

A KNOWING VIOLATION: EXPLORING THE HISTORY OF THE CRIMINAL ENFORCEMENT OF ENVIRONMENTAL LAW IN THE MIDWESTERN UNITED STATES

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Violations of state and federal environmental laws in the United States resulting in significant harm or particularly culpable conduct often require using criminal enforcement tools to ensure compliance and deter future offenses. However, there is generally little understanding of how criminal violations of environmental laws have been enforced in the Midwestern United States. This article analyzes historical charging and sentencing patterns, as well as illustrates the major themes that emerge in environmental crime prosecutions in twelve midwestern states: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. Through a content analysis of all 2,588 criminal prosecutions resulting from U.S. EPA criminal investigations conducted between 1983-2019, all 590 prosecutions occurring in these Midwestern states were selected for this analysis. Criminal prosecutions in these states broke down as follows: water pollution crimes (38%), air pollution crimes (19%), hazardous waste crimes (16%), and state-level crimes (14%). The monetary penalties assessed to all defendants at sentencing totaled \$3.3 billion, 1,618 years of probation, and roughly 688 years of incarceration. To conclude, this article offers suggestions for strengthening criminal enforcement in the region, including through additional resources for enforcement, additional public awareness, and community policing of industrial facilities.

INTRODUCTION

In his third week on the job at an Environmental Enterprises hazardous waste management facility in Spring Valley, Ohio, twenty-year-old Zachary Henzerling was killed after a flash fire erupted at the facility.¹ The explosion burned Henzerling so severely his father could barely recognize his son's

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¹ Jordan Barab, *A Company That Was Bound to Kill Someone*, INDUS. SAFETY & HEALTH NEWS (Jun. 17, 2017), <https://www.ishn.com/articles/106669-a-company-that-was-bound-to-kill-someone> [<https://perma.cc/G8R8-FSCK>].

charred body.² The subsequent investigation from the U.S. Occupational Safety and Health Administration (OSHA) revealed Zachary and a coworker were instructed to remove a metal frame from an oxygen generator's filters that were contaminated with sodium chlorate.³ When they failed to pry it open, they were given permission to use an electric reciprocating saw that sparked the fire that burned Henzerling to death.⁴ The company was charged with reckless homicide, a felony, that was reduced by plea agreement to negligent homicide, a misdemeanor; the charges against Henzerling's supervisor were dropped.⁵

I. CRIMINAL ENFORCEMENT OF ENVIRONMENTAL LAW

The prosecution of Environmental Enterprises shows the importance of using criminal enforcement tools to investigate and prosecute environmental violations resulting in significant harm and particularly culpable conduct.⁶ Despite the necessity of criminal enforcement for ensuring environmental laws function properly, little is known about criminal enforcement in the United States, particularly in the Midwest.⁷ We address this gap by examining all criminal prosecutions resulting from the U.S. Environmental Protection Agencies' (EPA) criminal investigations in the following states from 1983 to 2019: Indiana, Illinois, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. Through a content analysis of these prosecution summaries, we were able to explore the various charging and sentencing patterns in each state over the course of nearly four decades. Additionally, the data allows us to better

² *Id.*

³ Accident Investigation Report: Environmental Enterprises, Inc., U.S. OCCUPATIONAL SAFETY & HEALTH ADMIN., (closed Apr. 11, 2016), https://www.osha.gov/pls/imis/establishment.inspection_detail?id=808301.015 [<https://perma.cc/P7HT-BNN2>].

⁴ *Id.*

⁵ The company pleaded guilty to negligent homicide on May 31, 2017 and was fined just \$5,000. *Summary of Criminal Prosecutions: Environmental Enterprises, Inc.*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search name "Enterprises" state "Ohio" and fiscal year "2017") [<https://perma.cc/5N9L-7679>]; see also Paul Rodzinka, *Ohio Company Pleads No Contest to Charge in Employee's Death*, WDTN (Jun. 1, 2017), <https://www.wdtn.com/news/ohio-company-pleads-no-contest-to-charge-in-employees-death/> [<https://perma.cc/EK22-9KYW>].

⁶ Memorandum from Earl E. Devaney, Director, U.S. Env't Prot. Agency, Off. Crim. Enf't, at 3 (Jan. 12, 1994) [<https://perma.cc/GVV4-VRZX>].

⁷ Few studies examine the sentencing and punishment of environmental offenders. See, e.g., Joshua Ozymy & Melissa L. Jarrell, Comment, *EPA's Criminal Prosecution and Punishment of Environmental Crimes*, 50 ENV'T L. REP. 10452, 10452-10458 (2020); Michael J. Lynch, *The Sentencing/Punishment of Federal Environmental/Green Offenders, 2000-2013*, 38 DEVIANT BEHAV. 991, 991-995 (2017).

understand the broader themes in the types of environmental crimes that have occurred in these areas and how criminal enforcement tools were applied to investigate and punish the offenders.

A. Federal Enforcement Institutions

Tools to investigate and prosecute federal environmental crimes in the United States have been taking shape since the late 19th century. The first misdemeanor penalties for federal environmental crimes were codified via the Rivers and Harbors Act of 1899 and Lacey Act of 1900.⁸ These acts made it illegal to obstruct, alter, or discharge waste into navigable waters of the United States, and to conduct or participate in the interstate trade of wildlife without a permit. Soon after in 1909, the Public Lands Division of the Department of Justice (DOJ) was founded, later becoming DOJ's Environment and Natural Resources Division (ENRD).⁹

While the 1970s saw major expansions of federal environmental statutes, felony provisions were not included in federal environmental laws until the Hazardous and Solid Waste amendments to the Resources Conservation and Recovery Act (RCRA) in 1984.¹⁰ Today, most major federal environmental statutes contain felony penalties, including the Clean Air Act (CAA); Clean Water Act (CWA); Toxic Substances Control Act (TSCA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); and the Federal Insecticide, Fungicide and Rodenticide Acts (FIFRA).¹¹ The

⁸ Rivers and Harbors Act of 1899, 33 U.S.C. § 403; Lacey Act, 16 U.S.C. § 3371 (1900).

⁹ *History, Environment and Natural Resources Division*, U.S. DEP'T JUST., <https://www.justice.gov/enrd/history> [<https://perma.cc/5VRN-UE8J>]; *see also Historical Development of Environmental Criminal Law*, U.S. DEP'T JUST., <https://www.justice.gov/enrd/about-division/historical-development-environmental-criminal-law> [<https://perma.cc/2H9X-BK3D>].

¹⁰ Resource Conservation and Recovery Act, 42 U.S.C. § 6901 (1976). Prior to these changes, it was difficult to hold corporate officers accountable for knowing violations of federal environmental law under RCRA. *See* David T. Barton, *Corporate Officer Liability Under RCRA: Stringent but Not Strict*, 1991 BYU L. REV. 1547, 1548-1550.

¹¹ Clean Water Act, 33 U.S.C. § 1251 (1972); Clean Air Act, 42 U.S.C. § 7401 (1970); Toxic Substances Control Act, 53 U.S.C. § 2601 (1976); Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. § 136 (1972); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9601 (1980). The movement towards greater penalties for environmental harm in the 1980s was part of a broader global movement. *See* Michael R. Pendleton, *Beyond the Threshold: The Criminalization of Logging*, 10 SOC'Y & NAT. RES. 181, 191-193. *See generally Criminal Provisions of the Resource Conservation and Recovery Act (RCRA)*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/enforcement/criminal-provisions-resource-conservation-and-recovery-act-rcra> [<https://perma.cc/5N8E-TH8B>]; *Criminal Provisions of the Clean Air Act*,

DOJ's Environmental Crime Section (ECS) was founded within ENRD in 1982 and became its own unit in 1987, along with the Environmental Enforcement Section (EES), which handles civil-judicial cases.¹² DOJ-ECS currently employs forty-three specialized attorneys and a dozen support staff to prosecute environmental crimes.¹³

B. Criminal Investigations

Investigative tools to police criminal violations of environmental law were institutionalized at the EPA in 1981 with the founding of the Office of Enforcement, later changed to the Office of Enforcement and Compliance Assurance (OECA).¹⁴ EPA criminal investigators, also referred to as "1811's," or "special agents," were hired the following year and deputized as Special Deputy U.S. Marshals until they were granted full law enforcement powers by Congress in 1988.¹⁵

Today, EPA's Criminal Investigation Division (EPA-CID) employs approximately 145 criminal investigators.¹⁶ These investigators work with other federal and state agencies to build criminal cases based on information referred to them by civil inspectors, formal documents, other agencies, or former employees of companies.¹⁷ Historically, investigators have had a fairly high degree of freedom when pursuing cases and, when they feel there is sufficient evidence, will typically approach attorneys in DOJ-ECS or the

U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/enforcement/criminal-provisions-clean-air-act> [<https://perma.cc/L2Y4-VRAS>].

