

THE UNIVERSITY OF CHICAGO

MINORITY WHISTLEBLOWERS: EVIDENCE FROM THE LGBTQ+ COMMUNITY

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To Ariana, Louis, Maari, mentors, family, and friends.

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Abstract

I examine how public attention affects whistleblowing activity by minorities, mostly focusing on the LGBTQ+ community. I find that, compared with counties that have high protection for LGBTQ+ employees, whistleblowing increases during Pride Month (June) in counties that have low protection for LGBTQ+ employees. This is not driven by changes in exposure to misconduct. I also show similar results for racial minorities. To provide more direct evidence, I conduct a complementary survey experiment and find that LGBTQ+ respondents' willingness to report misconduct increases during Pride Month. The survey responses suggest that the increase in the willingness to report misconduct arises through reduced concerns about retaliation, reputational effects, and adverse responses from the general public. Overall, my analyses provide evidence that public attention on minorities can increase whistleblowing by reducing the expected cost. My findings are important because systematic under-reporting of misconduct in the workplace can have detrimental consequences for minority employees and exacerbate inequality in the labor market.

Chapter 1

Introduction

Misconduct is prevalent and costly; since 2000, regulatory agencies have been involved in over 500,000 misconduct cases with total fines of over \$800 billion (Good Jobs First, 2022). When trying to detect corporate misconduct, outsiders such as auditors, regulators, or investors, face significant information asymmetries and their efforts likely only uncover a small share of the underlying misconduct (Dyck et al., 2010). In contrast, employees can gather information about misconduct through their daily activities (e.g., Campbell and Shang, 2022); however, this information is only available to other stakeholders if the employees blow the whistle. Whistleblowers can face adverse social and economic consequences, such as shunning or altered treatment by co-workers and employers, verbal abuse, or poor performance reviews (ECI, 2021). Such consequences can prevent information disclosure if the expected cost of this disclosure exceeds what the employee is willing or able to bear (Heese and Pérez-Cavazos, 2021). The barriers to whistleblowing can be especially high for minorities because they are more likely to face adverse consequences upon reporting misconduct (e.g., Spieler and Burton, 2012; Cech and Rothwell, 2020).

Regulators are increasingly basing their enforcement efforts on whistleblowing, which means that systematic differences in whistleblowing barriers can affect regulatory enforcement. Thus, if minority employees face higher whistleblowing barriers, the likelihood of misconduct abatement at their workplace is diminished. This circumstance can be detrimental because minority employees tend to have weaker safety nets and fewer job opportunities, which decreases their ability to quit or change jobs (e.g., Bertrand and Mullainathan, 2004; Skandalis et al., 2022) and thus can exacerbate inequality in the labor market (Grittner and Johnson, 2022). It is possible that public attention on a minority, such as Pride Month (i.e., June), decreases the potential for adverse consequences targeted at the minority employee and, consequently, can lower whistleblowing barriers. In addition, minority employees might feel empowered to speak up. In this paper, I examine whether

(favorable) public attention has a positive effect on minority whistleblowing.

Estimating any effect of public attention faces three major challenges: (1) public attention can change over time without a clear beginning or end, which can impede defining a specific period of increased public attention; (2) public attention often affects all members of a minority at the same time, making it difficult to identify a suitable control group; and (3) public attention can change the extent to which firms engage in misconduct by changing the expected costs, which can affect employees' whistleblowing decisions. I address these challenges by focusing on the LGBTQ+ community, which includes roughly 8 million workers in the United States.¹ Similar to other minorities, LGBTQ+ employees often face adversities in the workplace. For example, in a survey by the Williams Institute, nearly half of LGBTQ+ employees report recent workplace discrimination and harassment (Sears et al., 2021). In contrast, a Gallup survey shows that about 24% of Black employees and 15% of White employees report recent workplace discrimination (Lloyd, 2021).

Every year in June, the LGBTQ+ community celebrates Pride, an event that commemorates the Stonewall riots of 1969, when members of the LGBTQ+ community held demonstrations in response to a police raid at Stonewall Inn, a gay bar in New York. Pride Month is a period of heightened public attention on the LGBTQ+ community and this attention is relatively well contained within the month of June, which allows me to define the treatment period. Although Pride Month affects all members of the LGBTQ+ community at the same time, the extent to which it can affect minority employees' whistleblowing costs varies with their underlying legal protection. Consequently, I can create a control group based on treatment intensity because not all counties explicitly protect LGBTQ+ employees under Title VII during my sample period. In counties without protection, employers are able to punish LGBTQ+ whistleblowers (including firing them) with minimal risk of consequences (Johnson et al., 2022). I use counties that explicitly protect LGBTQ+ employees under Title VII as the control group because the baseline expected cost of whistleblow-

1. The acronym LGBTQ+ stands for lesbian, gay, bisexual, transgender, and questioning/queer, plus all other marginalized sexual orientations and gender identities. In this paper, I use LGBTQ+ as an umbrella term to refer to the entire community.

ing for LGBTQ+ employees is smaller, which in turn reduces the potential for Pride Month to affect whistleblowing by LGBTQ+ employees. Relative to those counties, the potential for Pride Month to change LGBTQ+ employees' expected whistleblowing cost is larger in counties where LGBTQ+ employees are not explicitly protected under Title VII.

Corporate misconduct related to safety and health leaves employees vulnerable to injuries or illnesses, which cost the United States an estimated \$164 billion and almost 100 million workdays in 2020 (National Safety Council, 2022). If an employee sees or experiences safety- or health-related misconduct at work, they can report it to OSHA by making a complaint (i.e., blowing the whistle). I obtain a dataset containing the universe of Occupational Safety and Health Administration (OSHA) employee whistleblowing through a FOIA request. Compared to the public OSHA data, which only contain whistleblowing activity tied to regulatory enforcement, these data allow me to measure whistleblowing activity more accurately. In addition, the relatively high frequency of OSHA whistleblowing (especially compared with other government agencies, such as the Securities and Exchange Commission [SEC] or the Internal Revenue Service [IRS]) allows for analyses at the monthly level. For example, in 2016, the SEC received just over 4,000 whistleblowing tips, whereas OSHA received almost 60,000 (SEC, 2021).

Frequently reported OSHA misconduct includes failure to provide adequate fall protection systems, hazard communication, eye and face protection, and protective guards for machinery. In general, such misconduct is unlikely to vary significantly at the monthly level because investments in safety and health are generally costly, long-term, and permanent (especially in contrast to other types of misconduct, such as discrimination, which can change rather quickly). In addition, many investments take an extended period of time to materialize. Consequently, firms are unlikely to change their safety- and health-related misconduct activity for just one month (e.g., June). Focusing on OSHA whistleblowing and conducting analyses at the monthly level holds the underlying misconduct as constant as possible and allows me to capture changes in whistleblowing that are unrelated to changes in the underlying misconduct.

My analyses provide evidence consistent with public attention significantly increasing minor-

ity whistleblowing. Using the OSHA dataset I show that, during Pride Month, whistleblowing increases in areas without legal protections for LGBTQ+ employees, compared with areas that provide legal protection to LGBTQ+ employees. Because the treatment is a repeated event, one of the main challenges is ruling out that concurrent events or general seasonality are driving the effect. For example, employees might engage in more hazardous tasks (e.g., construction) during warm-weather periods, which could lead to more complaints in June, the month of Pride. I mitigate this concern by comparing treatment and control counties in the same month and by including controls for temperature and construction workers. However, I can only estimate a lower bound of the effect because I am assigning treatment based on treatment intensity and Pride Month may also have an effect on whistleblowing by LGBTQ+ employees in the control group.

To corroborate that the observed increase in whistleblowing is driven by heightened public attention on the LGBTQ+ community, I show that the effect is concentrated in states with relatively larger shares of individuals identifying as LGBTQ+ in the population. In addition, I validate the assumption that there is no short-term change in the exposure to misconduct or likelihood of regulatory enforcement, meaning that my results are unlikely driven by changes in the underlying misconduct. I also document slightly larger effects with increased saliency (as indicated by a later sample period and urban counties); however, the differences in coefficients fail to reach statistical significance. Lastly, I confirm that my results hold for individuals identifying as Black, Asian, or Pacific Islander, using *Black History Month* and *Asian American and Pacific Island Heritage Month* as periods of heightened attention.

To tighten identification and explore the mechanism behind how Pride Month can affect whistleblowing intentions, I conduct a randomized survey experiment in which I collect data in two waves, one in April and one in June (Pride Month). I randomly assign respondents to one of the survey waves to directly estimate changes in the willingness of LGBTQ+ respondents to blow the whistle during Pride Month. The survey responses confirm the results from the OSHA data and show a significant increase in the intent to blow the whistle for LGBTQ+ employees during Pride Month, compared with non-minority employees. The survey also allows me to explore the mechanism

through which Pride Month affects LGBTQ+ employees' willingness to report misconduct. I find that public attention significantly decreases concerns not only about retaliation, but also about reputational effects and discrimination by the general public. This suggests that at least part of the increase in whistleblowing during Pride Month is rooted in a decrease in the expected whistleblowing costs for LGBTQ+ employees.

My paper contributes to three research areas. First, I contribute to the whistleblowing literature by showing that public attention can increase minority whistleblowing by decreasing expected whistleblowing costs related to retaliation, reputation, and discrimination. Although prior literature alludes to numerous whistleblowing costs, evidence on employee concerns that determine their actions with regard to whistleblowing is scarce (e.g., Lee and Xiao, 2018) and, to the best of my knowledge, this paper is the first to systematically analyze a variety of whistleblowing concerns. Increasing our understanding of differential whistleblowing barriers is important because whistleblowing is an integral part of regulatory enforcement, and understanding the barriers can help regulators, firms, and policymakers reduce them. Methodologically, I contribute to the literature by improving upon the identification of changes in employee whistleblowing behavior by combining a short-term treatment (i.e., Pride Month) with slow-moving misconduct, which allows me to measure changes in whistleblowing activity unrelated to changes in the underlying misconduct. In addition, owing to data limitations, prior whistleblowing research has primarily focused on inspected, enforced, or retaliated whistleblowing cases (e.g., Call et al., 2016; Heese and Pérez-Cavazos, 2021). In my analyses, I use a new dataset containing the universe of all OSHA complaints. Compared with data of subsets of whistleblowing cases, my data are less skewed towards severe misconduct and are not selected through regulator activity. This allows me to provide a more comprehensive picture of employee whistleblowing behavior.

Second, I contribute to the literature on minorities in the workplace. Aside from identification advantages, focusing on minorities is important because understanding of the costs and benefits that determine their actions and outcomes in the labor market is lacking. Although recent literature is starting to examine minorities in the workplace (e.g., Hayes et al., 2021a; Grittner and Johnson,

2022), we know very little about the LGBTQ+ community and, to the best of my knowledge, my study is the first to examine the LGBTQ+ community in a whistleblowing context. Studies that focus on issues of the LGBTQ+ community show that firm policies for same-sex partner benefits are associated with higher returns (Li and Nagar, 2013), that gender-diverse boards are more likely to adopt supportive policies for LGBTQ+ employees (Kyaw et al., 2022), and that coverage of LGBTQ+ issues in corporate social responsibility reports is generally lacking (Parizek and Evangelinos, 2021). The workforce identifying as LGBTQ+ in the United States is already about half the size of the Black and African American workforce (Hancock et al., 2021) and consistently increasing. For example, about 21% of Generation Z (i.e., Gen Z, which includes individuals born between 1997 and 2012) identify as LGBTQ+ (Jones, 2022). Given the increasing proportion of Gen Z in the labor force, understanding systematic differences in the behavior of LGBTQ+ employees will become increasingly relevant for employers and regulators.

Lastly, I also contribute to the literature on environmental, social, and governance (ESG) issues, specifically related to issues on working conditions and worker safety. Company stakeholders are increasingly interested in the ESG activities of firms, but such activity can be difficult to evaluate and verify (Christensen et al., 2021). In addition, there is considerable heterogeneity in ESG scores that rating agencies assign. Relative to other ESG factors, workplace safety and health are fairly easy to quantify and compare across companies, largely owing to the transparency of OSHA's enforcement efforts. Unsurprisingly, interest in deterrence and enforcement related to ESG misconduct is increasing (e.g., Christensen et al., 2017; Raghunandan and Ruchti, 2021; Heese et al., 2022; Leonelli, 2022). However, comparisons of safety and health measures across companies are less informative if those measures are systematically affected by differential whistleblowing barriers. Specifically, my study shows that differences in whistleblowing behavior between employee groups should be taken into account when scholars or ESG rating agencies examine regulator activity and evaluate regulatory outcomes because significant differences in the accuracy of the safety and health measures can exist based on the share of minorities in a given firm or area.

Chapter 2

Whistleblowing: Background and prior evidence

2.1 Employees as information sources

In contrast to other stakeholders of the firm, employees can gather information about misconduct through their daily activities (e.g., Dyck et al., 2010; Campbell and Shang, 2022). If they choose to disclose this information through an official channel, it is called whistleblowing.¹ Employees can opt to disclose their information either internally or externally. While most firms prefer internal whistleblowing because it allows them to minimize the cost of misconduct, Soltes (2020) shows that these systems are often lacking in responsiveness. Alternatively, employees can report information on misconduct externally (i.e., to a regulator), which can lead to the public disclosure of the information and is thus generally preferred by the firm's stakeholders (Lee and Xiao, 2018). External whistleblowing can be more effective because of the potential for public information disclosure and the resulting negative reputational effects (e.g., Johnson, 2020; Leonelli, 2022).

Whistleblowing is a corporate governance mechanism that allows employees to monitor the firm and improves regulatory enforcement. For example, SEC Director of the Division of Enforcement, Andrew Ceresny, states that “[The whistleblower program has had] transformative impact [...], both in terms of the detection of illegal conduct and in moving our investigations forward quicker and through the use of fewer resources.” (Ceresny, 2016). Consistent with that statement, prior research generally shows a negative relationship between the likelihood of whistleblowing and misconduct (e.g., Baloria et al., 2017; Berger and Lee, 2022).

1. For example, Near and Miceli (1985) define whistleblowing as “the disclosure by organization members (former or current) of illegal, immoral, illegitimate practices under the control of their employers, to persons or organizations that may be able to effect action.”

2.2 Decision to report misconduct

Theoretically, employees weigh the expected costs and benefits of whistleblowing before deciding to report misconduct. While many regulators provide the opportunity to share their information anonymously or confidentially in an attempt to decrease whistleblowing barriers, such efforts are not always effective. For example, 58% of respondents in my survey expect their identity to be revealed after anonymous whistleblowing and about 27% of respondents have seen or experienced an instance of external anonymous whistleblowing in which the identity of the whistleblower was revealed afterwards. When a whistleblower's identity is revealed, they can face many negative social and economic consequences.

