The Effects of Regulators' Press Releases on Employee Whistleblowing

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Abstract

We examine the effects of regulators' press releases on employee whistleblowing. As a setting, we use quasi-random variation arising from a cutoff rule the Occupational Safety and Health Administration (OSHA) followed in its press releases about facilities that violated safety regulations. After a press release, the number of whistleblower tips increases by approximately 15% at nearby facilities in the same industry. This effect is stronger when the press release highlights OSHA's whistleblowing program, features misconduct reported by whistleblowers, or receives news coverage. Further, the effect is amplified in counties with stronger employee protections and less OSHA monitoring. Additional whistleblower tips lead to more OSHA inspections, more detected violations, and fewer workplace injuries. Taken together, our results indicate that regulators' press releases enhance the efficacy of regulatory oversight and improve workplace safety.

Keywords: Corporate misconduct; deterrence effect; press releases; employee whistleblowing.

JEL: M40; M41; M46.

Data availability: All data are available from public sources identified in the paper.

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1. Introduction

Whistleblowing has become a popular tool for regulators to obtain access to information about corporate misconduct (e.g., Call et al. 2018; Dyck et al. 2010). However, a key challenge for regulators is to tap into employees' knowledge about potential misconduct. Employees are often unaware of regulators' whistleblowing programs or reluctant to speak up as they are uncertain about regulators' willingness to investigate tips and concerned about retaliation from their employers (Heese and Pérez-Cavazos 2021, 2024). To address these challenges, regulators increasingly issue press releases that describe the role of whistleblowers in enforcement actions and promote regulators' whistleblower programs (e.g., Duguay et al. 2024; Johnson 2020).[1] However, whether and to what extent press releases affect whistleblowing are open questions. This paper addresses this question by examining the change in whistleblower tips following press releases concerning enforcement actions issued by the Occupational Safety and Health Administration (OSHA), the regulatory agency responsible to set and enforce workplace safety and health standards in the United States.

OSHA issues press releases about facilities that violated safety and health regulations with the intention to expose violators to public scrutiny and educate other companies and their workers about OSHA's enforcement actions and policies, including its whistleblower program (Michaels 2010; Morrison 2012). OSHA's press releases name the company violating laws, describe the specific violation, and regularly mention OSHA's whistleblower program as a means for employees to trigger an OSHA inspection.

[1] The Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC), for example, publish news regarding whistleblower awards and whistleblowers' role in enforcement activities on their website (CFTC 2024; SEC 2024).

From a research-design perspective, our setting has three advantages. First, a common challenge in examining the effect of regulatory policies on behavior is that policies typically include various new provisions, making it difficult to isolate the effect of one specific provision, such as a press release, on whistleblower behavior. In contrast, the policy we exploit did not include other changes, such as financial rewards for whistleblowing or new protections against retaliation, allowing us to identify the effect of press releases on whistleblowing. Second, OSHA's press release policy also introduces quasi-random variation in the issuance of a press release because OSHA issues a press release for violations with penalties above a penalty threshold, but not for those below the threshold (Johnson 2020). We exploit this policy to compare changes in the number of whistleblower tips among firms within the same industry located in counties that feature a violation in a press release to those located in counties from the same state where a violation occurred, but no press release was issued as the penalty amount was below the threshold. Our final sample includes 554 press releases and 359 counties during the period January 2003 to June 2023. Using this sample, we employ a stacked difference-in-differences methodology, including industry-county-cohort fixed effects to control for time-invariant industry-county characteristics and time-cohort fixed effects to control for time trends as well as controls for local safety and economic conditions. Third, while prior studies typically rely on a fraction of whistleblower tips, we use a novel dataset that includes all whistleblower tips filed with OSHA obtained via Freedom of Information Act (FOIA) requests (Leonelli 2024).[2] The dataset comprises of more than one million tips and allows us to identify the geographic origin of the tip, the company accused of violating workplace safety rules as well as the violation type. As for many resource-constrained

[2] OSHA refers to tips as "complaints." For ease of exposition, we refer to "(whistleblower) tips" throughout the study.

regulators, these tips are an integral part of OSHA's enforcement strategy as about 22% of all OSHA inspections are triggered by tips.

From a theoretical standpoint, the effect of OSHA's press releases on employee whistleblowing is ambiguous. On the one hand, press releases could result in more whistleblowing by increasing awareness of OSHA's whistleblower program, as they regularly highlight OSHA's whistleblower program and the role of whistleblowers as an important source of information for OSHA's enforcement actions. In fact, OSHA regularly receives feedback from industry and employee representatives that workers are often unaware of OSHA's whistleblower program (e.g., GAO 2014; Popovich 2022). Second, OSHA's press releases also communicate to potential whistleblowers that OSHA is willing to take action against companies that violate safety and health rules. Potential whistleblowers are often concerned that regulators do not act on their tip, potentially suppressing tips filed with regulators. Surveys suggest that 39% of employees who experience workplace misconduct lack confidence that their issues will be addressed fairly or taken seriously (Leonelli 2023; Muller 2022).[3] Finally, press releases also disseminate information about what actions constitute an OSHA violation, helping whistleblowers to identify potential misconduct in their organizations. Under this view, we would expect that OSHA's press releases reduce information frictions and thereby increase the number of whistleblower tips.

On the other hand, it is also possible that OSHA's press releases are inconsequential for at least three reasons. First, OSHA's press releases in isolation may be insufficient to overcome employees' retaliation concerns, which ultimately may discourage potential whistleblowers from reporting possible corporate misconduct to OSHA. Retaliation concerns are typically the most important reason for employees to remain silent (e.g., Heese and Pérez-Cavazos 2021; IBE 2024).

[3] Leonelli (2023), for example, finds in a survey of almost 4,000 employees that about half of the survey respondents think that regulators are uninterested or unable to bring enforcement actions against companies.

Second, press releases alone may be ineffective in increasing whistleblowing, as it is unlikely that workers read OSHA's press releases. As a result, workers may remain unaware of the violations or regulatory actions publicized. Instead, local newspapers play an important role in disseminating information about OSHA's enforcement actions (e.g., Johnson 2020). Thus, without news coverage, OSHA's press releases may be ineffective. Third, companies are subject to OSHA inspections, regardless of regulatory press releases (e.g., Raghunandan and Ruchti 2024). This ongoing monitoring by OSHA creates incentives for companies to ensure safe working conditions, as workplace safety violations can trigger reputational and financial costs related to litigation, wage premiums, investor perceptions, negative press coverage, and the ability to attract and retain skilled employees (Caskey and Ozel 2017; Herrera 2020; Samuels et al. 2021).[4] Under this view, regulators' press releases may not affect employee whistleblowing. Ultimately, whether and the extent to which press releases affect employee whistleblowing are empirical questions.

Our main results show that an OSHA press release increases the number of whistleblower tips by approximately 15% in treated counties. This effect is economically significant, as it translates to an increase of about 0.72 whistleblower tips per county-industry over the six months following a press release, relative to a baseline of 0.79 tips per county-industry-month.[5] Collectively, the 554 press releases in our sample lead to approximately 400 additional tips in treatment counties over the six months following the press release. Overall, these findings indicate that OSHA's press releases are associated with an increase in whistleblower tips, suggesting that press releases can play an important role in helping regulators obtain more whistleblower tips.

[4] For example, workplace accidents can increase workers' wage demands (Viscusi 2010; Wei 2007) and may result in a loss of contracts that require a minimum safety record (e.g., Army 2017, §4).

[5] We calculate the average treatment effect of a press release as follows: 0.79 (average number of tips per county-industry-month in the treatment sample before treatment) x 6 (number of months) x 15.14% (treatment effect) = 0.72 additional tips on average.

We expect that the reason for these results is that press releases reduce employees' information frictions by informing them about OSHA's whistleblower program, issues that constitute an OSHA violation, and reducing uncertainty about OSHA's willingness to pursue employee tips. However, a limitation of our main tests is that they arguably only indirectly shed light on these potential explanations. To examine them more directly, we conduct three additional tests. First, we examine whether the increase in whistleblower tips is stronger after a press release that explicitly promotes OSHA's whistleblowing program. For these tests, we analyze the text of each press release and identify those press releases that mention OSHA's whistleblowing program. We find that the effect on whistleblowing is concentrated in press releases that explicitly mention OSHA's whistleblowing program. Second, we examine whether the effect is stronger for press releases covering enforcement actions that were triggered by whistleblowers. The intuition for this test is that highlighting the role of a whistleblower in an enforcement action can reduce whistleblowers' uncertainty regarding OSHA's willingness to pursue cases against companies. We find support for this hypothesis. Finally, we examine whether whistleblower tips are topically related to the violations covered in the press release, as employees learn from press releases what actions constitute an OSHA violation. We find that topically related whistleblower tips increase significantly, while topically unrelated tips do not. Taken together, these findings suggest that press releases are particularly effective in soliciting tips from employees if they highlight the regulators' whistleblowing program, the topics constituting an OSHA violation, and the role of whistleblowers in an enforcement action, thereby reducing employees' information frictions.

However, our discussion above also suggests that press releases may have a weaker effect on employee whistleblowing when 1) retaliation concerns are high, 2) there is a lack of information

dissemination, or 3) OSHA monitoring is high. To examine the plausibility of these arguments, we conduct three additional tests.

First, we examine the role of retaliation concerns by splitting our sample based on a state's unionization rate. The intuition for this test is that unions help workers resolve workplace issues and reduce retaliation concerns (Chen and Islam 2023; Weil 2018). Thus, press releases should have a weaker effect on whistleblowing in states with low unionization rates. Consistent with this argument, we find that the effect of a press release on whistleblowing is concentrated in counties located in states with high unionization rates.

Second, we examine how information dissemination affects the impact of press releases on whistleblowing. Following Johnson (2020), we manually identify news coverage of the press releases in our sample. The intuition for this test is that news coverage of the press release helps disseminate the information in the press release amongst local employees either directly through readership or indirectly via other media, such as social media, that pick up on the news coverage. We find that press releases significantly increase subsequent whistleblowing when they are covered by news outlets. In addition, we do not find a significant increase in whistleblowing when the press release is not covered by news outlets.

Finally, we examine whether variation in OSHA monitoring alters the effect of press releases on employee whistleblowing. If OSHA monitoring creates incentives for companies to comply with workplace safety rules, there is no need for employees to blow the whistle. To identify variation in OSHA monitoring, we measure companies' proximity to local OSHA offices. Staff from these OSHA offices regularly conduct inspections—independent of whistleblower tips—to ensure that companies comply with workplace safety rules (e.g., Johnson 2020), and research shows that companies close to these offices are inspected more often, resulting in better working

conditions (e.g., Heese et al. 2024; Raghunandan and Ruchti 2024). Consistent with our argument, we find that the effect is concentrated in counties located far away from an OSHA office. Taken together, these results provide a more nuanced understanding of the effect of press releases on employee whistleblowing. They suggest that variation in retaliation concerns, information dissemination, and OSHA monitoring can shape the effect of press releases on whistleblowing.

While the results so far indicate that press releases can increase whistleblowing, it is unclear what the consequences of the additional tips are. To that end, we examine whether the additional tips lead to more OSHA inspections, help detect more violations and improve workplace safety in the longer term. We find that additional tips increase local OSHA inspections by approximately 14%, suggesting that OSHA indeed uses the additional tips to inform its enforcement activities. We also find an increase in violations and penalties of 21%, suggesting that these additional tips generally help detect violations that are more severely punished by OSHA. Finally, we find that treated counties have substantially lower injury rates in the two years following a press release, suggesting that the additional whistleblower tips can improve workplace safety in the long run. These effects are economically meaningful. In the aggregate, the additional trips trigger 172 additional OSHA inspections, and 845 violations with $1.89 million in fines in the six months following OSHA's press releases. In addition, we find that the 554 press releases in our sample lead to 144 less injuries in the long term.[6]

[6] We use sub-sample averages and coefficient estimates to compute these effects. For example, we find a 14% increase in whistleblower-triggered inspections in the six months after the press release. Based on a sub-sample mean of 0.37 whistleblower-triggered inspections for treatment observations in the pre-period and 554 press releases in our sample, we find that press releases in our sample lead to 14% x 6 months x 0.37 x 554 = 172 additional OSHA inspections in the 6 months after the press release. Similarly, we compute the increase in violations as 21% x 6 months x 1.21 x 554 = 845 and the increase in fines as 21% x 6 months x $2,710 x 554 = $1.89 million. Lastly, we include 18 months in the post-period to estimate the effect on long-term injuries. Thus, we compute the effect of press releases in our sample on injuries as -0.48% x 18 months x 0.03 x 554 = -144.

