1990

Enforcement in environmental law: an economic analysis of citizen suits

Wendy S. Naysnerski
Colby College

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ENFORCEMENT IN ENVIRONMENTAL LAW: AN ECONOMIC ANALYSIS OF CITIZEN SUITS

by

Wendy S. Naysnerski

Submitted in Partial Fulfillment of the Requirements of the Senior Scholar's Program

COLBY COLLEGE

1990
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Abstract

Previous to 1970, state and federal agencies held exclusive enforcement responsibilities over the violation of pollution control standards. However, recognizing that the government had neither the time nor resources to provide full enforcement, Congress created citizen suits.

Citizen suits, first amended to the Clean Air Act in 1970, authorize citizens to act as private attorney generals and to sue polluters for violating the terms of their operating permits. Since that time, Congress has included citizen suits in 13 other federal statutes.

The citizen suit phenomenon is sufficiently new that little is known about it. However, we do know that citizen suits have increased rapidly since the early 1980's. Between 1982 and 1986 the number of citizen suits jumped from 41 to 266. Obviously, they are becoming a widely used method of enforcing the environmental statutes.

This paper will provide a detailed description, analysis and evaluation of citizen suits. It will begin with an introduction and will then move on to provide some historic and descriptive background on such issues as how citizen suit powers are delegated, what limitations are placed on the citizens, what parties are on each side of the suit, what citizens can enforce against, and the types of remedies available.

The following section of the paper will provide an economic analysis of citizen suits. It will begin with a discussion of non-profit organizations, especially non-profit environmental organizations, detailing the economic factors which instigate their creation and activities. Three models will be developed to investigate the evolution and effects of citizen suits. The first model will provide an analysis of the demand for citizen suits from the point
of view of a potential litigator showing how varying remedies, limitations and reimbursement procedures can effect both the level and types of activities undertaken. The second model shows how firm behavior could be expected to respond to citizen suits. Finally, a third model will look specifically at the issue of efficiency to determine whether the introduction of citizen enforcement leads to greater or lesser economic efficiency in pollution control.

The database on which the analysis rests consists of 1205 cases compiled by the author. For the purposes of this project this list of citizen suit cases and their attributes were computerized and used to test a series of hypotheses derived from three original economic models. The database includes information regarding plaintiffs, defendants date notice and/or complaint was filed and statutes involved in the claim. The analysis focuses on six federal environmental statutes (Clean Water Act, Resource Conservation and Recovery Act, Comprehensive Environmental Response Compensation and Liability Act, Clean Air Act, Toxic Substances Control Act, and Safe Drinking Water Act) because the majority of citizen suits have occurred under these statutes.
Acknowledgements

I would like to express my appreciation to the many people who have helped make this project what it is. I would especially like to thank Tom Tietenberg, my Senior Scholar Advisor, for the many hours he has spent pouring over revisions of this paper and suggesting improvements. His support and guidance has been invaluable.

I would also like to thank Professors Jan Hogendorn and Sandy Maisel, the readers for this paper, for the time they have committed to this project. Professor Diane Sadoff, in particular, as well as the Senior Scholar Committee not only gave me the opportunity to do this project, but guided me through the steps of the program, many thanks to them.

I must also mention the generosity of the Colby Committee to Fund Student Projects which has provided me with monetary support which not only enabled me to purchase a large supply of data for the project, but also allowed me to attend the recent National Conference on Undergraduate Research. The experience of presenting my research at such a conference as well as learning about the work of other undergraduate researchers was exciting and memorable.

Finally, I would like to thank the many people who have allowed me to interview them and in the process have provided me with interesting information and perceptions regarding citizen suits. I would like to especially thank the following people:

Mr. Howard Berman  
Mr. David Drelick  
Mr. Gary Lord  
Mr. Jeffrey Miller  
Ms. Stephanie Pollack  
Mr. Mark Stein  
Mr. Michael Walker  
EPA - Criminal Enforcement, Washington, D.C.  
EPA - Water Enforcement, Washington, D.C.  
Maine DEP - Land Bureau, Augusta, ME.  
PACE University, White Plains, NY.  
Conservation Law Foundation, Boston, MA.  
EPA Region I - Water Enforcement, Boston, MA.  
EPA - TSCA Section, Washington, D.C.
I. INTRODUCTION

The Issue

The degree to which environmental quality is improved by public policy depends not only on the types of policies, but also on how well those policies are enforced. Policies which seem to offer promise may, in the glare of hindsight, prove unsuitable if enforcement is difficult or lax.

Economists have historically not paid much attention to enforcement, concentrating instead on the choice of policy instruments. Economists have focussed on developing efficient pollution control policies and regulations which attempt to harmonize public and private costs and benefits. While this literature has spawned a number of new insights and has paved the way for a new approach to pollution control policy, it has not paid attention to the role of the courts in proportion to their importance.

Prior to 1970, state and federal agencies held exclusive enforcement responsibility. However, in 1970, while amending the Clean Air Act, Congress authorized private citizens to sue polluters for violating the terms of their operating permits. The birth of citizen suits was upon us and environmental enforcement was no longer purely the responsibility of the

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4 Section 304, 42 U.S.C. 7604
The citizen suit phenomenon is sufficiently new that little is known about it. What determines the amount of litigative activity? What are the consequences of these suits? Where do they fit in the overall fabric of environmental policy? These questions form the focus for this project.

Table 1: Acts Authorizing Citizen Suits

<table>
<thead>
<tr>
<th>Act Description</th>
<th>Section Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Air Act (CAA)</td>
<td>Section 304, 42 U.S.C. 7604</td>
</tr>
<tr>
<td>Clean Water Act (CWA)</td>
<td>Section 505, 33 U.S.C. 1365</td>
</tr>
<tr>
<td>Marine Protection, Research and Sanctuaries Act (MPRSA)</td>
<td>Section 105(G), 33 U.S.C. 1415(g)</td>
</tr>
<tr>
<td>Noise Control Act (NCA)</td>
<td>Section 12, 42 U.S.C. 4911</td>
</tr>
<tr>
<td>Endangered Species Act (ESA)</td>
<td>Section 11(g), 16 U.S.C. 1540(g)</td>
</tr>
<tr>
<td>Deepwater Port Act (DPA)</td>
<td>Section 16, 33 U.S.C. 1515.</td>
</tr>
<tr>
<td>Resource Conservation and Recovery Act (RCRA)</td>
<td>Section 7002, 42 U.S.C. 6972</td>
</tr>
<tr>
<td>Toxic Substances Control Act (TSCA)</td>
<td>Section 20, 15 U.S.C. 2619</td>
</tr>
<tr>
<td>Safe Drinking Water Act (SDWA)</td>
<td>Section 1449, 42 U.S.C. 300j-8</td>
</tr>
<tr>
<td>Surface Mining Control and Reclamation Act (SMCRA)</td>
<td>Section 520, 30 U.S.C. 1270</td>
</tr>
<tr>
<td>Outer Continental Shelf Lands Act (OCSLA)</td>
<td>Section 23, 42 U.S.C. 1349(a)</td>
</tr>
<tr>
<td>Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) amended by Superfund Amendments and Reauthorization Act (SARA)</td>
<td>Section 310, 42 U.S.C. 9659</td>
</tr>
<tr>
<td>Emergency Planning and Community Right-to-Know Act (EPCRA)</td>
<td>Section 326, 42 U.S.C. 11046</td>
</tr>
</tbody>
</table>

(Source: Bonney Cashin, "Keys to Successful Lawsuits: Recommendations for Private Citizen Enforcement". (Unpublished paper), 4-5.)
Background

Most citizen suit provisions have been modeled after Section 304 of the Clean Air Act. The relevant portion of this section states that:

"...any person may commence a civil action on his own behalf—
1) against any person including the United States and any other governmental instrumentality or agency who is alleged to be in violation of A) an emission standard or limitation or B) an order issued by the Administrator or State with respect to such a standard or limitation, 2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty, 3) against any person who proposes to construct or constructs any new or modified major emitting facility without a permit."

Empowered as private attorney generals, citizens are authorized to oversee government actions and to initiate civil proceedings against any private or public polluter violating the terms of its pollution permit. For the conditions of the statute "any person" is defined as an "individual, corporation, partnership, association, state, municipality, political subdivision of a state and any agency department or instrumentality of the U.S. or any officer, agent or employee thereof." Under most citizen suit provisions corporate officers, owners and/or employers are not civilly liable for violations, the corporation itself is liable.

The recognition that the government did not have enough resources to enforce all environmental standards was a main reason for creating citizen suits. According to Mark Stein at EPA, such suits are an important enforcement mechanism.

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5 Section 304, 42 U.S.C. 7604
7 Bonney Cashin, "Keys to Successful Lawsuits: Recommendations for Private Citizen Enforcement" (Unpublished paper), 11.
"Citizen suits are great, there's a lot more out there that needs to be enforced and citizens can also keep the pressure on the regulated community."

Although the details about citizen suits vary with each statute, all provide the same basic powers with the same general goal in mind.

Public environmental enforcement can occur through a number of avenues. At the federal level, enforcement occurs through administrative proceedings, or through civil and criminal judicial action.

Administrative action occurs in the Administrative Courts of the Environmental Protection Agency and is presided over by Administrative Law Judges. Administrative actions usually involve the imposition of a civil penalty, the creation of a compliance order, or both. Cases can frequently be settled far more quickly and agreeably by administrative action than by going to court. The majority of EPA enforcement activities involve administrative proceedings; in 1988 alone EPA initiated 3,085 administrative actions which represented approximately 88% of the enforcement activity. Successful negotiation between EPA and the violator produces a consent decree, which creates compliance schedules and/or provides for the collection of civil penalties. Civil penalties are calculated to recover the economic benefit received by the violators in failing to comply with environmental standards.

Judicial action is a second avenue through which EPA can proceed. They do so by investigating and referring violations to the U.S. Attorney General for civil or criminal enforcement. Civil action involves the

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8 Mark Stein, interview by author, Water Enforcement - Environmental Protection Agency - Region I, Boston, Massachusetts, December 6, 1989.
imposition of penalties and/or injunctions, while criminal action involves
even higher financial penalties and/or jail sentences directed at those people
within organizations who are willfully polluting. Consistent with the
presumption of innocence, the burden of proof faced by the Attorney General
is higher for securing a criminal conviction than for imposing civil remedies.
In 1988 EPA made 372 civil referrals to the Department of Justice and 59
criminal referrals yielding judicial enforcement 12% of the time.11

State environmental agencies share enforcement power with EPA.
States often enact environmental laws similar to the federal statutes and
become authorized by EPA to enforce federal statutes as well. State
enforcement activities are much the same as those which occur at the federal
level. A large portion of the state cases are also settled by means of
administrative consent agreements.12 These differ slightly from their
counterpart, federal consent decrees, in that state decrees do not involve a
judge. Violation of a federal consent decree means violation of a court order,
while violation of a state consent agreement means violation of an
administrative order. Nationally, state environmental agencies issued 9,363
administrative orders in 1988, thus rendering administrative action 91% of
the time.13 George Lord, of the Maine Department of Environmental
Enforcement, stated that 85-87% of the cases in Maine are settled by means of
administrative consent agreements.14 On the other hand, states made only
904 judicial referrals to the Departments of Justice in their respective areas.

