

**SIGNIFICANT HARM, CULPABLE CONDUCT, AND THE CRIMINAL
ENFORCEMENT OF ENVIRONMENTAL LAW IN NEW ENGLAND**

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INTRODUCTION

Charles Arcangelo, owner of Chuck & Eddie’s Used Auto Parts in New Haven, Connecticut, likes to spread holiday cheer at Christmas with a big “Season’s Greetings” sign, which passing motorists can view from the freeway.¹ Criminal investigators from the U.S. Environmental Protection Agency (EPA) and the U.S. Federal Bureau of Investigation (FBI) tell a slightly different story.² The Arcangelo brothers owned five junkyards, four scrap dealer businesses, and a restaurant in Connecticut.³ On June 24, 1988, the brothers and a series of co-defendants were arrested. A 15-count Racketeer Influenced and Corrupt Organizations Act (RICO) indictment was unsealed. The indictment included the following charges: “racketeering, illegal disposal of hazardous waste without a permit, failure to notify officials

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1. Jessica Lerner, *Chuck & Eddie’s Helps Spread Holiday Cheer in New Haven*, NEW HAVEN REG. (Dec. 7, 2017), <https://www.nhregister.com/news/article/Chuck-Eddie-s-helps-spread-holiday-cheer-in-12414291.php>.

2. U.S. ENV’T PROT. AGENCY, SUMMARY OF CRIMINAL PROSECUTIONS RESULTING FROM ENVIRONMENTAL INVESTIGATIONS 85 (Dec. 1989) (discussing *State v. Charles Arcangelo*, United States District Court, Docket No. N-88-43TFGD (D. Conn. 1989)).

3. *Id.*

of the release of a hazardous substance [among other charges].”⁴ An 18 month FBI investigation, along with state police and EPA criminal investigators, found the Arcangelos were running a chop shop,⁵ where they dismantled stolen cars and sold the parts across the state.⁶ “On April 13, 1989, Charles Arcangelo was sentenced to serve [144 months] incarceration . . . placed on [60 months] probation, pay a \$200,000 fine . . . a \$100 special assessment, and ordered to forfeit \$300,000.”⁷ The next day “James Arcangelo was sentenced to serve [84 months] incarceration, placed on [60 months] probation, share . . . restitution . . . [with] his brother, and . . . pay a \$100 special assessment.”⁸

The Arcangelo Brothers prosecution is an example of how environmental law enforcement can work with traditional law enforcement to pursue serious crimes. This case also shows how criminal investigations and prosecutions have functioned historically in New England.⁹ Environmental crimes in the region range from dumping toxic waste to emitting harmful air emissions, exposing people to dangerous chemicals, or explosions at industrial facilities.¹⁰ Criminal enforcement tools can be strategically applied to punish offenders and deter future offenses. For example, in cases when the individual’s and companies’ behavior is more than an accident or an environmental violation but rather a crime involving significant harm and culpable conduct, such criminal enforcement tools would be effective.¹¹

Despite the importance of environmental criminal enforcement, we know little about the repercussions for serious environmental crimes, particularly

4. See *id.* at 84–85 (stating that the Arcangelo brothers were charged under the following statutes: the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6901 (1976); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9601 (1980); Racketeer Influenced and Corrupt Organizations Act (RICO), 18 U.S.C. § 1962 (1970); Organized Crime Control Act, P.L. 91-452 § 901(a) (1970)).

5. A chop shop is a body shop that dismantles and parts out stolen cars. See *Chop Shop*, MERRIAM-WEBSTER, <https://www.merriam-webster.com/dictionary/chop%20shop> (last visited Nov. 1, 2022) (defining chop shop as “a place where stolen automobiles are stripped of salable parts”).

6. Wire and Staff Reps., *Insurance Briefs*, J. COMMERCE ONLINE (Apr. 16, 1989), https://www.joc.com/insurantee-briefs_19890416.html.

7. See U.S. ENV’T PROT. AGENCY, SUMMARY OF CRIMINAL PROSECUTIONS RESULTING FROM ENVIRONMENTAL INVESTIGATIONS, *supra* note 2 at 87 (discussing *United States v. Arcangelo*, No. N-88-43TFGD (D. Conn. June 23, 1988)).

8. *Id.*

9. *An Overview of Our Practices*, U.S. DEP’T OF JUSTICE: ENV’T & NAT. RESOURCES DIV. (May 14, 2015), <https://www.justice.gov/enrd/overview-our-practice>.

10. Memorandum from Earl E. Devaney, Dir. Off. Of Crim. Enf’t, to All EPA Employees Working in Support of Crim. Enf’t. Program, *The Exercise of Investigative Discretion*, U.S. Env’t Prot. Agency (Jan. 12, 1994).

11. See e.g., Raymond Paternoster, *How much Do We Really Know About Criminal Deterrence?*, 100 J. CRIM. L. & CRIMINOLOGY, 765, 766–67 (2010) (discussing the deterrence of environmental crimes).

in New England.¹² We address this gap in knowledge by examining all environmental crime prosecutions stemming from the EPA's criminal investigations adjudicated in New England from 1983 to 2019. With 37 years of data, we are able to show historical trends in environmental crimes. The data also shows patterns of charging and sentencing, and draw out the broader themes that emerge over time. We begin by discussing the evolution of federal environmental criminal enforcement, followed by our data collection strategy, analysis, and conclusions.

I. THE DEVELOPMENT OF CRIMINAL ENFORCEMENT

The Rivers and Harbors and Lacey Acts, passed in 1899–1900, were the first federal environmental laws to include misdemeanor penalties. These laws penalized illegal discharges or the alteration of the navigable waters of the United States and the unpermitted interstate wildlife trade.¹³ Later in the decade, the Department of Justice's (DOJ) Public Lands Division was formed in 1909 to oversee these areas of environmental law.¹⁴ By 1982 the Environmental Crimes Section (ECS) was founded to focus resources and professional expertise on prosecuting environmental crimes. The ECS became its own unit in 1987 within DOJ's Environment and Natural Resources Division (ENRD).¹⁵ DOJ–ECS currently employs some 43 prosecutors and a dozen support staff.¹⁶

Felony provisions are common in federal environmental statutes today. However, this was not the case before 1984. In 1984, Congress passed the Resource Conservation and Recovery Act's (RCRA) Hazardous and Solid Waste Amendments. Three years later, Congress passed the Clean Water Act

12. There are few studies that examine the sentencing and punishment of environmental offenders, particularly in New England. This leads some researchers to question how much we know about the value of criminal enforcement tools and deterrence. Joshua Ozymy & Melissa L. Jarrell, *EPA's Criminal Prosecution and Punishment of Environmental Crimes*, ENV'T L. REP. 10452, (2020); Michael J. Lynch, *The Sentencing/Punishment of Federal Environmental/Green Offender*, 38 DEVIANT BEHAV. 991, 992 (2016); Paternoster, *supra* note 11, at 765–68.

13. Rivers and Harbors Act, 33 U.S.C. § 403 (1899); The Lacey Act, 16 U.S.C § 3371 (1900).

14. *History*, U.S. DEP'T OF JUSTICE: ENV'T & NAT. RESOURCES DIV. (2019), <https://www.justice.gov/enrd/history>; GLENN CURTIS ET AL., ENRD PUBLIC LANDS AND NATIONAL TREASURES: THE FIRST 100 YEARS OF ENVIRONMENTAL & NATURAL RESOURCES DIVISION 1909-2009 3 (David Shilton ET AL. eds. 2009).

15. *Historical Development of Environmental Criminal Law*, U.S. DEP'T OF JUSTICE: ENV'T & NAT. RESOURCES DIV. (May 13, 2015), <https://www.justice.gov/enrd/about-division/historical-development-environmental-criminal-law>.

16. *See Environmental Crimes Section*, U.S. DEP'T OF JUSTICE: ENV'T & NAT. RESOURCES DIV. (July 2, 2021), <https://www.justice.gov/enrd/environmental-crimes-section> (providing these numbers as of 2015).

