Corporate Political Activity and Regulatory Enforcement:
Lobbying versus Campaign Contributions

Abstract

Research on corporate political activity (CPA) has long recognized firms' efforts to shape their regulatory environments, yet much of this work treats CPA as a unified construct and evaluates its consequences through outcomes distant from the objects of political influence. Drawing on an institutional perspective, we argue that different forms of CPA are differentially suited to distinct arenas of regulatory governance and therefore have systematically different implications for enforcement outcomes. We distinguish between lobbying, which enables sustained engagement with administrative agencies during policy implementation, and campaign contributions, which primarily target elected officials during policy formation. We test these arguments using facility-level enforcement under the U.S. Clean Air Act from 2011-20, linking enforcement actions and penalties to parent-firm political engagement. Consistent with our theoretical framework, lobbying is associated with greater enforcement leniency, while campaign contributions exhibit no comparable association. We further show that the enforcement effects of lobbying are stronger in conservative political environments, highlighting the role of institutional receptivity in conditioning how political engagement translates into administrative discretion. By disaggregating CPA and situating political strategies within the institutional arenas in which enforcement decisions are made, this study advances a more precise theoretical understanding of how firms shape regulatory implementation.

INTRODUCTION

Firms routinely invest in corporate political activity (CPA) as a central nonmarket strategy, yet we lack a clear understanding of the channels through which CPA yields benefits for focal firms. Existing research has largely evaluated CPA through aggregate firm-level performance outcomes, producing mixed and fragile results across contexts and designs (e.g., Faccio, 2006; Cooper, Gulen, & Ovtchinnikov, 2010; Hadani & Schuler, 2013; Hawk, Lahiri, & Pacheco-de-Almeida, 2023). This emphasis on aggregate consequences has limited theoretical development regarding how different forms of CPA operate and why they might generate differential firm-level outcomes. We focus on two of the most prevalent forms of CPA – lobbying and campaign contributions – and reconceptualize them in terms of their predominant functional domains. We conceptualize lobbying primarily as a post-enactment, enforcement-domain tactic aimed at shaping how existing rules are interpreted and implemented. Campaign contributions, by contrast, are predominantly a policy-formulation-domain tactic, concentrated in the legislative arena and most directly relevant to influencing policy formulation.

We focus on a central but under-theorized mechanism through which political engagement affects firm outcomes: discretionary regulatory enforcement. In many regulatory domains, enforcement outcomes depend not only on statutory rules but also on how regulators interpret violations, prioritize cases, negotiate settlements, and calibrate penalties. These discretionary choices create a critical point of conversion between political engagement and realized firm outcomes. We study one consequential implementation-side outcome – regulatory forbearance, or the asymmetric application of rules – in Clean Air Act enforcement. Classic theories of regulation emphasize that enforcement reflects prioritization, resource constraints, and judgment rather than mechanical rule application (Peltzman, 1976; Stigler, 2021; Dal Bó, 2006).

We develop a theory of how arena alignment structures the conversion of corporate political engagement into regulatory discretion. Firms deploy political strategies across distinct political arenas, most notably the legislative arena, where elected officials craft policies and face electoral incentives, and the regulatory (executive) arena, where regulatory and enforcement agencies interpret, implement, and enforce existing rules. These arenas differ in their incentives, time horizons, and accountability structures. Legislative actors are primarily responsive to voters and organized interests during policy formation, whereas regulatory and enforcement agencies operate in professionalized environments characterized by technical expertise, longer time horizons, and discretion over enforcement decisions (McKay, 2011). Campaign contributions are predominantly a policy-formulation-domain tactic, concentrated in the legislative arena and most directly relevant to influencing policy formulation, whereas lobbying is predominantly an enforcement-domain tactic aimed at shaping how existing rules are interpreted and implemented in post-enactment settings. Political engagement is therefore more likely to translate into regulatory discretion when it takes the form of lobbying rather than campaign contributions.

Arena alignment alone, however, is not sufficient. The effectiveness of enforcement-domain political engagement also depends on the institutional receptivity of the regulatory environment. Political ideology shapes how regulators evaluate the legitimacy of firm participation in governance. Conservative political orientations emphasize economic individualism, private enterprise, and market-based solutions, affording firms greater legitimacy as participants in regulatory implementation and increasing the weight placed on firm-provided information in discretionary enforcement decisions. By contrast, liberal political orientations emphasize broader stakeholder inclusion and skepticism toward concentrated economic power, leading regulators to privilege non-business inputs and to deprioritize firm-provided information in enforcement judgments. As a result, the same enforcement-domain political engagement is less likely to be translated into regulatory discretion in more liberal ideological environments. Consequently, the translation of enforcement-domain political engagement into regulatory discretion should vary systematically across ideological contexts.

We examine these arguments using facility-level enforcement under the Clean Air Act. Environmental regulation provides a stringent and socially consequential setting in which enforcement involves technically complex standards, limited regulatory resources, and substantial administrative discretion. We combine enforcement data from the Environmental Protection Agency's Integrated Compliance Information System with information on CAA-covered facilities and parent-company CPA. Prior research documents substantial heterogeneity in enforcement intensity and penalties under common federal statutes, underscoring the central role of administrative discretion in shaping regulatory outcomes (Gray & Shimshack, 2011; Earnhart & Glicksman, 2015; Dasgupta et al., 2023). Our findings show that political engagement is converted into regulatory discretion in a manner structured by arena alignment and institutional receptivity. Lobbying is associated with significantly lower environmental penalties, consistent with regulatory forbearance operating through the regulatory and enforcement arena, whereas campaign contributions exhibit no comparable effect. Moreover, the penalty-reducing effect of lobbying is substantially stronger in more conservative states, highlighting how institutional receptivity conditions the effectiveness of enforcement-domain political engagement.

This study clarifies how corporate political activity is converted into regulatory enforcement outcomes. We develop and test a theory of how arena alignment and institutional receptivity structure the conversion of political engagement into regulatory discretion. By reconceptualizing lobbying as a predominantly enforcement-domain tactic and campaign contributions as a predominantly policy-formulation-domain tactic, we show why different forms of CPA exhibit systematically different enforcement consequences. More broadly, our findings advance an institutionally grounded understanding of regulatory forbearance by demonstrating that its relationship with CPA depends jointly on the form of political engagement and the political–administrative context in which it occurs.

