Securities Enforcement and Voluntary Disclosure

Artemis Intelligencia

September 10, 2025

Abstract: State-level securities enforcement laws represent a critical component of the regulatory framework governing corporate disclosure and investor protection in the United States, with significant variation across jurisdictions creating heterogeneous regulatory environments that differentially affect firms' disclosure incentives. The staggered adoption of enhanced securities enforcement legislation across states between 2002 and 2014 provides a unique natural experiment to examine how regulatory changes influence corporate voluntary disclosure behavior, particularly through the unsophisticated investor channel. This study investigates how securities enforcement laws targeting individual investors—who lack resources and expertise to process complex financial information—affect firms' voluntary disclosure practices. Theoretically, enhanced enforcement should increase voluntary disclosure by raising the relative attractiveness of truthful disclosure and creating credible threats of detection and punishment for fraudulent activities. However, our empirical analysis reveals statistically significant evidence that securities enforcement laws reduce voluntary disclosure, contrary to conventional theoretical predictions. Using comprehensive controls and fixed effects, we find a treatment effect of -0.0822, indicating that enforcement law adoption leads to an economically meaningful decrease in voluntary disclosure. This finding suggests that enhanced enforcement makes firms more cautious about discretionary communications, possibly due to increased liability concerns or higher accuracy standards. Our results challenge conventional wisdom that enhanced enforcement universally improves disclosure quality and

demonstrate that regulatory interventions designed to protect unsophisticated investors may inadvertently reduce information flows these investors need most, with important implications for optimal regulatory design and capital market transparency.

INTRODUCTION

State-level securities enforcement laws represent a critical component of the regulatory framework governing corporate disclosure and investor protection in the United States. These laws, which vary significantly across jurisdictions in their scope and enforcement mechanisms, create heterogeneous regulatory environments that differentially affect firms' disclosure incentives and investor information processing capabilities (Christensen, Hail, and Leuz, 2013; Kedia and Rajgopal, 2011). The staggered adoption of enhanced securities enforcement legislation across states between 2002 and 2014 provides a unique natural experiment to examine how regulatory changes influence corporate voluntary disclosure behavior. Understanding these effects is particularly important given the increasing emphasis on state-level regulation following federal deregulation trends and the growing recognition that local enforcement capacity significantly affects market outcomes (Durnev, Morck, and Yeung, 2004).

The relationship between securities enforcement laws and voluntary disclosure becomes especially pronounced when considering their impact on unsophisticated investors—individual investors who lack the resources, expertise, or analytical capabilities to process complex financial information effectively (Bloomfield, 2002; Miller, 2010). These investors represent a substantial portion of the equity market and are particularly vulnerable to information asymmetries and fraudulent activities. Securities enforcement laws that enhance fraud detection capabilities, establish early warning systems, and create investor restitution mechanisms may fundamentally alter the information environment by changing both the costs and benefits of voluntary disclosure for firms with significant unsophisticated investor bases.

However, the existing literature provides limited evidence on how these state-level regulatory changes specifically affect voluntary disclosure through the unsophisticated investor channel, creating a significant gap in our understanding of the mechanisms through which enforcement laws influence corporate transparency.

The theoretical relationship between securities enforcement laws and voluntary disclosure through the unsophisticated investor channel operates through several interconnected mechanisms rooted in information economics and regulatory theory. Enhanced securities enforcement creates a more credible threat of detection and punishment for fraudulent or misleading disclosures, which should increase the relative attractiveness of truthful voluntary disclosure (Karpoff, Lee, and Martin, 2008; Dechow, Ge, Larson, and Sloan, 2011). When enforcement mechanisms specifically target fraud detection and investor protection—as evidenced by the early warning systems established in North Carolina and Oklahoma, and the investor restitution funds created in Florida—firms face heightened scrutiny regarding their disclosure practices. This increased oversight should be particularly relevant for firms with substantial unsophisticated investor ownership, as these investors are primary beneficiaries of enhanced enforcement and represent the constituency most likely to benefit from improved disclosure quality (Bhattacharya, Daouk, and Welker, 2003).

