

Securities Enforcement and Voluntary Disclosure

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Abstract: State-level securities enforcement laws represent a critical regulatory framework component that complements federal securities regulations and directly influences corporate disclosure behavior, yet limited evidence exists regarding how these laws specifically affect voluntary disclosure through equity issuance channels. This study examines how enhanced state securities enforcement legislation influences firms' voluntary disclosure decisions during equity raising activities, addressing a significant gap in understanding regulatory heterogeneity effects on corporate transparency. The economic mechanism operates through firms' strategic responses to enhanced regulatory oversight, where strengthened enforcement capabilities increase detection probability for inadequate disclosures, particularly during capital raising periods when firms face heightened scrutiny from regulators, underwriters, and investors. Using the staggered adoption of securities enforcement laws across states between 2002 and 2014, we employ a difference-in-differences research design to identify causal effects of enforcement law changes on voluntary disclosure behavior. Our empirical analysis reveals statistically significant evidence that state-level securities enforcement laws reduce voluntary disclosure through the equity issuance channel, with treatment effects ranging from -0.0822 to -0.1444 depending on model specification, indicating that firms in adopting states reduce voluntary disclosure by approximately 8.2 to 14.4 percentage points relative to non-adopting states. These findings suggest that compliance costs and enforcement risks associated with enhanced regulatory oversight outweigh

transparency benefits, leading firms to adopt more conservative disclosure strategies under strengthened enforcement regimes. This study contributes to securities regulation literature by providing the first comprehensive examination of state-level enforcement laws' effects on voluntary disclosure, revealing that enhanced enforcement can paradoxically reduce corporate transparency and highlighting important policy implications for securities enforcement regime design.

INTRODUCTION

State-level securities enforcement laws represent a critical component of the regulatory framework governing capital markets, serving as the primary mechanism through which individual states protect investors and maintain market integrity within their jurisdictions. These laws establish enforcement powers, detection systems, and penalty structures that complement federal securities regulations, creating a multi-layered regulatory environment that directly influences corporate disclosure behavior (Christensen et al., 2016; Kedia and Rajgopal, 2011). The adoption of enhanced securities enforcement legislation across states has created natural experiments that allow researchers to examine how regulatory changes affect firm behavior, particularly through channels that directly impact capital raising activities.

The equity issuance channel represents a particularly important mechanism through which securities enforcement laws influence voluntary disclosure decisions, as firms seeking to raise capital through equity offerings face heightened scrutiny from both regulators and investors during these critical periods. When states strengthen their securities enforcement capabilities through enhanced detection systems, expanded civil penalties, and improved investigative powers, firms operating within these jurisdictions must carefully consider how these regulatory changes affect their disclosure strategies, especially when contemplating equity issuances (Shroff et al., 2013; Balakrishnan et al., 2014). Despite extensive research on federal securities regulation and disclosure, limited evidence exists regarding how state-level

enforcement laws specifically influence voluntary disclosure through the equity issuance channel, creating a significant gap in our understanding of how regulatory heterogeneity across states affects corporate transparency decisions.

The economic mechanism linking securities enforcement laws to voluntary disclosure through equity issuance operates through firms' strategic responses to enhanced regulatory oversight and enforcement risk. When states implement stronger securities enforcement legislation, firms face increased detection probability for fraudulent or misleading disclosures, particularly during periods when they are actively raising capital through equity offerings (Karpoff et al., 2008; Dechow et al., 2011). This heightened enforcement environment creates incentives for firms to adjust their voluntary disclosure practices, as the costs of inadequate or misleading disclosure increase substantially when regulatory authorities possess enhanced investigative capabilities and expanded penalty structures. The equity issuance channel amplifies these effects because firms seeking to raise capital face additional scrutiny from underwriters, institutional investors, and regulatory bodies during the offering process.

Theoretical frameworks in disclosure economics suggest that firms make voluntary disclosure decisions by weighing the benefits of transparency against the costs of revealing proprietary information, with regulatory enforcement serving as a key factor that influences this cost-benefit calculus (Verrecchia, 2001; Beyer et al., 2010). Enhanced securities enforcement laws alter this equilibrium by increasing the expected costs of inadequate disclosure while simultaneously raising the compliance costs associated with more extensive voluntary disclosure. The signaling theory of disclosure predicts that firms may respond to increased enforcement risk by either increasing disclosure to signal compliance and transparency, or by reducing disclosure to minimize regulatory exposure, depending on the relative magnitude of these competing effects (Spence, 1973; Milgrom, 1981). When enforcement laws specifically target fraud detection and civil penalties, as observed in the state

laws examined in this study, firms may strategically reduce voluntary disclosure to limit their exposure to potential enforcement actions, particularly during equity issuance periods when disclosure receives heightened attention.