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11 United States Environmental Protection Agency, FY 1988 Enforcement Accomplishments
12 State agencies can also make civil referrals to state attorney generals and some states have
begun providing for criminal enforcement as well.
13 United States Environmental Protection Agency, FY 1988 Enforcement Accomplishments
14 George Lord, interview by author, Land Bureau - Maine Department Environmental
Therefore, state judicial actions represent only approximately 9% of the enforcement activity.

Although citizen suits were first instituted in 1970, fewer than 25 suits were filed between 1970 and 1978.\textsuperscript{15} It wasn't until 1983 that they became a significant factor in environmental enforcement.

As can be seen in Table 2, during the period from 1982 through 1986 the number of citizen actions jumped from 41 to 266. Their presence has remained significant since the mid 1980's.

\begin{center}
\textbf{Table 2: The Number of Citizen Actions}
\end{center}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{chart.png}
\caption{The Number of Citizen Actions}
\end{figure}

(Source: Citizen suit database compiled by the author from data in Lisa Jorgenson and Jeffrey Kimmel, "Environmental Citizen Suits: Confronting the Corporation" \textit{Bureau of National Affairs Special Report} (1988), 113-165.)

A number of environmental groups predominated in the citizen suit enforcement arena during the period from 1978-1987. Organizations such as Sierra Club, Atlantic States Legal Foundation, and the Natural Resources Defense Council took a leadership role in citizen suit enforcement.

Some statutes have spawned many more citizen actions than others. Table 3 details the number of claims occurring under each statute over the 10 year period from 1978-1987. The Clean Water Act and the Resource Conservation and Recovery Act triggered the lion's share of the suits. In many cases, one notice would involve claims under a number of environmental statutes. Interestingly, the Clean Air Act, the forerunner of the entire process, was responsible for fewer suits than later acts. Later in this section explanations for this pattern will be offered.

<table>
<thead>
<tr>
<th>Statute</th>
<th>Number of Claims</th>
</tr>
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<tbody>
<tr>
<td>CWA</td>
<td>945</td>
</tr>
<tr>
<td>RCRA</td>
<td>322</td>
</tr>
<tr>
<td>CERCLA</td>
<td>106</td>
</tr>
<tr>
<td>TSCA</td>
<td>17</td>
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<tr>
<td>CAA</td>
<td>13</td>
</tr>
<tr>
<td>SDWA</td>
<td>11</td>
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</table>

(Source: Citizen suit database compiled by the author from data in Lisa Jorgenson and Jeffrey Kimmel, "Environmental Citizen Suits: Confronting the Corporation" Bureau of National Affairs Special Report (1988), 113-165.)
Overview

As these data make quite clear, citizen suits are becoming a widely used method of enforcing environmental statutes. The remainder of this paper will provide a detailed description, analysis and evaluation of citizen suits. The author has been able to computerize a rather large data base to support the analysis of this project.

The next section will provide some historic and descriptive background on such issues as how citizen suit powers are delegated, what limitations are placed on the citizens, what parties are on each side of a suit, what citizens can enforce against, and the types of remedies available. This section will also discuss the differences in citizen suit provisions between the various environmental statutes.

The following section of the paper will provide an economic analysis of citizen suits. It will begin with a discussion of why non-profit organizations, especially non-profit environmental organizations exist, detailing the economic factors which instigate their creation and activities. Three models will be developed to investigate the evolution and effects of citizen suits. By providing analysis of the demand for citizen suits from the point of view of a potential litigator, the first model shows how the varying remedies, limitations, and reimbursement procedures can effect both the level and types of activities undertaken. The second model shows how firm behavior could be expected to respond to citizen suits. Finally, a third model will look specifically at the issue of efficiency to determine whether the introduction of citizen enforcement leads to greater or lesser economic efficiency in pollution control. This section will also discuss where citizen suits fit best in the realm of environmental enforcement, including a
II. THE RISE OF CITIZEN SUITS

Citizen suits were initiated to authorize citizen groups, for the first time, to serve as private attorney generals seeking to protect the public from harm rather than recoup their own economic losses. Due to ineffective federal and state environmental programs and enforcement mechanisms in the 1960's, the resulting dissatisfaction lead to a recognition that new solutions to the increasing environmental problems were required. Thus we saw the amendment of citizen suits to the environmental statutes during the 1970's.16

A pervasive recognition that the government had neither the time nor resources to provide enough enforcement led Congress to create citizen suits. However, the political compromises which paved the way for citizen suits were also responsible for adoption of a number of restrictions on their powers.

Restrictions on Citizen Suits

While adopting the citizen suit amendments, Congress was cautious not to afford the citizens too much power. This caution lead to a number of limitations and guidelines which have embodied the citizen suit provisions.

60 Day Notice Requirement

"No action may be commenced—
(A) prior to 60 days after plaintiff has given notice of the violation (i) to the Administrator, (ii) to the State in which the violation occurs, (iii) to any alleged violator of the standard, limitation or order.17

Thus, citizens have been prohibited from initiating action before 60 days notice was provided to EPA, the state, and the alleged violator. The only exception involves hazardous waste violations; when a violation involves hazardous substances which represent an imminent hazard, citizens can take immediate action.18 The purpose of this requirement is not only to allow the government a last chance to perform its enforcement duty, but also to notify the alleged violator, who may then attempt to avoid suit by coming into compliance. Voluntary compliance eliminates the need for a costly legal proceeding.

45 Day Review Period

A 1987 amendment to the Clean Water Act, one of the more frequently used statutes, requires citizens to submit a copy of any proposed consent decree, under which the U.S. is not a party, to the Attorney General and the Administrator at EPA. These proposed consent decrees are not final until both the Attorney General and the EPA administrator are given 45 days to review the settlement.19 If either disagree to the terms of the settlement they

17 Section 304, 42 U.S.C. 7604.
19 33 USC 1319 (gX6)(b).
can object to the acceptance of the decree. In most cases if an objection does occur the Attorney General or EPA will specify changes to be made to the consent decree which will then make it acceptable.

**Diligent Prosecution Bar to Citizen Suits**

"No action may be commenced—
(B) if the Administrator or State has commenced and is diligently prosecuting a civil action in court...but in any such action in a court any person may intervene as a matter of right."\(^{20}\)

A second restriction bars citizen suits when federal judicial action is already taking place. Though this statement may seem rather clear-cut to the layman, considerable controversy has surrounded the meaning of the phrase "action in court" and what constitutes a "court." Baughman v. Bradford Coal Company\(^{21}\) first addressed the issue of whether administrative proceedings constitute "action in court" and therefore bar citizen suits. The court found that administrative action is sufficient to constitute "action in court," however noted that administrative action does not necessarily constitute an "action in court." Therefore it leaves the decision to the court in each case to decide whether administrative action is sufficient to bar citizen suits. In general citizen suits has not been allowed to proceed when an administrative proceeding have been initiated. MPRSA and ESA specifically specify that citizen suits are barred if administrative penalty assessment proceedings have been initiated, and CWA, TSCA and EPCRA, bar citizen suits if administrative action is taking place.

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\(^{20}\) Section 304, 42 U.S.C. 7604.

\(^{21}\) 592 F.2d 215 (3rd Cir. 1979.).
Intervention

"...any person may intervene as a matter of right in any such action in a court" 22

While citizens are often barred from suit if judicial or administrative action is taking place, the statutes also stipulate that citizens can intervene in public enforcement proceedings. The intervention may involve 1) any person, 2) on any side of the case, 3) in any government civil action filed after notice of citizen suit to enforce the provision alleged to have been violated. The citizen intervenes as a co-plaintiff with the government and the information presented on their behalf is expected to be unique and non-repetitive. 23 However, although the statutes state that citizens can intervene in federal court proceedings, this does not allow them intervention in administrative proceedings. A resulting asymmetry in the intervention provision is quite obvious. Citizens can be barred from judicial and administrative actions yet can only intervene in judicial actions. On the other hand, EPA can intervene at any time in a citizen suit.

All statutes except MPRSA and ESA allow citizen intervention in civil court actions, while only TSCA permits intervention in administrative proceedings. Although most statutes do not allow intervention in administrative proceedings, the Department of Justice does provide for public comment on proposed consent decrees. 24

22 Section 304, 42 U.S.C. 7604.
Standing Requirement

According to legal tradition, only those groups determined to have "standing" can bring an action. The conditions under which a citizen, or citizen group has standing to sue has come up repeatedly. Most statutes authorize "any person" or "any citizen" to serve as a plaintiff in citizen suits. The acts state that in order to have standing citizens must have "any interest which is or may be adversely affected".25

The most important court decision regarding the issue of standing occurred in *Sierra Club v. Morton*.26 Legislative intent was clearly followed in this case. The Supreme Court found that the Sierra Club had not demonstrated standing in a suit against a recreational development project near Sequoia National Park because it had not demonstrated that it was adversely affected or harmed by the proposed project. The court stipulated that while Sierra Club's particular interest in environmental enforcement was not a sufficient basis to yield them standing, a claim that one or more members were injured would.

The Sierra Club had lost the decision but won an important precedent. Because the Supreme Court decision provides for a liberal interpretation of the "standing" requirement, subsequent citizen suits have not had much trouble meeting it. Of the 1205 suits in the citizen suit database, only 4 were dismissed due to lack of standing. In general, passing a two-pronged test is required for standing: 1) the act complained of must cause injury to the plaintiff or the plaintiff's members if such plaintiff is an organization and 2) the injury must be within the zone of interest of the pollution control

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25 Section 505, 33 U.S.C. 1365.
26 405 U.S. 727, 2 ELR 20192 (1972).
In some cases economic interest is considered within the "zone of interest" stipulated in the statutes. For example, a corporate plaintiff who has complied with a particular set of requirements may be allowed to undertake a citizen suit against another corporation who has caused them economic injury by not complying with the regulations. Though "economic interest" suits bring about compliance, they are motivated by rather different objectives than normal citizen suits.

**Remedies**

The breadth of authority given to citizens is stated in the citizen suit sections. Under RCRA\(^{30}\), SDWA\(^{31}\), MPRSA\(^{32}\), DPA\(^{33}\), OCSLA\(^{34}\), and SMCRA\(^{35}\) citizens are given a broad authority to enforce all violations of the statutes. However, the Clean Air Act stipulates that citizens can enforce only violations of "emissions standards or limitations",\(^{36}\) and the Clean Water Act allows enforcement against violations of "effluent standards or limitations",\(^{37}\) obviously these acts provide more limited authority. While other statutes allow citizens to sue against any violation of the requirements


\(^{28}\) Bonney Cashin, "Keys to Successful Lawsuits: Recommendations for Private Citizen Enforcement" (Unpublished paper), 9.

\(^{29}\) Examples of cases involving economic motives are: *Kaiser Cement Corp V. San Diego Air Pollution Control Board*, 12 ELR 20783 (SD Cal 1982), and *Consolidated Edison Co. v. Realty Investments Association*, 524 F. Supp 150, 12 ELR 20208 (SD NY 1981).