¹² *Environmental Enforcement Section (EES): An Overview of Our Practice*, U.S. DEP'T JUST., <https://www.justice.gov/enrd/overview-our-practice> [<https://perma.cc/MHE6-ADCC>]; *Historical Development of Environmental Criminal Law*, *supra* note 9.

¹³ *See Environmental Crimes Section*, U.S. DEP'T JUST., <https://justice.gov/enrd/environmental-crimes-section> [<https://perma.cc/K4FK-SBVC>].

¹⁴ *About the Office of Enforcement and Compliance Assurance (OECA)*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/aboutepa/about-office-enforcement-and-compliance-assurance-oeca> [<https://perma.cc/2GN4-2B7E>].

¹⁵ U.S. ENV'T PROT. AGENCY, MANAGEMENT REVIEW OF THE OFFICE OF CRIMINAL ENFORCEMENT, FORENSICS AND TRAINING 7 (2003) [<https://perma.cc/GX6M-HHVT>].

¹⁶ Depending on whether one counts criminal investigators specifically and/or support staff, this number varies between 145 and 200 based on the source. *See* PUBLIC EMP. FOR ENV'T RESPONSIBILITY, EPA CID AGENT COUNT (Nov. 21, 2019) [<https://perma.cc/E67Y-X8CX>]. *See also America's Environmental Crime Fighters*, U.S. ENV'T PROT. AGENCY CRIM. ENF'T PROGRAM [<https://perma.cc/T3T5-XHWL>].

¹⁷ Joel A. Mintz, "Treading Water": A Preliminary Assessment of EPA Enforcement During the Bush II Administration, 34 ENV'T L. REP. 10912 (2004).

U.S. Attorney's Office to either file information in the appropriate district court or convene a grand jury.¹⁸

Unlike in civil enforcement, criminal cases rest on a stricter standard of guilt, requiring certainty beyond a reasonable doubt that a defendant committed the crime for which they are being charged.¹⁹ Due to their limited resources, pursuing criminal prosecution is a costly endeavor for EPA-CID and DOJ-ECS, meaning most environmental violations are settled through civil methods.²⁰ Research suggests EPA-CID investigations have only resulted in around 2,600 prosecutions since 1983.²¹ The goal of criminal enforcement is not to gain compliance, but to instead deter future offenders and enforce sufficient punishments for the negligent and knowing violations of environmental law.²² Furthermore, the organizational culture of federal environmental law enforcement agencies is decidedly deterrence-based,²³ meaning the punishment for violating a statute must outweigh the benefits.²⁴ Essentially, deterrence requires a sufficient police presence from EPA-CID to discover these crimes and a team at DOJ-ECS to prosecute the offenders. Whether these agencies adequately deter environmental crimes in the

¹⁸ Joel A. Mintz, *Some Thoughts on the Interdisciplinary Aspects of Environmental Enforcement*, 36 ENV'T L. REP. 10495 (2006).

¹⁹ When Congress upgraded misdemeanor penalties to felonies under the CWA in 1987 and CAA in 1990, it gave prosecutors a wide berth to pursue what used to be misdemeanor or civil issues as well as potential criminal ones. This brings into question the need to show *mens rea* and whether it was fair and just to allow prosecutors to use the law in such a manner. For key arguments in the debate see Richard J. Lazarus, *Assimilating Environmental Protection into Legal Rules and the Problem with Environmental Crime*, 27 LOY. L.A. L. REV. 867, 867-870 (1994); KATHLEEN F. BRICKEY, ENVIRONMENTAL CRIME: LAW, POLICY, PROSECUTION 9 (New York: Aspen Publishers 2008).

²⁰ 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).

²¹ Joshua Ozymy, Bryan Menard & Melissa L. Jarrell, *Persistence or Partisanship: Exploring the Relationship Between Presidential Administrations and Criminal Enforcement by the U.S. Environmental Protection Agency, 1983-2019*, Forthcoming in PUB. ADMIN. REV.

²² MANAGEMENT REVIEW OF THE OFFICE OF CRIMINAL ENFORCEMENT, FORENSICS AND TRAINING, *supra* note 15.

²³ *Id.* 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)").

²⁴ Gary Becker, *Crime & Punishment: An Economic Approach*, 76 J. POL. ECON. 169, 183 (1968); Richard A. Posner, *An Economic Theory of the Criminal Law*, 85 COLUM. L. REV. 1193, 1193-1200 (1985).

Midwest is unknown.²⁵ The following analysis aims to provide a better understanding of these investigations and prosecutions in order to comprehend the types of crimes occurring in the Midwest region, how different federal charging statutes are used, and the corresponding penalties assessed.

II. MIDWESTERN ENVIRONMENTAL PROSECUTIONS

The data analyzed for this article was drawn from EPA's *Summary of Criminal Prosecutions* database.²⁶ This database contains case summaries for all EPA-CID criminal investigations and related prosecutions occurring from fiscal year (FY) 1983 through FY 2021. A total of 2,588 cases were gathered for our dataset from FY 1983 through FY 2019. We then selected all prosecutions for the Midwest based on the U.S. Census Bureau's definition of the region as: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.²⁷ Within these twelve states, our analysis yielded 580 total prosecutions during this almost four-decade period.

A. Dataset Construction and Analysis

When constructing our dataset for the analysis, we coded the following variables: brief; narrative summary of each case; docket number; state identifier; EPA fiscal year identifier; major federal environmental statutes used to charge defendants in the case; total number of defendants listed in the case; presence of at least one company/corporation as a defendant in the case; and non-environmental charges, such as false statements, obstruction, fraud, and conspiracy. We measured penalties by aggregating them across all individual and company/corporate defendants in each prosecution. Monetary penalties included all penalties in nominal dollars, such as special fees, restitution, required environmental projects, fines, or any other listed

²⁵ Analysis of criminal sanctioning of environmental offenders in the region is virtually non-existent. For key studies that examine sanctioning see Kathleen F. Brickey, *Charging Practices in Hazardous Waste Crime Prosecutions*, 62 OHIO STATE L. J. 1077 (2001); David M. Uhlmann, *Prosecutorial Discretion & Environmental Crime*, 38 HARV. ENV'T L. REV. 159 (2014); Mathew J. Griefe et al., *Corporate Environmental Crime & Environmental Justice*, 28 CRIM. JUST. POL'Y REV. 327 (2017); Matthew J. Griefe & Michael O. Maume, *Do Companies Pay the Price for Environmental Crimes? Consequences of Criminal Penalties on Corporate Offenders*, 73 CRIME, L. & SOC. CHANGE 337.

²⁶ *Summary of Criminal Prosecutions*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/enforcement/summary-criminal-prosecutions> [<https://perma.cc/JCF6-5VGV>].

²⁷ *Census Regions and Divisions of the United States*, U.S. CENSUS BUREAU [<https://perma.cc/X674-7CRR>].

assessments. Probation and incarceration were measured in total months. Community service was measured in total hours. Because we needed a common denominator for all the data, we gathered directly from the prosecution summaries and did not seek to correct or verify data by scouring the web or other legal sources. EPA's potential errors when entering the data in the database would be generally unknown to us, as is the role of the defense, prosecutors, or other actors in a case.