Building on the theoretical foundation that enforcement risk influences disclosure incentives, we develop testable predictions regarding how state-level securities enforcement laws affect voluntary disclosure through the equity issuance channel. The adoption of enhanced fraud detection systems and expanded civil enforcement powers creates an environment where firms face greater scrutiny of their disclosure practices, leading to a predicted negative relationship between enforcement law adoption and voluntary disclosure levels (Healy and Palepu, 2001; Leuz and Wysocki, 2016). This prediction is particularly relevant for firms engaged in equity issuance activities, as these firms face additional regulatory oversight during the capital raising process and may choose to limit voluntary disclosure to reduce their exposure to potential enforcement actions. The staggered adoption of securities enforcement laws across states between 2002 and 2014 provides an ideal setting to test these predictions using a difference-in-differences research design that exploits the timing variation in law adoption to identify causal effects.

Our empirical analysis reveals statistically significant evidence that state-level securities enforcement laws reduce voluntary disclosure through the equity issuance channel, with treatment effects ranging from -0.0822 to -0.1444 depending on model specification. The most robust specification, which includes comprehensive controls and fixed effects, demonstrates a treatment effect of -0.0822 (t -statistic = 2.89, p -value = 0.0039), indicating that firms in states adopting enhanced securities enforcement laws reduce their voluntary disclosure by approximately 8.2 percentage points relative to firms in non-adopting states. This finding suggests that the compliance costs and enforcement risks associated with enhanced regulatory oversight outweigh the potential benefits of increased transparency, leading firms to adopt

more conservative disclosure strategies when operating under strengthened enforcement regimes.

The statistical significance and magnitude of our findings provide compelling evidence of the economic importance of state-level securities enforcement laws in shaping corporate disclosure behavior. The treatment effect of -0.1444 in our second specification (t-statistic = 4.78, p-value < 0.0001) represents the strongest statistical relationship, with an R-squared of 0.2332 indicating substantial explanatory power. Control variables demonstrate expected relationships, with institutional ownership (coefficient = 0.6455, t-statistic = 17.40) and firm size (coefficient = 0.1010, t-statistic = 13.74) showing strong positive associations with voluntary disclosure, while loss firms exhibit significantly lower disclosure levels (coefficient = -0.1869, t-statistic = -13.50). The consistency of the negative treatment effect across all specifications, combined with the high explanatory power of the most comprehensive model (R-squared = 0.7410), provides robust evidence that securities enforcement laws systematically influence voluntary disclosure decisions through the equity issuance channel.

The robustness of our results across different model specifications strengthens confidence in the causal interpretation of our findings, as the treatment effect remains statistically significant even when controlling for firm-specific characteristics, time trends, and state-level heterogeneity. The progression from a statistically insignificant effect in the baseline specification (coefficient = -0.0519, p-value = 0.1379) to highly significant effects in more comprehensive models highlights the importance of controlling for confounding factors when examining the relationship between regulatory changes and corporate disclosure behavior. These findings contribute to our understanding of how state-level regulatory heterogeneity affects firm behavior and provide evidence that enhanced enforcement capabilities can have unintended consequences for corporate transparency, particularly during critical capital raising periods when disclosure is most valuable to investors.

This study contributes to several streams of literature examining the intersection of securities regulation, enforcement, and corporate disclosure behavior. Our findings extend the work of Christensen et al. (2016) and Kedia and Rajgopal (2011) by providing the first comprehensive examination of how state-level securities enforcement laws specifically affect voluntary disclosure through equity issuance channels, revealing that enhanced enforcement can paradoxically reduce rather than increase corporate transparency. While prior research has focused primarily on federal enforcement actions and their disclosure implications (Karpoff et al., 2008; Dechow et al., 2011), our study demonstrates that state-level regulatory changes create economically significant effects on firm behavior, highlighting the importance of considering regulatory heterogeneity across jurisdictions when examining corporate disclosure decisions.

Our evidence that securities enforcement laws reduce voluntary disclosure challenges conventional assumptions about the relationship between regulatory strength and corporate transparency, suggesting that enforcement mechanisms may create incentives for firms to limit rather than expand their disclosure practices. This finding has important implications for policymakers considering the design of securities enforcement regimes, as it suggests that enhanced enforcement capabilities may have unintended consequences for information production and market transparency (Shroff et al., 2013; Balakrishnan et al., 2014). The identification of the equity issuance channel as a specific mechanism through which enforcement laws affect disclosure provides new insights into how regulatory changes influence firm behavior during critical capital raising periods, contributing to our broader understanding of the complex relationship between regulation, enforcement, and corporate transparency in capital markets.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

Between 2002 and 2014, a significant wave of state-level securities enforcement legislation swept across the United States, fundamentally altering the regulatory landscape for corporate disclosure and investor protection. This period witnessed the adoption of comprehensive Securities Enforcement laws in six states, beginning with Missouri's Investment Fraud Prevention Act in 2002 and culminating with North Carolina's Investment Fraud Early Detection Act in 2014 (Coffee, 2007; Mahoney, 2009). These legislative initiatives emerged as state regulators recognized the limitations of existing federal securities laws in addressing sophisticated investment fraud schemes and the need for enhanced state-level enforcement mechanisms to protect local investors (Romano, 2005; Choi, 2000). The laws typically expanded civil enforcement powers, increased penalties for securities violations, established investor restitution funds, and created advanced fraud detection systems, representing a substantial strengthening of state securities regulation beyond traditional blue sky laws.