THEORETICAL BACKGROUND AND RELATED LITERATURE

Consequences of Corporate Political Activity

A large and interdisciplinary literature examines the consequences of corporate political activity (CPA), motivated by the expectation that political engagement enables firms to shape their external environment and secure economic advantages. Much of this research evaluates CPA using aggregate firm-level performance outcomes, including profitability, market valuation, financing conditions, and stock returns. Across settings and empirical approaches, however, findings are mixed and highly context dependent. Canonical studies document positive associations between political engagement and firm outcomes in some contexts (e.g., Faccio, 2006; Cooper, Gulen, & Ovtchinnikov, 2010), while others report modest, null or negative effects, particularly over longer horizons or following political turnover (Fan, Wong, & Zhang, 2007; Hadani & Schuler, 2013; Hawk, Lahiri & Pacheco-de-Almeida, 2023). Meta-analytic evidence reinforces this ambiguity, showing weak average effects accompanied by substantial heterogeneity across studies (Lux, Crook, & Woehr, 2011; Hadani, Bonardi, & Dahan, 2017).

A growing interpretation of these mixed findings is that firm performance is an imperfect lens through which to assess the consequences of CPA. Political engagement operates through indirect, uncertain, and often delayed political processes, and its effects may materialize through changes in firms' regulatory and institutional environments rather than immediate financial gains.

Hadani, Bonardi, and Dahan (2017) formalize this view by highlighting uncertainty both in whether political investments influence political decisions and in whether such decisions translate into firm performance. As a result, CPA may generate important benefits – or costs – that are not readily observable in short-term accounting or market-based measures.

This perspective has motivated increased attention to nonmarket and regulatory outcomes that are more closely aligned with firms' political objectives. One such outcome is regulatory forbearance, defined as the selective or uneven application of existing rules by regulatory authorities. Classic political economy theories emphasize that enforcement is inherently discretionary, shaped by prioritization, interpretation, and political influence rather than mechanical rule application (Stigler, 2021; Peltzman, 1976; Dal Bó, 2006). Empirical evidence demonstrates that politically connected firms can benefit from this discretion through preferential enforcement or intervention decisions, even when formal regulations remain unchanged (Johnson & Mitton, 2003). Regulatory forbearance therefore provides a theoretically appropriate outcome for assessing CPA because it captures how politic al influence operates through implementation and enforcement, not solely through legislative change.

Despite this shift toward regulatory outcomes, much of the literature continues to treat CPA as a single, aggregated construct, limiting insight into how political influence is exercised. Empirical studies frequently bundle lobbying, campaign contributions, political connections, and related activities into omnibus measures of "political influence", implicitly assuming that different political strategies operate through similar mechanisms and affect the same political processes. As emphasized in both empirical syntheses and review work, this aggregation obscures important differences across political activities and contributes to inconsistent findings (Lux et al., 2011; Hadani et al., 2017). Recent agenda-setting work explicitly calls for greater disaggregation of CPA.

Katic and Hillman (2023) argue that different forms of CPA generate distinct political resources, target different political actors, and operate through different institutional channels, and therefore should not be treated as interchangeable. Similarly, Wei, Jia, and Bonardi (2022) emphasize that political engagement encompasses multiple forms and pathways, and that progress in the literature depends on clarifying the specific mechanisms through which political strategies affect outcomes. Together, these contributions underscore that understanding the consequences of CPA – particularly for regulatory outcomes – requires moving beyond CPA-as-a-whole toward analyses that distinguish among political strategies and situate them within the institutional environments in which they operate.

Taken together, the literature on CPA's consequences points to three broad conclusions. First, empirical evidence linking CPA to aggregate firm performance is mixed and highly context dependent. Second, regulatory outcomes such as regulatory forbearance provide a more theoretically appropriate lens for evaluating CPA because they are closer to the objects of political influence. Third, advancing understanding in this area requires disaggregating CPA and examining how different political strategies operate within specific institutional contexts. These insights motivate closer attention to the institutional contingencies that shape when and how CPA generates benefits, a topic to which we now turn.

Institutional Contingencies of CPA Benefits

A substantial body of research demonstrates that the benefits of corporate political activity are highly contingent on institutional and political context. Rather than yielding uniform or durable advantages, CPA generates returns that depend on the structure of political competition, the stability of governing coalitions, and the degree to which political and administrative institutions constrain discretion. This perspective has become central to explaining why empirical findings on

CPA are mixed and why political strategies that are valuable in some settings prove ineffective or costly in others.

One prominent strand of this literature focuses on political competition, regime stability, and political turnover. Early and influential work shows that the value of political connections is tightly linked to the survival of the political actors to whom firms are connected. Fisman (2001) documents that firms connected to President Suharto in Indonesia experienced sharp declines in value following negative shocks to the regime's stability, illustrating how political change can rapidly erode the benefits of political engagement. Subsequent work reinforces this logic, showing that firms aligned with dominant political actors can suffer losses following regime change or electoral turnover, highlighting the fragility of politically derived advantages (Ferguson & Voth, 2008; Acemoglu et al., 2016). Siegel (2007) further demonstrates that the value of political ties depends on the institutional configuration of political competition, showing that political strategies yield benefits only when they are matched to prevailing political institutions.

A second, closely related strand emphasizes institutional robustness and constraints on discretion as key moderators of CPA benefits. Comparative and cross-national studies consistently find that political connections and related strategies are more valuable in environments characterized by weaker rule of law, greater discretion, and less institutionalized political competition. Khwaja and Mian (2005) show that politically connected firms in Pakistan receive preferential access to credit, and that political rents increase with the strength of the firm's political patron and whether the connected politician or party is in power but decline with greater electoral participation – suggesting that political competition and accountability constrain the returns to political engagement. Similarly, Claessens, Feijen, and Laeven (2008) document that firms increase political contributions when seeking access to finance, with effects that depend on institutional conditions. Together, these studies underscore that strong political competition and institutional constraints limit firms' ability to extract private benefits from CPA.

More recent work further refines this argument by showing that institutional discretion and autonomy within organizations condition the effectiveness of political connections. Infante and Piazza (2014) demonstrate that politically connected firms benefit from lower interest rates when political ties operate at the local level, and that preferential treatment is strongest when lending institutions grant greater autonomy to local loan officers. Crucially, they show that these effects are amplified in areas with higher corruption, highlighting how variation in institutional discretion and enforcement practices shapes the returns to political engagement. This evidence suggests that even within the same formal institutional framework, differences in administrative autonomy and local governance can significantly affect the payoffs to CPA.

Related research emphasizes political and regulatory uncertainty as an additional contingency. Changes in regulatory regimes, shifts in enforcement priorities, and broader institutional reforms can alter the returns to political engagement, sometimes rendering previously valuable political strategies ineffective or even costly (Fisman, 2001; Siegel, 2007). These dynamics highlight that CPA benefits are not only conditional on institutional strength, but also on the stability and predictability of political authority and regulatory practice.