(CWA) and the three years later the Clean Air Act (CAA).¹⁷ These changes followed guidelines in the U.S. Sentencing Commission that recommended stiffer punishments for federal crimes that extended to environmental crimes.¹⁸ Before the federal statutes included enhanced penalties for knowing violations, prosecuting corporate officers and other high-level officials for significant environmental crimes was difficult.¹⁹

The EPA developed criminal investigative tools in the 1980s with the founding of the Office of Enforcement in 1981, now called the Office of Enforcement and Compliance Assurance (OECA).²⁰ Criminal investigators were hired the following year and were deputized as Special Deputy U.S. Marshalls from 1984 until 1988 when Congress granted them full law enforcement powers.²¹ Today the EPA's Criminal Investigation Division (EPA-CID) employs roughly 145 criminal investigators, also called special agents or 1811s, to investigate environmental crimes across the United States.²² The Office of Criminal Enforcement, Forensics and Training (OECFT) was organized in 1995 to supply investigative and forensic support for criminal cases and house the EPA-CID.²³ Criminal investigators are typically alerted to potential environmental crimes from official documents, former employees, and civil inspectors.²⁴ Investigators build evidence and

17. Clean Water Act, 33 U.S.C. §§ 1251, 1972 (1972); 42 U.S.C. § 7413(1); Clean Air Act, 42 U.S.C. § 7401 (1963); 33 U.S.C. § 1319(c)(1)–(2); *Criminal Provisions of Water Pollution*, U.S. ENV'T PROT. AGENCY: ENF'T, <https://www.epa.gov/enforcement/criminal-provisions-water-pollution>; *Criminal Provisions of the Resource Conservation and Recovery Act (RCRA)*, U.S. ENV'T PROT. AGENCY: ENF'T, <https://www.epa.gov/enforcement/criminal-provisions-resource-conservation-and-recovery-act-rcra>; 42 U.S.C. § 6928(d)(2)(A); *Criminal Provisions of the Clean Air Act*, U.S. ENV'T PROT. AGENCY: ENF'T, <https://www.epa.gov/enforcement/criminal-provisions-clean-air-act>.

18. David T. Barton, *Corporate Officer Liability Under RCRA: Stringent but not Strict*, 4 BRIGHAM YOUNG U. L. REV. 1547, 1547–48 (1991); Richard J. Lazarus, *Assimilating Environmental Protection into Legal Rules and the Problem with Environmental Crime*, 27 LOY. L. REV. 867, 883 (1994).

19. See e.g. Michael R. Pendleton, *Beyond the Threshold: The Criminalization of Logging*, 10 SOC'Y & NAT. RES. 181, 192 (1997) (discussing a global trend of stiffening criminal penalties for environmental harm).

20. U.S. ENV'T PROT. AGENCY, EPA POLICY GUIDANCE FOR FY1980/1981 35 (1979).

21. Memorandum from John Peter Suarez, Assistant Administrator, Management Review of the Office of Criminal Enforcement to All-OCEFT (Dec. 15, 2003), <https://www.epa.gov/sites/production/files/documents/oceft-review03.pdf>.

22. Criminal investigators are also referred to as special agents or 1811s. The number of investigative staff employed by EPA-CID tends to vary, based on whether this includes active special agents or also support and management staff. U.S. Env't Prot Agency, *Crim. Enf't Program, America's Environmental Crime Fighters*, <https://www.epa.gov/sites/production/files/documents/oceftbrochure.pdf>; Public Employees for Environmental Responsibility (PEER), *EPA CID Agent Count*, tbl. 1, in Freedom of Information Act Requests (2019), https://www.peer.org/wp-content/uploads/2019/11/11_21_19-Federal_Pollution_EPA_CID_Agent_Count.pdf.

23. *Criminal Enforcement*, U.S. ENV'T PROT. AGENCY: ENF'T, <https://www.epa.gov/enforcement/criminal-enforcement> (last visited Sep. 23, 2022).

24. See e.g., Joel A. Mintz, *Treading Water: A Preliminary Assessment of EPA Enforcement During the Bush II Administration*, 34 ENV'T L. REP. 10912, 10924 (2004) (mentioning that criminal investigators are typically alerted to potential environmental crimes from official documents, former employees, and civil inspectors that notice and report the problems).

then typically approach prosecutors in the ECS or the U.S. Attorney's Office to file an information [a charging document] in District Court or convene a grand jury to pursue a case to prosecution.²⁵

The major goals of using criminal enforcement tools are to sufficiently punish environmental crimes and deter future offenses, so that the costs of offending outweigh the benefits of illegal activity.²⁶ For deterrence to be effective, the probability of being caught must be sufficiently high and the punishment for the crime must be adequately certain and stiff.²⁷ The number of criminal investigators employed by the EPA–CID is relatively small and by some estimates less than 2,600 federal environmental crime prosecutions may have taken place since 1983.²⁸ Cases are not properly prosecuted because deterrence in criminal enforcement is not adequate. There is little evidence of prosecutions in New England.²⁹ We work to provide a better overview of criminal enforcement efforts in the analysis that follows.³⁰

25. JOEL A. MINTZ, ENFORCEMENT AT THE EPA: HIGH STAKES AND HARD CHOICES, (University of Texas Press Austin 2012); Joel A. Mintz, *Some Thoughts on the Interdisciplinary Aspects of Environmental Enforcement*, 36 ENV'T L. REP. 10495, 10497 (2006).

26. See Suarez, *supra* note 21 (memorandum at ii) (“To the extent any single pattern dominates, it is the law enforcement orientation of the Immediate Office, CID, and (to a lesser extent) LCRMD [Legal Counsel and Resources Management Division].”).

27. Gary Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169, 204–05 (1968); Richard A. Posner, *An Economic Theory of the Criminal Law*, 85 COLUM. L. REV. 6, 1195, 1195 (1985).

28. Joshua Ozymy et al., *Persistence or Partisanship: Exploring the Relationship between Presidential Administrations and Criminal Enforcement by the U.S. Environmental Protection Agency, 1983-2019*, 81 PUB. ADMIN. REV. 49, 49, 53 (2021).

29. The cost of criminal prosecution is high, and the nature of most violations result in the vast majority of environmental offenses being handled through a civil process. Jeremy Firestone, *Agency Governance and Enforcement: The Influence of Mission on Environmental Decisionmaking*, 21 J. POL'Y ANALYSIS & MGMT., 409, 410–12 (2002); Evan J. Ringquist & Craig E. Emmert, *Judicial Policymaking in Published and Unpublished Decisions: The Case of Environmental Civil Litigation*, 52 POL. RSCH. Q. 12, 12–13 (1999) (mentioning the low deterrence value of environmental prosecution).

30. Key studies on the criminal sanctioning of environmental offenders are somewhat limited and do not consider regional analysis of these efforts historically. Important examples of empirical studies on sanctioning include: Kathleen F. Brickey, *Charging Practices in Hazardous Waste Crime Prosecutions*, 62 OHIO ST. L. J. 1077, 1077 (2001); David M. Uhlmann, *Prosecutorial Discretion and Environmental Crime*, 38 HARV. ENV'T L. REV. 159, 159 (2014); Joshua Ozymy & Melissa Jarrell, *Why Do Regulatory Agencies Punish? The Impact of Political Principals, Agency Culture, and Transaction Costs in Predicting Environmental Criminal Prosecution Outcomes in the United States*, 33 REV. POL'Y RSCH. 71, 71–73 (2016); Mathew J. Griefe, et al., *Corporate Environmental Crime and Environmental Justice*, 28 CRIM. JUST. POL'Y REV. 327, 327 (2017); Matthew J. Griefe & Michael O. Maume, *Do Companies Pay the Price for Environmental Crimes? Consequences of Criminal Penalties on Corporate Offenders*, 73 CRIM. L. & SOC. CHANGE 337, 337 (2019).

II. DATA

Data for the analysis was drawn from the EPA's Summary of Criminal Prosecutions Database.³¹ The Database contains case summaries of all EPA–CID criminal investigations and related prosecutions occurring from 1983–present. We selected all EPA cases from fiscal years (FY) 1983 to 2019 to gather 2,588 total cases in our data. We then selected all cases occurring in New England.³² We cataloged a total of 138 prosecutions occurring in these states over this time period.³³ We coded the following variables in our dataset: case summary, docket number, state, EPA fiscal year, major federal environmental statutes used, number of defendants, whether there was at least one company as a defendant in a case, the presence of non-environmental charges (such as false statements, obstruction, and conspiracy), and penalties. We aggregated penalties across each case for all individuals and companies in the prosecution. We measure probation in total months, incarceration in total months, and community service in total hours. Monetary penalties are measured in nominal dollars and include: fines, fees, assessments, restitution, or any other monetary penalty. Data is taken directly from the prosecution summaries.³⁴ If the EPA made any errors in imputing the data or left out cases, this information is unknown to us because the defense, prosecutors, or other key actors in the case are responsible, but this does not affect our central goals in the article.