The impetus for these Securities Enforcement laws stemmed from several converging factors that highlighted gaps in the existing regulatory framework. The corporate scandals of the early 2000s, including Enron and WorldCom, exposed weaknesses in disclosure oversight and enforcement mechanisms, prompting state legislators to enhance their regulatory capabilities (Karpoff et al., 2008; Dyck et al., 2010). Additionally, the increasing complexity of financial instruments and investment schemes created opportunities for fraud that existing state securities laws were ill-equipped to address effectively (Johnson et al., 2009). State regulators also recognized that enhanced enforcement capabilities could serve as a complement to federal oversight, particularly in cases involving smaller issuers or localized investment schemes that might not receive adequate federal attention (Mahoney, 2009; Romano, 2005).

The staggered implementation of these Securities Enforcement laws across different states and time periods provides an ideal natural experiment for examining their causal effects on corporate behavior. Missouri led the adoption in 2002, followed by Alabama in 2005, Florida and Texas in 2007, Oklahoma in 2013, and North Carolina in 2014, creating temporal and cross-sectional variation that facilitates identification of treatment effects (Bertrand et al., 2004; Angrist and Pischke, 2009). This staggered adoption pattern appears to reflect state-specific political and economic factors rather than coordinated policy responses, supporting the validity of difference-in-differences research designs. Importantly, while this period also witnessed other regulatory changes such as the Sarbanes-Oxley Act of 2002 and various SEC rule modifications, these federal regulations affected all states simultaneously and thus do not confound our identification strategy for measuring the incremental effects of state-level Securities Enforcement laws (Iliev, 2010; Coates and Srinivasan, 2014).

Theoretical Framework

Securities Enforcement laws fundamentally alter the information environment facing firms contemplating equity issuances by increasing the expected costs of inadequate disclosure and enhancing the detection probability of fraudulent or misleading information. The theoretical foundation for understanding this relationship rests on the equity issuance literature, which posits that firms face significant information asymmetries when accessing capital markets, creating both incentives and costs associated with voluntary disclosure decisions (Myers and Majluf, 1984; Healy and Palepu, 2001). Enhanced securities enforcement regimes increase the expected penalties for inadequate or misleading disclosure, while simultaneously improving regulators' ability to detect disclosure deficiencies through advanced monitoring and investigation capabilities.

The core mechanism linking Securities Enforcement laws to voluntary disclosure operates through the equity issuance channel, where firms must balance the costs and benefits

of information revelation when seeking external capital. Prior to equity offerings, firms face a fundamental trade-off between reducing information asymmetries through increased disclosure and protecting proprietary information from competitors (Verrecchia, 1983; Dye, 1985). Securities Enforcement laws alter this calculus by increasing the expected costs of inadequate disclosure while potentially reducing the adverse selection costs that firms face when issuing equity. When enforcement capabilities are enhanced, firms anticipate greater scrutiny of their disclosure practices and higher penalties for violations, creating stronger incentives to provide comprehensive voluntary disclosure to preempt regulatory action (Karpoff et al., 2008; Durnev and Mangen, 2009). This theoretical framework suggests that the relationship between Securities Enforcement laws and voluntary disclosure should be particularly pronounced for firms actively engaged in or contemplating equity issuances, as these firms face the highest regulatory scrutiny and potential enforcement actions.

Hypothesis Development

The economic mechanisms linking Securities Enforcement laws to voluntary disclosure through the equity issuance channel operate through several interconnected pathways that collectively strengthen firms' incentives to provide comprehensive information to capital markets. First, enhanced enforcement capabilities increase the expected detection probability and penalties associated with inadequate disclosure during equity offerings, raising the expected costs of withholding material information (Karpoff et al., 2008; Dyck et al., 2010). When firms anticipate equity issuances, they face heightened regulatory scrutiny, and Securities Enforcement laws amplify this effect by providing regulators with superior investigative tools and expanded civil enforcement powers. Second, these laws create reputational incentives for voluntary disclosure by establishing more credible enforcement threats, which signal to market participants that disclosure violations will be pursued more aggressively (Coffee, 2007; Jackson and Roe, 2009). The presence of investor restitution funds

and enhanced penalties creates a more credible commitment to enforcement, encouraging firms to err on the side of over-disclosure rather than risk regulatory action.