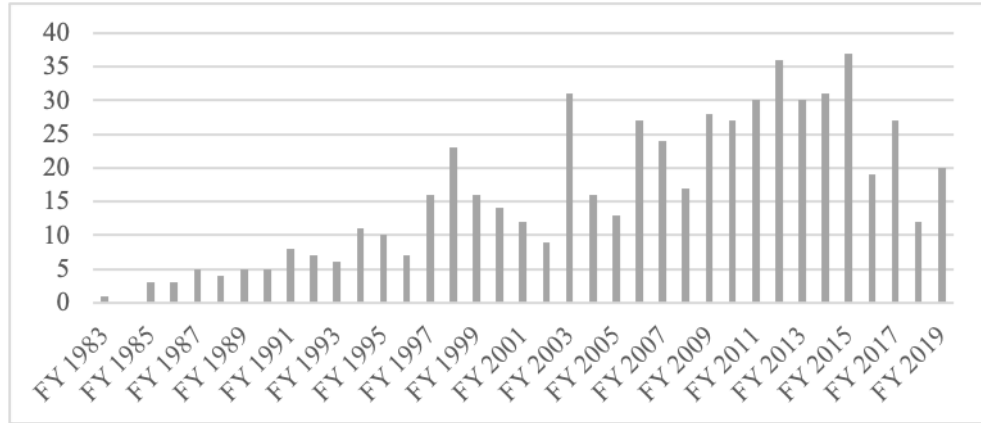
These limitations do not affect this analysis, nor do they impinge on this article's intent to show the broader charging, sentencing, and crime patterns over time. Two independent coders used content analysis to code the data through FY 2019. Once patterns in the data began to emerge and inter-coder reliability reached 90%, we moved forward with the analysis. Along with the two independent coders, the lead author reviewed each case for discrepancies and then met with the coders to find consensus on differing values. Most different values the coders derived from the data came from complex sentencing information involving multiple defendants. The total inter-coder ability was about 95% for the entire analysis.²⁸

B. Prosecution Charging Patterns

Figures 1 and 2 below explore the prosecutions identified across all Midwestern states from 1983-2019, first by FY and then by state. One prosecution was adjudicated in FY 1983, five in FY 1987, and twenty-one by the end of the decade. These numbers increased markedly in the 1990s. By FY 1998, twenty-three prosecutions had been adjudicated, and 109 cases were adjudicated by the end of the decade. Numbers rose again in the 2000s to 191 adjudications from FY 2000-09, and 269 from FY 2010-19. By 2019, a total of 590 cases had been adjudicated with an annual average of about 16 per FY.

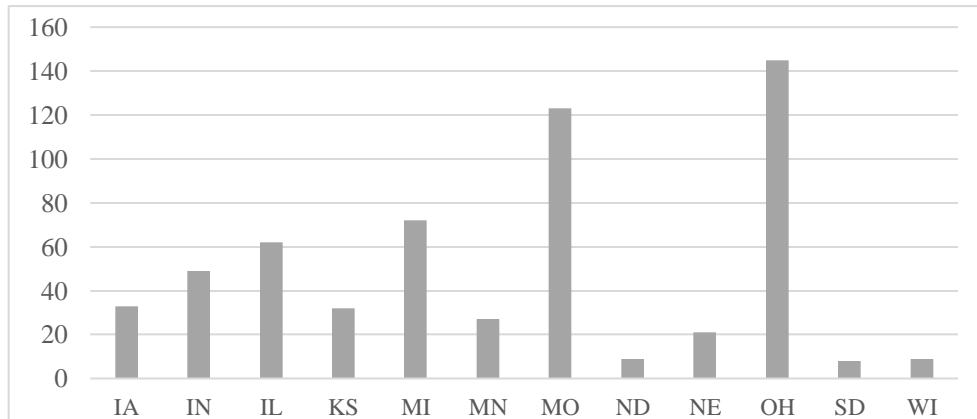
²⁸ OLE R. HOLSTI, *CONTENT ANALYSIS FOR THE SOCIAL SCIENCES AND HUMANITIES* 140 (Addison Wesley, 1969); EARL R. BABBIE, *THE PRACTICE OF SOCIAL RESEARCH* (Wadsworth Publishing, 2012).

Figure 1. Environmental Crime Prosecutions in the Midwestern States by EPA Fiscal Year (FY).



Source: EPA Summary of Criminal Prosecutions Database

Figure 2. Environmental Crime Prosecutions in the Midwest by U.S. State.



Source: EPA Summary of Criminal Prosecutions Database

In Figure 2 above, we examine the total annual environmental crime prosecutions in the Midwest by state from 1983-2019. During this period, most cases were adjudicated in Ohio (145), compared to the other eleven states. A total of 123 cases were adjudicated in Missouri, 72 in Michigan, and 62 in Illinois. In the mid-range for total cases adjudicated over the 37 years in our data were Kansas (33), Iowa (33), Indiana (49), Minnesota (27), and Nebraska (21). North Dakota (8), South Dakota (8), and Wisconsin (9).

The next set of data, seen below in Table 1, explores charging patterns for major federal environmental statutes across the Midwest from 1983-2019. While defendants can be charged under multiple statutes in each case, this data gives an idea of the prevalent charging patterns we see within and across

the states. In this data, we found the CWA to be the most prevalent charging statute. In 198 cases, at least one defendant was charged under the Act with a federal environmental crime. In ninety-six cases, at least one defendant was charged under the CAA, making it the second most prevalent charging statute used. RCRA was used seventy-eight times to charge at least one defendant in a case. TSCA (twenty-four cases) and FIFRA (twenty-seven cases) were used less-frequently. In eighty-two cases, we found at least one defendant charged under state-level environmental statutes. This number shows that quite a few (i.e. about 14%) cases were deferred for state prosecution and demonstrates a high level of formal collaboration between state and federal investigators and/or prosecutors.

Table 1. Charging Patterns in Environmental Crime Prosecutions in the Midwestern States, 1983-2019.

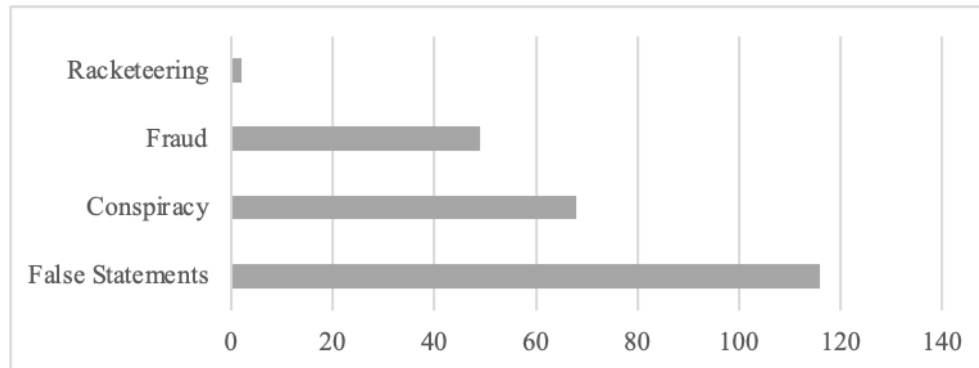
<u>State</u>	<u>CWA</u>	<u>CAA</u>	<u>RCRA</u>	<u>TSCA</u>	<u>FIFRA</u>	<u>State-Level</u>
IA	12	3	6	0	0	9
IN	23	8	6	0	4	4
IL	15	9	7	1	4	13
KS	10	2	9	1	1	1
MI	5	21	18	3	2	7
MN	15	3	5	0	1	0
MO	48	18	18	10	8	7
ND	4	1	1	0	0	0
NE	6	2	1	2	3	2
OH	54	25	6	6	4	37
SD	5	0	0	0	0	1
WI	1	4	1	1	0	1

Source: EPA Summary of Criminal Prosecutions Database

The next figure, Figure 3, shows criminal charging patterns for non-environmental, criminal offenses. In many cases, at least one individual or company was charged with a non-environmental crime either exclusively or in conjunction with a state and/or federal violation. We cataloged 207 cases,

or about 35% of all prosecutions in our dataset, as containing at least one non-environmental criminal charge such as false statements, obstruction, fraud, or racketeering.

Figure 3. Common Criminal Charges in Environmental Crime Prosecutions in the Midwestern States, 1983-2019.