The most prevalent cost is retaliation, which employers use to silence their employees, prevent public information dissemination, discredit whistleblowers, and discourage future whistleblowing (Mesmer-Magnus and Viswesvaran, 2005). In a survey conducted by the Ethics and Compliance Institute in 2017, 44% of respondents indicated that they were retaliated against after reporting misconduct. The most frequently reported types of retaliation are non-monetary, including shunning and altered treatment by co-workers and employers, verbal abuse, exclusion from decisions, or a poor performance review (ECI, 2021).² With respect to monetary retaliation (such as firing an employee), Heese and Pérez-Cavazos (2021) and Dahl and Knepper (2022) show that alleviating the retaliation costs through increased unemployment insurance benefits increases whistleblowing. In the United States, over 20 whistleblower protection laws are enforced by OSHA, but Johnson et al. (2022) have described the legal protection of employees from retaliation as “weak at best.” Because the burden of proof is very high, few cases end favorably for the employee, and even if they do, employers generally do not face significant punishments.³

Aside from retaliation, employees can also face other consequences, such as reputational dam-

2. Examples of other non-monetary retaliatory actions are threats, harassment, mocking, and blacklisting. Both employers and co-workers can engage in retaliation. See OSHA for a more elaborate definition at <https://www.whistleblowers.gov/> [Last accessed: May 27, 2022].

3. If a retaliation complaint is pursued, the employee wins or agrees to a settlement in less than 25% of the cases. This statistics was computed using whistleblower complaint data from OSHA obtained through a Freedom of Information Act request.

age, ostracism, and discrimination. For example, whistleblowers might gain a reputation as being a “snitch,” which can decrease co-workers’ willingness to share information with them or make potential employers hesitant to hire them. Such consequences can stem from a multitude of sources (e.g., co-workers, potential employers, general public) and can be very difficult (or impossible) to regulate compared with retaliation, meaning that the prevalence of such consequences is potentially large. However, research on such consequences is scarce, likely because they are much more difficult to observe and measure empirically than retaliation.⁴ My survey experiment allows me to study different whistleblowing concerns more extensively.

Although limited, the employee’s choice to blow the whistle can also be affected by the potential benefits, such as abatement of misconduct. However, depending on the misconduct, the benefit might not significantly affect the whistleblower’s day-to-day activities and thus their cost-benefits considerations.⁵ Some employees might be intrinsically motivated to blow the whistle (e.g., having a desire to speak up and do “what is right”). In addition, to increase the potential benefit, some U.S. regulators have implemented bounty schemes that allow for monetary awards to whistleblowers. While these schemes are controversial because they can decrease reporting from intrinsically motivated whistleblowers (e.g., PricewaterhouseCoopers, 2013), Dey et al. (2021) provide evidence that monetary incentives increase whistleblowing on average.

2.3 Whistleblowing barriers for minorities

Prior research finds a negative relationship between whistleblowing costs and the decision (or intent) to blow the whistle on average (e.g., Mesmer-Magnus and Viswesvaran, 2005), but differential barriers to blow the whistle remain relatively unexplored. Minorities can face different (and likely larger) whistleblowing barriers than non-minority employees for multiple reasons. First, many mi-

4. A study by Dey et al. (2021) offers one exception; they show that whistleblowers do not face social consequences in terms of divorces, legal records, or traffic violations. However, it is unclear if whistleblowers face any other social consequences that are more difficult to observe.

5. For example, abatement of observed financial misconduct is less likely to have an impact on the whistleblower’s day-to-day activities than abatement of a safety hazard that an employee is exposed to.

minority employees already face adversities in the workplace (e.g., NPR et al., 2017; Sears et al., 2021), and the likelihood of adverse consequences after blowing the whistle is greater (e.g., Spieler and Burton, 2012; Cech and Rothwell, 2020). Second, minority employees' benefits from whistleblowing are likely smaller. For example, in my survey I find that minority employees perceive a lower likelihood to be taken seriously. Third, monetary incentives can be less effective when expected retaliation is high (Guthrie and Taylor, 2017) and the employee is socio-economically disadvantaged, which is more likely for minorities.⁶ Lastly, minorities are less likely to trust the government and might even fear government interaction (Grittner and Johnson, 2022), which could make them more reluctant to report misconduct to regulators.

When employees face higher whistleblowing costs and are thus less likely to report misconduct, the firm's expected cost for engaging in misconduct is lower, which decreases the deterrence effect of whistleblowing and can increase the misconduct that employees are exposed to (e.g., Dahl and Knepper, 2022). This effect is exacerbated because regulators increasingly base their enforcement efforts on employee whistleblowing, and Call et al. (2018) show that whistleblower involvement is related to timelier enforcement and larger penalties. Systematic differences in enforcement can be detrimental because minority employees tend to have weaker safety nets and fewer job opportunities, which decreases their ability to quit or change jobs (e.g., Bertrand and Mullainathan, 2004; Skandalis et al., 2022) and thus exacerbates inequality in the labor market (Grittner and Johnson,

6. In general, monetary whistleblower rewards are uncertain and are characterized by a substantial time-lag. For example, a whistleblower at the SEC can only apply for an award after successful enforcement, and in 2020, it took the SEC on average 24 months just to open an investigation and commence a lawsuit (Zuckerman and Stock, 2022). After that, the SEC can litigate a case for years before actually enforcing. Similarly, in 2021, the IRS had a backlog of almost 24,000 cases, and it takes the IRS over 10 years to process a whistleblower case (Schweller, 2021). Minorities are more likely to be socio-economically disadvantaged, and monetary incentives could generally be more effective in incentivizing whistleblowing. However, the lengthy whistleblowing reward process is problematic because socio-economically disadvantaged individuals might be unable to sustain a long period without income or compensation, making monetary incentives ineffective. For example, Skandalis et al. (2022) show that Black unemployment insurance claimants receive an 8% lower replacement rate. In addition, minority employees are less likely to find employment if they lose their job (Bertrand and Mullainathan, 2004). Thus, the uncertainty and time-lag related to monetary compensation for whistleblowers can make it relatively less effective for minority employees.

2022)).⁷

(Favorable) public attention can affect whistleblowing because it can increase the saliency of the rights of minorities and the adversities they face and, especially favorable public attention, can subsequently increase social acceptance. For example, during a period of heightened attention, the cost for anyone imposing adversities on minority employees can increase (through reputational damage or enforcement). Thus, the likelihood of negative consequences for minority whistleblowers might be lower. In addition, minority employees might be taken more seriously and whistleblowing during a period of heightened attention might be more likely to result in misconduct abatement. Lastly, minority employees might have an increased desire to speak up and feel empowered by the (favorable) public attention. For example, Stubben and Welch (2020) show that HR-related complaints increase in 2017, following the #MeToo Movement. Overall, I expect (favorable) public attention to decrease minority employees' whistleblowing barriers and/or increase their expected whistleblowing benefits, leading to an increase in misconduct reporting.⁸

However, public attention might not necessarily increase whistleblowing by minorities. First, because minority employees might already face adverse work environments, additional adverse consequences might not have an impact on their decision-making. Second, public attention could possibly lead to increased adverse consequences for minority employees in some circumstances (rather than decreased adverse consequences), especially when public attention is unfavorable. Third, public attention is often temporary, while whistleblowing consequences (especially monetary retaliation) can be permanent. Thus, whistleblowing could have very high expected costs, and

7. Some evidence shows that minorities can be exposed to more (severe) misconduct, including misconduct related to workplace safety and health (e.g., Cech and Rothwell, 2020; Grittner and Johnson, 2022). In my survey, I find that minorities often perceive to be exposed to more misconduct and perceive to face higher reporting risks. This difference can stem from sorting into jobs (extensive margin) as well as job assignment within the firm (intensive margin). Thus, reporting by minorities might be particularly important for regulators' resource allocation. However, even without increased exposure to misconduct, systematic under-reporting by minorities can lead to under-enforcement due to clustering of minority employees in workplaces. Furthermore, it has the potential to fuel a vicious cycle of under-reporting and under-enforcement.

8. My survey shows that public attention might also affect minority employees' whistleblowing choices through less direct channels, such as increased information sharing.

any (temporary) decrease in the expected costs might not be sufficient to change the employee's whistleblowing behavior. Fourth, regulators attempt to decrease barriers by allowing for anonymous and confidential whistleblowing. The potential for public attention to affect whistleblowing barriers is muted if employees perceive the likelihood of identity revelation to be low at all times. Lastly, some employees might conceal their minority status to avoid adversities (Sears et al., 2021). If employees with concealed minority status face less negative whistleblowing consequences generally, public attention is less likely to have a significant impact on their choice to blow the whistle.⁹

9. Results from my survey show that about 49% of LGBTQ+ employees are out to their employer (i.e., their employer knows the employee's sexual orientation/gender identity), whereas about 72% are out to their co-worker.

Chapter 3

Empirical strategy and data

3.1 Identifying the effect of public attention

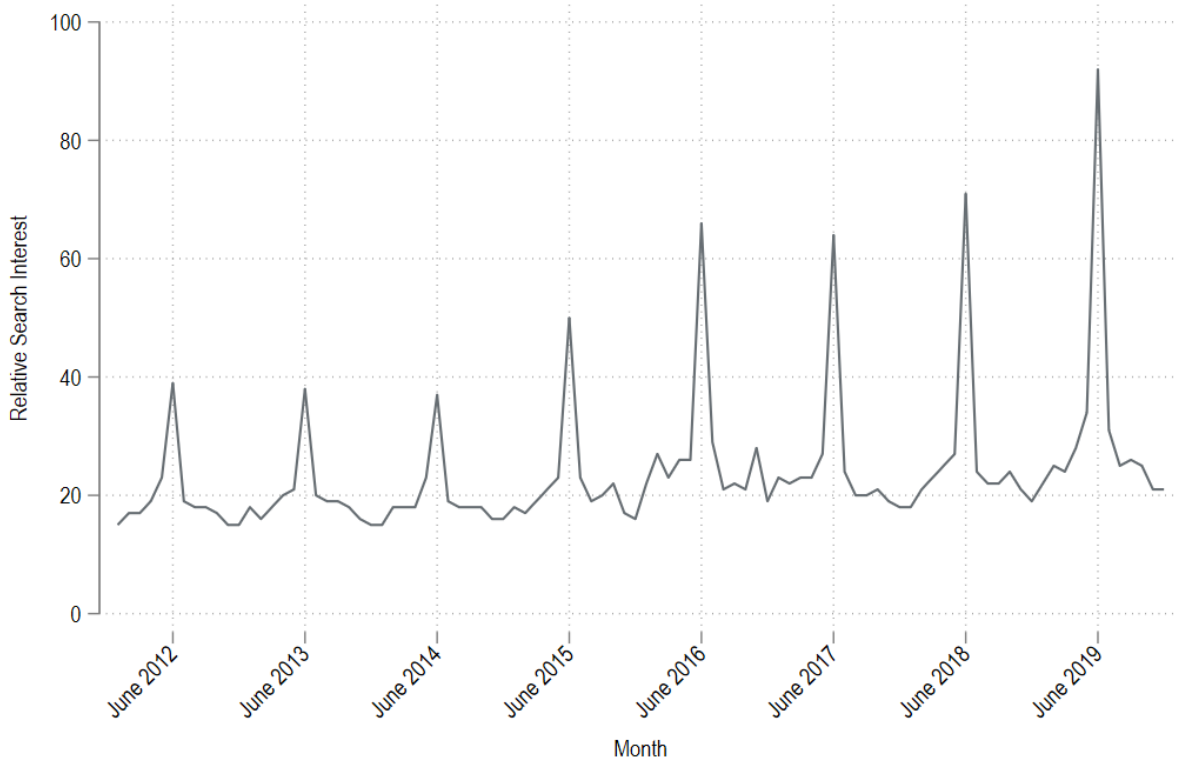
Three main challenges emerge when trying to identify the effect of public attention on whistleblowing by minorities. First, public attention on a minority can change over time without a clear beginning or end, which impedes defining a specific period of public attention. Second, significant public attention is often geographically widespread (e.g., over the entire United States), meaning that there is no unaffected control group. Estimating changes over time is possible, but if public attention coincides with other changes or events (such as seasonality in the exposure to misconduct), identifying the effect becomes difficult.¹ Third, increased public attention on minorities can endure for a prolonged period of time during which market participants (such as firms) might change their underlying behavior (e.g., Grittner and Johnson, 2022), which could in turn change whistleblowing behavior.

Using Pride Month as the treatment period, I focus on employees who are part of the LGBTQ+ community to identify how public attention on this community affects whistleblowing. The population that identifies as LGBTQ+ is large and consistently increasing (e.g., about 21% of Gen Z identify as LGBTQ+). Recent estimates show that around 7.1% of the entire United States population identify as part of the LGBTQ+ community, which is about half the size of the Black and African American population (Hancock et al., 2021; Jones, 2022). Every year in June, the LGBTQ+ community in the U.S. celebrates Pride, which commemorates the Stonewall riots of 1969. I use Pride Month as the treatment period because public attention on the LGBTQ+ community strongly increases in June. For example, large cities organize events (including Pride parades), and many companies signal support for the LGBTQ+ community by painting their corporate logos in rainbow colors. The increased public attention is also evident in the spikes in Google searches for LGBTQ+-

1. For example, OSHA whistleblowing exhibits significant seasonality.

related terms, as shown in Figure 1. Importantly, Figure 1 shows that the spike is concentrated in June, a relatively well-defined and short time period, which addresses the issue of defining a clear period of heightened public attention. Although there can be a spillover of events to the surrounding months (e.g., Pride parades), such spillover is minimal.

Figure 1: Google search interest for LGBTQ+-related terms



Notes: This plot shows relative Google trends search interest for the terms “Pride,” “Pride Month,” “LGBT,” and “LGBTQ” over my sample period. The x-axis indicates June (i.e., Pride Month) of every year.

Given that Pride Month is celebrated across the United States and can affect all LGBTQ+ employees, defining a suitable control group could be difficult. However, the impact of public attention on whistleblowing by LGBTQ+ employees depends on the potential to shift cost-benefit considerations. During my sample period, not all counties and states explicitly include LGBTQ+ employees under Title VII, which protects minority employees from discrimination in the workplace.² Importantly, without explicit protection under Title VII, employers can impose negative

2. Title VII of the Civil Rights Act of 1964 originally included discrimination related to race,

consequences on LGBTQ+ whistleblowers (including firing them) with minimal risk of consequences (Johnson et al., 2022), increasing the expected cost of whistleblowing for LGBTQ+ employees. In contrast, imposing negative consequences on LGBTQ+ whistleblowers can be very costly for employers if the employee is protected under Title VII; therefore, in counties with such protection, LGBTQ+ employees likely face lower expected whistleblowing costs.

