corporate monitors who could require hotlines, neither the Sentencing Guidelines nor memos from the DOJ explicitly required integrity hotlines. Instead, by providing considerable incentives for firms to create strong compliance programs that included hotlines, the USSC and DOJ strongly encouraged their creation. The passage of the Sarbanes-Oxley Act (SOX) in 2002, however, effectively mandated hotlines for publicly traded firms by stating that firms were required to have a process to receive “confidential, anonymous submission by employees of the issuer of concerns regarding questionable accounting or auditing matters” (SOX §301). In 1994, Weaver, Treviño, and Cochran (1999) found that only 51% of Fortune 1000 firms had some type of reporting hotline. Within a decade of their study, the changing regulatory and prosecutorial environment made having an anonymous hotline, at least “on paper,” a required reporting channel for all publicly traded firms.

Although SOX focuses on encouraging reports of alleged financial misconduct, hotlines can also be used to report other kinds of misconduct that would be adverse to the firm. This includes, for example, bribery and workplace-related problems. Harassment and discrimination create liability for firms under other regulation related to equal employment opportunity (Gruner 2001). However, firms can use the presence of a hotline as part of a defense to mitigate their liability if a violation does occur. Across civil litigation, civil sanctions, and

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32 Similar sentiments were expressed by several Deputy Attorney Generals. See Memorandum from Larry D. Thompson, Deputy Attorney General to Heads of Department Components, to United States Attorneys (January 20, 2003); Memorandum from Eric H. Holder, Deputy Attorney General, Federal Prosecution of Corporations to all Federal Prosecutors (June 16, 1999); and Memorandum from Mark Filip, Deputy Attorney General, Principles of Federal Prosecution of Corporations to Heads of Department Components, United States Attorneys (August 28, 2008).

33 The role and accountability of boards in compliance programs is described in Gadinis and Miazad (2018).

34 For harassment, for example, there are several related legal areas that create accountability for firms, including vicarious liability, the 1964 Civil Rights Act, and the negligence standard. Employers may be held vicariously liable for the actions of their employees (including sexual harassment) under the doctrine of respondeat superior (see Vaile v. Fiko, Inc.). The standard in finding liability against the employer depends on the specific type of conduct, and is held to either a negligence standard (the employer should have known what was going on and have taken action, given the facts) or a strict liability standard (the employer is liable, regardless of knowledge of the conduct). Employers can use an affirmative defense in cases involving the negligence standard by satisfying a two-part test described in Waffle House, Inc. v. Williams: “1. [That the employer] exercised reasonable care to prevent and promptly correct any sexually harassing behavior, and 2. That the employee unreasonably failed to take advantage of any preventive or corrective opportunities provided by the employer or to otherwise avoid harm.” Meeting this two-part test is where a hotline can impact liability. If an employer advertises the hotline effectively to employees and puts effort into ensuring employees know it exists, and further takes appropriate action once employees formally complain, then it can point to these actions as evidence of “exercising reasonable care” in its defense in a negligence-based suit. “Exercising reasonable care” can mean changing employee’s shifts so the victim and
criminal sanctions, ultimately there are considerable benefits that incentivize firms to implement anonymous integrity hotlines.

The hotline itself (whether telephone, web-based, and/or e-mail) may be run internally by the firm or outsourced to a third-party provider. When a report or inquiry is made on a hotline, it is routed to a division within the firm. At some firms, all hotline reports are sent to an ombudsperson, who may be the chief compliance officer or general counsel (Miller 2014). Other firms rely on the reporting service to appropriately determine whether a report requires a response and from which department within the firm. If a report is about a financial accounting concern, it is sent to internal audit. If it pertains to workplace harassment, it is sent to HR. The most appropriate and efficient means of communicating reports is a topic of considerable discussion among compliance and HR managers, who often have dueling accountability over reports made on integrity hotlines (SCCE 2017).

Firm managers are responsible for investigating and responding to reports made on hotlines. To facilitate dialogue with anonymous reporters, managers can design software to recontact individuals. To the extent that anonymous reports are made, typically a PIN or password is provided that can be utilized to facilitate continued dialogue between the firm and the anonymous individual making the report. Attesting to the value associated with reports to hotlines, senior firm leadership (CEOs and general counsels) and boards of directors are often regularly apprised of the number and severity of reports made on integrity hotlines (DLA Piper 2017 Compliance & Risk Report).

To better appreciate the type and frequency of reports made on integrity hotlines, NAVEX compiles an annual survey of hotline reports from more than 5,000 clients, including 95 of the Fortune 100 firms. In 2016, NAVEX found that for every 100 employees, firms received a median of 1.4 hotline reports, suggesting that hotlines are reporting tools commonly utilized by employees and agents of the firm. Out of all hotline inquiries, 58% are made anonymously.