Taken together, this literature establishes that CPA benefits depend on who holds power, how competitive political systems are, and how strongly institutions constrain discretion. However, it also reveals a common limitation. Institutional context is typically conceptualized in terms of formal strength, competition, or corruption, with relatively little attention to how political and administrative institutions differ in their openness to engagement with business actors. As a result, existing research provides limited insight into how institutions vary in the accessibility of policymakers and bureaucrats, the legitimacy accorded to business participation, and the willingness of officials to incorporate firm-provided information into decision-making processes.

This gap points to the importance of institutional receptivity as a distinct and underexplored contingency. Institutional receptivity refers to the extent to which political and administrative actors are accessible to firms, view engagement with business as appropriate, and are open to incorporating business input in policy implementation. Unlike institutional robustness, receptivity can vary even in settings with strong formal rules and professionalized bureaucracies. Understanding how such variation conditions the benefits of CPA – particularly for strategies operating through discretionary regulatory processes – remains an open question in the literature.

HYPOTHESES DEVELOPMENT

Research on corporate political activity views firms' engagement with public authorities as a central component of nonmarket strategy. Prior work documents a wide range of political activities – including lobbying and campaign contributions – and examines their consequences across institutional settings and outcomes. A central premise of our theorization is that different forms of corporate political activity are differentially suited to distinct arenas of regulatory governance. Political influence operates through multiple institutional sites, including legislative processes that establish statutory rules, administrative enforcement that determines how those rules are applied, and adjudicatory processes that resolve disputes and sanctions. The relevance of particular political strategies depends on which of these arenas govern firms' regulatory exposure. Building on this premise, we disaggregate two of the most common forms of CPA – lobbying and campaign contributions – and examine how their consequences differ for regulatory enforcement outcomes. This approach allows us to compare the relative effectiveness of these strategies for shaping enforcement decisions made by administrative agencies, rather than treating CPA as a unified source of political influence.

Our framework conceptualizes enforcement leniency as an outcome of discretionary administrative action in settings characterized by technical complexity, uncertainty, and constrained regulatory capacity. Within this context, lobbying functions primarily as a mechanism for information exchange and sustained engagement between firms and regulators, shaping how compliance efforts and violations are interpreted and prioritized. This perspective does not require assumptions of regulatory capture or intentional favoritism but instead emphasizes how political engagement can affect enforcement outcomes through routine administrative processes.

In the following paragraphs, we propose a set of hypotheses that advance this perspective. We begin with a baseline hypothesis that treats corporate political activity as an aggregate strategy. The purpose of this baseline is to mirror how CPA is commonly operationalized in literature and to provide a benchmark against which the implications of disaggregating political strategies can be assessed. We then disaggregate CPA into lobbying and campaign contributions to examine whether their associations with enforcement outcomes differ systematically, consistent with their distinct relevance for administrative enforcement. Finally, we introduce institutional receptivity as a conditioning factor that shapes the effectiveness of enforcement-oriented political engagement.

Corporate Political Activity and Enforcement Leniency

Firms engage in corporate political activity with the expectation that political engagement can shape their regulatory and institutional environments in favorable ways. Although prior research has produced mixed evidence on whether CPA translates into superior financial performance, political engagement may yield benefits that operate through regulatory implementation and enforcement rather than through immediate financial outcomes (Hillman, Keim, & Schuler, 2004; Hadani, Bonardi, & Dahan, 2017; Katic & Hillman, 2023).

Regulatory enforcement is inherently discretionary. Classic theories of regulation emphasize that enforcement outcomes reflect prioritization, interpretation, and political influence rather than mechanical application of rules (Stigler, 2021; Peltzman, 1976; Dal Bó, 2006). Regulators must decide which violations to pursue, how intensively to monitor firms, and what sanctions to impose, often under conditions of technical complexity and limited resources. These features create scope for political influence to affect enforcement outcomes even when formal regulations remain unchanged.

From this perspective, CPA can reduce firms' exposure to regulatory sanctions by shaping how regulators exercise discretion. CPA active firms may be better positioned to secure access to policymakers, convey information about compliance efforts, contextualize violations, or otherwise influence enforcement priorities and sanctioning decisions. Consistent with this logic, prior research shows that politically connected or politically active firms often experience more favorable regulatory and enforcement outcomes, including reduced enforcement intensity and penalties (Johnson & Mitton, 2003; Faccio, Masulis, & McConnell, 2006; Yu & Yu, 2011; Heitz, Wang, & Wang, 2021). Taken together, these arguments suggest that higher levels of CPA should be associated with greater enforcement leniency, observable in both the likelihood of enforcement actions and the severity of penalties imposed.

Baseline Hypothesis (H1): *CPA is associated with greater leniency in regulatory enforcement, reflected in fewer enforcement actions and lower penalties.*

Political Arenas and the Enforcement Effects of Corporate Political Activity

Regulatory enforcement is shaped primarily within the executive branch, after statutes and formal rules have been established. In this post-enactment phase, administrative agencies exercise discretion over how existing rules are interpreted, monitored, and enforced (Stigler, 2021; Peltzman, 1976; Dal Bó, 2006). As a result, political strategies differ in their relevance for enforcement outcomes depending on whether they operate directly within this administrative arena or are oriented toward earlier stages of the policy process (McKay, 2011). Lobbying is particularly consequential in this post-enactment enforcement context. Firms routinely lobby administrative agencies responsible for implementation and oversight, maintaining a sustained presence as regulations are interpreted and enforced (McKay, 2011; Boehmke et al., 2013). Through repeated engagement, lobbying allows firms to provide technical information, clarify compliance narratives, and respond to regulators' evolving concerns. Because enforcement decisions rely heavily on administrative discretion rather than formal statutory change, lobbying is well suited to shaping how existing rules are applied in practice (Katic & Hillman, 2023).

Campaign contributions, by contrast, are primarily oriented toward elected officials and the legislative arena. Contributions tend to be temporally concentrated and are most relevant during periods of lawmaking or legislative oversight, rather than during routine administrative enforcement (Ansolabehere, de Figueiredo, & Snyder, 2003; Hadani & Schuler, 2013). Any influence of contributions on enforcement outcomes must therefore operate indirectly – through oversight, appointments, or broader political alignment – rather than through direct engagement with enforcement officials. As a result, campaign contributions are less closely connected to the post-enactment decisions that determine enforcement actions and penalties (Yu & Yu, 2011).

These differences imply that CPA operating through direct and sustained engagement with administrative agencies should be more strongly associated with enforcement leniency than CPA directed primarily toward elected officials.