Source: EPA Summary of Criminal Prosecutions Database

The most prevalent non-environmental offenses were giving false statements or falsifying records, conspiracy, fraud, and racketeering. In 116 cases, or 20% of all cases, at least one defendant was charged with false statements. Conspiracy was the second most prevalent non-environmental charge in our data and comprised 12% of cases, or sixty-eight prosecutions. Fraud was the third most prevalent non-environmental criminal charge in our data. In forty-nine cases, or 8% of our data, at least one defendant was charged with fraud. In two cases, defendants were charged with racketeering after participating in organized criminal activities.

C. Criminal Penalty Assessment

In Figure 4, *infra*, we explore the aggregate total penalties assessed to all individuals and company defendants. Aggregating all monetary penalties (fines, restitution, special fees, community payments, supplemental environmental projects, and other fees), we estimate that individual defendants were assessed a combined \$216,378,429 over the thirty-seven-year period analyzed. Further, companies were collectively assessed over \$3.1 billion in monetary penalties. Total probation assessed to all individual defendants was 14,606 months while 4,805 months of probation were assessed to companies. Individuals were assessed a total of 8,255 months of incarceration at sentencing as well as 20,634 hours of community service.²⁹

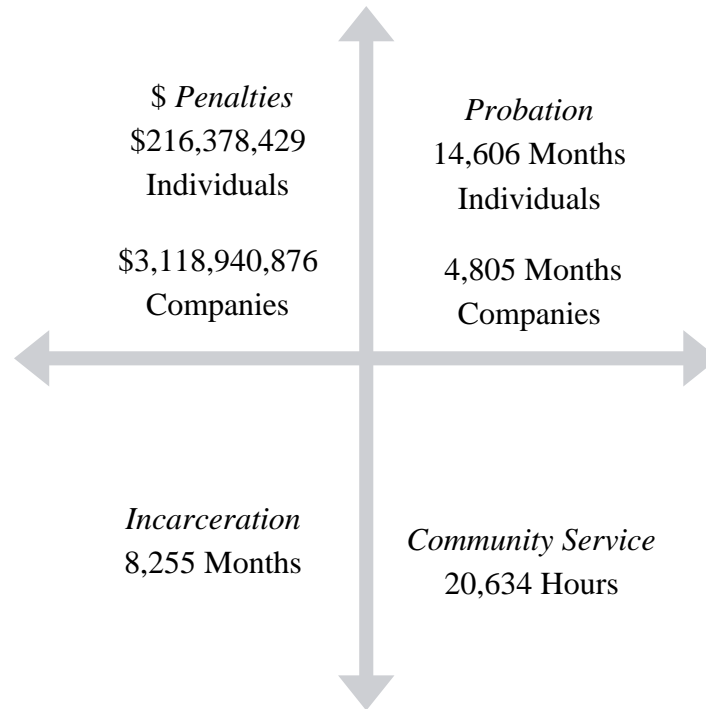
²⁹ Five cases represent 5,308 hours of community service, or about 25% of all community service hours assessed to defendants in our dataset. Executive Advertising was

Across all defendants, the data shows some \$3.3 billion in monetary penalties and 2,306 total years of probation and incarceration assessed at sentencing.³⁰ Some of the larger outlier cases will be discussed in later sections to place these figures into context.

prosecuted under RCRA for illegally storing hazardous waste in an abandoned warehouse. *Summary of Criminal Prosecutions: Executive Advertising*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/73VC-Z7Y2>] (search name "Executive Advertising," state "Michigan," and fiscal year "1986"). The Finishing Corporation of America was prosecuted under the CWA for illegally discharging into a POTW. *Summary of Criminal Prosecutions: Finishing Corporation*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/5DKK-8T4H>] (search name "Finishing Corporation," state "Ohio," and fiscal year "1991"). William N. Bogas, commissioner at the Cleveland Hopkins Airport, was charged with false statements and both RCRA and CERCLA violations pertaining to the storage, disposal, and treatment of hazardous waste at the facility. *Summary of Criminal Prosecutions: William N. Bogas*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/38BP-TGX8>] (search name "Bogas," state "Ohio," and fiscal year "1991"). James Michael Dolmetsch was charged with conspiracy and smuggling of CFC-12 into the United States from Canada. *Summary of Criminal Prosecutions: James Michael Dolmetsch*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/Y8QV-GPQD>] (search name "Dolmetsch," state "Michigan," and fiscal year "2003"). Carl Wolf was prosecuted for making false statements regarding the discharge of industrial wastewater. *Summary of Criminal Prosecutions: Carl Wolf*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/6Y2W-YJ9V>] (search name "Wolf," state "Ohio," and fiscal year "2013").

³⁰ A few prosecutions greatly impact aggregate incarceration totals. Marc Anthony Dorner and eight co-defendants were prosecuted for manufacturing methamphetamines and illegal disposal of hazardous waste without a permit. *Summary of Criminal Prosecutions: Marc Anthony Dorner*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/9H4R-7Y83>] (search name "Dorner," state "Missouri," and fiscal year "2001"). Arnoldo Carrillo Bazan was prosecuted for tampering with consumer products when he intentionally poisoned patrons at an Overland Park, Kansas restaurant. *Summary of Criminal Prosecutions: Arnoldo Carrillo Bazan*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/B652-EA2H>] (search name "Bazan," state "Kansas," and fiscal year "2011"). Darrell Dwayne Smith was prosecuted for wire fraud and aggravated identity theft in conjunction with a fraudulent bio-energy company he created. *Summary of Criminal Prosecutions: Darrell Dwayne Smith*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/M7ZH-26AQ>] (search name "Smith," state "Iowa," and fiscal year "2019"). Kwame Kilpatrick, the former mayor of Detroit, Michigan, was prosecuted for racketeering, extortion, fraud, and tax crimes. *Summary of Criminal Prosecutions: Kwame Kilpatrick*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/B652-EA2H>] (search name "Kilpatrick," state "Michigan," and fiscal year "2014"). These cases collectively account for 2,142 months of incarceration, or about 28% of all incarceration assessed to defendants as sentencing in our dataset. Probation totals were more widely dispersed.

Figure 4. Total Penalties Assessed in Environmental Crime Prosecutions in the Midwestern States, 1983-2019.



Source: EPA Summary of Criminal Prosecutions Database

To provide context for the \$3.1 billion in monetary penalties assessed to companies, Table 2 below shows the companies with the largest monetary penalty at sentencing and the year in which they received that penalty. The largest environmental fine assessed in a criminal prosecution was against Volkswagen AG in 2017. This case included a criminal conspiracy to cheat U.S. emissions testing equipment into certifying clean diesel cars. This extensive fraud involved installing software into vehicles to first recognize when they were receiving emissions testing and then alter systems in the car to present a much higher mileage per gallon than the car could obtain in real-world driving conditions.³¹ The financial success of these high mileage diesel cars was dependent on this scheme through which the company subsequently defrauded hundreds of thousands of U.S. consumers.³²

³¹ *Volkswagen AG Agrees to Plead Guilty and Pay \$4.3 Billion in Criminal and Civil Penalties; Six Volkswagen Executives and Employees are Indicted in Connection with Conspiracy to Cheat U.S. Emissions Tests*, U.S. DEP'T JUST. (Jan. 11, 2017), <https://www.justice.gov/opa/pr/volkswagen-ag-agrees-plead-guilty-and-pay-43-billion-criminal-and-civil-penalties-six> [https://perma.cc/764H-6PUS].

³² Executives were also charged and ended up on the EPA's Most Wanted List. EPA

Volkswagen pled guilty on March 10, 2017, to conspiracy to defraud the United States, wire fraud, violations of the CAA, obstruction of justice, and importation of merchandise by means of false statements. Sentenced to pay a \$2.8 billion criminal penalty on April 21, 2017,³³ Volkswagen had previously reached a civil settlement with EPA, other federal agencies, and the State of California for some \$14.7 billion in damages.³⁴ Removing this fine alone from the data lowers our total fines assessed to companies to a little under \$294 million. In addition, German company IAV GmbH aided Volkswagen in their conspiracy and was sentenced to pay a \$35 million criminal penalty for their role in the scheme on May 22, 2019.³⁵

Table 2. Large Monetary Penalties Assessed to Companies in Environmental Crime Prosecutions in the Midwestern States.