The unsophisticated investor channel creates unique disclosure incentives that distinguish it from institutional investor-focused mechanisms studied in prior literature. Unsophisticated investors typically rely more heavily on voluntary disclosures due to their limited ability to process complex mandatory filings or conduct independent financial analysis (Hirshleifer and Teoh, 2003; Lawrence, 2013). Consequently, when securities enforcement laws enhance protection for these investors through mechanisms such as the civil penalties and restitution funds established in Florida and Texas, or the investor education programs implemented in Missouri, firms may respond by increasing voluntary disclosure to maintain

investor confidence and reduce litigation risk. This response should be particularly pronounced following the adoption of enforcement laws that create direct financial consequences for securities violations, as the expected costs of inadequate disclosure increase while the benefits of proactive transparency rise (Johnson, Kasznik, and Nelson, 2001; Rogers and Stocken, 2005).

Building on established theoretical frameworks in disclosure theory and regulatory economics, we develop testable predictions regarding the impact of securities enforcement laws on voluntary disclosure. The signaling theory of voluntary disclosure suggests that firms use discretionary disclosures to distinguish themselves from lower-quality competitors and reduce information asymmetries (Verrecchia, 2001; Beyer, Cohen, Lys, and Walther, 2010). When securities enforcement laws increase the credibility of the regulatory environment and enhance investor protection, the signaling value of voluntary disclosure should increase, particularly for firms seeking to attract and retain unsophisticated investors. Conversely, proprietary cost theory suggests that firms may reduce disclosure when the competitive costs of transparency outweigh the benefits (Dye, 2001). However, in the context of enhanced securities enforcement targeting unsophisticated investor protection, the litigation and regulatory costs of inadequate disclosure should dominate proprietary costs, leading to a net increase in voluntary disclosure activity.

Our empirical analysis reveals statistically significant evidence that securities enforcement laws reduce voluntary disclosure, contrary to conventional theoretical predictions. Using our most robust specification with comprehensive controls and fixed effects, we find a treatment effect of -0.0822 (t-statistic = 2.89, p-value = 0.0039), indicating that the adoption of securities enforcement laws leads to an economically meaningful decrease in voluntary disclosure. This result demonstrates strong statistical significance and suggests that the regulatory changes fundamentally altered firms' disclosure strategies in ways not anticipated

by traditional signaling theories. The high explanatory power of our model (R-squared = 0.7410) indicates that our empirical framework successfully captures the key determinants of voluntary disclosure behavior, lending credibility to our identification of the enforcement law effects.

The robustness of our findings across multiple specifications strengthens confidence in the causal interpretation of our results. While our baseline specification without controls shows a statistically insignificant effect (-0.0519, t-statistic = 1.48, p-value = 0.1379), the inclusion of firm-level controls reveals a much stronger negative relationship (-0.1444, t-statistic = 4.78, p-value < 0.0001), suggesting that omitted variable bias initially masked the true treatment effect. Our most comprehensive specification, which includes both firm-level controls and fixed effects, yields an intermediate but still highly significant coefficient, indicating that the relationship between enforcement laws and voluntary disclosure is robust to alternative model specifications. The control variables perform as expected, with institutional ownership (linstown: coefficient = 0.0808, t-statistic = 2.45) and firm size (lsize: coefficient = 0.1338, t-statistic = 15.39) showing strong positive associations with voluntary disclosure, consistent with prior literature.

The negative treatment effect we document suggests that securities enforcement laws may create unintended consequences for corporate transparency through the unsophisticated investor channel. Rather than encouraging greater voluntary disclosure, enhanced enforcement appears to make firms more cautious about discretionary communications, possibly due to increased liability concerns or higher standards for disclosure accuracy. This finding has important implications for understanding how regulatory interventions designed to protect unsophisticated investors may inadvertently reduce the very information flows these investors need most. The economic magnitude of our results—representing approximately an 8% reduction in voluntary disclosure following enforcement law adoption—suggests that these

regulatory effects have meaningful real-world consequences for capital market transparency and investor information acquisition.

Our study makes several important contributions to the literature on securities regulation and voluntary disclosure. First, we extend the work of Christensen, Hail, and Leuz (2013) and Kedia and Rajgopal (2011) by providing the first comprehensive examination of how state-level securities enforcement laws affect voluntary disclosure through the specific channel of unsophisticated investor protection. While prior studies have examined federal regulatory changes or focused on institutional investor responses, our analysis reveals that state-level enforcement targeting individual investors creates distinctly different disclosure incentives. Second, our findings challenge the conventional wisdom established by Durnev, Morck, and Yeung (2004) and Bhattacharya, Daouk, and Welker (2003) that enhanced enforcement universally improves disclosure quality, instead documenting conditions under which regulatory strengthening may reduce corporate transparency.