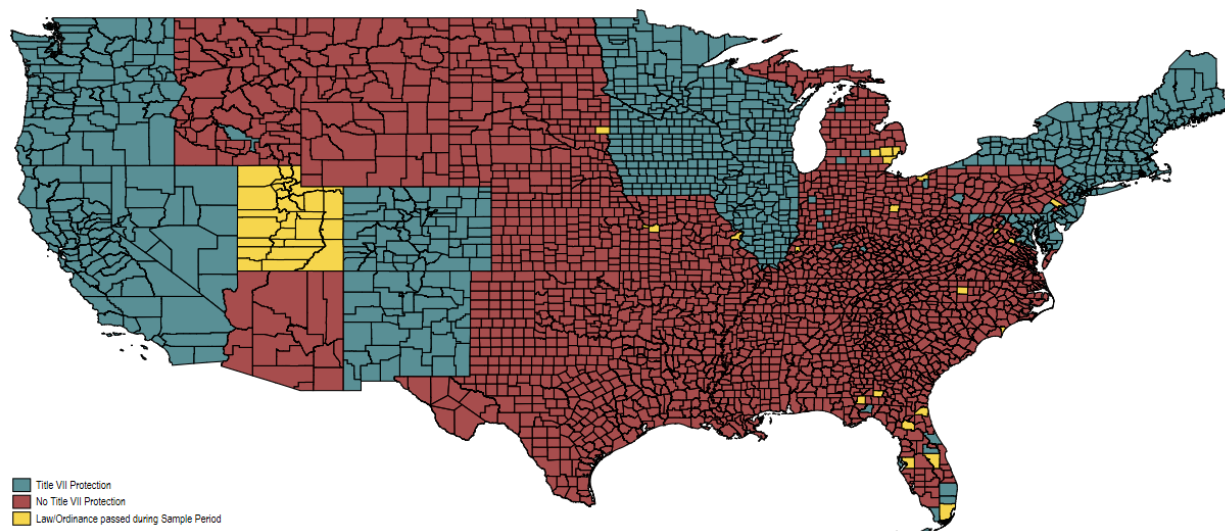
With relatively lower whistleblowing costs, the potential for public attention to significantly affect whistleblowing behavior is smaller. In addition, public attention can also affect the benefits of whistleblowing. As in the case of whistleblowing costs, LGBTQ+ employees in areas with explicit protection might enjoy a greater baseline of whistleblowing benefits (Mahowald, 2022), and the potential for public attention to have a positive impact on whistleblowing benefits is likely small in comparison. Thus, I use counties with explicit protection for LGBTQ+ employees as control observations (see Figure 2 for a map of treatment and control counties).³

Lastly, when estimating changes in whistleblowing, it is important to disentangle a change in reporting behavior from changes in underlying misconduct because both can have an impact on whistleblowing behavior. Having a well-defined time period (such as Pride Month) means that employers can anticipate when increased attention will occur and thus change their actions accordingly. For example, if employers experience an increase in the willingness to blow the whistle on misconduct, they could decrease the amount of misconduct they engage in (e.g., Hayes et al., 2021b). To prevent variation in the underlying misconduct from affecting the study outcomes, I combine the short treatment window with occupational safety and health (OSHA) misconduct. While firms have many options for improving their safety and health practices, a common approach is to provide training or to invest in appropriate safety gear and equipment.⁴ Firms are color, religion, sex, and national origin, limiting the variation that can be exploited for those minorities in this context.

3. Figure 2 shows which counties have explicit protections for LGBTQ+ employees under Title VII (either through county ordinances or state laws) before 2020. In 2020, the Supreme Court decided that the 1964 Civil Rights Act protects LGBTQ+ employees from discrimination based on sex, meaning that all U.S. counties explicitly protect LGBTQ+ employees after this decision.

4. For example, see <https://www.osha.gov/safety-management/step-by-step-guide>. [Last accessed: August 31, 2022]

Figure 2: Counties with explicit protection for LGBTQ+ employees under Title VII



Notes: This figure displays the counties that explicitly protect LGBTQ+ employees (at least based on sexual orientation) under Title VII before the Supreme Court decision in 2020. If a state law protects LGBTQ+ employees under Title VII, it overrides the local county ordinance if the county does not protect LGBTQ+ employees under Title VII. In my analyses, the red counties are the treatment counties, and the green counties are the control counties. Counties that change their treatment status during the time period (i.e., pass a law or ordinance protecting LGBTQ+ employees) are displayed in yellow.

unlikely to adjust safety and health misconduct because of Pride Month for various reasons. First, such investments are generally permanent and firms are unlikely to make such an investment for a temporary period of public attention. Second, such investments can be very costly and a short time period of public attention is unlikely to trigger a large investment, even if it temporarily increases whistleblowing. Lastly, implementing significant improvements in safety and health can take time (certainly longer than one month), meaning that most changes in misconduct are likely small and gradual rather than large and immediate. Overall, employers are unlikely to engage in strategies to adjust the underlying misconduct during Pride Month, and my design with a short treatment window keeps the influence of misconduct related to health and safety as constant as possible.⁵ Thus, any change in whistleblowing activity I find is unlikely to be affected by changes in the underlying misconduct.

5. If anything, I would expect employers to engage in less misconduct during a period of increased attention, which would lead to a decrease in whistleblowing, rather than an increase, and thus bias the effect towards zero.

3.2 Endogeneity in local laws and identification assumption

Rather than estimating the direct effect of public attention on whistleblowing, I estimate a differential effect of public attention based on differences in baseline whistleblowing barriers for LGBTQ+ employees to account for unrelated variation (e.g., seasonality). Specifically, I am using variation in the explicit protection of LGBTQ+ employees under local Title VII laws to assign treatment and control groups. This creates a joint hypothesis test of (1) lower baseline whistleblowing barriers for LGBTQ+ employees in counties with explicit protection and (2) a positive effect of public attention on whistleblowing.

To be able to estimate the effect of public attention through a joint hypothesis, I need to support the assumption of differences in the whistleblowing barriers (i.e., the first part of the joint hypothesis). The assumption in my analyses is for a given level of public attention, the magnitude of the change in the whistleblowing rate is larger in treatment counties because the baseline whistleblowing rate in those counties is smaller. Thus, if public attention increases (decreases) whistleblowing on average, the rate of whistleblowing should increase (decrease) more in treatment counties. Because I am predicting an increase in whistleblowing on average, I am expecting the differential increase in the whistleblowing rate to be positive.

I am unable to directly estimate differences in whistleblowing barriers and validate my identification assumption.⁶ However, untabulated tests show that counties with explicit protection for LGBTQ+ employees under Title VII are more likely to be liberal, exhibit higher acceptance rates for same-sex marriage, and are more likely to have other laws and policies protecting LGBTQ+ individuals. In addition, Barron and Hebl (2013) show that public awareness of sexual orientation laws is heightened in communities with protection of LGBTQ+ employees and that those LGBTQ+ employees experience less discrimination. Thus, on average, local conditions related to the LGBTQ+ community are correlated with the explicit protection of LGBTQ+ employees under

6. While the average complaint rate in treatment counties is lower than in control counties, which is consistent with less whistleblowing in treatment counties, I am unable to attribute this difference to the LGBTQ+ community.

Title VII laws and amplify the difference in whistleblowing barriers.⁷ This supports the assumption of lower whistleblowing barriers (and higher whistleblowing activity) for LGBTQ+ employees in counties with explicit protection under Title VII laws.

Although I am assigning treatment based on LGBTQ+ employee protection policies, I am not estimating the effect of the policy on whistleblowing because the enactment of the county ordinances and state laws is endogenous and captures related variation, such as general acceptance and ideologies (e.g., Roumpi et al., 2020). I am analyzing the endogeneity in the measure by extending my analyses past the Supreme Court decision of 2020. Untabulated results confirm that the measure of differential whistleblowing barriers is endogenous.⁸

3.3 Data and regression design

For the first part of the empirical analyses, I use a large-scale archival dataset. Specifically, I use a complete dataset of whistleblowing activity from OSHA, the federal regulator that sets and enforces workplace safety and health standards in the United States.⁹ If an employee sees or experiences safety- or health-related misconduct at work, they have the right to file a complaint with OSHA

7. LGBTQ+ employees are often acutely aware of local policies, Title VII laws, and how they affect their work-life (e.g., Bowen, 2019). While not required by federal law, directives from both the EEOC and the U.S. Supreme Court state the necessity and importance of Title VII training and many employers require it from their employees, regardless of minority status. In addition, LGBTQ+ employees are likely also aware of other relevant policies and general acceptance of members of the LGBTQ+ community.

8. First, the results hold when simply including additional years in my sample and holding treatment and control assignment fixed after May 2020. After the Supreme Court decision in 2020, all employees are equally protected and if the differential effect is entirely driven by Title VII laws, this equality should significantly decrease the differential effect of Pride Month. However, I find that the difference persists, which is indicative of the Title VII law capturing endogenous differences in whistleblowing barriers. Lastly, I do not find that the imposition of the Title VII law by the Supreme Court significantly affects whistleblowing activity, compared to counties that already protect LGBTQ+ employees before the Supreme Court decision.

9. Most U.S. employers have to comply with OSHA except for self-employed, family-run farms without outside employees, and establishments regulated by alternative agencies (such as mines).

(e.g., online, by phone, or in person) and request an inspection of the workplace.¹⁰ Employees can complain anonymously or they can disclose their identity to OSHA. If the employee chooses to disclose their identity, they can decide whether they would like to keep their identity confidential (i.e., if the employee requests that their identity be held confidential, OSHA does not disclose the employee's identity to the employer). OSHA evaluates the complaints to determine whether there are reasonable grounds to believe that a firm is violating OSHA standards or a safety or health hazard exists. If so, OSHA then decides whether and when to conduct an inspection based on the severity of the alleged misconduct and the potential harm. In non-severe cases, OSHA might decide to contact the employer before inspecting an establishment. OSHA's median response time to a complaint is 0 days (i.e., the same day) and OSHA responds to 95% of cases within 7 days. Inspections that are triggered by complaints are generally limited to the allegations in the complaint, but OSHA inspectors may cite other violations in plain sight or choose to expand the inspection.

My dataset contains all OSHA whistleblowing cases from 2012 to 2019, and I aggregate the non-imminent complaints to the county-month level.¹¹ These data provide three advantages. First, a dataset of all complaints reduces the potential for noise and bias that can be introduced by regulator incentives and activity when using a subset of the data such as inspected, enforced, or retaliated whistleblowing cases (e.g., Call et al., 2016; Heese and Pérez-Cavazos, 2021).¹² Second, these data capture more than just the most egregious cases (which can lead to selection issues). While likely still just the tip of the (misconduct) iceberg, my data allow for a slightly more complete picture of whistleblowing. Third, because OSHA whistleblowing is relatively more frequent, I am able to run analyses on the monthly level, which enables me to improve the identification of changes in employee whistleblowing.

To create a control group, I collect data on county ordinances and state laws with respect to

10. OSHA encourages employees to file complaints as quickly as possible after they become aware of a problem because OSHA can only issue citations for misconduct that is currently happening or happened within the last six months (with evidence).

11. Imminent complaints are a very small share of complaints (< 1%) and because of the associated severity, these complaints are unlikely to vary significantly with periods of public attention.

12. For example, when only inspected complaints are used, the coefficient estimate is biased towards zero and fails to reach statistical significance, potentially because the data are noisier.

the explicit inclusion of LGBTQ+ employees under Title VII, and I assign counties with explicit protection to the control group. Some counties and states pass legislation for sexual orientation and gender identity separately, in which case I use the first instance.¹³ Aside from some scattered counties, most counties do not pass laws during my sample period. In my main analyses, I exclude counties that switch treatment and control group during my sample period.¹⁴

Because complaints can be best described as count data, I use a Poisson regression and implement a difference-in-differences (DiD) analysis to estimate the effect of public attention (Ciani and Fisher, 2019).¹⁵ I create a binary variable called *Pride*, which equals 1 during the month of June, as an indicator for public attention, and estimate the following equation:

$$\begin{aligned} \text{Complaints}_{i,t} = & \text{No Title VII Protection}_{i,t} \times \text{Pride}_t + \text{Pride}_t \\ & + \text{No Title VII Protection}_{i,t} + \text{Controls}_{i,t} + \text{Fixed Effects} + \varepsilon_{i,t} \end{aligned} \quad (1)$$

where i denotes a county and t denotes a month.

Count variables are often heavily dependent on the size of the group they refer to. For example, a large county with a high number of employees will have more complaints than a small county with a low number of employees, but the difference does not necessarily equate to more whistleblowing activity (per employee) in the larger county. To account for this, I include an exposure variable that adjusts the dependent variable based on the amount of whistleblowing opportunities for a given observation. In this case, the exposure variable is *Employment*, which is the number of employees in a given county-month. The exposure variable is required to have a coefficient of 1 and converts the dependent variable into a rate, meaning that the dependent variable reflects the

13. If counties or states pass legislation for sexual orientation and gender identity separately, they generally pass legislation for sexual orientation first.

14. My results are robust to including switching states and counties into the sample.

15. Regressions with count variables as outcomes are often estimated by adding a constant to the outcome and estimating 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 a simple fixed-effects Poisson model produces consistent and reasonably efficient estimates. Poisson regressions provide a natural way to account for (a high frequency of) zeros in the outcome variable and require minimal assumptions about the distribution of the data to produce consistent estimates (Correia et al., 2020).

number of complaints per employees. Depending on the analysis, I adjust the exposure variable to create a meaningful rate.

One of the main drawbacks of focusing on the LGBTQ+ community is the lack of data that can be used to control for differences between counties over time, including changes in the share of LGBTQ+ individuals in the county population (e.g., LGBTQ+ employees might move to areas that are more accepting) and changes in the local acceptance of the LGBTQ+ community. To reduce the concern of omitted variable bias, I include county-year fixed effects in my most restrictive specification. This fixed effects structure accounts for changes in the local LGBTQ+ population over time as well as changes in acceptance at the county-year level. In addition, this design effectively implements a stacked regression design by year, alleviating concerns related to heterogeneous treatment effects in two-way fixed effects models (e.g., Goodman-Bacon, 2021; Barrios, 2021).

In addition, I include county size-region-year-month fixed effects. This allows me to compare counties within the same region and of the same size in a given year and month. The inclusion of the year-month fixed effects alleviates concerns about general seasonality in whistleblowing driving the effect. The region fixed effects are based on OSHA regions and the county size categories are created by assigning each county to a quintile based on the average number of employees over the sample period.