We used content analysis to code the case summaries. Our method was straightforward. We coded cases for four weeks through FY 2015 with two coders coding independently. Once we understood the data and our inter-coder reliability exceeded 90 percent, we were confident we comprehended the patterns in the data sufficiently to proceed with analysis.³⁵ Each coder analyzed the data independently, with the lead author reviewing data for discrepancies, and then meeting to find consensus. Our total inter-coder ability was roughly 95 percent for the analysis.³⁶

31. *Summary of Criminal Prosecutions Database*, U.S. ENV'T PROT. AGENCY: COMPLIANCE, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (last visited Sept. 22, 2022) [hereinafter *Criminal Prosecution Database*].

32. For purposes of this article New England is defined as: Connecticut, Massachusetts, New Hampshire, Rhode Island, Vermont, Maine.

33. *Id.*

34. *Id.*

35. See generally Clodha O'Connor & Helene Joffe, *Intercoder Reliability in Qualitative Research: Debates and Practical Guidelines*, 19 INT'L J. QUALITATIVE METHODS 1, 2 (2020) (defining intercoder reliability as "a numerical measure of the agreement between different coders regarding how the same data should be coded," and stating that intercoder reliability is "appropriate when categorizing data at a nominal level").

36. Edwin B. Parker, *Review: Content Analysis for the Social Sciences and Humanities by Ole R. Holsti*, 2 AM. SOCIO. REV. 356, 357 (1969); EARL R. BABBIE, *THE PRACTICE OF SOCIAL RESEARCH*, 323–28 (Cengage Learning, 14th ed. 2014).

III. RESULTS

In Figure 1, we traced the total number of annual criminal prosecutions adjudicated in New England by the EPA's FY 1983–2019. We found that few prosecutions were completed in the early 1980s as the criminal enforcement regime at the DOJ–ECS and the EPA–CID developed. Eleven prosecutions were adjudicated in the 1980s, followed by 27 in the 1990s, 48 in 2000–09, and 52 in 2010–19. A grand total of 138 prosecutions were completed in this time period with an average number of prosecutions of about 3.7.

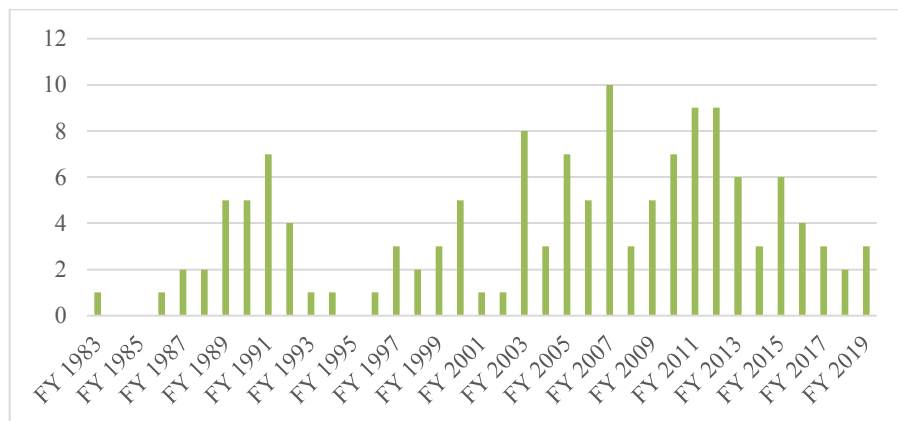


Figure 1. Total Annual Environmental Crime Prosecutions in New England by EPA Fiscal Year, 1983–2019.³⁷

In Figure 2 we breakdown the data from Figure 1 into total prosecutions occurring by state for FY 1983–2019. A total of 45 prosecutions were completed in Connecticut during these 37 years. Thirty-three prosecutions were adjudicated in Massachusetts, 27 in New Hampshire, 19 in Rhode Island, and nine in Vermont. Maine had the lowest number of completed prosecutions at five total prosecutions since 1983.

³⁷ See *Criminal Prosecution Database*, *supra* note 31 (collecting all cases in New England from 1983–2019).

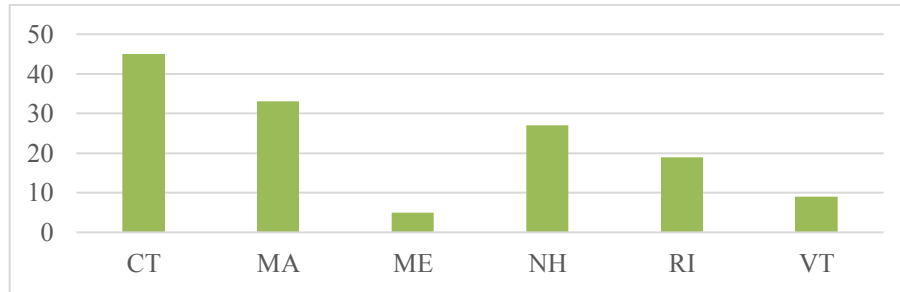


Figure 2. Total Annual Environmental Crime Prosecutions in New England by U.S. State, 1983–2019.³⁸

In Table 1 we examine charging patterns across all six states in our data, 1983–2019. Defendants are often charged under multiple statutes, but we wanted to record the total number of prosecutions where major federal environmental statutes were used to evaluate the broader patterns in the data. For example, in Connecticut there were 15 prosecutions where at least one defendant was charged under the CWA. In Massachusetts, in 14 cases at least one defendant was charged under the CWA, none in Maine, six in New Hampshire, two in Rhode Island, and one in Vermont. In a total of 38 prosecutions, at least one defendant was charged under the CWA. Similarly out of 16 prosecutions, at least one defendant was charged under the CAA. Out of 23 prosecutions, at least one defendant was charged under RCRA. Out of six prosecutions, at least one defendant was charged under the Toxic Substances Control Act (TSCA). Out of six prosecutions, at least one defendant was charged under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). In 24 prosecutions at least one defendant was charged under state-level environmental statutes. State-level charges were brought in 14 cases in New Hampshire. These numbers suggest a robust amount of collaboration between state and federal environmental law enforcement agencies for this number of cases to show up in the EPA’s database. This finding implies the EPA–CID cooperated with state environmental agencies as part of a taskforce or during the investigation.

38. *See id.* (collecting number of criminal prosecutions under the EPA from 1983–2019 and sorting by state).

State	CWA	CAA	RCRA	TSCA	FIFRA	State
CT	15	10	9	3	1	1
MA	14	1	3	0	2	3
ME	0	1	2	0	0	0
NH	6	0	2	1	0	14
RI	2	3	4	2	2	5
VT	1	1	3	0	1	1

Table 1. Charging Patterns in Environmental Crime Prosecutions in New England, 1983–2019.³⁹

In quite a few prosecutions, defendants were charged with criminal offenses exclusively or along with environmental charges. We catalog some of the more prevalent criminal charges in our data in Figure 3. Here, we show the most frequent cases where at least one defendant was charged with a non-environmental crime. The most common offense was giving false statements to investigators or false information on official documents. In 33 prosecutions, or about 24 percent of all cases, at least one defendant was charged with false statements. In roughly nine percent of cases, or a total of 12 prosecutions, defendants were charged with conspiracy. In nine percent of cases at least one defendant was charged with fraud, and in two cases charged with racketeering.

39. *See id.* (collecting number of criminal prosecutions under the EPA from 1983–2019 and sorting by statute violated).

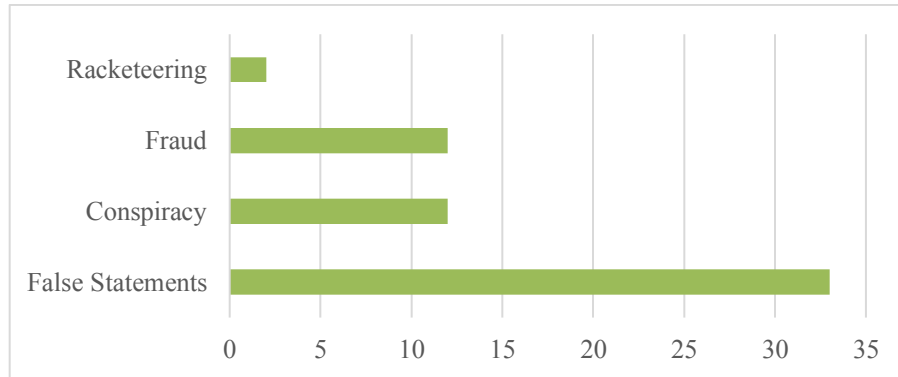


Figure 3. Common Criminal Charges in Environmental Crime Prosecutions in New England, 1983–2019.⁴⁰

In Figure 4, we aggregated penalties assessed to all individuals and companies in our data, 1983–2019. We show total aggregate monetary penalties, total probation and incarceration in months, and total hours of community service. In the upper-left quadrant, we show that across all individual defendants in our data, total monetary penalties assessed at sentencing exceeded \$11.6 million. For companies, total monetary penalties exceeded \$107 million. Individual defendants were cumulatively assessed in our estimates some 3,689 months of probation, while companies were sentenced to a grand total of 1,585 months of probation. Cumulatively, defendants were assessed some 1,536 months of incarceration in our data and 5,160 hours of community service.