Reflecting the diverse uses of hotlines beyond those outlined in SOX (i.e. for accounting and auditing matters), 72% of reports relate to workplace concerns (e.g. harassment, discrimination), while only 2% relate specifically to accounting and auditing concerns. Additionally, 14% of reports relate to business integrity (e.g. bribery, falsification of documents), and 5% to misappropriation of corporate assets. Ultimately, however, less than one quarter (21%) of reports relate to matters with some direct financial-reporting salience. The wide-ranging use of integrity hotlines is one of the reasons that firms engage both accounting/finance staff and HR staff when responding to inquiries.

While reporting misconduct is often viewed as an appropriate response to observing misconduct both legally (e.g. as required in a firm’s code of conduct or employment terms) and morally (i.e. to the extent the alleged misconduct is an ethical violation), individuals have numerous incentives to not report violations. Perhaps the most salient is that individuals fear reprisal or retaliation (Glazer and Glazer 1989). Reporting allegations also takes time and effort, which can become considerable if the misconduct is complex or requires follow-up. Potential reporters may view this as an inconvenience and an unnecessary personal cost. In addition, individuals may also have psychological biases against turning on colleagues or friends with whom they may have a personal relationship (Waytz, Dungan, and Young 2013; Treviño et al. 1999) or be concerned about facing personal retaliation (Filabi 2017). In an effort to mitigate some of these concerns around reporting, firms often devise reporting channels that are convenient (accessible by different mediums, available 24/7) and anonymous (Brown, Hays, and Stuebs 2017; McHard and Mohr 2011). If effectively designed, a hotline serves as a channel to make allegations of misconduct known to an organization, which can then take action or provide appropriate guidance to mitigate impact on the organization and/or individuals.35

See, for example, Waffle House, Inc. v. Williams.

35 Reporting hotlines that purportedly protect whistleblower anonymity are often undermined in practice. As an example, see “How the Whistleblowing Scandal at Barclays Unfolded,” Ben Martin, The Telegraph, April 10, 2017.
Appendix 2: Variable Definitions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>Total revenues from Compustat</td>
<td></td>
</tr>
<tr>
<td>Firm Age</td>
<td>The number of years prior to December 2016 that the firm has been on CRSP</td>
<td></td>
</tr>
<tr>
<td>Excess Returns</td>
<td>Return of the firm’s stock over the equal-weighted CRSP index during 2016.</td>
<td></td>
</tr>
<tr>
<td>Sales Growth</td>
<td>The change in sales from 2015 to 2016 from Compustat.</td>
<td></td>
</tr>
<tr>
<td>Financial Violation</td>
<td>If the firm was sanctioned by the Southern District of New York, Office of the Comptroller of the Currency, Office of Foreign Assets Control, Federal Deposit Insurance Corporation, Commodity Futures Trading Commission, or Department of Justice (multi-unit) in the prior three years (i.e since 2014) the indicator is equal to one. Data on violations is drawn from the Corporate Research Project of Good Jobs First's ViolationTracker.</td>
<td></td>
</tr>
<tr>
<td>Employment Violation</td>
<td>If the firm was sanctioned by the Equal Employment Opportunity Commission, Labor Department Wage and Hour Division, National Labor Relations Board, or Office of Federal Contract Compliance Programs in the prior three years (i.e since 2014), the indicator is equal to one. Data on violations is drawn from the Corporate Research Project of Good Jobs First's ViolationTracker.</td>
<td></td>
</tr>
<tr>
<td>Criminal Violation</td>
<td>If any of the violations (as indicated by financial and employment violations) are criminal in nature, the indicator is equal to one.</td>
<td></td>
</tr>
<tr>
<td>Violation</td>
<td>If the firm has either a financial or employment violation, the indicator is equal to one.</td>
<td></td>
</tr>
<tr>
<td>Total Violations</td>
<td>The sum of financial and employment violations since 2014.</td>
<td></td>
</tr>
<tr>
<td>Firm Rating</td>
<td>Rating of firm (0-5) from Glassdoor.</td>
<td></td>
</tr>
<tr>
<td>ICW</td>
<td>As estimated by Doyle et al. (2007) and used in Bowen et al. (2010), the scaled rank of the fitted values from ICW = $\hat{B} + \hat{B}_2\text{MARKETCAP} + \hat{B}<em>3\text{FIRM}</em>\text{AGE} + \hat{B}_4\text{LOSSES} + \hat{B}_5\text{SEGMENTS} + \hat{B}_6\text{FOREIGN} + \hat{B}_7\text{EXTREME} + \hat{B}<em>8\text{RESTRUCTURE} + \text{error}$, where MARKETCAP is the log of the firm’s market capitalization, FIRM</em>\text{AGE} is the log of the number of years the firm has CRSP data, LOSSES is an indicator variable equal to 1 if earnings before extraordinary items in the two most recent years sum to less than zero, and 0 otherwise, SEGMENTS is the log of the number of operating and geographic segments reported by the Compustat or manually looked up from the firm’s 10-K if missing, FOREIGN is an indicator variable equal to 1 if the firm has non-zero foreign translation, and 0 otherwise, EXTREME is an indicator variable equal to 1 if year-over-year industry-adjusted sales growth falls into the top quintile based on SIC code, and 0 otherwise, and RESTRUCTURE is the aggregate restructuring charge in the two most recent years, scaled by the firm’s market capitalization. ICW is measured as of the end of 2016. As in Bowen et al. 2010, I use coefficient values as reported in Doyle et al. (2007).</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 3: Additional Information Provided for Inquiries

