

1-1-2012

Private Policing of Environmental Performance: Does it Further Public Goals?

Sarah L. Stafford

College of William and Mary, slstaf@wm.edu

Follow this and additional works at: <http://lawdigitalcommons.bc.edu/ealr>



Part of the [Environmental Law Commons](#)

Recommended Citation

Sarah L. Stafford, *Private Policing of Environmental Performance: Does it Further Public Goals?*, 39 B.C. Env'tl. Aff. L. Rev. 73 (2012), <http://lawdigitalcommons.bc.edu/ealr/vol39/iss1/3>

This Article is brought to you for free and open access by the Law Journals at Digital Commons @ Boston College Law School. It has been accepted for inclusion in Boston College Environmental Affairs Law Review by an authorized editor of Digital Commons @ Boston College Law School. For more information, please contact nick.szydowski@bc.edu.

PRIVATE POLICING OF ENVIRONMENTAL PERFORMANCE: DOES IT FURTHER PUBLIC GOALS?

SARAH L. STAFFORD*

Abstract: Over the past two decades the role of private parties in the policing of environmental regulation has grown dramatically. In some cases the Environmental Protection Agency (EPA) has led this effort. In other situations, private parties have provided the impetus for new policing activities that are conducted independently from the EPA. Private policing can be beneficial when the increased involvement of the private sector either decreases the costs of achieving a particular level of environmental performance or increases environmental performance in a cost-effective manner. Private parties, however, could also divert regulated entities away from regulatory objectives. This Article explores the privatization of environmental enforcement by presenting six examples and highlighting their benefits and costs. Although the examples cited are not necessarily representative of all private policing, their mixed results regarding the effectiveness of private sector participation shows a need for careful evaluation of these initiatives. The Article concludes by making a case for a more deliberate approach to evaluating the role of the private sector in the enforcement of environmental regulation, and suggests that before responding to continuing calls to further privatize environmental regulation and enforcement it is first necessary to ensure that existing private participation is helping to achieve regulatory goals.

INTRODUCTION

Environmental regulation is often seen as an adversarial system that pits regulated entities against a public regulatory agency. In this simplistic view, legal requirements and an aggressive enforcement regime are necessary to ensure that regulated entities conduct themselves in ways they would not in an unregulated situation. This conception does not provide an active role for unregulated private parties—such

© 2012, Sarah L. Stafford.

* Paul R. Verkuil Distinguished Professor of Public Policy, Economics, and Law, and Associate Director of the Jefferson program in Public Policy, College of William and Mary. The author is much indebted to Alan Meese and John Duffy for their comments on this Article.

parties are envisaged only as passive beneficiaries of the increased environmental quality resulting from the regulation, or as victims of the increased costs imposed by the regulation. In reality, the relationship between regulated entities, the regulatory agency, and unregulated private parties—often quite active in environmental enforcement—is much more complex. Overall, both regulated and unregulated private parties play a central role in the implementation and enforcement of environmental regulation. During the past two decades this role has expanded significantly.¹ In some cases, the Environmental Protection Agency (EPA) has led both formal and informal efforts to involve private parties. In other situations, private parties have provided the impetus for a new, larger role in the enforcement of environmental regulations that is, for the most part, independent of the EPA.

One of the primary motivations for the EPA to involve private parties in environmental enforcement has been a steadily declining level of enforcement resources.² Between 1994 and 2010, the EPA's enforcement budget fell from over \$630 million to less than \$560 million in real dollars, and staffing at the EPA's Office of Enforcement and Compliance Assistance (OECA) fell from around 4200 full-time equivalent employees to 3400.³ Budget pressures, however, are not the only reason the private sector has taken a more prominent role in environmental enforcement and compliance.⁴ The EPA has also looked to the private sector to increase compliance among facilities where traditional enforcement tools have not been successful.⁵ Additionally, the private sec-

¹ See MARC ALLEN EISNER, *GOVERNING THE ENVIRONMENT: THE TRANSFORMATION OF ENVIRONMENTAL REGULATION* 93–95 (2007). One might loosely tie the increasing involvement of the private sector to the Clinton-Gore Administration, which embraced the idea of reinventing government. See *id.* at 94 (noting that delegating more authority to regulated entities became a central tenet of the “Reinventing Government” movement of the Clinton administration).

² See *id.* at 115–16 (noting a lack of experienced leaders in environmental enforcement during the Bush administration, as well as dramatic reductions in the enforcement budget). In addition to declining resources, the Office of Enforcement and Compliance Assistance (OECA) was often without a strong leader. See *id.*

³ See Wayne B. Gray & Jay P. Shimshack, *The Effectiveness of Environmental Monitoring and Enforcement: A Review of the Empirical Evidence*, 5 *REV. OF ENVTL. ECON. & POL'Y* 3, 7 fig. 1 (2011). The budget data includes only federal expenditures. *Id.*

⁴ See, e.g., EISNER, *supra* note 1, at 133–51 (describing reasons for corporations to voluntarily manage pollution).

⁵ See, e.g., OFFICE OF ENFORCEMENT AND COMPLIANCE ASSURANCE, EPA & CHEM. MFRS. ASS'N, EPA-305-R99-001, *ROOT CAUSE ANALYSIS PILOT PROJECT: AN INDUSTRY SURVEY* 3 (1999). For example, the Root Cause Analysis Project was an analysis conducted jointly by the EPA and the Chemical Manufacturer's Association from 1996 to 1998. *Id.* The project surveyed about two dozen chemical facilities that violated environmental regulations to

tor can be more innovative than the EPA, in part because private entities can take a holistic approach to environmental performance.⁶ The EPA has difficulty adopting this approach because environmental laws, and thus the EPA's regulatory programs, address environmental media such as water, air, and hazardous waste separately.⁷

Support for privatization is generally based on the belief that the market can provide some public activities or services either at lower cost, or it can provide a more beneficial alternative at the same cost as the publicly provided alternative.⁸ Conversely, if an activity can be conducted more cheaply by the government than by the private sector, or if the government can provide a higher quality good or service than the private sector, there is no justification for privatization.⁹ With respect to the implementation and enforcement of environmental regulation, private parties may be able to do some things more cost effectively than the EPA.¹⁰ In particular, private organizations often have better access to certain information, and can generally make decisions more quickly and with less red tape than public agencies.¹¹

Even if privatization is more efficient than public action, including private entities in environmental enforcement may not be socially beneficial. A common critique of private policing is that private activities can distort incentives for regulated entities in ways that are not consistent with the EPA's regulatory goals.¹² To the extent that these regulatory

determine the "root causes" of noncompliance. *Id.* at 5. The analysis found that many of the violations were unintentional, and the most frequently identified root cause of noncompliance was that the facility was unaware of the applicability of a regulation. *See id.* at 10, 14, 18, 20. Traditional deterrence-based enforcement methods such as random inspections are not necessarily effective at increasing compliance. *Id.* at 34. The analysis identified other potential methods to improve compliance, including those that involved private actors, such as of self-audits or third party audits. *Id.*

⁶ *See* EISNER, *supra* note 1, at 141 (describing how private entities develop "an expansive sense of corporate accountability for the impacts of their products and services across the lifecycle").

⁷ *See* NICHOLAS A. ASHFORD & CHARLES C. CALDART, ENVIRONMENTAL LAW, POLICY, AND ECONOMICS: RECLAIMING THE ENVIRONMENTAL AGENDA 42 (2008) (noting that traditional environmental laws are media-based).

⁸ *See* JOHN D. DONAHUE, THE PRIVATIZATION DECISION: PUBLIC ENDS, PRIVATE MEANS 57 (1989) (noting that few people would be interested in privatization if it were not more efficient).

⁹ *See* Michael P. Vandenbergh, *The Private Life of Public Law*, 105 COLUM. L. REV. 2029, 2079–80 (2005).

¹⁰ *See* EISNER, *supra* note 1, at 133–34.

¹¹ *See* EISNER, *supra* note 1, at 265 (noting that corporations have the best information regarding their production processes and technologies).

¹² *Compare* EISNER, *supra* note 1, at 150 (describing how private policing is driven by consumer demand and maximization of shareholder wealth, which limit the extent of voluntary

goals are consistent with public interests, any deviation would decrease public welfare overall.¹³ Thus, the benefits from any private policing initiatives need to be weighed against the negative consequences of each initiative to determine whether it is actually in the public interest.