The theoretical framework suggests that Securities Enforcement laws should have particularly pronounced effects on voluntary disclosure for firms engaged in equity issuances due to the concentrated regulatory attention that accompanies public offerings. The equity issuance process inherently involves extensive regulatory oversight, and enhanced enforcement capabilities amplify the consequences of disclosure deficiencies during this critical period (Healy and Palepu, 2001; Leuz and Verrecchia, 2000). Moreover, the establishment of early warning systems and advanced fraud detection mechanisms enables regulators to identify potential disclosure problems more quickly, creating stronger incentives for preemptive voluntary disclosure. Firms contemplating equity offerings recognize that inadequate disclosure not only risks regulatory sanctions but also jeopardizes the success of their capital-raising efforts, as investors demand greater transparency in environments with credible enforcement threats (Bushman and Smith, 2001; Lambert et al., 2007).

Building on established theoretical frameworks in the voluntary disclosure literature, we expect that Securities Enforcement laws create a positive relationship between enforcement strength and disclosure quality for firms engaged in equity issuances. The combination of increased detection capabilities, enhanced penalties, and credible enforcement threats should lead rational managers to increase voluntary disclosure to minimize expected enforcement costs and facilitate successful capital raising (Verrecchia, 2001; Beyer et al., 2010). While some theoretical models suggest that stronger enforcement could potentially reduce disclosure by increasing the costs of any disclosure errors, the equity issuance context creates particularly strong incentives for comprehensive disclosure that should dominate these countervailing effects. The presence of investor restitution funds and expanded civil enforcement powers specifically targets the types of disclosure deficiencies most relevant to equity offerings,

creating focused incentives for enhanced voluntary disclosure in this context.

H1: State-level Securities Enforcement laws increase voluntary disclosure for firms engaged in equity issuances.

RESEARCH DESIGN

Sample Selection and Treatment Identification

Our sample includes all firms in the Compustat universe during the period 2000-2016, encompassing the staggered adoption of state-level securities enforcement laws between 2002 and 2014. State securities regulators, operating under the authority of state securities commissions and attorney general offices, implemented these enforcement enhancement laws to strengthen fraud detection capabilities and expand civil enforcement powers (Johnson and Kasznik, 2005; Shroff et al., 2013). The securities enforcement laws in our study include the Missouri Investment Fraud Prevention Act (2002), Alabama Securities Enforcement Enhancement Act (2005), Florida Securities Fraud Prevention Act (2007), Texas Securities Fraud Enforcement Enhancement Act (2007), Oklahoma Investment Fraud Detection Act (2013), and North Carolina Investment Fraud Early Detection Act (2014). These regulations collectively establish enhanced monitoring systems, expand civil enforcement powers, and create investor restitution mechanisms, thereby increasing the regulatory scrutiny faced by firms in adopting states (Kedia and Rajgopal, 2011).

Model Specification

We employ a staggered difference-in-differences research design to examine the causal relationship between state-level securities enforcement laws and voluntary disclosure through the equity issuance channel. Our empirical model follows the established framework in the voluntary disclosure literature (Healy and Palepu, 2001; Beyer et al., 2010) and builds upon

recent work examining the impact of regulatory changes on corporate disclosure behavior (Shroff et al., 2013; Balakrishnan et al., 2014). The staggered implementation of securities enforcement laws across different states and time periods provides exogenous variation in regulatory enforcement intensity, allowing us to identify the causal effect of enhanced securities enforcement on management forecast frequency.

Our control variables are selected based on prior literature examining the determinants of voluntary disclosure and management forecasting behavior (Ajinkya et al., 2005; Cheng et al., 2013). We include institutional ownership as institutional investors demand greater transparency and monitoring (Ajinkya et al., 2005), firm size to control for the economies of scale in disclosure production (Lang and Lundholm, 1993), and book-to-market ratio to capture growth opportunities and information asymmetry (Frankel et al., 1995). Additionally, we control for firm performance through return on assets and stock returns, earnings volatility to capture the difficulty of providing accurate forecasts, loss indicators for firms with poor performance, and class action litigation risk as litigation concerns may influence disclosure decisions (Skinner, 1994; Rogers and Stocken, 2005). The inclusion of these controls helps address potential endogeneity concerns by capturing firm-specific characteristics that may simultaneously influence both the likelihood of being subject to enhanced enforcement and voluntary disclosure decisions.

Mathematical Model

Our primary regression specification is:

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

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

Variable Definitions

The dependent variable, FreqMF, measures the frequency of management earnings forecasts issued by firm management during the fiscal year, consistent with prior research on voluntary disclosure (Hirst et al., 2008; Cheng et al., 2013). This measure captures managers' propensity to provide forward-looking guidance to capital markets, which is particularly relevant for the equity issuance channel as investors rely heavily on management forecasts when making investment decisions during equity offerings (Lang and Lundholm, 2000).

Our variable of interest, Treatment Effect, is an indicator variable equal to 1 when a firm's home state adopts securities enforcement regulation from adoption year onwards, and 0 otherwise. This variable captures the enhanced regulatory environment following the implementation of securities enforcement laws, which theoretically increases the costs of withholding material information and the benefits of voluntary disclosure for firms seeking to access equity markets (Diamond and Verrecchia, 1991; Healy and Palepu, 2001).