⁴⁰ See *id.* (collecting number of criminal prosecutions under the EPA from 1983–2019 and sorting criminal charges).



Figure 4. Total Penalties Assessed in Environmental Crime Prosecutions in New England, 1983–2019.⁴¹

We provide context to Figure 2 by demonstrating the impact of large penalty cases on aggregate punishment outcomes. In Table 2 we provide some examples of the larger monetary penalties assessed to companies in environmental crime prosecutions in New England. Northeast Utilities was prosecuted in Connecticut for improper monitoring of water discharged into the Housatonic River and Long Island Sound between 1994 and 1996 at their Millstone Nuclear Power Station in Waterford.⁴² The company was charged with violations of the CWA for illegally discharging hydrazine. The company was also charged under the Atomic Energy Act for falsifying documents related to the qualifications of workers at the Nuclear Power Plant.⁴³ Northeast Utilities and Northwest Nuclear Energy Company were

41. *See id.* (collecting number of criminal prosecutions under the EPA from 1983–2019 and sorting penalties assessed).

42. Daniel P. Jones, *NU Admits to Lies, Violations*, HARTFORD COURANT: CONN. (Sept. 28, 1999), <https://www.courant.com/news/connecticut/hc-xpm-1999-09-28-9909280109-story.html>.

43. Atomic Energy Act, 33 U.S.C. § 1252 (1954).

“sentenced to 36 months of probation, ordered to pay a special fee of \$1,800, and . . . \$10 million in fines and penalties.”⁴⁴

Year	Company	State
1999	Northeast Utilities	Connecticut
2005	Bouchard Transportation Company	Massachusetts
2007	Hamilton Sundstrand Corporation	Connecticut
2010	Southern Union Company	Rhode Island
2017	Power Plant Management Services	Massachusetts

Table 2. Large Monetary Penalties Assessed to Companies in Environmental Crime Prosecutions in New England.⁴⁵

Bouchard Transportation Company was prosecuted in Massachusetts for a large collision that released 98,000 gallons of heating oil into Buzzards Bay killing hundreds of migratory birds.⁴⁶ Franklin Robert Hill was the mate [second-in-command] of the tug Evening Tide that was pulling the barge B-120 from Philadelphia to Massachusetts. Hill’s negligent actions caused the oil spill.⁴⁷ The company was charged for violations of the CWA for the illegal discharge and violations of the Migratory Bird Treaty Act.⁴⁸ On November 18, 2004, the company pled guilty and was sentenced to 36 months of probation, a \$175 special assessment, and \$10 million in federal fines; Hill

44. See *Criminal Prosecution Database*, *supra* note 31 (quoting *United States v. Ne. Utilities*, Docket No. 3:99CR211 (D. Conn. Sept. 27, 1999)); Mark Graffins, *Northeast Pleads Guilty to U.S. Nuclear Violations; Record Fine*, REUTERS (Sept. 28, 1999), <http://www.hartford-hwp.com/archives/45/170.html>.

45. See *Criminal Prosecution Database*, *supra* note 31 (discussing *United States v. Ne. Util.*, 3:99CR211(RNC) (D. Conn. Sept. 27, 1999); *United States v. Bouchard Transp. Co., Inc.*, 1:04CR100087-MBB (D. Mass. 2005); *United States v. Hamilton Sundstrand Corp.*, 3:07CR23 (D. Conn. Feb. 8, 2007); *United States v. S. Union Co.*, 630 F.3d 17 (1st Cir. 2010); *United States v. Power Plant Mgmt. Serv.*, 3:16-CR-30021-MGM (D. Mass. filed Mar. 23, 2017)).

46. *Transportation Company Fined \$10 million for Buzzards Bay Oil Spill*, U.S. ENV’T PROT. AGENCY: ARCHIVE: NEWSROOM ARCHIVE (Dec. 1, 2004), https://www.epa.gov/archive/epapages/newsroom_archive/newsreleases/c89d633ed702742985257035004efcea.html.

47. *Bouchard Transportation Fined \$10 Million*, MARITIME EXEC. (Apr. 1, 2004), <https://www.maritime-executive.com/article/2004-04-01bouchard-transportation-fined-10-mill>.

48. *Criminal Prosecution Database*, *supra* note 31 (discussing *United States v. Bouchard Transp. Co., Inc.*, 1:04CR100087-MBB (D. Mass. filed Nov. 18, 2004)); Migratory Bird Treaty Act, 16 U.S.C. § 703. Bouchard was charged with one count of violation under this act.

was sentenced on September 21, 2005 to five months of incarceration.⁴⁹ Hamilton Sundstrand Corporation was prosecuted for knowingly discharging unanalyzed processed wastewater into the Farmington River at their Windsor Locks, Connecticut facility.⁵⁰ The company was charged with violations of the CWA.⁵¹ The company was sentenced on May 17, 2007 to 60 months of probation, a \$1 million federal fine, and \$11 million in restitution.⁵²

Southern Union Company was prosecuted for illegally storing liquid mercury without a permit at a site off Tidewater Street in Pawtucket, Rhode Island.⁵³ The company was charged under RCRA and sentenced on October 7, 2009 to 24 months of probation and a \$6 million fine.⁵⁴ Power Plant Management Services, LLC was prosecuted for tampering with air pollution monitoring devices.⁵⁵ Between 2009 and 2011 the company tampered with air pollution control devices and submitted false statements.⁵⁶ The company was charged under both the CAA and the Federal Power Act, making it the first criminal charges under these statutes. On March 23, 2017, the company was sentenced to pay \$2.75 million in criminal fines, to make a community service payment of \$750,000, and pay over \$3 million in civil penalties and disgorgements—for a total penalty exceeding \$7 million.⁵⁷

Table 3 provides context for the incarceration penalties in Figure 4 by providing examples of large incarceration sentences assessed to defendants.

49. The company had a track record of numerous environmental violations over time. Ken Schachter, *Barge Operator Bouchard Transportation Files for Chapter 11*, NEWSDAY: BUS. (Apr. 5, 2021), <https://www.newsday.com/business/bouchard-long-island-barge-tug-chapter-11-petroleum-nts-1.49927269>.

50. See *Criminal Prosecution Database*, *supra* note 31 (discussing *United States v. Hamilton Sundstrand Corp.*, 3:07CR23 (D. Conn. filed Feb. 8, 2007)).

51. *Hamilton Sundstrand to Pay \$12 Million for Illegal Dumping*, MANUFACTURING.NET: OPERATIONS (Feb. 8, 2007), <https://www.manufacturing.net/operations/news/13060769/hamilton-sundstrand-to-pay-12-million-for-illegal-dumping>.

52. Env't News Serv., *Aerospace Company Fined \$12 Million for Illegal Discharge*, WATER & WASTE DIGEST (Feb. 12, 2007), <https://www.wwdmag.com/aerospace-company-fined-12-million-illegal-discharge>.

53. See *Criminal Prosecution Database*, *supra* note 31 (discussing *United States v. S. Union Co.*, 630 F.3d 17 (D. R.I. 2010)).

54. On appeal the company's fine was reduced to \$0 and they were ordered to make a \$500,000 community service payment. *United States v. S. Union Co.*, 630 F.3d 17 (D. R.I. 2010). The company was fined \$6 million and ordered to pay \$12 million in community service payments. Press Release, U.S. Dep't of Just.: Off. Pub. Affairs, Southern Union Company is Penalized \$18 Million for Illegal Storing Mercury at Rhode Island Site (Oct. 2, 2009), <https://www.justice.gov/opa/pr/southern-union-company-penalized-18-million-illegally-storing-mercury-rhode-island-site>.