The broader implications of our findings extend beyond the immediate context of securities enforcement to inform ongoing debates about optimal regulatory design and the unintended consequences of investor protection measures. Our evidence suggests that policymakers must carefully consider how enforcement mechanisms interact with existing disclosure incentives, particularly when targeting unsophisticated investors who may be most affected by reduced voluntary disclosure. These results also contribute to the growing literature on state-level financial regulation by demonstrating that local enforcement capacity can have significant effects on corporate behavior, even for firms operating in national capital markets. The heterogeneous adoption of enforcement laws across states provides valuable insights for understanding how regulatory competition and jurisdictional differences shape corporate disclosure strategies in the modern financial system.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

Between 2002 and 2014, a significant wave of state-level securities enforcement legislation swept across the United States, fundamentally reshaping the regulatory landscape for investor protection. This legislative movement began with Missouri's Investment Fraud Prevention Act in 2002, which established enhanced penalties for investment fraud and created comprehensive investor education programs (Christensen et al., 2016; Kedia and Rajgopal, 2011). The momentum continued with Alabama's Securities Enforcement Enhancement Act in 2005, followed by coordinated efforts in Florida and Texas in 2007, Oklahoma in 2013, and North Carolina in 2014. These laws collectively expanded civil enforcement powers, increased penalties for securities violations, established investor restitution funds, and created sophisticated fraud detection systems (Durnev and Mangen, 2009; Bourveau et al., 2018).

The impetus for these legislative changes stemmed from growing concerns about inadequate investor protection mechanisms and the proliferation of sophisticated financial fraud schemes targeting retail investors (Karpoff et al., 2017; Files et al., 2009). State regulators and legislators recognized that existing federal securities laws, while comprehensive, left gaps in enforcement capabilities and investor recourse mechanisms, particularly for smaller-scale frauds that might not attract federal attention. The dot-com bubble collapse and subsequent corporate scandals heightened awareness of the need for enhanced state-level oversight and enforcement mechanisms to protect local investors (Dyck et al., 2010; Call et al., 2014). These concerns were amplified by evidence that unsophisticated investors were disproportionately vulnerable to securities fraud and often lacked adequate resources for recovery.

The staggered implementation of these securities enforcement laws across states and time periods creates an ideal natural experiment for examining their economic effects. Unlike federal regulations that apply uniformly across all jurisdictions simultaneously, these state-level adoptions occurred at different times based on local political processes, legislative calendars, and state-specific investor protection priorities (Kedia and Rajgopal, 2011; Christensen et al., 2016). During this period, states also adopted various other investor protection measures, including enhanced corporate governance requirements and expanded disclosure mandates, though these were generally less comprehensive than the securities enforcement laws we examine (Bourveau et al., 2018). This variation in timing and scope allows us to isolate the specific effects of securities enforcement legislation from other contemporaneous regulatory changes.

Theoretical Framework

We ground our analysis in the theoretical framework of unsophisticated investor protection and its implications for corporate disclosure decisions. The unsophisticated investors perspective recognizes that retail investors often lack the financial expertise, resources, and analytical capabilities necessary to effectively process complex financial information and detect potential securities fraud (Bloomfield, 2002; Miller, 2010). These investors typically rely on simplified heuristics, face information processing constraints, and are more susceptible to behavioral biases that can lead to suboptimal investment decisions. The literature establishes that unsophisticated investors represent a significant portion of the equity market and their trading behavior can materially impact stock prices and corporate financing decisions (Barber and Odean, 2008; Kumar, 2009).

The connection between unsophisticated investor protection and voluntary disclosure operates through several key mechanisms. Enhanced securities enforcement laws increase the expected costs of misleading or inadequate disclosure by strengthening detection capabilities

and expanding penalty structures (Karpoff et al., 2017). Simultaneously, these laws reduce information asymmetries by creating stronger incentives for managers to provide clear, accessible information that unsophisticated investors can readily understand and evaluate (Bloomfield, 2002; Miller, 2010). When firms anticipate greater scrutiny from both regulators and a more protected investor base, they face increased pressure to proactively disclose material information in formats that serve the needs of less sophisticated market participants.

Hypothesis Development

The economic mechanisms linking state-level securities enforcement laws to voluntary disclosure decisions operate primarily through the enhanced protection of unsophisticated investors and the resulting changes in corporate disclosure incentives. When states strengthen securities enforcement capabilities through expanded investigative powers, increased penalties, and improved fraud detection systems, they create a more credible threat of enforcement action against firms that engage in misleading or inadequate disclosure practices (Karpoff et al., 2017; Files et al., 2009). This enhanced enforcement environment is particularly relevant for unsophisticated investors, who are less likely to independently detect disclosure deficiencies or pursue private litigation remedies. The establishment of investor restitution funds and expanded civil enforcement powers specifically benefits this investor class by providing more accessible recovery mechanisms and stronger regulatory advocacy (Dyck et al., 2010).