We also conduct a series of additional tests to shed light on the persistence and occurrence of the effect and address limitations of our research design. First, we examine the persistence of the effect of a press release on whistleblowing. We find that the effect disappears after approximately six months, suggesting that press releases only have a temporary effect on whistleblowing. Second, we explore parallel trends in whistleblowing around the press release and do not find pre-trends, suggesting that local unobservable factors are unlikely to drive our results. Third, we repeat our analysis using alternative research designs, including OLS, Difference-in-Discontinuities, event studies, and find consistent results. Finally, our results are also robust to alternative sample selection, control groups, clustering, and treatment windows.

Our study makes three contributions to the literature. First, our study contributes to the literature examining the role of whistleblowers in shaping companies' compliance with laws. Studies, for example, establish the importance of whistleblowing as a governance mechanism for regulators to detect wrongdoing (e.g., Bowen et al. 2010; Dyck et al. 2010). More recently, studies have also begun to examine how regulators can design effective whistleblower programs, with some studies highlighting the role of financial rewards and others emphasizing the importance of reducing expected retaliation costs through anonymity (e.g., Berger and Lee 2022; Dey et al. 2021; Heese and Pérez-Cavazos 2021). Beyond these design features, not much is known about how to design whistleblower programs. Our study shows that press releases can increase whistleblowing, thereby helping regulators to detect corporate misconduct. Thus, our study highlights that regulators themselves can take action to reduce whistleblowers' information frictions, expanding our understanding of how regulators can shape whistleblower behavior to enhance enforcement activities.

Second, our study contributes to the literature on the efficacy of regulatory oversight. While prior work shows that disclosure of enforcement activities can reduce corporate misconduct by deterring firms from violating laws (e.g., Duro et al. 2019; Guo and Tian 2023; Hutton et al. 2022; Johnson 2020), it is less clear how exactly such deterrence works. Some propose that disclosure affects the behavior of stakeholders, prompting companies to comply with laws to avoid costly reactions (e.g., Duro et al. 2019; Johnson 2020).[7] Others argue that these disclosures alter managers' beliefs about enforcement likelihood, thereby improving compliance (e.g., Duguay et al. 2024; Johnson 2020). Our study adds to this literature by showing that press releases increase whistleblower tips, enabling regulators to allocate scarce resources to inspections of firms that violate laws. Thus, our study highlights a distinct benefit of disclosures of enforcement activities: in addition to affecting firm compliance directly, they enhance regulatory enforcement efficacy by generating tips that ultimately improve firms' compliance with laws.

Finally, our findings can be of interest to policymakers and regulators concerned about the design of effective whistleblowing programs. While the discussion to date has focused primarily on the question of whether to offer financial rewards for whistleblowers or protect whistleblowers' identity, our study highlights that press releases by regulators can also improve employee whistleblowing. Relatedly, regulators often motivate press release policies by arguing that these disclosures shame companies and hence create a deterrence effect for other companies (e.g., Michaels 2010; Yadin 2019). Our study shows that press releases improve the efficacy of regulatory enforcement by generating tips, thereby deterring misconduct. These are important insights as press releases are a relatively cost-effective mechanism for resource-constrained regulators to enhance the efficacy of their oversight.

[7] Johnson (2020), for example, finds that firms improve workplace safety following an OSHA press release to avoid costly responses from workers.

2. Related Literature, Institutional Background, and Research Question

2.1. Employee Whistleblowing as a Regulatory Tool

Corporate misconduct remains a serious problem in the United States, with recent studies estimating that it is prevalent in up to 10% of listed companies (Dyck et al. 2024). This prevalence is somewhat surprising given the corporate governance reforms over the past two decades, most notably the Sarbanes-Oxley Act of 2002 and the Dodd-Frank Act of 2010. These and other reforms substantially strengthened board oversight, internal controls, and monitoring by auditors, among other external parties, with the express purpose of reducing corporate misconduct (e.g., Hail et al. 2018). However, a growing number of studies suggest that these governance mechanisms often fail in preventing or detecting misconduct, with one reason being that these governance mechanisms often lack access to relevant information (e.g., Dyck et al. 2010).

Whistleblowers, in contrast, can provide regulators with information about misconduct within a company. Employees are particularly helpful in uncovering corporate misconduct (e.g., Bowen et al. 2010; Dyck et al. 2010). Prior studies, for example, show that rank-and-file employees are crucial for detecting fraud (e.g., ACFE 2024; Dey et al. 2021; Dyck et al. 2010).

The value of whistleblowers as a governance mechanism has also been recognized by policymakers, who passed laws aimed at better protecting whistleblowers. For example, Section 806 of the Sarbanes-Oxley Act (SOX) protects employees reporting violations of SEC regulations against retaliation.[8] In addition, many regulators allow anonymous reporting to further protect the whistleblower. Still, potential whistleblowers are often skeptical about reporting to regulators due to the potential cost imposed on them. For example, a survey by Leonelli (2023) reveals that 59% of respondents believe their identity would be disclosed even after anonymously reporting an issue,

[8] OSHA is also responsible for investigating retaliation complaints and enforcing provisions from more than 20 whistleblower statutes, such as labor safety and SOX violations.

and 28% have witnessed or experienced cases where a whistleblower's anonymity was later compromised. When identities are revealed, whistleblowers often face severe social and economic costs and prior studies show that retaliation against whistleblowers is widespread. For example, Earle and Madek (2007) examine 677 retaliation complaints and show that only 2% of cases were ruled in favor of the employee. Similarly, Dyck et al. (2010) and, more recently, Dey et al. (2021) find that more than 80% of the whistleblowers in their sample report having suffered retaliation while a 2017 survey by the Ethics and Compliance Institute shows that 44% of individuals who reported misconduct experienced retaliation. This can include behaviors such as ostracism, verbal abuse, exclusion from key decisions, or negative performance evaluations. Monetary retaliation, such as termination or being blacklisted from an industry, is also common (e.g., Dahl and Knepper 2022; Dai et al. 2025; Heese and Pérez-Cavazos 2021).

Whistleblowing is further complicated by employees' limited knowledge about regulatory whistleblowing programs, their lack of trust in regulators pursuing an enforcement action against a company, or their limited information on what activities constitute a violation of laws. For example, OSHA regularly receives feedback that workers are often unaware of OSHA's whistleblower program (e.g., GAO 2014; Popovich 2022). Relatedly, Leonelli (2023) finds in a survey of almost 4,000 employees that about half of the survey respondents think that regulators are uninterested or unable to bring enforcement actions against companies.

To further strengthen whistleblowing, the Dodd-Frank Act of 2010 introduced financial rewards for whistleblowers reporting accounting fraud to the SEC and CFTC (Dey et al. 2021). A growing number of studies show that financial rewards can help increase whistleblowing and deter firms from engaging in financial misconduct (e.g., Berger and Lee 2022; Dey et al. 2021). That said, most whistleblowing programs around the world still do not offer financial rewards. Beyond

studies examining the effect of financial rewards or anti-retaliation provisions, not much is known about how to design whistleblower programs that can incentivize whistleblowers to speak up. This study examines whether regulators' press releases can be a mechanism to increase whistleblowing.

2.2. OSHA's Enforcement Activities

The Occupational Safety and Health Administration (OSHA), established in 1970, is responsible for promoting and ensuring safe working environments across the United States. The agency achieves this by setting and enforcing various standards that employers must follow, ranging from specific equipment maintenance protocols to broader regulations aimed at minimizing worker exposure to potential hazards. OSHA operates across 10 regions and manages 90 local offices to implement its inspection and enforcement strategies. It directly oversees workplace safety in 28 states, while the remaining 22 states manage their own federally approved safety programs (as we describe in more detail in the next section, state-run OSHA programs are excluded from our study as these programs operate independently and do not follow the press release policy.)

OSHA relies heavily on inspections to evaluate compliance with safety and health regulations. During inspections, inspectors examine operations, review documentation, assess adherence to relevant safety standards, and assign violations, including penalties, if the firm does not comply with safety standards. Similar to other regulators, OSHA's budget limitations mean the agency can inspect only a small fraction of workplaces; in 2016, for instance, OSHA and its state partners conducted approximately 75,000 inspections, covering less than one percent of the eight million regulated workplaces nationwide.

Inspections fall into two primary categories: "programmed" and "unprogrammed." Programmed inspections target industries or hazards identified as priorities, often based on national or regional emphasis programs. These inspections are generally assigned randomly among

facilities. In contrast, unprogrammed inspections are triggered by employee tips (which OSHA refers to as "employee complaints"), referrals from other regulators, or serious accidents.

Our study focuses on employee tips, which we obtained through a series of FOIA requests for the period January 2003 to June 2023 (Leonelli 2023). During this period, OSHA received over 1.1 million tips. About half were received by the federal OSHA program (and are hence the starting point for our sample), while the remainder was received by state-run OSHA programs (which are excluded from our sample). Approximately one in three tips led to an OSHA inspection, and about one fifth of all OSHA inspections were triggered by tips during our sample period.[9]

2.3. OSHA's Press Release Policy

Since the early 2000s, OSHA's ten regional offices have issued press releases following workplace safety inspections that detected violations. These press releases aim to increase transparency about egregious violators and inform the public about OSHA's enforcement efforts, including its whistleblower program. Press releases are typically distributed to local media and industry trade publications and detail inspection results and penalties.

For example, in November 2013, OSHA inspected a recycling facility in Lubbock, TX, and later issued a press release highlighting the facility's failure to safely install machinery and protect workers from hazards, resulting in a $64,400 penalty.[10] This press release was promptly picked up by the local newspaper, The Lubbock Avalanche-Journal, amplifying its reach (Nett 2014).[11]

[9] During our sample period, the federal (state-run) OSHA program received about 570,000 (530,000) tips of which about 29% (33%) led to inspections, and about 22% (19%) of all inspections were triggered by employee tips.
[10] OSHA's press release can be found here: https://www.dol.gov/newsroom/releases/osha/osha20140409-0.
[11] Both the press release and news article are displayed in Appendix A.

OSHA typically issues a press release for violations involving penalties larger than $40,000, a policy that became standardized for the federal OSHA program in 2009.[12] As state-run OSHA programs are not bound by this policy, we exclude states with state-run OSHA programs from our analysis. Our research design exploits the penalty threshold to identify inspections with quasi-random issuance of press releases (i.e., inspections with penalties just above or below the threshold).[13] In addition, the exact timing of the press release relative to the inspection date is unpredictable, meaning that the timing of the treatment is random as well.

2.4. Research Question

Ex-ante, it is unclear whether regulators' press releases have an effect on employee whistleblowing. Press releases can increase awareness of whistleblower programs and communicate regulators' dedication to enforcement. However, it is unclear whether that is sufficient to overcome employees' retaliation concerns. In addition, there might not be sufficient information dissemination of press releases or employee exposure to misconduct, decreasing the potential for subsequent increases in whistleblowing. Thus, whether and the extent to which press releases affect employee whistleblowing are ultimately empirical questions.

[12] In 2009, OSHA's national headquarters issued standardized criteria, leading most regions to adopt a $40,000 press-release threshold, while a few other states opted for $45,000. These thresholds were communicated internally but not disclosed publicly. Prior to 2009, the decision-making criteria for issuing press releases varied across regions. Some regions adopted threshold-based policies, such as Regions 1 and 4 issuing press releases for penalties above $40,000, while others, like Region 5, used a higher $100,000 threshold (Johnson 2020). Some regions issued very few or no press releases at all. In Section 4, we present robustness tests showing that our results hold when we restrict our sample to years following 2009.

[13] In untabulated tests, we plot the distribution of OSHA inspections within $30,000 of the press release threshold binned within $2,500 increments and we find no evidence of a discontinuity in the sample of all press releases as well as our restricted press release sample around the press release threshold. Thus, it does not appear that OSHA systematically changed its inspection behavior based on the press release policy.

3. Data and Research Design

3.1. Data Sources and Sample Selection

We use three primary datasets in our empirical analyses. The first contains employee tips, obtained through FOIA requests covering the period January 2003 to June 2023. The second includes press releases, sourced from the OSHA website or obtained via FOIA requests for press releases issued before 2009. The third dataset contains inspection, violation, and injury data, retrieved directly from OSHA's website.