This Article provides an overview of the types of private sector environmental enforcement activities and initiatives that are currently taking place, which can be divided into three groups. The first group encompasses traditional public activities that have been formally outsourced to private entities.¹⁴ The second group covers private initiatives that are actively facilitated by the EPA but do not have an official mandate.¹⁵ The last group includes private initiatives that are largely independent of the EPA.¹⁶ For each group, this Article presents examples of specific programs or activities and highlights both the benefits and costs of these activities as well as the results of any empirical analyses that have been conducted.¹⁷ The Article then discusses more generally the overall effect of private participation on implementation and enforcement of environmental regulations within each group. It concludes by making a case for a more deliberate approach to evaluating the role of the private sector in the enforcement of environmental regulation.¹⁸

I. FORMAL OUTSOURCING FROM THE EPA TO PRIVATE ENTITIES

Enforcement of environmental regulation has been formally outsourced to private entities in two primary ways. First, Congress formally outsourced enforcement powers to private citizens by providing a private right of action in nearly all major environmental laws.¹⁹ Second,

regulation), *with National Enforcement Initiatives for Fiscal Years 2008–2010*, ENVTL. PROT. AGENCY, <http://www.epa.gov/compliance/data/planning/priorities/> (last updated Jan. 20, 2011) (“EPA sets national enforcement initiatives every three years to focus resources toward the most significant environmental problems and human health challenges identified by EPA staff, states, tribes, and the public.”).

¹³ If regulation is misguided or if regulatory officials have been captured by special interests, it might be possible for a deviation from regulatory goals to actually increase overall welfare. Throughout this Article, however, it is assumed that regulations are in the public interest.

¹⁴ See discussion *infra* notes 19–67.

¹⁵ See discussion *infra* notes 68–109.

¹⁶ See discussion *infra* notes 110–143.

¹⁷ The examples chosen to illustrate each groups’ characteristics are admittedly subjective and were intended to illustrate the variety of roles that the private sector is currently playing in environmental regulation. They were not intended to be fully representative of all of the activities being conducted.

¹⁸ See discussion *infra* notes 144–157.

¹⁹ See, e.g., Clean Water Act (CWA), 33 U.S.C. § 1365 (2006); Clean Air Act (CAA), 42 U.S.C. § 7604 (2006).

the EPA has formally outsourced some of its enforcement responsibilities to regulated entities through its self-policing policy.²⁰

A. Citizen Suits

Environmental groups have used private suits to affect environmental policy since the 1960s.²¹ In the 1970s Congress formally provided a private right of action in both the Clean Water Act (CWA) and the Clean Air Act (CAA).²² Since then, nearly all major environmental laws have also included provisions for citizen suits.²³ Congress's stated purpose for providing a private right of action was to complement public enforcement.²⁴ Citizen suits were not intended to be an alternative to public enforcement, but rather a means to leverage public enforcement and to fill subsequent gaps.²⁵ Generally, the statutes allow individuals to file private suits if the EPA or state regulators are not "diligently prosecuting" the violator.²⁶ Successful suits may result in the issuance of consent decrees, fines paid into the U.S. Treasury, and reimbursement of the plaintiff's litigation expenses based on market rates.²⁷

²⁰ See Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations, 65 Fed. Reg. 19,618 (Apr. 11, 2000) [hereinafter Audit Policy]; Incentives for Self-Policing: Discovery, Disclosure, Correction, and Prevention of Violations, 60 Fed. Reg. 66,706-712 (Dec. 22, 1995).

²¹ See JONATHAN ADLER, ENVIRONMENTALISM AT THE CROSSROADS: GREEN ACTIVISM IN AMERICA 42-44 (1995).

²² CWA, 33 U.S.C. § 1365; CAA, 42 U.S.C. § 7604.

²³ See, e.g., Endangered Species Act, 16 U.S.C. § 1540(g) (2006); CWA, 33 U.S.C. § 1365 (2006); Safe Drinking Water Act, 42 U.S.C. § 300j-8 (2006); Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6972 (2006); CAA, 42 U.S.C. § 7604 (2006); Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9659 (2006); Emergency Planning and Community Right-to-Know Act, 42 U.S.C. § 11046 (a) (1) (2006).

²⁴ See COMM. ON PUBLIC WORKS, U.S. SENATE, A LEGISLATIVE HISTORY OF THE CLEAN AIR AMENDMENTS OF 1970, at 214 (1974) (prepared by the Congressional Research Service) ("Such suits can contribute to the effective enforcement of air pollution control measures.").

²⁵ See *Gwaltney of Smithfield, Ltd. v. Chesapeake Bay Found., Inc.*, 484 U.S. 49, 60 (1987), *superseded by statute*, Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2399, *as recognized in* *Glazer v. Am. Ecology Envtl. Serv. Corp.*, 894 F. Supp. 1029 (E.D. Tex. 1995). The Court in *Gwaltney* explained that "the citizen suit is meant to supplement rather than to supplant governmental action." *Id.*

²⁶ See e.g., RCRA, 42 U.S.C. § 6972(b)(1)(B). The RCRA citizen-suit provision prohibits suits where "the Administrator or State has commenced and is diligently prosecuting a civil or criminal action in a court of the United States or a State to require compliance with such permit, standard, regulation, condition, requirement, prohibition, or order." *Id.*

²⁷ Christian Langpap & Jay P. Shimshack, *Private Citizen Suits and Public Enforcement: Substitutes or Complements?*, 59 J. ENVTL. ECON. & MGMT. 235, 237 (2010).

One of the most obvious benefits of citizen suits from a regulatory perspective is that they can supplement public enforcement efforts when federal and state enforcement resources are limited, thereby increasing the level of deterrence associated with environmental violations.²⁸ A successful citizen suit can draw attention to a local area, type of violation, or even a particular regulated entity that is not being adequately addressed, thereby filling gaps in the public enforcement process.²⁹ Of course, this additional enforcement comes at a cost to the private entities that bring such suits (although successful plaintiffs may recover litigation costs from the defendants).³⁰ A citizen suit may be more cost effective than public enforcement if the private party has access to better information about particular environmental problems, or can more cheaply monitor potential polluters than federal or state regulators.³¹ Citizen suits may also help to overcome potential “agency capture” problems—where regulated entities pressure government officials to under-enforce regulations at particular facilities.³²

A potential downside of private suits is that they are not necessarily brought to advance the public interest, presumably unlike public enforcement actions.³³ Critics claim that private suits generally advance the interests of one particular group, which may not be in line with public interests.³⁴ Additionally, some detractors assert that private suits are often brought for the plaintiff’s economic gain or increased publicity, rather than to achieve an increase in environmental performance.³⁵

²⁸ See Jonathan H. Adler, *Stand or Deliver: Citizen Suits, Standing, and Environmental Protection*, 12 DUKE ENVTL. L. & POL’Y F. 39, 49 (2001). In 2009, regulators conducted compliance inspections at less than two percent of the one million entities subject to environmental regulations. *Compliance and Enforcement Annual Results 2009 Fiscal Year: Numbers at a Glance*, ENVTL. PROT. AGENCY, <http://www.epa.gov/compliance/resources/reports/endofyear/eoy2009/2009numbers.html> (last updated Nov. 9, 2010) [hereinafter *2009 Numbers*]; *Facilities Registration System (FRS)*, ENVTL. PROT. AGENCY, <http://www.epa.gov/enviro/html/facility.html#scope> (last updated Dec. 7, 2009) [hereinafter *FRS*]. Data on regulated facilities were compiled by the author using the EPA’s Envirofacts Database. *Envirofacts*, ENVTL. PROT. AGENCY, <http://www.epa.gov/enviro/> (last updated Nov. 8, 2011).

²⁹ See Adler, *supra* note 28, at 44–45.

³⁰ *Id.* at 45.

³¹ See *id.* at 44, 49.

³² See *id.* at 44, 48.

³³ See *id.* at 58–59.

³⁴ See *id.* at 58 (“[T]he priorities of environmental litigation outfits and individual citizen-suit plaintiffs will not always align with the public’s interest in greater environmental protection.”).

³⁵ See Langpap & Shimshack, *supra* note 27; Kristi M. Smith, *Who’s Suing Whom?: A Comparison of Government and Citizen Suit Environmental Enforcement Actions Brought Under EPA-Administered Statutes, 1995–2000*, 29 COLUM. J. ENVTL. L. 359, 373 (2004). Private groups may profit from successful suits because they can recover litigation costs based on

Overall, citizen suits play a relatively minor role in environmental enforcement. In 2009, the EPA issued around 3500 administrative compliance and penalty orders, referred 280 civil judicial actions, and brought just under 400 criminal cases.³⁶ In comparison, on average nearly 50 private suits are filed annually.³⁷ Most of the private suits over the last twenty years have been brought by local environmental groups or local chapters of larger organizations, such as Baykeepers or Riverkeepers.³⁸

While much has been written about the role of private suits in environmental enforcement, and several papers have presented data on the number and type of suits,³⁹ there has been relatively little empirical analysis of the overall effect of private suits on enforcement. One exception is a recent paper by two economists, Christian Langpap and Jay Shimshack.⁴⁰ This paper presents an econometric analysis of the effect that private suits against municipal wastewater treatment facilities have on regulatory inspections and enforcement.⁴¹ The analysis shows that, unlike Congress intended, private suits tend to act as a substitute for public enforcement rather than a complement.⁴² If citizen suits were a

market rates, not the actual litigation costs incurred by the group. See Adler, *supra* note 28, at 50; Smith, *supra*, at 377 n.88.