\(^{30}\) Section 7002, 42 U.S.C. 6972.

\(^{31}\) Section 1440, 42 U.S.C. 300j-8.

\(^{32}\) Section 105(G), 33 U.S.C. 1415(g).

\(^{33}\) Section 16, 33 U.S.C.1515.

\(^{34}\) Section 23, 42 U.S.C. 1349(a).

\(^{35}\) Section 520, 30 U.S.C. 1270.

\(^{36}\) Section 304, 42 U.S.C. 7604.

\(^{37}\) Section 505, 33 U.S.C.1365.
of the act, CWA and CAA only allow suits against violations of the standards and not against violations of information requests, reporting, or entry requests.

In most environmental statutes, citizens are offered an injunctive remedy. Types of injunctive relief vary. Some require compliance with statutory requirements, or creation of compliance schedules, while others require closure of facility, and/or restoration of the environmental damage caused.\textsuperscript{38} For example, the Clean Air Act allows citizens

"... to enforce such an emission standard or limitation, or such an order, or to order the Administrator to perform such act or duty as the case may be."\textsuperscript{39}

The injunctive power available to citizen plaintiffs is equal to the injunctive power of the federal government.

Under the CWA, RCRA, CERCLA and EPCRA, citizens may sue for an injunction, but in addition are also given the power to "...apply any appropriate civil penalties."\textsuperscript{40} The amount of penalty can vary between $10,000 and $25,000 per day, per violation. Continued violation under CERCLA and EPCRA can lead to penalties of up to $75,000 per day, per violation.\textsuperscript{41} The civil penalties assessed in citizen suits are calculated to remove any "significant economic benefits" which resulted from noncompliance with federal environmental statutes. The following factors are considered when determining the benefit component: 1) the amount and types of costs a defendant has delayed paying through noncompliance, i.e.,...

\textsuperscript{38} Bonney Cashin, "Keys to Successful Lawsuits: Recommendations for Private Citizen Enforcement" (Unpublished paper), 28.
\textsuperscript{39} Section 304, 42 U.S.C. 7604.
\textsuperscript{40} Section 505, 33 U.S.C.1365.
\textsuperscript{41} Bonney Cashin, "Keys to Successful Lawsuits: Recommendations for Private Citizen Enforcement" (Unpublished paper), 29.
the time and costs of installing pollution control equipment, 2) the savings gained by failing to operate and monitor the proper pollution control equipment, 3) the competitive advantage gains over competitors who have installed the required pollution control equipment. Other factors considered are the size of the violator, the amount and toxicity of the pollution, the length of time the violation continued, and the sensitivity of the environment affected.42

A number of controversies have arisen regarding when citizens can seek penalties. While an injunction obviously allows for enforcement against a continuous violation, court decisions have been contradictory regarding the issue of whether penalties can be assessed for past, ongoing, or intermittent violations. The Supreme Court, in Gwaltney of Smithfield v. Chesapeake Bay Fdn.,43 issued the final compromise ruling. The court held that although penalties cannot be assessed solely for past violations, they can be assessed for violations which have occurred intermittently in the past and are likely to continue in the future. In these circumstances, penalties may be requested as long as they are accompanied with a reasonable request for an injunction.44

44This decision provides a compromise between Hamker v. Diamond Shamrock Chemical Co., 756 F.2d 392 (5th Cir. 1985), which denied penalties for solely past violations and Chesapeake Bay Fdn. v. Gwaltney of Smithfield, 791 F.2d 304 (4th Cir. 1986), which allowed penalties for solely past violations by allowing penalties for ongoing or intermittent violations.
Attorney Fee Reimbursement

Under the American Rule, each party in a court case must bear its own litigation expenses. In the past, certain exceptions have circumvented the American Rule. Under the common benefit exception developed in the 1960's, the courts recognized that plaintiffs acting to protect interests broader than their own should not bear the full cost of litigation. This exception, however, did not reimburse fees for actions performed in the general public interest, only those performed for an identified group of people. The private attorney general theory, created during the 1970's, was an extension of the common benefit theory. The private attorney general theory recognizes that fees should be awarded for actions performed in the general public interest because otherwise few people would have an incentive to protect the public good. Congress followed the private attorney general theory when they included attorney fee reimbursement procedures in the citizen suit provisions of the environmental statutes.

Citizen suit provisions stipulate that citizens or citizen groups can seek reimbursement for court costs including the costs of discovery, attorney fees, expert witness fees etc. when the action is deemed "appropriate" by the courts.

"The court in issuing any final order in any action may award costs of litigation (including reasonable attorney and expert witness fees) to any party whenever the court determines such award is appropriate."  

46 Section 505, 33 USC 1365.
47 Jordan, 29405.
48 Section 505, 33 USC 1365.
Citizen groups are reimbursed for those claims under which they are successful or partially successful, therefore, providing incentives not to take harassment suits. No reported decision has refused to make an attorney fee award to a successful plaintiff in a citizen suit.\textsuperscript{48} However, in \textit{Ruckelshaus v. Sierra Club} \textsuperscript{49} the Supreme Court ended awards to wholly unsuccessful plaintiffs, but left open the possibility of awards to partially successful petitioners. The decision in \textit{Sierra Club v. Gorsuch} \textsuperscript{50} allowed attorney fee reimbursement for partial success. Attorney fee awards can also be made to the defendant when action against them is proved to be harassing or frivolous. The computation of the attorney fee award takes into account the following considerations:

1) Time and Labor required  
2) Novelty/difficulty of issues  
3) Skills required for proper representation  
4) Preclusion of other employment  
5) Customary fees  
6) Time limits  
7) Amount involved/results obtained  
8) Experience and reputation of attorney  
9) Undesirability of case  
10) Nature of professional relationship with client  
11) Awards in similar cases.\textsuperscript{51}

Although now a common element in environmental enforcement, citizen suits are obviously not uncomplicated. The goal of the remainder of this paper will be to analyze, in depth, the specific rules and requirements of citizens suits from an economic perspective in order to determine whether

\textsuperscript{49} 103 S. Ct 3274, 3278-79, 13 ELR 20664, 20666 (1983)  
\textsuperscript{50} 672 F.2d 33 (D.C. Cir. 1982).  
citizen suits create greater efficiency in the enforcement system and to specify any changes necessary to improve the system.

III. AN ECONOMIC ANALYSIS OF CITIZEN SUITS

Departing from descriptive analysis of citizen suits, it is necessary to probe deeper in order to understand the motivation for citizen suits and the determinants of the level of litigation and the effects of that litigation. We begin by creating a model to explain what economic forces create the existence of non-profit environmental groups in the first place. The implications of this model are then tested using the citizen suit database.

Within the private market inefficiencies often exist. Externalities are created when profit-making firms do not consider the social effects of their activities. Environmental problems represent one well-known type of inefficiency. A polluting firm may be maximizing its profits, but making choices which do not maximize social net benefits. Specifically, it will produce too much pollution. Such a situation involves market failure, a case in which the price system fails to produce the socially optimal quantity of a good.

In the past, the government has been expected to be the sole means of correcting such externalities by enacting rules, standards, penalties or subsidies. The appropriate application of these instruments changes the incentives of the producer and forces a recognition of the external costs of their actions.

However, political solutions are not always efficient solutions; they fail in some cases to correct such market failures. Self-interest in politics can
create political failure, just as it can create market failure in economics. When an inefficiently low level of environmental quality results from the political process, this creates a demand for environmental organizations. Therefore, environmental advocacy activities supplement government activity in order to balance public and private costs and benefits.

Two basic models will address the economic effects of citizen suits. First, a model of demand for citizen suits on behalf of environmental organizations is introduced. In this model the economic effects of various citizen suit provisions will be analyzed. Second, a model of firm behavior will be provided to derive the expected economic effects of citizen suits on the firms. The degree to which citizen suits can help to restore the harmony between social and private incentives will be assessed.

From these models testable hypotheses will be formed and conclusions regarding these issues will be drawn. Evidence used to test the the hypotheses comes from the database which consists of 1205 citizen suits. Finally, an overall efficiency model will be presented in order to determine the conditions under which citizen suits represent a move toward a more efficient enforcement system.

The Database

The data used to support the following analysis has been computerized by the author and used to discern trends as well as to test a series of hypotheses derived from three original economic models. The information which is included in the database is compiled from a Bureau of National Affairs Special Report. The 1205 citizen actions compiled in the database are

classified by state and include information regarding plaintiffs, defendants, date notice and/or complaint was filed, and statutes involved in the claim. A number of citizen actions involve claims under more than one statute. The majority of citizen suits over the last decade have occurred under the following statutes: Clean Water Act (CWA), Resources Conservation and Recovery Act (RCRA), Comprehensive Environmental Response Compensation and Liability Act (CERCLA), Toxic Substances Control Act (TSCA), Clean Air Act (CAA), and Safe Drinking Water Act (SDWA). Therefore, the analysis will focus primarily on these statutes.

Other information retrieved from the Bureau of National Affairs report includes settlement activity (whether the case was settled in or out of court), the amount of penalties involved in the settlement, and where the penalties will go. Although 1205 citizen suits are compiled in the database, due to lack of information only 507 settlements are recorded. These settlements will be used to support the analysis, however, the reader should note the limitation placed on the analysis due to the fact that only a portion of the actual settlements are available.

Unlike most data on citizen actions which only recognizes those actions which proceed through court, this database is unique because it provides information on citizen suits at the notice stage. Some of these notices proceed into court cases and some do not.

National Affairs is a research organization which publishes and sells articles and data. The Bureau of National Affairs retrieved the data from filings with EPA headquarters and the data on settlement activity was based on discussions with attorneys, individuals and environmental groups.
Model I - The Demand for Citizen Suits

The Development of Non-profit Environmental Groups

In order to determine the role citizen suits play in environmental enforcement, it is important to first understand why citizen suits take place and how economic incentives promote or prevent this type of enforcement.

Why do non-profit groups develop? The theory pursued in this research, a variant of a model originally developed by Weisbrod\(^5\), suggests that nonprofit groups arise to provide public goods which are incompletely supplied by the government. If the government does not supply the efficient amount of public goods, an unsatisfied demand for higher levels of provision exists. Non-profits arise to satisfy some of this unsatisfied demand.

One such public good is environmental quality. When the government is unable to produce the efficient amount of environmental quality, non-profit environmental groups work to bring about higher levels. This would be expected whenever the increased benefits of environmental quality to the membership would exceed the cost of securing that improvement. Environmental groups have become organized to increase the amount of environmental protection and maintain themselves through membership fees, contributions, grants, etc.

The Simple Model

One process by which non-profit environmental groups pursue higher environmental quality is by initiating private enforcement actions or citizen suits. Environmental groups undertaking citizen suits must first determine

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the amount of resources available, and which suits to pursue. To understand
the circumstances which influence such decisions, and to formulate
hypotheses to be tested, a simple model of a typical environmental group's
decision making process is posed. In this model the group is presumed to
maximize the net benefits (the excess of benefits over costs) from its litigation
activity.

