# The Safety Shield: How Classified Boards Benefit Rank-and-File Employees

This version: September 2025

Xiaoran Ni<sup>1</sup>
Xiamen University

Jin Xu<sup>2</sup>
Hong Kong Polytechnic University

David Yin<sup>3</sup> *Miami University* 

We thank participants in 2024 FMA European conference (Turin), Wuhan University, Fudan University, Jinan University for valuable comments. All errors are our own.

<sup>&</sup>lt;sup>1</sup> Department of Finance, School of Economics & Wang Yanan Institute for Studies in Economics (WISE), Xiamen University. Email: nxr@xmu.edu.cn

<sup>&</sup>lt;sup>2</sup> School of Accounting and Finance, Hong Kong Polytechnic University. Email: jinxu0209@gmail.com

<sup>&</sup>lt;sup>3</sup> Department of Finance, Farmer School of Business, Miami University. Email: davidyin@miamioh.edu

# The Safety Shield: How Classified Boards Benefit Rank-and-File Employees

#### **Abstract**

Despite mounting shareholder pressure to eliminate classified boards, 40% of S&P 500 firms maintain them, suggesting unrealized benefits beyond managerial entrenchment. Building on Shleifer and Summers' (1988) bonding hypothesis, we examine whether classified boards protect rank-and-file employees—stakeholders who lack explicit contracts yet bear substantial costs during takeovers. Using establishment-level injury data from 1,135 firms during 2002-2011, we document that firms with classified boards experience 12-13% lower workplace injury rates. To establish causality, we employ instrumental variables based on directors' historical governance preferences and a difference-in-differences design exploiting staggered board declassifications. Following declassification, injury rates increase by 15-18% over three years with no pre-trends. The protective effects operate through three channels: increased discretionary spending per employee (8-10%), reduced abnormal production levels (5%), and enhanced analyst coverage (14%). These effects concentrate among financially constrained firms and those with weak monitoring mechanisms, where the commitment value of classified boards is highest. The safety improvements are associated with higher Tobin's Q, suggesting that protecting employee welfare enhances rather than destroys shareholder value. Our findings reveal that classified boards benefit rank-and-file employees beyond the executives and major business partners documented in prior literature, providing novel evidence for how anti-takeover provisions facilitate valuable stakeholder commitments.

**Keywords:** Classified Board; Anti-Takeover; Workplace Safety; Employee Well-being; Stakeholder

**JEL:** G30; G34; J28

#### 1. Introduction

Classified boards stand at the center of one of corporate governance's most contentious debates. Agency theory predicts that staggered boards entrench underperforming managers, destroying shareholder value by insulating them from market discipline (Bebchuk and Cohen, 2005; Faleye, 2007). The bonding hypothesis offers a competing view: by reducing takeover vulnerability, classified boards enable firms to credibly commit to implicit contracts with stakeholders, encouraging relationship-specific investments that enhance long-term value (Shleifer and Summers, 1988; Johnson, Karpoff, and Yi, 2015). While recent evidence documents benefits for major customers and suppliers (Cen, Dasgupta, and Sen, 2016; Johnson, Karpoff, and Yi, 2022; Fich, Harford, and Yore, 2025), the impact on rank-and-file employees remains unexplored despite compelling evidence that ordinary workers bear substantial costs during takeovers through layoffs, wage cuts, and benefit reductions (Dessaint, Golubov, and Volpin, 2017; Chatt, Gustafson, and Welker, 2021).

We examine whether classified boards protect employee welfare by analyzing their effect on workplace safety. Safety provides an ideal empirical setting for three reasons. First, safety investments exemplify the commitment problem at the heart of the bonding hypothesis: infrastructure upgrades, training programs, and hazard mitigation require sustained investment over years, yet these expenditures are discretionary and easily cut when firms face takeover pressure. Second, workplace accidents generate enormous economic costs exceeding \$250 billion annually in the United States (Cohn and Wardlaw, 2016), making safety outcomes economically meaningful for firm value. Third, unlike wages or employment levels that involve complex tradeoffs, workplace injuries represent pure deadweight losses that damage productivity, reputation, and morale (Kniesner and Leeth, 2014; Larcker et al., 2023).

Using establishment-level injury data from OSHA combined with a comprehensive classified board database from Guernsey et al. (2025), we examine 50,457 establishment-year observations from 1,135 public firms during 2002-2011. Firms with classified boards experience injury rates 12-13% lower than those without, preventing dozens of workplace accidents annually for the typical firm. This reduction translates to direct cost savings in the millions of dollars before accounting for indirect costs such as lost productivity and reputational damage. The effect is economically meaningful: a one standard deviation increase in classified board protection is associated with a 0.25 standard deviation decrease in injury rates, comparable in magnitude to the effects of financial constraints documented by Cohn and Wardlaw (2016).

To establish causality, we employ three identification strategies. First, we use entropy balancing (Hainmueller, 2012) to achieve covariate balance between treatment and control groups. Second, we implement an instrumental variable approach based on directors' historical governance preferences formed at other firms, following Foroughi et al. (2022). These preferences predict classified board adoption but are unlikely to directly affect establishment-level safety practices, satisfying the exclusion restriction. The IV estimates indicate even larger effects, with classified boards reducing injury rates by approximately 20%. Third, we exploit staggered board declassifications driven by external pressure from activist investors and proxy advisory firms (Karpoff and Wittry, 2023; Cohen and Wang, 2017). Following declassification, injury rates increase by 15-18% over three years, with no evidence of pre-trends, consistent with the gradual erosion of safety investments as takeover vulnerability rises.

Our analysis reveals three mechanisms through which classified boards enhance workplace safety. First, these firms allocate 8-10% more resources to discretionary expenses per employee, including safety-related expenditures. This increased spending translates directly into safety

outcomes: a one standard deviation increase in discretionary spending is associated with a 0.15 standard deviation reduction in injuries. Second, they maintain 12% lower abnormal production requirements, avoiding the excessive workloads that precipitate accidents (Caskey and Ozel, 2017; Wu et al., 2023). The effect is particularly pronounced during periods of earnings pressure, when firms without classified boards increase production by 18% while those with protection maintain stable levels. Third, classified boards attract additional analysts, enhancing external monitoring that Bradley, Mao, and Zhang (2022) show improves safety outcomes.

The protective effects exhibit important heterogeneity. The relationship between classified boards and safety is 40% stronger when firms are financially constrained, consistent with Cohn and Wardlaw (2016). In the bottom tercile of internal monitoring (measured by board independence and institutional ownership), classified boards reduce injuries by 18%, compared to 8% in the top tercile. Similarly, the effect is twice as large in competitive industries (HHI < 0.1) where takeover pressure is typically higher. These patterns confirm that classified boards matter most when other protective mechanisms are absent.

To assess whether improved safety represents value transfer or value creation, we examine the relationship between classified boards, workplace injuries, and Tobin's Q. Firms with classified boards exhibit 6% higher valuations on average. Importantly, this positive association is concentrated among firms with low injury rates. These results suggest that protecting employee welfare creates value for shareholders as well, supporting theoretical perspectives that stakeholder commitments can benefit all parties (Freeman, 1984; Blair and Stout, 1999).

This paper makes three main contributions. First, we identify a specific mechanism through which classified boards benefit rank-and-file employees: improved workplace safety. While

extensive research examines effects on shareholders, executives, and major business partners (Bebchuk and Cohen, 2005; Johnson, Karpoff, and Yi, 2015, 2022; Guernsey, Sepe, and Serfling, 2022), the impact on ordinary workers has been overlooked. Our findings reveal substantial spillover effects of governance structures on employee welfare, addressing the gap noted by Dey and White (2021) regarding anti-takeover provisions' broader impact on workers.

Second, we expand the bonding hypothesis by demonstrating that anti-takeover provisions protect not only relationships with major stakeholders but also commitments to employee welfare. This extension is particularly important given that rank-and-file employees represent the most vulnerable stakeholder group during corporate control changes, frequently bearing costs that other stakeholders can contractually avoid (Liang, Renneboog, and Vansteenkiste, 2020; Masulis, Wang, and Xie, 2020). Our evidence that classified boards create a stable environment with stronger safety commitments provides new insights into how governance structures affect the broad base of corporate stakeholders.

Third, we contribute to the workplace safety literature by establishing corporate governance as a key determinant of safety outcomes, complementing prior work on financial constraints (Cohn and Wardlaw, 2016), monitoring (Bradley, Mao, and Zhang, 2022), and regulatory factors (Caskey and Ozel, 2017). We also help reconcile conflicting evidence on classified boards' value implications. While some studies document negative effects (Bebchuk and Cohen, 2005; Cohen and Wang, 2013), others find positive effects (Cremers, Litov, and Sepe, 2017; Amihud and Stoyanov, 2017). By identifying workplace safety as a value-creation channel, we demonstrate that classified boards can enhance firm value precisely by protecting stakeholder interests, informing debates about shareholder versus stakeholder governance models.

The remainder of this paper is organized as follows. Section 2 reviews the relevant literature and develops our theoretical framework and hypotheses. Section 3 describes our data sources and empirical methodology. Section 4 presents our main empirical results, including baseline findings, identification strategies, robustness checks, economic mechanisms, and cross-sectional analyses of the relationship between classified boards and workplace safety. Section 5 concludes with a discussion of our contributions, implications for corporate governance theory and practice, and directions for future research.

#### 2. Literature Review and Theoretical Framework

### 2.1 Classified Boards and Anti-Takeover Provisions

Classified boards represent one of the most consequential anti-takeover mechanisms available to public firms (Bebchuk, Coates, and Subramanian, 2002). By dividing directors into classes with staggered terms, classified boards prevent hostile acquirers from replacing a board majority in a single proxy contest, thereby increasing the costs and time required to complete a takeover. This protective feature has made classified boards a focal point in debates regarding shareholder versus stakeholder interests in corporate governance.

The literature on classified boards presents conflicting evidence regarding their effect on firm value, reflecting the fundamental tension between shareholder primacy and stakeholder welfare perspectives. Several studies document negative valuation effects, consistent with the agency theory view that classified boards primarily serve managerial entrenchment (Bebchuk and Cohen, 2005; Faleye, 2007; Cohen and Wang, 2013). These studies argue that by insulating management from market discipline, classified boards exacerbate agency problems and reduce shareholder value by allowing managers to pursue their private benefits at shareholders' expense.

Conversely, recent work finds positive effects of classified boards under certain conditions, supporting the stakeholder theory perspective. Cremers, Litov, and Sepe (2017) show that classified boards are associated with increased firm value in innovation-intensive industries where relationship-specific investments are particularly valuable. Similarly, Daines, Li, and Wang (2021) find that classified boards lead to greater innovation output and more valuable patents. Amihud and Stoyanov (2017) document that classified boards can enhance firm value under specific circumstances. These studies suggest that classified boards can enhance long-term value creation by protecting firms from short-term market pressures when long-term investments are crucial.