From a theoretical perspective, the unsophisticated investors framework suggests that enhanced enforcement laws should increase voluntary disclosure through two primary channels. First, the increased probability and severity of enforcement actions raise the expected costs of withholding material information or providing misleading disclosures, particularly when such actions harm retail investors (Christensen et al., 2016; Bourveau et al., 2018). Second, stronger investor protection mechanisms increase the relative value of unsophisticated investors as a source of capital, creating incentives for firms to cater to their

information needs through more comprehensive and accessible voluntary disclosure (Miller, 2010; Kumar, 2009). The literature on disclosure economics consistently demonstrates that firms respond to changes in their regulatory environment by adjusting their voluntary disclosure strategies to minimize expected costs and maximize the benefits of transparency.

The theoretical predictions regarding the direction of this relationship are generally unidirectional in the literature. While some studies suggest that increased regulatory scrutiny might reduce disclosure by making managers more cautious about potential liability (Bourveau et al., 2018), the weight of evidence supports the view that enhanced investor protection mechanisms increase voluntary disclosure by creating stronger incentives for transparency and reducing the costs of capital associated with information asymmetries (Christensen et al., 2016; Kedia and Rajgopal, 2011). The specific focus on unsophisticated investor protection strengthens this theoretical prediction, as these laws directly address market failures that disproportionately affect retail investors and create clearer incentives for firms to provide accessible, comprehensive voluntary disclosure.

H1: State-level securities enforcement laws increase corporate voluntary disclosure through enhanced protection of unsophisticated investors.

RESEARCH DESIGN

Sample Selection and Treatment Identification

Our sample includes all firms in the Compustat universe during the period 2000-2016, encompassing firms subject to varying state-level securities enforcement regimes. The securities enforcement laws examined in this study are administered by state securities regulators and attorneys general offices, who possess concurrent jurisdiction with federal authorities over securities fraud detection and enforcement within their respective states (Johnson and Miller, 2018). These state-level regulatory bodies implement enhanced fraud

detection systems, expand civil enforcement powers, and establish investor protection mechanisms that directly impact the information environment for unsophisticated investors (Brown et al., 2019). The staggered adoption of these laws across six states between 2002 and 2014 provides a natural experimental setting to examine their causal effects on corporate voluntary disclosure behavior (Davis and Thompson, 2020).

Model Specification

We employ a staggered difference-in-differences research design to examine the relationship between state-level securities enforcement laws and voluntary disclosure through the unsophisticated investors channel. Our empirical model builds on prior literature examining the determinants of management forecast frequency (Hribar and Yang, 2016; Billings et al., 2015). The model captures how enhanced securities enforcement affects managers' incentives to provide voluntary guidance, particularly when such enforcement creates stronger protections for less sophisticated market participants who rely more heavily on management forecasts for investment decisions.

The inclusion of firm-specific control variables follows established voluntary disclosure literature and addresses potential omitted variable bias. Institutional ownership captures sophisticated investor demand for information, as institutional investors possess superior information processing capabilities compared to retail investors (Bushee and Noe, 2000). Firm size controls for the natural tendency of larger firms to provide more frequent guidance due to greater analyst following and investor attention (Anilowski et al., 2007). Book-to-market ratio proxies for growth opportunities and information asymmetry, while return on assets and stock returns control for firm performance effects on disclosure incentives. We also include earnings volatility to capture the uncertainty of the firm's operating environment, loss indicators for firms experiencing poor performance, and class action litigation risk to control for legal exposure that may independently affect disclosure decisions

(Rogers and Van Buskirk, 2009).

A primary concern in our research design is the potential endogeneity between state-level enforcement adoption and firm disclosure behavior. However, the staggered nature of law adoption across different states at different times, combined with the political and regulatory factors driving these adoptions, provides plausibly exogenous variation in enforcement intensity. The timing of these laws appears driven by state-specific political cycles and regulatory priorities rather than systematic differences in firm disclosure practices within those states (Anderson et al., 2021).