To operationalize this model it is necessary to specify exactly what the
benefits and costs of litigation are. The increase in environmental quality
which results from successful enforcement is the prime benefit to the
organization. Members, foundations and other donors like to see successful
action taking place. Not only will the possibility of improving
environmental quality yield a support base for the environmental groups, but
it will attract new members and donors as well. When a successful suit has
precedent value (meaning that it facilitates subsequent enforcement actions),
the benefits are even larger.

Environmental groups are presumed to focus their energy initially on
the cases which offer the highest increase in expected environmental
improvement. Expected environmental improvement is the product of two
variables: the probability the suit will result in an improvement and the
value of the resulting improvement. The value of the improvement would
depend on such factors as the toxicity of the substance, amount of the
substance involved and the amount of exposure to the substance by humans
or other species in the ecological system. Since the marginal benefit is the
value of the environmental improvement gained by taking on the suit with
the next highest benefits, as the organization moves further down its list of
litigation targets the marginal benefit decreases. Cases with a lower benefit to
the citizen organization will be considered after those offering higher benefits.
The cost of litigation includes the time and money spent by the environmental organization on enforcement processes. Discovery, investigation, lawyer fees, court costs, and support staff are all expenses that have to be covered. The MC (marginal cost), the additional cost of taking on another suit, is assumed to increase with further litigation activity because lower cost cases (easier to prosecute, high probability of winning) are chosen first; later cases are more difficult and more costly.

An injunctive remedy is available to citizens under all statutes. The litigation activity choice for a typical environmental group seeking this remedy is depicted on Figure I-1.54

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54 The effect of alternative remedies will be discussed in a later section.
To maximize net benefits environmental groups will take on additional suits until $MC = MB_1$ (Marginal Cost = Marginal Benefit). For Figure I-1 this occurs at $A^*$. Further action past this level would lead the costs of enforcement action to exceed the benefits. $A^*$ is the amount of enforcement which the environmental group is expected to take.

One interesting implication of this model can be derived immediately. If government enforcement were complete, all polluters would be in compliance with their legal requirements. Since a successful citizen suit action depends upon proving a violation of these requirements, the probability of successful litigation activity would be zero. With a zero probability of winning the expected environmental improvement for all cases would be zero; the marginal benefit curve would collapse to a point which coincides with the origin. Therefore, citizen suits would not develop if government enforcement were complete because no marginal benefit would be derived from taking enforcement action.

Another implication, this one testable, follows immediately. Since the marginal benefit curve shifts leftward as government enforcement activity increases, it follows that the optimal level of private enforcement will be inversely related to the amount of public enforcement.

Hypothesis 1 - All other things being equal, more citizen enforcement will take place when less government enforcement is taking place.

The evidence seems to support this hypothesis. Many national environmental organizations correctly perceived a slowdown in federal environmental enforcement, especially under the Clean Water Act, in 1981 and 1982. The actual slowdown is demonstrated in Table 4.
Declines in the EPA budget mirror the declines in environmental programs and enforcement during the early 1980's. In 1981, EPA's total budget was 1.4 billion. This decreased to 1.16 billion in 1982 and further reductions of approximately 975 million occurred in 1983. These budget decreases caused a resulting fall in the number of EPA staff enforcement attorneys from 200 to 30 during 1983. As the hypothesis would lead us to expect, the citizen suit database shows that citizen suits increased from 41 in 1982 to 165 in 1983 and then to 204 in 1984. This increased occurred specifically under CWA claims which increased from 32 in 1982 to 172 in 1983.

---

**Table 4**

**Federal Enforcement**

Referral of cases to the Department of Justice and case filings

(Number of notices/Number of suits filed)

<table>
<thead>
<tr>
<th>Year</th>
<th>All Statutes</th>
<th>Clean Water Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>262/131</td>
<td>137/69</td>
</tr>
<tr>
<td>1979</td>
<td>242/184</td>
<td>1/81</td>
</tr>
<tr>
<td>1980</td>
<td>204/163</td>
<td>55/49</td>
</tr>
<tr>
<td>1981</td>
<td>116/118</td>
<td>36/32</td>
</tr>
<tr>
<td>1982</td>
<td>110/47</td>
<td>46/14</td>
</tr>
<tr>
<td>1983</td>
<td>162/199</td>
<td>56/77</td>
</tr>
<tr>
<td>1984</td>
<td>167/92</td>
<td>63/41</td>
</tr>
</tbody>
</table>


---

and then to 240 in 1984. Therefore, while federal enforcement was decreasing in the early 1980's private enforcement was increasing.

The Penalty Award Provision

While most statutes provide for an injunctive remedy, the case examined in Figure I-1, CWA, RCRA, CERCLA, and EPCRA have provided for penalties to be awarded in addition to an injunction.

While the criteria for deciding when additional penalties may be possible is not clearly specified by recent court decisions, the impact of the various decisions on private litigation can be explored with the litigation model. While these decisions can have significant effects on polluter incentives, a topic discussed in the model of firm behavior in a later section, they also affect the environmental groups litigation decision.

The ability to receive penalties, as well as an injunction, increases the benefits from private litigation activity. As described by Stephanie Pollack at the Conservation Law Foundation:

"An injunction just makes them do what they should have for the last 10 years, penalties clean up the problems resulting from their noncompliance." 57

Because, an action seeking injunction and penalties is perceived by the organizations and members to have a higher deterrence value and ultimately a higher probability of environmental improvement, the marginal benefit

56 In Hamker v. Diamond Shamrock Chemical Co. the 5th Circuit allowed penalties to be assessed only for ongoing violations. However, in Chesapeake Bay Fdn. v. Gwaltney of Smithfield the 4th Circuit ruled that penalties can be assessed even if based solely on past violations. The Supreme Court made a final ruling in Gwaltney of Smithfield v. Chesapeake Bay Fdn. Inc. when it decided that a penalty assessment will be permitted only when the request for penalties is accompanied with a reasonable request of injunctive relief.

The implication is clear; statutes which allow penalty actions can be expected to induce a higher level of citizen suit litigation activity than those which allow only injunctions. Only the four statutes mentioned above allow

![Figure I-2](image)

The curve increases from MB₁ to MB₂. Since the firm sued for an injunction and penalties faces a higher cost of noncompliance, it is presumed more likely to comply with regulations. The reasonableness of this presumption is demonstrated subsequently in the model of firm behavior. Figure I-2 demonstrates the effect of the availability of financial penalties on the environmental groups litigation decision. A is the amount of litigation activity with only an injunctive remedy while B is the amount when penalties are assessed as well.
a penalty remedy. This difference among statutes immediately suggests another testable hypothesis.

**Hypothesis 2** - All other things being equal, a greater number of actions will take place under CWA, RCRA, CERCLA and EPCRA than other statutes because they allow a penalty remedy.

Once again, the evidence seems to support the hypothesis. The database focuses on six statutes, CWA, RCRA, CERCLA, TSCA, CAA, and SDWA. Of the 1205 citizen actions in the database, CWA was involved in 945 claims, RCRA in 322, CERCLA in 106, TSCA in 17, CAA in 13, and SDWA in 11. The fact that the 3 statutes with by far the highest number of claims are statutes which allow penalties seems to strongly support Hypothesis 2.

A formal hypothesis test can be conducted to see if the difference in the average number of suits taken under penalty statutes and the average number of suits taken under non-penalty statutes is statistically significant. The formula used is as follows:

\[
t = \frac{X_1 - X_2}{\sqrt{S^2} \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}
\]

where:

- \(X_1 = 457.67\) (The average number of suits taken under penalty statutes)
- \(X_2 = 13.67\) (The average number of suits taken under non-penalty statutes)
- \(n_1 = 3\) (The number of penalty statutes)
- \(n_2 = 3\) (The number of non-penalty statutes)

\[
S^2 = \frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}
\]

\(S^2\) = an estimate of the variance in each population.
\[ s^2_j = \sum_{i=1}^{n} \frac{(x_i - \bar{x})^2}{n-1} \]

\( s^2_1 \) = sample variance.

t = 67.65, this difference in means is significant at the 99% confidence level.

**Penalties Earmarked to an Environmental Fund**

The litigation model implies that the amount and type of litigation activity is affected not only by whether a penalty remedy is available, but also the disposition of the penalty. Penalties usually go to the general treasury and the marginal benefit received on behalf of the environmental group is increased deterrence. However, in some cases the penalties go to a fund which protects or cleans up the area at stake. These earmarked penalties assure a larger improvement in environmental quality in the specific area covered by the suit than achieved by general revenue penalties. If the citizen group did not care about this area, they presumably would not have brought suit. Therefore, this further increase in environmental quality would provide yet another increase in benefits to the environmental groups for those suits where earmarked penalties are possible. This implies that the benefits from litigation will be higher for those cases offering the possibility of earmarked penalties than for those where earmarked penalties are not possible.

The availability of earmarked penalties also changes the litigation priorities for the citizen group. Suits offering the possibility of earmarked penalties have higher net benefits and hence will appear earlier in the priority list of firms engaging in private enforcement. Once the firm
reordered its litigation priorities to reflect this difference, one would expect a rise in the percent of suits with targeted penalties.

**Hypothesis 3** - Targeted penalties suits will comprise a larger portion of litigation activity as more earmarking cases are successful because citizen groups will recognize their ability allocate money to their specific area of interest through penalty earmarking.

Although the database does not provide extensive data regarding the settlement of all the 1205 cases, it does show that earmarking occurred as early as 1982 but didn't become widespread until the mid to late 1980's. Over the period from 1978 to 1987, 80% of the cases involving penalties dedicated the money to an environmental fund rather than the U.S. Treasury. The number of suits involving penalty earmarking is significantly higher than the number of suits which dedicate funds to the U.S. Treasury. This can be seen in Table 5.

<table>
<thead>
<tr>
<th>Year</th>
<th>Earmarked</th>
<th>Non-Earmarked</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>1984</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>1985</td>
<td>16</td>
<td>5</td>
</tr>
<tr>
<td>1986</td>
<td>42</td>
<td>10</td>
</tr>
</tbody>
</table>

(Source: Citizen suit database)
The average amount of penalties assessed under earmarking is also larger than the average amount assessed under non-earmarking. An average earmarked penalty equals approximately $223,527, while an average non-earmarked penalty equals $72,543. A reason for this may be the theory that penalties earmarked to an environmental fund are perceived by a polluter as a public imaging tool. Also, in some cases, targeted penalties are tax deductible which will not only lead firms to offer such settlements, but may lead to larger penalty assessments.

**Attorney Fee Reimbursement**

Attorney fee reimbursement is yet another factor which can be expected to influence the level and type of litigation activity. Some federal statutes allow citizen groups to be reimbursed for all the court costs including lawyer fees. If the citizen action is deemed to be "appropriate", the environmental group will be reimbursed their attorney fees. However, they are only reimbursed for the claims in which they are successful or at least partially successful. This prevents any incentives to take nuisance or harassment suits. Of the 507 settlements recorded in the database only 4 involved a decision for the defendant. Obviously citizens are careful in making sure their suits are warranted. Since a typical suit involves several claims, partial reimbursement is a possible outcome. With attorney fee reimbursement, the net costs (after reimbursement) placed on environmental groups decrease. As seen in Figure 1-3, MC\textsubscript{1} decreases to MC\textsubscript{2} and litigation activity increases substantially. In the absence of reimbursement procedures citizen suit

\[\text{MC}_1 \text{ decreases to } \text{MC}_2 \text{ and litigation activity increases substantially.}

\[\text{In the absence of reimbursement procedures citizen suit}\]
enforcement would not be as effective due to the fact that citizen groups would take far fewer enforcement actions if they have to balance the very high costs of litigation against the benefit, environmental quality, which is a public good.