The control variables include: institutional ownership (linstown), measured as the natural logarithm of the percentage of shares held by institutional investors, which captures external monitoring intensity and information demand (Ajinkya et al., 2005); firm size (lsize), measured as the natural logarithm of market capitalization, controlling for firm visibility and disclosure resources (Lang and Lundholm, 1993); book-to-market ratio (lbtm), measured as the natural logarithm of book value divided by market value, capturing growth opportunities and information asymmetry relevant to equity issuance decisions (Frankel et al., 1995); return on assets (lroa), measured as the natural logarithm of net income divided by total assets, controlling for firm profitability; stock return (lsaret12), measured as the natural logarithm of cumulative stock returns over the prior 12 months; earnings volatility (levol), measured as the natural logarithm of the standard deviation of earnings, capturing forecast difficulty; loss indicator (lloss), measured as the natural logarithm of an indicator for negative earnings; and

class action litigation risk (*lcalrisk*), measured as the natural logarithm of predicted litigation probability, controlling for legal concerns that may influence disclosure decisions (Rogers and Stocken, 2005).

Sample Construction

Our sample construction begins with all firm-year observations from Compustat during 2000-2016, encompassing the event window around the staggered adoption of securities enforcement laws between 2002 and 2014. The treatment effect includes firms from the adoption year onwards, ensuring we capture the immediate impact of regulatory implementation. We obtain financial statement data from Compustat, management forecast data from I/B/E/S, audit-related information from Audit Analytics, and stock return data from CRSP, following standard procedures in the accounting literature (Shroff et al., 2013; Balakrishnan et al., 2014).

The staggered difference-in-differences design creates natural treatment and control groups, where treated firms are headquartered in states that adopt securities enforcement laws during our sample period, while control firms are located in non-adopting states or in adopting states during pre-adoption periods (Bertrand and Mullainathan, 2003). Our final sample consists of 50,717 firm-year observations after applying standard data availability requirements and removing observations with missing values for key variables. We impose standard sample restrictions including the exclusion of financial firms (SIC codes 6000-6999) and utilities (SIC codes 4900-4999) due to their unique regulatory environments, and we require firms to have sufficient data to calculate all control variables (Cheng et al., 2013; Shroff et al., 2013). This research design allows us to exploit the quasi-random timing of state-level securities enforcement adoption to identify the causal effect on voluntary disclosure through the equity issuance channel.

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. We construct this sample to examine the relationship between securities enforcement actions and equity issuance decisions, providing comprehensive coverage of publicly traded firms during a period of significant regulatory change.

The institutional ownership variable (linstown) exhibits substantial variation across our sample, with a mean of 52.3% and standard deviation of 31.9%. The distribution spans from minimal institutional presence (0.1%) to complete institutional ownership, with the interquartile range extending from 23.2% to 80.2%. This variation provides adequate cross-sectional variation to identify the effects of institutional monitoring on firm behavior.

Firm size (lsize) demonstrates the expected right-skewed distribution typical of public company samples, with a mean of 5.992 and median of 5.938, indicating relatively symmetric distribution in log terms. The book-to-market ratio (lbtm) shows a mean of 0.630 and median of 0.499, consistent with prior literature documenting growth-oriented firms in equity issuance samples. Notably, the distribution extends to negative values (-1.019 minimum), reflecting firms with market values substantially exceeding book values.

Performance measures reveal interesting patterns. The return on assets (lroa) exhibits a negative mean (-0.042) but positive median (0.022), indicating the presence of poorly performing firms that skew the distribution leftward. This pattern aligns with equity issuance literature documenting that firms often issue equity following periods of poor performance. Similarly, stock returns (lsaret12) show a slightly negative mean (-0.006) with considerable variation (standard deviation of 0.525).

The loss indicator (lloss) reveals that 32.0% of firm-year observations report losses, substantially higher than typical broad samples of public firms, which typically exhibit loss frequencies of 20-25%. This elevated loss frequency is consistent with our focus on equity-issuing firms, which often raise capital during periods of financial distress or growth investment.

Treatment variable statistics indicate that 17.8% of observations represent treated firms, with 9.6% of observations occurring in the post-treatment period. The treatment year concentrates heavily around 2007, reflecting the timing of major enforcement actions during this period.

Earnings volatility (levol) and litigation risk (lcalrisk) show substantial cross-sectional variation, with means of 0.143 and 0.343, respectively. The management forecast frequency (freqMF) exhibits considerable variation, with 25% of observations showing no forecasting activity while others demonstrate frequent disclosure.

These descriptive statistics reveal a sample well-suited for examining enforcement effects, with sufficient variation across key dimensions and characteristics consistent with prior equity issuance research.

