

Persistence or Desistence: Prosecuting Environmental Crimes During the Trump and Obama Administrations

Dr. Joshua Ozymy & Dr. Melissa Jarrell Ozymy***

The post-mortem on the Trump Administration shows evidence of significant organizational damage to both the U.S. EPA and the Department of Justice. Through content analysis of EPA criminal investigations that led to prosecutions, we analyze all 282 environmental crime prosecutions during this era to explore the scope of the overall output of cases adjudicated, whether serious crimes were prosecuted, and if prosecutors were able to secure substantial penalties. We compared these findings to 914 environmental crime prosecutions that occurred during the Obama Administration. We found that output and charging patterns were steady during the Trump Era, serious crimes were consistently prosecuted, and prosecutors secured some \$3.1 billion in monetary penalties, 700 years of probation, and 289 years of incarceration. These results showed federal agencies managing to muddle through and achieve their organizational objectives under duress to achieve a reduced, but steady output compared to the Obama Era. We conclude with three recommendations for the Biden Administration to strengthen the criminal enforcement of federal environmental law in the coming years, particularly as it relates to environmental justice communities.

DOI: <https://doi.org/10.15779/Z38513TX1P>

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* Professor of Criminal Justice, School of Social Research and Justice Studies, University of Nevada, Reno. Corresponding author: jozymy@unr.edu.

** Professor of Criminal Justice and Chair of the Department of Criminal Justice, School of Social Research and Justice Studies, University of Nevada, Reno: mjarrell@unr.edu.

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INTRODUCTION

Donald Trump was hostile towards environmental regulation from his first day in office.¹ From rolling back regulations, to appointing industry insiders and anti-environmentalists to important positions within the U.S. Environmental Protection Agency (EPA), Department of Justice (DOJ), and other agencies tasked with the enforcement of environmental laws, Trump intended to weaken environmental protections, noting he would only leave the EPA “little tidbits” when he slashed their budget.² It is undeniable that the Trump Administration went to great lengths to damage the federal environmental enforcement apparatus. Some early research even shows that criminal prosecution may have been significantly reduced.³ Yet we still know very little about whether the Trump Administration was able to substantially reduce the ability of federal agencies to investigate and prosecute serious environmental crimes and how this may have varied from the Obama Administration. Answering this question is crucial, as we need to assess the impact of the Administration on criminal enforcement. More broadly, we must evaluate how environmental law enforcement agencies persist or desist in their efforts under hostile versus supportive presidential regimes.

To understand these issues, we gathered data on EPA criminal investigation that led to a prosecution during the Trump Administration. We explored the frequency of such prosecutions and trends in charging patterns, whether

1. Jay Michaelson, *The Ten Worst Things Scott Pruitt’s EPA Has Already Done*, THE DAILY BEAST (Dec. 29, 2017, 5:00 AM), <https://www.thedailybeast.com/the-ten-worst-things-scott-pruitts-epa-has-already-done>.

2. Elgie Holstein, *The Severe, Real-World Casualties of Trump’s EPA Budget Cuts*, ENV’T DEF. FUND (Mar. 3, 2017), <https://www.edf.org/blog/2017/03/03/severe-real-world-casualties-trumps-epa-budget-cuts>; Jessica Hejny, *The Trump Administration and Environmental Policy: Reagan Redux?*, 8 J. ENV’T STUDS. & SCIS. 197, 197–211 (2018).

3. David M. Uhlmann, *New Environmental Crimes Project Data Shows that Pollution Prosecutions Plummeted During the First Two Years of the Trump Administration 2* (U. Mich. Pub. L. & Legal Theory Rsch. Paper No. 685, 2020), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3710109#maincontent.

environmental law enforcement agencies were able to prosecute serious violations of law, and if they were able to obtain significant penalties during this time. We then gathered extensive prosecution data during the Obama Administration to compare prosecution outcomes. This approach gave us over 1,200 cases to explore in our analysis.

It is equally interesting to understand how Trump impacted enforcement outcomes and how agencies endure in their organizational missions. Research shows political principals matter for effecting agency outcomes, but whether political demands for responsiveness produce the necessary results is not always clear.⁴ We hope to provide a stronger empirical answer to these questions than extant research, particularly as applied to the threat posed by the Trump Administration. We begin with a discussion of the evolution of criminal provisions in federal environmental law and law enforcement, followed by an overview of administrative persistence, and a description of our analytical strategy, results, and conclusions.

I. POLICING AND PROSECUTING ENVIRONMENTAL CRIMES

Developing a structure for enforcing environmental law through a criminal process required the evolution of criminal statutes within federal law, policing resources to investigate crimes, and resources and expertise to prosecute environmental crimes.⁵ The evolution towards developing criminal provisions in environmental law came about towards the end of the nineteenth century in the United States, with laws such as the Rivers and Harbors Appropriations Act (RHAA) and Lacey Act, passed in 1899 and 1900 respectively.⁶ The RHAA made it illegal to alter, obstruct, or discharge into the navigable waters of the United States, and the Lacey Act banned the unpermitted interstate trade of wildlife.⁷ Federal environmental law expanded considerably throughout the

4. For discussions of principal control over agency actions, *see generally* Matthew R. Auer, *Presidential Environmental Appointees in Comparative Perspective*, 68 PUB. ADMIN. REV. 68 (2008); A. James Barnes, *Implementing Presidential Policy Agendas Administratively: A View from the Inside*, 69 PUB. ADMIN. REV. 586 (2009); Richard J. Lazarus, *Flexing Agency Muscle?*, 48 GA. L. REV. 327 (2014).