³⁶ EPA, *2009 Numbers*, *supra* note 28.

³⁷ See Smith, *supra* note 35, at 385 (citing 287 suits over a period of six years, or just under fifty per year). This estimate is generally consistent with an Environmental Law Institute study cited by Smith. *Id.* at 368 n. 41 (347 suits over a period of roughly six and a half years, just over fifty per year).

³⁸ Langpap & Shimshack, *supra* note 27, at 237; Adler, *supra* note 28, at 51.

³⁹ See, e.g., Barry Boyer & Errol Meidinger, *Privatizing Regulatory Enforcement: A Preliminary Assessment of Citizen Suits Under Federal Environmental Law*, 34 *BUFF. L. REV.* 833, 847–48 (1985); James R. May, *Now More Than Ever: Trends in Environmental Citizen Suits*, 10 *WIDENER L. REV.* 1, 2–3 (2003).

⁴⁰ Langpap & Shimshack, *supra* note 27, at 235–36.

⁴¹ *Id.* at 239. The study uses data to analyze the effect of such suits on federal and state National Pollution Discharge Elimination System (NPDES) inspections and enforcement actions at “all ‘major’ municipal wastewater treatment facilities.” *Id.* at 236–39. Because the majority of private suits filed against wastewater treatment facilities are for water violations, the study focuses on NPDES inspection and enforcement activities. *Id.* at 236–37. The citizen suit data is used to estimate a predicted probability of a citizen suit at each facility based on a number of explanatory variables including the facility’s characteristics and the location. *Id.* at 240–41, 247–48. The predicted probability of a suit is then used as an explanatory variable in the inspection and enforcement action regressions. *Id.* at 243. To disentangle the causal impacts of private enforcement on public enforcement and control for potential endogeneity the authors used measures of judicial temperament and case-loads as instrumental variables. *Id.* at 240.

⁴² *Id.* at 235, 248. More specifically, the study found that private enforcement of municipal wastewater treatment facilities complements public monitoring but substitutes for

complement to public enforcement, such suits would increase the likelihood of public enforcement by highlighting otherwise neglected areas.⁴³ However, the study found that where there is a high likelihood of a private suit, regulators are less likely to bring a public enforcement action.⁴⁴ This implies that citizen suits do not bring public attention to particular entities or areas, but rather take the place of public enforcement.⁴⁵ This finding amplifies the potential concerns about private suits. To the extent that private suits take the place of public enforcement in certain sectors or geographic areas, the ability for private objectives to supplant public objectives is magnified.

B. *The EPA's Audit Policy*

The second example of formal outsourcing is the EPA's self-policing policy, known informally as the Audit Policy, established in 1995.⁴⁶ The Audit Policy allows regulated entities to self-audit and then disclose any violations that they discover to regulators in exchange for significantly reduced penalties on those violations.⁴⁷ To receive this benefit, the violations must be discovered as a result of a self-audit (not a government initiated or mandated inspection) and must be corrected or remediated in a timely manner.⁴⁸ In addition, the EPA has stated that when entities self-police, formal EPA investigations and enforcement actions may be unnecessary, which suggests that facilities may also experience lower levels of enforcement following a self-disclosure.⁴⁹

Appropriately designed self-policing policies can be very beneficial, as they can increase the number of violations that are remediated

public enforcement. *Id.* at 236. Overall, their findings suggest that "direct deterrence effects are significantly weakened by the net crowding out of public enforcement." *Id.*

⁴³ *See id.* at 238, 248.

⁴⁴ *Id.* at 248–49.

⁴⁵ *Id.*

⁴⁶ *See generally* Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations, 60 Fed. Reg. 66,706 (Dec. 22, 1995). Minor revisions to the policy were issued in 2000. *See* Audit Policy, *supra* note 20.

⁴⁷ *See* Audit Policy, *supra* note 20.

⁴⁸ *Id.* There are a number of additional conditions the disclosure must meet to be eligible for a penalty reduction. These conditions are discussed more fully in Sarah L. Stafford, *Outsourcing Enforcement: Principles to Guide Self-Policing Regimes*, 32 CARDOZO L. REV. 2293, 2302–03 (2011) [hereinafter Stafford, *Outsourcing*].

⁴⁹ *See Auditing*, ENVTL. PROT. AGENCY, <http://www.epa.gov/compliance/incentives/auditing/index.html> (last visited Jan. 12, 2012).

as well as accelerate the timing of remediation.⁵⁰ Moreover, enforcement resources can be redirected from self-policers to other regulated entities, increasing overall deterrence with the same level of enforcement resources.⁵¹ Poorly designed self-policing policies, however, can undermine deterrence by decreasing the cost of violating environmental regulations, and thus decrease the overall level of compliance.⁵² Additionally, some policies may allow facilities to strategically self-police in order to circumvent formal public enforcement.⁵³

While the opportunity to self-police is available to most of the one million entities regulated by the EPA, only 1200 facilities (or less than one-tenth of a percent) self-disclosed in 2009.⁵⁴ In comparison, of the approximately 20,000 facilities that were formally inspected by the EPA, more than 4000 (or twenty percent) had violations that warranted some form of enforcement.⁵⁵ Of course, the EPA likely chooses to inspect those facilities that it believes are most likely to be in violation, thus such entities might be expected to have a higher percentage of violations than regulated entities in general.⁵⁶ Additionally, the Audit Policy pro-

⁵⁰ Stafford, *Outsourcing*, *supra* note 48, at 2299–2300; Sarah L. Stafford, *Self-Policing in a Targeted Enforcement Regime*, 74 S. ECON. J. 934, 945 (2008) [hereinafter Stafford, *Self-Policing Regime*].

⁵¹ See Terrell E. Hunt & Timothy A. Wilkins, *Environmental Audits and Enforcement Policy*, 16 HARV. ENVTL. L. REV. 365, 411, 414 (1992).

⁵² For a complete discussion of this problem, see Sarah L. Stafford, *Does Self-Policing Help the Environment? EPA's Audit Policy and Hazardous Waste Compliance*, 6 VT. J. ENVTL. L. 1 (2005) [hereinafter Stafford, *Does Self-Policing Help?*] (discussing the possibility that decreased future enforcement as a reward for self-disclosed violations may result in decreased investments in compliance).

⁵³ See Alexander Pfaff & Chris William Sanchirico, *Big Field, Small Potatoes: An Empirical Assessment of EPA's Self-Audit Policy*, 23 J. POL'Y ANALYSIS & MGMT. 415, 426 (2004). If regulators decrease enforcement efforts at regulated entities that self-police, entities could use self-disclosures as “red herrings,” notifying regulators of small violations while concealing more significant violations. See *id.* Additionally, if regulators decrease future enforcement as a reward for a self-disclosed violation, entities may also decrease investments in compliance in the future. See Stafford, *Self-Policing Regime*, *supra* note 50, at 945.

⁵⁴ See *FRS*, *supra* note 28 (calculating number of regulated entities); EPA, *2009 Numbers*, *supra* note 28 (indicating number of self disclosures).

⁵⁵ See EPA, *2009 Numbers*, *supra* note 28.