<i>Year</i>	<i>Company</i>	<i>State</i>
2011	Honeywell Metropolis Works	IL
2012	Scotts Miracle-Gro Company	OH
2013	Wal-Mart Missouri	MO
2017	Volkswagen AG	MI
2019	IAV GmbH	MI

Source: EPA Summary of Criminal Prosecutions Database.

Fugitives, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/enforcement/epa-fugitives> [<https://perma.cc/2J3V-7Z57>].

³³ *Summary of Criminal Prosecutions: Volkswagen*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/3QHB-V364>] (search name "Volkswagen," state "Michigan," and fiscal year "2017"). Volkswagen's fine represents the largest criminal fine assessed to any environmental offender in U.S. history, absent the fine against BP in the Deepwater Horizon disaster where the company was ordered to pay \$4 billion in criminal fines. *See Summary of Criminal Prosecutions: BP Exploration*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?action=3&prosecution_summary_id=2468 [<https://perma.cc/Q63M-2YKC>].

³⁴ Paul A. Eisenstein, *Volkswagen Slapped with Largest Ever Fine for Automakers*, NBC NEWS (Apr. 21, 2017), <https://www.nbcnews.com/business/autos/judge-approves-largest-fine-u-s-history-volkswagen-n749406> [<https://perma.cc/K5HX-NUAU>].

³⁵ *Summary of Criminal Prosecutions: IAV GmbH*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/NQ8N-VULV>] (search name "IAV," state "Michigan," and fiscal year "2019"). A series of executives were also charged in the Volkswagen case. Six German nationals and one Italian national are currently on the EPA's Most Wanted List in connection with the case. *See EPA Fugitives*, *supra* note 32.

Wal-Mart Missouri paid the second highest fine in our data (more than \$110 million) for failing to have a hazardous waste training program in place and for failing to train its employees in proper disposal practices.³⁶ As a result, hazardous wastes were routinely disposed of in trash municipal sewers, or sent to a variety of six different product return centers throughout the United States.³⁷ The third highest fine in our data was assessed to Scotts Miracle-Gro Company, prosecuted for selling more than 70 million units of bird food that had been illegally treated with a pesticide toxic to birds.³⁸ Scotts was charged under FIFRA and ordered to pay \$4 million in criminal fines and \$500,000 to organizations that protect bird habitats.³⁹ The company also settled with EPA in a civil agreement to pay \$6 million in penalties and \$2 million to fund environmental projects.⁴⁰

The final and fourth highest fine was assigned to Honeywell Metropolis Works, a company that owns the only uranium hexafluoride conversion facility in the United States. Located in Massac County, Illinois, EPA Special Agents executed a search warrant in April 2009 and found approximately 7,500 illegally stored barrels of hazardous and radioactive wastes at the facility. The company was charged under RCRA for illegally storing hazardous waste without a permit and sentenced on March 11, 2011 to pay a \$11.8 million fine. Additionally, the company was ordered to implement a household hazardous waste collection program costing approximately \$200,000.⁴¹

³⁶ *Wal-Mart Pleads Guilty to Federal Environmental Crimes, Admits Civil Violations and Will Pay More Than \$81 Million*, U.S. DEP'T JUST. (May 28, 2013), <https://www.justice.gov/opa/pr/wal-mart-pleads-guilty-federal-environmental-crimes-admits-civil-violations-and-will-pay-more> [<https://perma.cc/H3BU-UM2F>].

³⁷ *Summary of Criminal Prosecutions: Wal-Mart Missouri*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/WWQ2-2WDE>] (search name "Wal-Mart," state "Missouri," and fiscal year "2013").

³⁸ *Scotts Miracle-Gro Will Pay Largest Criminal Penalty Under FIFRA*, AGRI-PULSE (Sept. 10, 2012), <https://www.agri-pulse.com/articles/2229-scotts-miracle-gro-will-pay-largest-criminal-penalty-under-fifra> [<https://perma.cc/J2G3-B5WK>].

³⁹ *Summary of Criminal Prosecutions: Scotts Miracle Gro Company*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/L8L2-9P5D>] (search name "Scotts," state "Ohio," and year "2012").

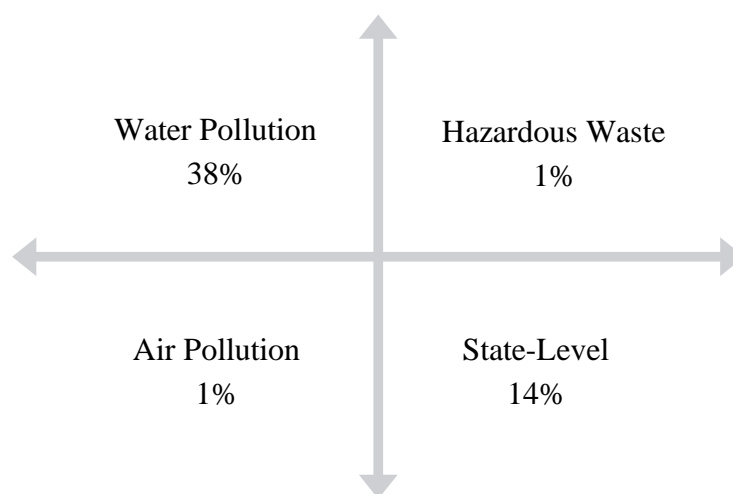
⁴⁰ *Id.*

⁴¹ *Summary of Criminal Prosecutions: Honeywell Metropolis Works*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/3AL7-PLU4>] (search name "Honeywell Metropolis Works," state "Illinois," and fiscal year "2011").

III. THEMES AND TYPOLOGY IN PROSECUTIONS

In this final segment of our analysis, we re-examine all 590 criminal prosecutions in our dataset to develop a typology of the primary themes found in the prosecutions. While prosecutions can be undertaken for multiple crimes and defendants can be charged under various statutes, we attempt to place these in a straightforward typology based on what we perceive to be the primary crime of the case. Through this approach, we primarily order cases around a natural typology of air, water, and hazardous waste crimes. We present these results in Figure 5 and follow with several illustrative case examples.⁴²

Figure 5. Typology of Environmental Crime Prosecutions in the Midwestern United States.



Source: EPA Summary of Criminal Prosecutions Database

Our analysis shows that the most prevalent type of prosecution involves water pollution crimes. Across all prosecutions in our dataset, 224 cases, or 38% of prosecutions, center on water pollution. In most of these cases, one or more defendants were charged under the CWA, primarily for crimes such as illegally discharging waste without a permit, violating pretreatment standards, and making false statements. Other defendants were charged under different federal statutes, such as the Act to Prevent Pollution from Ships (APPS), Rivers and Harbors Act (for illegally discharging oil into the ocean), or the Refuse Act (for illegally discharging hazardous wastewater).⁴³ Other

⁴² Thirteen percent of prosecutions are not classified as air, water, hazardous waste, or state-level crimes in the analysis and are discussed below.

⁴³ Act to Prevent Pollution from Ships, 33 U.S.C. § 1905-1915 (1980) (implementing provisions of the International Convention for the Prevention of Pollution from Ships

defendants violated the Safe Drinking Water Act (SDWA).⁴⁴ To provide context for water pollution prosecutions, we turn to a case-by-case analysis of Valmont Industries, Shell Pipeline Corporation, Hugh Baker, and Scott Harris.