3.1.1. OSHA's Press Releases

Our initial search yields 4,310 press releases for our sample period. Of those, we drop 85 press releases because we are unable to match them to our inspection data. We exclude an additional 910 press releases issued by state-run OSHA programs (which are not subject to the press release policy) or issued even though the penalty amount was below the threshold (i.e., in some instances OSHA employees did not adhere to the policy). We next remove press releases with penalties more than $30,000 above the threshold set for issuing a press release, reducing our sample by an additional 1,976 press releases.[14] To minimize any confounding effects of repeated press releases, we also require that there is no other press release in the same county within three months of the press release date.[15] We lose 507 press releases in this step. Finally, we drop 278 press releases with missing controls. Our final sample includes 554 press releases. Table 1, Panel A summarizes the steps of our sample selection process.[16] In Table 1, Panel B, we provide an overview of press releases in our sample by industry. Our sample includes press releases referring to a wide set of

[14] Table 9, Panel A shows that our results are robust to alternative bandwidth choices of $20,000 and $40,000.
[15] This requirement also applies to matched control counties.
[16] In most cases, OSHA mentions one company and inspection in a press release. However, sometimes OSHA issues press releases for enforcement actions where multiple companies were fined at the same worksite (which is primarily the case in the construction industry). Therefore, the 554 press releases refer to 567 treated industry industries.

industries, with a particular focus on manufacturing (50%) and construction (40%). The manufacturing and construction industries are the most common in our sample as these industries are most prone to workplace safety and health violations.[17]

Figure 1 shows the counties with one or more OSHA press releases in our sample (and marks states with state-run OSHA plans, which are excluded from our analysis). Within the states subject to OSHA's press-release policy, press releases occurred with no obvious geographic trend. Over our twenty-year sample period, counties have at most five press releases in our sample.

– Insert Table 1 and Figure 1 here –

3.1.2. OSHA's Whistleblower Program

Through FOIA requests, we obtain 1,098,919 whistleblower tips filed with OSHA during the period January 2003 to June 2023. We drop 530,593 tips filed with state-run OSHA programs, which are excluded from our sample because they are not subject to the press release policy. We next remove 538,845 tips occurring in locations and time-periods not included in our sample. Our final sample includes 29,481 whistleblower tips. Table 2, Panel A summarizes the steps of our sample selection process. In Table 2, Panel B, we provide an overview of the tips in our sample by industry. Similar to Table 1, Panel B, our sample includes tips referring to a wide set of industries, with a particular focus on manufacturing (46%) and construction (52%). Figure 2 illustrates the whistleblowing tips included in our sample, including both treatment and control observations. Similar to Figure 1, there is no obvious geographic trend.

– Insert Table 2 and Figure 2 here –

[17] As we discuss in Section 4.4, our results are robust to separately excluding each of those industries.

3.2. Empirical Strategy

For our analyses, we use a stacked difference-in-differences specification (e.g., Baker et al. 2022; Gormley and Matsa 2011):

$$Y_{s,c,i,m} = \beta_1 Treat_{s,c,i} \times Post_{s,m} + \lambda_{s,c,i} + \tau_{s,m} + X'_{c,i,m}\,\gamma + \epsilon_{s,c,i,m}, \quad (1)$$

where *s* indexes a cohort, *c* indexes a county, *i* indexes an industry, and *m* indicates a month. $Y_{s,c,i,m}$ is the sum of the number of tips (*Whistleblower Tips*) calculated for each county-industry-month. *Treat* is set to one for county-industries that experience a press release, and zero otherwise. For each press release, we identify the inspection(s) mentioned in the press release and assign county-industries based on the inspected company's location and 2-digit NAICS code.[18] *Post* is set to one for six months after the press release, and zero in the sixth months prior to the press release. In our analyses, we focus on a twelve-month window around the press release, i.e., treated and control county-industries are included from six months before the treatment to six months after the treatment.[19] Months in our research design are four-week blocks centered around the week of the press release. We consider the week of the press release to be the last week of the pre-period, and the consecutive four weeks after the week of the press release are the first month in the post period (see Appendix B for an example and graphical illustration of our research design).

In this research design, the first difference is the change in employee whistleblowing measured in terms of employee tips received by OSHA in a county-industry after an inspection with and without a press release. The control group consists of counties in the *same state* that had *inspections* in the *same 2-digit NAICS industry* with fines below the press release threshold that happened in the *same*, the *prior*, or the *following* week as the inspection(s) that have a press release

[18] According to the NAICS industry definitions, we combine the 2-digit NAICS codes 31-33 (Manufacturing), 44-45 (Retail Trade), and 48-49 (Transportation and Warehousing).
[19] As discussed in Section 4.6, the results are robust to using a one-month or three-month window around the treatment.

to ensure that we are capturing similar time trends. On average, each inspection with a press release has 3.78 matched control inspections without a press release. Thus, our final sample includes 2,710 inspections, which resulted in a total of 20,547 violations and over $71 million in fines.

With these research-design choices, we aim to ensure that the economic and regulatory environment is comparable between treatment and control county-industries, alleviating the concern that our results are driven by differences (or changes) in economic conditions or industry standards. This design also controls for potential effects an inspection itself (rather than the press release) may have on our outcome variables. The second difference is the change in tips in a county-industry prior to and following the press release. Therefore, the effect of press releases on county-industry employee whistleblowing is estimated as the difference in those two differences and is reflected in β_1 in the above regression.

For our stacked difference-in-differences specification, we construct cohorts for each press release. The cohort (s) includes the treated county-industry (c,i) and county-industries with contemporaneous inspections without press releases from the same state and the same industry as the treated county-industry. We also include fixed effects and control variables. $\lambda_{s,c,i}$ is a cohort-county-industry fixed effect, and $\tau_{s,m}$ is an event-time-cohort fixed effect where event-time is defined as the month relative to the press release date. We add these fixed effects to control for time-invariant county-industry characteristics and time trends, such as seasonality in OSHA whistleblower tips (Leonelli 2023).[20] $X'_{c,i,m}\gamma$ is a vector of time-varying controls that includes a measure of current and lagged safety as well as local employment at the county-industry-month level. We include these time-varying variables to control for any changes in the number of individuals who could blow the whistle (i.e., employment) and the prevalence of misconduct that

[20] We are unable to include event-time-county fixed effects in our regressions as those would subsume the coefficient on treat × post, and therefore the variable of interest.

could lead to changes in whistleblowing. Standard errors are clustered by county-industry-cohort (see for example Cengiz et al. 2019). If press releases lead to increases in employee whistleblowing, we expect the number of employee tips in the affected county-industry to increase following the press release (i.e., $\beta_1 > 0$).

We estimate equation (1) using pseudo-Poisson maximum likelihood (PPML) regressions because they are best suited for the characteristics of the variables in our analysis (i.e., count-like data with non-normal distributions, see Cohn et al. 2022).[21] Unlike log-linear or standard Poisson models, PPML provides unbiased estimates for skewed variables with high frequencies of zeros and is able to accommodate a wide variety of distributional properties, including overdispersion.[22] As a result, such models are increasingly popular in accounting, economics, and finance (e.g., Sautner et al. 2023; Dambra et al. 2024).[23]

Table 3 provides descriptive statistics on the key variables within our sample (Panel A) and across treatment and control county-industries (Panel B).[24] In Panel A, we show summary statistics for all observations at the county-industry-month level for our sample period including the six months prior to the press release as well as the six months after the press release. We allow multiple control observations for each press release, leading to about 21% of our sample being treatment observations. The average number of employee tips in a county-industry-month is 0.91. The variables *Inspections*, *Violations*, and *Fines* only include OSHA enforcement actions arising from

[21] As described in Section 4.5, our results are robust to using linear regressions of the inverse hyperbolic sine of employee tips. Given the frequency of zeros in our dataset, the inverse hyperbolic sine transformation is preferred to the log transformation as it requires the addition of arbitrary numbers, which can affect estimates.
[22] Regressions with count variables as outcomes are often estimated by adding a constant to the outcome and using a log-linear regression. However, Cohn et al. (2022) show that this practice produces estimates with no natural interpretation that can easily have the wrong sign, whereas fixed-effects Poisson (or PPML) models produce consistent and reasonably efficient estimates with minimal assumptions about the distribution of the data. In addition, the inclusion of high-dimensional fixed effects does not bias the estimates in PPML models because only groups with at least one non-zero value are included in the estimation.
[23] We follow Correia et al. (2020) in the implementation of the pseudo-Poisson maximum likelihood regressions.
[24] All variables are defined in Appendix C.

employee tips. On average, a county-industry-month in our sample sees 0.44 inspections, 1.31 violations, and about $3,170 in fines. *Long-Term Safety* measures the number of injuries reported to OSHA and the sample includes the six months prior to the press release as well as months seven to 24 after the press release (i.e., the period after our main sample period).[25] There are about 0.04 injuries per county-industry-month on average. *Lagged Safety* and *Current Safety* measure the number of violations from planned (i.e., random) OSHA for the prior and current month respectively. We scale these variables by the number of planned OSHA inspections to account for differences in county size and enforcement intensity. On average, there is just above one violation per planned inspection in a given county-industry-month. *Employment* measures the monthly employment for a given county-industry and the average county-industry-month in our sample has almost 12,000 employees.

In Panel B, we compare treatment and control observations using only observations in the pre-period. When comparing the raw data, the means of *Whistleblower Tips*, *Inspections*, *Violations*, *Fines*, *Long-Term Injuries*, and *Employment* are larger for control observations, likely due to small differences in the average size of the counties. However, when including county-industry fixed effects (which we also include in the analyses), the differences between treatment and control observations are all very close to zero and insignificant.

– Insert Table 3 here –

3.3. Main Results

Our first set of our analyses examine the relation between press releases and subsequent employee whistleblowing (*Whistleblower Tips*) in Table 4. We start with the unstacked dataset and

[25] Although this analysis includes double the number of months as our main sample, the number of observations is not exactly double those of the main sample. When we extend the sample, some observations are missing data on county-industry employment, which we exclude from the sample (i.e., 32 county-industries).

progressively add stricter fixed effects in Columns (1) through (3) ending with year x month and county x industry fixed effects.[26] We then move to our stacked dataset and interact our fixed effects with cohort fixed effects in Column (4). Lastly, we add time-varying controls in Column (5), our preferred specification. Consistent with our prediction, the results from Table 4 indicate a positive and significant coefficient on *Treat x Post* in each specification. The coefficients are similar across specifications, exhibiting marginal changes as we add fixed effects and control variables. In terms of economic significance, we find that a press release increases the number of tips by approximately 15%.[27] Overall, these results are consistent with regulator press releases playing an important role in employee whistleblowing.

– Insert Table 4 here –

3.4. Mechanisms

We expect that there are three primary mechanisms through which press releases can increase employee whistleblowing. First, many employees are unaware of whistleblowing programs and do not know how to inform regulators about the misconduct they are experiencing. Press releases can reduce these information frictions.[28]

OSHA provides information about its whistleblower program in a subset of press releases by including sentences such as "To ask questions, obtain compliance assistance, file a complaint or report workplace hospitalizations, fatalities or situations posing imminent danger to workers, the public should call OSHA's toll-free hotline at 800-321-OSHA (6742)". We use this variation to better understand the impact of including such information in press releases and categorize press

[26] When the dataset is unstacked, the "Year x Month" fixed effects capture the year and month of the observation based on the first day in the four-week block (relative months are not meaningful in this specification as they could capture any point in time over our sample period). In our stacked design, the "Year x Month" fixed effects capture the relative month with respect to the press release date. This ensures that we are comparing the same time-period within a stack across treatment and control observations.

[27] Calculated as ($e^{\wedge 0.141}$ - 1) x 100 = 15.14%.

[28] Relatedly, a press release can remind employees of OSHA's whistleblower program.

releases based on the inclusion of such statements. *Whistleblower Program Promotion* equals one for an inspection with a press release that includes information about the whistleblower program, and 0 otherwise. *No Whistleblower Program Promotion* equals one for an inspection with a press release but without information about the whistleblower program, and 0 otherwise. Note that both variables are equal to 0 for control observations and thus both coefficients estimate the effect of press releases (with and without a call to action) relative to the control observations.[29]

We present the results in Table 5, Panel A, Column (1). We find that the effect on whistleblowing is concentrated in press releases that explicitly mention OSHA's whistleblower program. Specifically, we find that whistleblower tips increase by about 19% when the press release mentions the whistleblower program. We do not find a significant response in tips when there is no mention of the whistleblower program. The difference between the coefficients is statistically significant with a p-value of 0.06. These results suggest that information about whistleblower programs in the press release is essential to increase employee whistleblowing.