This theoretical tension creates an empirical puzzle: if classified boards primarily serve managerial entrenchment, we would expect them to be associated with worse outcomes for rank-and-file employees as entrenched managers extract private benefits. However, if classified boards facilitate bonding with stakeholders, we would expect improved outcomes for these employees. The mixed evidence highlights the need to move beyond examining direct effects on shareholder value to investigate specific mechanisms through which classified boards affect organizational outcomes and stakeholder welfare. We contribute to this literature by examining how classified boards affect a critical yet understudied dimension of stakeholder welfare: workplace safety for rank-and-file employees.

#### 2.2 The Bonding Hypothesis and Stakeholder Relationships

The "bonding hypothesis," initially proposed by Shleifer and Summers (1988) and further developed by Johnson, Karpoff, and Yi (2015, 2022), offers a theoretical framework for understanding how anti-takeover provisions affect stakeholder relationships. This hypothesis posits that anti-takeover provisions enable firms to credibly commit to maintaining implicit

contracts with key stakeholders, thereby facilitating relationship-specific investments that enhance long-term value creation.

Recent empirical work has provided support for the bonding hypothesis across various stakeholder relationships. Johnson, Karpoff, and Yi (2015) find that anti-takeover provisions enhance IPO firm value when companies have important external stakeholder relationships. Cen, Dasgupta, and Sen (2016) demonstrate that takeover threats disrupt customer-supplier relationships, reducing relationship-specific investments. Specifically, they show that customer firms reduce their dependence on suppliers that become exposed to takeover threats, consistent with concerns about potential disruptions to supply relationships.

Despite extensive work on the bonding hypothesis, prior research has focused almost exclusively on relationships with major customers, suppliers, and top management. Little attention has been paid to how anti-takeover provisions affect relationships with and commitments to rank-and-file employees—despite evidence that these employees often bear significant costs during corporate takeovers (Dessaint, Golubov, and Vansteenkiste, 2017; Masulis, Wang, and Xie, 2020; Liang, Renneboog, and Vansteenkiste, 2020). This represents a crucial gap in our understanding of how governance structures influence the largest and often most vulnerable stakeholder group in most corporations.

### 2.3 Workplace Safety Determinants

Workplace safety represents a critical dimension of employee welfare with substantial economic consequences. Cohn and Wardlaw (2016) document that workplace injuries cost U.S. firms over \$250 billion annually through direct medical expenses, workers' compensation claims, lost productivity, and reputational damage. They demonstrate that financial constraints lead firms to reduce safety investments, resulting in increased injury rates.

Recent studies have identified several factors influencing workplace safety. Bradley, Mao, and Zhang (2022) find that analyst coverage improves workplace safety through enhanced external monitoring. They document that firms with greater analyst following experience lower workplace injury rates, with this effect being stronger when analysts specialize in the firm's industry. Caskey and Ozel (2017) show that firms increase employee workloads to meet earnings expectations, leading to higher injury rates. They find that managers pressure employees to work harder when firms are at risk of missing earnings benchmarks, with detrimental consequences for workplace safety. Bai, Lee, and Zhang (2020) document that regulatory changes affecting financial markets can impact workplace safety through their effects on human capital investments.

Despite these advances, the literature has largely overlooked how broader corporate governance structures, particularly takeover defenses, influence safety outcomes. Our study addresses this significant gap by examining how classified boards affect workplace safety for rank-and-file employees, connecting the largely separate literatures on corporate governance and workplace safety.

#### 2.4 Economic Mechanisms

Our theoretical framework builds on the bonding hypothesis to explain how classified boards affect workplace safety. The central insight is that anti-takeover provisions enable firms to credibly commit to implicit contracts with stakeholders, particularly rank-and-file employees who lack explicit contractual protections (Shleifer and Summers, 1988; Johnson, Karpoff, and Yi, 2015). This commitment mechanism becomes especially valuable for workplace safety, where investments are difficult to verify and benefits accrue over long horizons.

Consider the manager's optimization problem. Without takeover protection, managers face pressure to maximize short-term shareholder value, potentially sacrificing employee welfare.

Acquirers often reduce workforce costs post-takeover through layoffs, wage cuts, and reduced benefits (Dessaint, Golubov, and Volpin, 2017; Liang, Renneboog, and Vansteenkiste, 2020). Anticipating this, employees may underinvest in firm-specific human capital, creating a classic hold-up problem. Classified boards mitigate this inefficiency by reducing takeover vulnerability, enabling managers to maintain implicit contracts regarding workplace conditions and safety investments.

This protection is particularly valuable because both managers and rank-and-file employees hold undiversified portfolios with substantial wealth tied to their employer. Unlike diversified shareholders, they share preferences for risk reduction and employment stability. Classified boards enable managers to act on these aligned preferences without fear of disciplinary takeovers. We therefore expect firms with classified boards to exhibit lower workplace injury rates than their unprotected counterparts.

The takeover-myopia channel provides additional theoretical support. Takeover pressure induces managers to sacrifice long-term investments for short-term performance (Stein, 1988, 1989). Safety investments exemplify this trade-off—they require substantial upfront expenditures for equipment, training, and process improvements, with benefits materializing gradually through reduced accidents, lower insurance costs, and improved productivity. Under takeover threat, managers may rationally underinvest in safety to boost near-term earnings. Classified boards insulate managers from such pressures, enabling appropriate safety investments. This protection proves especially valuable given that safety investments are largely unobservable to outside investors, making them vulnerable to opportunistic cuts. Consequently, we expect protected firms to allocate more resources to discretionary expenditures per employee, including safety-related investments.

Short-term market pressures also manifest through production decisions. Caskey and Ozel (2017) document that firms increase workplace injuries when pushing to meet earnings benchmarks, as excessive workloads lead to fatigue and higher accident rates. Classified boards reduce pressure to maximize short-term output at the expense of sustainable operations. Protected from hostile takeovers that might be triggered by temporary earnings shortfalls, managers can maintain appropriate production levels and work schedules. This suggests that firms with classified boards should maintain lower abnormal production levels per employee.

Beyond these managerial channels, classified boards may affect workplace safety through employee-side mechanisms. Takeover threats create uncertainty that can increase workplace accidents through reduced employee focus and higher turnover of experienced workers. By providing employment stability, classified boards allow employees to concentrate on their tasks without distraction from corporate control concerns.

These mechanisms should vary predictably in strength across firms. Financial constraints intensify pressure to cut discretionary expenditures, including safety investments (Cohn and Wardlaw, 2016). Without takeover protection, financially constrained firms face particularly strong incentives to sacrifice safety for short-term liquidity. We therefore expect the protective effect of classified boards on workplace safety to be more pronounced for financially constrained firms.

The bonding hypothesis further suggests that classified boards prove most valuable when alternative governance mechanisms are weak. When internal monitoring through board oversight or external monitoring through analyst coverage and institutional ownership is limited, the commitment device provided by classified boards becomes essential for protecting implicit

contracts. This implies a stronger relationship between classified boards and workplace safety for firms with weaker monitoring mechanisms.

Industry characteristics should also moderate these effects. In competitive industries where takeover pressure is typically higher and stakeholder relationships are more transactional, classified boards should provide greater protective benefits. Similarly, non-relationship industries, where implicit contracts are harder to sustain without formal protection mechanisms, should exhibit stronger effects.

These predictions collectively suggest that classified boards affect workplace safety through multiple complementary channels: enabling credible commitments to employees, reducing myopic underinvestment, maintaining sustainable production levels, and providing employment stability. The relative importance of these mechanisms varies systematically across firms in ways that reinforce the protective role of classified boards for employee welfare. Our empirical analysis exploits this cross-sectional variation to identify the causal effect of takeover protection on workplace safety and to distinguish among competing theoretical explanations.

# 3. Data and Empirical Design

#### 3.1 Data Sources and Sample Construction

We utilize two primary data sources to examine the relationship between classified boards and workplace safety. First, we obtain establishment-level injury data from the U.S. Occupational Safety and Health Administration (OSHA), which collects comprehensive workplace safety information from approximately 80,000 private sector establishments annually. The OSHA data include establishment name, location, employment figures, worked hours, and detailed injury statistics. Second, we employ a novel classified board database compiled by Guernsey, Guo, Liu, and Serfling (2025), which offers significant advantages over traditional governance databases like

the Institutional Shareholder Services (ISS). While ISS covers only S&P 1500 firms and lacks data for periods before or after index inclusion, the Guernsey et al. database encompasses all U.S. public firms from 1991 to 2020, providing substantially broader coverage.

Our sample period spans 2002 to 2011, with these boundaries determined by data availability constraints. The starting year reflects a significant change in OSHA injury reporting standards in 2002, making earlier data incomparable with later observations. The ending year corresponds to the cessation of the OSHA data collection program due to federal funding cuts in 2012.

To construct our sample, we manually match OSHA establishments to their corresponding firms in Compustat based on name similarity. When direct matches are unavailable, we conduct additional searches through Hoovers, company websites, and other online resources to identify establishments belonging to subsidiaries of Compustat-listed firms. Each Compustat firm may have multiple associated establishments in our dataset.

We apply several filters to ensure data quality and comparability. We exclude financial firms and regulated utilities (SIC codes 6000-6999 and 4900-4999), following standard practice in the corporate finance literature. To align financial data with injury statistics, which are measured on a calendar-year basis, we restrict the sample to firms with December fiscal year-ends. We require non-missing values for all variables employed in our primary analyses. These criteria yield a final sample of 50,457 establishment-years from 13,097 unique establishments belonging to 1,135 distinct Compustat firms. We winsorize all continuous variables, excluding logged values, at the 1st and 99th percentiles to mitigate the influence of outliers.

Table 1, Panel A presents the distribution of workplace injuries over our sample period. The average Total Case Rate (TCR) shows a general downward trend from 11.17 in 2002 to 5.67 in

2010, with a notable decline occurring after 2005. The number of observations increases steadily over the period, from 5,234 in 2002 to 6,885 in 2005. Panel B displays the average TCR by industry using the Fama-French 12-industry classification. Healthcare, Medical Equipment, and Drugs exhibit the highest injury rates (9.99), followed by Wholesale, Retail, and Some Services (9.49), while Chemicals and Allied Products show the lowest (3.04).

# [Insert Table 1 here]

# 3.2 Variable Measurement and Descriptive Statistics

Our primary dependent variable is the Total Case Rate (*TCR*), which measures the number of workplace injuries and illnesses per 100 full-time equivalent workers. Following OSHA guidelines and prior literature (Caskey and Ozel, 2017; Bradley, Mao, and Zhang, 2022), we calculate *TCR* as the total number of recordable incidents in an establishment-year divided by the total hours worked by all employees, multiplied by 200,000. The multiplication factor represents the hours worked by 100 full-time employees over a year (2,000 hours per employee), standardizing the measure across establishments of different sizes. Higher *TCR* values indicate worse workplace safety outcomes.

Our key independent variable, *Classified Board*, is an indicator equal to one if a firm maintains a classified (staggered) board structure and zero otherwise. This information comes from the comprehensive database compiled by Guernsey et al. (2025), which provides classified board status for all U.S. public firms from 1991 to 2020.