Because I can only include coarse region fixed effects in my main specification, I include various control variables to account for any remaining differences between counties.¹⁶ At the county-year-month level, I include controls for safety and enforcement, including the number of random inspections, the number of violations from random inspections, and the number of reported accidents. In addition, I control for the amount of hazardous work in a given county-year-month by including controls for the number of construction workers and time-varying abnormal temperatures because warmer temperatures generally allow for more hazardous work.

16. Unfortunately, the variation of counties with and without explicit inclusion of LGBTQ+ employees under Title VII within states is limited and imposing stricter regional fixed effects (such as replacing OSHA regions with states) would reduce the number of usable observations considerably.

Chapter 4

Analyses of OSHA complaints

4.1 Summary statistics

Table 1 Panel A shows the summary statistics for the OSHA analyses. To make interpretation easier, I display non-transformed variables where applicable (e.g., *Violations* is the actual average number of violations from random inspections at the county-month level), rather than the transformed variable using the inverse hyperbolic sine, which is the variable used in the regressions. Although there is no restriction on the counties included in the sample other than not switching treatment assignment during my sample period, some counties are not used in the estimation of the results (e.g., if a county does not have a complaint in my sample period). The total number of observations used in the OSHA analyses is 273,082. For variable definitions, see Appendix Table A1.

4.2 Main results

In the main analysis, I am estimating the differential effect of Pride Month on employee whistleblowing behavior based on local legal protections of LGBTQ+ employees. Table 2 shows the results using variation in county ordinances and state laws (*No Title VII Protection*). With a simple fixed effect structure (county and year-month fixed effects) in Column (1), employee whistleblowing increases by 8%.¹ When stricter fixed effects and controls are included, the magnitude of the effect slightly declines.

In my preferred specification, I include all controls as well as county-year and region-size-year-month fixed effects to make the counties in the treatment and control group as comparable as possible. This specification is shown in Table 2 Column (3). Relative to counties where LGBTQ+

1. This is calculated as $(e^{0.0781} - 1) * 100 = 8.12\%$.

Table 1: Summary statistics

<i>Panel A: OSHA Dataset</i>	Observations	Mean	SD	P10	Median	P90
<i>Main Variables:</i>						
No Title VII Protection	273,082	0.73	0.44	0.00	1.00	1.00
No CoA Title VII Protection	273,082	0.46	0.50	0.00	0.00	1.00
Pride	273,082	0.08	0.28	0.00	0.00	0.00
Complaints	273,082	1.44	5.73	0.00	0.00	3.00
Detected Violations	273,082	2.40	9.05	0.00	0.00	6.00
Random Inspections	273,082	0.91	3.24	0.00	0.00	2.00
Inspected Complaints	273,082	0.40	1.52	0.00	0.00	1.00
Serious Complaints	273,082	0.96	2.75	0.00	0.00	2.00
Employment	273,082	44.33	157.53	1.88	9.38	88.96
<i>Control Variables:</i>						
Violations	273,082	0.66	1.92	0.00	0.00	2.40
Accidents	273,082	0.00	0.01	0.00	0.00	0.00
Inspections	273,082	0.37	1.92	0.00	0.00	1.00
Construction Employment	273,082	4.37	3.30	1.06	3.93	7.79
Abnormal Temperature	273,082	0.63	3.25	-3.79	0.66	5.14
<i>Sub-Sample Variables:</i>						
High LGBTQ+	273,082	0.45	0.50	0.00	0.00	1.00
Urban	273,082	0.39	0.49	0.00	0.00	1.00
Conservative County	231,960	0.82	0.38	0.00	1.00	1.00
<i>Panel B: Experimental Survey Data</i>						
LGBTQ+	2,434	0.43	0.50	0.00	0.00	1.00
Pride	2,434	0.47	0.50	0.00	0.00	1.00
Reporting Intent	2,434	0.71	0.45	0.00	1.00	1.00
Employer Monetary	1,333	3.47	2.01	1.00	3.00	6.00
Employer Non-Monetary	1,339	3.51	2.02	1.00	3.00	6.00
Co-Worker Non-Monetary	1,335	3.45	2.00	1.00	3.00	6.00
Internal Reputation	1,344	3.49	1.95	1.00	3.00	6.00
External Reputation	1,341	3.55	1.98	1.00	4.00	6.00
Firm Reputation	1,336	3.73	1.92	1.00	4.00	6.00
Regulator Uninterested	1,338	3.78	1.95	1.00	4.00	7.00
Regulator Unable	1,333	3.90	1.93	1.00	4.00	7.00
Public Discrimination	1,335	3.38	2.01	1.00	3.00	6.00
Social Life	1,300	2.95	1.98	1.00	2.00	6.00

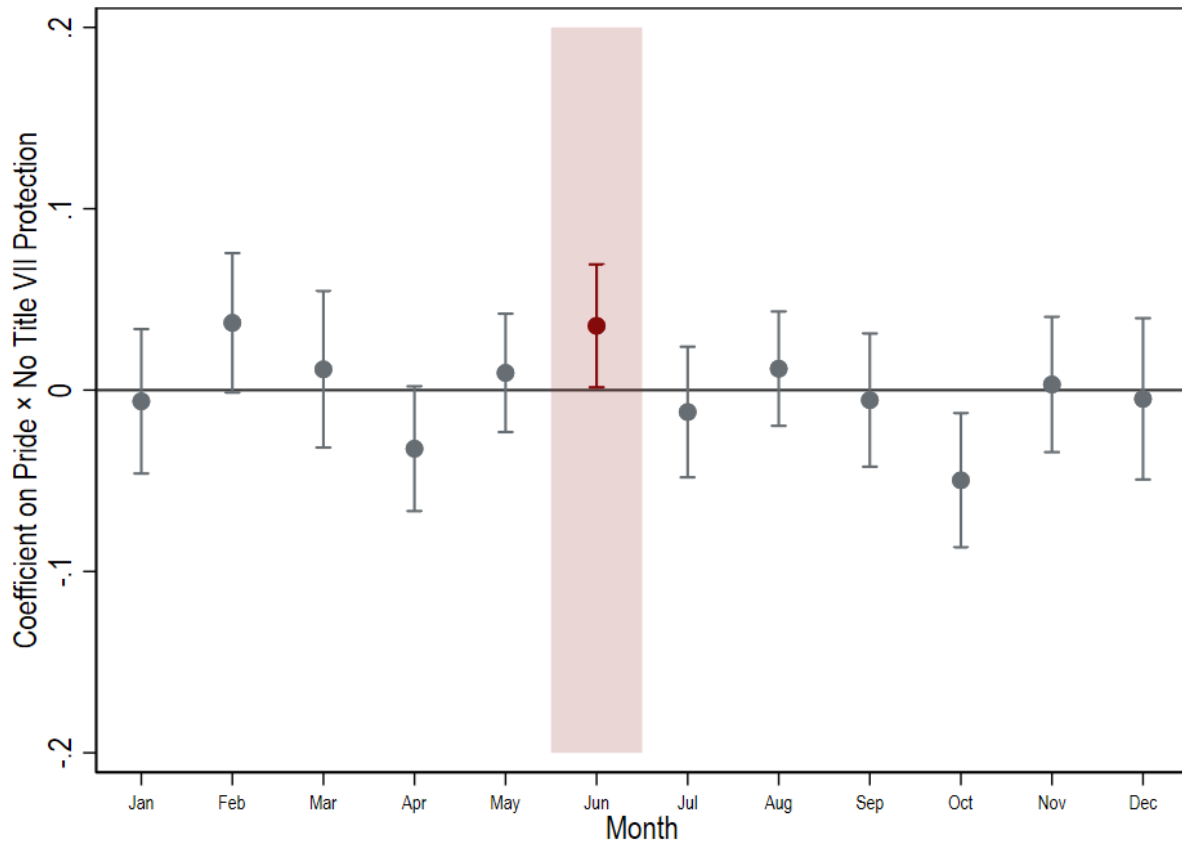
Notes: Panel A displays summary statistics for the sample used in the archival analysis, and Panel B displays summary statistics for the sample used in the survey analysis. All variable descriptions can be found in Appendix Table A1.

Table 2: Employee whistleblowing increases with public attention

	County and Month FE (1)	County and Size × Region × Month FE (2)	County × Year and Size × Region × Month FE (3)
<i>Dependent Variable: Complaints</i>			
Pride × No Title VII Protection	0.0781*** (5.74)	0.0333** (1.97)	0.0354** (2.05)
<i>Control Variables:</i>			
Violations	0.0040 (1.37)	0.0050* (1.69)	0.0022 (0.78)
Accidents	0.1627 (0.66)	0.2105 (0.82)	0.2748 (1.11)
Inspections	-0.0031 (-0.50)	0.0099 (1.62)	0.0320*** (5.29)
Construction Employment	0.0153 (1.41)	0.0171 (1.57)	0.0157 (0.95)
Abnormal Temperature	0.0315** (2.56)	-0.0081 (-0.44)	0.0129 (0.76)
Exposure Variable	Employment	Employment	Employment
County FE	YES	YES	NO
Year × Month FE	YES	NO	NO
County × Year FE	NO	NO	YES
Region × Size × Year × Month FE	NO	YES	YES
Cluster variable	County-Month	County-Month	County-Month
Number of Clusters	35,685	35,685	35,293
Used Observations	273,082	273,080	224,733
Pseudo R-squared	0.7082	0.7118	0.7035

Notes: This table reports coefficient estimates from Poisson regressions estimating the effect of public attention on employee whistleblowing. The observations are at the county-year-month level and the dependent variable is *Complaints*, which is the number of employee complaints made to OSHA in a given county-year-month. The regressions use the number of employees in a given county-year-month as exposure to account for differences in the number of individuals who can blow the whistle. *Pride* is an indicator for Pride Month (June), and *No Title VII Protection* indicates states without explicit protection for LGBTQ+ employees under Title VII. Though only the main effect of *Abnormal Temperature* is displayed, the regression also includes an interaction of the variable with *Year* and *Month*. All variable descriptions can be found in Appendix Table A1. All specifications cluster at the county-month level. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.

Figure 3: Relatively more whistleblowing activity in treatment counties during Pride Month



Notes: This plot shows estimates from 12 regressions, interacting *No Title VII Protection* with an indicator for each month (i.e., using all other 11 months as the control group). The specification used is Table 2 Column (3). The plot displays the coefficient estimate for each regression as well as 95% confidence intervals.

employees are explicitly protected under Title VII laws, Pride Month increases whistleblowing in counties without such protection by about 4%.² The treatment is graphically represented in Figure

2. To put the effect size into perspective, I use sample averages for the treatment counties. The average number of monthly complaints in a treatment county is 0.80. Assuming that there is no change in whistleblowing in control counties, the estimated increase would lead to an increase in complaints by about 0.029 at the county level (which is about 1% of the standard deviation). This result means that there is one additional complaint per about 34 treatment counties. The average treatment county has about 28,000 employees, thus 34 counties have over 960,000 employees. Based on data from the Household Pulse Survey, about 8.80% of individuals in my treatment counties are part of the LGBTQ+ community, translating to almost 85,000 employees in the 34 counties. While not all of these employees experience workplace safety and health misconduct (ECI (2021) estimates that about 7% of employees observe health violations, which would translate to almost 6,000 LGBTQ+ employees who experience such misconduct). Assuming that the effect is purely

3.

4.3 Sample splits by LGBTQ+ population shares

One of the main concerns when estimating the effect with OSHA data is the absence of information about the minority status of the whistleblower. While this absence can be a difficulty for many studies involving minorities, it can be especially challenging for studies focused on the LGBTQ+ community because data availability is comparatively poor and minority status is often less outwardly visible.³ One way to gauge whether the increase in whistleblowing is driven by the minority in question is to split the sample based on the percentage of the population that is part of the LGBTQ+ community in a given state. Table 4 Columns (1) and (2) split the sample using the median and show that the results are driven by states with higher shares of LGBTQ+ populations. Specifically, using the sample of states with high LGBTQ+ shares in Column (1) leads to an estimate of a 8% increase in whistleblowing and this estimate is significantly different from the estimate in Column (2) with a p -value of 0.01.⁴

driven by LGBTQ+ employees, the effect size translates to one additional complaint among 6,000 employees.

3. For example, while companies sometimes break down the composition of their workforce in terms of racial diversity, they generally do not do so for sexual orientation and gender identity. Similarly, census data on detailed LGBTQ+ identities were not collected until July 2021 (in the Household Pulse Survey), and these data are only available at the state level and for large metropolitan areas. Generally, whether an individual belongs to this minority is often less outwardly visible, and some LGBTQ+ individuals conceal identifying characteristics to avoid adversities (Sears et al., 2021), which can make data collection more complicated.

4. An additional concern is that the distribution of protection laws coincides with counties that have more hazardous employment (e.g., agriculture) and I am capturing differences in whistleblowing due to changes in hazardous employment during the summer. While I include controls for the amount of hazardous work, June is also “National Safety Month”, which could incentivize whistleblowing more strongly in areas with more hazardous work. If this were driving my results, I would expect to find positive results for both high and low LGBTQ+ states. However, I do not find a significant relative change in whistleblowing in counties with low LGBTQ+ populations, consistent with Pride Month and minorities driving my result. In addition, “National Safety Month” receives significantly less attention during June and the attention does not vary as strongly as for Pride Month. This is true for both states with high and low LGBTQ+ population shares.

Table 4: Results consistent with changes in LGBTQ+ whistleblowing

	High LGBTQ+ (1)	Low LGBTQ+ (2)
<i>Dependent Variable: Complaints</i>		
Pride \times No Title VII Protection	0.0786*** (2.95)	-0.0164 (-0.65)
Difference in coefficients (p-value)		.01
Exposure Variable	Employment	Employment
Controls	YES	YES
County \times Year FE	YES	YES
Region \times Size \times Year \times Month FE	YES	YES
Cluster variable	County-Month	County-Month
Number of Clusters	15,814	19,300
Used Observations	97,835	124,187
Pseudo R-squared	0.7717	0.5725

Notes: This table reports coefficient estimates from Poisson regressions estimating the effect of public attention on employee whistleblowing. Columns (1) and (2) split the sample based on the median percentage of the state-population identifying as part of the LGBTQ+ community. The observations are at the county-year-month level, and the dependent variable is *Complaints*, which is the number of employee complaints made to OSHA in a given county-month. The regressions use the number of employees in a given county-month as exposure to account for differences in the number of individuals who can blow the whistle. *Pride* is an indicator for Pride Month (June), and *No Title VII Protection* indicates states without explicit protection for LGBTQ+ employees under Title VII. All variable descriptions can be found in Appendix Table A1. All specifications cluster at the county-month level. T-statistics are displayed in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.