⁵⁶ See *Enforcement & Compliance History Online (ECHO): Frequently Asked Questions*, ENVTL. PROT. AGENCY, http://www.epa-echo.gov/echo/faq.html#how_is_compliance (last visited Jan. 12, 2012) (noting that the EPA considers citizen tips and violation histories when selecting a facility to inspect). In addition to citizen tips and a facility's violation history, the EPA also considers facility size, potential for environmental harm, geographic initiatives, statutory requirements, protection of sensitive ecosystems, demographics, and industry type. *Id.*

vides that a particular violation can only be disclosed once,⁵⁷ so the total number of disclosures over the life of the Audit Policy might provide a more meaningful estimate of its relative importance. Since 1999, the EPA has received more than 15,000 voluntary disclosures.⁵⁸

Although opponents of the Audit Policy initially argued that it would have a detrimental effect on the environment by protecting polluters from punishment and decreasing the incentives for entities to comply with regulations, empirical analyses of the policy have not found any such effects.⁵⁹ On the contrary, the studies suggest that the Audit Policy has had a positive impact on both compliance and environmental performance.⁶⁰ My own study of its effect on compliance with hazardous waste regulations found no evidence that overall compliance decreased as a result of the Audit Policy.⁶¹ Moreover, I found that state self-policing policies modeled on the federal Audit Policy decreased the probability of a violation.⁶² Michael Toffel and Jodi Short examined the effect of the Audit Policy on firm compliance with CAA regulations, rather than hazardous waste regulations, and found that self-disclosers had lower levels of abnormal releases and higher compliance rates in the five years following their disclosure.⁶³ Taken together, these studies indicate that the EPA's Audit Policy increases compliance

⁵⁷ See Audit Policy, *supra* note 20, at 19,622–23; EPA's Audit Policy, ENVTL. PROT. AGENCY, <http://www.epa.gov/oecaerth/incentives/auditing/auditpolicy.html> (last visited Dec. 28, 2011).

⁵⁸ See EPA, NATIONAL ENFORCEMENT TRENDS (NETs) REPORT, at H-3 (2011) *available at* <http://www.epa.gov/compliance/data/reports/nets.html>.

⁵⁹ See Stafford, *Does Self-Policing Help?*, *supra* note 52, at 3.

⁶⁰ See *id.* at 3, 22; Michael W. Toffel & Jodi L. Short, *Coming Clean and Cleaning Up: Does Voluntary Self-Reporting Indicate Effective Self-Policing?* (Harvard Bus. Sch., Working Paper, No. 08-098, 2010) 4, 5 *available at* <http://www.hbs.edu/research/facpubs/workingpapers/papers0708.html#wp08-098>.

⁶¹ See Stafford, *Does Self-Policing Help?*, *supra* note 52, at 22. The analysis used data on detected hazardous waste violations and EPA enforcement actions to statistically determine if there has been an underlying change in the compliance behavior of regulated entities. See *id.* at 9, 21, 22. The results show that the federal Audit Policy had no measurable effect on compliance behavior. See *id.* at 21, 22.

⁶² See *id.* at 22. A number of states have passed their own self-policing policies, as well as immunity and privilege legislation for environmental audits. Sarah L. Stafford, *State Adoption of Environmental Audit Initiatives*, 24 CONTEMP. ECON. POL'Y. 172, 172 (2006) [hereinafter Stafford, *State Adoption*]. State audit privilege legislation decreases the probability of a violation, while state legislation that provides complete penalty immunity for self-disclosed violations increases the probability of a violation. Stafford, *Does Self-Policing Help?*, *supra* note 52, at 21.

⁶³ Toffel & Short, *supra* note 60, at 17, 29, 32. The analysis uses data on self-disclosures, self-reported abnormal releases of toxic chemicals to the environment, and compliance status to conduct an econometric analysis of the effect of self-disclosures on the number of abnormal releases and compliance status in the years following a disclosure. See *id.* at 17–21.

and performance, or at a minimum, does not decrease it.⁶⁴ Given that overall environmental enforcement resources decreased over the time frame of these analyses,⁶⁵ there is reasonable evidence that the efficiency of the EPA's enforcement program has increased in the short run under the Audit Policy.

However, these two studies of the Audit Policy have found that self-policers benefit from a lower probability of enforcement following a disclosure.⁶⁶ This finding suggests that some entities may strategically self-police in order to reduce future enforcement.⁶⁷ If entities exploit these "enforcement holidays" by taking steps to reduce future compliance, long-term compliance may not necessarily increase under the Audit Policy.

II. PRIVATE INITIATIVES ACTIVELY FACILITATED BY THE EPA

In addition to formally outsourcing some activities to private entities, the EPA actively facilitates a number of private initiatives that help it to implement and enforce environmental regulations. This category includes what is arguably the most influential role that private parties play in environmental regulation—consumers and investors can punish or reward companies for their environmental performance.⁶⁸

A. Information Programs to Facilitate Enforcement by the Market

In principle, consumers that care about the environment should favor products and manufacturers that are environmentally protective.⁶⁹ Similarly, investors who care about the environment may also make investment decisions based on environmental performance.⁷⁰ More gen-

⁶⁴ See Stafford, *Does Self-Policing Help?*, *supra* note 52, at 22; Toffel & Short, *supra* note 60, at 32.

⁶⁵ See Gray & Shimshack, *supra* note 3, at 7 fig. 1.

⁶⁶ See Toffel & Short, *supra* note 60, at 29; Sarah L. Stafford, *Should You Turn Yourself In? The Consequences of Environmental Self-Policing*, 26 J. POL'Y ANALYSIS & MGMT. 305, 318 (2007).

⁶⁷ See Toffel & Short, *supra* note 60, at 29; Stafford, *State Adoption*, *supra* note 62, at 172.

⁶⁸ See David W. Case, *The Law and Economics of Environmental Information as Regulation*, 31 ENVTL. L. REP. 10,773, 10,776 n.38, 10,778 (2001); P.N. Grabosky, *Green Markets: Environmental Regulation by the Private Sector*, 16 L. & POL'Y 419, 427, 428 (1994).

⁶⁹ See Case, *supra* note 68, at 10,776. Many authors have written extensively about the ability of consumers and investors to exert significant influence on environmental performance. See, e.g., Grabosky, *supra* note 68, at 429.

⁷⁰ See Case, *supra* note 68, at 10,780; Grabosky, *supra* note 68, at 435. According to the Social Investment Forum—a trade association for professionals, firms, institutions, and organizations engaged in socially responsible and sustainable investing—socially responsible investing currently encompasses an estimated \$3 trillion in the U.S. investment market

erally, all investors should care about the potential liability associated with poor environmental performance and, in industries where customers care about the environment, investors may push for an increase in environmental performance to gain a competitive advantage.⁷¹

The term “social market” has been used to describe markets where consumption and investment decisions depend not only on preferences regarding price, quality, and product features, but also on environmental or other social consequences of production.⁷² For social markets to function well, consumers and investors must have relevant information on all of the companies in the market.⁷³ More specifically, for consumers and investors to be able to effect changes in corporate environmental practices by punishing and rewarding companies for their environmental performance, they must first have relevant information.⁷⁴

The EPA has developed a number of information programs designed to provide consumers and investors with relevant information about the environmental performance of regulated facilities.⁷⁵ Arguably, the most socially significant disclosure program is the Toxics Release Inventory (TRI) database.⁷⁶ The TRI provides information on the environmental impact of various companies by requiring regulated entities to disclose the type and level of toxic chemicals used and released into environmental media—air, water, and land.⁷⁷ Programs like the TRI require additional reporting by regulated entities, thus increasing

(out of a total of \$25 trillion). See SOC. INV. FORUM FOUND., REPORT ON SOCIALLY RESPONSIBLE INVESTING TRENDS IN THE UNITED STATES 8 (2010), available at <http://ussif.org/resources/research/documents/2010TrendsES.pdf>.

⁷¹ See Case, *supra* note 68, at 10,777; Grabosky, *supra* note 68, at 427, 434, 436.

⁷² Archon Fung, *Making Social Markets: Dispersed Governance and Corporate Accountability*, in MARKET-BASED GOVERNANCE: SUPPLY SIDE, DEMAND SIDE, UPSIDE, AND DOWNSIDE 145, 146 (John D. Donahue & Joseph S. Nye Jr. eds., 2002).

⁷³ See *id.* at 147. I focus on consumers and investors, although obviously other parties such as landlords, lenders, and potential buyers of firms can also take advantage of these information programs. See Vandenberg, *supra* note 9, at 2045–58.

⁷⁴ See Fung, *supra* note 72, at 147–48.

⁷⁵ See *Envirofacts—About the Data*, ENVTL. PROT. AGENCY, <http://www.epa.gov/enviro/facts/qmr.html> (last updated Dec. 15, 2011).

⁷⁶ See Case, *supra* note 68, at 10,775.