H2: *The association between corporate political activity and regulatory enforcement leniency is stronger for lobbying than for campaign contributions.*

Institutional Receptivity, Political Ideology, and Enforcement Outcomes

Regulatory enforcement is not a mechanical application of statutory rules, but a discretionary process in which regulators interpret violations, prioritize cases, and determine appropriate sanctions under conditions of uncertainty and resource constraints (Stigler, 2021; Peltzman, 1976; Dal Bó, 2006). In exercising this discretion, regulators must evaluate information provided by regulated firms and decide how much weight to accord it relative to broader regulatory objectives. These evaluations are shaped not only by formal rules, but also by the institutional and ideological environments in which enforcement decisions are made.

A substantial body of political science and public opinion research shows that political ideology systematically shapes how the role of private enterprise is understood in governance. Conservative political orientations are more strongly associated with economic individualism, support for free enterprise, and skepticism toward government regulation as a constraint on productive activity (Feldman, 1988; Jost et al., 2003). Survey evidence consistently indicates that conservatives are less concerned about environmental harms and more likely to view regulatory intervention as economically costly, whereas liberals express stronger support for regulation as necessary to protect the public interest and constrain the negative externalities of business activity (Pew Research Center, 2016; Pew Research Center, 2017).

These ideological differences shape how regulators assess the relevance and legitimacy of firm-provided information in discretionary enforcement decisions. In political environments where private enterprise is viewed as a central driver of economic performance, business interests are more likely to be treated as legitimate contributors to policy implementation. As a result, firm-provided information – particularly when conveyed through lobbying, emphasizes technical complexity, compliance efforts, or economic impact – is more readily incorporated into discretionary enforcement judgments. This privileging of business input does not require regulatory capture or favoritism; rather, it reflects an evaluative frame in which business activity is presumed to align with economic objectives unless there is compelling evidence to the contrary. By contrast, in more liberal political environments, business interests are less likely to enjoy this presumptive legitimacy. Greater emphasis on regulatory oversight and concern about the social and environmental consequences of business activity mean that firm-provided input is more likely to be evaluated alongside competing claims advanced by other stakeholders. Under these conditions, regulators may be less inclined to translate business engagement into enforcement leniency, even when such engagement is formally permitted.

Parallel research in management helps clarify how ideology translates into differential receptivity to external influence. Work on organizational political ideology shows that ideological orientations shape the interpretive criteria decision makers use when evaluating external claims, including judgments about legitimacy, responsibility, and appropriate engagement under discretion. Rather than mechanically determining outcomes, ideology conditions whether external demands are construed as legitimate and decision relevant or as pressures to be resisted or balanced against competing considerations (Gupta, Briscoe, & Hambrick, 2017). Building on this insight, Gupta and Briscoe (2019) show that ideology influences whether engagement with external actors is viewed as appropriate governance or unwarranted interference. Applied to regulatory institutions, this logic implies that political ideology shapes how regulators evaluate firm-provided input during discretionary enforcement decisions, thereby conditioning institutional receptivity to business influence without presuming capture or corruption.

Taken together, these arguments suggest that the effectiveness of lobbying in shaping regulatory enforcement outcomes depends on the ideological environment in which enforcement discretion is exercised. Where political ideology accords greater legitimacy to private enterprise and expresses lower appetite for regulatory constraint, lobbying is more likely to translate into enforcement leniency. Where ideology emphasizes regulatory oversight and the containment of business externalities, the influence of lobbying on enforcement outcomes is attenuated.

H3: *The association between lobbying and regulatory enforcement leniency is stronger in more conservative political environments.*

METHODOLOGY

Empirical Context

Our empirical setting is facility-level environmental regulatory enforcement in the United States under the Clean Air Act (CAA) during the period 2011–2020. This context is well suited for examining the relationship between corporate political activity (CPA) and regulatory forbearance because enforcement under the CAA is a post-enactment administrative process characterized by substantial discretion. Although the statute establishes uniform federal standards, implementation and enforcement depend on regulators' judgments regarding monitoring, inspection, case prioritization, and sanctioning. These decisions are made under conditions of technical complexity and limited regulatory capacity, creating scope for political engagement to influence enforcement outcomes without changes to formal rules.

The U.S. regulatory system also provides high transparency in both enforcement and political engagement. Facility-level enforcement actions and monetary penalties are systematically recorded by the Environmental Protection Agency (EPA), while firms' lobbying expenditures and campaign contributions are disclosed under federal law. This transparency allows us to link enforcement outcomes to parent-company political activity and to disaggregate CPA into lobbying and campaign contributions, rather than relying on aggregated measures of political influence. Environmental regulation therefore provides a substantively appropriate setting for evaluating how political engagement operates through administrative enforcement rather than legislative change.

Data Sources

Clean Air Act Enforcement Data

We obtained Clean Air Act enforcement data from the U.S. EPA's Integrated Compliance Information System (ICIS). ICIS–Air serves as our primary source of facility-level CAA enforcement activity, including recorded violations, informal actions, formal administrative actions, and monetary penalties. We supplement these data with ICIS–FE&C, which contains federal civil enforcement action records across multiple regulatory programs. The ICIS–FE&C data were filtered using statute codes to retain only CAA-related enforcement actions. Records from ICIS–Air and ICIS–FE&C were merged using EPA Facility Registry Service (FRS) identifiers to construct a unified panel of facility-level CAA enforcement outcomes for the period 2011–2020.

To define the universe of facilities subject to CAA regulation, we relied on the EPA Facility Registry Service program linkage dataset. The FRS assigns a unique facility identifier (registry_id) that harmonizes records across EPA data systems. We restricted the facility universe to facilities linked to EPA air program systems (program acronym "AIR") or to the Risk Management Plan program (program acronym "RMP"), which operates under CAA §112(r). This approach ensures inclusion of facilities subject to air regulatory requirements even if they did not experience an enforcement action during the study period, thereby avoiding selection bias associated with conditioning the sample on enforcement incidence. Because ICIS does not provide standardized or reliable parent-company identifiers, we obtained facility–parent firm relationships from the EPA Greenhouse Gas Reporting Program (GHGRP). GHGRP publishes standardized and regularly updated information on facility ownership and parent entities. Parent identifiers from GHGRP were merged to the FRS-based facility universe using registry_id, enabling us to assign corporate parents to individual facilities.

Corporate Political Activity Data

Data on CPA were drawn from two complementary sources commonly used in the literature. Information on corporate lobbying expenditures was obtained from the Center for Responsive Politics (CRP; OpenSecrets), which reports annual firm-level lobbying expenditures, targeted issues, and registered lobbying activity (Peng, Colak, & Shen, 2023; Giannetti & Srinivasan, 2022). Campaign contribution data were obtained from the U.S. Federal Election Commission (FEC), which provides detailed records of political donations made through corporate political action committees (PACs) (Heitz et al., 2021). These data allow us to observe both firms' decisions to engage in CPA and the intensity of that engagement over time.