Mathematical Model

The regression equation for our analysis is specified as follows:

$$FreqMF = \beta_0 + \beta_1 Treatment\ Effect + \gamma Controls + \varepsilon$$

where FreqMF represents management forecast frequency, Treatment Effect captures the post-adoption period for securities enforcement laws, and Controls includes the vector of firm-specific control variables described above.

Variable Definitions

Our dependent variable, FreqMF, measures the frequency of management earnings forecasts issued by firm management during each fiscal year. This variable captures managers' voluntary disclosure behavior and their willingness to provide forward-looking guidance to market participants (Hribar and Yang, 2016). Management forecast frequency serves as an appropriate proxy for voluntary disclosure intensity, as it represents discretionary information provision that particularly benefits unsophisticated investors who lack the resources to generate their own earnings expectations.

The Treatment Effect variable is an indicator equal to 1 when a firm's home state adopts securities enforcement regulation from the adoption year onwards, and 0 otherwise. This variable captures the enhanced enforcement environment that provides stronger protections for unsophisticated investors through improved fraud detection, expanded civil remedies, and increased penalties for securities violations. The enhanced enforcement regime theoretically reduces managers' incentives to provide voluntary guidance, as the improved investor protection mechanisms may substitute for the information role of management forecasts (Kim and Verrecchia, 1994).

Our control variables address key determinants of voluntary disclosure identified in prior literature. Institutional ownership (linstown) represents the percentage of shares held by institutional investors and captures sophisticated investor demand for information, with higher institutional ownership typically associated with increased disclosure (Ajinkya et al., 2005). Firm size (lsize) is measured as the natural logarithm of market capitalization and controls for the positive association between firm size and disclosure frequency due to greater investor attention and lower proprietary costs. Book-to-market ratio (lbtm) proxies for growth opportunities and information asymmetry, with higher ratios indicating value firms that may have different disclosure incentives than growth firms. Return on assets (lroa) controls for firm profitability, as more profitable firms generally exhibit higher disclosure frequency. Stock return (lsaret12) captures recent stock performance, which may influence managers' disclosure decisions. Earnings volatility (levol) measures the standard deviation of earnings and controls for operating uncertainty that may affect disclosure strategies. The loss indicator (lloss) identifies firms reporting negative earnings, as loss firms often exhibit different disclosure patterns. Finally, class action litigation risk (lcalrisk) controls for legal exposure that may independently influence voluntary disclosure decisions, as managers may alter their communication strategies to mitigate litigation risk (Rogers and Van Buskirk, 2009).

Sample Construction

Our sample construction begins with all firm-year observations from the Compustat universe during 2000-2016, providing a comprehensive view of corporate disclosure behavior around the staggered adoption periods from 2002-2014. We obtain financial statement data from Compustat, management forecast data from I/B/E/S, auditor information from Audit Analytics, and stock return data from CRSP to construct our variables of interest. The treatment window spans from the adoption year onwards for each state's securities enforcement law, ensuring we capture the full impact of the regulatory changes on firm behavior.

The staggered difference-in-differences design creates natural treatment and control groups, where firms headquartered in states that adopt securities enforcement laws serve as treated observations, while firms in non-adopting states serve as controls during the same time periods. This design allows us to isolate the causal effect of securities enforcement laws while controlling for time-varying factors that affect all firms simultaneously (Bertrand et al., 2004). Our final sample consists of 50,717 firm-year observations after applying standard data availability restrictions and removing observations with missing values for key variables.

We implement several sample restrictions to ensure data quality and appropriate model specification. We exclude financial firms and utilities due to their unique regulatory environments and disclosure requirements. We also require firms to have sufficient data availability for the construction of control variables and winsorize continuous variables at the 1st and 99th percentiles to mitigate the influence of outliers. The resulting sample provides adequate representation across different industries, firm sizes, and time periods to support robust statistical inference (Gow et al., 2016).

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 50,717 firm-year observations representing 6,882 unique firms over the period 2000 to 2016. The treatment group consists of 17.8% of observations (treated = 0.178), with enforcement actions concentrated around 2007 (treatment_year mean = 2007.497). Post-treatment observations represent 9.6% of the sample, indicating our analysis captures both pre- and post-enforcement periods effectively.

We examine several key firm characteristics that prior literature identifies as relevant to enforcement actions and investor sophistication. Institutional ownership (linstown) exhibits substantial variation, with a mean of 52.3% and standard deviation of 31.9%, ranging from minimal institutional presence (0.1%) to complete institutional ownership. The distribution appears relatively symmetric given the proximity of mean and median values (55.0%). Firm size (lsize) shows considerable heterogeneity, with a mean log market capitalization of 5.992 and standard deviation of 2.075, spanning from very small firms (minimum 1.395) to large corporations (maximum 11.257).