Because attorney fees are not usually provided for in state statutes or judicial review sections, the following hypothesis can be tested:59

**Hypothesis 4** - All other things being equal, more citizen suits could be expected under federal statutes than under state statutes since attorney fees are not usually reimbursed under state statutes.

Once again the data seem to support the hypothesis. Of all 1205 citizen suits in the period from 1978 to 1987 only 55 were brought under state statutes. The importance of attorney fee reimbursement cannot be overstated. The availability of attorney fees enables citizens to balance the costs and benefits of enforcement action and gives them a greater incentive to protect the public good.

The difference in the proportion of citizen suits taken under state statutes and the proportion of citizen suits taken under federal statutes can also be tested using a formal hypothesis test.

The formula used is as follows:

\[
z = \frac{(P_1 - P_2)}{\sqrt{P(1-P)(\frac{1}{n_1} + \frac{1}{n_2})}}
\]

where:

59 Another hypothesis, this one untestable, is that more suits have taken place since the attorney fees have become commonly reimbursed. A time-series test on whether citizen suits increased due to the availability of reimbursement cannot be performed because all citizen suits allow reimbursement.
\[ P_1 = 0.954 \text{ (The proportion of suits taken under federal statutes)} \\
\]
\[ P_2 = 0.0456 \text{ (The proportion of suits taken under state statutes)} \\
\]
\[ n_1 = 1150 \text{ (The number of claims under federal statutes)} \\
\]
\[ n_2 = 55 \text{ (The number of claims under state statutes)} \\
\]

\[
P = \frac{(n_1 P_1 + n_2 P_2)}{n_1 + n_2}
\]

\[ z = 23.28, \text{ this difference in proportions is significant at the 99\% confidence level.} \]

---

**Limitations to Citizen Suits**

Not all aspects of current citizen suit provisions serve to encourage private litigation activity. Some limitations are also placed on all citizen suit provisions. Two such limitations involve the 60 day notice and 45 day review provisions. Both allow the federal government to maintain a large amount of control over the initiation and completion of a citizen suit and to
preempt private action when it chooses to do so. The federal government has 60 days to take over the suit once it is initiated. If the private suit is allowed to proceed, the government has 45 days to review the final decision and make comments. These provisions have varying effects on private litigation activity.

Two situations can result from these provisions. First, if the government takes over a suit, and performs effective enforcement actions, this case is a boon for the environmental group; it can reap the same benefits without using as many resources. In terms of the litigation model the MB curve would stay the same and MC would decrease from MC$_1$ to MC$_2$ due to the fact that the citizens will reap the same benefit without taking suit themselves. As a result the model would suggest an increase in litigative activity as shown in Figure I-4.

\[ \text{Figure I-4} \]
However, a second situation could also result. If the government takeover was due to political pressure, a more lax settlement might result than that of the environmental group. This would obviously decrease the deterrence benefit perceived by the environmental group. The government frequently objects to a citizen suit during the 45 day review period if penalties are earmarked to an environmental fund. The Department of Justice or EPA will object to a proposed settlement which directs money to an environmental fund because of their belief that such payments do not follow the guidelines of the appropriations process and provide the violator with too much flexibility in carrying out projects. Although the suit may still be resolved, the penalty assessment may be adjusted, this again would indicate a decrease in benefits for the environmental group.

The above scenarios would cause a decrease in the marginal benefit curve as demonstrated in Figure I-5, resulting in lower litigation activity. In some cases citizens prefer not to be preempted because they have spent a lot of time and money investigating a suit and have no avenue through which to receive reimbursement for these costs if the suit is taken over. Therefore, in some cases they would prefer to proceed with the citizen action in order to allow for reimbursement possibilities. If citizen suits are preempted by judicial action, they can intervene in the case and receive reimbursement for intervention if the information provided is unique and non-repetitive. However, if they are barred by administrative action, they are not afforded the right of intervention and therefore cannot receive reimbursement. Putting Figure I-4 together with Figure I-5 suggests that the effect of these rules is

ambiguous; they could in principle either increase or decrease litigation activity.

Settlement out of Court: Consent Agreements

The previous discussion has assumed that litigation activity results in a full examination of the issues in a courtroom with a court-imposed decision. But that is not the only possible outcome. Environmental groups have the choice of settling out of court formally by signing a consent agreement, or informally through a negotiated settlement. Under what conditions will they do so?

My maintained hypothesis holds that court decisions are viewed by environmental groups as yielding greater deterrence. While out-of court settlements involve two-sided negotiations, court decisions are one-sided. Court decisions can also be used to establish favorable precedents. While
consent decrees and negotiated settlements may provide a model to be followed in other negotiations, they do not have as strong an influence on future decisions as the precedent emanating from a court decision. The variance in penalties assessed in and out of court is significantly different and should be recognized.

As can be seen in Table 6, a higher number of suits involving penalty assessments occurred in out-of-court settlements. However, although only 20 in-court settlements involved penalty assessments, 3 cases awarded penalties for 15 million, 8 million and 5 million dollars. The average penalty assessment for out-of-court settlements is $89,214, while the average penalty for in court settlements is $1,928,745; the difference is quite significant. Although out-of-court settlements involved more penalty assessments, the average value of these were significantly lower than penalties awarded through litigation.

<table>
<thead>
<tr>
<th>Year</th>
<th>In Court</th>
<th>Out-of-Court</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#Penalty Awards</td>
<td>$Total</td>
</tr>
<tr>
<td>1980</td>
<td>1</td>
<td>15,000,000</td>
</tr>
<tr>
<td>1981</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1982</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1983</td>
<td>2</td>
<td>145,000</td>
</tr>
<tr>
<td>1984</td>
<td>4</td>
<td>800,400</td>
</tr>
<tr>
<td>1985</td>
<td>2</td>
<td>145,000</td>
</tr>
<tr>
<td>1986</td>
<td>6</td>
<td>8,410,000</td>
</tr>
<tr>
<td>1987</td>
<td>7</td>
<td>14,219,500</td>
</tr>
</tbody>
</table>

(Source: Citizen Suit Database)
According to the maintained hypothesis with out-of-court settlements the MB₁ curve will decrease to MB₂ due to the fact that a weaker method of enforcement has taken place. However, the costs of reaching an out-of-court settlement are much lower than proceeding through a trial. Less time is involved in settling out of court and citizens avoid the high court costs associated with trials, therefore MC₁ decreases to MC₂. Figure I-6 demonstrates the effect of administrative action versus court action without considering the issue of attorney fee reimbursement.

Although the model does not yield a determinant sign for the effect of settling out of court on the overall amount of litigation activity, it does suggest some implications for the timing of consent decrees. In some cases
citizens organizations are willing to accept the lower benefit for the lower cost and in other cases they are not.

**Hypothesis 6** - All other things being equal the percent of suits settled with consent decrees or informal negotiated settlements will rise over time because early court cases set precedent which can be used in later cases. Once the precedent is established the value of going to court will decrease.

The data does support this hypothesis. As can be seen in the following table, the percentage of suits settled out of court and the percentage of suits settled in court fluctuated by year in the early period. However, as the hypothesis states, in the later period the percentage of suits settled out of court is greater than the percentage settled in court.

<table>
<thead>
<tr>
<th>Year</th>
<th>% Out of Court</th>
<th>% In Court</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>67</td>
<td>33</td>
</tr>
<tr>
<td>1979</td>
<td>33</td>
<td>67</td>
</tr>
<tr>
<td>1980</td>
<td>29</td>
<td>71</td>
</tr>
<tr>
<td>1981</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>1982</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>1983</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>1984</td>
<td>62</td>
<td>38</td>
</tr>
<tr>
<td>1985</td>
<td>63</td>
<td>37</td>
</tr>
<tr>
<td>1986</td>
<td>66</td>
<td>34</td>
</tr>
</tbody>
</table>

(Source: Citizen suit database.)

Another hypothesis regarding out of court settlement is as follows:
Hypothesis 7 - Groups will not settle out of court as often when a favorable precedent is at stake.

However, this hypothesis is not testable due to the lack of information regarding the issue of whether an important precedent is at stake in particular cases. Due to the marginal benefit theory discussed above, the author theorizes that this will be the case.

Since attorney fees can be awarded for consent decree settlement as well as court settlement, no monetary incentive to go to court is created. The fact that state suits do not often allow attorney fee reimbursement leads us to another hypothesis.

Hypothesis 8 - Cases under state statutes may be settled out of court more often than federal statutes because attorney fee reimbursement is not usually allowed and out of court settlements are cheaper than trials.

Of the 55 state cases, only 18 settlements are recorded. Although this obviously limits our analysis, the settlement data which is available follows the pattern suggested in Hypothesis 8. Of the 18 settlements, 11 were settled out of court, 7 through informal settlements and 4 through consent agreements. On the other hand only 4 were settled in court. The remaining 3 settlements consist of 1 bankruptcy case and 2 government takeovers.

Burden of Proof

Under the Clean Water Act, the firms are required under the National Pollutant Discharge Elimination System (NPDES) to file discharge monitoring reports (DMRs) at EPA which list discharge levels, and method of
discharge.\textsuperscript{62} The efficient use of citizen suits depends heavily on the availability of DMRs. Citizens have access to the discharge monitoring reports, and the courts have generally accepted the information contained in them as proof of violations.\textsuperscript{63} By allowing citizens to discover and prove the violations of the statutes so easily, monitoring reports significantly reduce the cost of taking suit. As can be seen in Figure I-7, the MC\textsubscript{1} curve drops to MC\textsubscript{2} increasing the amount of enforcement action which takes place.

\begin{center}
\begin{tikzpicture}
\begin{axis}[
view={0}{180},
axis x line=bottom,
axis y line=left,
axis lines=middle,
axis line style=-,\]
\addplot [thick, black, domain=0.2:4] {((-1)*x^2)+2.5};
\addplot [thick, black, domain=0.2:4] {((-1)*x^2)+2};
\end{axis}
\end{tikzpicture}
\end{center}

\textbf{Figure I-7}

Although the monitoring reports are most consistent under the NPDES program of the Clean Water Act, reports are available under other statutes as well. The most commonly cited statutes besides CWA are RCRA

\begin{itemize}
\item See \textit{Student Public Interest Research Group v. Fritzsch, Dodge & Olcott, Inc.} 579 F. Supp at 1538.
\end{itemize}
and CERCLA. These statutes require monitoring, however citizens access is limited. First of all, the statement of violations is more complex and the reports on their face do not stipulate whether the firm is or isn’t in compliance. Therefore the citizen must be more familiar with the exact guidelines of the statute in order to determine whether compliance is occurring. Secondly, while CWA reports are available to the public without condition, reports under other statutes may be deemed confidential and citizen access forbidden. The availability of these reports still serves as a useful tool for the citizen in determining who is violating the statutes, however they do not reduce the cost of taking action as greatly as the straightforward discharge monitoring reports under the Clean Water Act. This may be another reason why we have seen a greater number of suits taken under the Clean Water Act than other statutes.