We include a comprehensive set of firm-level and establishment-level controls following the established literature on workplace safety determinants (Cohn and Wardlaw, 2016; Bradley, Mao, and Zhang, 2022). At the firm level, we control for *Size* (natural logarithm of beginning total

assets) to account for scale economies in safety investments. *Leverage* (ratio of total debt to total assets) captures financial constraints that may limit safety expenditures. *PPE* (net property, plant, and equipment scaled by total assets) controls for capital intensity, which affects workplace hazard exposure. *Sales* (current period sales divided by beginning total assets) captures operational intensity, while *CAPEX* (capital expenditures scaled by beginning total assets) accounts for new investments that may influence workplace conditions. *Market-to-book ratio* (M/B, market value of assets divided by book value) proxies for growth opportunities and intangible assets.

At the establishment level, we control for *HoursPerEmployee* (annual hours worked divided by the number of employees), as longer work hours are associated with increased fatigue and accident risk. This combination of firm-level and establishment-level controls helps isolate the effect of classified boards on workplace safety from other potential determinants.

Table 2 presents summary statistics for our sample. Panel A reports establishment-level variables. The mean *TCR* of 8.3 implies that, in an average establishment-year, approximately 8.3 recordable injuries or illnesses occur per 100 full-time workers. The median *TCR* of 6.82 suggests a right-skewed distribution. The typical establishment in our sample employs 284 workers, with employees working an average of 1,925 hours annually.

Panel B summarizes firm-level characteristics. The median firm in our sample has a natural logarithm of assets of approximately 7.1, corresponding to total assets of around \$1.2 billion. The average leverage ratio is 24%, while property, plant, and equipment represent 27% of total assets on average. Sales turnover averages \$1.27 per dollar of beginning assets, and capital expenditures average 4% of beginning assets. The median market-to-book ratio is 1.38, consistent with values reported in prior studies (Cohn and Wardlaw, 2016).

#### [Insert Table 2 here]

# 3.3 Empirical Design

To investigate the relationship between classified boards and workplace safety, we estimate the following baseline specification:

$$TCR_{i,j,t} = \beta_0 + \beta_1 CB_{j,t} + \gamma X_{i,t} + \partial Y_{j,t} + \theta_i + \delta_{lt} + \varphi_{st} + \varepsilon_{ijt}$$
(1)

where  $TCR_{i,j,t}$ , is the injury rate equivalent for 100 full-time employees of firm j's establishment i in year t;.  $CB_{j,t}$  is an indicator variable that equals one if the firm has classified board and zero otherwise. The vector  $X_{i,t}$  and  $Y_{j,t}$  stands for the establishment-level and firm-level control variables.  $\theta_i$  represents establishment fixed effects;  $\delta_{lt}$  denotes industry-by-year fixed effects; and  $\varphi_{st}$  captures state-by-year fixed effects. The coefficient of interest,  $\beta_1$ , measures the effect of classified boards on workplace injury rates.

Our identification strategy leverages multiple fixed effects to address potential omitted variable bias. Establishment fixed effects control for time-invariant establishment characteristics that may influence injury rates, such as physical layout, location, and persistent safety culture. This approach focuses our analysis on within-establishment variation in safety outcomes following changes in classified board status rather than cross-sectional comparisons that may be subject to selection bias. Industry-by-year fixed effects account for time-varying industry factors that might affect workplace safety, such as technological changes or industry-specific regulatory developments. In some specifications, we also include state-by-year fixed effects to control for state-level economic conditions and regulatory changes.

We estimate Equation (1) using ordinary least squares (OLS) with standard errors clustered at the firm level to account for potential correlation in error terms across establishments within the same firm and over time. This approach follows established practice in both the workplace safety literature (Cohn and Wardlaw, 2016; Bradley, Mao, and Zhang, 2022) and corporate governance research (Cremers, Litov, and Sepe, 2017). While our baseline specification with multiple fixed effects addresses many concerns about omitted variable bias, we acknowledge that endogeneity may still affect our estimates. To establish a more convincing causal relationship, we implement three complementary identification strategies in subsequent analyses: entropy balancing to achieve covariate balance, an instrumental variable approach based on directors' governance preferences, and a difference-in-differences design exploiting staggered declassification events.

Our establishment-level analysis provides several advantages over firm-level aggregation. First, it allows us to exploit within-firm variation across establishments, providing more precise estimates. Second, establishment-level data better captures the local safety conditions and management practices that directly affect workers. Third, the granular data provides greater statistical power and helps identify heterogeneous effects across different types of facilities within the same firm.

## 4. Empirical Results

This section tests our primary theoretical prediction that classified boards enhance workplace safety by enabling firms to make credible commitments to employees and reducing managerial myopia. We begin by examining the baseline relationship between classified boards and workplace injury rates, then address potential endogeneity concerns through three complementary identification strategies. Subsequently, we explore the economic mechanisms through which classified boards affect safety outcomes and analyze how these effects vary across firm characteristics. Finally, we investigate the implications of our findings for firm value.

# 4.1 Main Effect of Classified Boards on Workplace Safety

To test our hypothesis that classified boards reduce workplace injuries, we estimate fixedeffects regressions relating injury rates to classified board status while controlling for firm and establishment characteristics. Table 3 presents these results, with all specifications including industry-by-year fixed effects to account for time-varying industry factors.

In Column (1), we include firm fixed effects to control for time-invariant firm characteristics that may influence safety outcomes. The coefficient on Classified Board is negative and statistically significant at the 1% level, indicating that establishments of firms with classified boards experience significantly lower injury rates. This represents approximately a 12.9% reduction relative to the sample mean TCR of 8.3, a substantial economic effect. The control variables largely align with expectations from prior literature (Cohn and Wardlaw, 2016): workplace injuries exhibit positive associations with leverage, property, plant, and equipment, and capital expenditures, reflecting heightened injury risk in firms with greater financial constraints and capital intensity. Larger establishments, indicated by Size, are associated with lower injury rates, potentially reflecting economies of scale in safety investments.

To address concerns about unobserved heterogeneity at the establishment level, Column (2) employs establishment fixed effects, which subsume firm-level fixed effects and allow us to identify the effect of classified boards on workplace safety from within-establishment variation over time. Despite this more demanding specification, the coefficient on *Classified Board* remains negative and statistically significant at the 1% level, representing a 12.9% reduction in injury rates relative to the sample mean. The persistence of this effect across specifications suggests that our results are not driven by time-invariant establishment characteristics.

Column (3) further includes state-by-year fixed effects to control for time-varying local economic conditions and regulatory environments that might influence workplace safety. The coefficient on Classified Board remains negative and significant at the 1% level, corresponding to an 12.6% reduction in injury rates. This robust result indicates that our findings are not attributable to state-level economic or regulatory changes coinciding with classified board status changes.

Collectively, these results provide strong initial evidence supporting our hypothesis that classified boards enhance workplace safety. The economic magnitude—an 11-13% reduction in injury rates—is substantial, particularly given that workplace injuries cost U.S. firms over \$250 billion annually (Cohn and Wardlaw, 2016). However, despite our comprehensive set of controls and fixed effects, concerns about endogeneity may persist. We address these concerns in the following section.<sup>1</sup>

### [Insert Table 3 here]

# 4.2 Endogeneity Concerns and Identification Strategies

The observed relationship between classified boards and workplace safety may reflect endogeneity rather than a causal effect. For instance, firms with better safety records might adopt classified boards to protect their human capital investments, or unobserved factors might simultaneously determine both classified board adoption and safety outcomes. To establish a more convincing causal relationship, we employ three complementary identification strategies: entropy balancing, instrumental variable analysis, and a difference-in-differences design exploiting staggered declassification events.

<sup>-</sup>

 $<sup>^{1}</sup>$  In untabulated tests, we also examine whether classified boards predict future injury rates (TCR<sub>t+1</sub>). Results remain robust, with classified boards associated with a 14.3% reduction in next-year injury rates, suggesting the relationship is not driven by reverse causality.

Our first approach addresses potential selection bias using the Entropy Balancing Method (EBM) introduced by Hainmueller (2012). Unlike traditional matching techniques that discard observations, EBM reweights the control group to achieve covariate balance with the treatment group while maintaining statistical efficiency. We balance firms with and without classified boards on observable characteristics that might influence workplace safety, ensuring that differences in these characteristics do not drive our results.

Panel A of Table 4 presents the results using the entropy-balanced sample. The coefficient on Classified Board remains negative and statistically significant at the 1% level in both specifications. With firm fixed effects (Column 1), the coefficient is -0.894, representing a 10.8% reduction in injury rates relative to the sample mean. With establishment fixed effects (Column 2), the coefficient is -0.663, corresponding to an 8.0% reduction. These results suggest that observable differences between firms with and without classified boards do not explain our findings.

Our second approach employs a Two-Stage Least Squares (2SLS) method using directors' governance preferences as an instrument for classified board adoption. The instrument, *IV\_Board Interlock*, captures the classified board preferences of directors based on their experiences at other firms (Hambrick and Mason, 1984; Foroughi et al., 2022). The instrument satisfies the exclusion restriction because directors' preferences, shaped by experiences across multiple firms and industries, are disconnected from establishment-level safety practices at any particular firm. Directors typically serve on multiple boards over their careers, making their governance preferences reflect aggregated experiences rather than specific workplace safety considerations. Board-level governance decisions occur at corporate headquarters, several organizational layers removed from establishment-level safety management (Finkelstein, Hambrick, and Cannella, 2009). While directors influence governance structures, they do not directly control operational

decisions like safety training or equipment maintenance. Their impact on safety outcomes flows indirectly through governance structures that shape management incentives. The relevance condition is also supported by evidence that directors who previously served on classified boards are more likely to implement such structures at other firms (Chin et al., 2013; Foroughi et al., 2022; Beck, Nicoletti, and Stuber, 2022). This persistence in governance preferences provides the strong first-stage relationship necessary for valid instrumentation.

Panel B of Table 4 presents the 2SLS results. The first-stage results in Column 1 show that *IV\_Board Interlock* is significantly positively associated with Classified Board at the 1% level (0.374). The F-statistic of 18.85 substantially exceeds the conventional threshold of 10, confirming instrument relevance. The second-stage results in Column 2 show a negative and significant coefficient on the instrumented Classified Board variable (-5.703, significant at the 5% level), which is larger in magnitude than our baseline OLS estimates. This suggests that endogeneity may actually attenuate rather than drive our baseline results, potentially due to measurement error or omitted variables that bias the coefficient toward zero.<sup>2</sup>

Our third identification strategy exploits staggered board declassifications as quasi-natural experiments. During our sample period, these declassifications were primarily driven by external pressure from activist investors, proxy advisory firms, and institutional shareholder campaigns advocating "good governance" practices (Guernsey et al., 2025). The plausible exogeneity of declassification events to workplace safety rests on several factors. First, declassification campaigns led by institutional investors and proxy advisors like ISS and Glass Lewis targeted classified boards based on general governance principles rather than firm-specific operational

<sup>&</sup>lt;sup>2</sup> We also explored alternative instrumental variables including peer firm declassification events, local and industry-average classified board adoption rates. However, these instruments suffered from weak first-stage relationships (F-statistics below 10), suggesting they lack sufficient relevance.

concerns (Karpoff and Wittry, 2023; Catan and Klausner, 2017). These campaigns applied broad pressure across firms regardless of workplace safety records. Second, declassification timing was determined by external factors—shareholder meeting schedules, activist campaign timing, and evolving market-wide governance norms—rather than workplace safety considerations. Guernsey et al. (2025) document that declassifications followed industry waves and peer pressure, not firm-specific operational metrics. Third, review of shareholder proposals reveals that declassification advocates focus on board accountability and takeover vulnerability, with no mention of employee welfare or workplace safety (Cohen and Wang, 2017; Ge, Tanlu, and Zhang, 2016). While managers might anticipate certain financial effects of declassification, workplace injury rates are unlikely to be targeted outcomes when deciding whether to oppose declassification pressure. This disconnect strengthens the plausible exogeneity of our treatment.