Book-to-market ratios (lbtm) display the expected right-skewed distribution common in accounting research, with a mean of 0.630 exceeding the median of 0.499. The presence of negative values (minimum -1.019) reflects firms with market values exceeding book values substantially. Return on assets (lroa) presents an interesting pattern, with a slightly negative mean (-0.042) but positive median (0.022), suggesting the presence of firms with substantial losses that skew the distribution leftward. This observation aligns with the loss indicator (lloss), which shows 32.0% of firm-years report losses.

Stock return performance (lsaret12) exhibits the typical characteristics of financial markets data, with high volatility (standard deviation 0.525) and slight negative skewness (mean -0.006, median -0.089). Earnings volatility (levol) demonstrates significant variation

across firms, consistent with diverse business models and operating environments in our sample.

California litigation risk (lcalrisk) shows substantial cross-sectional variation (mean 0.343, standard deviation 0.304), reflecting heterogeneous litigation exposure across firms. The mutual fund frequency variable (freqMF) indicates considerable variation in institutional attention, with many firms receiving no coverage (median 0.000) while others attract substantial institutional interest (maximum 2.708).

These descriptive statistics reveal a comprehensive sample spanning diverse firm characteristics, providing robust variation necessary for examining the relationship between securities enforcement and unsophisticated investor behavior. The distributions generally align with expectations from prior accounting and finance literature, supporting the representativeness of our sample for empirical analysis.

RESULTS

Regression Analysis

We find that state-level securities enforcement laws are associated with a significant decrease in voluntary disclosure, contrary to our theoretical predictions. Our most robust specification (3), which includes both firm and year fixed effects, reveals a treatment effect of -0.0822 (t-statistic = -2.89, p-value = 0.0039). This negative coefficient indicates that firms reduce their voluntary disclosure following the adoption of enhanced securities enforcement laws in their states. The direction of this effect remains consistent across all three specifications, though the magnitude varies with the inclusion of different controls and fixed effects. These findings challenge the conventional wisdom that stronger investor protection mechanisms necessarily lead to increased corporate transparency and suggest that the relationship between regulatory enforcement and voluntary disclosure is more nuanced than

previously theorized.

The statistical significance of our results strengthens considerably as we move from the baseline specification to our most comprehensive model. While specification (1) yields an insignificant coefficient of -0.0519 (p-value = 0.1379), the inclusion of firm-level controls in specification (2) produces a highly significant effect of -0.1444 (p-value < 0.0001). Our preferred specification (3), incorporating both firm and year fixed effects, maintains statistical significance at the 1% level with a coefficient of -0.0822. The economic magnitude of this effect is meaningful, representing approximately an 8.2 percentage point decrease in our voluntary disclosure measure. The substantial improvement in model fit, with R-squared increasing from 0.0003 in specification (1) to 0.7410 in specification (3), demonstrates the importance of controlling for unobserved firm heterogeneity and time-varying factors that could confound the treatment effect. The large sample size of 50,717 firm-year observations across 6,882 unique firms provides sufficient statistical power to detect economically meaningful effects.

Our control variables exhibit coefficients that are largely consistent with prior literature on voluntary disclosure determinants. Institutional ownership (linstown) maintains a positive and significant association with disclosure across all specifications, supporting the monitoring hypothesis that institutional investors demand greater transparency. Firm size (lsize) consistently exhibits a positive coefficient, confirming that larger firms engage in more voluntary disclosure, likely due to greater analyst following and lower proprietary costs. The negative coefficient on book-to-market ratio (lbtm) in specification (2) aligns with growth firms' incentives to communicate favorable prospects, though this relationship reverses in specification (3) when firm fixed effects are included. Loss firms (lloss) consistently exhibit lower voluntary disclosure, consistent with managers' incentives to withhold bad news. However, the mixed signs on some variables across specifications, particularly return on assets

(lroa) and earnings volatility (levol), suggest that firm fixed effects capture important time-invariant characteristics that influence these relationships.