4.4 Validation of the constant misconduct assumption

One of the advantages of using OSHA data to measure short-term changes in whistleblowing is that misconduct related to safety and health is slow-moving and therefore unlikely to vary in the short term. To validate this assumption, I test whether employers in counties without Title VII Protection increase misconduct during Pride Month, compared to counties with Title VII Protection. Specifically, I estimate changes in the violation rate, using the number of detected violations from random OSHA inspections as the outcome variable and the number of random OSHA inspections as the exposure variable. The results are displayed in Table 5 Column (1). I do not find a significant relative change in misconduct. This result is graphically presented in Figure 6.

Instead of engaging in more misconduct overall, employers might also re-assign LGBTQ+ employees to more hazardous work during Pride Month, in turn increasing their whistleblowing activity. If so, the share of serious complaints (i.e., allegations that are likely to cause harm to employees) among all complaints could increase. Column (2) shows that there is no relative change in the share of serious complaints. This is consistent with the ability of employers to re-assign employees to hazardous tasks being limited, likely due to the extensive training necessary to handle such tasks.

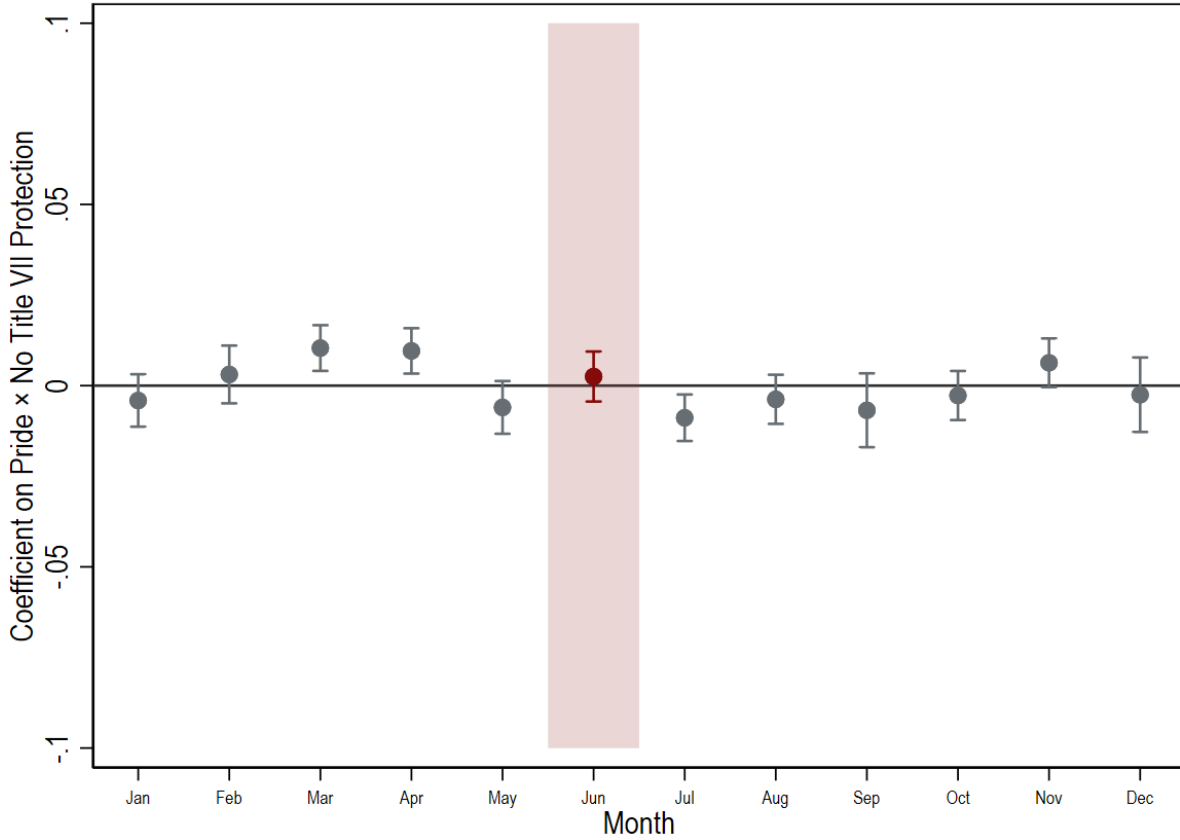
Lastly, the willingness of LGBTQ+ employees to report misconduct could increase if regulator behavior changes. For example, regulators might take complaints from areas without protection for LGBTQ+ employees more seriously during Pride Month, and thus re-allocate resources to those areas. Column (3) shows that there relative inspection likelihood of a complaint does not change during Pride Month in counties without Title VII protection. Thus, the regulator does not seem to re-allocate its resources, which is consistent with the regulator not being able to see whether an employee is part of the LGBTQ+ community. If anything, the relative inspection likelihood decreases (coefficient = -0.0316), consistent with the regulator being resource constrained and unable to handle increased complaint volume.

Table 5: No change in misconduct and regulator activity

<i>Dependent Variable:</i>	Detected Violations (1)	Serious Complaints (2)	Inspected Complaints (3)
Pride × No Title VII Protection	0.0025 (0.71)	-0.0068 (-0.61)	-0.0316 (-1.19)
Exposure Variable	Random Inspections	Complaints	Complaints
Controls	YES	YES	YES
County × Year FE	YES	YES	YES
Region × Size × Year × Month FE	YES	YES	YES
Cluster variable	County-Month	County-Month	County-Month
Number of Clusters	16,970	23,834	20,602
Used Observations	56,967	93,420	77,132
Pseudo R-squared	0.8207	0.5533	0.4861

Notes: This table reports coefficient estimates from Poisson regressions estimating the effect of public attention on employee’s anonymity choice and regulator’s enforcement decision. The regressions use the number of complaints in a given county-month as exposure to account for differences in whistleblowing activity. In column (1), the dependent variable is the number of formal complaints (i.e., non-anonymous) in a given county-year-month. In column (2), the dependent variable is the number of inspected complaints (i.e., complaints that resulted in enforcement activity). *Pride* is an indicator for Pride Month (June), and *No Title VII Protection* indicates states without explicit protection for LGBTQ+ employees under Title VII. All variable descriptions can be found in Appendix Table A1. All specifications cluster at the county-month level. T-statistics are displayed in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.

Figure 6: No relative change in exposure to misconduct during Pride Month



Notes: This plot shows estimates from 12 regressions, interacting *No Title VII Protection* with an indicator for each month (i.e., using all other 11 months as the control group). The specification used is Table 5 Column (1) and captures the violation rate for random inspections. The plot displays the coefficient estimate for each regression as well as 95% confidence intervals.

4.5 Variation in the saliency of Pride Month

If Pride Month decreases whistleblowing barriers by shining a light on the inequalities and obstacles faced by the LGBTQ+ community, the magnitude of the effect might vary with the saliency of Pride Month. In my first test, I split my sample into before 2015 and after 2014. In 2015, the Supreme Court of the United States ruled that the fundamental right to marry is guaranteed to same-sex couples, legalizing same-sex marriage in all states. This increased the visibility of the LGBTQ+ community in general, but it also increased the saliency of the community's (lack of) rights and the inequality LGBTQ+ individuals still face. This surge in interest is also visible in Google searches,

as shown in Figure 1. Table 7 Columns (1) and (2) show that the effect is slightly larger in the later sample period, with an increase in whistleblowing of 4%. The effect size in the earlier sample period is 3% and not statistically significant. However, the differences in coefficients are not statistically significant. For my second test, I split my sample into rural and urban counties. Many of the changes during Pride Month are implemented nationwide, such as retailers carrying rainbow-themed products and firms changing the colors of their logo (e.g., Mellor, 2021). However, large urban areas often hold large events and celebrations (such as Pride parades and music festivals), which can increase the saliency of Pride. In addition, the share of LGBTQ+ individuals among the population might be larger in urban areas. I classify a county as urban if it falls into a metropolitan statistical area, as defined by the U.S. Office of Management and Budget. Table 7 Columns (3) and (4) show that the effect is larger in urban counties, with an increase in whistleblowing of 4%. The effect size in rural counties is 2% and not statistically significant. Again, the differences in coefficients are not statistically significant.

4.6 Results for racial and ethnic minorities

Similar to the LGBTQ+ community, racial and ethnic minorities experience periods of heightened public attention during the year. While racial and ethnic minorities are equally protected under the law, there are other factors that can create differential whistleblowing barriers for racial and ethnic minorities (e.g., acceptance, similar to the LGBTQ+ community). I construct an indicator for high shares of White populations at the county level to indicate relatively larger whistleblowing barriers for racial and ethnic minorities. Periods of high public attention are Black History Month (*BHM*) in February, Asian American and Pacific Islander Heritage Month (*AAPIHM*) in May, Native American Heritage Month (*NAHM*) in November, and Hispanic Heritage Month (*HHM*) which runs from September 15 to October 15.⁵ Because this measure contains more variation at the state level, I am able to include county-year and state-year-month fixed effects.

Table 8 shows that both *BHM* and *AAPIHM* lead to a relative increase of about 5% in whistle-

5. For the indicator *HHM*, both September and October equal 1.

Table 7: Little variation with changes in saliency of Pride Month

	Before 2015 (1)	After 2014 (2)	Rural Counties (3)	Urban Counties (4)
<i>Dependent Variable: Complaints</i>				
Pride × No Title VII Protection	0.0305 (1.01)	0.0379* (1.75)	0.0169 (0.38)	0.0392** (2.10)
Difference in coefficients (p-value)	.93		.73	
Exposure Variable	Employment	Employment	Employment	Employment
Controls	YES	YES	YES	YES
County × Year FE	YES	YES	YES	YES
Region × Size × Year × Month FE	YES	YES	YES	YES
Cluster variable	County-Month	County-Month	County-Month	County-Month
Number of Clusters	33,421	33,908	21,626	13,428
Used Observations	85,607	139,126	125,257	96,871
Pseudo R-squared	0.7043	0.7029	0.2077	0.7209

Notes: This table reports coefficient estimates from Poisson regressions estimating the effect of public attention on employee whistleblowing. Column (1) uses only observations before 2015, and Column (2) uses only observations after 2014. Column (3) restricts the sample to rural counties and Column (4) restricts the sample to urban counties (i.e., counties in metropolitan statistical areas). The observations are at the county-year-month level, and the dependent variable is *Complaints*, which is the number of employee complaints made to OSHA in a given county-year-month. The regressions use the number of employees in a given county-year-month as exposure to account for differences in the number of individuals who can blow the whistle. *Pride* is an indicator for Pride Month (June), and *No Title VII Protection* indicates counties without explicit protection for LGBTQ+ employees under Title VII. All variable descriptions can be found in Appendix Table A1. All specifications cluster at the county-month level. T-statistics are displayed in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.

Table 8: Patterns are also present for other minority groups

<i>Dependent Variable: Complaints</i>	Black History Month (1)	Asian American and Pacific Islander Heritage Month (2)	Native American Heritage Month (3)	Hispanic Heritage Month (4)	All Indicators Included (4)
BHM × High White Population	0.0461* (1.70)				0.0564** (2.05)
AAPIHM × High White Population		0.0443* (1.84)			0.0544** (2.21)
NAHM × High White Population			0.0229 (0.80)		0.0353 (1.21)
HHM × High White Population				-0.0011 (-0.06)	0.0131 (0.69)
Exposure Variable	Employment	Employment	Employment	Employment	Employment
Controls	YES	YES	YES	YES	YES
County × Year FE	YES	YES	YES	YES	YES
State × Year × Month FE	YES	YES	YES	YES	YES
Cluster variable	County-Month	County-Month	County-Month	County-Month	County-Month
Number of Clusters	36,721	36,721	36,721	36,721	36,721
Used Observations	308,412	308,412	308,412	308,412	308,412
Pseudo R-squared	0.7445	0.7445	0.7445	0.7445	0.7445

Notes: This table reports coefficient estimates from Poisson regressions estimating the effect of public attention on employee whistleblowing. The observations are on the county-year-month level, and the dependent variable is *Complaints*, which is the number of employee complaints made to OSHA in a given county-month. *BHM* is an indicator for Black History Month (February). *AAPIHM* is an indicator for Asian American and Pacific Islander Heritage Month (May). *NAHM* is an indicator for Native American Heritage Month (November). *HHM* is an indicator for Hispanic Heritage Month (September and October). *High White Population* is an indicator that equals 1 if the county's average population share of White individuals is in the top three deciles. All variable descriptions can be found in Appendix Table A1. All specifications cluster at the county-month level. T-statistics are displayed in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.

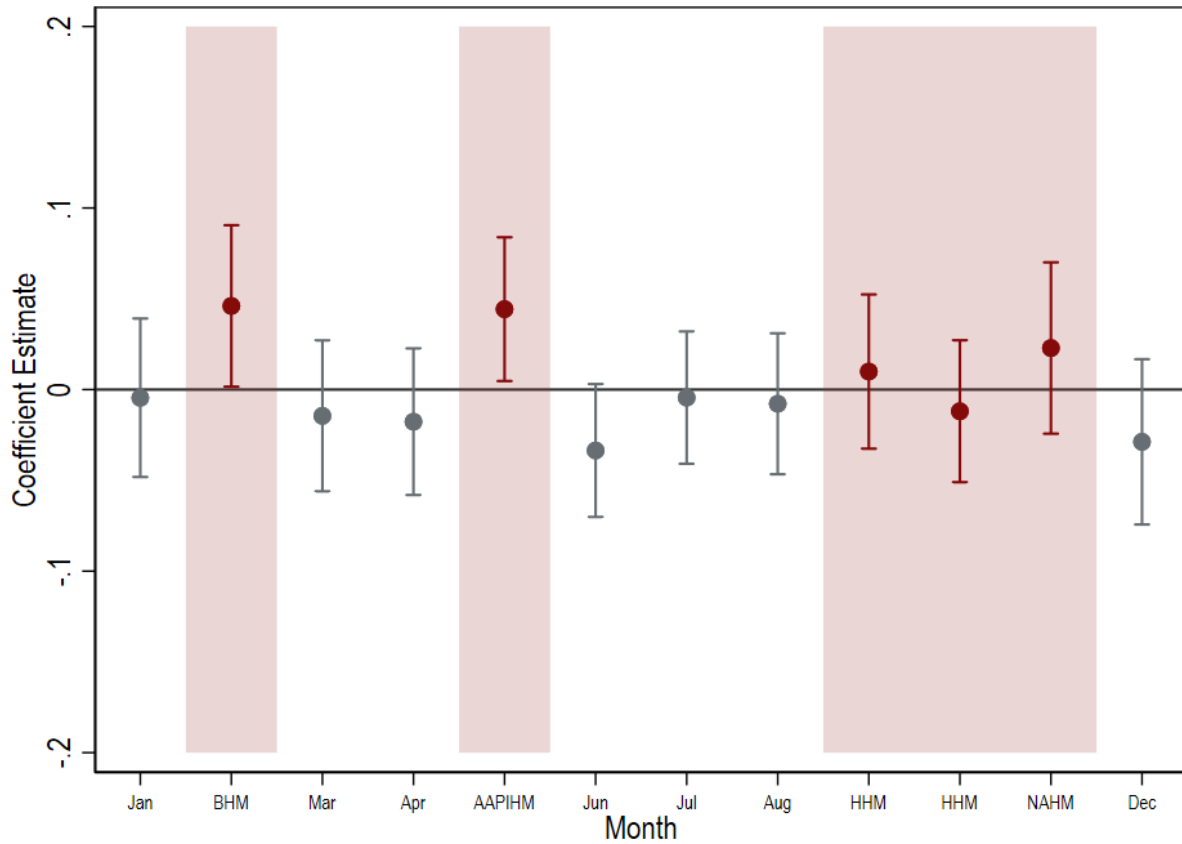
blowing in counties with high White populations. While the coefficient on *NAHM* is positive, it does not reach significance and the coefficient on *HHM* is close to zero. Overall, these results provide evidence that the effect of public attention is also present for other minorities.⁶ The results are graphically presented in Figure 9.