55. See *Criminal Prosecution Database*, *supra* note 31 (discussing *Power Plant Management Services, LLC*, D. Massachusetts 3:16-CR-30021-MGMm, 2017).

56. *Id.*

57. Press Release, U.S. Dep't of Justice: U.S. Attorney's Office, Dist. of Mass., Former Berkshire Power Manager Sentenced for Conspiring to Tamper with Air Pollution Monitors (May 31, 2017), <https://www.justice.gov/usao-ma/pr/former-berkshire-power-manager-sentenced-conspiring-tamper-air-pollution-monitors>.

Charles Arcangelo was prosecuted in Connecticut, along with his brother James Arcangelo and numerous co-defendants, for RICO violations related to illegal storage and disposal of hazardous wastes and a series of other crimes.⁵⁸ We estimate some 564 months of incarceration, the most punitive sentenced assessed to defendants in the data for the Arcangelo case.⁵⁹ Employees of Advanced Fluorinated Products, LLC, including Alfredo Vega Salazar, were prosecuted for the unlawful importation and sale of chlorofluorocarbon gases (CFCs) used as refrigerants and solvents.⁶⁰ The company avoided approximately \$24.5 million in federal excise and income taxes by perpetuating the conspiracy. We estimate individual defendants were cumulatively sentenced to 188 months of incarceration for the crime.

Year	Primary Defendant	State
1989	Charles Arcangelo	Connecticut
2003	Alfredo Vega Salazar	Connecticut
2003	Douglas E. Castle	Connecticut
2005	Louis L. Vinagro, Jr.	Rhode Island
2011	Albania Deleon	Massachusetts

Table 3. Large Incarceration Sentences Assessed to Defendants in Environmental Crime Prosecutions in New England.⁶¹

Douglas E. Castle was prosecuted in connection with the previously mentioned prosecution of Advanced Fluorinated Products. He was also prosecuted in connection with the case for wire fraud charges stemming from the creation of a fraudulent internet bank in Grenada.⁶² He was sentenced on

58. U.S. ENV'T PROT. AGENCY, *supra* note 2, at 87 (discussing *United States v. Arcangelo*, No. N-88-43TFGD (D. Conn. June 23, 1988)).

59. *Id.* at 86-87.

60. *See Criminal Prosecution Database, supra* note 31 (summarizing Alfredo Vega Salazar, D. Connecticut 3:01CR174CJD, 2003; *United States v. Advanced Fluorinated Products, Inc.*, No. 3:01CR174CJD (D. Conn. filed July 8, 2002)).

61. *See id.* (discussing *United States v. Arcangelo*, No. N-88-43TFGD (D. Conn. filed June 23, 1988); *United States v. Advanced Fluorinated Products, Inc.*, No. 3:01CR174CJD (D. Conn. filed July 8, 2002); *United States v. Vinagro*, P1/2002-3891A (D. R.I. filed Dec. 18, 2002); *United States v. Deleon*, 07-837-MBB (D. Mass. filed Mar. 12, 2008)).

62. Castle was prosecuted again in a later case and was sentenced to 50 months incarceration. Press Release, U.S. Dep't of Justice: U.S. Attorney's Office, Dist. of N.Y., Recidivist Fraudster Douglas E. Castle Sentenced to More than Four years in Prison for Defrauding Investors (Dec. 18, 2018), <https://www.justice.gov/usao-sdny/pr/recidivist-fraudster-douglas-e-castle-sentenced-more-four-years-prison-defrauding>.

June 25, 2003, to 34 months of incarceration, 36 months of probation, and ordered to pay \$1.2 million in restitution.⁶³ Louis L. Vinagro, Jr. was prosecuted for operating New England Ecological Development in Johnston, Rhode Island without proper environmental permits.⁶⁴ On September 19, 2003, the defendant was sentenced to 24 months of incarceration, 36 months of incarceration on a second count to be served concurrently, and \$1,368 in fines.⁶⁵ Albania Deleon was prosecuted for crimes related to her company, Environmental Compliance Training, in Methuen, Massachusetts. From 2001 to 2006, Deleon and her employees issued thousands of fraudulent training certificates to individuals that allowed them to engage in asbestos remediation without attending the course. Deleon was charged with false statements, mail fraud, conspiracy, and hiring undocumented immigrants.⁶⁶ On March 23, 2009, prior to sentencing Deleon fled to Santo Domingo, Dominican Republic. She was arrested and extradited to the United States on October 30, 2010, and sentenced on September 13, 2011 to: 87 months of incarceration, 36 months of probation, and ordered to pay over \$1.2 million in restitution to the U.S. Internal Revenue Service, and \$369,015 to AIM Mutual Insurance Company.⁶⁷

We conclude the analysis by offering a typology of environmental crimes occurring in New England, 1983–2019. In Figure 5, we organize each prosecution by what is, in our best judgment, the central crime in each case. We try to focus on developing common themes across prosecutions to show the dominant or primary themes that emerge from the data. By exploring the data in this manner, we hope to bring order and illustrate the most common themes in environmental crime prosecutions we see over 37 years in New England. Our analysis leads us to conclude that the vast majority of these prosecutions relate to four dominant themes: water pollution, hazardous waste, air pollution, and state-level crimes. We discuss these themes below and provide extensive cases to illustrate examples of these categories in the typology, as well as cases that did not fit into the Figure.

63. See *Criminal Prosecution Database*, *supra* note 31 (United States v. Advanced Fluorinated Products, Inc., No. 3:01CR174CJD (D. Conn.)).

64. See *id.* (summarizing United States v. Vinagro, P1/2002-3891A (D. R.I.)).

65. Vinagro Jr. had a colorful past with the EPA and Rhode Island politics. John Hill, *Passages: Johnston Pig Farmer and Recycler Louis Vinagro Jr. has Died*, PROVIDENCE J.: NEWS (Mar. 9, 2018), providencejournal.com/story/news/2018/03/09/passages-johnston-pig-farmer-and-recycler-louis-vinagro-jr-has-died/13216114007.

66. See *Criminal Prosecution Database*, *supra* note 31 (summarizing United States v. Deleon, 07-837-MBB (D. Mass. filed Mar. 12, 2008)).

67. See *id.* (collecting individual prosecutions in New England and sorting them typologically).

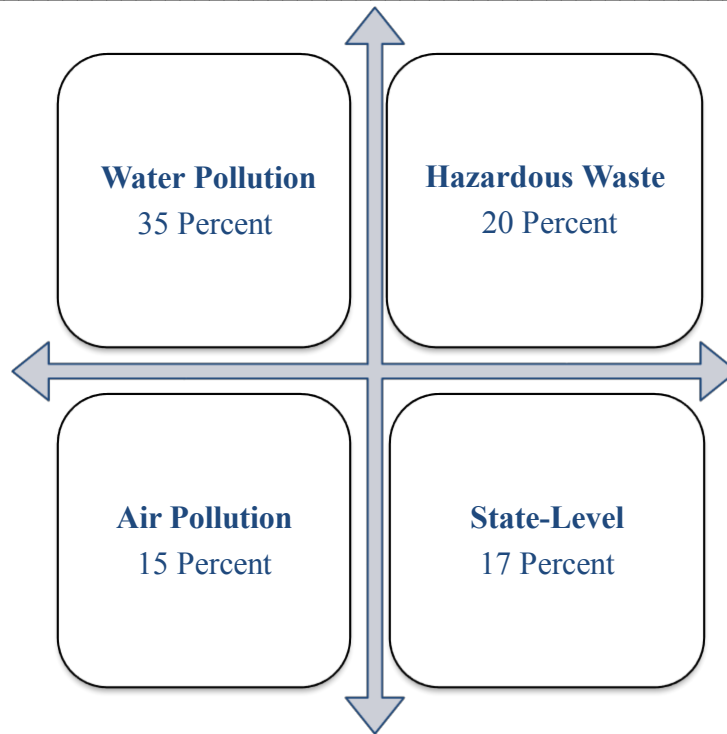


Figure 5. Typology of Environmental Crimes Prosecuted in New England.⁶⁸

Water pollution crimes are the most common environmental crimes that we found in the data. Forty-eight cases, or over a third of all the cases analyzed, centered on water pollution crimes. Water pollution crimes arise from illegal discharges into the waters of the United States and result in CWA violations. Other CWA violations include but are not limited to: illegal discharges from ships, issuing false statements on official documents, tampering with monitoring controls, and illegal alterations of waterways. We provide case examples with the prosecution of Borjohn Optical Technology, William McCarthy, Exxon Mobil, OMI Corporation, and Marathon Development Corporation.