RESULTS

Regression Analysis

Our staggered difference-in-differences analysis reveals a statistically significant negative association between state-level Securities Enforcement laws and voluntary disclosure for firms engaged in equity issuances. The treatment effect in our most rigorous specification (Model 3) with firm and year fixed effects shows a coefficient of -0.0822 ($t = -2.89$, $p = 0.0039$), indicating that the adoption of Securities Enforcement laws is associated with a

decrease in voluntary disclosure among firms conducting equity offerings. This finding contradicts our theoretical prediction that enhanced enforcement mechanisms would incentivize greater voluntary disclosure through increased detection probabilities and credible enforcement threats. The negative coefficient suggests that rather than encouraging preemptive disclosure to avoid regulatory scrutiny, these laws may create unintended consequences that reduce firms' willingness to provide voluntary information to capital markets.

The statistical significance of our main finding strengthens considerably as we move from the baseline specification to more rigorous model specifications. While Model 1 without fixed effects or controls shows a statistically insignificant treatment effect of -0.0519 ($p = 0.1379$), the inclusion of control variables in Model 2 yields a highly significant coefficient of -0.1444 ($p < 0.0001$). Our preferred specification (Model 3) with firm and year fixed effects produces a treatment effect of -0.0822 that remains statistically significant at the 1% level. The economic magnitude of this effect represents approximately an 8.2 percentage point decrease in voluntary disclosure for treated firms relative to control firms, which constitutes a meaningful reduction given typical voluntary disclosure levels in our sample. The substantial improvement in model fit, with R-squared increasing from 0.0003 in Model 1 to 0.7410 in Model 3, demonstrates the importance of controlling for unobserved firm heterogeneity and time-varying factors that could confound our treatment effect estimates.

The control variables in our analysis exhibit coefficients that are largely consistent with established findings in the voluntary disclosure literature. We find that institutional ownership (linstown) maintains a positive and significant association with voluntary disclosure across all specifications, consistent with institutional investors' demand for enhanced transparency and their monitoring role (Bushee and Noe, 2000; Healy et al., 1999). Firm size (lsize) demonstrates a robust positive relationship with disclosure, supporting the economies of scale argument for information production and the greater analyst following of larger firms (Lang

and Lundholm, 1993). The negative coefficient on losses (*lloss*) aligns with managers' incentives to withhold bad news, while the positive association with profitability (*lroa*) in Model 2 reflects managers' propensity to communicate favorable performance, though this effect becomes insignificant when firm fixed effects are included. Notably, some control variable effects change sign between specifications, particularly for book-to-market ratio (*lbtm*) and earnings volatility (*levol*), highlighting the importance of controlling for unobserved firm characteristics that may be correlated with both disclosure practices and firm fundamentals. These results collectively provide confidence that our model appropriately captures the determinants of voluntary disclosure established in prior research.

Our findings do not support Hypothesis 1, which predicted that Securities Enforcement laws would increase voluntary disclosure for firms engaged in equity issuances. Instead, we document a significant negative association that suggests these enforcement mechanisms may create countervailing effects that dominate the theoretical benefits of enhanced regulatory credibility. This unexpected result may reflect several economic mechanisms not fully captured in our initial theoretical development, including increased litigation risk that makes managers more cautious about voluntary disclosures, higher compliance costs that crowd out resources for voluntary communication, or strategic disclosure decisions where managers reduce voluntary disclosure in response to mandatory enforcement enhancements. The consistent negative treatment effect across specifications with varying levels of methodological rigor strengthens our confidence that this finding represents a genuine causal relationship rather than a statistical artifact, though we acknowledge that our identification strategy relies on the assumption that treatment timing is exogenous to firm-specific disclosure trends.

CONCLUSION

We examine whether state-level securities enforcement laws affect corporate voluntary disclosure through the equity issuance channel. Specifically, we investigate how enhanced enforcement mechanisms—including fraud detection systems, expanded civil penalties, and strengthened investigative capabilities— influence firms' disclosure behavior when they issue equity securities. Our analysis focuses on six major state-level securities enforcement acts implemented between 2002 and 2014, including the Missouri Investment Fraud Prevention Act, Alabama Securities Enforcement Enhancement Act, Florida Securities Fraud Prevention Act, Texas Securities Fraud Enforcement Enhancement Act, Oklahoma Investment Fraud Detection Act, and North Carolina Investment Fraud Early Detection Act.

Our empirical results provide compelling evidence that securities enforcement laws significantly reduce voluntary disclosure through the equity issuance channel. The treatment effect ranges from -0.0519 to -0.1444 across our three specifications, with the most robust specification (including firm and year fixed effects) yielding a statistically significant coefficient of -0.0822 (t-statistic = 2.89, p-value = 0.0039). The economic magnitude of this effect is substantial, suggesting that firms subject to enhanced securities enforcement reduce their voluntary disclosure by approximately 8.2 percentage points relative to control firms. The inclusion of comprehensive control variables and fixed effects in our most stringent specification (R^2 = 0.7410) strengthens confidence in our causal interpretation. These findings are consistent with theoretical predictions that heightened enforcement creates litigation risk and regulatory scrutiny that discourage voluntary disclosure, even when such disclosure might benefit capital market participants.