The second potential mechanism is that press releases remove uncertainty about OSHA's willingness to pursue tips brought by employees. In particular, this is the case if the press release highlights that the enforcement action was triggered by a whistleblower tip and shows that OSHA took the tip seriously and enforced workplace standards. If employees are unsure about OSHA's willingness and/or ability to respond to a tip, evidence of successful enforcement could increase employees' willingness to blow the whistle.

OSHA generally mentions what originally triggered an inspection (though OSHA preserves the anonymity of the source in the press release). We categorize the inspections in the press releases based on whether they were triggered by employee tips or through something else (such as a

[29] We define all variables for sample splits for the treatment observations only and set the split variables equal to zero for control observations.

random inspection or a referral from another government agency). *Whistleblower-Triggered Inspection* equals 1 if an inspection with a press release was triggered by a whistleblower tip, and 0 otherwise. *Not Whistleblower-Triggered Inspection* equals 1 if an inspection with a press release was not triggered by a tip, and 0 otherwise. Both variables equal 0 for control observations and the coefficients estimate the relative increase in employee tips compared to control observations.

We present the results in Table 5, Panel A, Column (2). We find that the effect on whistleblowing is concentrated in press releases for inspections that were triggered by tips. Specifically, we find that whistleblower tips increase by about 37% in that case. When the inspection in the press release was not triggered by a tip, our coefficient estimate shows that employee tips still increase but only by 9%. The difference between the coefficients is statistically significant with a p-value of 0.00. These results suggest that highlighting the role of a whistleblower in an enforcement action reduces whistleblowers' uncertainty regarding OSHA's willingness to purse cases against companies and thus leads to a stronger increase in employee tips.

The third potential mechanism is that press releases inform employees about what OSHA considers a violation of workplace safety standards, thereby alleviating information frictions employees may face. If press releases help whistleblowers better identify potential misconduct within their organizations, we expect the resulting tips to be topically related to the violations described in the press release. To conduct this test, we exploit that, starting in 2011, OSHA began reporting whether a tip is related to an emphasis program, and if so, which one.[30] We identify all emphasis programs and create a dictionary of keywords likely to be used in the press release for

[30] Emphasis programs are (temporary) programs that focus OSHA resources on particular hazards. These programs use labels that allow identifying the particular hazard a whistleblower tip alleges (e.g., respiratory protection, protective equipment, heat exposure, etc.)

each emphasis program. For example, for emphasis programs related to respiratory protection, we search the press releases for keywords such as "airway" and "mask," while for those related to fire hazards, we search for keywords such as "flame" and "explosion."

In this test, we limit our sample to treatment observations because we are unable to extract keywords for control observations (as there is no press release). We further limit the sample to employee whistleblower tips that are tagged with an emphasis program. We count how many tips are related—meaning they match the emphasis programs linked to keywords in the press release—and how many are unrelated, and test whether these two types of tips develop differently after the press release.[31] The event study includes month and county-industry fixed effects.

We present the results in Table 5, Panel B. We find that topically related whistleblower tips increase by about 35% after the press release. Topically unrelated tips, however, do not increase significantly. The difference between the coefficients is statistically significant with a p-value of 0.08. These findings suggest that press releases help employees understand what constitutes a violation, reducing information frictions related to whistleblowing.

– Insert Table 5, Panels A & B here –

3.5. Frictions

There are three potential frictions as to why press releases might not affect employee whistleblowing. First, OSHA's press releases in isolation may be insufficient to overcome employees' retaliation concerns, which ultimately may discourage potential whistleblowers from reporting possible corporate misconduct to OSHA. Second, press releases alone may be ineffective in increasing whistleblowing, as it is unlikely that workers read OSHA's press releases. As a result,

[31] The average number of topically related whistleblower tips in a county-industry-month is similar to the average number of topically unrelated whistleblower tips in a county-industry-month.

workers may remain unaware of the violations or regulatory actions publicized. Third, OSHA may sufficiently monitor firms' compliance with workplace safety regulations, regardless of regulatory press releases. If there is limited misconduct, press releases might not affect employee whistleblowing. We consider each of these potential frictions in turn.

Retaliation concerns are often the primary reason why employees remain silent (e.g., Heese and Pérez-Cavazos 2021; IBE 2024). However, unions often help workers resolve workplace issues and reduce retaliation concerns (Chen and Islam 2023; Weil 2018). Thus, we expect that press releases have a stronger effect on whistleblowing in states with high unionization rates as employees' retaliation concerns should be muted.

To test the impact of the retaliation friction, we split the press releases in our sample based on the median state-level unionization rate in our treatment sample. *High Unionization* equals 1 for press releases in states with above median unionization rates, and 0 otherwise. *Low Unionization* equals 1 for press releases in states with below median unionization rates, and 0 otherwise. Both variables equal 0 for control observations and the coefficients estimate the relative increase in employee tips compared to control observations.

Consistent with unions reducing retaliation concerns, our results in Table 6, Column (1) show that the effect of a press release on whistleblowing is concentrated in counties located in states with high unionization rates, where press releases increase employee tips by 20%. We do not find a significant increase in tips in states with low unionization rates. The difference between the coefficients is statistically significant with a p-value of 0.07.[32]

The second potential friction for employees responding to a press release is based on information dissemination. While OSHA publishes its press releases on its website, it is unclear

[32] We find similar results when splitting our sample based on whether the state has right-to-work laws.

how often, if ever, employees seek out this information on the website itself. However, newspapers often publish articles covering such information either because journalists seek out this information or because OSHA directly contacts newspapers after publishing a press release (e.g., Johnson 2020; Leonelli 2024).[33] If information dissemination reduces employees' frictions to acquire information about the press release, we expect the effect of press releases to be stronger when the press release receives news coverage.[34]

Following Johnson (2020), we manually search for news coverage of the press releases in our sample on NewsLibrary.com.[35] Overall, we find that about 70% of press releases receive news coverage and when they do, a press release leads to about 2.23 news articles.[36] The variable *News Coverage* equals 1 for press releases covered by news outlets, and zero otherwise. *No News Coverage* equals 1 for press releases not covered by news outlets, zero otherwise. Both variables equal zero for control observations and the coefficients estimate the relative increase in employee tips compared to control observations.

We present our results in Table 6, Column (2). Consistent with our prediction, we only find a significant increase in whistleblowing in the subset of press releases with news coverage (in those instances, a press release increases the number of tips by approximately 20%). Without news coverage, the coefficient is insignificant. The difference between the coefficient estimates for press releases with or without news coverage is statistically significant with a p-value of 0.03.

[33] An example of a press release with a corresponding news article is shown in Appendix A. Journalists typically use the language from the press release (or very similar language) for their article. Sometimes the article includes information not included in the press release (such as a statement from the firm or information on past misconduct).
[34] News coverage of press releases can reduce information frictions for employees who read the news articles. It also increases the likelihood of information dissemination through word-of-mouth or other media (including social media).
[35] NewsLibrary.com is a compendium of roughly 4,000 U.S. newspapers and other news outlets.
[36] In September 2016, OSHA started posting on Twitter and as of July 2024 has posted about 4,500 times. However, OSHA's Twitter postings are less suitable for our research question for two reasons. First, less than 6% of OSHA's Tweets are about enforcement. Second, OSHA does not follow a specific policy in its Twitter postings, creating selection bias. Instead, OSHA focuses primarily on enforcement actions with large penalties. In fact, only 12 inspections with press releases from our sample are mentioned on OSHA's Twitter account.

The third potential friction stems from OSHA's monitoring. OSHA regularly reviews firms' compliance with workplace safety regulations. Thus, companies might have sufficient compliance incentives and employees might not experience sufficient misconduct for a press release to increase employee whistleblowing.

To identify companies with stronger OSHA monitoring, we estimate firms' proximity to a local OSHA office. Staff from these OSHA offices regularly conduct inspections—independent of whistleblower tips—to ensure that companies comply with workplace safety rules (e.g., Johnson 2020), and research shows that companies close to these offices are inspected more often, resulting in better working conditions (e.g., Heese et al. 2024; Raghunandan and Ruchti 2024). The variable *High Distance to OSHA* equals 1 for inspections with press releases at establishments that have an above median distance to their assigned OSHA office, and 0 otherwise. *Low Distance to OSHA* equals 1 for inspections with press releases at establishments that have a below median distance to their assigned OSHA office, and 0 otherwise. Both variables equal 0 for control observations and the coefficients estimate the relative increase in tips compared to control observations.

We present our results in Table 6, Column (3). Consistent with our argument, we find that the effect is concentrated in counties located far away from an OSHA office, in which case we find that a press release increases tips by 35%. When the firm is closer to an OSHA office, our coefficient estimate shows that tips increase by 9%. The difference between the coefficients is statistically significant with a p-value of 0.00.

Taken together, these results suggest that variation in retaliation concerns, information dissemination, and OSHA oversight can shape the effect of press releases, providing a more nuanced understanding of the efficacy of press releases in stimulating employee whistleblowing.

– Insert Table 6 here –

3.6. Quality of Tips

While our results so far indicate that press releases increase the number of tips, the quality of these tips is less clear. For example, press releases could attract frivolous tips or tips about minor infractions, which, in turn, waste scarce regulatory resources.

If the quality of tips is low, OSHA is less likely to initiate investigations in response to them and less likely to issue citations and fines. To examine the quality of tips, we conduct three sets of tests, which we report in Table 7. In Column (1), we start by examining OSHA's response to whistleblower tips by replacing the dependent variable with *Inspections*, which is the number of inspections triggered by tips. Similar to whistleblowing, press releases increase the number of inspections by about 14%. Based on the mean number of inspections, the estimated effect size translates to an additional 172 inspections over all treatment county-industries in our sample in the six months after the press release. This increase in inspections is proportional to the increase in tips. Thus, OSHA likely does perceive the additional tips to be of high quality. Indeed, in Columns (2) and (3), we find that OSHA issues 21% more violation citations and 21% higher fines during inspections triggered by tips after press releases. Based on the mean number of violations and fines, this translates to approximately 845 additional violations and $1.89 million higher fines in the six-month period after the press releases aggregated over all treatment county-industries.

Lastly, we test whether press releases can affect overall safety of the treated county-industry in the long-run in Column (4). For this, we extend the post-period and examine the effect on future injuries in months 7-24 after the press release. We exclude the first six months after press releases to allow sufficient time for establishments to react to the press release and improve safety practices. We find that reported injuries decrease by 48%, meaning that press releases improve the

safety of the affected county-industry. Aggregating over all 554 press releases, we find about 144 fewer injuries in the treated county-industries over 18 months after our main sample period.

– Insert Table 7 here –

4. Additional Tests

4.1. Persistence

In our main specification, we include monthly observations for a six-month window around the press release. To test the persistence of the effect, we extend our post period to 24 months.[37] To ensure that we do not capture effects of future press releases, we exclude any press releases that have multiple press release events within 24 months in the same county, which leaves us with 172 press releases for the analysis.

We examine the persistence of the effect in three-month increments in Table 8, Columns (1) through (4). We find that press releases have a positive and significant effect on whistleblowing in months one to three and months four to six. Specifically, press releases increase whistleblowing by about 20% in the first three months and 25% in the subsequent three months (the coefficient estimates are not statistically different from each other). The coefficient estimates for months seven to nine and ten to twelve are insignificant. We then test the long-term effect of press releases on whistleblowing in Column (5) by including months 13-24 in the post period. We do not find significant long-term effects. Thus, our analysis suggests that the effect of press releases on whistleblowing persists for approximately six months.[38]

– Insert Table 8 here –

[37] The pre-period is set to 6 months, as in prior analyses (i.e., we do not extend the pre-period).
[38] Based on summary statistics in Table 3 and the coefficient from our main analysis in Table 4, the average press release leads to 0.91 x 15.14% x 6 months = 0.83 additional whistleblowing tips.

4.2. Parallel Trends

An important aspect of our identification strategy is the assumption of parallel trends. To test this assumption, we plot the monthly coefficients of our main specification in Table 4, Column (5) in Figure 3 with 90% confidence intervals. We drop the observation that includes the week of the press release and the three weeks prior to the press release (i.e., all coefficients are estimated relative to that month. All confidence intervals in the pre-period include 0 and there are no clear trends before the press release. The figure shows a clear upward shift immediately after the press release that generally persists for the 6 months in the post period (see Section 4.1).