⁷⁷ *TRI Data and Tools*, ENVTL. PROT. AGENCY, <http://www.epa.gov/tri/tridata/index.html> (last visited Jan. 12, 2012). The TRI is considered a form of “informational regulation” as specific entities are required to disclose information on their operations and performance. See Case, *supra* note 68, at 10,774–75 (explaining the concept of information regulation); see also 40 C.F.R. § 372.25–28 (2008) (providing minimum thresholds for activation of reporting requirements); *Toxics Release Inventory*, ENVTL. PROT. AGENCY, <http://www.epa.gov/tri/index.htm> (last visited Jan. 12, 2012) (providing a full description of the TRI program and database).

their costs, although those entities are still the low-cost providers of such information.⁷⁸ Another information source that the EPA has developed is the Enforcement and Compliance History Online (ECHO) database which provides information on the compliance history of regulated entities.⁷⁹ Since the ECHO database is essentially an interface for data already collected and maintained by the EPA for other purposes,⁸⁰ the only additional costs of this program are those associated with developing and maintaining the ECHO system. Both the TRI and ECHO databases are easily accessible for direct use by consumers, investors, and third parties such as news organizations, non-profits like the Environmental Defense Fund, and investment groups such as the Investor Responsibility Research Center.⁸¹

Harnessing the power of the market to provide additional pressure on regulated entities to improve their environmental compliance has the potential to be very cost-effective.⁸² In addition, consumers and investors can gain personally because they are able to make investment and consumption decisions more in line with their personal preferences without having to spend significant additional resources.⁸³ However, the literature identifies a number of potential concerns that can arise in social markets.⁸⁴ One principal critique is that consumers and investors act for their own, rather than the general public's, interest.⁸⁵ For example, consumers might be more concerned with releases of pollution into air than water, even though water pollution may be more harmful to the

⁷⁸ Case, *supra* note 68, at 10,781 & n.108. It would be much more expensive for consumers and investors to obtain such information independently. *See id.*

⁷⁹ *Enforcement & Compliance History Online (ECHO)*, ENVTL. PROT. AGENCY, <http://www.epa-echo.gov/echo/> (last visited Jan. 12, 2012). ECHO does not require regulated entities to disclose additional information, but rather is a tool developed by the EPA to make its information more accessible to the public. *Id.*

⁸⁰ *Id.*

⁸¹ *See, e.g., Pollution in Your Community*, SCORECARD, <http://www.scorecard.org> (last visited Jan. 12, 2012). The Environmental Defense Fund developed a "Scorecard" to rate companies' environmental performances using TRI data. *Environmental Defense Funds Scorecard; An Interactive and Educational Site About Pollution*, NASA, <http://gcmd.nasa.gov/records/Scorecard-00.html> (last visited Jan. 12, 2012). This scorecard has since been transferred to an independent NGO, the Green Media Toolshed. *See Pollution in Your Community, supra* (follow "About Scorecard" hyperlink, then follow "The History of Scorecard" hyperlink). The Investor Responsibility Research Center used TRI data in compiling its corporate environmental profiles. ASHFORD & CALDART, *supra* note 7 at 79.

⁸² *See* Fung, *supra* note 72, at 174–75.

⁸³ *See id.* at 149–50.

⁸⁴ *See id.* at 146, 163.

⁸⁵ *See id.* at 163–64. If agency priorities are not consistent with the public interest, social markets provide a direct way for the public to influence behavior. *See* Vandenberg, *supra* note 9, at 2034.

environment than air pollution.⁸⁶ Thus, private parties may alter the priorities of firms in a way that is not consistent with public priorities.⁸⁷ In theory, the EPA can respond to the shift in incentives by changing its own behavior to balance out that of private parties.⁸⁸ To make such adjustments, the EPA would need to assess the impact of consumer and investor pressure on environmental behavior and then modify either the underlying regulations or the public enforcement strategy.⁸⁹

A second concern about social markets is that only certain private parties can participate in them. Individuals must have sufficient resources to be either investors or discriminating consumers with the ability to have an effect on the environmental behavior of entities in these markets.⁹⁰ Moreover, regulated entities will not be uniformly affected by these pressures.⁹¹ Reputation-sensitive firms, firms that produce final consumer goods, and publicly traded firms will be subject to more pressure than firms that produce intermediate goods or are privately held.⁹² In theory, these concerns could also be addressed by evaluating the effects of social markets on environmental performance and adjusting regulation or enforcement to balance those effects.⁹³

Despite such concerns, a number of economic studies have shown that investors respond to the information provided by these programs.⁹⁴ There are also a number of studies that provide indirect evidence that some consumers respond to the environmental performance of firms.⁹⁵ To date, however, there are no reliable estimates of the number of con-

⁸⁶ See Mark A. Cohen, *Information as a Policy Instrument in Protecting the Environment: What Have We Learned?* 31 ENVTL. L. REP. 10,425, 10,428 (2001). The public may "be misinformed about the risks of various pollutants and media attention might have more to do with which firms reduce emissions than any social cost-benefit analysis." *Id.* at 10,430–31.

⁸⁷ *Id.* at 10,428.

⁸⁸ See Fung, *supra* note 72, at 153–56 (discussing the ability of federal agencies to supplement and clarify competing information claims by private parties).

⁸⁹ See *id.* at 156–57 (noting the benefits of influencing social market forces to achieve regulatory goals).

⁹⁰ See *id.* at 150. Additionally, future generations are unlikely to be fully represented by current investors and consumers. See Vandenberg, *supra* note 9, at 2081–82.

⁹¹ Fung, *supra* note 72, at 164–65.

⁹² See *id.* This may be changing, however, as intermediate producers are increasingly held to certain standards by other producers. See Vandenberg, *supra* note 9, at 2059–60 (describing the effect of second-order agreements upon companies, their suppliers, and other corporate associations).

⁹³ See Fung, *supra* note 72, at 156–57 (noting the benefits of influencing social market forces to achieve regulatory goals).

⁹⁴ See Case, *supra* note 68, at 10,778; Sarah L. Stafford, *Can Consumers Enforce Environmental Regulations? The Role of the Market in Hazardous Waste Compliance*, 31 J. REG. ECON. 83, 85 (2007) [hereinafter Stafford, *Role of Market*].

⁹⁵ For an overview of this topic, see Stafford, *Role of Market*, *supra* note 94, at 84.

sumers and investors who make consumption and investment decisions based on environmental preferences, nor is there any reliable indication of what those preferences are and how they line up with regulatory goals. Additionally there is only indirect evidence that regulated entities' environmental decisions are affected by these social markets.⁹⁶ Thus, there is very little understanding of exactly how social markets and the EPA's information programs are affecting environmental performance overall. Moreover, there does not appear to be any process for adjusting regulatory objectives based on the presence of social markets.

B. Compliance Assistance by Private Entities

The EPA has also facilitated the participation of private entities in providing compliance assistance to regulated entities.⁹⁷ Compliance assistance currently plays an important part in the EPA's overall enforcement and compliance assurance strategy.⁹⁸ The general goal of compliance assistance programs is to increase environmental performance by inducing more efficient implementation of regulatory requirements.⁹⁹

In 1994, the EPA began offering formal compliance assistance after its enforcement functions were reorganized to create a single Office of Enforcement and Compliance Assurance.¹⁰⁰ From the beginning, the EPA's compliance assistance strategy included partnerships with industry.¹⁰¹ The private role in compliance assistance increased significantly in 1999 when the EPA formally adopted a "wholesaler" approach—de-

⁹⁶ See SHAKAB AFSAH ET AL., REGULATION IN THE INFORMATION AGE: INDONESIAN PUBLIC INFORMATION PROGRAM FOR ENVIRONMENTAL MANAGEMENT 1, 9 (1997), available at <http://site.resources.worldbank.org/NIPRINT/Resources/RegulationInTheInformationAge.pdf> (finding that the creation of a public disclosure program in Indonesia caused firms in the program to improve their environmental performance); Shameek Konar & Mark A. Cohen, *Information as Regulation: The Effect of Community Right-to-Know Law on Toxic Emissions*, 32 J. ENVTL. ECON. & MGMT. 109, 110 (1997) (finding that firms with the largest stock price decreases following the release of environmental information respond with the largest decreases in future pollution).

⁹⁷ See EPA, 2006–2011 EPA STRATEGIC PLAN: CHARTING OUR COURSE 128–29 (2006).

⁹⁸ See *id.* at 128 ("Effective compliance assistance and strong, consistent enforcement are critical to achieving the human health and environmental benefits expected from our environmental laws.").

⁹⁹ See *Compliance Assistance*, ENVTL. PROT. AGENCY, <http://www.epa.gov/compliance/assistance/index.html> (last visited Jan. 13, 2012).

¹⁰⁰ Press Release, EPA, EPA Administrator Details Design of Reorganized Enforcement Office (Oct. 13, 1993) (on file with author); TARGETING & EVAL. BRANCH, EPA, FY 1995 ENFORCEMENT AND COMPLIANCE ASSURANCE ACCOMPLISHMENTS REPORT 1-1, 5-1 (1996), available at <http://www.epa.gov/compliance/resources/reports/accomplishments/oeca/fy95accomplishment.pdf>.