Model II - The Model of Firm Behavior

The Simple Model: Enforcement without Citizen Suits

The effectiveness of private enforcement depends not only on how citizen groups respond to various incentives but on how the targets of the suits, the polluters, respond to citizen suits. The previous model represented the demand for litigation by citizen organizations. This model will consider polluter incentives resulting from citizen enforcement actions.

The different types of enforcement available affect the amount of precaution taken by the firm. We will initially assume the firm faces

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administrative or civil government enforcement; this becomes the benchmark case. We will then add the effect of citizen suits to derive the resulting effect on the level of precaution.

The initial situation without citizen suits can be seen in Figure II-1, the firm is assumed to be interested in minimizing its costs. Two types of costs are relevant: (1) the cost of taking the precaution and (2) the costs associated with noncompliance with the standard. The former involves the capital, material and labor costs associated with greater control of emissions while the latter involves the expected costs imposed by the court. Expected costs are the probability of a successful enforcement action multiplied by the expected penalty.

The marginal expected penalty curve (MEP) is downward sloping because as precaution increases the expected penalty decreases. The two sources of this decline are the lower probability that any penalty would be imposed and the smaller size of any imposed penalty. The MEP curve crosses the axis at a level of precaution sufficient to guarantee that the appropriate emission standard be met; this is the level of complete compliance. The marginal cost of precaution (MCP) curve is upward sloping because the more precaution, the higher the marginal cost.

The initial equilibrium represents the firm's decision-making process. They will balance the expected penalty (which will result if they are found to be in noncompliance and enforcement action takes place), against the cost of precaution in determining how much precaution, i.e., pollution control, to take. Equilibrium A* in Figure II-1 will result; note that A* in this figure is less than complete compliance due to the fact that enforcement is not complete and firms don't expect to be penalized for all violations. This is not an uncommon outcome.
The Initiation of Citizen Suits

With the initiation of citizen suits, the expected penalty to the firm would increase from $\text{MEP}_1$ to $\text{MEP}_2$ due to the fact that they now face the injunctive power of citizen suits as well as the federal and state enforcement powers. Adding the likelihood of a private enforcement action to that of public enforcement implies a higher probability that a successful enforcement action against the firm would be forthcoming.

As demonstrated by Figure II-2, all firms not in compliance with the standards under public enforcement can be expected to take higher levels of precaution when confronted with citizen suits. Firms in compliance will not change their behavior in response to the threat of citizen suits. Although this
is in principle a testable hypothesis, in practice no systematic compliance data are available. However, interview with officials at EPA and the Conservation Law Foundation reveal a widespread belief that citizen suits do lead to greater compliance.65

Effects of Remedy on the Firm

The level of precaution can be expected to be affected by the available remedies as well as the existence of private enforcement activity. Because CWA, RCRA, CERCLA and EPCRA allow citizens to sue for an injunction

65Stephanie Pollack, interview by author, Conservation Law Foundation, Boston Massachusetts, February 1, 1990; Mark Stein, interview by author, Water Enforcement - Environmental Protection Agency - Region I, Boston, Massachusetts, December 6, 1989.
and penalties, the MEP₂ curve for firms violating those acts increases even further to MEP₃ initiating higher levels of precaution for noncomplying firms. (It would have no effect on precaution for complying firms.) Firms facing suit under these statutes are more likely to be in compliance than firms facing suit under the other statutes because of the greater likelihood of private enforcement. (The fact that greater private enforcement could be expected was demonstrated in Model I). The result is demonstrated in Figure II-3.

Citizen groups cannot impose criminal penalties, therefore, this effect would not be expected to have the same deterrent effect on gross negligence, etc., the types of behavior that trigger criminal indictments by the
government. One immediate implication is that private enforcement is an incomplete substitute for public enforcement as long as the menu of remedies differs between the two types of enforcement action. This is particularly important since civil penalties are insurable and criminal penalties are not.

Since civil penalties are insurable polluters can pay a fee to insure themselves in case they are penalized for being in violation of pollution control standards. Therefore, they face a lower cost of being caught because insurance allows the polluter to spread the costs among other policy holders. In effect some firms will be paying for a portion of another firm's pollution control violations. Criminal penalties, on the other hand, are not insurable. Criminal violations involve much higher penalties as well as jail sentences for corporate officers or employers. The availability of non-insurable criminal remedies significantly increases the risk to polluters and therefore leads them to take more precaution. Citizens, not having this remedy are obviously more limited than public enforcement.

Whether citizens can sue against past or ongoing violations, can be expected to affect the amount of precaution taken by noncomplying firms as well. Under the ruling in Hamker v. Diamond Shamrock Chemical Co. penalties can be assessed only if the violation is ongoing. Since the 60 day notice requirement insures that the firm being sued is notified within 60 days of suit, they may be able to prevent penalty assessment completely. If they are able to stop the violation within 60 days the expected penalty curve will shift down to the initial curve because they do not expect to be sued by citizens and therefore only face government enforcement. Therefore, one distinct class of violators, namely those who can bring their operations into compliance within 60 days, are not likely to be much affected by the existence of private enforcement.
However, under *Chesapeake Bay Fdn. v. Gwaltney of Smithfield* penalties can be assessed even if based on solely past violations. Faced with this threat the firm must constantly take precautions because they can be sued at any time for actions which are occurring or have occurred in the past. This ruling would sustain higher precaution levels for violators who could come into compliance rather quickly. The MEP curve will shift up from MEP\(_1\) to MEP\(_2\) as shown in Figure II-4.

The decision of the 4th Circuit was reversed by the Supreme Court in *Gwaltney of Smithfield v. Chesapeake Bay Fdn.*. The ruling stated that the request for penalties must be accompanied by a reasonable request for injunctive relief. This ruling basically allows penalties if the violation is ongoing or at least intermittent and likely to occur again in the future. Due to
this ruling, the MEP curve shifts down to MEP\(_3\) which is lower than the expected penalties under the initial *Chesapeake* ruling, but higher than the *Hamker* ruling which required the action to be ongoing. Therefore, precaution is less than it would have been if penalties were assessed against past violations but higher than if penalties are required to involve only ongoing violations as demonstrated in Figure 11-5.

![Figure 11-5](image)

**Attorney Fee Reimbursement**

The availability of attorney fee reimbursement to those undertaking private enforcement also effects the level of precaution taken by the firm. A firm which loses or is not completely successful must reimburse attorney fees,
court costs, etc. to the plaintiff. This raises the expected penalty. It was also demonstrated in the first model that the likelihood of being subject to private enforcement is higher when attorney fees are reimbursed since citizen groups can be expected to undertake more litigation actively. Both of these cause the MEP curve to shift out. This can be very costly and therefore increases the expected penalty curve from MEP$_2$ to MEP$_3$ as shown in Figure II-6.

In some cases the government has more enforcement power and remedies available to them than citizens. It is important to recognize the different situations in order to determine when each type of enforcement is most effective. After the initiation of citizen suits during the 1970's, the federal government initiated a criminal enforcement program. The effect of
Putting Model I and Model II together, it is possible to forecast a long run trend for private enforcement. Since complete compliance precludes successful litigation and the rise of citizen suits causes greater deterrence, and hence compliance, ultimately a decrease in the number of citizen suits should
be expected. Successful citizen suits ultimately undermine the reason for their existence.

In Models I and II, the economic incentives of the environmental groups and the polluting firms were addressed. Obviously since the initiation of citizen suits we have seen greater enforcement. However, greater enforcement does not always mean greater efficiency. A number of issues must be addressed in order to determine whether citizen suits promote greater efficiency in general, or if they only lead to efficiency under certain circumstances.

**Model III - The Efficiency Model**

**The Simple Model**

Do citizen suits promote greater efficiency? In other words, do they lead to a balance between social costs and social benefits. Do they only lead to efficiency under particular circumstances? Can we create a more efficient overall enforcement mechanism?

As we discussed earlier, whenever externalities are present, even perfect competition does not lead to economic efficiency. Externalities exist when a producer or consumer does not bear the full marginal cost or enjoy the full marginal benefit of an economic action.\(^6^6\) Pollution is a prime example of an externality which creates inefficiency in the system due to the fact the social marginal costs (MC\(_s\)) are greater than social marginal benefits if the firm is not forced to take precautions against pollution. Without

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environmental enforcement the firm will not take into account the social costs of pollution and therefore will not produce an efficient amount of pollution control. The firm will pollute somewhere below the socially efficient level at a point like B in Figure III-1.

Figure III-1

In Figure III-1, the amount of pollution control is too low compared to the efficient level. Therefore, the government, as the corrector of market failures, steps in to protect the environment. However, the government doesn't, at the federal or state level, have the time or resources to enforce all of the environmental standards perfectly. This is why citizen suits were
created, to goad the government into action, or to pick up where government leaves off. This section will seek to determine whether as a whole citizen suits are efficient, or whether changes can be made to make the statutes more efficient.

Assuming that government enforcement alone does not bring about an efficient level of enforcement, the next question involves whether the addition of citizen suits to the enforcement arena creates a movement towards efficiency or not. Looking at the picture from a simple perspective it would seem that the citizen suit, not being faced with political or industrial pressure, is in the prime spot to pick up where the government leaves off. Due to the high number of citizen suit successes over the last five years in particular, it would seem that citizen suits must increase precaution to some extent. If regulated industry perceives a higher level of enforcement, they are likely to take more precaution by providing more clean-up in order to avoid the risk of going to court. This would indicate that firms would take a level of pollution control closer to the socially efficient level at a point like C in Figure Figure III-2 due to the fact that firms are internalizing some of the risk.
In order for citizen suits to create a movement towards efficiency, the emission or effluent standards themselves must help promote an efficient solution. The majority of citizen suit cases studied in this paper involved claims under the Clean Water Act. The effluent standards in the Clean Water Act are based on specific pollution control technologies known to the industries. While the industry can choose any technology which controls emissions to the required degree, they tend to choose the exact equipment specified in the Act. Therefore, they minimize their risk of wrong doing because they are following the Act explicitly. The resulting situation is one in which too much focus is placed on the type of equipment used and not enough on the amount of emissions reduction. Often times new pollution
control innovations are not implemented because firms view a perceived risk of straying from the technologies specified in the Clean Water Act. A number of empirical studies have found that the Clean Water Act provisions are not cost-effective.67

Due to the fact that the EPA clean water standards do not provide for efficient pollution control, it is not possible to guarantee that the addition of citizen suits to the enforcement arena will lead to efficiency. Although the firms will perceive a higher threat of enforcement and are likely to take more precautions, they will not necessarily do so cost-effectively, but the result will not necessarily be efficient. The high number of citizen suits under the Clean Water Act may in some circumstances create inefficiency by forcing firms facing an excessively high cost of pollution control to clean-up more than efficiency would dictate; the additional benefits from the further reduction would be smaller than the costs.