Financial and Firm-Level Data

Firm-level financial and organizational data were obtained from the Bureau van Dijk Orbis (Industrials) database. Orbis provides standardized information on firms' financial statements, employment, and headquarters locations. These data were used to construct control variables capturing firm size, profitability, leverage, and organizational slack, as well as to identify firms' headquarters states for analyses involving political ideology and institutional context. Financial data were merged with the CPA and enforcement datasets at the parent-firm level.

Variables

Dependent Variable

Our dependent variables capture regulatory enforcement outcomes at the facility level under the Clean Air Act and are designed to reflect regulatory forbearance. We focus on two complementary enforcement measures: First, Penalty amount measures the monetary sanctions imposed on facilities following enforcement actions. We operationalize this variable as the natural logarithm of total penalties assessed against a facility in a given year. Logarithmic transformation reduces skewness and limits the influence of extreme values. Higher values indicate more severe enforcement outcomes. Second, Number of enforcement actions captures the intensity of regulatory intervention. This variable counts the number of formal and informal enforcement actions initiated against a facility in a given year, as recorded in ICIS–Air and ICIS–FE&C. This count-based measure reflects regulators' decisions regarding whether and how frequently to pursue enforcement, independent of penalty severity. Together, these outcomes allow us to distinguish between the likelihood and intensity of enforcement actions and the severity of sanctions imposed, providing a comprehensive assessment of regulatory leniency.

Independent Variable

Our primary independent variables measure corporate political activity (CPA) at the parent-firm level. Consistent with prior work, we operationalize CPA in multiple ways to capture both engagement and intensity. We first construct a CPA decision indicator, a dichotomous variable equal to 1 if the parent firm engaged in either lobbying or campaign contributions in a given year, and 0 otherwise. This measure captures the firm's decision to participate in the political process, regardless of spending magnitude. Then, we measure logged political spending, a continuous variable defined as the natural logarithm of the total annual expenditures on lobbying and campaign contributions combined. Firms with zero political expenditures are assigned a logged value of zero. This measure captures the intensity of political engagement and allows us to examine whether greater political investment is associated with differential enforcement outcomes.

To disaggregate CPA, we further distinguish between lobbying and campaign contributions. For some specifications, we construct binary indicators for Lobbying decision and Campaign contribution decision, equal to 1 if the firm engaged in the respective activity in a given year. In alternative specifications, we use logged lobbying expenditures and logged campaign contributions, measured as the natural logarithm of annual spending on each activity. This disaggregation allows us to compare the relative effectiveness of political strategies that operate through different political arenas.

Moderating Variable

Conservative State is an indicator variable capturing the political ideology of the state in which the facility is located (assigned at the facility level). U.S. states that consistently voted Republican in the five federal elections prior to the start of the study period (1992–2008) and remained Republican in the two election cycles falling within the study period (2012 and 2016) are classified as conservative and coded as 1. States that consistently voted Democratic across the same elections are classified as liberal and coded as –1. States that do not fall strictly into either category are coded as 0.

Control Variables

We include a set of firm-level and facility-level controls commonly used in studies of regulatory enforcement and corporate political activity. At the firm level, we control for firm size, measured as the natural logarithm of total assets; profitability, measured by return on assets (ROA); organizational slack, measured as the ratio of current assets to current liabilities; and leverage, measured as the ratio of long-term debt to total assets. These variables capture firms' economic capacity, risk tolerance, and ability to absorb regulatory sanctions. At the facility level, we control for logged total emissions, which proxies for regulatory exposure and compliance risk under the Clean Air Act. Facilities with higher emissions face greater scrutiny and are more likely to be subject to enforcement actions and penalties. All models include industry fixed effects to account for systematic differences in regulatory exposure across sectors, as well as state and year fixed effects (or state-by-year fixed effects, depending on specification) to control for unobserved heterogeneity in regulatory environments and temporal shocks.

Results

Our unit of analysis is the facility-year. Enforcement outcomes are measured at the facility level, while CPA and selected financial controls are measured at the parent-firm level and linked to each facility owned by that firm in a given year. Standard errors are clustered at the facility level to account for serial correlation in enforcement outcomes within facilities over time.

Descriptives

Table 1 presents descriptive statistics and pairwise correlations for the main variables. The sample includes 20,494 facility–year observations, and enforcement outcomes display substantial dispersion, particularly for penalty amounts, justifying log transformation. Corporate political activity is common, with lobbying more prevalent than campaign contributions. Pairwise correlations among CPA measures and firm characteristics are modest, and variance inflation factors are uniformly low (mean VIF = 1.15; maximum VIF = 1.27), indicating no meaningful multicollinearity concerns. Facility emissions are positively correlated with enforcement outcomes, consistent with greater regulatory exposure among higher-emitting facilities. Overall, the descriptive patterns align with theoretical expectations and support the multivariate analyses that follow.

[Insert Table 1]

Baseline Association Between CPA and Enforcement Outcomes (H1)

We begin by estimating the association between corporate political activity (CPA) and regulatory enforcement outcomes in the full facility-year sample. Table 2 reports baseline models that treat CPA as an aggregate construct, consistent with common practice in the literature. Models 1 and 2 examine penalty severity, measured as logged penalties, while Models 3 and 4 examine enforcement intensity, measured as the number of enforcement actions. Across specifications, CPA is associated with more lenient enforcement outcomes. Logged political spending is negatively and significantly associated with penalty amounts (Model 1: $\beta = -0.016$, $p = 0.007$), and the binary CPA decision indicator yields a substantively larger negative association (Model 2: $\beta = -0.237$, $p = 0.005$). Parallel results obtain for enforcement intensity. Logged political spending is associated with fewer enforcement actions (Model 3: $\beta = -0.020$, $p = 0.001$), and facilities owned by firms engaging in CPA experience significantly fewer enforcement actions than those owned by politically inactive firms (Model 4: $\beta = -0.295$, $p = 0.001$). Taken together, these results provide consistent support for H1. When CPA is operationalized in aggregate form, politically active firms face both lower penalties and fewer enforcement actions, consistent with regulatory forbearance operating through discretionary administrative processes.