Borjohn Optical Technology was a metal plating company located in Burlington, Massachusetts.⁶⁹ The company and its owner John Borowski were prosecuted for discharging toxic wastewater into a public sewer system,

68. Tim Smart, *The Crackdown on Crime in the Suites*, BLOOMBERG: NEWS (Apr. 22, 1991), <https://www.bloomberg.com/news/articles/1991-04-21/the-crackdown-on-crime-in-the-suites>.

69. *United States v. Borowski*, 977 F.2d 27, 29 (1st Cir. 1992).

violating pretreatment standards, and placing employees in imminent danger of death or serious bodily injury under the CWA.⁷⁰ Borjohn was sentenced on November 7, 1990, to a \$50,000 fine, \$400 special assessment, and to pay restitution to the health insurance companies of two previous employees in the amount of \$15,513.80.⁷¹ Borowski was sentenced to pay a \$400,000 fine, a \$100 special assessment, 26 months of incarceration, and 24 months of probation.⁷²

William McCarthy was prosecuted for fabricating water quality testing on numerous occasions while employed as the Senior Chemist for the City of Lawrence, Massachusetts's drinking water filtration plant.⁷³ McCarthy pled guilty to making false statements and was sentenced on August 15, 2000, to six months of home confinement, 18 months of probation, and \$15,300 in fees and assessments.⁷⁴ Exxon Mobil was prosecuted for negligently releasing 2,500 gallons of kerosene and 12,700 gallons of diesel fuel into the Mystic River near their Everett, Massachusetts terminal.⁷⁵ The company was charged under the CWA and sentenced on April 30, 2009 to 36 months of probation, and ordered to pay: \$179,509 to the Oil Spill Liability Trust Fund, \$359,018 in federal fines, and \$5.6 million in special projects.⁷⁶ The crew operating a vessel owned by OMI Corporation was using a bypass hose to discharge oily waste into the ocean, bypassing their pollution controls, and then making false entries in the ship's Oil Record Book.⁷⁷ In September 2001, while docked in Carteret, New Jersey, a member of the crew went to the local police department to report the crime.⁷⁸ The company was prosecuted under the Act to Prevent Pollution from Ships (APPS) with failure to maintain their Oil Record Book.⁷⁹ The company was ordered on August 6, 2004 to serve 36 months of probation and pay a \$4.2 million fine.⁸⁰ In the case, \$2.1 million was set aside for a bounty paid to the

70. See *Criminal Prosecution Database*, *supra* note 31 (referencing CR89-256-WD (D. Mass. 1991); showing the stiff penalty against the Borowski stemming from a knowingly endangering his employees).

71. *Id.*

72. See *id.* (summarizing Borjohn Optical Technology, D. Massachusetts CR89-256-WD, 1991).

73. See *id.* (summarizing William J. McCarthy, D. Massachusetts 99-10097-RCL, 2000).

74. *Id.*

75. See *id.* (summarizing Exxon Mobil D. Massachusetts 1:08 CR 10404-001 PBS, 2009).

76. Press Release, U.S. Dep't of Justice, *Tanker Firm Sentenced for Concealing Dumping of Waste Oil* (Aug. 6, 2004), https://www.justice.gov/archive/opa/pr/2004/August/04_enrd_546.htm.

77. *OMI to Pay \$4.2M for Waste Oil Dumping*, MAR. REP. & ENG'G NEWS: THE 2004 PROPULSION ANNUAL, 14 (Sept. 2004), <https://magazines.marinelink.com/nwm/MaritimeReporter/200409/>.

78. *Id.*

79. *Id.*

80. See *Criminal Prosecution Database*, *supra* note 31 (referencing United States v. OMI Corp. (2006) (2:04-cr-00060-KSH)); Act to Prevent Pollution from Ships 33 U.S.C. §§ 2101–2108 (1984).

whistleblower.⁸¹ Marathon Development Corporation was prosecuted for illegally filling in a wetland to build an access road for a mall and cinema at a 117 site in Seekonk, Massachusetts—without a proper permit from the Army Corp of Engineers.⁸² The company and its senior vice president, Terrence Geoghegan, were prosecuted under the CWA.⁸³ Marathon was sentenced on May 31, 1988 to pay a \$100,000 fine.⁸⁴ Geoghegan was sentenced to serve six months of incarceration (which was suspended), 12 months of probation, and ordered to pay a \$10,000 fine.⁸⁵

In 28 prosecutions, or 20 percent, the primary crime was related to hazardous waste.⁸⁶ These crimes typically involved illegal storage, transport, and/or disposal crimes prosecuted under RCRA.⁸⁷ Other crimes involved failure to notify charges under CERCLA or the illegal disposal of polychlorinated biphenyls under TSCA.⁸⁸ Below, we provide case examples detailing the prosecutions of Robert E. Derecktor, International Paper Company, Pollution Solutions of Vermont, and Donna M. Howe.

Robert E. Derecktor and his company, Robert E. Derecktor of Rhode Island, Inc., operated a shipyard for building and repairing vessels in Coddington Grove in Middletown, Rhode Island.⁸⁹ Transformers from the shipyard were found illegally buried and leaking PCBs on a farm in Portsmouth owned by Derecktor.⁹⁰ On December 29, 1986, the company was sentenced to pay a \$600,000 fine for violating the CWA, CAA, and CERCLA.⁹¹ Derecktor was sentenced to 60 months of probation and a \$75,000 fine.⁹² International Paper Company, located in Portland, Maine, was prosecuted for illegally storing and burning hazardous waste at the

81. United States v. Marathon Development Corp., 867 F.2d 96, 97 (1989).

82. See *Criminal Prosecution Database*, *supra* note 31 (searching for “Marathon Development Corporation” under Defendants).

83. Developing wetlands typically requires what is known as a 404 permit from the Army Corp. Prosecutors can charge offenders under the CWA for the offense., *Permit Program under CWA Section 404*, U.S. Env’t Prot. Agency: CWA 404 (Sept. 18, 4:49:00 PM) <https://www.epa.gov/cwa-404/permit-program-under-cwa-section-404>.

84. *Criminal Prosecution Database*, *supra* note 31.

85. *Id.*

86. *Id.*

87. *Id.*

88. *Derecktor of Rhode Island*, SHIPBUILDING HISTORY: INDEX TO U.S. SHIPBUILDERS & BOATBUILDERS (Sept. 30, 2020), <http://shipbuildinghistory.com/shipyards/small/derecktorri.htm>.

89. The manufacture of equipment containing PCBs was banned in most commercial applications by 1978 under the TSCA. The use of PCBs in power transformers was almost ubiquitous and prohibitively expensive to replace and were allowed to remain if inspected quarterly and with other conditions. Being ubiquitous and expensive to dispose of there were strong financial incentives for the illegal disposal. KEVIN MCCARTHY, OFFICE OF LEGIS. RSCH., 2000-R-1104, ELEC. TRANSFORMERS AND PCBs (2000), <https://www.cga.ct.gov/2000/rpt/2000-R-1104.htm>.

90. *Id.*

91. See *Criminal Prosecution Database*, *supra* note 31 (discussing the prosecution of Robert E. Derecktor, D. R.I. 86-022).

92. *Id.*

company's Androscoggin Mill without a permit and making false statements.⁹³ On March 7, 1991, the company was prosecuted under RCRA and sentenced to pay \$2.2 million in fines and a \$1,000 assessment.⁹⁴ Pollution Solutions of Vermont was prosecuted for illegal export of hazardous waste, illegal storage of hazardous waste, and false statements.⁹⁵ The company was charged with illegal transport under RCRA and sentenced on October 3, 1996, to 18 months of probation and ordered to pay a \$60,000 fine.⁹⁶ Pollution Solutions of Canada was sentenced to pay a \$60,200 fine.⁹⁷ Donna Howe, the office manager at Central Metal Finishing in Windham, New Hampshire, admitted to inspectors falsifying hazardous waste storage logs.⁹⁸ She originally lied to inspectors from the New Hampshire Department of Environmental Services (NHDES) during an inspection on December 10, 2012.⁹⁹ She was prosecuted for making false statements under RCRA and sentenced on December 20, 2012, to 12 months of probation and to pay a \$1,000 fine.¹⁰⁰

In 15 percent of cases, or 21 total prosecutions, we found air pollution crime to be the central theme in the cases.¹⁰¹ These crimes often related to one or more violations of the CAA: such as illegally selling, importing, or exporting restricted CFCs, issues related to asbestos such as illegal abatement, disposal, failure to train or protect workers, illegally certifying workers that were to perform asbestos removal, tampering with monitoring devices, falsifying reports, or unpermitted emissions at stationary sources.¹⁰² Below we provide examples illustrating the prosecution of Bridgeport Wrecking Company, George Haras, Melvin Weintraub, and Syntac Coated Products.