A. Water Pollution Crimes

The first case example involves Valmont Industries, which operates a steel product manufacturing facility in Valley, Nebraska.⁴⁵ The company and two of its employees were indicted for making false statements on discharge monitoring reports (DMRs) and knowingly rendering a monitoring method inaccurate. The company was sentenced to pay a \$450,000 fine, \$70 in court costs, \$100 to the Crime Victims Fund, and to issue a public apology in the Omaha World Herald.⁴⁶

In the Shell Pipeline Corporation case, Shell was prosecuted for a rupture that occurred between Cushing, Oklahoma and Wood River, Illinois in its Ozark Pipeline. The rupture of this pipeline released approximately 863,268 gallons of crude oil into a tributary of the Gasconade River, located in Vienna, Missouri.⁴⁷ The company pled guilty to charges under the Refuse Act for discharging refuse into the navigable waters of the United States without a permit and was sentenced to pay a \$200,000 fine along with \$800,000 in restitution.⁴⁸

Individuals can also be held criminally liable for water pollution crimes. For example, Hugh Baker was prosecuted as an individual under the CWA for altering the navigable waters of the United States without a permit.⁴⁹ In this case, Baker and the High-Grade Sand and Gravel Company failed to

(MARPOL)); Refuse Act, 33 U.S.C. § 9 (part of the Rivers and Harbors Act).

⁴⁴ Safe Drinking Water Act, 42 U.S.C. § 300f (1974).

⁴⁵ Valmont Indus., Inc., No. 07-89-LO68 (U.S. Env't Prot. Agency February 25, 1990) [<https://perma.cc/J5U9-TM3B>].

⁴⁶ *Summary of Criminal Prosecutions: Valmont Industries*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/7QFY-RH9P>] (search name "Valmont Industries," state "Nebraska," and year "1986").

⁴⁷ *Summary of Criminal Prosecutions: Shell Pipeline Corporation*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/E82T-KWUN>] (search name "shell pipeline," state "Missouri," and fiscal "1992").

⁴⁸ *Id.*

⁴⁹ Filling in wetlands, constructing dams, building berms, or otherwise altering waterways requires a § 404 Permit from the U.S. Army Corps of Engineers. These permits are issued in conjunction with the EPA and come under the jurisdiction of the CWA. *See Permit Program Under CWA Section 404*, U.S. ENV'T PROT. AGENCY, www.epa.gov/cwa-404/permit-program-under-cwa-section-404 [<https://perma.cc/9WUX-PTR7>].

obtain a Section 404 permit under the CWA from the U.S. Army Corps of Engineers and continued to construct a dam without the permit anyways. Baker was sentenced to twenty-four months' probation for the violation.⁵⁰ A second example of an individual being held criminally liable for water pollution is that of Scott Harris, who was charged with providing false statements after he submitted a false drinking water analysis to the Iowa Department of Natural Resources.⁵¹ As the certified operator of Edgewood, Iowa's drinking water treatment plant, Harris was sentenced to twenty-four months' probation and to pay a \$1,000 fine.⁵²

B. Air Pollution Crimes

The second most prominent theme from the data was the prevalence of air pollution crimes, totaling 111 cases (19% of all prosecutions). Most of these prosecutions focused on asbestos-related crimes. Asbestos is regulated as a Hazardous Air Pollutant (HAP) under NESHAP guidelines.⁵³ Releasing asbestos into the ambient air is therefore regulated under the CAA, and unpermitted releases of asbestos are prosecuted as air pollution crimes.⁵⁴ The most common example of this type of crime found in the data is the illegal removal of asbestos containing materials (ACM), such as pipe insulation, floor tiles, and ceiling tiles. According to our data, it is estimated that sixty-five air pollution prosecutions, or 59% of total air pollution prosecutions, involve asbestos. Due to the ubiquitous nature of asbestos and its prevalence as a building and insulating material in the mid 20th century, ACM is still found in most commercial structures and homes.⁵⁵ Schools are regulated under the Asbestos Hazard Emergency Response Act (AHERA), which

⁵⁰ *Summary of Criminal Prosecutions: Hugh Baker*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/PL5Z-9ZNY>] (search name "Baker," state "Kansas," and fiscal year "2008").

⁵¹ *Summary of Criminal Prosecutions: Scott Harris*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/3WWL-BV4R>] (search name "Scott Harris," state "Iowa," and fiscal year "2010").

⁵² *Id.*

⁵³ Public knowledge of asbestos dangers, physical evidence available from illegal removal operations, and the broad reach of the criminal provisions of the CAA to punish asbestos crimes explains why so many cases are prosecuted here. See *Overview of the Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP)*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/asbestos/overview-asbestos-national-emission-standards-hazardous-air-pollutants-neshap>. [<https://perma.cc/GZV7-Z48X>].

⁵⁴ Criminal Provisions of the Clean Air Act, *supra* note 11.

⁵⁵ Don Colburn, *The Ubiquitous Asbestos*, WASH. POST (Nov. 6, 1985), <https://www.washingtonpost.com/archive/lifestyle/wellness/1985/11/06/the-ubiquitous-asbestos/b5b28f40-9118-4e28-88f1-777e474840e7/> [<https://perma.cc/4CX4-U94C>].

requires the schools to inspect their facilities for asbestos, prepare management plans to prevent potential hazards, and determine ways to reduce potential hazards.⁵⁶ The high cost of proper certification, remediation, and disposal of ACM creates ample opportunities for potential crimes to take place.

To provide context for how companies and individuals are prosecuted for asbestos related crimes, we turn to an analysis on two distinct prosecutions. First, in the prosecution of Wade J. Bertelson and Curry Environmental Service, charges were brought for the failure to adequately wet ACM when engaging in asbestos remediation. The company, operating in Illinois and Iowa, illegally issued training certificates to individuals without requiring them to attend the proper training courses. The company then submitted these false training certificates to the Illinois Department of Public Health for licensing purposes.⁵⁷ Both Bertelson and Curry Environmental were charged with knowing violations of the CAA, with Bertelson being sentenced to fifteen months incarceration, thirty-six months' probation, an assessment of \$100, and a federal fine of \$1,800. Curry Environmental was sentenced to sixty months' probation, a \$1,200 special assessment, and a \$1 million federal fine.⁵⁸

A second example of an asbestos prosecution was the matter of Katrina Frede-Cohn and Phillip H. Cohn. At issue here was the demolition of buildings in East St. Louis without properly containing asbestos, leaving material on site that required emergency permits to properly clean up.⁵⁹ Involved in a broader scheme to obtain control of buildings and land in the area, the defendants were charged with violations of the CAA as well as mail fraud and racketeering.⁶⁰ Katrina Frede-Cohn was sentenced to one day incarceration, forty-eight months' probation, a \$100 special assessment, and a \$200 federal fine. Philip Cohn was sentenced to sixty months incarceration, sixty months' probation, and to pay \$347,200 in restitution.⁶¹

⁵⁶ *Asbestos and School Buildings*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/asbestos/asbestos-and-school-buildings> [<https://perma.cc/BQ28-XDXM>].

⁵⁷ *Summary of Criminal Prosecutions: Wade J. Bertelson*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/KGF7-MQSX>] (search name "Bertelson," state "Illinois," and fiscal year "2002").

⁵⁸ *Id.*

⁵⁹ *Summary of Criminal Prosecutions: Keatrina Frede-Cohn*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/WCU6-VWGC>] (search name "Cohn," state "Illinois," and fiscal year "2005").

⁶⁰ *Id.*

⁶¹ *Id.*

As previously mentioned, asbestos related crimes are not the only crimes prosecuted under the CAA. One of the most notable prosecutions is the explosion at the Ashland Oil Petroleum Refinery in St. Paul Park, Minnesota, where an improperly sealed manhole cover at the facility allowed hydrocarbon fumes to rise to the surface.⁶² Five company employees were injured because of this explosion and Ashland Oil was charged with violations of the CAA, including negligent endangerment and false certifications for reports submitted to the Minnesota Pollution Control Agency. Ashland Oil was sentenced to sixty months' probation and ordered to pay \$3,750,000 in restitution to the injured employees and first responders. The company was also ordered to pay a \$1.5 million criminal fine and \$3.9 million to the National Park Foundation.⁶³

The final example is that of the Columbus Steel Castings Company's steel foundry in Columbus, Ohio.⁶⁴ The company was prosecuted for allowing numerous control device malfunctions and for deviations from processes required under their Title V permit between 2004 and 2007. The company did not report these malfunctions or unpermitted emissions, nor did they properly vent emissions through emissions control devices, perform daily visual emissions checks, or properly perform stack testing.⁶⁵ The company was charged with knowing violations of the CAA and sentenced to twelve months' probation, a \$660,000 fine, and to pay \$165,000 as a community service payment to two Columbus charitable organizations.⁶⁶

⁶² *Ashland Pleads Guilty in 1997 Fire*, WASH. TIMES (May 14, 2002), <https://www.washingtontimes.com/news/2002/may/14/20020514-024724-5634r/> [<https://perma.cc/DS82-XNJJ>].