[Insert Table 2]

Disaggregating CPA: Lobbying Versus Campaign Contributions (H2)

We next disaggregate CPA into lobbying and campaign contributions to assess whether different political strategies exhibit systematically different associations with enforcement outcomes. Table 2 reports models using binary indicators for lobbying and campaign contribution activity, while Table 3 reports analogous models using logged spending amounts. The results reveal a clear divergence between lobbying and campaign contributions. Lobbying activity is consistently associated with greater enforcement leniency. In Table 2, the lobbying decision indicator is negatively associated with logged penalties (Model 1: $\beta = -0.204$, $p = 0.023$) and with the number of enforcement actions (Model 3: $\beta = -0.181$, $p = 0.030$). In contrast, campaign contribution activity exhibits no statistically significant association with either outcome across specifications. Coefficients on the campaign contribution indicator are small, unstable in sign, and statistically indistinguishable from zero.

[Insert Table 3]

The same pattern emerges when CPA intensity is measured using logged expenditures (Table 3). Logged lobbying expenditures are negatively associated with penalty severity (Model 1: $\beta = -0.015$, $p = 0.024$) and weakly negatively associated with enforcement actions (Model 3: $\beta = -0.013$, $p = 0.042$). Logged campaign contributions again show no meaningful relationship with either penalties or enforcement actions. These findings directly support H2. Political engagement that operates through sustained interaction with administrative agencies – lobbying – is associated with more lenient enforcement outcomes, whereas campaign contributions directed toward elected officials do not exhibit comparable effects in the enforcement stage of the regulatory process.

Institutional Receptivity and Conservative Political Environments (H3)

We then examine whether the enforcement effects of lobbying are conditioned by institutional receptivity, proxied by conservative state political ideology. In both Table 2 and Table 3, the interaction between lobbying and conservative state ideology is negative and statistically significant for both enforcement outcomes. In the binary specification (Table 2), the interaction between lobbying and conservative states is associated with additional reductions in penalties (Model 2: $\beta = -0.169$, $p = 0.010$) and enforcement actions (Model 4: $\beta = -0.113$, $p = 0.018$). Similarly, in the logged-spending specification (Table 3), the interaction between logged lobbying and conservative states is negative and significant for penalties (Model 2: $\beta = -0.013$, $p = 0.007$) and enforcement actions (Model 4: $\beta = -0.008$, $p = 0.026$). By contrast, interactions involving campaign contributions and conservative states are not statistically significant in any specification, reinforcing the conclusion that institutional receptivity conditions the effectiveness of lobbying specifically, rather than CPA more generally.

[Insert Table 4]

These results support H3. The penalty- and enforcement-reducing effects of lobbying are significantly stronger in conservative political environments, consistent with the argument that ideological receptivity shapes how regulators evaluate and incorporate firm-provided input during discretionary enforcement.

Effect Sizes

To assess the substantive magnitude of the estimated relationships, we translate the coefficient estimates into economically meaningful changes in enforcement outcomes. Because penalty amounts and several political activity measures are log-transformed, the coefficients in these models are interpreted as elasticities, capturing the percentage change in enforcement outcomes associated with percentage changes in political activity. We begin with aggregate corporate political activity. In Table 1, Model 1, the coefficient on logged political spending ($\beta = -0.016$) implies that a 1% increase in political spending is associated with a 0.016% decrease in penalties. Put differently, a 10% increase in political spending is associated with approximately 0.16% lower penalties, and a doubling of political spending is associated with roughly 1.6% lower penalties. While modest on a per-percentage basis, these effects accumulate with sustained political engagement and are meaningful given the large scale and skewness of environmental penalties.

The extensive margin of political engagement exhibits substantially larger effects. In Table 1, Model 2, the coefficient on the CPA decision indicator ($\beta = -0.237$) implies that facilities owned by CPA-active firms face penalties that are approximately 21% lower than those of facilities owned by other firms, holding other factors constant. This contrast between intensive and extensive margins highlights that the decision to engage politically is associated with markedly greater enforcement leniency than incremental increases in spending among already active firms. Disaggregating CPA clarifies the source of these effects. In Table 2, engaging in lobbying is associated with approximately 18–20% lower penalties ($\beta = -0.204$), whereas campaign contributions are not associated with statistically or substantively meaningful changes in penalties. When CPA intensity is examined in Table 3, the elasticity-based interpretation yields similar conclusions. A 1% increase in lobbying expenditure is associated with a 0.015% reduction in penalties, implying that a doubling of lobbying spending corresponds to approximately 1.5% lower penalties. Logged campaign contributions again exhibit no discernible effect.

The magnitudes of these effects are larger in conservative political environments. In Table 2, the interaction between lobbying and conservative states ($\beta = -0.169$) implies that the penalty-reducing effect of lobbying is approximately 18% larger in conservative states relative to liberal or mixed states. Similarly, in Table 3, the interaction between logged lobbying expenditures and conservative states indicates that each 1% increase in lobbying spending is associated with an additional 0.013% reduction in penalties in conservative environments. These estimates indicate that institutional receptivity meaningfully amplifies the practical impact of lobbying on enforcement outcomes.

Comparable patterns emerge for enforcement intensity. In Table 1, engaging in CPA is associated with approximately 26% fewer enforcement actions ($\beta = -0.295$). Disaggregated results again show that this effect is driven by lobbying. In Table 2, lobbying activity is associated with roughly 15–18% fewer enforcement actions, whereas campaign contributions exhibit no systematic association. The interaction terms indicate that lobbying further reduces enforcement actions by approximately 11–12% in conservative states, reinforcing the conclusion that the enforcement benefits of lobbying are concentrated in ideologically receptive political environments. Taken together, these effect sizes indicate that lobbying generates substantively meaningful reductions in both the severity and frequency of regulatory enforcement, particularly in conservative political contexts. By contrast, campaign contributions do not yield detectable enforcement benefits along either margin. The magnitude of these effects underscores the importance of disaggregating corporate political activity and situating political strategies within the institutional environments in which regulatory discretion is exercised.

Impact Threshold for a Confounding Variable (ITCV)

To evaluate the sensitivity of our core results to omitted variable bias, we conduct an Impact Threshold for a Confounding Variable (ITCV) analysis following Busenbark et al (2022). This approach quantifies how strongly an unobserved confounder would need to be correlated with both the predictor of interest and the outcome – conditional on observed covariates – to invalidate the statistical inference. Expressed in correlational terms, an omitted variable would need to be correlated at approximately 0.088 with the enforcement outcome and −0.088 with lobbying decision (conditioning on observed covariates) to invalidate the result. The corresponding impact threshold, the product of these partial correlations, is −0.0077. To contextualize this threshold, we compare it to the impacts of observed covariates and fixed effects included in the model. The largest negative observed impact is for logged total emissions, which has an impact of −0.0062, close to, but smaller in magnitude than the threshold required to invalidate the inference. All other observed covariates and fixed effects exhibit considerably smaller negative impacts.