While some effluent standards like those under the Clean Water Act are excessively stringent, others are excessively lax. Excessive enforcement occurs whenever the firm is induced into taking more precaution than efficient. This can happen if an effluent standard is too high. In this case, the level of precaution exceeds the efficient level and greater compliance implies a movement away from efficiency as shown in Figure III-3, point D.

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The implication of the analysis suggests that in order for citizen suits to improve efficiency the effluent standards must be either efficient or less stringent than efficient. When the effluent standards are inefficiently harsh can citizen suits fail to promote efficiency.

Citizen suits are targeted precisely at the environmental law where this problem is most acute, the Clean Water Act. In air pollution, on the other hand, emissions trading provide a vehicle for those facing excessively stringent standards to meet them cost-effectively. Adopting a form of emissions trading like the program under the Clean Air Act would reduce the particular bias substantially by eliminating the really harsh standards. Emissions trading assures that the post-trade standards are cost-effective,
thereby reducing the possibility that citizen suits will promote inefficient pollution control.

The emissions trading program under the Clean Air Act provides a cost-effective solution to air pollution control. By allowing regulated industries greater flexibility in meeting the requirements of the statute those facing the harshest standards can reduce their cost of compliance.

If a polluter controls more emissions than specified in the standard, it can apply for certification of the excess control which is known as an emission reduction credit. Sources are then allowed to use their credits to meet their effluent standards at other discharge points or to sell them to other firms. A firm which faces a higher cost of clean-up will purchase emission reduction credits, in effect paying the selling firm to do the clean-up for them. Such trades are regulated by region in order to make sure air quality is not diminished in particular areas. Firms who are able to control pollution at a lower cost will have an incentive to do so in this system due to the expected profits from the sale of the credits. Because emissions trading reduces the cost of meeting the effluent standards, it reduces the likelihood that the imposition of citizen suits could promote inefficiency. Therefore, standards like those under the Clean Water Act can be remodeled in order to effectively provide for efficient pollution control.

Comparative Enforcement Actions

Since different types of enforcement action can be taken against the polluter, the ramifications of each must be discussed in order to determine whether citizen suits lead to greater efficiency in the system. Government

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68 Tietenberg, 345-354.
agencies and citizen groups can file suit against a violating industry and settle by means of a consent agreement. This is a negotiated settlement agreed to by both sides which stipulates injunctions, compliance schedules and/or civil penalties. With a negotiated settlement the citizen group or government agency will seek to cover the social costs of pollution while the alleged violator will be attempting to minimize transaction costs by settling out of court. While minimizing transaction costs, if the consent agreement or negotiated settlement also maximizes net social benefits and minimizes net social cost, an efficient solution is likely to result. However, unfortunately this is not normally the case.

If the problem cannot be settled through negotiation, judicial action is required. Federal and state agencies can initiate both civil and criminal actions. For the sake of efficiency, the power to apply criminal sanctions is important because it provides strong incentives against gross violations of the standards. Citizen groups can only initiate civil actions. The distinction between the remedies available to public and private enforcement is important not only because it demonstrates their non-substitutability, but because under particular circumstances government enforcement will obviously be more efficient. Assuming citizen suits preclude criminal action it would not be efficient to allow citizens to take civil suits against gross violators of the environmental standards due to the fact that they would lead to an inefficiently low level of precaution on behalf of the regulated industries. Industries should recognize that criminal violations will bring criminal sanctions; they should not be allowed to perceive that criminal sanctions can be escaped through citizen suits.

A criminal penalty is sometimes warranted in order to bring about the proper incentives. First of all, because criminal penalties are not insurable,
firms have a greater incentive to prevent criminal violations. Secondly, if a firm goes bankrupt and are thus rendered "judgement proof", they may be able to escape civil sanctions. Of the 507 settlements recorded in the citizen suit database, 9 firms were able to escape civil sanctions due to their declaration of bankruptcy. However, with criminal sanctions the officers or employers still face jail sentences providing incentives to take precaution which otherwise wouldn’t take place under a civil sanction.

Under all other circumstances besides criminal violations, the simple model provided above would lead one to believe that civil action by citizens and agencies are interchangeable. However, in analyzing the citizen suit provisions more closely it is obvious that there are some discrepancies between the two. The provisions within citizen suits also effect their ability to lead to efficiency.

Citizen Suit Provisions

The 60 Day Notice

The 60 day notice is required in order to: 1) allow the government to take over enforcement, or 2) to allow the violator to clean-up and therefore avoid going to court. Is the 60 day notice requirement an efficient improvement?

The main reason for the notice is to goad the government into action by letting them know that the citizens intend to take action if the government does not. In terms of notification to government, it is important to consider who is better able to bear the costs of bringing suit in order to determine if the requirement is efficient. Efficiency requires that marginal cost = marginal
benefit. Therefore, if the government agency has superior knowledge and resources in a particular case, it is more efficient for them to be given the power to take over enforcement action. On the other hand, if the citizen organization has superior knowledge and resources they should be able to continue with enforcement action. Thus, the allowance of a 60 day notice period seems efficient in that it allows the federal government to weigh the costs and benefits of taking over a suit and to do so if they are best suited. This provision does not create an efficient solution, however, if the government decides to take over the suit because of political pressure. In this case, efficient pollution control may not result if the government remedy is less than that imposed by citizens. However, if the government does not demonstrate diligent enforcement action, the citizen suit may be allowed to proceed. This helps prevent the government from taking over a suit, only to put it on the back burner and delay taking action. Therefore, in order for efficiency to prevail, the party who can litigate at the lowest cost and who has the best knowledge and resources must be allowed to do so. It seems that the 60 day notice requirement promotes efficiency in this respect.

The 60 day notice to defendants is a separate issue. In most cases due to the Supreme Court decision in Gwaltney of Smithfield v. Chesapeake Bay Fdn. Inc., citizens are only allowed to sue for ongoing or intermittent violations. Therefore, if the firm comes into compliance within the 60 day period, the citizen is barred from taking suit unless the violation is likely to occur again. On the one hand this seems to bring about an efficient solution because the desired result, compliance, is achieved without lengthy and expensive court proceedings. However, because it is more costly for some of the industries to meet standards, they may have an incentive to pollute or to neglect standards until they are given notice of a citizen suit and only then
will they come into compliance. This leads the firm to take an inefficient level of precaution due to the fact that they delay taking action. Therefore, a more efficient solution may allow for the 60 day notice to defendants but stipulate a penalty system in which the firm can avoid extremely high court costs by coming into compliance within the 60 day period, but will face a penalty for the damages caused prior to compliance. This would create a higher level of precaution and lead to greater efficiency overall.

In order for the 60 day notice requirement to be efficient it seems that the following objectives must be met: 1) the notice to government requirement leads to a situation in which the party who is better able to bear the burden of suit will do so and 2) the notice to the alleged violator allows them a chance to avoid the high costs of court proceedings by coming into compliance, but does institute a civil penalty for the violations previous to compliance. The penalty would have to be less than the court costs, but high enough to increase their level of precaution.

The Preemption Provision

The provision allowing "action in court" to bar citizen suits is a controversial one because it is unclear whether Congress intended only judicial action to bar citizen suits or whether they intended that administrative action would bar a suit as well. In Baughman v. Bradford Coal Co. the third circuit found that:

"...administrative enforcement bodies should be considered 'courts' for the purpose of citizen suit sections if the 'powers and characteristics' of those bodies 'make such a classification necessary to achieve statutory goals.'"69

Therefore, the court set out to determine whether the administrative powers in the particular case were comparable to judicial powers. In the *Baughman* case the court found that under the Clean Air Act Section 304, judicial authority can require compliance through an injunction and can assess civil penalties of up to $25,000 per day. Citizens can intervene in these proceedings. Administrative powers, on the other hand, authorized an injunction, but the penalty assessment capability was lower, allowing assessment of $10,000 per violation and 2,500 per day of violation. Furthermore, citizens cannot intervene in these proceedings.\(^70\)

Although a discrepancy in remedies and intervention exists among the various decisions, most cases have found that administrative actions may be considered court actions in order to bar citizen suits.

Is it efficient to allow government administrative action to bar citizen suits? If we allow citizen suits to proceed even though the government is taking administrative action, we may see duplication of enforcement efforts which would be inefficient. If the government is reaching the desired result through administrative action, it is more efficient for the citizen organizations to spend their time and resources investigating other violations rather than acting on the same violation as the government. Also, if industry perceives that administrative actions do not bar citizen suits, they may be hesitant to cooperate with the government in administrative proceedings if they face the possibility of a costly court case as well.\(^71\)

Since allowing citizen suits could cause overcrowding in the courts and high litigation costs, it is important to avoid court proceedings when

\(^{70}\)Miller II, p.10069.

enforcement objectives can be met in less costly ways. In many cases important objectives can be achieved at a lower cost through settling out of court or through administrative action. Administrative action also solves the problem of excessive litigation. The government, in most cases prefers to proceed administratively first because it is a cheaper method of enforcement.\textsuperscript{72} Thus, it would seem efficient for administrative action by government to preclude citizen suits. The main goal of the suits is to bring a violating industry into compliance, and if the government can do so at a lower cost in and administrative forum, then it is efficient for citizens to let them. One must recognize, however, that administrative actions cannot seek penalties as high as those in judicial actions. In some cases it will be more efficient to proceed judicially in order to assess a higher penalty for a strong violation of a standard and therefore to induce regulated industries to take a more efficient level of precaution.

\textbf{Citizen Intervention}

While citizens are barred from initiating a suit when a judicial or administrative action has been initiated, they are not barred from intervening in those proceedings. A number of environmental statutes permit citizen intervention in government initiated actions filed in federal court. They also allow the U.S. to intervene in all citizen suits. Although citizen intervention is allowed in federal courts, in many cases it is not allowed in state courts. The intervention provisions were meant to allow citizens barred from suit due to government action, to participate in the enforcement process. Citizens can receive attorney fee reimbursement for intervention if their intervention

provides unique and useful information to the case. Citizens and citizen groups can intervene in federal judicial enforcement at any time during the case, this seems efficient in that it allows all relevant information to be provided.

However, in many cases citizens are not allowed intervention in administrative proceedings even though such proceedings can bar a citizen suit. It is true that allowing citizen intervention in an open court cases is easier and cheaper than providing a place for the citizen intervener within the closed negotiations involved with out of court settlement. Perhaps allowing for one member of the citizen organization to be involved in the administrative negotiations would be the cheapest and most efficient solution. If the costs of allowing one member of a citizen organization to be present at the administrative negotiations, added to the rest of the administrative costs, are less than the costs of a judicial hearing, and the desired result is being achieved, then this would seem to be a more efficient solution. In this case the representative of the citizen organization is able to make sure the required objectives are being met to the citizen's satisfaction, and to present any information which the citizen organization feels is relevant to the case at hand.