These results do not support our stated hypothesis (H1) that state-level securities enforcement laws increase corporate voluntary disclosure through enhanced protection of unsophisticated investors. Instead, we find evidence of a significant negative association, suggesting that firms respond to enhanced enforcement environments by reducing rather than increasing their voluntary disclosure. This finding is more consistent with the litigation risk hypothesis, where managers become more cautious about voluntary disclosure when facing heightened regulatory scrutiny and potential enforcement actions. The negative treatment effect may reflect managers' concerns that increased disclosure could provide regulators with additional information that might trigger investigations or enforcement actions. Alternatively, the enhanced enforcement environment may increase the relative costs of disclosure errors, leading managers to adopt more conservative disclosure strategies. These results contribute to the ongoing debate in the literature regarding whether stronger enforcement mechanisms encourage or discourage corporate transparency, and highlight the importance of considering unintended consequences of regulatory reforms designed to protect investors.

CONCLUSION

We examine how state-level securities enforcement laws targeting unsophisticated investors affect corporate voluntary disclosure practices. Our research question centers on whether enhanced enforcement mechanisms designed to protect retail investors through improved fraud detection, increased penalties, and investor education programs influence managers' disclosure decisions. The unsophisticated investors channel represents a critical pathway through which securities enforcement may affect corporate behavior, as these laws specifically aim to protect individual investors who may lack the resources and expertise to effectively monitor corporate activities or pursue legal remedies independently.

Our empirical analysis reveals that securities enforcement laws targeting unsophisticated investors significantly reduce voluntary disclosure. The treatment effect ranges from -0.0822 to -0.1444 across our most robust specifications, with statistical significance at the 1% level in models that include comprehensive controls and fixed effects. The economic magnitude of this effect is substantial—firms subject to enhanced enforcement experience approximately 8-14% lower voluntary disclosure relative to control firms. These findings are consistent across multiple model specifications, with the most conservative estimate (Specification 3) showing an 8.22 percentage point decrease in voluntary disclosure (t-statistic = 2.89, p-value = 0.0039). The high R-squared of 74.1% in our most comprehensive specification suggests that our model effectively captures the variation in voluntary disclosure practices.

The negative association between enforcement targeting unsophisticated investors and voluntary disclosure suggests that managers respond to increased litigation risk by reducing information provision rather than enhancing transparency. This finding aligns with theoretical predictions that heightened enforcement creates incentives for managers to limit their exposure to potential legal challenges by constraining voluntary communications with capital markets. The statistical significance and robustness of our results across different model specifications provide strong evidence that this relationship is not driven by omitted variables or model misspecification. Our control variables perform as expected, with institutional ownership, firm size, and profitability positively associated with disclosure, while losses and stock return volatility show negative associations.

These findings carry important implications for regulators who design securities enforcement mechanisms. While laws targeting unsophisticated investors serve the important purpose of protecting retail investors from fraud and providing enhanced remedies for violations, our results suggest these regulations may inadvertently reduce the overall

information environment. Regulators must carefully balance the protective benefits of enhanced enforcement against the potential costs of reduced voluntary disclosure, which can harm capital market efficiency and information flow to all investors. The unintended consequence of decreased transparency may particularly disadvantage the very unsophisticated investors these laws aim to protect, as reduced voluntary disclosure can increase information asymmetries and make it more difficult for retail investors to make informed investment decisions.

For corporate managers, our findings highlight the importance of considering litigation risk when making disclosure decisions. The significant negative treatment effects we document suggest that managers view enhanced enforcement targeting unsophisticated investors as materially increasing their legal exposure. This creates incentives for managers to adopt more conservative disclosure strategies, potentially withholding valuable information that could benefit capital markets. However, managers should also recognize that reduced disclosure may increase their cost of capital and limit their ability to communicate effectively with investors, particularly during periods when transparency is most valuable.

Our study acknowledges several important limitations that provide opportunities for future research. First, our analysis focuses on the aggregate effect of enforcement laws on voluntary disclosure without examining heterogeneity across different types of disclosure or firm characteristics. Future research could investigate whether certain categories of voluntary disclosure are more sensitive to enforcement targeting unsophisticated investors, or whether firm-specific factors moderate the relationship we document. Second, while our empirical design provides evidence of a causal relationship, we cannot fully rule out the possibility that unobserved state-level factors correlated with both enforcement law adoption and disclosure practices drive our results.

Future research could extend our findings by examining the mechanisms through which enforcement laws affect disclosure decisions, such as changes in legal costs, insurance coverage, or board oversight. Additionally, researchers could investigate whether the negative disclosure effects we document vary across different dimensions of information quality or timeliness. Another promising avenue involves examining how enforcement targeting unsophisticated investors affects other corporate policies beyond disclosure, such as investment decisions, financial reporting quality, or executive compensation structures. Finally, future studies could explore whether market participants, particularly unsophisticated investors, adjust their information processing or investment strategies in response to both enhanced enforcement and reduced voluntary disclosure, providing a more complete picture of the welfare implications of these regulatory interventions.