4.7 Robustness tests for OSHA analyses

The assignment of Title VII laws during my sample period is endogenous. Thus, it is possible that my results hold using other indicators for relative differences for whistleblowing barriers within the LGBTQ+ community. For example, political ideology could indicate general acceptance of

6. It is possible that the coefficient on *NAHM* fails to reach significance due to the relatively lower population share of Native American and *HHM* fails to reach significance because my dataset on the county-month level is unable to properly capture the period of heightened attention.

Figure 9: Relatively more whistleblowing during race and ethnicity heritage months



Notes: This plot shows estimates from 12 regressions with an indicator for each month (i.e., using all other 11 months as the control group) interacted with *High White Population*, which is an indicator that equals 1 if the county’s average population share of White individuals is in the top three deciles. The specification used is Table 8 Column (5). The plot displays the coefficient estimate for each regression as well as 90% confidence intervals.

the community. I use historical results of presidential elections over my sample period to assign counties to treatment and control counties. Specifically, I compare conservative counties (i.e., treatment counties), defined as a county that always has a majority for the republican presidential candidate over my sample period, with liberal counties (i.e., control counties), defined as a county that always has a majority for the democratic presidential candidate over my sample period. The results are displayed in Table 10 Column (1). I find a relative increase in whistleblowing of 4% in conservative counties during Pride Month.

An alternative way to assign treatment is to also consider Court of Appeals decisions in the various circuits. For example, a county or state might not have explicit legal protection for LGBTQ+ employees under Title VII, but it might be located in a federal circuit with a ruling that specifically interprets the Title VII prohibition against discrimination based on sex as including discrimination based on sexual orientation and/or gender identity. Similar to the Title VII law and ordinances, such rulings could possibly decrease the whistleblowing costs for LGBTQ+ employees. I create an alternative treatment variable called *No CoA Title VII Protection* that equals 1 if the county has explicit protection for LGBTQ+ employees under their Title VII law or is located in a federal circuit with a ruling that interprets Title VII as applying to LGBTQ+ individuals. The results are displayed in Table 10 Column (2) and show slightly stronger results, with an estimated increase in whistleblowing of 6%.

A large part of the treatment is driven by state laws, rather than county ordinances. Thus, for many counties, the treatment is defined at the state level and using counties as the unit of observation might lead to states with many counties dominating the results. To alleviate this concern, I repeat the analysis at the state level using only state laws and use census region fixed effects, instead of OSHA region fixed effects, to preserve variation. While the results are slightly stronger in terms of magnitude, as shown in Table 10 Column (3), the coefficient loses some statistical significance ($p = 0.09$). This could be driven by the noisier treatment variable when treatment is based on state laws, rather than county ordinances.

Table 10: Archival empirical results are robust to various specifications

	Conservative County (1)	Circuit Court of Appeals (2)	State Level (3)
<i>Dependent Variable: Complaints</i>			
Pride × Conservative County	0.0365* (1.77)		
Pride × No CoA Title VII Protection		0.0536*** (2.78)	
Pride × No Title VII Protection			0.0469* (1.93)
Exposure Variable	Employment	Employment	Employment
Controls	YES	YES	YES
County × Year FE	YES	YES	NO
Region × Size × Year × Month FE	YES	YES	NO
State × Year FE	NO	NO	YES
Region × Year × Month FE	NO	NO	YES
Cluster variable	County-Month	County-Month	State-Month
Number of Clusters	29,933	35,293	576
Used Observations	188,325	224,733	4,608
Pseudo R-squared	0.7229	0.7035	0.9351

Notes: This table reports coefficient estimates from Poisson regressions estimating the effect of public attention on employee whistleblowing using various alternative specifications. Column (1) uses local political ideology as alternative treatment, indicated by voting patterns. Column (2) includes time-varying local fixed effects to control for unobservables and to implement a stacked regression. In this regression, control variables at the state-year level are dropped because they are subsumed by the fixed effects. Column (3) uses an alternative definition for the treatment states, taking U.S. Circuit Court of Appeals rulings into account. Column (4) conducts the analysis at the state-year-month level. Except for Column (4), the observations are at the county-year-month level. The dependent variable is *Complaints* for all regressions, which is the number of employee complaints made to OSHA in a given county-year-month (or state-year-month). The regressions use the number of employees in a given county-year-month (or state-year-month) as exposure to account for differences in the number of individuals who can blow the whistle. *Pride* is an indicator for Pride Month (June). *No Title VII Protection* indicates counties/states without explicit protection for LGBTQ+ employees under Title VII and *No CoA Title VII Protection* indicates counties without explicit protection for LGBTQ+ employees under Title VII taking U.S. Circuit Court of Appeals rulings into account. The region fixed effects in Columns (1) to (3) are based on OSHA regions whereas they are based on census regions in Column (4). All variable descriptions can be found in Appendix Table A1. All specifications cluster at the county-month level, except Column (4), which clusters at the state-month level. T-statistics are displayed in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.

Chapter 5

Survey Experiment

5.1 Design

The major drawbacks of the archival empirical analysis are the missing identification of whistleblowers who are part of the LGBTQ+ community and the lack of data for mechanism exploration. To gain more insight on the topic, I designed a survey experiment.¹ This approach is in contrast to many other survey studies on whistleblowing, which are often limited in their ability to intervene and thus attribute associations to causal relationships (Bloomfield et al., 2016). The survey allows me to ask individuals about their gender identity and sexual orientation, which allows me to identify survey respondents that are part of the LGBTQ+ community and thus “treated” individuals during Pride Month. I run the survey with two survey companies in two waves (one in April and one in June), and the survey companies randomly allocate individuals from their participant pools to the control period (i.e., April) or the period of heightened public attention for the LGBTQ+ community (i.e., Pride Month). Because participants typically reply in the context of their work environment I am able to extract rich data on employees’ whistleblowing concerns and reporting intent (Bloomfield et al., 2016).

To incentivize truthful reporting, all survey respondents are assured that they will remain anonymous and I inform them that I have the ability to adjust the compensation they receive for taking the survey, based on the quality of the answers. While the demographic questions about minority status could potentially be leading, they represent only three out of 20 demographic questions. To reduce the potential for leading questions even further, I ask the minority demographic questions amongst many other demographic questions, including non-standard demographic questions. I reserve any remaining potentially leading questions (related to LGBTQ+ individuals and their experiences related to misconduct and whistleblowing) for the end of the survey, after the answers to the main

1. IRB approval was obtained from the University of Chicago (IRB22-0596).

survey questions are collected because those questions have the potential to reveal the objective of the survey. Lastly, because the survey waves are administered within a short time period, respondents would likely be able to recall the survey (and potentially their answers) from the first wave if they were surveyed repeatedly. To avoid any bias such information could incur, I survey each individual only once, either in the first or the second wave.

The survey is framed as a survey about misconduct in the workplace and reporting of wrongdoing, and it was designed in accordance with the OSHA setting to make the conclusions as applicable as possible to the archival empirical analysis. For example, the main question in the survey specifies that misconduct can be reported to the regulator anonymously and that there is no monetary reward for reporting, which is consistent with the OSHA complaint process.²

To produce enough statistical power for the empirical analyses with limited observations, I use existing records from the survey companies to over-sample the LGBTQ+ community (compared to the United States population share). I also require that the respondents are employed (at least part-time, and not unemployed or self-employed) and at least 18 years old. Because this survey focuses on the difference between LGBTQ+ respondents and respondents who are not part of the LGBTQ+ community, I require consistent answers to multiple questions about the LGBTQ+ status for a respondent to be included in the sample.³ Lastly, to reduce the impact of speeders, I require a minimum response time for a respondent to be included in the sample (e.g., Prescott et al., 2016, Barrero et al., 2021).⁴

The survey is designed to elicit whistleblowing concerns and reporting intent without capturing variation in other dimensions. Schultz et al. (1993) show that whistleblowing intent is not only

2. While anonymous and confidential whistleblowing (both of which are possible for OSHA) are not exactly the same, I use the word anonymous because it is easier for survey respondents to understand. Curtis and Taylor (2009) show that there is no significant difference in reporting likelihood between anonymous and protected identity formats.

3. Specifically, I require respondents' answers to the questions about sexual orientation and gender identity to be consistent with the question "Are you part of the LGBTQ+ community?" to be included in the sample.

4. I define speeders based on the time it reasonably takes to complete the survey given the median length of interview. Specifically, I exclude all respondents who complete the survey in less than half the median time.

influenced by personal costs, but also the severity of the misconduct and the employee's perceived responsibility to report. While previous research often provides scenarios that require respondents to make decisions on more than one dimension (e.g., Curtis and Taylor, 2009), I ask respondents directly about their concerns without an elaborate scenario. Specifically, the scenario states "Imagine you see or experience wrongdoing at work today (such as fraud or a significant safety hazard) that should be reported to a federal regulator. You can choose to report anonymously to the federal regulator, and you will not receive any payment from the government for reporting this incident". Thus, the scenario states that the misconduct should be reported and implies that the employee is responsible to report it, which means that personal costs (or concerns) are the only source of variation.⁵

After stating the scenario, the first part of the main question of interest asks the respondent to score their concerns about potential consequences triggered by whistleblowing. These consequences can be grouped into four categories: retaliation, reputation, regulator, and non-work related. In the retaliation category, I ask respondents about the concern related to monetary retaliation from the employer (e.g., firing, pay cut), non-monetary retaliation from the employer (e.g., increased monitoring, harassment), and non-monetary retaliation from co-workers (e.g., threats, harassment). In the reputation category, I ask respondents how concerned they are about a negative impact on their internal reputation, external reputation (e.g., potential alternative employers), and their employer's reputation when reporting misconduct externally. With respect to the regulator, I ask about respondents' concerns regarding the regulator's interest in the report as well as the regulator's ability to abate the misconduct. Lastly, I ask respondents how concerned they are about increased discrimination, harassment, and/or violence from the general public, as well as their concern about reduced social contact with their co-workers outside of work. The second part of the main question of interest captures the binary whistleblowing intent variable by asking "Would you report this incident to the relevant federal regulator?"

Running the survey in two waves, one of which coincides with Pride Month, allows me to turn

5. It can be especially difficult for respondents to decide what constitutes reportable misconduct because guidance is often lacking (Miceli et al., 2008).

the survey into an experiment and analyze the responses using a DiD framework. Specifically, I have two periods (April and June) and two groups of respondents (LGBTQ+ and not LGBTQ+). June (i.e., Pride Month) is the treatment period, and I compare the change in the responses of LGBTQ+ respondents to the change in the responses of non-LGBTQ+ respondents (i.e., the control group). Thus, I run the following regression:

$$\begin{aligned}
 \text{Dependent Variable}_{i,t} = & \text{Pride}_t \times \text{LGBTQ+}_i + \text{Pride}_t \\
 & + \text{LGBTQ+}_i + \text{Controls}_i + \varepsilon_{i,t}
 \end{aligned} \tag{2}$$

where i denotes a respondent and t denotes the survey wave. *Dependent Variable* is either *Reporting Intent* or one of the reporting concerns; *LGBTQ+* is an indicator that equals 1 if the respondent is part of the LGBTQ+ community, and 0 otherwise; and *Pride* equals 1 if the respondent took the survey in the second wave (i.e., during Pride Month), and 0 otherwise.

The DiD design controls for any unobservable non-varying differences between respondents who are part of the LGBTQ+ community and respondents who are not, as well as general differences between reporting behavior in April and June. In addition, the analysis design helps to control for any idiosyncrasies introduced through the wording of the scenario or the questions. Because I survey different individuals in the first and second waves, slight differences may occur in the within-group sample composition between periods. I test for such differences using the collected demographic information. While I am unable to include all control variables in the regressions owing to the limited sample and power, I do include all control variables that exhibit a significant difference after controlling for *LGBTQ+* and *Pride*. Specifically, these controls are *Age*, *Race/Ethnicity*, *Area*, *Region*, *Manager*, *Union*, *Long Tenure*, *Employer*, and *Employees*. In addition, I control for *High Hazard Industry* and *High Internal Misconduct* to capture potential baseline differences of participants to blow the whistle and familiarity with the process.⁶

6. To maximize my sample size, I ran the survey with two independent survey companies with non-overlapping respondent pools. To control for any potential differences in the way the survey was administered, I include an indicator for the respective survey company in all regressions.

5.2 Summary statistics

Table 1 Panel B shows the summary statistics for the survey experiment. I restrict the sample to respondents who answer all demographic questions as well as the question on whether they intend to report the misconduct, leading to a total of 2,434 observations. Because I oversample the LGBTQ+ community, I have 1,051 responses from individuals who are part of the LGBTQ+ community and 1,383 from respondents who are not part of the LGBTQ+ community. For variable definitions, see Appendix Table A1.

The main outcome variable is *Reporting Intent*, which is a binary variable that equals 1 if the respondent indicates that they would report the misconduct to the federal regulator. On average, about 71% of respondents intend to report the misconduct in the scenario.⁷ The respondents score their whistleblowing concerns on a Likert scale of 1 to 7. For these questions, respondents are able to check a box saying “Does not apply” or “Prefer not to answer,” neither of which I use in my analyses, leading to fewer (and varying) observations for these variables. The average scores for the concerns range from 2.94 to 3.89, with considerable variation both between and within the concerns.