– Insert Figure 3 here –

4.3. Alternative Research Designs

In our main design, we use a bandwidth of $30,000 around the threshold for OSHA's press release policy. Thus, inspections with (without) press releases included in our analyses are issued fines that are at most $30,000 above (below) the threshold. We made this choice to balance the tradeoff between sufficient power for analyses while maintaining comparability of treatment and control observations. To understand the impact of this choice, we re-run our analysis for a bandwidth of $20,000 and $40,000 around the cutoff. The results in Table 9, Panel A, Columns (1) and (2) show that our results are robust to the choice of bandwidth. We find that our results are stronger with a tighter bandwidth around the cutoff (but it strongly decreases sample size). To get a better understanding of this result, we manually check a random sample of press releases in the various bandwidths. Our comparison of the press releases reveals that this result is likely driven by the specificity and severity of the violations in the press releases. The higher the fine, the more unusual and severe the violations, which likely makes the press release less informative to other employees in the area.

In Column (3), we re-run our analysis using an OLS specification. The dependent variable is the inverse hyperbolic sine of the number of employee whistleblowing tips. Our results are robust to this specification. In Column (4), we repeat our analysis using a difference-in-discontinuities design (DiD-RDD) following Grembi et al. (2016) and Bennedsen et al. (2022). This research design is able to capture both features of our setting – the threshold for press releases and the sudden availability of information after the press release was published. Our results hold.

Lastly, we run an event study around the press release without any control group (i.e., only including treatment observations before and after the press release). This design relies on the randomness of the exact timing of the press release relative to the inspection. We show the results in Table 9, Panel A, Column (5). In this specification, we cannot control for seasonality in whistleblower tips or confounding effects from the initial inspection. We include press release-county-industry fixed effects and a fixed effect for the month of the press release (to capture some of the seasonality). We cluster at the county-industry level. Similar to our main specification, we still find a positive and significant effect of press releases on employee whistleblowing.

4.4. Alternative Sample and Control Groups

In Table 9, Panels B and C we adjust the requirements for the sample and control observations. While we exclude whistleblower tips that trigger press releases or control inspections in all tests, our sample may still contain tips from focal firm employees reporting unrelated hazards during the sample period. To make sure our results are not driven by whistleblowers from the same establishment, we further exclude any tips from focal firm employees that are unrelated to the focal event. This step removes 52 whistleblower tips, representing less than 0.16% of all observations, and leaves our results unchanged, as shown in Column (1) of Panel B. In Column (2), we require that the treatment and control observations fall under the jurisdiction of the same local OSHA

office to control for differences in regulatory behavior. Even though this restriction reduces our observations significantly, we still find robust results. In Column (3), we revert back to requiring control observations to be in the same state, but we only keep control observations that have the same inspection length (in days) as the treatment inspection. Our results hold in this specification. In Column (4), we only keep the closest fine match as a control. To do this, we compute the difference in the fine for the treatment and control observations and we only keep control observations with the smallest difference in fine. Our results are robust in this specification as well.

In Table 9, Panel C, we repeat our analysis in various subsamples throughout time and industries. In Column (1), we exclude press releases after June 2019 to ensure that our effects are not driven by whistleblower tips during the Covid-19 pandemic, which had a large effect on OSHA enforcement and whistleblowing. In Column (2), we exclude any press releases that were issued before 2009, which is when OSHA implemented its new and more harmonized press release policy. In Columns (3) and (4), we exclude the two largest industries in our analysis, one at a time, to ensure that our results are not driven by one particular industry. First, we exclude the construction industry, then we exclude the manufacturing industry. Across all specifications, our results are robust, though with varying estimates of the strength of the effect of press releases from increases in whistleblowing of about 11% to 22%.[39]

4.5. Alternative Econometric Specifications

In Table 9, Panel D we present results using different regression specifications. First, we double-cluster our standard errors by county-industry and week, where week refers to the first week of the four-week month block. Second, we double-cluster our standard errors by county-industry and

[39] The results are weaker when we primarily rely on observations from the construction industry (i.e., when we exclude the manufacturing industry). This is likely due to noise in the identification of the geographic regions affected by the press release because OSHA records the address of the construction site where the inspection took place rather than the address where the establishment is located. Such differences are generally muted in other industries.

year (i.e., a wide time window). Third, we double-cluster our standard errors by OSHA region and week (i.e., a wide geographic window). Our results are robust in all specifications. In Column (4), we winsorize our dependent variable at the 99th percentile (we do not winsorize at the 1st percentile as our variable is already zero for all observations at or below the 1st percentile) and our results are robust to this adjustment, with only a small change in the coefficient estimate (i.e., we estimate a 14% increase in employee whistleblowing instead of a 15% increase).

4.6. Alternative Treatment Window

In our last robustness test, we adjust the window around the treatment that we include in the analysis, and present the results in Table 9, Panel E. In Column (1), we restrict our analysis to the month before the press release (including the week of the press release) and the month after the press release. We find a significant positive effect on employee whistleblowing (about 17%) even in this small sample. We also find a positive and significant effect when including the three months prior to the press release and the three months after the press release (we estimate an increase in employee whistleblowing of about 11%). Lastly, we present our main results again in this table (i.e., including the 6 months before and after the press release) for ease of comparison. Overall, our results are robust to the choice of treatment window around the press release.

– Insert Table 9 here –

5. Conclusions

This paper examines the effect of regulators' press releases on employee whistleblowing. We exploit OSHA's threshold policy for press releases to identify plausibly exogenous variation in the issuance of a press release for a given OSHA enforcement action. We show that press releases increase employee whistleblowing by about 15% and that this effect persists for about six months after the press release.

Additional cross-sectional results suggest that our results are driven by press releases informing employees about OSHA's whistleblower program and removing uncertainty about OSHA's willingness to pursue tips brought by employees. In addition, we find that whistleblowing frictions mute the effect of press releases on employee whistleblowing, including heightened retaliation concerns, limited information dissemination, and high OSHA monitoring.

Overall, our study contributes to the corporate misconduct, regulatory oversight, and whistleblowing literatures. By exploiting quasi-random variation in press releases, we establish the causal relationship between press releases and employee whistleblowing. We also provide new insights to policymakers and regulators who are concerned about the design of effective whistleblowing programs by examining a relatively cost-effective mechanism for resource-constrained regulators to generate additional tips.

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Appendix A: Press Releases and News Coverage

The figures below present screenshots of an OSHA press release and news coverage about the inspection pertaining to Jarvis Metals Recycling in Lubbock, Texas. The screenshot of the press release depicts the entire press release in its original form. The screenshot of the news coverage stems from the online version of the Lubbock Avalance Journal and only captures the beginning of the article. The full news article reads as follows:

“The federal Occupational Safety and Health Administration has cited recycler Jarvis Metals Recycling for 24 violations observed during a November inspection of its Lubbock facility. In a disciplinary action announced Wednesday, April 9, OSHA proposed a $64,400 penalty against the company for allegedly exposing workers to unguarded machinery, along with chemical, electrical, fall and noise hazards. Jarvis has 15 business days from the receipt of its citations to comply, request an informal conference with OSHA's acting area director in El Paso or contest the citations and proposed penalties before the independent Occupational Safety and Health Review Commission. Geanna Tubbs, corporate counsel for Jarvis Metals, responded in an emailed statement: "Jarvis Metals provides a safe workplace for its valued employees. We are still reviewing the extensive allegations levelled by OSHA and will respond to those in the appropriate forum. While OSHA may prefer to try its case in the media, Jarvis will present its side of the story at the proper time and place." According to an announcement from OSHA, Jarvis was inspected under a program that targets enforcement efforts on high-hazard workplaces. The 20 serious violations include failure to: maintain electrical components in accordance with standards for safe electrical installations; guard industrial machinery; install a complete guardrail system; train workers about lead and cadmium hazards, as well as fall and struck-by hazards while operating powered industrial trucks with attachments; prevent overexposure to noise; provide a hearing conservation program; store compressed gas cylinders properly; and label stored propane properly. A serious violation occurs when there is substantial probability that death or serious physical harm could result from a hazard about which the employer knew or should have known. The other four violations were classified as less than serious, which are considered hazards that have a direct connection to workplace health and safety but are unlikely to cause death or serious physical harm. Those hazards are failure to: remove damaged slings from use; issuing approved respirators; set up a respiratory protection program; and repair damaged stairs.”

Figure A1: Press Release about the Inspection at Jarvis Metals Recycling, Inc. in 2013

Region 6 News Release: 14-499-DAL
April 9, 2014
Contact: Diana Petterson Juan Rodriguez
Phone: 972-850-4710 972-850-4710
Email: petterson.diana@dol.gov rodriguez.juan@dol.gov

Recycling facility in Lubbock, Texas, cited by US Department of Labor's
OSHA for multiple, serious safety and health violations
Jarvis Metals Recycling cited for 24 violations and $64,400 in penalties

LUBBOCK, Texas – The U.S. Department of Labor's Occupational Safety and Health Administration has cited Jarvis Metals Recycling Inc. of Lubbock for 24 safety and health violations. With a proposed penalty of $64,400, the company was cited for exposing workers to unguarded machinery and electrical, noise, chemical and fall hazards at the company's Olive Avenue facility. OSHA's Lubbock District Office initiated the safety and health inspections in November 2013 under the agency's Site- Specific Targeting Program that directs enforcement resources to high-hazard workplaces where high injury and illness rates occur.

"It is unacceptable that an employer has chosen to expose workers to preventable hazards," said Joann Figueroa, area director in El Paso. "It is the employer's responsibility to find and fix dangers in the workplace. This employer failed to do that."

The 20 serious violations include failing to maintain electrical components in accordance with standards for safe electrical installations; guard industrial machinery; install a complete guardrail system; train workers about lead and cadmium hazards, as well as fall and struck-by hazards while operating powered industrial trucks with attachments; prevent overexposure to noise; provide a hearing conservation program; store compressed gas cylinders properly; and label stored propane properly. A serious violation occurs when there is substantial probability that death or serious physical harm could result from a hazard about which the employer knew or should have known.

The four other-than-serious violations include failing to remove damaged slings from use; issue and use approved respirators; establish a respiratory protection program; and repair damaged stairs. An other-than-serious violation is one that has a direct relationship to job safety and health, but probably would not cause death or serious physical harm.

The company, which employs about 63 workers statewide, was cited in April 2008 for 6 serious violations and one other-than-serious violation. Some of the current violations are similar to those found in the 2008 inspection.

Jarvis Metals Recycling has 15 business days from the receipt of its citations to comply, request an informal conference with OSHA's acting area director in El Paso, or contest the citations and proposed penalties before the independent Occupational Safety and Health Review Commission.

To ask questions, obtain compliance assistance, file a complaint, or report workplace hospitalizations, fatalities or situations posing imminent danger to workers, the public should call OSHA's toll-free hotline at 800-321-OSHA (6742) or the agency's El Paso Area Office at 915-534-6251.

Under the Occupational Safety and Health Act of 1970, employers are responsible for providing safe and healthful workplaces for their employees. OSHA's role is to ensure these conditions for America's working men and women by setting and enforcing standards, and providing training, education and assistance. For more information, visit http://www.osha.gov.

Figure A2: News article about the inspection at Jarvis Metals Recycling, Inc. in 2013

LOCAL

OSHA cites Lubbock recycler Jarvis Metals for 24 violations

Agency notes 24 violations, seeks $64,400 in penalties

Walt Nett
Published 2:40 p.m. CT April 9, 2014

The federal Occupational Safety and Health Administration has cited recycler Jarvis Metals Recycling for 24 violations observed during a November inspection of its Lubbock facility.

In a disciplinary action announced Wednesday, April 9, OSHA proposed a $64,400 penalty against the company for allegedly exposing workers to unguarded machinery, along with chemical, electrical, fall and noise hazards.

Jarvis has 15 business days from the receipt of its citations to comply, request an informal conference with OSHA's acting area director in El Paso or contest the citations and proposed penalties before the independent Occupational Safety and Health Review Commission.

Appendix B: Research Design

We start with our sample of press releases and hand-match the corresponding inspection(s) and fines. For example, on September 30th, 2013, OSHA published a press release about Fiberdome, Inc. in Lake Mills, Wisconsin (see Figure B1). After matching, we see that the fines levied against the company are $49,050. At the time, OSHA had a press release threshold of $45,000 in Wisconsin. Thus, the fine levied against this firm is within $30,000 of the threshold and the press release is eligible to be included in the sample. Next, we identify the county Fiberdome is located in, and find that the firm is located in Jefferson County. We then check whether there are other press releases in the same county within three months of the focal press release (i.e., the press release about Fiberdome, Inc. on September 30th, 2013). We find that there are none, so this press release can be included in the sample.