⁶³ *Summary of Criminal Prosecutions: Ashland Oil*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/CMD5-H2Y4>] (search name "Ashland," state "Minnesota," and fiscal year "2003").

⁶⁴ Megan Henry, *Teardown of Columbus Castings Continues*, COLUMBUS DISPATCH (Aug. 30, 2018), <https://www.dispatch.com/news/20180830/teardown-of-columbus-castings-continues> [<https://perma.cc/AJT3-Q5E3>].

⁶⁵ Major stationary sources of air emissions are required to hold Title V permits under the CAA, which is the primary mechanism for regulating air emissions at these facilities. *Who Has to Obtain a Title V Permit?*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/title-v-operating-permits/who-has-obtain-title-v-permit> [<https://perma.cc/H7TV-LUEK>].

⁶⁶ *Summary of Criminal Prosecutions: Columbus Steel Castings*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/VJ9N-42GZ>] (search name "Columbus," state "Ohio," and fiscal year "2012").

C. Hazardous Waste Crimes

The third most prevalent set of violations found in our dataset was hazardous waste crimes, occurring in ninety-seven cases, or 16% of all prosecutions. Hazardous waste crimes typically involve one or more cradle-to-grave violations of RCRA, including: illegal storage, transport, or disposal of hazardous waste without a permit; transporting hazardous waste without a permit; or failure to notify government officials of such actions. Hazardous waste crimes can also be prosecuted under CERCLA for failure to notify officials of the release of a hazardous substance. The following two case examples are illustrated below to provide context surrounding the prosecution of hazardous waste crimes.

The first example surrounds Chemical Commodities, a company whose truck containing hazardous waste caught fire in a Kansas City neighborhood and resulted in the evacuation of the area.⁶⁷ The company was charged under RCRA with knowingly treating and disposing of a hazardous substance (methyl bromide) without a permit, transporting hazardous waste without a manifest, and knowing endangerment of employees by unlawful disposal of hazardous waste.⁶⁸ The company was sentenced to pay a \$505,760 fine, sixty months of probation, and a \$200 special assessment.⁶⁹

In the second example, co-defendants David Fredericy and Joseph Kuzlik were prosecuted for contaminating a porch with the intent to intimidate interracial children—a hate crime targeted at African American residents in his neighborhood.⁷⁰ Fredericy and Kuzlik then lied to investigators of the Federal Bureau of Investigation (FBI), who were conducting a joint investigation with EPA-CID, and were charged with conspiracy, false statements, and interference with housing rights. Kuzlik was sentenced to twenty-seven months incarceration, thirty-six months' probation, a \$300 special assessment, and \$26,701 in restitution to his victims.⁷¹ Fredericy was

⁶⁷ *Summary of Criminal Prosecutions: Chemical Commodities*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/ZDE4-NJVS>] (search name "Chemical Commodities," state "Kansas," and fiscal year "1990").

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ *Slavic Village: Racist Hate Crime*, 19 NEWS (Oct. 26, 2006), <https://www.cleveland19.com/story/5595088/slavic-village-racist-hate-crime/> [<https://perma.cc/UF8X-X6JF>].

⁷¹ *Summary of Criminal Prosecutions: David Fredericy*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/LSE5-ZLXX>] (search name "Fredericy," state "Missouri," and fiscal year "2007").

sentenced to thirty-three months incarceration, thirty-six months' probation, an assessment fee of \$300, and \$26,701 in restitution to his victims.⁷²

D. State-Level and Other Environmental Crimes

The fourth and final primary environmental crime revolved around state-level environmental offenses, comprising about eighty-one total cases, or 14% of prosecutions. The heavy presence of state crimes indicates some involvement with EPA-CID agents and suggests a level of cooperation between state and federal agents. Prosecutions may contain federal charges against one or more defendants, but in eighty-one cases, we found the primary crimes to be state-level offenses. These crimes range anywhere from air and water pollution to hazardous waste crimes. In the prosecution of Keith Mackenzie, Mackenzie was found having dumped a large amount of home heating oil into a local storm sewer.⁷³ This dumping resulted in a large-scale clean-up and Mackenzie was charged with state-level environmental violations, sentenced to two months incarceration, twelve months' probation, a \$46 special assessment, and a \$9,000 fine for the cost of the cleanup borne by local officials.⁷⁴

It is important to make the distinction that approximately seventy-seven cases, or 13% of the total prosecutions, did not fit into one of the four categories found in Figure 5. These unclassified cases often fell into a few categories, such as the off-label use of pesticides to kill wildlife; off-label sale, use, or application of registered pesticides; or failure to give lead paint disclosures or lead paint-related crimes. The most prevalent unclassified crime involved FIFRA violations. These violations typically involved selling misbranded or unregistered pesticides, using pesticides in an off-label manner that accidentally or intentionally killed wildlife, or treating houses and other facilities with pesticides not approved for that specific use.

For example, Thomas Huge who, alongside his company, was prosecuted for selling misbranded pesticides and submitting false documentation to the Missouri Department of Agriculture.⁷⁵ Huge was prosecuted under FIFRA

⁷² *Id.*

⁷³ *Summary of Criminal Prosecutions: Keith Makenzie*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/WL82-5YM3>] (search name "Makenzie," state "Ohio," and fiscal year "2003").

⁷⁴ *Id.*

⁷⁵ *Summary of Criminal Prosecutions: Thomas Huge*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/HB4P-HYKC>] (search name "Huge," state "Missouri," and fiscal year "1998").

for the unlawful distribution and selling of this misbranded pesticide and was sentenced to twelve months' probation. Huge and his company were ordered to pay \$30,000 in criminal fines and \$35,000 in civil penalties.⁷⁶ In another case, Kenneth Schaffer was charged with killing hundreds of migratory birds when he spread pesticide-laced bird seed on his property in Missouri.⁷⁷ Schaffer was charged not only under FIFRA for off-label use of a registered pesticide, but also under the Migratory Bird Treaty Act for the illegal taking of protected wildlife.⁷⁸ Schaffer was sentenced to pay a \$50 special assessment and a \$4,000 fine.⁷⁹

A third case illustration, and one of the odder examples analyzed in the dataset, involves the prosecution of a seventy-year-old homeless man named Manuel Garcia.⁸⁰ The defendant admitted to making three threatening phone calls in October of 2013, claiming there was a threat to the public water supply in the cities of Wichita, Kan., Topeka, Kan., St. Louis, Mo., and Kansas City, Mo.⁸¹ Garcia also called the Alcohol, Tobacco, and Firearms Joint Support Operations Center in Washington, D.C., along with the Kansas City Police Department, to communicate the same threat.⁸² The Kansas City Police Department placed snipers on observation posts near water supplies and set twenty-four-hour patrols at all of the city's water treatment facilities.⁸³ For approximately two weeks, four different metropolitan areas engaged in systematic responses to Garcia's hoax phone calls.⁸⁴ Garcia was ultimately sentenced to twenty-four months incarceration.⁸⁵

⁷⁶ *Id.*

⁷⁷ *Summary of Criminal Prosecutions: Kenneth Schaffer*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/YKH4-WWF7>] (search name "Schaffer," state "Missouri," and fiscal year "2005").

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Summary of Criminal Prosecutions: Manuel Garcia*, U.S. ENV'T PROT. AGENCY, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm [<https://perma.cc/MVH6-VU8M>] (search name "Manuel Garcia," state "Missouri," and fiscal year "2015").

⁸¹ Matt Campbell, *Man Gets Two Years in Federal Prison for Threats to Water Supplies in KC, Other Cities*, KAN. CITY STAR (Nov. 24, 2014), <https://www.kansascity.com/news/local/crime/article4127070.html> [<https://perma.cc/699G-ECWY>].

⁸² *Id.*

⁸³ Matt Campbell, *supra* note 81.