The LGBTQ+ respondents in my sample exhibit characteristics that are consistent with minorities in the U.S. Census Current Population Survey data. Specifically, the LGBTQ+ respondents are less likely to be college educated and less likely to be a manager while being more likely to have shorter tenure and a lower salary. In addition, the LGBTQ+ respondents in my sample are less likely to be cisgender male, are younger, are more likely to be part of a racial minority, and have more liberal political views. They are also more likely to be part of a union, more likely to work for a public company, and more likely to work for a smaller company.

7. Note that the decision to blow the whistle might be lower in practice because employees often have to decide whether an observed misconduct is reportable and whether they are responsible for reporting it. My survey is designed to isolate the reporting choice by clearly stating that the incident should be reported and implying that the survey respondent is responsible for doing so. Thus, without any frictions, 100% of respondents should report the incident in the scenario. In addition, a similar number is reported by the Ethics and Compliance Institute, with 69% of survey respondents who observed misconduct reporting the misconduct in 2017 (ECI, 2021).

5.3 Results

Table 11 shows that public attention during Pride Month strongly increases the reporting intent of LGBTQ+ employees compared with non-LGBTQ+ employees. Because the outcome variable is binary (report or not), all regressions in this table are logistic regressions.⁸ Both regressions include all control variables discussed above though I only display the main coefficients. Column (1) uses the entire sample, and the effect size translates to a relative increase in the willingness to report misconduct by about 48%.⁹ In Column (2), I exclude control observations that are part of a racial minority to get a cleaner assignment of minority and non-minority status in the sample and to reduce any impact of potential spillover effects on other minorities. The effect magnitude increases to 59%, along with an increase in the statistical significance. The estimated effect sizes here tie in well with the estimated effect size in the archival analysis based on estimates on the LGBTQ+ population. In the OSHA data, a treatment county has on average 0.80 complaints per month and an 8.8% LGBTQ+ population share. Assuming this translates to the share of complaints made by LGBTQ+ employees, 0.07 complaints stem from LGBTQ+ employees ($0.80 \times 8.8\%$). The estimated increase in complaints is about 0.029 per county-month, which represents a 41% increase in whistleblowing activity.¹⁰

To get a better understanding of why LGBTQ+ employees' willingness to report misconduct increases during Pride Month, I estimate DiD OLS regressions with the score for a particular concern (i.e., a score of 1 to 7 on the Likert scale) as the dependent variable. Table 12 shows the results. The control observations in the sample are limited to non-LGBTQ+ employees who are not part of a racial minority, as in Column (2) of Table 11. Compared with White non-LGBTQ+ respondents, some concerns of respondents who are part of the LGBTQ+ community decrease significantly. This includes the concerns about non-monetary retaliation by employers, increases in public discrimination, and negative impacts on their external and internal reputation. The effects

8. The results hold when using ordinary least squares (OLS) regressions.

9. This is calculated as $(e^{0.3895} - 1) * 100 = 47.62\%$.

10. Assuming proportional complaint is likely an overestimation, which, in turn, underestimates the increase in whistleblowing here.

Table 11: Pride Month increases LGBTQ+ respondents' reporting intent in survey experiment

<i>Dependent Variable: Reporting Intent</i>	Full Sample (1)	Non-Minority as Control (2)
Pride × LGBTQ+	0.3895** (2.08)	0.4606** (2.34)
LGBTQ+	-0.0851 (-0.67)	-0.1001 (-0.71)
Pride	-0.0172 (-0.14)	-0.0979 (-0.73)
Control Group Respondents	Not LGBTQ+	White & Not LGBTQ+
Controls	YES	YES
Observations	2,434	2,140
Pseudo R-squared	0.0200	0.0252

Notes: This table reports coefficient estimates from logistic regressions estimating the effect of Pride Month on employee whistleblowing by members of the LGBTQ+ community. The dependent variable is *Reporting Intent*, which is a binary variable that equals 1 if the respondent indicates that they would report the misconduct to the federal regulator. *Pride* is an indicator that equals 1 for the wave that was run during Pride Month (June), and *LGBTQ+* indicates whether the respondent is part of the LGBTQ+ community. Column (1) uses the entire sample of valid responses. Column (2) restricts the control observations to employees who are neither part of the LGBTQ+ community nor a racial or ethnic minority. All variable descriptions can be found in Appendix Table A1. The standard errors are heteroskedasticity-robust, and T-statistics are displayed in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.

range from decreases in the relative concern from 0.36 to 0.60. To put this into perspective, the coefficient sizes are between 18% and 30% of the respective standard deviations. In addition, the estimated coefficients for concerns about non-monetary retaliation by co-workers, and monetary retaliation by employers are economically significant but fail to reach statistical significance, likely because my survey lacks power. While public attention seems to decrease many whistleblowing concerns of LGBTQ+ employees, it does not seem to have an effect on the employees' concerns about their firm's reputation, their social life, and regulator enforcement, both with respect to economic significance and statistical significance.¹¹ While this is indicative of no significant change in the perceived benefits to whistleblowing, about 35% of LGBTQ+ respondents report that they are more comfortable reporting misconduct during Pride Month. Thus it is possible that empowerment of a minority partially drives my results.

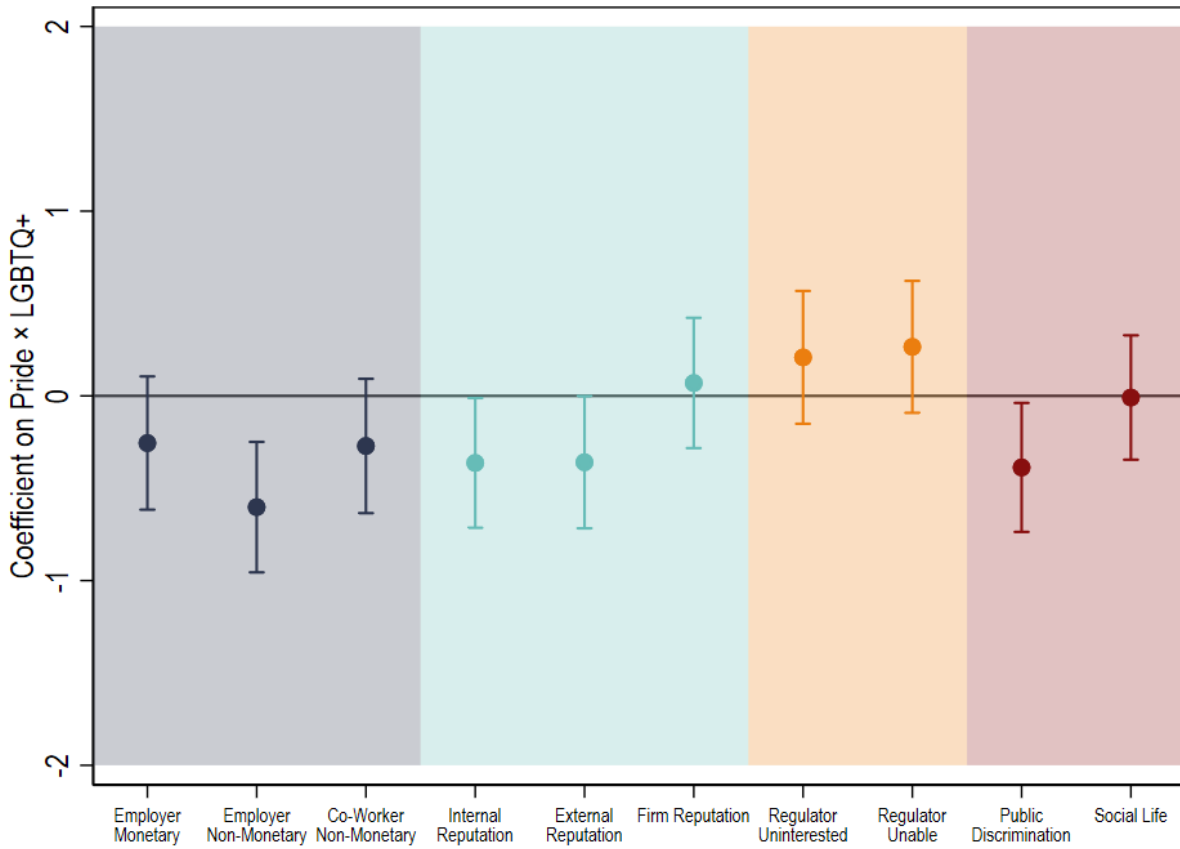
11. Even though the survey was framed as a survey about reporting of wrongdoing in the workplace and all leading questions are asked after the main part of the survey, it is possible that some LGBTQ+ respondents understood the ultimate objective of the survey and bias their concerns downwards. However, such a systematic bias would likely affect all concerns, whereas my analyses show large differences in the coefficients in Table 12. Thus, it is unlikely that my results are driven by such a bias.

Table 12: Mechanism test shows decrease in whistleblowing concerns of LGBTQ+ employees

<i>Panel A:</i>					
<i>Dependent Variable: Reporting Concern</i>	Employer Non-Monetary (1)	Public Discrimination (2)	External Reputation (3)	Internal Reputation (4)	Co-Worker Non-Monetary (5)
Pride × LGBTQ+	-0.6023*** (-2.81)	-0.3875* (-1.83)	-0.3594* (-1.65)	-0.3629* (-1.70)	-0.2712 (-1.23)
LGBTQ+	0.4720** (2.48)	0.3007 (1.60)	0.2725 (1.42)	0.2445 (1.29)	0.1807 (0.91)
Pride	-0.0304 (-0.22)	-0.0809 (-0.57)	-0.1694 (-1.17)	-0.1632 (-1.15)	-0.2219 (-1.53)
Controls	YES	YES	YES	YES	YES
Observations	1,357	1,354	1,360	1,363	1,354
Adj. R-squared	0.2692	0.2699	0.2196	0.2294	0.2579
<i>Panel B:</i>					
<i>Dependent Variable: Reporting Concern</i>	Employer Monetary (6)	Social Life (7)	Firm Reputation (8)	Regulator Uninterested (9)	Regulator Unable (10)
Pride × LGBTQ+	-0.2555 (-1.17)	-0.0090 (-0.04)	0.0698 (0.33)	0.2085 (0.95)	0.2653 (1.22)
LGBTQ+	0.1271 (0.66)	-0.0517 (-0.28)	0.0179 (0.09)	-0.0401 (-0.21)	0.0436 (0.23)
Pride	-0.2492* (-1.68)	-0.2213 (-1.56)	-0.1534 (-1.07)	-0.2636* (-1.78)	-0.2674* (-1.79)
Controls	YES	YES	YES	YES	YES
Observations	1,352	1,319	1,355	1,355	1,352
Adj. R-squared	0.2381	0.3299	0.1670	0.1698	0.1634

Notes: This table reports coefficient estimates from ordinary least squares (OLS) regressions estimating the effect of Pride Month on employee whistleblowing concerns for members of the LGBTQ+ community. The dependent variable is one of the 10 whistleblowing concerns, which respondents score on a Likert-scale of 1 to 7 to indicate their extent of concern in the whistleblowing context. The control group is restricted to non-minority employees as in Table 11 Column (2). *Pride* is an indicator that equals 1 for the wave that was run during Pride Month (June), and *LGBTQ* indicates whether the respondent is part of the LGBTQ+ community. All variable descriptions can be found in Appendix Table A1. The standard errors are heteroskedasticity-robust, and T-statistics are displayed in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.

Figure 13: Decreased concerns for LGBTQ+ survey respondents during Pride Month



Notes: This plot shows estimates from the 10 regressions in Table 12 Panels A and B, ordered by topic. The blue coefficients capture concerns related to retaliation, the green coefficients capture concerns related to reputation, the yellow coefficients capture concerns about the regulator, and the red coefficients capture non-work-related concerns. The plot displays the coefficient estimate on $Pride \times LGBTQ+$ for each regression as well as 90% confidence intervals.

Chapter 6

Conclusion

Compared with other stakeholders, employees are relatively well informed about misconduct at their workplace because they can acquire information through their daily activities. However, employees might be reluctant to share such information with regulators, especially if they expect significant adverse consequences for blowing the whistle; This reluctance is likely greater for minorities relative to non-minorities. Focusing on the LGBTQ+ community, I examine whether public attention affects whistleblowing by minority employees.

Comparing counties with explicit protection for LGBTQ+ employees under Title VII with those lacking such protection, I find a relative increase in whistleblowing in the latter counties (i.e., counties with relatively higher expected whistleblowing costs) during Pride Month (June), which indicates a period of heightened public attention for the LGBTQ+ community. I also find that this result is concentrated in states with relatively higher LGBTQ+ population shares and that other minorities behave similarly. I provide complementary evidence from a survey experiment that shows that LGBTQ+ respondents' willingness to report misconduct increases during Pride Month, relative to non-LGBTQ+ respondents, and that Pride Month reduces LGBTQ+ respondents' whistleblowing concerns related to retaliation, reputational effects, and adverse responses from the general public.

Whistleblowing is an important governance mechanism and employees are a valuable information source that is increasingly used (and needed) by regulators. Differences in whistleblowing barriers can introduce systematic differences in monitoring and enforcement, which can exacerbate the inequality that minorities face in the labor market. Overall, my findings suggest that public attention can increase whistleblowing by minorities. While minorities might feel empowered to report misconduct during periods of heightened attention, I show that the results are at least partly driven by a decrease in whistleblowing concerns. This study is only a first step and further improving our understanding of whistleblowing concerns can help regulators, firms, and policymakers reduce

(unequal) barriers to whistleblowing.

Although I show a robust effect of public attention on whistleblowing, I am only able to estimate a lower bound of the treatment effect because it is likely that public attention also increases whistleblowing in control counties (though at a smaller rate). In addition, the public attention in my study is, on average, favorable towards the minority in question and it is unclear how minorities respond to less favorable public attention. Another caveat is that I am not able to distinguish between internal and external whistleblowing activity. Aside from data availability constraints, my study focuses on external whistleblowing because internal whistleblowing can be ineffective (Soltes, 2020) and is likely a weaker deterrent for misconduct owing to the lack of transparency and information dissemination. However, part of the effect size could be driven by differential increases in internal whistleblowing. Lastly, while my study focuses on misconduct that is closely related to ESG issues through working conditions and worker safety, it is unclear to what extent my findings could be replicated in other settings. While many factors in my setting are general and similar to other whistleblower settings, future research could examine any differences in the effect stemming from the institutional setting.