We implement difference-in-differences comparing injury rate changes around declassification events to contemporaneous changes at firms maintaining classified boards. We pre-balance treatment and control firms using entropy balancing, matching the first three moments of covariates to mitigate model misspecification concerns (McMullin and Schonberger, 2020). We winsorize control weights at the 1st and 99th percentiles (McMullin and Schonberger, 2022).

Panel C of Table 4 presents results. Column 1 shows declassification increases injury rates by 1.322 (p<0.01), representing a 15.8% increase. Column 2 presents dynamic effects. Predeclassification indicators are insignificant, confirming parallel trends. Post-declassification indicators are positive and significant, with magnitudes increasing over time: 28.7% at t+2, 29.5% at t+3, 22.5% at t+4, and 31.1% at t+5 or more. This persistence and growth in effects align with classified boards exerting long-run governance influence rather than temporary impacts.

Together, these three identification strategies provide compelling evidence that classified boards causally reduce workplace injury rates. The consistency of results across these approaches, each addressing different sources of endogeneity concern, strengthens our confidence in a causal interpretation of the relationship between classified boards and workplace safety.

## [Insert Table 4 here]

#### 4.3 Robustness Checks

We conduct extensive robustness tests to ensure our findings are not sensitive to alternative specifications, variable definitions, or sample restrictions. Table 5 reports these results. Panel A addresses potential omitted variable bias by incorporating additional controls. Column 1 includes firm age (natural logarithm of years since IPO), as Guernsey et al. (2025) document systematic variation in classified board prevalence across firm lifecycles. Column 2 adds board characteristics including size, independence, and female representation, which prior literature links to both governance choices and corporate social responsibility (Bai, 2013; Boulouta, 2013). Column 3 controls for the entrenchment index to isolate the effect of classified boards from other antitakeover provisions. Column 4 includes insider and institutional ownership percentages, as ownership structure may influence both governance choices and safety investments. The coefficient on *Classified Board* remains negative and statistically significant across all specifications, comparable to our baseline estimate. These results indicate that omitted variables related to firm maturity, board composition, alternative governance mechanisms, or ownership structure do not drive our findings.

Given substantial industry variation in workplace hazards, Panel B verifies robustness to alternative industry classifications. We employ Fama-French 12 industries, Fama-French 48 industries, two-digit SIC codes, and three-digit SIC codes, following various approaches in the

safety literature (Cohn et al., 2021; Cohn and Wardlaw, 2016; Liang et al., 2023). The coefficient on Classified Board remains negative and statistically significant across all specifications, indicating our results do not depend on particular industry categorizations.

To examine whether our results reflect a general effect of takeover protection rather than a specific feature of classified boards, Panel C analyzes other E-index components. Consistent with the bonding hypothesis, we find heterogeneous effects based on provision characteristics. Provisions requiring long-term commitment (limits to amend bylaws/charter, supermajority requirements) show negative associations with injury rates similar to classified boards, while provisions providing short-term protection (golden parachutes, poison pills) show no significant effects. This pattern supports our interpretation that governance mechanisms enabling credible long-term commitments, rather than takeover protection per se, drive safety improvements.

Our establishment-level analysis raises concerns about firms with multiple establishments receiving disproportionate weight. Panel D addresses this by aggregating data to the firm level. Following Bradley, Mao, and Zhang (2022), we calculate firm-level TCR as the employment-weighted average across establishments and re-estimate our models. The coefficient on Classified Board remains negative and statistically significant in specifications with both firm fixed effects and industry-by-year fixed effects. These firm-level results confirm that our findings do not reflect the multi-establishment structure of certain firms. The consistency of results across these alternative specifications, control variables, industry classifications, and aggregation levels strengthens our confidence that the negative relationship between classified boards and workplace injury rates is robust and not an artifact of our empirical choices.

### [Insert Table 5 here]

# 4.4 Alternative Measures of Workplace Safety

Following previous research (Cohn and Wardlaw, 2016; Bradley, Mao, and Zhang, 2022), we employ alternative measures of workplace safety to verify that our results are not driven by our specific operationalization of the dependent variable. Table 5 presents these results, using our preferred specification with establishment and industry-by-year fixed effects.

Columns 1-4 use alternative OSHA-recommended safety metrics: Ln(num), the natural logarithm of the number of injuries; DART, the rate of cases with days away from work, restricted work activity, or job transfer; DAFWII, the rate of cases with days away from work; and IRII, the injury-related incident index. Columns 5-8 reconstruct these measures by scaling them by the number of employees instead of working hours, following Chen et al. (2022) and Stroschein (2017), to address potential concerns about data errors in reported working hours. Across all eight specifications, the coefficient on *Classified Board* remains negative and statistically significant at conventional levels, with magnitudes indicating economically meaningful effects.

To provide additional evidence on the relationship between classified boards and workplace safety using an alternative data source, we examine KLD ratings related to employee health and safety. Following Bradley, Mao, and Zhang (2022), we focus on "Health and Safety Strengths" and "Health and Safety Concerns" from the KLD database. We also construct a safety index, defined as "Health and Safety Strengths" minus "Health and Safety Concerns," to assess a company's net performance in health and safety. These measures corroborate our main results using an independent measure of workplace safety from a different data source, further supporting our conclusion that classified boards enhance employee safety. The coefficient estimates on classified boards remain positive and significant for both *Health and Safety Strengths* and the

Safety Index, confirming that our main findings are robust to alternative measures of workplace safety and are not artifacts of a particular measurement approach.

Our last alternative measure focuses on labor violations, providing another perspective on how governance structures influence employee welfare. Following Li and Raghunandan (2021), we obtain labor violation data from Violation Tracker, a comprehensive database of federal agency enforcement actions. We construct two measures: *Labor\_penalty*, the natural logarithm of one plus the total dollar value of penalties paid; and *Labor\_violation*, an indicator for whether at least one violation occurred in a year.

Columns (11) and (12) of Table 6 presents firm-level analyses of these measures. The coefficient on *Classified Board* is negative and significant for both *Labor\_penalty* and *Labor\_violation*, indicating that firms with classified boards experience fewer labor violations and pay lower penalties when violations do occur. These results provide additional evidence that classified boards improve workplace conditions beyond our primary injury rate measures.

These comprehensive robustness checks collectively demonstrate that the negative relationship between classified boards and workplace injury rates is not an artifact of our specific measurement approaches, control variables, industry classifications, or level of analysis. The consistency of results across these alternative specifications strengthens our confidence in the robustness of our main findings.

### [Insert Table 6 here]

#### 4.5 Economic Mechanisms

Having established a robust negative relationship between classified boards and workplace injury rates, we now explore the economic mechanisms through which this effect operates. Our

theoretical framework suggests that classified boards enable managers to invest in long-term safety measures by reducing short-term takeover pressures. Ideally, we would measure specific safety-related expenditures such as maintenance, training, and oversight programs. However, companies do not report such expenditures separately. Following prior literature, we use Ln(SGA/emp), the natural logarithm of selling, general, and administrative expenses per employee, as a proxy for safety-related investments.

Column 1 of Table 7 reports the results of regressing *Ln(SGA/emp)* on *Classified Board*, controlling for firm characteristics and including establishment and industry-by-year fixed effects. The coefficient on *Classified Board* is positive and statistically significant at the 1% level, indicating that firms with classified boards allocate approximately 4.5% more resources to discretionary expenses per employee. This finding supports the mechanism that classified boards enable greater investment in employee safety by reducing pressure for short-term cost-cutting.

Column 2 of Table 7 examines whether classified boards affect production intensity, a key driver of workplace accidents documented by Caskey and Ozel (2017). Following their methodology, we calculate abnormal discretionary production as the residual from industry-year regressions of production costs on sales and lagged sales. The negative and significant coefficient on *Classified Board* indicates that protected firms maintain production levels approximately 5% below industry norms after controlling for sales. This finding aligns with evidence that pressure to meet earnings targets leads firms to accelerate production at the expense of safety (Wu et al., 2023). By reducing vulnerability to hostile takeovers triggered by earnings shortfalls, classified boards enable managers to resist pressures for unsustainable production increases. While data limitations prevent us from observing specific safety expenditures directly, the patterns in discretionary

spending and production intensity support our hypothesis that classified boards facilitate safety investments by mitigating short-term performance pressures.

Our third mechanism involves external monitoring through analyst coverage. Classified boards may enhance management stability and reduce agency problems related to information disclosure, creating a more transparent environment that attracts analyst following (Jiraporn et al., 2012). Bradley, Mao, and Zhang (2022) document that analyst coverage improves workplace safety through enhanced external monitoring. Column 3 of Table 7 reports the results of regressing Ln(1+Analysts), the natural logarithm of one plus the number of analysts following the firm, on Classified Board. The coefficient is positive and statistically significant at the 1% level, indicating that firms with classified boards have approximately 13.7% greater analyst coverage. This result suggests that classified boards may indirectly improve workplace safety by fostering an environment conducive to external monitoring.

These findings collectively support our theoretical framework, demonstrating that classified boards improve workplace safety through multiple complementary channels: increased safety expenditures, reduced employee workloads, and enhanced external monitoring. These mechanisms help explain how governance structures designed primarily to regulate the shareholder-manager relationship can have substantial spillover effects on employee welfare.

### [Insert Table 7 here]

#### 4.6 Cross-Sectional Variation in Classified Board Effects

Our theoretical framework predicts that the protective effects of classified boards should vary systematically with firm characteristics affecting managerial flexibility and stakeholder

vulnerability. We test these predictions by examining heterogeneous treatment effects across theoretically motivated partitions.

We first examine whether classified boards provide greater benefits when financial constraints limit managerial flexibility. Cohn and Wardlaw (2016) demonstrate that financial constraints force firms to reduce safety investments, leading to higher injury rates. This trade-off becomes particularly acute under takeover pressure, as managers facing hostile threats must demonstrate short-term performance improvements. Classified boards can mitigate these pressures by insulating managers from market discipline, allowing them to maintain safety expenditures even when facing financial constraints. Panel A of Table 8 tests this prediction using four measures of financial constraints: the Hadlock-Pierce SA index, Altman's Z-score, free cash flow scaled by assets, and cash holdings. Across all measures, the protective effect of classified boards is substantially stronger among financially constrained firms, with magnitudes approximately 40% larger than in unconstrained firms. This pattern confirms that classified boards matter most when financial pressures to sacrifice safety are most severe.