In reporting matters to integrity hotlines, firms often asked additional questions. These were normally framed as a series of questions:

*Did the incident or violation occur more than once? (Yes/No)*

*What brought this violation to your attention?*

…

To the extent that responding to such questions were required for submission, I supplemented as described below.

All inquiries: Location was United States, within the firm headquarters.

For Inquiry 1, the inquiry was categorized as bribery. The violation was reported to occur once, a co-worker was aware of the alleged violation, the co-worker was aware because I told them, someone outside the organization (council member) was involved in the violation, the alleged violation has not been previously reported to management or outside the organization, and the date of the violation was noted as the date of the report.

For Inquiry 2, the inquiry was categorized as a financial reporting and accounting matter. The violation was reported as likely material, the violation occurred once, no one outside the organization or senior management was aware of the alleged violation, and the date of the violation was noted as the date of the report.

For Inquiry 3, the inquiry was categorized as workplace harassment. The violation was reported to occur only once, co-workers were aware of the alleged violation, the co-workers were aware because I told them, someone within the organization was involved in the violation, the alleged violation has not been previously reported to management or outside the organization, it occurred at an offsite location, it was unknown if any steps were taken to hide the violation, and the date of the violation was noted as the date of the report.

For Inquiry 4, the inquiry was categorized as discrimination. The violation was reported to occur only once, no one else was aware of the alleged violation, someone within the organization was involved in the violation, the alleged violation has not been previously reported to management or outside the organization, it occurred at an offsite location, it was unknown if any steps were taken to hide the violation, and the date of the violation was noted as the date of the report.
Appendix 4: Obstacle Descriptions

**Web-based obstacles**

**Website error**
When the link for the anonymous reporting webpage is clicked, the page loads with an error (e.g. “The site cannot be reached.”)

**Generic third-party link**
When clicking on the linking to a firm's reporting webpage, the homepage for a third-party site is encountered. Calls to the provider tell reporter to go back to the firm to provide correct contact information. At other firm, the third-party provider provides one link that fails to load, but another that will.

**Intermediate accessibility**
The website only loads periodically (e.g. based on time of day)

**Redirect to incorrect webpage**
The link identified as the reporting hotline goes to the company's homepage. It is unclear how to navigate to the the hotline from the homepage.

**Non-functioning website**
The reporting webpage requires certain fields to be filled in (e.g. location), however, accurate information pertaining to the firm is not listed.

**Conflicting links**
A firm provides conflicting web reporting links in the code of conduct where not all links function or direct to the reporting hotline.

**E-mail-based obstacles**

**Misconfigured e-mail**
The e-mail bounces back (e.g. “our message couldn't be delivered to [firm name] because the remote server is misconfigured.”)

**Must use internal e-mail address**
The e-mail bounces back from the anonymous reporting hotline with the message “[Firm e-mail address] only accepts messages from people in its organization or on its allowed senders list, and your email address isn't on the list.”

**Phone-based obstacles**

**Incorrect phone number**
The phone number listed in the code of conduct as the hotline does not connect to the reporting hotline.

**Phone line disconnected**
When calling the hotline, the caller hears a message saying the phone number has been disconnected.

**Firm contact unaware of hotline**
When calling the hotline listed in the code of conduct, the person responding to the call is unaware that she has the responsibility for recording anonymous reports.

**Intermediate accessibility**
The reporting hotline is described as operating during specific times and during some portion of that time is still unavailable.
Appendix 5: Venn Diagram of Phone, Web, and E-mail Samples

[Diagram showing the Venn diagram with sets A, B, C, D, E, F, G representing different sample sizes.]

- A: Phone, n=42
- B: Web, n=101
- C: Hotline not contacted (e.g., intranet), n=10
- D: E-mail, n=29
- E: n=42
- F: n=1
- G: n=6

The diagram illustrates the overlap of these sets, indicating the unique and shared elements among the different communication channels.