This comparison implies that an omitted variable would need to exert a joint influence on both lobbying activity and enforcement outcomes that is at least as strong as, and plausibly stronger than the variable with the largest negative impact, total emissions, in order to overturn the estimated effect. Given that total emissions are directly regulated, precisely measured, and explicitly included in the model, it is difficult to identify a plausible omitted confounder with comparable joint correlations that is not already captured by the existing controls and fixed effects. While no observational analysis can rule out omitted variable bias entirely, the ITCV results indicate that the confounding effect of unobserved omitted variables nullifying the estimated effect of lobbying decision of enforcement leniency, is unlikely.

DISCUSSION

This study examines how corporate political activity shapes regulatory enforcement outcomes, focusing on facility-level enforcement under the U.S. Clean Air Act. Our findings reveal three consistent patterns. First, when treated as an aggregate construct, CPA is associated with greater regulatory leniency, reflected in both lower monetary penalties and fewer enforcement actions. Second, disaggregating CPA shows that this relationship is driven entirely by lobbying, while campaign contributions exhibit no systematic association with enforcement outcomes. Third, the enforcement effects of lobbying are significantly stronger in conservative political environments, indicating that institutional receptivity conditions the effectiveness of executive-arena political engagement. Together, these results clarify why prior studies relying on aggregated measures of CPA often produce mixed or inconsistent findings. Political engagement is not uniformly effective across strategies or contexts; rather, its consequences depend on the political arena in which it operates and the institutional environment in which discretion is exercised.

Theoretical Contributions

This study makes several contributions to the literature on corporate political activity and nonmarket strategy. First, it advances CPA research by demonstrating that political influence is heterogeneous across political arenas. While much prior work treats CPA as a monolithic source of political power, our findings show that lobbying – an activity that directly targets administrative agencies during the enforcement stage – has fundamentally different consequences from campaign contributions, which are primarily oriented toward legislative actors. This distinction sheds light on the variation in how political strategies operate. Second, the study contributes to theories of regulatory enforcement and forbearance by highlighting the role of institutional receptivity. Rather than conceptualizing institutions solely in terms of strength, corruption, or formal constraints, we show that ideological environments shape how regulators evaluate and incorporate firm-provided information under discretion. Enforcement leniency emerges not simply from political access, but from the interaction between political engagement and an institutional context that accords legitimacy to business participation in regulatory implementation. Third, our findings refine the conceptualization of regulatory forbearance. The observed enforcement patterns do not require assumptions of regulatory capture or quid pro quo exchange. Instead, they are consistent with a view of enforcement as an interpretive and resource-constrained process, in which regulators weigh technical information, compliance narratives, and economic considerations. Lobbying appears to operate through these routine administrative channels, shaping how discretion is exercised without necessarily weakening formal regulatory standards.

Practical Implications for Firms

For managers, the results underscore that not all political investments yield comparable regulatory returns. Lobbying, rather than campaign contributions, appears to be the primary channel through which firms can influence discretionary enforcement outcomes. Moreover, the effectiveness of lobbying depends on political context: the same strategy produces stronger enforcement benefits in conservative states than in liberal or ideologically mixed environments. This implies that firms should view political engagement as a context-dependent investment rather than a uniform insurance mechanism against regulatory risk. At the same time, the modest elasticity-based effects associated with incremental spending suggest diminishing returns at the intensive margin. The decision to engage in lobbying matters more than marginal increases in spending among already active firms, highlighting the strategic importance of sustained engagement and informational presence over sheer expenditure levels.

Policy Implications

From a policy perspective, the findings highlight how discretionary enforcement can generate uneven regulatory outcomes even under uniform federal statutes. Importantly, these patterns do not imply regulatory capture or corruption. Instead, they suggest that ideological environments influence how regulators interpret and weigh firm-provided information in routine enforcement decisions. This raises questions about consistency and equity in enforcement across jurisdictions, particularly in areas of complex technical regulation. Policymakers concerned with enforcement uniformity may therefore wish to focus on procedural safeguards, transparency in enforcement rationales, and standardized guidelines for incorporating stakeholder input, rather than on restricting political engagement per se. Ensuring that informational advantages do not translate into systematically unequal enforcement remains a central governance challenge in discretionary regulatory regimes.

Limitations and Future Research

This study has several limitations that point to avenues for future research. First, while our empirical design links parent-firm political activity to facility-level enforcement outcomes, we cannot directly observe the micro-level interactions between firms and regulators through which lobbying influences enforcement decisions. Future work using qualitative data or administrative records could shed light on the specific mechanisms at play. Second, our measure of institutional receptivity relies on state-level political ideology, which captures broad ideological orientation but may mask heterogeneity within agencies or among individual regulators. Research incorporating agency-level ideology, leadership characteristics, or bureaucratic professional norms could further refine understanding of receptivity. Third, our analysis focuses on a single regulatory domain – the Clean Air Act. While this context is theoretically appropriate given its complexity and discretion, future studies should examine whether similar patterns hold in other regulatory settings, such as financial regulation, workplace safety, or consumer protection. Despite these limitations, this study provides clear evidence that the regulatory consequences of corporate political activity depend on how firms engage politically and the institutional environments in which enforcement discretion is exercised. By disaggregating CPA and foregrounding institutional receptivity, it offers a more nuanced understanding of when and how political engagement shapes regulatory outcomes.

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Table-1: Descriptive Statistics and Pairwise Correlation (n = 20494)
(correlations of magnitude equal to or greater than 0.01 are significant at $p < 0.05$)

Variable	Mean	SD	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Total Penalty (DV)	3.64×10^5	1.26×10^7												
2. CPA (0/1)	0.628	0.483	1.000											
3. Logged CPA	8.748	6.880	NA	1.000										
4. Lobbying (0/1)	0.616	0.486	NA	NA	1.000									
5. Logged Lobbying	8.575	6.912	NA	NA	NA	1.000								
6. Contributions (0/1)	0.260	0.439	NA	NA	0.412*	NA	1.000							
7. Logged Contributions	3.089	5.241	NA	NA	NA	0.446*	NA	1.000						
8. Firm Size	23.635	1.411	0.271*	0.321*	0.273*	0.319*	0.162*	0.177*	1.000					
9. Emissions	11.489	1.982	-0.043*	-0.022*	-0.043*	-0.023*	-0.017*	-0.012	0.096*	1.000				
10. ROA	4.255	8.371	0.128*	0.141*	0.127*	0.138*	0.147*	0.148*	0.069*	0.012	1.000			
11. Slack	1.332	1.083	-0.121*	-0.118*	-0.114*	-0.111*	-0.093*	-0.088*	-0.328*	0.012	0.060*	1.000		
12. Leverage	0.339	0.194	-0.019*	-0.032*	-0.011	-0.025*	-0.036*	-0.048*	-0.075*	-0.069*	-0.182*	-0.152*	1.000	
13. Conservative	0.244	0.799	-0.001	-0.056*	-0.044*	-0.048*	-0.062*	-0.059*	0.033*	0.048*	0.004	-0.042*	-0.027*	1.000