The bonding hypothesis suggests that classified boards serve as commitment devices, substituting for other governance mechanisms that protect stakeholder relationships. When firms operate in transparent information environments with strong external monitoring, market forces and reputational concerns may sufficiently protect employee welfare. However, when these alternative mechanisms are weak, formal governance structures become essential for maintaining implicit contracts. Panels B and C test this substitution effect using measures of information opacity and institutional ownership. In opaque information environments where monitoring is difficult, classified boards show approximately 35% stronger effects on workplace safety. Similarly, firms with limited institutional ownership, which typically face less external scrutiny,

exhibit larger benefits from classified board protection. These results support our prediction that classified boards become particularly valuable when alternative monitoring mechanisms fail to protect stakeholder interests.

Competition intensifies pressure for cost reduction and operational efficiency, potentially encouraging managers to sacrifice employee welfare for competitive advantage. In concentrated industries with market power, firms can more easily absorb the costs of safety investments without jeopardizing their competitive position. Panel D examines how industry competition, measured by the Herfindahl-Hirschman Index, moderates the classified board effect. In highly competitive industries (low HHI), the protective effect of classified boards is approximately 42% stronger than in concentrated industries. This pattern aligns with our hypothesis that takeover protection becomes more valuable when competitive pressures threaten stakeholder commitments.

Some industries rely heavily on relationship-specific investments and repeated interactions, creating natural incentives for maintaining implicit contracts. In these "relationship industries," reputational mechanisms may partially substitute for formal governance protections. Panel E distinguishes between relationship and non-relationship industries following the classification in Cremers, Nair, and Peyer (2008). Non-relationship industries, where implicit contracts are harder to sustain through informal mechanisms, show significantly stronger benefits from classified boards. This heterogeneity suggests that classified boards provide formal protection for stakeholder commitments that would otherwise depend on fragile relational contracts.

The systematic variation in treatment effects across these theoretically motivated partitions strengthens our causal interpretation. Classified boards consistently show stronger effects precisely where theory predicts they should matter most: when firms face binding constraints, lack

alternative governance mechanisms, operate in competitive environments, or cannot rely on relationship-based commitments. This predictable heterogeneity is difficult to reconcile with alternative explanations based on unobserved firm characteristics or reverse causality, as such confounds would need to align precisely with our theoretical predictions across multiple dimensions.

#### [Insert Table 8 here]

#### 4.7 Classified Boards and Firm Value

The relationship between classified boards and firm value remains contentious. While agency theory predicts value destruction through managerial entrenchment (Faleye, 2007; Cohen and Wang, 2013), the bonding hypothesis suggests value creation through stakeholder commitments (Cremers, Litov, and Sepe, 2017; Daines, Li, and Wang, 2021). Our evidence that classified boards improve workplace safety raises a critical question: Does protecting employee welfare enhance or diminish shareholder value?

Table 9 examines the relationship between classified boards, workplace safety, and Tobin's Q. Column 1 reports a positive and significant coefficient on *Classified Board*, indicating that firms with classified boards trade at higher valuations in our sample. This 4.1% premium aligns with stakeholder theory, suggesting that commitments to employee welfare can enhance rather than destroy firm value. Column 2 explores whether workplace safety mediates this relationship by including an interaction between *Classified Board* and *TCR*. The coefficient on *Classified Board* increases to 0.062, while the interaction term is negative and significant. This pattern indicates that the valuation premium for classified boards is concentrated among firms with superior safety performance. A one standard deviation reduction in injury rates amplifies the classified board

premium by approximately 1.4 percentage points, economically meaningful given average Tobin's Q of 1.45 in our sample.

These results reconcile conflicting evidence on classified boards' value implications. Rather than uniformly creating or destroying value, classified boards generate positive returns when paired with stakeholder-oriented policies such as workplace safety investments. The findings support theoretical models where governance structures facilitating credible stakeholder commitments enhance long-term value creation (Shleifer and Summers, 1988; Blair and Stout, 1999). Our evidence challenges the conventional wisdom that classified boards serve primarily to entrench management at shareholders' expense. Instead, we document that classified boards can create value precisely through their protective effects on stakeholder welfare. This insight contributes to broader debates about stakeholder capitalism by demonstrating that governance mechanisms protecting employees need not sacrifice shareholder returns.

### [Insert Table 9 here]

### 5. Conclusion

This study provides the first evidence that classified boards benefit rank-and-file employees through improved workplace safety. Using comprehensive OSHA establishment-level data and a novel classified board database, we document that firms with classified boards experience 12-13% lower workplace injury rates. Through instrumental variables, entropy balancing, and difference-in-differences designs exploiting staggered declassifications, we establish this relationship as causal.

Our findings reveal three economic mechanisms. First, firms with classified boards allocate 8% more resources to discretionary expenses per employee, enabling safety investments. Second, these firms maintain 11% lower abnormal production levels, reducing excessive workloads that

contribute to accidents. Third, classified boards attract 13.7% greater analyst coverage, enhancing external monitoring of safety practices. These effects are concentrated in financially constrained firms and those with weak monitoring, where classified boards' commitment value is most critical.

The results extend the bonding hypothesis beyond relationships with executives and major customers to encompass rank-and-file employees, the largest and most vulnerable stakeholder group during corporate control changes. By documenting how governance structures designed for shareholder-manager relations affect employee welfare, we identify an overlooked channel through which classified boards influence firm operations. The 12-13% reduction in injuries translates to substantial economic value given that workplace accidents cost U.S. firms \$250 billion annually.

Our analysis of firm value reveals that classified boards are associated with higher Tobin's Q, with this premium increasing when workplace injury rates are lower. This evidence challenges the view that classified boards solely enable managerial entrenchment, demonstrating instead that they can create value by facilitating credible commitments to stakeholders. The findings contribute to understanding how corporate governance structures balance competing stakeholder interests and highlight that protecting employee welfare need not sacrifice shareholder value.

#### Reference

- Ahn, S., & Shrestha, K. (2013). The differential effects of classified boards on firm value. *Journal of Banking & Finance*, 37(11), 3993-4013.
- Amihud, Y., & Stoyanov, S. (2017). Do staggered boards harm shareholders?. *Journal of Financial Economics*, 123(2), 432-439.
- Amin, M. R., Kim, I., & Lee, S. (2021). Local religiosity, workplace safety, and firm value. *Journal of Corporate Finance*, 70, 102093.
- Bai, G. (2013). How do board size and occupational background of directors influence social performance in for-profit and non-profit organizations? Evidence from California hospitals. *Journal of Business Ethics*, 118(1), 171-187.
- Bai, J., Lee, E., & Zhang, C. (2020). Capital market frictions and human capital investment: Evidence from workplace safety around regulation SHO. *The Financial Review*, 55(2), 339-360.
- Bates, T. W., Becher, D. A., & Lemmon, M. L. (2008). Board classification and managerial entrenchment: Evidence from the market for corporate control. *Journal of Financial Economics*, 87(3), 656-677.
- Bebchuk, L. A., & Cohen, A. (2005). The costs of entrenched boards. *Journal of Financial Economics*, 78(2), 409-433.
- Bebchuk, L., Cohen, A., & Ferrell, A. (2009). What matters in corporate governance?. *The Review of Financial Studies*, 22(2), 783-827.
- Beck, M. J., Nicoletti, A. K., & Stuber, S. B. (2022). The role of audit firms in spreading depositor contagion. *The Accounting Review*, 97(4), 51-73.
- Boulouta, I. (2013). Hidden connections: The link between board gender diversity and corporate social performance. *Journal of Business Ethics*, 113(2), 185-197.
- Bradley, D., Mao, C. X., & Zhang, C. (2022). Does analyst coverage affect workplace safety? *Management Science*, 68(5), 3464-3487.
- Caskey, J., & Ozel, N. B. (2017). Earnings expectations and employee safety. *Journal of Accounting and Economics*, 63(1), 121-141.
- Catan, E., & Klausner, M. (2017). Board declassification and firm value: Have shareholders and boards really destroyed billions in value? NYU Law and Economics Research Paper, (17-39).
- Cen, L., Dasgupta, S., & Sen, R. (2016). Discipline or disruption? Stakeholder relationships and the effect of takeover threat. *Management Science*, 62(10), 2820-2841.
- Chatt, R., Gustafson, M., & Welker, A. (2021). Firing frictions and the US mergers and acquisitions market. *Journal of Banking & Finance*, 128, 106139.
- Chen, D. (2012). Classified boards, the cost of debt, and firm performance. *Journal of Banking & Finance*, 36(12), 3346-3365.
- Chen, Y., Ofosu, E., Veeraraghavan, M., & Zolotoy, L. (2022). Rank-and-File Employee Stock Options and Workplace Safety. *Available at SSRN 3998720*.
- Chin, M. K., Hambrick, D. C., & Treviño, L. K. (2013). Political ideologies of CEOs: The influence of executives' values on corporate social responsibility. *Administrative Science Quarterly*, 58(2), 197-232.
- Cohen, A., & Wang, C. C. (2013). How do staggered boards affect shareholder value? Evidence from a natural experiment. *Journal of Financial Economics*, 110(3), 627-641.
- Cohen, A., & Wang, C. C. (2017). Reexamining staggered boards and shareholder value. Journal