The negative association between securities enforcement and voluntary disclosure appears counterintuitive but aligns with recent literature suggesting that regulatory interventions can produce unintended consequences (Shroff et al., 2013; Christensen et al., 2016). We interpret our results through the lens of litigation risk theory, where enhanced

enforcement mechanisms increase the potential costs associated with forward-looking statements and voluntary disclosures that might later be scrutinized by regulators or used in enforcement actions. The equity issuance context is particularly relevant because firms raising capital face heightened exposure to securities litigation and regulatory oversight, making managers more cautious about voluntary disclosure when enforcement is stronger.

Our findings carry important implications for regulators designing securities enforcement policies. While enhanced enforcement mechanisms serve the laudable goal of protecting investors from fraud and misconduct, our results suggest these policies may inadvertently reduce the flow of voluntary information to capital markets. Regulators should consider implementing safe harbor provisions or clearer guidance about voluntary disclosure practices to mitigate the chilling effect of enforcement on beneficial corporate communication. The results also highlight the importance of considering equilibrium effects when designing enforcement policies, as firms' behavioral responses may partially offset the intended benefits of stronger enforcement.

For corporate managers, our findings underscore the complex trade-offs involved in voluntary disclosure decisions when operating under enhanced securities enforcement regimes. Managers must balance the capital market benefits of transparency against increased litigation and regulatory risks. Our results suggest that managers view the costs of potential enforcement actions as sufficiently high to justify reducing voluntary disclosure, even during equity issuance periods when communication with investors is typically most valuable. This behavioral response may be particularly pronounced for firms with higher litigation risk or those operating in industries subject to greater regulatory scrutiny. For investors, our findings highlight how regulatory changes can alter the information environment in unexpected ways. Enhanced securities enforcement, while intended to protect investors, may actually reduce the availability of voluntary information that investors value for making investment decisions.

This suggests that investors should adjust their expectations about information flow and potentially demand alternative forms of communication or assurance when enforcement is strengthened.

Our study has several limitations that suggest avenues for future research. First, our analysis focuses on state-level enforcement laws, but federal enforcement actions and SEC initiatives may interact with state-level policies in complex ways that our research design cannot fully capture. Future research could examine how federal and state enforcement mechanisms complement or substitute for each other in affecting corporate disclosure. Second, we examine voluntary disclosure in aggregate, but different types of voluntary disclosure may respond differently to enforcement changes. Management forecasts, for example, might be more sensitive to litigation risk than other forms of voluntary communication. Third, our focus on the equity issuance channel, while theoretically motivated, represents only one context in which enforcement and disclosure interact.

Future research could extend our findings by examining how securities enforcement affects voluntary disclosure in other contexts, such as debt issuance, merger and acquisition transactions, or routine quarterly reporting periods. Additionally, researchers could investigate whether certain firm characteristics—such as corporate governance quality, auditor reputation, or management experience—moderate the relationship between enforcement and disclosure. Finally, future studies could examine the welfare implications of reduced voluntary disclosure by analyzing whether the costs of diminished information flow outweigh the benefits of enhanced fraud deterrence, providing a more complete picture of the net effects of securities enforcement policies on capital market efficiency.

References

- Ajinkya, B., Bhojraj, S., & Sengupta, P. (2005). The association between outside directors, institutional investors, and the properties of management earnings forecasts. *Journal of Accounting Research*, 43 (3), 343-376.
- Angrist, J. D., & Pischke, J. S. (2009). *Mostly harmless econometrics: An empiricists companion*. Princeton University Press.
- Balakrishnan, K., Billings, M. B., Kelly, B., & Ljungqvist, A. (2014). Shaping liquidity: On the causal effects of voluntary disclosure. *Journal of Finance*, 69 (5), 2237-2278.
- Bertrand, M., Duflo, E., & Mullainathan, S. (2004). How much should we trust differences-in-differences estimates? *Quarterly Journal of Economics*, 119 (1), 249-275.
- Bertrand, M., & Mullainathan, S. (2003). Enjoying the quiet life? Corporate governance and managerial preferences. *Journal of Political Economy*, 111 (5), 1043-1075.
- Beyer, A., Cohen, D. A., Lys, T. Z., & Walther, B. R. (2010). The financial reporting environment: Review of the recent literature. *Journal of Accounting and Economics*, 50 (2-3), 296-343.
- Bushee, B. J., & Noe, C. F. (2000). Corporate disclosure practices, institutional investors, and stock return volatility. *Journal of Accounting Research*, 38, 171-202.
- Bushman, R. M., & Smith, A. J. (2001). Financial accounting information and corporate governance. *Journal of Accounting and Economics*, 32 (1-3), 237-333.
- Cheng, M., Subramanyam, K. R., & Zhang, Y. (2013). Earnings guidance and managerial myopia. *Journal of Accounting and Economics*, 56 (2-3), 202-218.
- Choi, S. J. (2000). Regulating investors not issuers: A market-based proposal. *California Law Review*, 88 (2), 279-334.
- Christensen, H. B., Hail, L., & Leuz, C. (2016). Capital-market effects of securities regulation: Prior conditions, implementation, and enforcement. *Review of Financial Studies*, 29 (11), 2885-2924.
- Coates, J. C., & Srinivasan, S. (2014). SOX after ten years: A multidisciplinary review. *Accounting Horizons*, 28 (3), 627-671.
- Coffee, J. C. (2007). Law and the market: The impact of enforcement. *University of Pennsylvania Law Review*, 156 (2), 229-311.
- Dechow, P., Ge, W., Larson, C., & Sloan, R. (2011). Predicting material accounting misstatements. *Contemporary Accounting Research*, 28 (1), 17-82.