¹⁰¹ TARGETING & EVAL. BRANCH, *supra* note 100.

veloping compliance assistance tools and materials and then involving states, localities and private providers (including NGOs, trade associations, and consultants) to deliver the assistance directly to the regulated community.¹⁰²

This approach to compliance assistance separates activities for which the EPA is likely to be the least-cost provider from those where private entities may be able to provide such services at a lower price.¹⁰³ Thus, given the EPA's intimate knowledge of the regulations and the manner in which compliance with those regulations is monitored and enforced, the Agency continues to develop guidance and compliance assistance tools.¹⁰⁴ The EPA then provides these tools as well as compliance assistance training to private providers, who in turn provide the actual compliance assistance to facilities.¹⁰⁵ In addition to the presumption that private providers may be able to offer the actual compliance services at a lower cost than the government, some regulated entities are more willing to seek compliance assistance from independent parties than from regulators.¹⁰⁶ One potential downside to this outsourcing is that private providers may emphasize different compliance objectives. For example, private providers may focus on helping regulated

¹⁰² See EPA, INNOVATIVE APPROACHES TO ENFORCEMENT AND COMPLIANCE ASSURANCE 4, 7 (1999), available at <http://www.epa.gov> (follow "Publications, Newsletters" hyperlink; then follow "National Service Center for Environmental Publications" hyperlink; then search "Innovative Approaches to Enforcement and Compliance Assurance"; then follow "Search" hyperlink).

¹⁰³ See *supra* notes 75–81 and accompanying text (discussing how the EPA compiles the ECHO and TRI databases, but shifts reporting costs to private entities that are the least-cost providers of information).

¹⁰⁴ See *Compliance Assistance*, *supra* note 99.

¹⁰⁵ See generally, EPA, GUIDE FOR ADDRESSING ENVIRONMENTAL PROBLEMS: USING AN INTEGRATED STRATEGIC APPROACH (2007) (providing strategic approaches for improved compliance and to assist practitioners in future strategic planning). The EPA also continues to provide some compliance assistance directly to regulated entities through its regional offices, as do many state environmental agencies. See *EPA Regional Compliance Assistance Coordinator*, ENVTL. PROT. AGENCY, http://www.epa.gov/compliance/contact/cac_regional.html (last visited Jan. 12, 2012).

¹⁰⁶ If private providers can provide compliance assistance at a lower "social" cost (i.e. a lower total cost to society overall) than the government, that does not necessarily imply that regulated entities that seek such assistance will pay less than if they obtain the assistance from public sources. Thus, moving to the wholesale model of compliance assistance could be more efficient, but could also shift costs from the regulatory agency to regulated entities. See *Compliance Assistance*, *supra* note 99. However, some private providers are non-profit entities or states, many of which continue to provide compliance assistance for small businesses or contract with third parties (such as universities) to provide compliance assistance for free or at a reduced cost. See, e.g., *Pollution Prevention Inst. & Small Bus. Envtl. Assistance Program*, KANSAS STATE UNIV., <http://www.sbeap.org/index.php> (last visited Jan. 12, 2012).

entities pass compliance inspections rather than achieving full compliance with the regulations.

There is no formal estimate of the number of private compliance assistance providers. However, one can get a sense of the potential number by examining EPA data on compliance assistance “contacts.” In 2007 the EPA had more than 50,000 contacts with compliance assistance providers (not including contacts with compliance assistance personnel employed directly by regulated entities).¹⁰⁷ While individual providers could have had multiple contacts (e.g., participation in multiple online training programs) this figure suggests that the number of private entities actively involved in helping regulated entities implement environmental compliance programs is not insignificant.¹⁰⁸ To date, however, there has been no formal assessment on the effect of the EPA’s “wholesaler” approach to overall compliance assistance, nor has there been any formal evaluation of the effectiveness of the EPA’s overall compliance-assistance program.¹⁰⁹

III. INFORMAL PRIVATIZATION INDEPENDENT OF THE EPA

The final category of private activities are those that have been initiated by private entities and are largely independent of the EPA.¹¹⁰ There are many such initiatives, although most are specific to a particular industry or geographic area and are not well known or publicized.¹¹¹ Others are larger in scale and have received a reasonable amount of attention.¹¹² This paper presents two relatively well-known

¹⁰⁷ EPA, INTEGRATED COMPLIANCE INFORMATION SYSTEM: COMPLIANCE ASSISTANCE MONTHLY MANAGERS REPORT (Sept., 19, 2009) (report provided by Karen Koslow, Acting Director of the Compliance Assistance & Sector Program Division of OECA, on file with author).

¹⁰⁸ See *id.*; Shelley Metzenbaum, *Compliance and Deterrence Research Project: Measuring Compliance Assistance Outcomes, State of Science and Practice White Paper* 1, 18, 29, 35 (2007) available at <http://www.epa.gov/compliance/resources/reports/compliance/research/> (search for paper under “Compliance Assistance Outcome Measurement” subheading).

¹⁰⁹ See Metzenbaum, *supra* note 108, at 6, 16, 60–61. The EPA tracks the number of entities “reached” through its compliance assistance programs and compiles feedback from entities receiving assistance as to whether that assistance is useful, but there has been no larger assessment of the compliance assistance program. See *id.* at 6, 16.

¹¹⁰ See Vandenberg, *supra* note 9, at 2038 n.36. Vandenberg identifies private second-order regulatory agreements as “private in that the parties to the agreements are nongovernmental entities. They are second-order in that they are entered into in response to the existence or absence of first-order government regulatory requirements.” *Id.* at 2030–31.

¹¹¹ See, e.g., *id.* at 2064–65 (discussing “good neighbor agreements,” which fall into this category).

¹¹² See, e.g., EISNER, *supra* note 1, at 163 (recognizing well known schemes such as the ISO 9000 and ISO 14000 series).

examples, the international ISO 14001 certification program and the U.S. Responsible Care program.

A. ISO 14001

Probably the best known and farthest-reaching private initiative that affects environmental performance is the ISO 14001 certification program.¹¹³ ISO 14001 is a set of voluntary environmental management standards established by the International Organization for Standards, an international non-governmental organization.¹¹⁴ The ISO 14001 certification program essentially works as a labeling system, conveying information to potential investors and consumers about the environmental standards to which certified companies adhere.¹¹⁵

While the information provided by ISO 14001 certification may be used similarly to the information provided by the EPA's TRI and ECHO databases,¹¹⁶ there are several key differences between them. First, ISO 14001 certification is voluntary¹¹⁷ whereas the EPA provides TRI data for all firms within a specified set industries (generally manufacturing), and ECHO information for all regulated entities.¹¹⁸ Second, the ISO 14001 standards were developed primarily by companies, although there was some input from government agencies and advocacy groups from a number of countries.¹¹⁹ Finally, the ISO 14001 standards are unlike most U.S. environmental regulations, they do not specify maximum pollution levels or dictate particular equipment that must be installed, but instead enumerate environmental management standards to which firms must adhere to earn certification.¹²⁰ The standards include compliance with all local environmental regulations as well as

¹¹³ See *id.* at 167, 173.

¹¹⁴ See *id.* at 163, 165–67, 173.

¹¹⁵ See *id.* at 163, 167.

¹¹⁶ See *id.* at 15, 163; *Enforcement & Compliance History Online (ECHO)*, *supra* note 79.

¹¹⁷ EISNER, *supra* note 1, at 173.

¹¹⁸ See 40 C.F.R. § 372.22–28 (2008) (establishing TRI reporting requirements based on industry classification, number of employees, and type and amount of chemicals used and released); *About the Site*, ENVTL. PROT. AGENCY, http://www.epa-echo.gov/echo/about_site.html (last visited Jan. 12, 2012) (stating that ECHO includes all regulated entities subject to the following environmental statutes: the CAA Stationary Source Program, the CWA National Pollutant Discharge Elimination System, and the Resource Conservation and Recovery Act).

¹¹⁹ EISNER, *supra* note 1, at 164.