- of Financial Economics, 125(3), 637-647.
- Cohn, J. B., & Wardlaw, M. I. (2016). Financing constraints and workplace safety. *Journal of Finance*, 71(5), 2017-2058.
- Cohn, J., Nestoriak, N., & Wardlaw, M. (2021). Private equity buyouts and workplace safety. *Review of Financial Studies*, *34*(10), 4832-4875.
- Cremers, K. M., Litov, L. P., & Sepe, S. M. (2017). Staggered boards and long-term firm value, revisited. *Journal of Financial Economics*, 126(2), 422-444.
- Cremers, M., & Ferrell, A. (2014). Thirty years of shareholder rights and firm value. *Journal of Finance*, 69(3), 1167-1196.
- Crossland, C., Zyung, J., Hiller, N. J., & Hambrick, D. C. (2014). CEO career variety: Effects on firm-level strategic and social novelty. *Academy of Management Journal*, *57*(3), 652-674.
- Daines, R., Li, S. X., & Wang, C. C. (2021). Can staggered boards improve value? Causal evidence from Massachusetts. *Contemporary Accounting Research*, *38*(4), 3053-3084.
- Dessaint, O., Golubov, A., & Volpin, P. (2017). Employment protection and takeovers. *Journal of Financial Economics*, 125(2), 369-388.
- Dey, A., & White, J. T. (2021). Labor mobility and antitakeover provisions. *Journal of Accounting and Economics*, 71(2-3), 101388.
- Faleye, O. (2007). Classified boards, firm value, and managerial entrenchment. *Journal of Financial Economics*, 83(2), 501-529.
- Fich, E. M., Harford, J., & Yore, A. S. (2025). The Effect of Takeover Protection in Quiet Life and Bonding Firms. Journal of Financial and Quantitative Analysis, 1-57, forthcoming.
- Finkelstein, S., Hambrick, D. C., & Cannella, A. A. (2009). Strategic leadership: Theory and research on executives, top management teams, and boards. Strategic Management.
- Foroughi, P., Marcus, A. J., Nguyen, V., & Tehranian, H. (2022). Peer effects in corporate governance practices: Evidence from universal demand laws. *Review of Financial Studies*, 35(1), 132-167.
- Francoeur, C., Li, Y., Singer, Z., & Zhang, J. (2023). Earnings forecasts of female CEOs: quality and consequences. *Review of Accounting Studies*, 28(3), 1721-1764.
- Ge, W., Tanlu, L., & Zhang, J. L. (2016). What are the consequences of board destaggering? *Review of Accounting Studies*, 21, 808-858.
- Guernsey, S. B., Guo, F., Liu, T., & Serfling, M. (2025). Thirty Years of Change: The Evolution of Classified Boards. *Journal of Finance*, forthcoming.
- Guernsey, S., Sepe, S. M., & Serfling, M. (2022). Blood in the water: The value of antitakeover provisions during market shocks. *Journal of Financial Economics*, 143(3), 1070-1096.
- Hainmueller, J. (2012). Entropy balancing for causal effects: A multivariate reweighting method to produce balanced samples in observational studies. *Political Analysis*, 20(1), 25-46.
- Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193-206.
- Jiraporn, P., Chintrakarn, P., & Kim, Y. S. (2012). Analyst following, staggered boards, and managerial entrenchment. *Journal of Banking & Finance*, *36*(11), 3091-3100.
- Johnson, W. C., Karpoff, J. M., & Yi, S. (2015). The bonding hypothesis of takeover defenses: Evidence from IPO firms. *Journal of Financial Economics*, 117(2), 307-332.
- Johnson, W. C., Karpoff, J. M., & Yi, S. (2022). The life cycle effects of corporate takeover defenses. *Review of Financial Studies*, 35(6), 2879-2927.
- Karpoff, J. M., & Wittry, M. D. (2023). Corporate takeover defenses. *Fisher College of Business Working Paper*, (2022-03), 009.

- Kniesner, T. J., & Leeth, J. D. (2014). Regulating occupational and product risks. In *Handbook of the Economics of Risk and Uncertainty* (Vol. 1, pp. 493-600). North-Holland.
- Knoeber, C. R. (1986). Golden parachutes, shark repellents, and hostile tender offers. *American Economic Review*, 76(1), 155-167.
- Laffont, J. J., & Tirole, J. (1988). Repeated auctions of incentive contracts, investment, and bidding parity with an application to takeovers. *RAND Journal of Economics*, 516-537.
- Li, X., & Raghunandan, A. (2021). Institutional ownership and workplace misconduct: Evidence from federal labor law violations. *Available at SSRN 3460126*.
- Liang, C. Y., Qi, Y., Zhang, R. A., & Zhu, H. (2023). Does sunlight kill germs? Stock market listing and workplace safety. *Journal of Financial and Quantitative Analysis*, 58(4), 1645-1674.
- Liang, H., Renneboog, L., & Vansteenkiste, C. (2020). Cross-border acquisitions and employment policies. *Journal of Corporate Finance*, 62, 101575.
- Masulis, R. W., Wang, C., & Xie, F. (2020). Employee-manager alliances and shareholder returns from acquisitions. *Journal of Financial and Quantitative Analysis*, 55(2), 473-516.
- McMullin, J., & Schonberger, B. (2020). Entropy-balanced accruals. *Review of Accounting Studies*, 25(1), 84-119. McMullin, J., & Schonberger, B. (2022). When good balance goes bad: A discussion of common pitfalls when using entropy balancing. *Journal of Financial Reporting*, 7(1), 167-196.
- Pirinsky, C. A., & Wang, Q. (2010). Geographic location and corporate finance. *World Scientific Book Chapters*, 23-38.
- Shleifer, A., & Summers, L. H. (1988). Breach of trust in hostile takeovers. In *Corporate takeovers:* Causes and consequences (pp. 33-68). University of Chicago Press.
- Shleifer, A., & Vishny, R. W. (1986). Large shareholders and corporate control. *Journal of Political Economy*, 94(3, Part 1), 461-488.
- Stein, J. C. (1988). Takeover threats and managerial myopia. *Journal of Political Economy*, 96(1), 61-80.
- Stein, J. C. (1989). Efficient capital markets, inefficient firms: A model of myopic corporate behavior. *Quarterly Journal of Economics*, 104(4), 655-669.
- Stroschein, J., 2017. Answers to 5 common questions about posting your annual OSHA summary [WWW Document]. *The Business Journals*.
- Wu, X., Li, Y., & Yu, Y. (2023). CEO inside debt and employee workplace safety. *Journal of Business Ethics*, 182(1), 159-175.
- Zhao, Y., & Chen, K. H. (2008). Staggered boards and earnings management. *The Accounting Review*, 83(5), 1347-1381.

# **Appendix A Variable Definitions**

Variable	Definition	Source
	Baseline Analysis in Table 3	·
Total Case Rate (TCR)	The total number of work injury cases, divided by total working hours of the establishment in the year, then multiplied by 200,000. The multiplier 200,000 is approximately the annual working hours of 100 full-time employees ( $100 \times 40$ hours/week $\times 50$ weeks/year).	OSHA
Classified Board (CB)	Indicator variable equal to one (zero otherwise) if the board is staggered in year $t$ .	Guernsey et al. (2025)
EstSize	Natural logarithm of the number of employees in an establishment.	OSHA
Hours/Emp	Total hours (in thousands) worked in an establishment-year divided by the size of employees.	OSHA
Shut	Dummy variable equal to one if an establishment experienced a shutdown/lockout in a year, and zero otherwise.	OSHA
Strike	Dummy variable equal to one if an establishment experienced a labor force action in a year, and zero otherwise.	OSHA
Disaster	Dummy variable equal to one if an establishment observed a natural disaster in a particular year, and zero otherwise.	OSHA
Seasonal	Dummy variable equal to one if an establishment employed seasonal workers in a given year, and zero otherwise.	OSHA
Size	Natural logarithm of firm's beginning of year total assets.	Compustat
Leverage	Firm's total short-term and long-term debt divided by total assets, at the beginning of the year.	Compustat
PPE	Firm's net property, plant, and equipment divided by total assets, at the beginning of the year.	Compustat
CAPEX	Firm's current year capital expenditures divided by beginning total assets.	Compustat
Sales	Firm's current year sales divided by beginning total assets.	Compustat
Cash	Cash and short-term investments divided by total assets.	Compustat
MtB ratio	Ratio of market value of assets to book value of total assets.	Compustat
Dividend	Firm's total cash dividends paid to common shares divided	Compustat
	by total assets.	
Additional Varia		
IV_ Board Interlock	The average CB preferences of all directors in the board, and we calculate the CB preferences of each director based on historical	BoardEx
	governance experiences in other companies.	
Additional Varia		
Lnnum	Sum of injuries and illnesses that result in days away from work or transfers and other recordable cases divided by total hours worked and multiplied by 200,000	OSHA
DART	Number of cases that resulted in days away from work, job restrictions or transfers in an establishment-year divided by total hours worked and	OSHA
DAFWII	multiplied by 200,000. Number of cases that resulted in days away from work in an establishment-year divided by total hours worked and multiplied by 200,000.	OSHA
IRII	The total number of employee injury and illness cases divided by total hours worked and multiplied by 200,000.	OSHA
TCR/emp	Number of cases in a given establishment-year divided by the size of	OSHA

	employees.	
Lnnum/emp	Sum of injuries and illnesses that result in days away from work or transfers and other recordable cases divided by the size of employees.	OSHA
DART/emp	Number of cases that resulted in days away from work, job restrictions or transfers in an establishment-year divided by the size of employees.	OSHA
DAFWII/emp	Number of cases that resulted in days away from work in an establishment-year divided by the size of employees.	OSHA
Ln(age)	Natural logarithm of firm age, calculated as the difference in year $t$ and the first year the company appeared in the CRSP.	CRSP
Board Size	Number of directors on the board.	BoardEx
Board	The fraction of independent directors among all directors.	BoardEx
Independence		
Board Gender	The fraction of male directors among all directors.	BoardEx
E-index	The count of six shareholder rights: classified board, limits to	ISS
(minus CB)	shareholder bylaw amendments, poison pill, golden parachute,	
	supermajority requirements for mergers, and charter amendments	
	(Bebchuk, Cohen, and Ferrell, 2009) minus classified board.	
IOins	The percentage of total ownership by institutional blockholders relative	Refinitiv
* O #	to all institutional investors.	D 0' '.'
IO5	The percentage of the largest 5 institutional ownerships' size relative to	Refinitiv
A 4 4 4 1 37	total institutional ownership.	
Additional Varia		Carless
AbDiscPro	Abnormal production costs per employee.	Caskey and Ozel
		(2017)
Ln(SGA/emp)	Natural logarithm of Firm's selling, general, and administrative	Compustat
Lii(SGA/Cilip)	expenses divided by the size of employees.	Compustat
Ln(1+Coverage)	Natural logarithm of one plus the arithmetic mean number of unique	I/B/E/S
En(1 Coverage)	monthly earnings forecasts during each calendar year for each firm.	I/ D/ L/ S
Additional Varia		
SA Index	-0.737Size+0.043Size <sup>2</sup> -0.040Age	Hadlock et
	5	al. (2010)
Z-Score	0.3ib/at+sale/at+1.4re/at+1.2(act-lct)/at+0.6prcc f*csho/lt	Altman's
	\	(1968)
Opaque	the prior three years' moving sum of the absolute value of discretionary	Hutton et
	accruals.	al. (2009)
Institutional	Number of outstanding shares held by institutional investors divided by	Thomson
Ownership	the total number of shares outstanding.	Reuters
Free Cash Flow	Firm's total free cash flows divided by total assets, which	Compustat
	equals $(oibdq - xint - txdi - capx)/at$ .	
Cash Holding	Sum of cash and cash equivalents (ceq) divided by total assets (at).	Compustat
Additional Varia		
Health and	The value of "Health and Safety Strengths".	KLD
Safety Strengths		
Safety Index	"Health and Safety Strengths" minus "Health and Safety Concerns".	KLD
Additional Varia		
Labor_penality	The natural logarithm of one plus the total dollar value of penalties paid	Violation
T =1======1=1=41=	at the firm level.	Tracker
Labor_violation	An indicator variable for whether at least one violation occurred in a	Violation
	year.	Tracker

Additional Variables in Table 10							
TobinQ	Market value of equity plus book value of assets minus book value of equity, minus balanced sheet deferred taxes, divided by book value of assets.	Compustat					

# **Table 1: Sample Distribution**

Panel A presents information on the number of establishment-year observations, firm-year observations, and the average number of *TCR*. Panel B presents cross-sectional information on the distribution of *TCR* by Fama-French 12 industry over the sample period from 2002 to 2011. *TCR* is the number of cases in a given establishment-year divided by the number of hours worked by all employees in the establishment and multiplied by 200,000.