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Appendix

Table A1: Variable definitions

<i>No Title VII Protection</i>	This variable indicates whether a county explicitly protects LGBTQ+ employees under Title VII. It equals 1 if the county does not explicitly protect LGBTQ+ employees, and 0 otherwise. If a state explicitly protects LGBTQ+ employees under Title VII but the county does not have its own ordinance, the variable still equals 1.
<i>No CoA Title VII Protection</i>	This variable indicates whether a county explicitly protects LGBTQ+ employees under Title VII and also takes decisions by the U.S. Circuit Court of Appeals into account. It equals 1 if the county does not explicitly protect LGBTQ+ employees and if the local Circuit Court of Appeals has not ruled in favor of protecting LGBTQ+ employees under Title VII, and 0 otherwise. If a state explicitly protects LGBTQ+ employees under Title VII but the county does not have its own ordinance, the variable still equals 1.
<i>Pride</i>	<i>Pride</i> is an indicator that equals 1 for the month June, and 0 otherwise.
<i>Complaints</i>	<i>Complaints</i> is the number of non-imminent employee complaints made to OSHA. These data are aggregated to the county-year-month.
<i>Serious Complaints</i>	<i>Serious Complaints</i> is the number of serious employee complaints made to OSHA. These complaints contain allegations that are likely to cause harm to employees or put them in danger.
<i>Inspected Complaints</i>	<i>Inspected Complaints</i> is the number of employee complaints made to OSHA that lead to an inspection. These data are aggregated to the county-year-month based on the date of the associated complaint.
<i>Employment</i>	This variable captures the number of employees in a given county-year-month in thousands. The data stem from the QCEW Data Files from the U.S. Bureau of Labor Statistics.

Table A1: Variable definitions (continued)

<i>Violations</i>	<i>Violations</i> is the number of violations stemming from planned (i.e., random) OSHA inspections scaled by planned inspections in a given county-year-month. These data are computed from publicly available OSHA data. When included in a regression, this variable is transformed using the inverse hyperbolic sine.
<i>Accidents</i>	<i>Accidents</i> is the number of OSHA accident inspections per 1,000 employees in a given county-year-month. These data are computed from publicly available OSHA data. When included in a regression, this variable is transformed using the inverse hyperbolic sine.
<i>Inspections</i>	<i>Inspections</i> is the number of planned (i.e., random) OSHA inspections per 1,000 establishments in a given county-year-month. These data are computed from publicly available OSHA data and the QCEW Data Files from the U.S. Bureau of Labor Statistics. When included in a regression, this variable is transformed using the inverse hyperbolic sine.
<i>Construction Employment</i>	This variable captures percent of employees employed in the construction industry in a given county-year-month. The data stem from the QCEW Data Files from the U.S. Bureau of Labor Statistics. When included in a regression, this variable is transformed using the inverse hyperbolic sine.
<i>Abnormal Temperature</i>	<i>Abnormal Temperature</i> is the difference between the average temperature of the given county-year-month and the same county's average temperature over the last 30 years for the same month. This difference is measured in Fahrenheit and the data stems from the National Centers for Environmental Information. This variable is winsorized at the 5 th and 95 th percentile. When this variable is included, I also include the interaction of the variable with <i>Year</i> and <i>Month</i> .

Table A1: Variable definitions (continued)

<i>High LGBTQ+</i>	This variable is a binary indicator that indicates a state’s relative size of the LGBTQ+ population. These data stem from the Household Pulse Survey from the U.S. Census Bureau, averaging the survey waves 34-46 which were run in 2021 and 2022. To calculate the share of LGBTQ+ individuals I scale the number of individuals that answered “yes” under “Lesbian, Gay, Bisexual and Transgender,” by the individuals that answered “no.” The indicator <i>High LGBTQ+</i> equals 1 if the state has an above median share of LGBT individuals, and 0 otherwise.
<i>BHM</i>	<i>BHM</i> is an indicator that equals 1 if the month is February (i.e., Black History Month), and 0 otherwise.
<i>AAPIHM</i>	<i>AAPIHM</i> is an indicator that equals 1 if the month is May (i.e., Asian American and Pacific Islander Heritage Month), and 0 otherwise.
<i>NAHM</i>	<i>NAHM</i> is an indicator that equals 1 if the month is November (i.e., Native American Heritage Month), and 0 otherwise.
<i>HHM</i>	<i>HHM</i> is an indicator that equals 1 if the month is September or October (i.e., Hispanic Heritage Month), and 0 otherwise.
<i>High White Population</i>	This binary variable indicates the share of the White population in a county. This variable is created using data from the Current Population Survey made available by the U.S. Census Bureau. I use data from 2012 to 2019 and calculate the average share of the White population in a given county over those years. I then use the average share at the county-level to create deciles. <i>High White Population</i> equals 1 if the county’s White population share is in the top 3 deciles, and 0 otherwise.
<i>Detected Violations</i>	This variable captures the number of detected violations by OSHA inspectors during random inspections. These data are aggregated to the county-year-month.
<i>Random Inspections</i>	This variable captures the number of random (i.e., programmed) inspections by OSHA. These data are aggregated to the county-year-month.

Table A1: Variable definitions (continued)

<i>Urban</i>	This variable is based on data from the U.S. Office of Management and Budget and equals 1 if a county lies within a metropolitan statistical area, and 0 otherwise.
<i>Conservative County</i>	This variable is a binary indicator that equals 1 if the county always has a majority for the republican presidential candidate over my sample period and 0 if the county always has a majority for the democratic presidential candidate over my sample period.
<i>Reporting Intent</i>	This variable is created from the survey response to the question “Would you report this incident to the relevant federal regulator?” The variable equals 1 if the respondent answers “Yes,” and 0 if the respondent answers “No.”
<i>Employer Monetary</i>	This variable is created from the score that survey respondents assign to the the potential whistleblowing concern “My supervisor/employer will take steps that negatively impact my payment (such as getting fired, taking a pay- or hour-cut, smaller bonus payments, not being promoted, etc.)” The response is scored on a Likert scale and the variable ranges from 1-7. Responses from participants who answer that this concern is not applicable or would prefer not to answer are excluded.
<i>Co-Worker Non-Monetary</i>	This variable is created from the score that survey respondents assign to the the potential whistleblowing concern “My co-workers will take steps that negatively impact my regular workday (such as being assigned harder jobs, spreading rumors, threats, harassment, verbal or physical abuse, violence, etc.)” The response is scored on a Likert scale and the variable ranges from 1-7. Responses from participants who answer that this concern is not applicable or would prefer not to answer are excluded.
<i>Internal Reputation</i>	This variable is created from the score that survey respondents assign to the the potential whistleblowing concern “Reporting will negatively impact my reputation with my co-workers and/or my supervisor.” The response is scored on a Likert scale and the variable ranges from 1-7. Responses from participants who answer that this concern is not applicable or would prefer not to answer are excluded.

Table A1: Variable definitions (continued)

<i>External Reputation</i>	This variable is created from the score that survey respondents assign to the the potential whistleblowing concern “Reporting will impact my reputation more generally (e.g., potential alternative employers will be hesitant to hire me).” The response is scored on a Likert scale and the variable ranges from 1-7. Responses from participants who answer that this concern is not applicable or would prefer not to answer are excluded.
<i>Firm Reputation</i>	This variable is created from the score that survey respondents assign to the the potential whistleblowing concern “Reporting will have a negative impact on the company I work for (e.g., reputation, lost profits, etc.)” The response is scored on a Likert scale and the variable ranges from 1-7. Responses from participants who answer that this concern is not applicable or would prefer not to answer are excluded.
<i>Regulator Uninterested</i>	This variable is created from the score that survey respondents assign to the the potential whistleblowing concern “The regulator does not care about this and will not take my complaint seriously.” The response is scored on a Likert scale and the variable ranges from 1-7. Responses from participants who answer that this concern is not applicable or would prefer not to answer are excluded.
<i>Regulator Unable</i>	This variable is created from the score that survey respondents assign to the the potential whistleblowing concern “The regulator is not able to reduce wrongdoing at my workplace in the long run.” The response is scored on a Likert scale and the variable ranges from 1-7. Responses from participants who answer that this concern is not applicable or would prefer not to answer are excluded.
<i>Public Discrimination</i>	This variable is created from the score that survey respondents assign to the the potential whistleblowing concern “I will face increased discrimination, harassment, and/or violence outside of the workplace.” The response is scored on a Likert scale and the variable ranges from 1-7. Responses from participants who answer that this concern is not applicable or would prefer not to answer are excluded.

Table A1: Variable definitions (continued)

<i>Social Life</i>	This variable is created from the score that survey respondents assign to the the potential whistleblowing concern “I won’t be invited to non-work-related social events by my supervisor or co-workers anymore.” The response is scored on a Likert scale and the variable ranges from 1-7. Responses from participants who answer that this concern is not applicable or would prefer not to answer are excluded.
<i>LGBTQ+</i>	This variable is created from various questions asking about gender identity (“How do you describe yourself?”) and sexual orientation (“What best describes your sexual orientation?”). Based on these answers, the variable equals 1 if the respondent is part of the LGBTQ+ community, and 0 otherwise. This classification is tested against the question “Are you part of the LGBTQ+ community?” and respondents with inconsistent answers are excluded.
<i>Male</i>	This variable is created from the demographic question “What is your age?” Respondents were provided with 10 age buckets. Those buckets are combined to reflect ages 30 and Under, 31 to 50, and Over 50. These are binary indicators that equal 1 if the respondent falls into the respective category, and 0 otherwise.
<i>R or E</i>	This variable is created from the demographic question “Which of the following best describes your ethnic background?” This variable captures both race and ethnicity. Respondents have the choice between White, Black or African American, Asian, Hispanic, Native American, and a textbox to describe themselves. Native American includes individuals identifying as Pacific Islander. Whenever possible, I assign respondents to groups based on their free text answer and I create a group “Mixed” capturing respondents who indicate mixed race/ethnicity. These are binary indicators that equal 1 if the respondent falls into the respective category, and 0 otherwise.
<i>College Degree</i>	This variable is an indicator that equals 1 if the survey respondent indicates that they have completed a college degree using the question “What is the highest level of school you have completed or the highest degree you have received?”

Table A1: Variable definitions (continued)

<i>Political Views</i>	<p>This variable is created from the demographic question “Where would you place yourself along the political spectrum?” in the survey. Respondents have the choice between Conservative, Moderate leaning conservative, Moderate, Moderate leaning liberal, Liberal, and a textbox to describe themselves. Moderate leaning liberal and Liberal are classified as <i>Liberal</i> while Moderate leaning conservative and Conservative are classified as <i>Conservative</i>. Whenever possible, I assign respondents to groups based on their text answer. The binary indicators equal 1 if the respondent falls into the respective category, and 0 otherwise.</p>
<i>Region</i>	<p>This variable is created from the demographic question “Which state do you currently live in?” in the survey. Respondents can choose their state and I combine answers based on the U.S. Census Regions (Northeast, Midwest, South, and West). The binary indicators equal 1 if the respondent falls into the respective category, and 0 otherwise.</p>
<i>Area</i>	<p>This variable is created from the demographic question “Which statement below best describes the area in which you live?” in the survey. Respondents have the choice between Within a large or major city, Suburb of a large or major city, Within a mid-sized city or town, Suburb of a mid-sized city or town, Within a smaller-size town, and Country or farm area. The binary indicators equal 1 if the respondent falls into the respective category, and 0 otherwise.</p>
<i>Part-Time Employment</i>	<p>This variable is created from the demographic question “What best describes your employment status?” in the survey. Respondents have the choice between Working full-time, and Working part-time (less than 35 hours). The indicator equals 1 if the respondent works part-time, and zero otherwise.</p>
<i>Manager</i>	<p>This variable is created from the demographic question “What best describes your current position?” in the survey. Respondents have the choice between Entry-level, Non-entry-level (non-management), Lower management, Middle management, Executive management, and a textbox to describe themselves. Whenever possible, I assign respondents to groups based on their text answer. The indicator <i>Manager</i> equals 1 if the respondent falls into any of the management categories, and 0 otherwise.</p>

Table A1: Variable definitions (continued)

<i>Union</i>	This variable is created from the demographic question “Are you part of a union?” in the survey. Respondents have the choice between Yes, No, and Not sure. The indicator <i>Union</i> equals 1 if the respondent answers “Yes”, and 0 otherwise.
<i>Long Tenure</i>	This variable is created from the demographic question “Approximately, how long have you worked for your current employer?” in the survey. Respondents have the choice between Less than 1 year, 1-5 years, 5-10 years, 10-15 years, 15-20 years, and More than 20 years. The indicator <i>Long Tenure</i> equals 1 if the respondent has worked for the company for at least 5 years, and 0 otherwise.
<i>Salary</i>	This variable is created from the demographic question “Which of the following best represents your personal total salary before taxes?” in the survey. Respondents have the choice between 11 salary categories ranging from Less than \$25,000 to \$200,000 or more. I create four groups based on the answers representing salaries under \$50,000, between \$50,000 and \$100,000, \$100,000 to \$200,000, and over \$200,000. The binary indicators equal 1 if the respondent falls into the respective category, and 0 otherwise.
<i>Employer</i>	This variable is created from the demographic question “What best describes where you are employed?” in the survey. This variable has four categories, <i>Public Company</i> , <i>Private Company</i> , <i>Non-Profit</i> , and <i>Government</i> . <i>Public Company</i> equals 1 if the respondent chooses the answer “Public company (listed on stock exchange),” and 0 otherwise. <i>Private Company</i> equals 1 if the respondent chooses the answer “Small private company,” “Medium sized private company,” or “Large private company,” and 0 otherwise. <i>Non-Profit</i> equals 1 if the respondent chooses the answer “Not-for-profit organization,” and 0 otherwise. <i>Government</i> equals 1 if the respondent chooses the answer “Government (local, state, or federal),” and 0 otherwise.
<i>Employees</i>	This variable is created from the demographic question “How many employees work in your establishment?” in the survey. Respondents have the choice between 9 categories ranging from 1-4 employees to 1,000 or more. I create four groups based on the answers representing employer sizes below 50 employees, 50 to 249 employees, 250 to 999 employees, and 1000 employees or more. The binary indicators equal 1 if the respondent falls into the respective category, and 0 otherwise.

Table A1: Variable definitions (continued)

<i>High Hazard Industry</i>	<i>High Hazard Industry</i> is an indicator that equals 1 if the survey participant indicates working in an industry with high occupational hazards. Those industries include Agriculture, Mining, Utilities, and Construction (i.e., NAICS 1-digit codes 1, 2, and 3).
<i>High Internal Misconduct</i>	<i>High Internal Misconduct</i> is an indicator that equals 1 if the survey participant indicates that they are exposed to more misconduct at work than their average co-worker.