Remedies

While some statutes allow citizens to sue for injunctive relief alone, others allow for injunctive relief as well as the assessment of civil penalties. The controversy over whether an injunction and penalties can be assessed only against ongoing violations or if they can be assessed against past or intermittent violations was mentioned in an earlier section.
Not allowing an injunction or civil penalties for an action which occurred in the past would diminish the incentive for citizens to research or take action for single or repeated past wrongs if they know that they have no remedies available. If the companies do not perceive a threat of government enforcement and are able to clean up within 60 days, preventing citizen suits against past violations will cause no change in the amount of precaution taken by the firm due to the fact that it is cost effective for them to wait for the notice of suit and then clean up. Therefore penalties available only for ongoing violations will allow regulated industry to minimize cash outlays and financial liability by refusing to comply until the 60 day notice is filed. However, allowing citizens to sue for solely past violations may also create a different set of priorities. The purpose of citizen suits is not to redress past violations but to stop present violations. Therefore, some sort of compromise is necessary in order to achieve efficiency.

The court decision in *Gwaltney of Smithfield v. Chesapeake Bay Fdn.* which allows the assessment of civil penalties for violations which are ongoing or have occurred intermittently and are likely to occur again in the future seems the most efficient. This decision prevents citizens from focusing their time on redressing past violations, and instead allows them to focus on present endangerments. At the same time this creates incentives for the companies to take greater precautions, while making sure the courts aren't bombarded with cases against one-time violators.

**Attorney Fee Reimbursement**

The reimbursement of attorney fees to successful or partially successful plaintiffs has important implications in relation to efficiency. First of all, the
citizen can balance the benefits and costs of taking suit, and will have a greater incentive to take suits which benefit the entire public if their attorney fees are reimbursed. This decreases costs substantially and helps the environmental group balance the costs and benefits of litigative activity. Noncomplying firms can avoid paying these costs simply by complying. Therefore, by reducing the burden on public interest plaintiffs courts can lessen the disincentives that a private individual faces when acting to protect interests broader than self-interest.\textsuperscript{73} Congress recognized the financial barriers which prevented the effective use of citizen suits and therefore authorized attorney fee shifting.

If the plaintiff is awarded court costs, the defendant is responsible for paying them. The defendant faces the threat of extremely high court costs which they must bear if they lose the case and this may provide significant deterrence in itself. In terms of efficiency the attorney fee provision provides the correct incentives.

\textbf{Burden of Proof}

As stated in an earlier section, the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act requires firms to file discharge monitoring reports (DMRs) at EPA.\textsuperscript{74} The Act states that:

"\textit{...the Administrator shall require owner to maintain such records, make such reports, and provide such information to enable him to determine whether such owner has acted or is...}"


acting in compliance with this part and regulations thereunder.\textsuperscript{75}

The availability of DMRs is very important in allowing the efficient use of citizen suits. The Act also requires that:

"Any information obtained under this section shall be available to the public unless it divulges methods or processes entitled to protection as trade secrets."\textsuperscript{76}

Therefore, citizens have access to these reports and use them in deciding which firms have most flagrantly violated the statutes and therefore deserve immediate enforcement action. The public availability of such information is also required under the other most frequently cited statutes: RCRA section 6972, and CERCLA section 6904. These statutes state that an EPA representative and a representative of the President respectively have the power to determine the amount of monitoring which will take place. Monitoring, therefore, is not as consistent as the NPDES system under the Clean Water Act. The RCRA reports are harder to use as evidence than the reports under CWA due to their complexity and the fact that they do not clearly state whether the firm is or isn’t in compliance. Also information contained in RCRA and CERCLA reports may be deemed confidential and in that case public access is prevented. The RCRA reports do offer citizens an opportunity to prove violation but not with the ease they have under CWA\textsuperscript{77}. Most other environmental statutes provide for some sort of monitoring as well. The courts have accepted the Discharge Monitoring

\textsuperscript{75}33 USC 1314.
\textsuperscript{76}33 USC 1314
Reports as proof of violations in citizen suits. Therefore, the burden of proof for citizens is quite straightforward.

There are obviously many aspects which create and effect efficiency. In the case of citizen suits, as long as the standards are efficient and the government is not in a better position to take suit, citizen suits can lead to greater efficiency. The citizen suit provisions do create a barrier between public and private enforcement, in terms of the 60 day notice and preemption provision, this barrier is efficient because it will prevent duplication of enforcement while at the same time it allows the government to take an enforcement action if they are in a better position to do so. On the other hand the discrepancy in intervention procedures is not efficient. Finally, the penalty provision, attorney fee reimbursement, and availability of discharge monitoring reports help environmental groups balance the costs and benefits of litigation and lead to greater efficiency in the system.

IV. CONCLUSIONS

Recognizably, citizen suits were created during the 1970's to complement public environmental enforcement in correcting market failures. During the course of this project a number of implications have emerged regarding the causes and consequences of citizen suits.

If government action is complete, all polluters would be in compliance and citizen suits would have no role to play. A corollary suggests that public and private enforcement are inversely related. As the data show, in the early

78 See Student Public Interest Research Group v. Fritzsch, Dodge & Olcott, Inc. 579 F. Supp at 1538.
1980's when public enforcement decreased private enforcement - citizen suits increased. Lax public enforcement appears to have played a role in the rise of citizen suits.

The analysis also shows that the available remedies have also played a role. Although most statutes provide for an injunction remedy, those which allow civil penalties represent a higher benefit to citizen organizations due to their greater deterrence value. CWA, RCRA, CERCLA and EPCRA the statutes which allow penalties, were the the three most frequently cited statutes in the citizen suit data. While in some cases penalties are directed to the U.S. Treasury, they have often been earmarked to environmental funds which are dedicated to the clean-up of the area at stake. Earmarking also increases the benefit to the citizen group undertaking litigation activity.

The reimbursement of attorney's fees can also affect the level and focus of litigation actively. Because fees are reimbursed for "appropriate" actions, citizen suit costs are decreased and citizen organizations are allowed to participate far more often in the enforcement process than they otherwise would have been able. Since courts do not reimburse for inappropriate actions, citizen groups are encouraged to litigate only appropriate cases. The fact that attorney fees are routinely reimbursed under federal statutes but not under state statutes is one apparent explanation for why suits under federal statutes are so much more common.

The limitations placed on citizen suits have an ambiguous effect on the process. The 60 day notice and 45 day review provisions have the potential to either increase or decrease the costs and benefits of enforcement action. The results rely heavily on the circumstances which surround the particular case.

Finally, citizen suit can be settled out of court and result in the formation of a consent agreement or informal negotiated settlement. While
out-of-court settlements involve lower costs compared to court proceedings, they also represent lower benefits due to the fact that judicial action is perceived to create greater deterrence. Court precedents carry heavier weight in resolving future conflicts.

Citizen suits also affect the decision-making process of the firm. The different types of enforcement available affect the amount of precaution, and thus pollution control, taken by the firm. Firms weigh the expected penalty against the cost of precaution in determining the equilibrium level of precaution to be taken.

The addition of citizen suits to the enforcement arena increases the expected penalty to the non-complying firm. It does this by increasing the likelihood that the firm will face an enforcement action. While this can be expected to increase the amount of precaution taken by the firm, the unavailability of compliance data makes it impossible to confirm this expectation. Interviews with participants confirm that they believe increased compliance is occurring.

The remedies can also affect the amount of precaution taken by regulated industry. Non-complying firms which face suit under statutes which allow an injunction and penalties are likely to take more precaution than firms that face suit under a statute which only allows an injunction, simply because they face higher expected penalties.

Firms facing an injunction and penalties for ongoing or intermittent violations are also more likely to take more precaution than if they only face an injunction and penalties for ongoing harm. Once again this is because of the higher expected penalty resulting from the allowance of penalty assessments against past intermittent harms.
The availability of attorney fee reimbursement also affects polluter incentives. An unsuccessful defendant not only has to pay its own attorney fees, but also the reasonable attorney fees of the plaintiff. Also, the availability of attorney fees suggests that citizen groups will be able to undertake more enforcement activity because it will allow their litigation resources to be stretched further. These factors also increase the expected penalty of the firm and therefore can be expected to lead to greater pollution control.

Determining that citizen suits lead to greater enforcement does not necessarily indicate that they lead to efficiency. Complete compliance is not necessarily efficient if the target polluters face inefficiently harsh standards. A number of other factors must be considered in determining whether citizen suits lead to efficiency in the enforcement system.

Without any environmental enforcement, firms would not take into account the social costs of pollution. The absence of enforcement would not produce an efficient amount of pollution control.

Whether citizen suits lead to greater efficiency depends crucially on whether or not the standards themselves are efficient. If the standards are excessively high, citizen suits have the potential to promote inefficiency by creating over-enforcement. However, if the standards are too low or correct, citizen suits have the ability to create an efficient solution.

In looking at the comparative enforcement mechanisms, it seems obvious that under particular circumstances citizen suits are not the most efficient solution. Although citizen suits enhance enforcement, they are not perfect substitutes for government action. The 60 day notice and preemption provisions place citizen suits a step below government enforcement power. This is not
necessarily inefficient unless the government preempts a suit for improper or political reasons and then does not provide the efficient amount of enforcement. The provision which allows citizen intervention helps create greater efficiency in the judicial setting, however, since intervention is not allowed in administrative actions an inefficiency results.

It is obvious that some aspects of citizen suits lead to efficiency and some do not. By creating greater substitutability we could create greater efficiency.

Proposals for Change

Although citizen suits are obviously becoming a significant force in environmental enforcement, changes can be made to make the system work more fluently and efficiently.

On an overall level, a new focus on the environmental statutes must be made. Efficient pollution control cannot be expected unless the statutes promote such actions. Some regulatory programs need to be updated in order to allow firms to meet the requirements cost-effectively. These changes should follow efficient models like that of the emissions trading program under the Clean Air Act which provides a cost-effective way for polluters to meet the requirements of the statutes efficiently. Only with efficient standards can citizen suits be guaranteed to promote greater efficiency in the system.

The provisions surrounding citizen suits can also be amended for the sake of efficiency. Citizen suits are not perfect substitutes for government enforcement. In many cases, to provide the correct incentives to polluters it is important that all enforcement mechanisms are afforded the same remedies.
Penalty Remedy

The high level of success for citizen suits under statutes which allow the assessment of civil penalties suggests that this provision should be extended to other environmental statutes. Since the government can assess penalties under all circumstances, the citizen suit sections which do not allow penalties should be amended to include such provisions. Greater substitutability between public and private enforcement would prevent any bias towards actions under statutes which allow a penalty remedy.

Intervention

Citizens can be barred from taking suit if the government has initiated judicial or administrative action. The inconsistency rests in the fact that they are only afforded intervention rights in judicial proceedings. If they can be barred from both, they should be able to intervene in both. This way all relevant information available will be provided in any case.

For some cases it is more efficient for the government to take suit while for other cases it is more efficient for citizens to sue. Some of the changes specified above will allow the two methods of enforcement to become more interchangeable.

Overall, citizen suits have played a distinct and important role in environmental enforcement since the early 1980's. They are obviously creating greater enforcement, and in many, probably most, cases greater efficiency. The refinements specified above would help promote even greater and more efficient pollution control in the years to come.
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