Next, we find a control inspection in the same state and industry but in a different county. In this case, inspections in the manufacturing industry in Wisconsin (but not in Jefferson County) are eligible. In addition, we require that the control inspection happens in the same week as the treatment inspection, the week prior to the treatment inspection, or the week after the treatment inspection.[40] Lastly, we require that the control inspection was levied a fine. This fine has to be below the press-release threshold, but no more than $30,000 below the threshold. Thus, we look for an inspection in the manufacturing industry in Wisconsin (but not Jefferson County), between March 11th 2013 and March 31st 2013, with fines between $15,000 and $45,000.

We are able to find a match in Sheboygan County where OSHA inspected Mayline, a company in the manufacturing industry, on March 27th, 2013. During this inspection, OSHA levied fines of $27,720 against the company.[41] Thus, we are comparing whistleblower tips in the manufacturing industry in Jefferson County and Sheboygan County before and after September 30th, 2013 (i.e., the press-release date).

Figure B2 displays the following sample construction graphically. We use our sample of whistleblower tips at the county-industry-week level and line up the manufacturing industries in Jefferson County and Sheboygan County. We set the variable *Treat* equal to zero for the observations identifying the manufacturing industry in Sheboygan County and equal to one for the observations identifying the manufacturing industry in Jefferson County. We then identify the week of the press release date of the treatment county-industry and set the variable *Post* equal to zero before and up to the week of the press release and equal to one starting the week after the press release (i.e., the week of October 7th, 2013). We drop all observations that are not within 24 weeks of the press release. Thus, the first week included in this sub-panel (i.e., "cohort") is the week of April 22nd, 2013, and the last week included is the week of March 17th, 2014. Lastly, we aggregate the data in six four-week blocks (i.e., six "months", 6 × 4 weeks = 24 weeks) around the press release.

[40] The inspection at Fiberdome, Inc. happened on March 21st, 2013.

[41] For expositional purposes, we only include one control in this example, but in general we keep all eligible matches as controls in our sample.

Figure B1: Excerpt of Press Release about the Inspection at Fiberdome, Inc. in 2013

OSHA News Release – Region 5

U.S. Department of Labor

Region 5 News Release: 13-1964-CHI
Sept. 30, 2013
Contact: Scott Allen Rhonda Burke
Phone: 312-353-6976
Email: allen.scott@dol.gov burke.rhonda@dol.gov

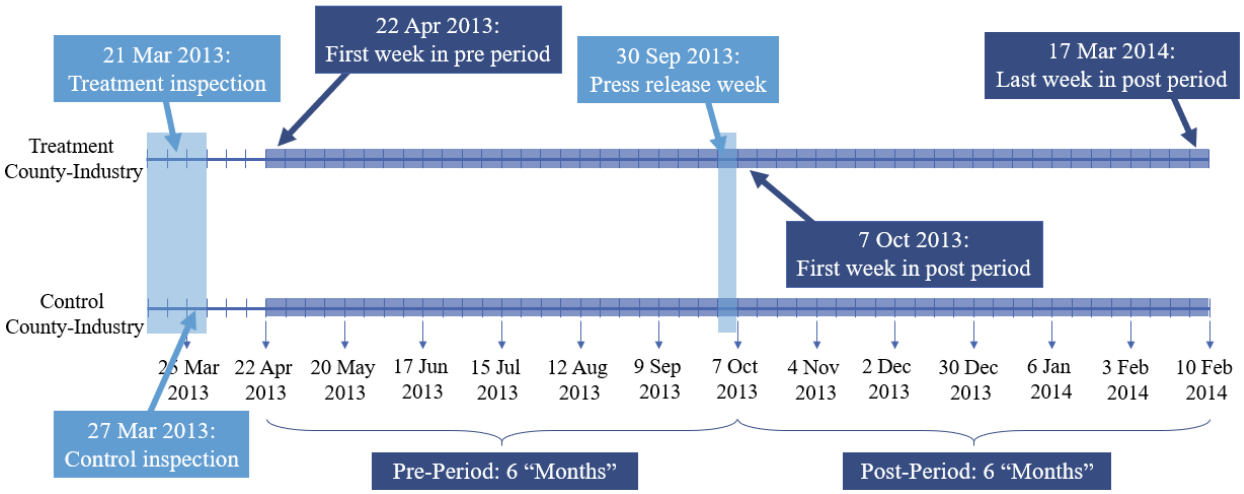
Fiberdome Inc. cited by the US Department of Labor's OSHA for exposing workers to airborne hazards at Lake Mills, Wis., manufacturing plant

LAKE MILLS, Wis. – Fiberdome Inc. has been cited by the U.S. Department of Labor's Occupational Safety and Health Administration for 10 health violations and $49,500 in penalties following a March investigation of the Lake Mills fiberglass manufacturing plant. Workers were exposed to styrene-a chemical used extensively in the manufacture of plastics, rubber and resins-in excess of permissible limits.

OSHA initiated the inspection after receiving a referral alleging workers were experiencing respiratory irritation due to chemical exposure.

"Workers at this manufacturing plant continue to be exposed to chemical hazards that can cause severe respiratory illness," said Kim Stille, OSHA area director in Madison. "Companies must be aware of the hazards that exist in their facilities and take all possible precautions to minimize the risk of illness."

Figure B2: Graphical Depiction of Research Design



Appendix C: Variable Definitions

The following variables are constructed using data from Occupational Safety and Health Administration's (OSHA) public datasets of inspections and inspection outcomes [OSHA Public], data on employee whistleblowing tips provided by OSHA in response to a Freedom of Information Act (FOIA) request [OSHA FOIA], and data on county employment characteristics from the Bureau of Labor Statistics [BLS].

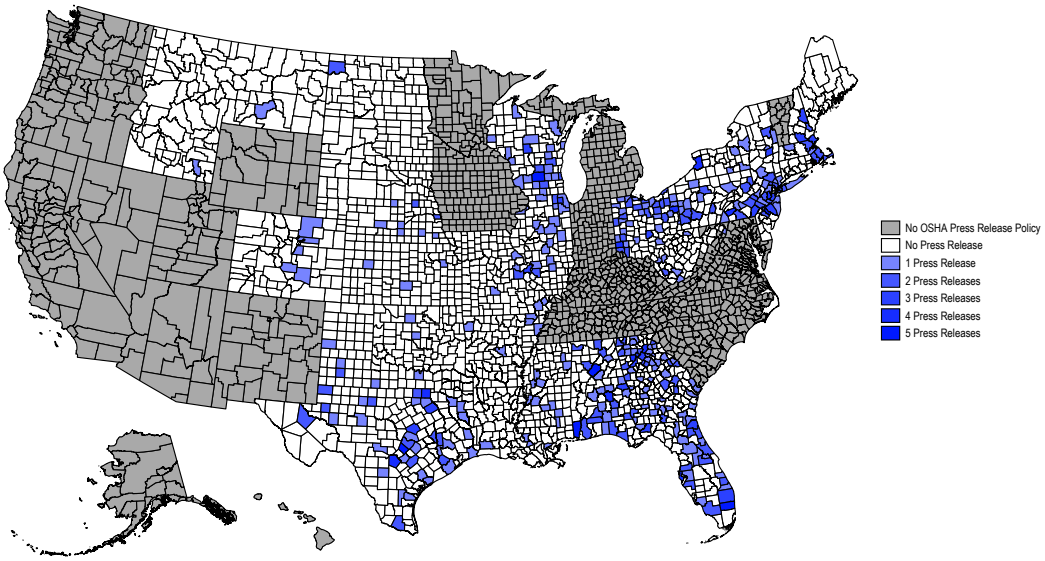
Panel A: Variables of Interest

Variable Name	Description
Treat	Indicator variable that is set to 1 for county-industries that have a press release in our sample, 0 otherwise. [OSHA FOIA]
Post	Indicator variable that is set to 1 for county-industries after the cohort-specific treatment month, 0 otherwise. [OSHA FOIA]
Whistleblower Tips	The sum of employee whistleblowing tips at the county-industry-month level. [OSHA FOIA]
Inspections	The sum of the number inspections triggered by employee whistleblowing tips at the county-industry-month level, excluding the focal inspection (if applicable). [OSHA Public]
Violations	The sum of violations from inspections triggered by employee whistleblowing tips at the county-industry-month level, excluding the focal violations (if applicable). [OSHA Public]
Fines	The sum of fines from inspections triggered by employee whistleblowing tips at the county-industry-month level, excluding the focal fines (if applicable). [OSHA Public]
Long-Term Injuries	The sum of injuries that are reported to OSHA at the county-industry-month level, excluding the focal injuries (if applicable). [OSHA Public]

Panel B: Control Variables

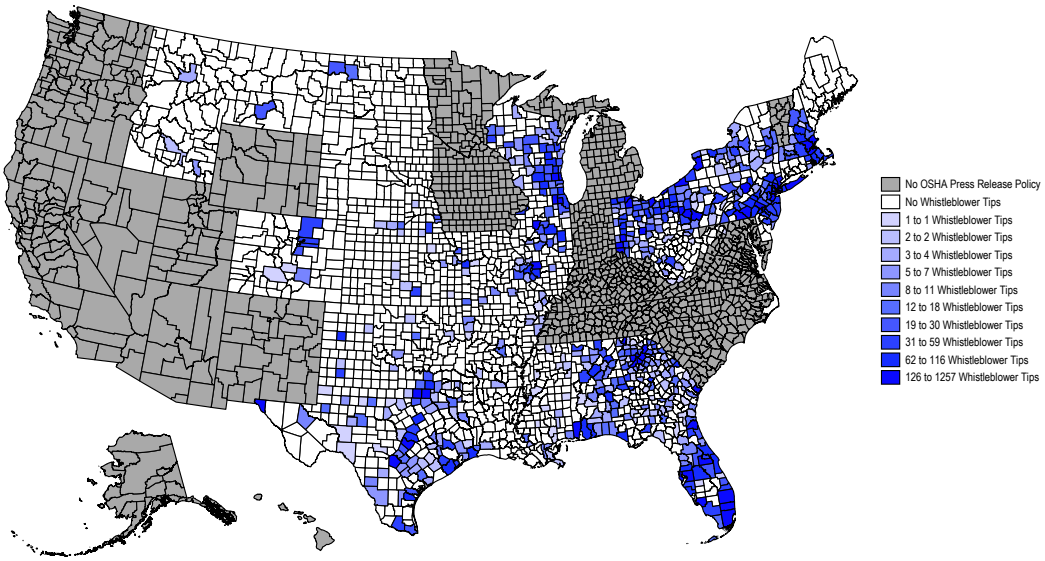
Variable Name	Description
arsinh(Lagged Safety)	The inverse hyperbolic sine of the ratio of the number of violations to the number of inspections from planned (i.e., random) OSHA inspections at the county-industry-month level. This variable is lagged by one (i.e., by a month). [OSHA Public]
arsinh(Current Safety)	The inverse hyperbolic sine of the ratio of the number of violations to the number of inspections from planned (i.e., random) OSHA inspections at the county-industry-month level. [OSHA Public]
arsinh(Employment)	The inverse hyperbolic sine of the number of employees in a county-industry-month. We interpolate this variable if necessary. This variable is available at the calendar month level. We allocate the calendar month employment based on the share of days in a month in our monthly variable. [BLS]

Figure 1: Geographic Distribution of Press Releases in our Sample



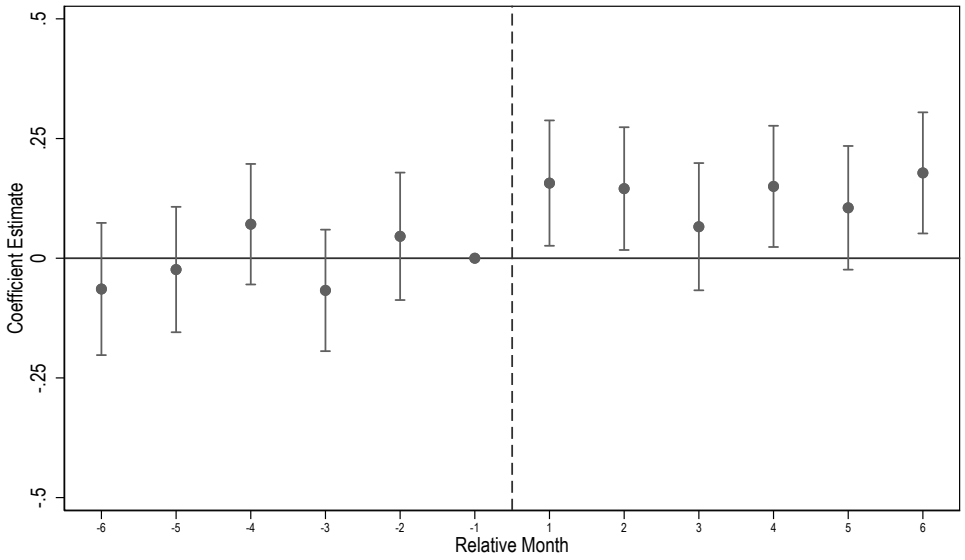
Notes: This figure plots the geographic distribution of counties across the United States during the period 2003–2023 showing where OSHA issued one or more press releases.