¹²⁰ Compare 42 U.S.C. § 7408 (2006) (requiring EPA administrator to establish ambient air quality standards), with EISNER, *supra* note 1, at 165–67 (requiring organizations to adopt a policy suitable to the environmental impact of their services, products, or activities).

continuous improvement in environmental management. Thus, the standards require firms to focus on their overall environmental impacts and to think system-wide about how to improve their environmental performance—something that U.S. media-based regulatory programs do not do.¹²¹ The program also requires a third party to certify that the entity meets all the standards.¹²² Because ISO 14001 standards are not tied to any particular regulatory goals other than compliance with relevant regulations, certified firms may choose to focus on areas for improvement that are different from the areas on which the EPA would like them to focus.¹²³

The EPA has never formally supported the ISO 14001 program.¹²⁴ Although the EPA supports the use of environmental management programs, it has not integrated the idea of environmental management systems directly into regulations or provided any incentives for regulated entities to become certified.¹²⁵ Perhaps as a result, ISO 14001 has not been as widely adopted in the United States as in other developed countries.¹²⁶ In 2004, around 4800 U.S. firms had been certified, representing roughly five percent of total certifications worldwide and a very small percentage of the more than one million regulated entities in the United States.¹²⁷ However, studies have shown that ISO 14001 certification does improve a firm's compliance with environmental regulations as well as its environmental performance generally.¹²⁸ For example, two studies by Matthew Potoski and Aseem Prakash found that ISO 14001 certification has a positive effect on regulated entities' environmental performance, even after controlling for self-selection into the ISO

¹²¹ See EISNER, *supra* note 1, at 165–66. See generally CWA, 33 U.S.C. § 1251 (regarding water quality); RCRA, 42 U.S.C. § 6901 (regarding solid waste).

¹²² EISNER, *supra* note 1, at 166–67.

¹²³ See *id.* at 164–65, 174.

¹²⁴ See *Position Statement on Environmental Management Systems (EMSs)*, ENVTL. PROT. AGENCY, <http://www.peercenter.net/ewebeditpro/items/O73F7607.pdf> (last visited Dec. 28, 2011) [hereinafter, EPA, Position Statement].

¹²⁵ See *id.* (confirming that this policy statement is still in force and stating that it is the “EPA’s intent to continue to promote the voluntary widespread use of EMSs”); *FRS*, *supra* note 28.

¹²⁶ EISNER, *supra* note 1, at 167.

¹²⁷ *Id.*

¹²⁸ See, e.g., Matthew Potoski & Aseem Prakash, *Covenants with Weak Swords: ISO 14001 and Facilities’ Environmental Performance*, 24 J. POL’Y ANALYSIS & MGMT. 745, 745 (2005) [hereinafter Potoski & Prakash, *Weak Swords*]; Matthew Potoski & Aseem Prakash, *Green Clubs and Voluntary Governance: ISO 14001 and Firms’ Regulatory Compliance*, 49 AM. J. POL. SCI. 235, 245 (2005) [hereinafter Potoski & Prakash, *Green Clubs*].

14001 program.¹²⁹ The first study found that certified entities spend less time out of compliance with CAA regulations than non-certified entities.¹³⁰ The second found that certified entities have larger reductions in emissions of toxic chemicals than non-certified firms.¹³¹

B. *Responsible Care*

Perhaps the most well-known example of a U.S. industry-led initiative is the Responsible Care Program, introduced by the Chemical Manufacturer's Association in 1988 partly in response to the Bhopal disaster.¹³² Pursuant to the program, all members of the Chemical Manufacturer's Association, renamed the American Chemistry Council (ACC) in 2000, must commit to operating under the Responsible Care principles.¹³³ These principles are designed to promote "continual improvement in environmental, health, and safety performance" within chemical companies.¹³⁴ Members are also asked to establish at least one concrete goal in these areas and "make performance improvements towards the realization of that goal."¹³⁵ Though the program is mandatory for all trade association members, prior to 2004 there was no requirement that an outside party certify compliance with program requirements.¹³⁶

¹²⁹ See Potoski & Prakash, *Weak Swords*, *supra* note 128, at 746, 756; Potoski & Prakash, *Green Clubs*, *supra* note 128, at 245.

¹³⁰ See Potoski & Prakash, *Green Clubs*, *supra* note 128, at 245.

¹³¹ See Potoski & Prakash, *Weak Swords*, *supra* note 128, at 746. In any study of the effect of ISO 14001 certification, it is important to control for the fact that regulated entities voluntarily decide whether to become certified. See *id.* at 756. If there are particular factors or firm characteristics that both influence joining ISO 14001 and affect environmental performance, any analysis that does not control for those factors might attribute a particular change in performance to ISO 14001 certification when it is in fact due to the underlying factor. See *id.* Both of the Potoski and Prakash studies control for the fact that firms voluntarily self-select ISO 14001 certification using a two-step treatment-effects model. See *id.* at 756; Potoski & Prakash, *Green Clubs*, *supra* note 128, at 240.

¹³² See EISNER, *supra* note 1, at 161. The international Responsible Care program determines the "fundamental features" of the program, but Responsible Care is implemented by national trade associations in various countries, and thus each countries' program is different. See *generally Responsible Care*, INT'L COUNCIL OF CHEM. ASS'N, <http://www.icca-chem.org/en/Home/Responsible-care/> (last visited Jan. 12, 2012).

¹³³ See EISNER, *supra* note 1, at 161; THE NAT'L ENVTL. EDUC. & TRAINING FOUND., THE EMERGING ROLE OF ASSOCIATIONS AS MENTORS 4 n.7 (2000), available at <http://www.neeefusa.org/pdf/associations.pdf>.

¹³⁴ EISNER, *supra* note 1, at 161.

¹³⁵ *Id.*

¹³⁶ *Id.* at 161-62.

The potential benefits of the Responsible Care program are similar to those of the ISO 14001 program; in theory, the standards require firms to think system wide about how they could improve their environmental performance.¹³⁷ However, the Responsible Care standards are not tied to any regulatory goals, and unlike ISO 14001 they do not mandate compliance with EPA regulations.¹³⁸ Thus, the potential concern that private standards programs may drive regulated entities' incentives away from public regulatory objectives is more pronounced for Responsible Care than it is for ISO 14001.¹³⁹ Any distortion in incentives away from public regulatory goals could, in theory, be balanced by a change in public implementation or enforcement activities. To do so, however, would require a more detailed evaluation of the effect of the program on environmental performance than has been conducted.

Similar to its stance on ISO 14001, the EPA does not formally recognize the Responsible Care program in its regulations and has not provided any significant incentives for regulated entities to participate.¹⁴⁰ Over 220 chemical companies participate in Responsible Care.¹⁴¹ While there are over 1500 chemical companies in the United States, the largest are ACC members; therefore, although fewer than one-fifth of all chemical companies participate, most of the chemical production in the U.S. comes from companies who are participants.¹⁴² A study of the effectiveness of the Responsible Care program by Andrew King and Michael Lenox (in 2000, prior to the requirement for outside verification) found

¹³⁷ See *id.* at 161, 165–66.

¹³⁸ See *id.* at 161–62, 165–66, 275.

¹³⁹ See *id.* at 161–62, 165–66, 174, 275.

¹⁴⁰ See EISNER, *supra* note 1, at 275. The EPA signed a Memorandum of Understanding with the ACC stating that for the purposes of its now defunct National Environmental Performance Track program (an EPA-led environmental certification program), it would accept Responsible Care certification in lieu of additional third party certification that regulated entities have an environmental management system in place. Memorandum of Understanding between EPA and ACC between Brian Mannix, Associate Administrator of Policy, Economics, and Innovation, U.S. EPA and Carol Henry, Vice President, Industry Performance Programs, ACC (March, 2007) (on file with author per FOIA request).

¹⁴¹ *Responsible Care Management System*[®] & Certification, AM. CHEM. COUNCIL, http://www.americanchemistry.com/s_responsiblecare/doc.asp?CID=1298&DID=5086 (last visited Jan. 12, 2012).

¹⁴² See Press Release, Am. Chem. Council, American Chemistry Council Grows; Diversifies Membership (Sept. 14, 2011) *available at* <http://www.americanchemistry.com/Media/PressReleasesTranscripts/ACC-news-releases/American-Chemistry-Council-Grows-Diversifies-Membership.html>; *Enhancing Chemical Security: A Decade of Progress*, AM. CHEM. COUNCIL, www.americanchemistry.com/policy/security, (follow hyperlink "Chemical Security Fact Sheet"); *Member Companies*, AM. CHEM. COUNCIL, <http://www.americanchemistry.com/Membership/MemberCompanies> (last visited Jan. 12, 2012).

that participants did not significantly change their level of toxic emissions relative to other non-participating chemical companies.¹⁴³ No studies of the Responsible Care program have been conducted since the ACC imposed the requirement for third-party certification.