⁸⁴ U.S. Attorney's Office, *Kansas City Man Sentenced for Phone Call Hoax with False Threat to Contaminate Water Supply*, FED. BUREAU INVESTIGATION (Nov. 24, 2014), <https://www.fbi.gov/contact-us/field-offices/kansascity/news/press-releases/kansas-city-man-sentenced-for-phone-call-hoax-with-false-threat-to-contaminate-water-supply> [<https://perma.cc/J4VU-ZQQ4>].

⁸⁵ U.S. Attorney's Office, *KC Man Pleads Guilty to Hoax with False Threat to*

IV. FINDINGS: EPA-CID PROSECUTIONS IN THE MIDWEST

Our analysis of 590 criminal prosecutions resulting from EPA-CID investigations in the Midwestern States from 1983 to 2019 yielded a few distinct findings. The first is that over time, prosecutions have been infrequent. While the number of prosecutions has increased as the EPA-CID staff has grown and gained expertise, the chance of an offender being ultimately prosecuted for an environmental crime is decidedly low. A second finding is that prosecutions are disproportionately low in a handful of states. Specifically, Missouri and Ohio alone account for almost 45% of the prosecutions in our dataset while North Dakota, South Dakota, and Wisconsin only account for .04%. The third finding is that EPA-CID investigators and federal prosecutors targeted water pollution crimes more so than other environmental crimes. In roughly a third of all prosecutions, at least one defendant was charged with a water pollution crime under the CWA. This is most likely due to the Midwestern states' proximity to the Great Lakes and the amount of industry that utilizes them. Air pollution on the other hand was the second most prevalent environmental crime, totaling 19% of all prosecutions. Air pollution prosecutions were heavily slanted towards asbestos cases, making up 59% of all the air pollution crimes. Hazardous waste crimes came in third, comprising about 16% of all prosecutions. Our fourth finding was the disparities between the number of companies prosecuted and the number of individuals that were prosecuted. With water pollution crimes, 124 (55%) of the cases involved at least one company as a defendant. By contrast in air pollution prosecutions, only thirty-one cases (28%) involved at least one company as a defendant. Hazardous waste prosecutions involved a much larger frequency with forty-one prosecutions (42%) having at least one company named as a defendant. Across all total prosecutions, roughly 42% of them contained at least one company as a named defendant in the case.

CONCLUSION

This article concludes by offering a few reasonable suggestions for improving the criminal enforcement of federal environmental laws in the United States. The first is the need to enhance the profile of environmental criminal enforcement. The public rarely sees reports of environmental crimes in the mass media unless there is an explosion or serious injury. Moreover, individuals often fail to see the seriousness of environmental crimes or equate

Contaminate Water Supply, U.S. DEP'T JUST. (Jun. 2, 2014), <https://www.justice.gov/usao-wdmo/pr/kc-man-pleads-guilty-phone-call-hoax-flase-threat-contaminate-water-supply> [<https://perma.cc/5VPF-JN3H>]. *See also id.*

their overall effects on society compared to those of street crimes.⁸⁶ Until there is a shift in perception regarding environmental crime as “real” crime, it will be easier for policymakers to underfund these important agencies. A way for the public to better understand environmental crimes would be to bring more awareness to environmental crimes at industrial facilities located near environmental justice communities. The Biden Administration can help bring this awareness by emphasizing the immediate health impacts these facilities are having on those that live in the community. Another possibility is for the Biden Administration to make stronger public policy connections between the well-regulated fossil fuel industry and Biden’s goal to move the country towards carbon neutrality.⁸⁷

Second, there is a need for additional policing and prosecutorial resources to investigate and punish environmental crimes. EPA-CID currently has less than 150 special agents responsible for policing the entire country.⁸⁸ The federal statute requires a minimum of 200.⁸⁹ Without taking the steps to meet statutory requirements for investigators, EPA-CID cannot be sufficiently effective in policing environmental crimes. While EPA and DOJ can utilize support from within and from other agencies, increasing the number of specialized environmental crime prosecutors would go a long way towards enhancing criminal prosecution outcomes. While the Biden Administration has pledged resources to the DOJ, EPA, and other federal agencies to prioritize environmental justice issues in the United States,⁹⁰ there still must be budgeting for additional attorneys within ECS and special agents within EPA-CID to focus exclusively on environmental crimes near environmental

⁸⁶ Melissa L. Jarrell, *Environmental Crime and Injustice: Media Coverage of a Landmark Environmental Crime Case*, 6 S.W. J. CRIM. JUST. 25, 27-28 (2009).

⁸⁷ Gin Armstrong & Derek Seidman, *Fossil Fuel Industry Pollutes Black & Brown Communities While Propping up Racist Policing*, EYES TIES (Jul. 27, 2020), <https://news.littlesis.org/2020/07/27/fossil-fuel-industry-pollutes-black-brown-communities-while-propping-up-racist-policing/> [<https://perma.cc/3ATJ-W3VM>]; *The Biden Plan for A Clean Energy Revolution and Environmental Justice*, BIDEN/HARRIS PRESIDENTIAL CAMPAIGN, <https://joebiden.com/climate-plan/> [<https://perma.cc/6YNT-3EGG>].

⁸⁸ PUBLIC EMP. FOR ENV’T RESPONSIBILITY, EPA CID AGENT COUNT (Nov. 21, 2019) [<https://perma.cc/E67Y-X8CX>].

⁸⁹ Pollution Prosecution Act of 1990, 42 U.S.C. §§ 13101-13109.

⁹⁰ *Fact Sheet: President Biden Takes Executive Actions to Tackle the Climate Crisis at Home and Abroad, Create Jobs, and Restore Scientific Integrity Across Federal Government*, WHITE HOUSE (Jan. 27, 2021), <https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/27/fact-sheet-president-biden-takes-executive-actions-to-tackle-the-climate-crisis-at-home-and-abroad-create-jobs-and-restore-scientific-integrity-across-federal-government/> [<https://perma.cc/HJ57-KBL5>].

justice communities. This necessary budgeting would likely allow for the Administration to achieve its goal in this area.⁹¹

Finally, our third suggestion is to enhance stakeholder participation in environmental justice communities by encouraging and enhancing resources for community policing of industrial facilities. While visual monitoring of industrial facilities is nearly impossible due to the various air and water monitors set up by federal and state environmental agencies, many times these monitors report extensive emissions over their permitted levels and are met with little regulatory response.⁹² Encouraging citizens to engage in community policing efforts could help these communities in a substantive manner by helping with the regulatory enforcement process and simultaneously by helping EPA-CID and their limited policing resources. An easy and existing method for achieving greater input is the EPA's "Report A Violation" website, which generated thirty-five cases and six referrals for successful prosecution in the first five years of its existence.⁹³ Encouraging communities to report violations, and following up on them routinely and quickly, would help foster trust in the government and additional community engagement.⁹⁴

⁹¹ Zack Budryk, *Biden Budget Proposes \$1.4 Billion for Environmental Justice*, HILL (Apr. 9, 2021), <https://thehill.com/policy/energy-environment/547383-biden-budget-proposal-includes-14-billion-toward-environmental> [<https://perma.cc/V9UF-ULKF>].

⁹² Brooks Hays, *Report Reveals Elevated Benzene Levels at 10 U.S. Oil Refineries*, UNITED PRESS INT'L (Feb. 6, 2020), https://www.upi.com/Science_News/2020/02/06/Report-reveals-elevated-benzene-levels-at-10-US-oil-refineries/8161581008014/ [<https://perma.cc/7PZC-JM3P>]. See also *Interactive Map of Air Quality Monitors*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/outdoor-air-quality-data/interactive-map-air-quality> [<https://perma.cc/QX55-NCTG>].

⁹³ *Enforcement and Compliance History Online (ECHO): Report a Violation*, U.S. ENV'T PROT. AGENCY, <https://echo.epa.gov/report-environmental-violations> [<https://perma.cc/YLC9-T9VD>].

⁹⁴ U.S. ENV'T PROT. AGENCY, CRIMINAL ENFORCEMENT PROGRAM 6 (Oct. 2011) [<https://perma.cc/2PCF-EXU4>].