Figure 2: Geographic Distribution of Whistleblower Tips in our Sample



Notes: This figure plots the geographic distribution of counties across the United States during the period 2003–2023 showing which counties are included in our sample period along with the number of whistleblower tips in our sample.

Figure 3: Coefficient Estimate for *Whistleblower Tips* around Treatment



Notes: This figure reports the coefficient plots from our main regressions. The dependent variable is the number of whistleblower tips per county-industry-month. The x-axis records the periods in event time with t=-1 defined to be the week of the press release and the three weeks prior (i.e., the month of the press release). The figure plots the coefficient estimates for each month together with their 90% confidence intervals. We omit the indicator for period t=-1 in the estimation as this corresponds to the baseline period. The control variables and fixed effects correspond to Column 5 in Table 4.

Table 1: Press Release Sample

Panel A: Press Release Sample Selection

	Count	Percent
Press Releases between July 2003 and December 2022	4,310	100.00
Cannot be matched to Inspection Data	-85	-1.97
No Press Release Policy or Policy not followed	-910	-21.11
Fine outside of $30,000 Bandwidth	-1,976	-45.85
Other Press Releases within 3 Months	-507	-11.76
Missing Controls	-278	-6.45
Press Releases Used in Analysis	554	12.83

Panel B: Press Releases by Industry

	Count	Percent
Manufacturing	277	49.82
Construction	224	40.29
Wholesale Trade	14	2.52
Mining, Quarrying, and Oil and Gas Extraction	12	2.16
Retail Trade	9	1.62
Admin. and Waste Mgmt. Services	9	1.62
Transportation and Warehousing	4	0.72
Health Care and Social Assistance	3	0.54
Accommodation and Food Services	1	0.18
Agriculture, Forestry, Fishing and Hunting	1	0.18
Professional, Scientific, and Technical Services	1	0.18
Real Estate and Rental and Leasing	1	0.18

Notes: This table shows the sample selection and composition for the press releases in our sample. Panel A reports the steps in the sample selection process. Panel B reports the industry (2-digit NAICS) composition of the final sample of press releases. There are more observations of press releases in Panel B than there are press releases in the final sample because a given press release can span multiple industries.

Table 2: Whistleblower Tips Sample

Panel A: Whistleblower Tips Sample Selection

	Count	Percent
Whistleblower Tips between January 2003 and June 2023	1,098,919	100.00
No Press Release Policy	-530,593	-48.28
Not in included County-Industry and Time Period	-538,845	-49.03
Whistleblower Tips Used in Analysis	29,481	2.68

Panel B: Whistleblower Tips by Industry

	Count	Percent
Construction	15,276	51.82
Manufacturing	13,601	46.13
Retail Trade	148	0.50
Wholesale Trade	121	0.41
Mining, Quarrying, and Oil and Gas Extraction	113	0.38
Health Care and Social Assistance	81	0.27
Admin. and Waste Mgmt. Services	74	0.25
Transportation and Warehousing	58	0.20
Real Estate and Rental and Leasing	8	0.03
Agriculture, Forestry, Fishing and Hunting	1	0.00
Accommodation and Food Services	0	0.00
Professional, Scientific, and Technical Services	0	0.00

Notes: This table shows the sample selection and composition for the whistleblower tips in our sample. Panel A reports the steps in the sample selection process. Panel B reports the industry composition of the final sample of whistleblower tips.

Table 3: Sample Statistics

Panel A: Summary Statistics

	Obs	Mean	SD	Min	P10	P25	P50	P75	P90	Max
Treat	32,520	0.21	0.41	0	0	0	0	0	1	1
Post	32,520	0.50	0.50	0	0	0	0	1	1	1
Whistleblower Tips	32,520	0.91	1.42	0	0	0	0	1	3	13
Inspections	32,520	0.44	0.97	0	0	0	0	1	1	14
Violations	32,520	1.31	4.05	0	0	0	0	0	4	81
Fines	32,520	3,169.75	13,386.67	0	0	0	0	0	9,000	704,610
Long-Term Injuries	64,272	0.04	0.29	0	0	0	0	0	0	8
Lagged Safety	32,520	1.21	2.64	0	0	0	0	2	4	79
Current Safety	32,520	1.13	2.47	0	0	0	0	2	4	42
Employment	32,520	11,798.30	13,882.87	0	971	2,791	6,942	16,254	29,291	235,880

Panel B: Comparison of Treatment and Control Observations

	Treat		Control		No Fixed Effects	County-Industry Fixed Effects
	Obs	Mean	Obs	Mean	Difference	Difference
Whistleblower Tips	3,402	0.79	12,858	0.95	0.16***	0.0000000045
Inspections	3,402	0.37	12,858	0.46	0.09***	0.0000000003
Violations	3,402	1.21	12,858	1.38	0.17*	-0.0000000031
Fines	3,402	2,709.94	12,858	3,215.33	505.39*	-0.0000005906
Long-Term Injuries	3,402	0.03	12,858	0.05	0.02**	-0.0000000000
Lagged Safety	3,402	1.41	12,858	1.42	0.01	-0.0000000012
Current Safety	3,402	1.24	12,858	1.28	0.04	-0.0000000013
Employment	3,402	10,523.81	12,858	12,095.36	1,571.55***	-0.0000236328

Notes: This table presents descriptive statistics for the main sample used in the analysis. Panel A reports summary statistics and Panel B compares treatment and control observations. In Panel A, all variables except *Long-Term Safety* include the six months around the press release. For the variable *Long-Term Safety* we include the six months before the press release and months 7 to 24 after the press release. In Panel B, we only include the six months before the press release (i.e., we compare observations before treatment). The variables are defined in Appendix C. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.

Table 4: Press Releases Increase Employee Whistleblowing

Dependent Variable:	(1)	(2)	(3)	(4)	(5)
Whistleblower Tips	No FE	Time FE	Panel and Time FE	Stacked Design	Including Controls
Treat × *Post*	0.127***	0.116***	0.122***	0.144***	0.141***
	(3.60)	(3.28)	(3.74)	(4.47)	(4.39)
Treat	-0.078	-0.075			
	(-1.32)	(-1.26)			
Post	-0.041***	-0.031*	-0.090***		
	(-2.60)	(-1.74)	(-4.30)		
arsinh(Lagged Safety)					0.004
					(0.46)
arsinh(Current Safety)					-0.000
					(-0.05)
arsinh(Employment)					0.218***
					(2.61)
Model	Unstacked	Unstacked	Unstacked	Stacked	Stacked
Fixed Effects:					
Year × Month	No	Yes	Yes	Yes	Yes
County × Industry	No	No	Yes	Yes	Yes
Cluster	County-Industry	County-Industry	County-Industry	County-Industry	County-Industry
Pseudo R^2	0.000	0.020	0.299	0.335	0.335
Observations	32,520	32,520	32,520	32,520	32,520
Used Observations	32,520	32,509	29,356	25,752	25,752

Notes: This table reports the estimation results from unstacked and stacked difference-in-differences Poisson regressions. The dependent variable is the number of employee whistleblower tips for a given county-industry in a month. We progressively add fixed effects and controls in the specifications. In Columns (1) to (3) we do not stack the data. Here, the "Year x Month" fixed effects capture the year and month of the observation based on the first week in the month. In Column (4), we stack the data and we interact the fixed effects with cohort fixed effects. Here, the "Year x Month" fixed effects capture the relative month with respect to the press release date. In Column (5) we additional include control variables. Standard errors are clustered at the county-industry level and reported in parentheses below the coefficients. The variables are defined in Appendix C. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.

Table 5: Mechanisms Through Which Press Releases Increase Whistleblowing

Panel A: Whistleblower Program Promotion and Trigger Type

Dependent Variable: *Whistleblower Tips*	(1) Program Promotion	(2) Trigger Type
Whistleblower Program Promotion × Post	0.172***	
	(4.66)	
No Whistleblower Program Promotion × Post	0.030	
	(0.47)	
Whistleblower-Triggered Inspection × Post		0.314***
		(4.96)
Not Whistleblower-Triggered Inspection × Post		0.083**
		(2.25)
arsinh(Lagged Safety)	0.005	0.003
	(0.49)	(0.34)
arsinh(Current Safety)	-0.000	-0.001
	(-0.02)	(-0.14)
arsinh(Employment)	0.222***	0.226***
	(2.71)	(2.67)
Difference in Coefficient (p-value):	0.06	0.00
Model	Stacked	Stacked
Fixed Effects:		
Year × Month	Yes	Yes
County × Industry	Yes	Yes
Cluster	County-Industry	County-Industry
Pseudo R^2	0.335	0.335
Observations	32,520	32,520
Used Observations	25,752	25,752

Table 5: Mechanisms Through Which Press Releases Increase Whistleblowing (cont'd)

Panel B: Topically related Whistleblower Tips

	(1)	(2)
Dependent Variable:	Related Whistleblower Tips	Unrelated Whistleblower Tips
Post	0.302***	0.066
	(2.65)	(0.69)
arsinh(Lagged Safety)	0.186***	0.068
	(3.12)	(1.29)
arsinh(Current Safety)	0.098	0.017
	(1.62)	(0.33)
arsinh(Employment)	0.156	0.420
	(0.42)	(0.36)
Difference in Coefficient (p-value):	0.08	
Model	Treat Only	Treat Only
Fixed Effects:		
Month	Yes	Yes
Year × Month	No	No
County × Industry	Yes	Yes
Cluster	County-Industry	County-Industry
Pseudo R^2	0.239	0.143
Observations	4,248	4,248
Used Observations	2,088	2,364

Notes: This table reports the estimation results from stacked difference-in-differences regressions in Panel A and event study regressions in Panel B. All regressions are Poisson regressions. In Panel A, the dependent variable is the number of employee whistleblower tips for a given county-industry in a month. In Column (1) we split the press releases based on whether they include information about OSHA's whistleblower program ("*Whistleblower Program Promotion*") or not ("*No Whistleblower Program Promotion*"). In Column (2) we split the sample based on the underlying trigger for the inspection covered in a press release, which can be either an employee whistleblower tip ("*Whistleblower-Triggered Inspection*"), or another trigger, such as a random inspection (("*Not Whistleblower-Triggered Inspection*"). All sample split variables equal 0 for control observations and the coefficients capture the relative increase in employee whistleblower tips relative to control observations without press releases. The statistical significance of the difference in the coefficients is presented as a p-value below the regression results. In Panel B we show results for two dependent variables. *Related Whistleblower Tips* captures the number of whistleblower tips that are topically related to the content of the press release. *Unrelated Whistleblower Tips* captures the number of whistleblower tips that are not topically related to the content of the press release. This analysis is restricted to the years 2011-2023 and only includes treatment county-industries (i.e., event-study research design). The statistical significance of the difference in the coefficient *Post* across the two specifications is presented below the regression results. Standard errors are clustered at the county-industry level and reported in parentheses below the coefficients. The variables are defined in Appendix C. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.