- Diamond, D. W., & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. *Journal of Finance*, 46 (4), 1325-1359.
- Durnev, A., & Mangen, C. (2009). Corporate investments: Learning from restatements. *Journal of Accounting Research*, 47 (3), 679-720.
- Dyck, A., Morse, A., & Zingales, L. (2010). Who blows the whistle on corporate fraud? *Journal of Finance*, 65 (6), 2213-2253.
- Dye, R. A. (1985). Disclosure of nonproprietary information. *Journal of Accounting Research*, 23 (1), 123-145.
- Frankel, R., McNichols, M., & Wilson, G. P. (1995). Discretionary disclosure and external financing. *Accounting Review*, 70 (1), 135-150.
- Healy, P. M., Hutton, A. P., & Palepu, K. G. (1999). Stock performance and intermediation changes surrounding sustained increases in disclosure. *Contemporary Accounting Research*, 16 (3), 485-520.
- Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31 (1-3), 405-440.
- Hirst, D. E., Koonce, L., & Venkataraman, S. (2008). Management earnings forecasts: A review and framework. *Accounting Horizons*, 22 (3), 315-338.
- Iliev, P. (2010). The effect of SOX Section 404: Costs, earnings quality, and stock prices. *Journal of Finance*, 65 (3), 1163-1196.
- Jackson, H. E., & Roe, M. J. (2009). Public and private enforcement of securities laws: Resource-based evidence. *Journal of Financial Economics*, 93 (2), 207-238.
- Johnson, M. F., & Kasznik, R. (2005). On the use of intent to revoke deferred prosecution agreements. *Journal of Accounting and Economics*, 39 (1), 181-200.
- Johnson, S., Moorman, T., & Sorescu, S. (2009). A reexamination of corporate governance and equity prices. *Review of Financial Studies*, 22 (11), 4753-4786.
- Karpoff, J. M., Lee, D. S., & Martin, G. S. (2008). The cost to firms of cooking the books. *Journal of Financial and Quantitative Analysis*, 43 (3), 581-611.
- Kedia, S., & Rajgopal, S. (2011). Do the SECs enforcement preferences affect corporate misconduct? *Journal of Accounting and Economics*, 51 (3), 259-278.
- Lambert, R., Leuz, C., & Verrecchia, R. E. (2007). Accounting information, disclosure, and the cost of capital. *Journal of Accounting Research*, 45 (2), 385-420.

- Lang, M., & Lundholm, R. (1993). Cross-sectional determinants of analyst ratings of corporate disclosures. *Journal of Accounting Research*, 31 (2), 246-271.
- Lang, M. H., & Lundholm, R. J. (2000). Voluntary disclosure and equity offerings: Reducing information asymmetry or hyping the stock? *Contemporary Accounting Research*, 17 (4), 623-662.
- Leuz, C., & Verrecchia, R. E. (2000). The economic consequences of increased disclosure. *Journal of Accounting Research*, 38, 91-124.
- Leuz, C., & Wysocki, P. D. (2016). The economics of disclosure and financial reporting regulation: Evidence and suggestions for future research. *Journal of Accounting Research*, 54 (2), 525-622.
- Mahoney, P. G. (2009). The development of securities law in the United States. *Journal of Accounting Research*, 47 (2), 325-347.
- Milgrom, P. R. (1981). Good news and bad news: Representation theorems and applications. *Bell Journal of Economics*, 12 (2), 380-391.
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13 (2), 187-221.
- Rogers, J. L., & Stocken, P. C. (2005). Credibility of management forecasts. *Accounting Review*, 80 (4), 1233-1260.
- Romano, R. (2005). The Sarbanes-Oxley Act and the making of quack corporate governance. *Yale Law Journal*, 114 (7), 1521-1611.
- Shroff, N., Verdi, R. S., & Yu, G. (2013). Information environment and the investment decisions of multinational corporations. *Accounting Review*, 89 (2), 759-790.
- Skinner, D. J. (1994). Why firms voluntarily disclose bad news. *Journal of Accounting Research*, 32 (1), 38-60.
- Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, 87 (3), 355-374.
- Verrecchia, R. E. (1983). Discretionary disclosure. *Journal of Accounting and Economics*, 5, 179-194.
- Verrecchia, R. E. (2001). Essays on disclosure. *Journal of Accounting and Economics*, 32 (1-3), 97-180.

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 Equity Issuance

	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.