93. *See id.* (discussing the prosecution of Int'l Paper Co., D. Me. 91-00051-B).

94. *Id.*

95. *See id.* (discussing the prosecution of Pollution Solutions of Vt., D. Vt. 95 CR 121).

96. *Id.*

97. *Id.*

98. *See id.* (discussing the prosecution of Donna M. Howe, D. N.H. 12-CR-95-01-SM).

99. *Id.*

100. *Id.*

101. *Id.*

102. The majority of air pollution cases focus on asbestos issues. Asbestos is regulated as a hazardous air pollutant (HAP) and regulated under Asbestos National Emissions Standards for Hazardous Air Pollutants (NESHAP). These air toxics provisions of the CAA give EPA and DOJ prosecutors broad range to punish a variety of crimes related to asbestos in order to protect the public from exposure to air toxics regulated under these provisions. The broad public knowledge of asbestos dangers, physical evidence, and broad reach of the statutes likely explain why so many cases are prosecuted here. Nat'l Emissions Standards for Hazardous Air Pollutants, 40 C.F.R. §§ 61.140–61.157 (2022); The Clean Air Act, 42 U.S.C. §§ 1857–1857I (1967); *Overview of the Asbestos National Emissions Standards for Hazardous Air Pollutants (NESHAP)*, U.S. ENV'T PROT. AGENCY: ASBESTOS, (Feb. 9, 2022), <https://www.epa.gov/asbestos/overview-asbestos-national-emission-standards-hazardous-air-pollutants-neshap>.

Bridgeport Wrecking Company was contracted to demolish the Knudsen Dairy in North Haven, Connecticut.¹⁰³ The company and its president, Thomas Capozziello, were prosecuted for releasing asbestos during the demolition and failing to notify authorities of the release, as well as improper abatement of asbestos under the CAA.¹⁰⁴ On March 16, 1990, the company was sentenced to pay a \$40,000 fine on all three counts.¹⁰⁵ The company's fine runs concurrently to Capozziello's sentence to pay a \$10,000 fine, serve 36 months of probation, 12 months of incarceration (all but three months suspended), and pay a \$25 special assessment.¹⁰⁶ George Haras was prosecuted for illegally selling the refrigerant R-409A to more than 60 customers who thought it was R-12.¹⁰⁷ The former is not designed for air conditioners and caused approximately \$300,000 in damage.¹⁰⁸ Haras and Environmental Technologies were prosecuted for mail fraud.¹⁰⁹ On March 22, 2000, Haras was sentenced to 18 months of incarceration, 36 months of probation, and to pay restitution in the amount of \$278,963.¹¹⁰ The company was sentenced to 36 months of probation and to pay fines totaling \$176,013.¹¹¹

Melvin Weintraub was prosecuted for using untrained workers to illegally remove asbestos from an old YMCA building that was being converted to apartments in New Haven, Connecticut.¹¹² Weintraub and his co-defendants submitted false statements that the asbestos was legally disposed of when in fact they dumped it in garbage bags around town.¹¹³ On May 11, 2000, Weintraub was convicted under the CAA for asbestos violations and sentenced to 12 months of incarceration, ordered to pay \$6,534 in restitution, and a \$250,000 fine.¹¹⁴ John Bruce, owner of Environmental Training and Consulting in Vernon and Wallingford, Connecticut, was prosecuted for fraudulently selling asbestos training certificates without requiring individuals to undertake the training.¹¹⁵ He was charged under TSCA and sentenced to 24 months of probation and to pay an \$800 fine.¹¹⁶

103. *See Criminal Prosecution Database, supra* note 31 (discussing the prosecution of Bridgeport Wrecking Co., D. Conn. N-89-12-WWE).

104. *Id.*

105. *Id.*

106. *See id.* (referencing Bridgeport Wrecking Company, D. Connecticut N-89-12-WWE, 1990).

107. *See id.* (discussing the prosecution of George Haras, D. Mass. 99M0483RBC).

108. *Id.*

109. *Id.*

110. *Id.*

111. *See id.* (referencing George Haras a.k.a. George Harlambos, D. Massachusetts 99M0483RBC, 2000).

112. *See id.* (referencing N-97-4-58 (D. Conn. 2010)).

113. *See id.* (referencing Melvin Weintraub, D. Connecticut N-97-4-58, 2000).

114. *Id.*

115. *See id.* (referencing 309-CR00218-HBF (D. Conn. 2010)).

116. *See id.* (referencing John V. Bruce, D. Connecticut 309-CR00218-HBF, 2010).

Syntac Coated Products, located in Hartford, Connecticut, was prosecuted for using catalytic oxidizers to control its air emissions that were not functioning properly.¹¹⁷ Syntac Coated Products did not report the dysfunctional monitoring devices to regulators as required under the CAA.¹¹⁸ On January 19, 2017, the company was ordered to pay a \$200,000 fine and make a \$200,000 community service payment.¹¹⁹

While water, air, and hazardous waste crimes dominated our data, representing approximately 70 percent of the prosecutions in New England since 1983, 24 cases, or 17 percent of the prosecutions, focused on violations of state environmental laws.¹²⁰ These cases represent a range of environmental crimes prosecuted at the state level. The examples below include Stephen Carberry, Lake Regions Water Services Company, Segundo Apuango, Mark Whippie, and Robert Edward Brown.

Stephen Carberry was prosecuted in Rhode Island for storing reclaimed mercury when employed at the New England Gas Company in Pawtucket.¹²¹ At least ten pounds of mercury were spilled when individuals broke into the facility on October 18, 2004. However, the company had no record of how much was being illegally stored.¹²² The defendant was charged with state environmental violations and sentenced on February 6, 2007 to 24 months of probation and ordered to pay \$2,150 in state fines.¹²³ Lakes Region Water Services Company, a private water utility in Moultonborough, New Hampshire, was prosecuted for bringing a well online for the town of Tamworth, knowing the level of uranium exceeded permitted limits.¹²⁴ The company pled guilty to violating the New Hampshire Safe Drinking Water Act and was sentenced on September 8, 2009, to 36 months of probation and ordered to pay a \$100,000 fine.¹²⁵ Segundo Apuango was prosecuted for altering an asbestos training certificate submitted to the New Hampshire Department of Environmental Services.¹²⁶ He was charged with falsifying a document under the New Hampshire Asbestos Management and Control statute and was sentenced on January 12, 2011, to 105 days incarceration.¹²⁷

117. *See id.* (referencing 3:17CR10 (D. Conn. 2017)).

118. *Id.*

119. *See id.* (referencing Syntac Coated Products, LLC, D. Connecticut 3:17CR10, 2017).

120. *Id.*

121. *Arriaga v. New England Gas Company, Clean Harbors Environmental Services, Jason Smith & Stephen Carberry*, C.A. No. 06-45T, at 2 (D. R.I. 2007); *see also Criminal Prosecution Database, supra* note 31 (summarizing the criminal prosecution of Stephen Carberry).

122. *Criminal Prosecution Database, supra* note 31.

123. *See id.* (showing that Carberry was also sentenced to 100 days incarceration due to an unrelated probation violation).

124. *Rainville v. Lakes Region Water Co.*, 37 A.3d 403, 404 (N.H. 2012).

125. *Criminal Prosecution Database, supra* note 31.

126. *See id.* (referencing 217-2020-CR-01110 (D. N.H. 2011)).