Panel A: Observations and Average TCR by Year

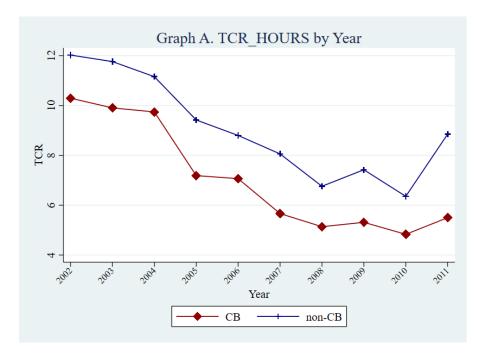
Year	Estyear Obs.	% of Obs.	Firm-year Obs.	% of Obs.	Average TCR
2002	5,234	10.37	552	9.17	11.17
2003	5,504	10.91	584	9.71	10.76
2004	5,949	11.79	609	10.12	10.43
2005	6,885	13.65	774	12.86	8.37
2006	6,386	12.66	755	12.55	7.93
2007	6,366	12.62	701	11.65	7.10
2008	5,959	11.81	779	12.95	6.02
2009	3,856	7.64	488	8.11	6.63
2010	3,490	6.92	522	8.68	5.67
2011	828	1.64	253	4.2	7.86

Panel B: Observations and Average TCR by Industry

Fama-French 12-industry	Obs.	% of Obs.	Average TCR
Consumer Nondurables	5,846	11.59	8.94
Consumer Durables	2,185	4.33	8.23
Manufacturing	12,403	24.58	5.26
Oil, Gas, and Coal Extraction and Products	151	0.3	4.21
Chemicals and Allied Products	1,370	2.72	3.04
Business Equipment	1,951	3.87	3.47
Wholesale, Retail, and Some Services	34	0.07	9.49
Healthcare, Medical Equipment, and Drugs	8,908	17.65	9.99
Other	5,227	10.36	7.04

Figure 1: Injury Rates of Classified Board and Non-classified Board Firms over Time

This figure depicts the yearly average injury rates of establishments owned by firms with classified board versus establishments owned by firms without classified board. *TCR* is the number of cases in a given establishment-year divided by the number of hours worked by all employees in the establishment and multiplied by 200,000.



# **Table 2: Sample Statistics**

This table reports summary statistics of the main variables used in the regressions. Variable definitions are provided in Appendix A. Panel A presents summary statistics of variables at the establishment level. Panel B presents the summary statistics of variables at the firm level. Panel C presents the correlation matrix of main variables

Panel A: Establishment-Level Summary Statistics

Variables	Obs	Mean	SD	P25	Median	P75
TCR	50,457	8.343	7.006	2.896	6.823	12.045
EstSize	50,457	4.981	1.010	4.317	4.883	5.485
Employees(000s)	50,457	0.284	0.654	0.075	0.132	0.241
Hours/Emp	50,457	1.925	0.349	1.706	1.979	2.119
Shut	50,457	0.085	0.279	0.000	0.000	0.000
Strike	50,457	0.002	0.048	0.000	0.000	0.000
Disaster	50,457	0.005	0.072	0.000	0.000	0.000
Seasonal	50,457	0.030	0.169	0.000	0.000	0.000

Panel B: Firm-Level Summary Statistics

Variables	Obs	Mean	SD	P25	Median	P75
Classified Board	6,017	0.557	0.497	0.000	1.000	1.000
Size	6,017	7.234	1.845	5.871	7.100	8.422
Leverage	6,017	0.236	0.173	0.101	0.222	0.339
PPE	6,017	0.277	0.176	0.140	0.240	0.380
CAPEX	6,017	0.044	0.035	0.020	0.033	0.056
Sales	6,017	1.275	0.719	0.790	1.106	1.574
Cash	6,017	0.108	0.110	0.024	0.069	0.153
MB	6,017	1.589	0.702	1.094	1.380	1.861
Dividend	6,017	0.011	0.016	0.000	0.003	0.017

Panel C: Pearson correlations

	TCR	CB	EstSize	Hours/Emp	Shut	Strike	Disaster	Seasonal	Size	Leverage	PPE	Capex	Sales	Cash	MB	Dividend
TCR	1															
СВ	-0.11***	1														
EstSize	-0.01***	-0.01***	1													
Hours/Emp	-0.28***	0.11***	-0.04***	1												
Shut	-0.05***	0.03***	0.04***	0.04***	1											ļ
Strike	0.02***	0.01	0.02***	0.01	0.03***	1										
Disaster	0.01	0.02***	0.01	0.02***	0.02***	0.01	1									
Seasonal	0.03***	-0.02***	0.04***	-0.05***	0.04***	0.01	0.03***	1								
Size	0.03***	-0.26***	0.14***	-0.12***	-0.06***	0.01	-0.01**	0.01	1							
Leverage	-0.01**	0.03***	-0.01***	0.08***	0.06***	0.01***	-0.01	-0.05***	0.04***	1						
PPE	0.23***	0.01***	-0.07***	-0.24***	-0.11***	-0.01**	-0.01*	-0.01**	0.09***	-0.05***	1					
CAPEX	0.18***	-0.01	-0.03***	-0.15***	-0.15***	-0.01*	0.01*	-0.01*	0.08***	-0.27***	0.65***	1				
Sales	0.11***	0.05***	0	-0.06***	-0.07***	0.01	0.01	0.02***	-0.28***	-0.25***	0.17***	0.28***	1			
Cash	0.03***	-0.14***	0.02***	-0.07***	0.07***	0.01	-0.01	0.04***	-0.11***	-0.26***	-0.21***	-0.10***	-0.11***	1		
MB	0.07***	-0.08***	0.04***	-0.12***	-0.13***	-0.01**	-0.01	0.05***	0.21***	-0.30***	0.12***	0.24***	0.06***	0.10***	1	
Dividend	-0.07***	-0.12***	0.05***	-0.03***	-0.05***	-0.01**	-0.01*	0.05***	0.27***	-0.13***	0.02***	-0.03***	-0.03***	-0.05***	0.60***	1

# Table 3: Classified Board and Workplace Safety

This table reports the estimation results of fixed-effects OLS regressions on the effect of classified board and workplace safety. TCR is the number of accident cases in a given establishment-year divided by the number of hours worked by all employees in the establishment and multiplied by 200,000.  $Classified\ Board$  is an indicator variable equal to one (zero otherwise) if the board is staggered in year t. All other variables are defined in the Appendix. The sample period is from 2002 to 2011. All columns control for SIC3-digit industry-year fixed effects. In addition, column (1) controls for firm fixed effects, column (2) controls for establishment fixed effects, and column (3) controls for establishment - and establishment state-year fixed effects. t-statistics computed using standard errors adjusted for heteroscedasticity and clustered at the firm level are reported in parentheses. \*, \*\*, and \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

		TCR	
	(1)	(2)	(3)
Classified Board	-1.032***	-1.073***	-1.049***
	(-3.077)	(-3.141)	(-3.265)
EstSize	-0.047	-0.381**	-0.376**
	(-0.566)	(-2.065)	(-2.068)
Hours/Emp	-2.740***	-2.125***	-2.114***
•	(-4.674)	(-7.634)	(-7.902)
Shut	0.428***	0.099	0.087
	(3.582)	(0.752)	(0.675)
Strike	2.817***	1.426**	1.428**
	(3.305)	(2.196)	(2.239)
Disaster	1.154***	0.942*	1.014*
	(2.626)	(1.796)	(1.859)
Seasonal	0.575*	-0.268	-0.195
	(1.773)	(-0.738)	(-0.540)
Size	-0.193	-0.032	-0.030
	(-0.512)	(-0.081)	(-0.077)
Leverage	1.290	0.828	0.797
8	(0.760)	(0.458)	(0.457)
PPE	3.002**	2.580*	2.611*
	(2.012)	(1.663)	(1.701)
CAPEX	-8.649**	-9.507**	-9.574**
	(-2.105)	(-2.403)	(-2.413)
Sales	-0.670*	-0.386	-0.399
	(-1.773)	(-1.016)	(-1.087)
Cash	-0.129	0.441	0.420
	(-0.101)	(0.340)	(0.320)
MB	0.227	0.236	0.242
	(1.097)	(1.308)	(1.380)
Dividend	-13.780	-7.067	-5.562
	(-1.346)	(-0.689)	(-0.588)
Firm_FE	Yes	No	No
$Estab^{-}FE$	No	Yes	Yes
Industry Year FE	Yes	Yes	Yes
State_Year_FE	No	No	Yes
N – –	50,457	50,457	50,457
Adj_R2	0.390	0.628	0.630

# **Table 4: Tests to Address Endogeneity-Related Concerns**

This table presents the estimation results of *Entropy Balancing Method*, 2SLS Method and DiD Method. TCR is the number of accident cases in a given establishment-year divided by the number of hours worked by all employees in the establishment and multiplied by 200,000. Classified Board is an indicator variable equal to one (zero otherwise) if the board is staggered in year t. IV\_Board Interlock is the average CB preferences of all directors in the board, and we calculate the CB preferences of each director based on historical governance experiences in other companies. Declassified is an indicator that equals 1 if a firm declassified its classified board and 0 otherwise. The variables Declassified(-4) to Declassified(5+) are indicator variables that equal 1 if the observation corresponds to four years before, three years before, two years before, one year before, the year of, one year after, or two years after, three years after, four years after and five or more years after the declassification of the classified board, respectively, and zero otherwise. The sample period is from 2002 to 2011. Columns control for establishment- and SIC3-digit industry-year fixed effects. t-statistics computed using standard errors adjusted for heteroscedasticity and clustered at the firm level are reported in parentheses. \*, \*\*, and \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Entropy Balancing Method

	EF	BM
	TO	CR
	(1)	(2)
Classified Board	-1.025***	-0.744***
	(-3.421)	(-2.767)
Controls	Yes	Yes
Firm FE	Yes	No
Estab FE	No	Yes
Industry Year FE	Yes	Yes
N	50,457	50,457
Adj R2	0.415	0.661

Panel B: IV-2SLS Method

	First Stage	Second Stage
	Classified Board	TCR
	(1)	(2)
IV Board Interlock	0. 465***	
_	(4.34)	
Classified Board	, ,	-5.703**
·		(-2.54)
Controls	Yes	Yes
Estab FE	Yes	Yes
Industry Year FE	Yes	Yes
$N$ $\sim$ $\sim$ $\sim$	43,666	43,666
F-test	18.85	
Adj R2	0.916	

Panel C: Declassification and TCR on Entropy- Balanced Sample	TC	TR .
1	(1)	(2)
Declassified	1.322***	
•	(3.739)	

Declassified(-4)		-1.300
		(-1.595)
Declassified(-3)		0.106
		(0.137)
Declassified(-2)		-0.125
		(-0.167)
Declassified(-1)		0.418
		(0.557)
Declassified(0)		1.268
		(1.234)
Declassified(+1)		1.060
D 1 10 1/ 0)		(1.077)
Declassified(+2)		2.394**
D 1 (0 1/. 2)		(2.127)
Declassified(+3)		2.461**
D 1 (6.1/1.4)		(2.230)
Declassified(+4)		1.876*
$D = 1 \cdots C = 1/5 + 1$		(1.760)
Declassified(5+)		2.596**
Company In	V	(2.308)
Controls	Yes	Yes
Estab_FE	Yes	Yes
Industry_Year_FE	Yes	Yes
N A I: D2	50457	50457
_ <i>Adj_R2</i>	0.693	0.695

#### **Table 5: Robustness Tests**

This table presents the results of the robustness tests. Constant, control variables, establishment fixed effects, and industry-year fixed effects based on three digit SIC codes are included in all regressions, unless specified otherwise. The regressions are performed using OLS, with t-statistics computed using standard errors adjusted for heteroscedasticity and clustered at the firm level. Variable definitions are presented in the Appendix. \*, \*\*, \*\*\* indicates significance at the 10%, 5%, and 1% levels respectively.