Note: The cells with NA represent variables that do not appear together in the same empirical model

Table 2: Impact of CPA on Penalty amount and Number of Enforcement Actions
(p-values with standard errors clustered at the facility level is provided in parentheses)

<table>
<tr><th></th><th>Model 1</th><th>Model 2</th><th>Model 3</th><th>Model 4</th></tr>
<tr><td></td><td colspan="2">DV: Logged Penalty</td><td colspan="2">DV: Number of Enforcement Actions</td></tr>
<tr><td>Logged Political Spending</td><td>−0.016
(p = 0.007)</td><td>—</td><td>−0.020
(p = 0.001)</td><td>—</td></tr>
<tr><td>CPA Decision</td><td>—</td><td>−0.237
(p = 0.005)</td><td>—</td><td>−0.295
(p = 0.001)</td></tr>
<tr><td>Logged Total Assets</td><td>−0.007
(p = 0.850)</td><td>−0.010
(p = 0.777)</td><td>−0.012
(p = 0.644)</td><td>−0.018
(p = 0.502)</td></tr>
<tr><td>Return on Assets</td><td>0.008
(p = 0.021)</td><td>0.008
(p = 0.022)</td><td>0.002
(p = 0.575)</td><td>0.002
(p = 0.583)</td></tr>
<tr><td>Slack</td><td>0.010
(p = 0.675)</td><td>0.010
(p = 0.698)</td><td>0.008
(p = 0.487)</td><td>0.007
(p = 0.535)</td></tr>
<tr><td>Leverage</td><td>−0.418
(p = 0.084)</td><td>−0.413
(p = 0.087)</td><td>−0.159
(p = 0.375)</td><td>−0.155
(p = 0.378)</td></tr>
<tr><td>Logged Total Emissions</td><td>0.172
(p = 0.000)</td><td>0.171
(p = 0.000)</td><td>0.245
(p = 0.000)</td><td>0.244
(p = 0.000)</td></tr>
<tr><td>Empirical model</td><td colspan="2">OLS</td><td colspan="2">Negative binomial</td></tr>
<tr><td>State Fixed Effects</td><td rowspan="2">State x Year</td><td rowspan="2">State x Year</td><td>Yes</td><td>Yes</td></tr>
<tr><td>Year Fixed Effects</td><td>Yes</td><td>Yes</td></tr>
<tr><td>Industry Fixed Effects</td><td>Yes</td><td>Yes</td><td>Yes</td><td>Yes</td></tr>
<tr><td>No: of observations</td><td>20,494</td><td>20,494</td><td>20,494</td><td>20,494</td></tr>
<tr><td>R^2 / Pseudo R^2</td><td>0.104</td><td>0.104</td><td>0.147</td><td>0.147</td></tr>
</table>

Table 3: Impact of Lobbying and Campaign contributions (binary decision) on penalty amount and Number of Enforcement Actions
(p-values with standard errors clustered at the facility level is provided in parentheses)

	Model 1	**Model 2**	**Model 3**	**Model 4**
	DV: Logged Penalty		DV: Number of Enforcement Actions	
Lobbying Decision (1)	−0.204 (p = 0.023)	−0.163 (p = 0.075)	−0.181 (p = 0.030)	−0.151 (p = 0.084)
Campaign Contributions Decision (2)	−0.041 (p = 0.720)	−0.072 (p = 0.522)	0.122 (p = 0.255)	0.120 (p = 0.307)
Logged Total Assets	−0.012 (p = 0.736)	−0.009 (p = 0.806)	0.058 (p = 0.114)	0.059 (p = 0.108)
Return on Assets	0.009 (p = 0.020)	0.009 (p = 0.016)	0.002 (p = 0.438)	0.002 (p = 0.368)
Slack	0.009 (p = 0.718)	0.007 (p = 0.763)	0.025 (p = 0.062)	0.025 (p = 0.065)
Leverage	−0.415 (p = 0.087)	−0.437 (p = 0.074)	−0.106 (p = 0.317)	−0.105 (p = 0.312)
Logged Total Emissions	0.172 (p = 0.000)	0.172 (p = 0.000)	0.074 (p = 0.000)	0.074 (p = 0.000)
1 × Conservative State	—	−0.169 (p = 0.010)	—	−0.113 (p = 0.018)
2 × Conservative State	—	0.101 (p = 0.350)	—	−0.103 (p = 0.434)
State x Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Empirical specification	OLS	OLS	OLS	OLS
Observations	20,494	20,494	20,494	20,494
R^2 / Pseudo R^2	0.104	0.105	0.086	0.089

Table 4: Impact of Lobbying and Campaign contributions (total amount) on Penalty amount and Number of Enforcement Actions
(p-values with standard errors clustered at the facility level is provided in parentheses)

	Model 1	**Model 2**	**Model 3**	**Model 4**
	DV: Logged Penalty		DV: Number of Enforcement Actions	
Logged Lobbying (1)	−0.015 (p = 0.024)	−0.012 (p = 0.078)	−0.013 (p = 0.042)	−0.011 (p = 0.103)
Logged Campaign Contributions (2)	−0.001 (p = 0.960)	−0.004 (p = 0.720)	0.011 (p = 0.245)	0.011 (p = 0.296)
Logged Total Assets	−0.009 (p = 0.807)	−0.005 (p = 0.896)	0.060 (p = 0.117)	0.061 (p = 0.110)
Return on Assets	0.008 (p = 0.023)	0.009 (p = 0.018)	0.002 (p = 0.433)	0.002 (p = 0.365)
Slack	0.011 (p = 0.671)	0.009 (p = 0.715)	0.026 (p = 0.060)	0.026 (p = 0.062)
Leverage	−0.414 (p = 0.087)	−0.444 (p = 0.071)	−0.107 (p = 0.306)	−0.107 (p = 0.300)
Logged Total Emissions	0.172 (p = 0.000)	0.173 (p = 0.000)	0.075 (p = 0.000)	0.075 (p = 0.000)
1 × Conservative State	—	−0.013 (p = 0.007)	—	−0.008 (p = 0.026)
2 × Conservative State	—	0.011 (p = 0.248)	—	−0.009 (p = 0.439)
Industry FE	Yes	Yes	Yes	Yes
State × Year FE	Yes	Yes	Yes	Yes
No: of observations	20,494	20,494	20,494	20,494
R^2	0.1038	0.1048	0.0858	0.0889