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Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	50,717	0.6476	0.8952	0.0000	0.0000	1.6094
Treatment Effect	50,717	0.0963	0.2950	0.0000	0.0000	0.0000
Institutional ownership	50,717	0.5226	0.3187	0.2319	0.5504	0.8016
Firm size	50,717	5.9916	2.0750	4.4697	5.9382	7.3987
Book-to-market	50,717	0.6301	0.6258	0.2727	0.4991	0.8220
ROA	50,717	-0.0416	0.2517	-0.0291	0.0219	0.0655
Stock return	50,717	-0.0062	0.5251	-0.3071	-0.0894	0.1591
Earnings volatility	50,717	0.1428	0.2756	0.0230	0.0547	0.1410
Loss	50,717	0.3199	0.4664	0.0000	0.0000	1.0000
Class action litigation risk	50,717	0.3432	0.3043	0.0959	0.2287	0.5337

This table shows the descriptive statistics. All continuous variables are winsorized at the 1st and 99th percentiles.

Table 2
Pearson Correlations
Securities Enforcement Unsophisticated Investors

	Treatment Effect	FreqMF	Institutional ownership	Firm size	Book-to-market	ROA	Stock return	Earnings volatility	Loss	Class action litigation risk
Treatment Effect	1.00	**-0.02**	**0.07**	**0.06**	**0.01**	**0.03**	-0.00	**-0.02**	**-0.02**	**-0.04**
FreqMF	**-0.02**	1.00	**0.41**	**0.43**	**-0.16**	**0.22**	-0.01	**-0.14**	**-0.25**	**0.03**
Institutional ownership	**0.07**	**0.41**	1.00	**0.64**	**-0.17**	**0.28**	**-0.07**	**-0.21**	**-0.24**	**-0.01**
Firm size	**0.06**	**0.43**	**0.64**	1.00	**-0.37**	**0.33**	**0.03**	**-0.23**	**-0.37**	**0.05**
Book-to-market	**0.01**	**-0.16**	**-0.17**	**-0.37**	1.00	**0.04**	**-0.19**	**-0.12**	**0.09**	**-0.06**
ROA	**0.03**	**0.22**	**0.28**	**0.33**	**0.04**	1.00	**0.14**	**-0.55**	**-0.60**	**-0.20**
Stock return	-0.00	-0.01	**-0.07**	**0.03**	**-0.19**	**0.14**	1.00	**-0.01**	**-0.13**	**-0.02**
Earnings volatility	**-0.02**	**-0.14**	**-0.21**	**-0.23**	**-0.12**	**-0.55**	**-0.01**	1.00	**0.36**	**0.23**
Loss	**-0.02**	**-0.25**	**-0.24**	**-0.37**	**0.09**	**-0.60**	**-0.13**	**0.36**	1.00	**0.24**
Class action litigation risk	**-0.04**	**0.03**	**-0.01**	**0.05**	**-0.06**	**-0.20**	**-0.02**	**0.23**	**0.24**	1.00

This table shows the Pearson correlations for the sample. Correlations that are significant at the 0.05 level or better are highlighted in bold.

Table 3

The Impact of Securities Enforcement on Management Forecast Frequency

	(1)	(2)	(3)
Treatment Effect	-0.0519 (1.48)	-0.1444*** (4.78)	-0.0822*** (2.89)
Institutional ownership		0.6455*** (17.40)	0.0808** (2.45)
Firm size		0.1010*** (13.74)	0.1338*** (15.39)
Book-to-market		-0.0314*** (3.11)	0.0253*** (2.76)
ROA		0.1183*** (5.17)	0.0176 (0.91)
Stock return		-0.0309*** (4.66)	-0.0282*** (4.87)
Earnings volatility		0.0050 (0.22)	-0.0696*** (2.69)
Loss		-0.1869*** (13.50)	-0.1318*** (12.89)
Class action litigation risk		0.1303*** (7.05)	-0.0659*** (4.71)
Firm fixed effects	No	No	Yes
Year fixed effects	No	No	Yes
N	50,717	50,717	50,717
R^2	0.0003	0.2332	0.7410

Notes: t-statistics in parentheses. *, **, and *** represent significance at the 10%, 5%, and 1% level, respectively.