Table 6: Frictions in the Effects of Press Releases

Dependent Variable: *Whistleblower Tips*	(1) Retaliation Concerns	(2) Information Dissemination	(3) Regulatory Oversight
High Unionization × *Post*	0.183***		
	(4.65)		
Low Unionization × *Post*	0.060		
	(1.08)		
News Coverage × *Post*		0.186***	
		(5.21)	
No News Coverage × *Post*		0.012	
		(0.17)	
High Distance to OSHA × *Post*			0.301***
			(4.73)
Low Distance to OSHA × *Post*			0.082**
			(2.22)
arsinh(Lagged Safety)	0.004	0.004	0.005
	(0.45)	(0.45)	(0.49)
arsinh(Current Safety)	-0.000	-0.000	-0.000
	(-0.05)	(-0.04)	(-0.01)
arsinh(Employment)	0.213**	0.221***	0.224***
	(2.56)	(2.59)	(2.66)
Difference in Coefficient (p-value):	0.07	0.03	0.00
Model	Stacked	Stacked	Stacked
Fixed Effects:			
Year × Month	Yes	Yes	Yes
County × Industry	Yes	Yes	Yes
Cluster	County-Industry	County-Industry	County-Industry
Pseudo R^2	0.335	0.335	0.335
Observations	32,520	32,520	32,520
Used Observations	25,752	25,752	25,752

Notes: This table reports the estimation results from stacked difference-in-differences Poisson regressions. The dependent variable is the number of employee whistleblower tips for a given county-industry in a month. In Column (1) we split the press releases based on whether the state of press release has above ("*High Unionization*") or below ("*Low Unionization*") the median state-level unionization rate in our treatment sample. In Column (2) we split the sample based on whether the press release receives news coverage ("*News Coverage*"), or not ("*No News Coverage*"). In Column (3) we split the press releases based on whether the establishment in the press release has an above ("*High Distance to OSHA*") or below ("*Low Distance to OSHA*") median distance to the OSHA office that enforces its compliance. All sample split variables equal 0 for control observations and the coefficients capture the relative increase in employee whistleblower tips relative to control observations without press releases. The statistical significance of the difference in the coefficients is presented as a p-value below the regression results. Standard errors are clustered at the county-industry level and reported in parentheses below the coefficients. The variables are defined in Appendix C. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.

Table 7: Press Releases Induce High-Quality Whistleblower Tips

	(1)	(2)	(3)	(4)
Dependent Variable:	*Inspections*	*Violations*	*Fines*	*Long-Term Injuries*
Treat × *Post*	0.133***	0.191**	0.191*	-0.648**
	(2.61)	(2.16)	(1.87)	(-2.28)
arsinh(Lagged Safety)	0.028*	0.020	0.054*	-0.032
	(1.76)	(0.77)	(1.70)	(-0.65)
arsinh(Current Safety)	0.006	-0.042	-0.034	0.097**
	(0.38)	(-1.55)	(-1.06)	(2.05)
arsinh(Employment)	0.171	0.212	0.371	1.507
	(1.27)	(1.22)	(1.01)	(1.52)
Model	Stacked	Stacked	Stacked	Stacked
Fixed Effects:				
Year × Month	Yes	Yes	Yes	Yes
County × Industry	Yes	Yes	Yes	Yes
Cluster	County-Industry	County-Industry	County-Industry	County-Industry
Pseudo R^2	0.297	0.445	0.578	0.251
Observations	32,520	32,520	32,520	64,272
Used Observations	18,229	15,124	14,590	4,486

Notes: This table reports the estimation results from stacked difference-in-differences Poisson regressions. The dependent variable varies by column. In Column (1), the dependent variable is *Inspection* which captures the sum of the number inspections triggered by employee whistleblower tips at the county-industry-month level, excluding the focal inspection (if applicable). In Column (2), the dependent variable is *Violations* which captures the sum of violations from inspections triggered by employee whistleblower tips at the county-industry-month level, excluding the focal violations (if applicable). In Column (3), the dependent variable is *Fines* which captures the sum of fines from inspections triggered by employee whistleblower tips at the county-industry-month level, excluding the focal fines (if applicable). In Column (4), the dependent variable is *Long-Term Inspections* which captures the sum of injuries that are reported to OSHA at the county-industry-month level, excluding the focal injuries (if applicable). In Columns (1) to (3), all specifications include the 6 months around the press release. In Column (4) the specification includes the 6 months before the press release and months 7 to 24 after the press release. Standard errors are clustered at the county-industry level and reported in parentheses below the coefficients. The variables are defined in Appendix C. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.

Table 8: Press Releases Increase Whistleblowing for Six Months

Dependent Variable:	(1)	(2)	(3)	(4)	(5)
Whistleblower Tips	Months 1-3 Post	Months 4-6 Post	Months 7-9 Post	Months 10-12 Post	Months 13-24 Post
Treat × Post	0.186*	0.227**	-0.040	0.140	0.080
	(1.96)	(2.36)	(-0.41)	(1.43)	(1.20)
arsinh(Lagged Safety)	0.017	0.008	0.005	-0.016	-0.017*
	(1.32)	(0.61)	(0.35)	(-1.23)	(-1.89)
arsinh(Current Safety)	0.009	0.005	0.009	0.011	0.012
	(0.71)	(0.36)	(0.65)	(0.88)	(1.39)
arsinh(Employment)	0.053	0.373***	0.617**	0.074	0.179*
	(0.33)	(4.31)	(2.56)	(0.30)	(1.86)
Model	Stacked	Stacked	Stacked	Stacked	Stacked
Fixed Effects:					
Year × Month	Yes	Yes	Yes	Yes	Yes
County × Industry	Yes	Yes	Yes	Yes	Yes
Cluster	County-Industry	County-Industry	County-Industry	County-Industry	County-Industry
Pseudo R^2	0.332	0.327	0.328	0.326	0.326
Observations	18,819	18,819	18,817	18,816	37,520
Used Observations	15,606	15,587	15,191	15,132	31,017

Notes: This table reports the estimation results from stacked difference-in-differences Poisson regressions varying the post-period included in the analysis. All specifications include the 6 months prior to the press release. In Columns (1) through (4), we increment the post period by three months (i.e., including months 1-3, 4-6, 7-9, and 10-12). In Column (5) we include months 13-24 in the post period. Standard errors are clustered at the county-industry level and reported in parentheses below the coefficients. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.

Table 9: Robustness

Panel A: Alternative Research Designs

Dependent Variable: *Whistleblower Tips*	(1) 20k Bandwidth	(2) 40k Bandwidth	(3) OLS	(4) DiD-RDD	(5) Event Study
Treat × Post	0.257***	0.107***	0.049***	0.278***	
	(4.77)	(4.44)	(3.23)	(3.44)	
Post					0.081***
					(2.62)
arsinh(Lagged Safety)	0.007	0.018***	0.000	0.005	0.012
	(0.40)	(3.70)	(0.00)	(0.48)	(0.69)
arsinh(Current Safety)	-0.037*	0.011**	0.001	-0.000	-0.002
	(-1.84)	(2.16)	(0.20)	(-0.03)	(-0.08)
arsinh(Employment)	0.546	0.179***	0.065**	0.214***	0.760
	(0.73)	(4.15)	(2.13)	(2.58)	(1.63)
Model	Stacked	Stacked	Stacked	Stacked	Treat Only
Fixed Effects:					
Month	Yes	Yes	Yes	Yes	Yes
Year × Month	Yes	Yes	Yes	Yes	No
County × Sector	Yes	Yes	Yes	Yes	Yes
Cluster	County-Sector	County-Sector	County-Sector	County-Sector	County-Sector
Adj./Pseudo R^2	0.349	0.326	0.485	0.335	0.303
Observations	8,376	171,480	32,520	32,520	6,804
Used Observations	5,575	147,682	32,400	25,752	6,096

Panel B: Sample and Control Observations

Dependent Variable: *Whistleblower Tips*	(1) Excluding Focal Firm Tips	(2) Same Area Office	(3) Same Inspection Length	(4) Closest Fine Match
Treat × Post	0.142***	0.239***	0.129**	0.148***
	(4.38)	(4.57)	(2.35)	(3.85)
arsinh(Lagged Safety)	0.005	-0.009	0.019	0.019
	(0.50)	(-0.46)	(0.95)	(1.10)
arsinh(Current Safety)	0.001	0.050**	0.039**	0.043**
	(0.11)	(2.34)	(2.16)	(2.23)
arsinh(Employment)	0.220***	0.149*	0.205***	0.062
	(2.60)	(1.79)	(3.52)	(0.63)
Model	Stacked	Stacked	Stacked	Stacked
Fixed Effects:				
Year × Month	Yes	Yes	Yes	Yes
County × Industry	Yes	Yes	Yes	Yes
Cluster	County-Industry	County-Industry	County-Industry	County-Industry
Pseudo R^2	0.336	0.311	0.342	0.332
Observations	32,520	10,992	16,440	13,368
Used Observations	25,724	6,685	9,752	7,702

Table 9: Robustness (cont'd)

Panel C: Sub-Sample Analyses

Dependent Variable:	(1)	(2)	(3)	(4)
Whistleblower Tips	Only Pre-Covid	Only Post OSHA PR Policy	Excl. Construction	Excl. Manufacturing
Treat × Post	0.141***	0.172***	0.198***	0.100**
	(4.36)	(4.83)	(4.51)	(2.19)
arsinh(Lagged Safety)	0.006	0.006	-0.008	0.026
	(0.62)	(0.64)	(-0.68)	(1.56)
arsinh(Current Safety)	-0.004	0.007	-0.027**	0.045***
	(-0.43)	(0.71)	(-2.37)	(3.00)
arsinh(Employment)	0.219***	0.207**	-0.210	0.236**
	(2.61)	(2.57)	(-0.43)	(2.54)
Model	Stacked	Stacked	Stacked	Stacked
Fixed Effects:				
Year × Month	Yes	Yes	Yes	Yes
County × Industry	Yes	Yes	Yes	Yes
Cluster	County-Industry	County-Industry	County-Industry	County-Industry
Pseudo R^2	0.338	0.330	0.309	0.362
Observations	31,032	28,836	17,316	16,800
Used Observations	24,625	23,245	13,705	12,640

Panel D: Clustering & Winsorization

Dependent Variable:	(1)	(2)	(3)	(4)
Whistleblower Tips	Double Cluster	Wide Time Cluster	Wide Geographic Cluster	Winsorized
Treat × Post	0.141***	0.141***	0.141***	0.134***
	(3.60)	(3.59)	(4.02)	(4.24)
arsinh(Lagged Safety)	0.004	0.004	0.004	0.007
	(0.39)	(0.26)	(0.30)	(0.75)
arsinh(Current Safety)	-0.000	-0.000	-0.000	0.001
	(-0.04)	(-0.04)	(-0.04)	(0.13)
arsinh(Employment)	0.218**	0.218**	0.218***	0.213**
	(2.29)	(2.43)	(3.14)	(2.15)
Model	Stacked	Stacked	Stacked	Stacked
Fixed Effects:				
Year × Month	Yes	Yes	Yes	Yes
County × Industry	Yes	Yes	Yes	Yes
Cluster	County-Industry & Week	County-Industry & Year	Region & Week	County-Industry
Pseudo R^2	0.335	0.335	0.335	0.322
Observations	32,520	32,520	32,520	32,520
Used Observations	25,752	25,752	25,752	25,752

Table 9: Robustness (cont'd)

Panel E: Time Window Selection

Dependent Variable: *Whistleblower Tips*	(1) Relative Months -1 to +1	(2) Relative Months -3 to +3	(3) Relative Months -6 to +6
Treat × Post	0.158*	0.107**	0.141***
	(1.82)	(2.26)	(4.39)
arsinh(Lagged Safety)	0.076*	0.023	0.004
	(1.85)	(1.50)	(0.46)
arsinh(Current Safety)	0.102**	0.015	-0.000
	(2.23)	(1.02)	(-0.05)
arsinh(Employment)	0.517*	-0.214	0.218***
	(1.82)	(-0.87)	(2.61)
Model	Stacked	Stacked	Stacked
Fixed Effects:			
Year × Month	Yes	Yes	Yes
County × Industry	Yes	Yes	Yes
Cluster	County-Industry	County-Industry	County-Industry
Pseudo R^2	0.297	0.324	0.335
Observations	5,420	16,260	32,520
Used Observations	2,726	11,555	25,752

Notes: This table reports the estimation results from various robustness tests. All regressions are Poisson regressions except for Panel A Column (3) which is an OLS model, for which the dependent variable was transformed using the inverse hyperbolic sine. In Panel A, we show robustness to the choice of the research design, including the selection of the bandwidth and alternative regression specifications (OLS, difference in discontinuities, and event study). In Panel B, we show robustness to how the sample is built and control observations are selected by introducing additional restrictions. In Panel C, we repeat our main analysis in various sub-samples, restricting the time period and industries included in the sample. In Panel D we show alternative specifications with respect to clustering and winsorization. In Panel E, we show robustness to the time-window selection around the press release. Standard errors are clustered at the level indicated in the table and reported in parentheses below the coefficients. The variables are defined in Appendix C. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.