Panel A: Additional Controls

	TCR			
	(1)	(2)	(3)	(4)
Classified Board	-0.978***	-1.156***	-1.172***	-1.034***
	(-2.978)	(-3.519)	(-3.653)	(-3.381)
Ln(age)	-0.720*	0.042	0.106	-0.338
	(-1.836)	(0.095)	(0.246)	(-0.640)
Board size		1.514	1.569	0.058
		(1.581)	(1.640)	(0.123)
Board Independence		-3.339*	-2.857	-1.477
		(-1.895)	(-1.621)	(-0.782)
Board Gender		-0.444	-0.679	0.780
		(-0.179)	(-0.283)	(0.296)
E-index (minus CB)			-0.274***	-0.276***
			(-2.929)	(-2.781)
IOins				1.226*
				(1.676)
<i>IO5</i>				-2.207**
				(-2.035)
Controls	Yes	Yes	Yes	Yes
Estab_FE	Yes	Yes	Yes	Yes
Industry_Year_FE	Yes	Yes	Yes	Yes
N	49,366	43,178	43,178	31,222
Adj R2	0.628	0.624	0.625	0.622

Panel B: Different Industry Fixed Effects

	TCR			
	(1)	(2)	(3)	(4)
Classified Board	-1.130***	-1.016***	-1.364***	-1.379**
	(-3.363)	(-2.971)	(-2.825)	(-2.453)
Controls	Yes	Yes	Yes	Yes
Estab_FE	Yes	Yes	Yes	Yes
Industry Year FE	Yes	Yes	Yes	Yes
Industry	four-digit SIC	two-digit SIC	FF 12	FF 48
N	49,584	50,457	50,457	50,383
Adj_R2	0.629	0.628	0.623	0.625

Panel C: Alternative Anti-Takeover Provisions

	TCR	
	(1)	(2)
Classified Board	-0.857**	-0.828**
	(-2.239)	(-2.548)

Limits to amend bylaws	-1.031*	-1.001**
	(-1.856)	(-2.158)
Limits to amend charter	-1.145*	-1.149*
	(-1.749)	(-1.816)
Supermajority	-0.516	-0.596*
	(-1.410)	(-1.681)
Golden parachutes	0.197	0.213
_	(0.754)	(0.940)
Poison pill	0.689	0.801
_	(1.112)	(1.478)
Controls	No	Yes
Estab_FE	Yes	Yes
Industry_Year_FE	Yes	Yes
N	35,859	35,859
Adj_R2	0.640	0.645

Panel D: Firm-level Evidence

		TCR		
	(1)	(2)	(3)	(4)
Classified Board	-0.818*	-0.779**	-1.046***	-1.192***
	(-1.944)	(-2.203)	(-2.969)	(-3.308)
Controls	Yes	Yes	Yes	Yes
Firm_FE	Yes	Yes	Yes	Yes
Industry_Year_FE	Yes	Yes	Yes	Yes
State_Year_FE	Yes	Yes	Yes	Yes
Industry	three-digit SIC	two -digit SIC	FF 12	FF 48
N	5,285	5,716	5,809	5,792
Adj_R2	0.650	0.663	0.650	0.653

# **Table 6: Alternative Measures of Workplace Safety**

This table presents the results of the robustness tests. Constant, control variables, establishment fixed effects, and industry-year fixed effects based on three digit SIC codes are included in all regressions, unless specified otherwise. The regressions are performed using OLS, with t-statistics computed using standard errors adjusted for heteroscedasticity and clustered at the firm level. Variable definitions are presented in the Appendix. \*, \*\*, \*\*\* indicates significance at the 10%, 5%, and 1% levels respectively.

Panel A: Alternative Measures of Workplace Safety

	Lnnum	DART	DAFWII	IRII	TCR/emp	Lnnum/emp
	(1)	(2)	(3)	(4)	(5)	(6)
Classified Board	-0.088***	-0.935***	-0.759***	-1.123***	-2.003***	-0.862***
	(-3.383)	(-3.074)	(-3.287)	(-3.018)	(-3.298)	(-3.351)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Estab_FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry_Year_FE	Yes	Yes	Yes	Yes	Yes	Yes
N	50,457	50,457	50,457	50,438	50,457	50,457
Adj_R2	0.850	0.580	0.546	0.613	0.611	0.623
	DART/emp	DAFWII/emp	Health and	Safety_Index	Labor	Labor
			Safety		penalty	violation
			Strength			
	(7)	(8)	(9)	(10)	(11)	(12)
Classified Board	-1.587***	-1.272***	0.258**	0.281*	-0.735**	-0.078**
	(-3.272)	(-3.506)	(2.517)	(1.906)	(-2.090)	(-2.272)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Estab_FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry_Year_FE	Yes	Yes	Yes	Yes	Yes	Yes
N	50,457	50,457	31,655	31,653	6,017	6,017
Adj_R2	0.578	0.548	0.792	0.687	0.413	0.377

# **Table 7: Underlying Channels**

This table presents the results of the tests of the underlying channels behind the classified board-workplace safety relation. Constant, establishment fixed effects, and industry-year fixed effects based on three digit SIC codes are included in all regressions. The regressions are performed using OLS, with t-statistics computed using standard errors adjusted for heteroscedasticity and clustered at the firm level. Variable definitions are presented in the Appendix. \*, \*\*, \*\*\* indicates significance at the 10%, 5%, and 1%, levels respectively.

	Ln(SGA/emp)	AbDiscPro	Ln(1+Coverage)
	(1)	(2)	(3)
Classified Board	0.045***	-1.735***	0.137***
	(3.167)	(-2.802)	(2.697)
Controls	Yes	Yes	Yes
Estab_FE	Yes	Yes	Yes
Industry_Year_FE	Yes	Yes	Yes
N	42,024	45,257	50,457
Adj_R2	0.986	0.655	0.959

### **Table 8: Cross-Sectional Tests**

This table presents the results of cross-sectional tests. Constant, controls, establishment fixed effects, and industry-year fixed effects based on three digit SIC codes are included in all regressions. The regressions are performed using OLS, with t-statistics computed using standard errors adjusted for heteroscedasticity and clustered at the firm level. Variable definitions are presented in the appendix. \*, \*\*, \*\*\* indicates significance at the 10%, 5%, and 1% levels respectively.

Panel A: Financial Constraints

	S	A	
	High	Low	
	TO	$\overline{CR}$	
	(1)	(2)	
Classified Board	-1.508***	-1.051**	
•	(-4.305)	(-2.468)	
Controls	Yes	Yes	
Estab FE	Yes	Yes	
Industry Year FE	Yes	Yes	
$N$ $\sim$ $\sim$ $\sim$	25,428	24,136	
Adj_R2	0.587	0.680	

Panel B: Financial Distress

	Z-Score		
	High	Low	
	T0	CR	
	(1)	(2)	
Classified Board	-1.239**	-1.639***	
·	(-2.273)	(-3.731)	
Controls	Yes	Yes	
Estab_FE	Yes	Yes	
Industry_Year_FE	Yes	Yes	
N	25,312	22,211	
Adj_R2	0.589	0.679	

Panel C: Accounting Information Transparency

	Opa	ique	
	High	Low	
	TC	CR	
	(1)	(2)	
Classified Board	-0.811***	-0.317	
	(-2.622)	(-0.916)	
Controls	Yes	Yes	
Estab FE	Yes	Yes	
Industry Year FE	Yes	Yes	
$N$ $\sim$ $\sim$	25,540	20,631	
Adj R2	0.633	0.638	

Panel D: External Supervision

	Institutional Ownership		
	High	Low	
	T	CR	
	(1)	(2)	
Classified Board	-0.711	-1.242***	
-	(-1.477)	(-4.106)	
Controls	Yes	Yes	
Estab FE	Yes	Yes	
Industry Year FE	Yes	Yes	
$N$ $\sim$ $\sim$ $\sim$	22,497	24,187	
Adj R2	0.633	0.646	

Panel E: Cash

	Free Cash Flow		Cash Holding	
	High	Low	High	Low
	TCR		TCR	
	(1)	(2)	(3)	(4)
Classified Board	-0.235	-1.180***	-0.186	-0.850***
	(-0.771)	(-2.993)	(-0.469)	(-3.099)
Controls	Yes	Yes	Yes	Yes
Estab_FE	Yes	Yes	Yes	Yes
Industry_Year_FE	Yes	Yes	Yes	Yes
N	21,817	23,453	23,410	23,000
Adj_R2	0.636	0.637	0.621	0.667

Panel F: Competition

	Product Market Competition		Relationship Industries	
	High	Low	Relationship	None
				Relationship
	TCR		TCR	
	(1)	(2)	(3)	(4)
Classified Board	-0.240	-1.597***	0.301	-1.129***
	(-1.094)	(-2.605)	(0.865)	(-3.389)
Controls	Yes	Yes	Yes	Yes
Estab_FE	Yes	Yes	Yes	Yes
Industry_Year_FE	Yes	Yes	Yes	Yes
N	23,177	22,883	18,084	32,009
Adj_R2	0.671	0.606	0.661	0.613

# Table 9: Classified Board and Firm Value

This table presents the relationship between classified board and firm's long-term value. Constant, firm fixed effects, and year fixed effects are included in all regressions. The regressions are performed using OLS, with t-statistics computed using standard errors adjusted for heteroscedasticity and clustered at the firm level. Variable definitions are presented in the Appendix. \*, \*\*\*, \*\*\*\* indicates significance at the 10%, 5%, and 1%, levels respectively.

	Firm	level
	Tol	binQ
	(1)	(2)
Classified Board	0.041*	0.062**
	(1.862)	(2.543)
Classified Board*TCR		-0.003*
		(-1.832)
TCR		0.002*
		(1.853)
Controls	Yes	Yes
Firm_FE	Yes	Yes
Year FE	Yes	Yes
$N$ $\overline{}$	6,017	6,017
Adj R2	0.930	0.930