127. *Id.*

Mark Whippie was prosecuted for taking drums of hazardous waste from his employer, the Timken Company's Keen, New Hampshire facility, in order to heat his barn.¹²⁸ He was prosecuted under state environmental statutes and sentenced on December 23, 2014, to pay a \$4,000 fine.¹²⁹ Robert Edward Brown was prosecuted in Vermont.¹³⁰ Brown operated a salvage yard in Moretown, Vermont, and in December 2008, instructed employees to crush containers of hazardous materials in a mobile car crusher.¹³¹ An inspection of the facility in November 2008 revealed he was illegally storing hazardous waste.¹³² Brown was charged with violating state environmental statutes and was sentenced on November 8, 2012, to 12 months of incarceration (suspended), 24 months of probation, and \$11,644 in fines.¹³³

The remaining 17 cases in our data, or 12 percent of total prosecutions, defy the four-part categorization in Figure 5.¹³⁴ In most cases, we had difficulty determining the primary crime from the case summary data with enough precision to classify the crime accordingly, or it did not fit any of these categories. In some instances, the primary crime was not environmental, but rather charges of fraud or false statements.¹³⁵ Some primary crimes involved pesticides or lead-based paint violations that collectively were not enough to generate a separate category in Figure 5.¹³⁶ These cases include the prosecutions of Ronald Charles Schonager, Sandra Rose Sattler, Josimar Ferreira, and Paul Ricco.

Ronald Charles Schonager was prosecuted for defrauding Connecticut school districts including Eaton, Manchester, and Bristol.¹³⁷ The defendant provided mold remediation using "Microbe Shield," a product that was not registered with the EPA—though defendants claimed as such.¹³⁸ Schonager was charged with mail and wire fraud and sentenced on July 31, 2009 to six months of home confinement, 60 months of probation, and 100 hours of community service.¹³⁹ Sandra Sattler was a supervisor for Carabetta Management Company in Meridian, Connecticut.¹⁴⁰ Sattler managed thousands of residential rental properties.¹⁴¹ In 2003, Sattler admitted that she and her employees failed to provide lead-based disclosure statements to

128. *Id.*

129. *Id.*

130. *Id.*

131. *Id.*

132. *Id.*

133. *Id.*

134. *Id.*

135. *Id.*

136. *Id.*

137. *See id.* (discussing Richard Charles Schongar, Connecticut 3:04M229 / 3:06-CR-00014).

138. *Id.*

139. *Id.*

140. *See id.* (discussing Sandra Rose Sattler 3:09CR278JGM (D. Conn. 2010)).

141. *Id.*

tenants at the Parkside and Oakland Gardens apartment complexes and falsified tenant signatures on forms submitted to the U.S. Department of Housing and Urban Development.¹⁴² Sattler was charged under the TSCA and was sentenced on March 4, 2010, to pay a \$2,500 fine.¹⁴³

Josimar Ferreira, owner of TVP Pest Control, Inc., was prosecuted for applying Malathion (a pesticide) in residences located around Everett, Massachusetts.¹⁴⁴ Malathion is dangerous when used indoors and not approved by EPA for that purpose.¹⁴⁵ The defendant was charged with violating FIFRA for using a registered pesticide in an off-label manner and making false statements.¹⁴⁶ He was sentenced on November 30, 2011 to 24 months of probation and a \$3,000 fine.¹⁴⁷ Paul Ricco was a Massachusetts state pesticide manufacturing facility investigator.¹⁴⁸ From March 2010 to May 2012, Ricco submitted 15 false reports of inspections never performed to the EPA.¹⁴⁹ On March 4, 2015, Ricco was sentenced to serve 24 months of probation and pay a \$1,500 special assessment.¹⁵⁰

CONCLUSION

Our analysis of environmental crime investigations and prosecutions in New England over 37 years shows a few clear themes. The first is that prosecutions were dominated by water pollution crimes, making up some 35 percent of total prosecutions. Adding air pollution and hazardous waste represents 70 percent of all prosecutions. The majority of these crimes can be categorized around: illegal discharges; asbestos crimes; and unpermitted storage, transport, or disposal of hazardous waste. The work of investigators and prosecutors over almost four decades centers around these core areas.

Our second finding is that a majority of cases end up centering on state-level offenses. Seventeen percent of all prosecutions are charged under state environmental statutes. This finding shows a significant amount of cooperation between state and federal agencies over time. The majority of these prosecutions occurred in New Hampshire. We found that about 58 percent of state prosecutions occurred in the state. We find few state-level prosecutions resulting from EPA–CID investigations in other states.

142. *Id.*

143. *Id.*

144. *See id.* (discussing Josimar Ferreira, D. Massachusetts 10-CR-10245, 2012).

145. *Id.*

146. *Id.*

147. *Id.*

148. *See id.* (discussing Paul J. Ricco, Massachusetts 14-CR-30040-MGM).

149. *Id.*

150. *Id.*

Specifically, we found one case in Connecticut, three in Massachusetts, five in Rhode Island, and one in Vermont.

Our third finding is that prosecution for environmental crimes is decidedly rare. There are certainly many state prosecutions that were undertaken independently of EPA–CID that fall outside the boundaries of our data. There may also be federal prosecutions EPA failed to include in their database. These issues aside, we found less than one prosecution annually, in all states but Connecticut. For example, in Maine, there is only one prosecution roughly every 7.4 years; in Vermont, there is only one prosecution every 4.1 years. If there is a deterrent value in federal environmental crime prosecutions this value may be decidedly low.

Our fourth finding is that while penalties may seem very high they are modest. Deducting the top monetary penalties levied against companies in Table 3 roughly halves the cumulative monetary penalties against companies. About 60 percent of incarcerations assessed to all defendants at sentencing is explained in the cases discussed in Table 4. Particularly, the prosecution of Charles Arcangelo makes up about a third of total prison time assessed to all defendants in our data. On this note, large penalty assessments against specific corporations or prison terms assessed to specific defendants on the whole are very infrequent in New England.

Per our findings, the EPA–CID focuses prosecutorial resources on cases of significant harm and/or culpable conduct. We do not suspect they expend limited resources on lesser offenses that could be handled through civil-judicial actions or other administrative remedies as a matter of organizational choice or patterned organizational behavior. The greatest weakness is that investigators and prosecutors must make choices about what to pursue under resource constraints. The prosecutors' choices sometimes result in complex investigations and prosecutions of corporations. However, these prosecutions oftentimes come from accidents, patterned behaviors, or the chance that they are alerted to potential crimes. Greater resources would come with enhanced criminal investigators and prosecutors. EPA–CID currently employs only 150 criminal investigators for the entire country.¹⁵¹ Raising these to the statutory minimum of 200 special agents would be a good start towards added policing resources, but it is still rather small given the broad and complex mandate they face.¹⁵²

With limited resources, we suggest community policing of large industrial facilities—particularly near environmental justice communities—may assist criminal investigators locate environmental crimes. One pattern was the small number of cases affecting large stationary sources of pollution.

151. PEER, *supra* note 22.

152. *See* Pollution Prosecution Act § 202(a)(5), 42 U.S.C. § 4321 (1990) (setting the statutory minimum at 200 investigative staff).

This pattern was true for water and hazardous waste pollution, but particularly for air pollution. The regulatory environment for industrial manufacturers is so complex, it is not surprising that we find few overall cases policing companies for unpermitted emissions, inoperative monitoring equipment, or false statements. In cases across environmental media, large facilities have numerous permits for various pieces of equipment which are permitted at different times. So investigations are not typically random and policing is very difficult. We suggest the EPA's Office of Environmental Justice consider providing additional small grants to help communities measure pollution—particularly those living near stationary sources of pollution—to offset a lack of criminal investigative staff.¹⁵³

Expanding criminal policing and prosecution of serious environmental offenses in New England requires a reconceptualization of white-collar crimes as serious crimes. Environmental crimes cause significant damage in society, but the public often fails to perceive them as damaging as street crime. This perception can change through greater media attention to environmental crimes and enhanced salience attached to state and federal law enforcement efforts. Without this perception change, the reach of what law enforcement can achieve will be limited. Thus there will be little reason for policymakers to appropriate funds for environmental crime enforcement, relative to other needs now and in the future.¹⁵⁴

153. OFF. CRIM. ENF'T, FORENSICS & TRAINING, U.S. ENV'T PROT. AGENCY, PUB. NO. 310-K-11-001, CRIMINAL ENFORCEMENT PROGRAM 6 (Oct. 2011), <https://19january2017snapshot.epa.gov/sites/production/files/documents/oceft-overview-2011.pdf> (resulting in 35 cases being opened, with six referred for successful prosecution in the first decade of the program's existence; this process could be expanded).

154. Melissa L. Jarrell, *Environmental Crime and Injustice: Media Coverage of a Landmark Environmental Crime Case*, 6 SW. J. OF CRIM. JUST. 25, 27 (2009).