IV. EVALUATING THE ROLE OF THE PRIVATE SECTOR IN THE ENFORCEMENT OF ENVIRONMENTAL REGULATIONS

To assess whether the expanded role of private parties in the enforcement of environmental regulations is beneficial from a public policy perspective, it must be determined if the increased involvement of the private sector has either decreased the overall costs of achieving a particular level of environmental performance, or has increased environmental performance in a cost-effective manner. In theory, all of the private activities and initiatives described in this Article—as well as the many others not mentioned—have tremendous potential to increase the efficiency of environmental enforcement. There is also the very real possibility that the involvement of private parties will shift incentives for regulated entities in a way that is not consistent with regulatory objectives. Assuming that regulatory objectives have been set to maximize overall welfare, such a shift would not be in the public interest. Given the potential for private participation to divert regulated entities' performance away from regulatory objectives, a proactive approach must be taken in evaluating the effect of private participation to ensure that it is helping to achieve regulatory goals more efficiently.

This Article briefly discusses the results of several studies of particular private initiatives.¹⁴⁴ In some cases, the studies demonstrate that private participation is having a positive effect on environmental performance; analyses of the EPA's self-policing policy find that it has increased overall compliance, though analyses of the ISO 14001 program show that certification is correlated with an increase in both compliance and environmental performance more generally.¹⁴⁵ Some studies,

¹⁴³ See Andrew A. King & Michael J. Lenox, *Industry Self-Regulation Without Sanctions: The Chemical Industry's Responsible Care Program*, 43 ACAD. MGMT. J. 698, 709 (2000). The analysis examined industry emissions before and after the program for both ACC members and non-members and found no evidence that the program had a positive effect on its members relative to non-members. See *id.* at 704, 709. The study did not explicitly control for the decision to participate in Responsible Care, since it is a mandatory requirement of membership in the ACC (although ACC membership is itself voluntary). See *id.* at 704–05.

¹⁴⁴ See *supra* notes 39–45, 59–67, 94–96, 128–131, 143 and accompanying text.

¹⁴⁵ See *supra* notes 59–67, 128–131 and accompanying text.

such as the one evaluating the Responsible Care program, do not report any statistically significant effect on environmental performance.¹⁴⁶ Other studies, such as the one concerning private suits that found private enforcement supplements rather than complements public enforcement, suggest a deleterious effect on the achievement of regulatory goals.¹⁴⁷ Although the studies surveyed in this Article are not a representative sample, their mixed findings suggest the need for careful evaluation of each one of these initiatives. Unfortunately, there is no real understanding of the effect of many programs, either because no analysis has been conducted (as is the case with the privatization of compliance assistance) or because the existing studies only tell us part of the story (as is the case with the analyses of social markets, where there is evidence of use of the information provided by the EPA, but little information on how that use ultimately affects facility behavior).¹⁴⁸

Additional empirical analyses of private initiatives would help provide a better understanding of the effect of these programs on the overall achievement of regulatory goals. However, additional individual studies of particular programs are unlikely to be sufficient. First, the types of studies that have been conducted do not address the most significant issue—whether this expansion of the role of private entities in the enforcement of environmental regulations is helping to achieve regulatory goals more efficiently.¹⁴⁹ The existing studies often provide evidence of improvement in compliance rates or levels of toxic emissions, but they do not measure the extent to which regulatory goals are satisfied. This shortcoming is in part because the regulatory goals themselves have not been explicitly identified and in part because most studies look at intermediate measures such as compliance, not ultimate measures of environmental quality.¹⁵⁰ Unfortunately, it is not an easy task to develop the types of ultimate measures that would provide the necessary information. For some time, the EPA has been working to develop a robust set of environmental indicators that will provide better information on the actual state of the environment and its evolution, and hopefully such data will be available in the near future.¹⁵¹

¹⁴⁶ See *supra* note 143 and accompanying text.

¹⁴⁷ See *supra* notes 39–45 and accompanying text.

¹⁴⁸ See *supra* notes 59–67, 94–96 and accompanying text.

¹⁴⁹ See *supra* notes 39–45, 59–67, 94–96 and accompanying text.

¹⁵⁰ See *supra* notes 75–81 and accompanying text.

¹⁵¹ See Daniel C. Esty, *Environmental Protection in the Information Age*, 79 N.Y.U. L. REV. 115, 157–58 (2004).

Even with good data on environmental quality, the determination of whether private initiatives are more efficient than public implementation and enforcement requires some sense of the relative costs of private and public approaches. In many situations, it is assumed that private entities will be more cost-effective than the government. That is unlikely to be the case for all private initiatives, however, particularly since the costs of private initiatives could be less obvious than the costs of public efforts. Unfortunately, costs are almost never included in analyses of private (or, for the most part, public) initiatives. For example, none of the studies described in this Article made any attempt to compare the cost of private activities to their public alternatives.

Since it is unlikely that all private initiatives help to achieve regulatory goals more efficiently than public efforts, there needs to be a formal evaluation process to determine which programs are beneficial and which—in their current form—are not. There also needs to be some mechanism to modify or eliminate programs that fall into the latter category. Without such a feedback mechanism, additional studies are not going to make much of a difference.¹⁵²

Finally, even if studies of particular programs measured their effect on environmental quality and included a comparative analysis of costs, they might still fail to provide a full picture of the overall effect of expanded private participation because they do not illustrate the effect of these initiatives in the aggregate. First, many of these programs overlap.¹⁵³ For example, U.S. chemical producers can choose both to be members of Responsible Care and to earn ISO 14001 certification; moreover, the ACC has developed a “Responsible Care Management System” that meets the requirements of both programs.¹⁵⁴ Second, private initiatives may reinforce each other.¹⁵⁵ For example, regulated entities that receive compliance assistance often undergo environmental audits—entities may choose to self-police any violations discovered in the course of that audit, particularly if they are fully informed about the Audit Policy as part of the compliance assistance. Alternatively, private initiatives may work against each other. For example, the potential for private citizens to pursue suits against regulated entities may discourage some entities from conducting a self-audit because the audit would

¹⁵² See *id.* at 165 (“A recognition that policies and programs must be evaluated regularly and rigorously—and resources redeployed where good results are not being achieved—has been long absent from the environmental domain.”).

¹⁵³ See *Responsible Care Management System*[®] & *Certification*, *supra* note 141.

¹⁵⁴ *Id.*

¹⁵⁵ See Toffel & Short, *supra* note 60, at 4, 5.

generate a paper trail that could be used against the entity in a private suit.¹⁵⁶ Ultimately, any examination of a single private initiative in isolation that does not account for the potential interactions between programs is likely to produce biased results.¹⁵⁷ As difficult as it would be to design a larger study, we need to examine the aggregate effects of this expansion of private roles.

CONCLUSION

Given all of the potential benefits that can come from private participation in environmental enforcement, there are currently—and will continue be—calls to expand the role of the private sector.¹⁵⁸ But as discussed in this Article, not all private sector initiatives will ultimately be beneficial to society. Thus, before continuing to look for additional ways to increase private participation in the implementation and enforcement of environmental regulations, time and effort must be spent to develop processes to assess the effect of existing private participation.¹⁵⁹ After gaining a better understanding of the effect of various private initiatives on the achievement of regulatory goals, a determination must then be made of how to best modify existing private initiatives and, potentially, the underlying regulations and enforcement mechanisms. Only then should expansion of the role of the private sector in the enforcement of environmental regulations be considered.

¹⁵⁶ Eric W. Orts & Paula C. Murray, *Environmental Disclosure and Evidentiary Privilege*, 1997 U. ILL. L. REV. 1, 16–17. Neither attorney-client privilege, attorney work-product privilege, nor self-evaluative privilege protect the factual material disclosed in an environmental audit report. *Id.* at 40–41. For such material to be privileged, a state must pass legislation specifically granting such privilege. *Id.* at 22. The Audit Policy does not grant privilege to audit documents, although the EPA does state that its policy is to not routinely request such documents. *See* Audit Policy, *supra* note 20, at 19,625.

¹⁵⁷ *See* King & Lenox, *supra* note 143, at 713 (noting caution in expanding theoretical conclusions when analyzing one private initiative). Not only are the results likely to be biased, but given the possibility for programs to both enhance and interfere with each other, we would not necessarily know the direction of that bias.

¹⁵⁸ *See, e.g.*, Russ Harding, *Michigan Can Give Businesses a Boost With Environmental Regulatory Reform*, OAKLAND PRESS, (Dec. 10, 2010), <http://www.theoaklandpress.com/articles/2010/12/10/opinion/doc4d01719aa986e637326301.txt> (calling for governmental officials to “perform only core regulatory functions—specifically, making final permit and enforcement decisions, rather than conducting routine administrative tasks that can be performed by the private sector”).

¹⁵⁹ *See* Grabosky, *supra* note 68, at 423.