5. Efforts to develop a criminal enforcement apparatus between EPA and DOJ might be traced to the mid 1970s. In 1976, EPA issued its first extensive guidelines for criminal cases. By 1978, a Hazardous Waste Taskforce convened and initiated fifty-two civil actions under RCRA. By the end of the Carter Administration, DOJ was hard at work laying the groundwork for institutionalizing resources for criminal prosecutions. These connections between EPA and DOJ were formally solidified when DOJ attorney Peter Beeson was appointed director of EPA's newly founded Office of Enforcement. For an excellent overview here of the origins of criminal enforcement, *see* Robert I. McMurry & Stephen D. Ramsey, *Environmental Crime: The Use of Criminal Sanctions in Enforcing Environmental Laws*, 19 LOY. L.A. L. REV. 1133, 1136–41 (1986); *Historical Development of Environmental Criminal Law*, ENV'T & NAT. RES. DIV., U.S. DEP'T OF JUST., <https://www.justice.gov/enrd/about-division/historical-development-environmental-criminal-law> (last updated May 13, 2015).

6. Rivers and Harbors Appropriation Act of 1899, ch. 425, 30 Stat. 1151 (1899) (codified as amended at 53 U.S.C. §§ 401, 403, 404, 406–409, 411–416, 418, 502, 549, 686); Lacey Act of 1900, Pub. L. 56-553, ch. 553, 31 Stat. 187 (1900) (codified as amended at 16 U.S.C. §§ 3371–3378).

7. 33 U.S.C. § 403; 16 U.S.C. § 3372.

1970s and involved the extension of misdemeanor provisions for violations.⁸ Felony provisions started to evolve in the 1980s, with the passage of the Hazardous and Solid Waste Amendments to the Resource Conservation and Recovery Act (RCRA) in 1984.⁹ By the early 1990s, felony provisions made their way into the Clean Water Act (CWA), Clean Air Act (CAA), Toxic Substances Control Act (TSCA), Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).¹⁰ The movement to develop significant penalties for serious environmental crimes in the United States corresponded to a broader global movement recognizing the need to deter and punish environmental offenses.¹¹

Prosecuting environmental violations began to slowly take shape with the founding of the DOJ's Public Lands Division in 1909, which evolved into the Environment and Natural Resources Division (ENRD).¹² The Environmental Crime Section (DOJ-ECS) was created 1982 and evolved into its own unit in 1987 within ENRD alongside the Environmental Enforcement Section (EES) that oversees civil-judicial cases.¹³ DOJ-ECS currently employs about forty-

8. *Historical Development of Environmental Criminal Law*, *supra* note 5.

9. See 42 U.S.C. § 6928. Holding corporate officers accountable for environmental crimes under current environmental statutes was more difficult until felony provisions were expanded, particularly with hazardous waste violations. David T. Barton, *Corporate Officer Liability Under RCRA Stringent but Not Strict*, 4 BYU L. REV. 1547, 1547–50 (1991).

10. See Clean Water Act, 33 U.S.C. §§ 1319, 1321; Clean Air Act, 42 U.S.C. § 7413; Toxic Substances Control Act, 53 U.S.C. § 2615; Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. § 1361; Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9603. For further background, see *Historical Development of Environmental Criminal Law*, *supra* note 5. For further examples of the relevant criminal provisions, see *Criminal Provisions of the Resource Conservation and Recovery Act (RCRA)*, EPA, <https://www.epa.gov/enforcement/criminal-provisions-resource-conservation-and-recovery-act-rcra> (last updated Mar. 30, 2022); *Criminal Provisions of the Clean Air Act*, EPA, <https://www.epa.gov/enforcement/criminal-provisions-clean-air-act> (last updated Jan. 20, 2023). Congress upgraded misdemeanor penalties to felonies in the CWA in 1987 and the CAA in 1990. This came as part of a broader bipartisan movement in Congress concerned that prosecutors were not punishing crimes effectively. However, in addition, there was debate over whether prosecutors were abusing their authority given the broad scope of the statutes. For more on this political history, see Theodora Galactos, *The United States Department of Justice Environmental Crimes Section A Case Study of Inter- and Intra-branch Conflict over Congressional Oversight and the Exercise of Prosecutorial Discretion*, 64 FORDHAM L. REV. 587, 590 (1995); Judson W. Starr, *Turbulent Times at Justice and EPA The Origins of Environmental Criminal Prosecutions and the Work that Remain*, 59 GEO. WASH. L. REV. 900, 900–02 (1991).

11. Michael R. Pendleton, *Beyond the Threshold The Criminalization of Logging*, 10 SOC'Y & NAT. RES. 181, 181 (1997). Some of the U.S. states also recognized the need to criminalize environmental violations at this time. See Anthony J. Celebrezze, Jr. et al., *Criminal Enforcement of State Environmental Laws The Ohio Solution*, 14 HARV. ENV'T L.J. 217, 220 (1990).

12. *History*, ENV'T & NAT. RES. DIV., U.S. DEP'T OF JUST., <https://www.justice.gov/enrd/history> (last updated May 18, 2021). The Refuse Act of 1899 was the first federal law to criminalize environmental violations. Raymond W. Mushal, *Up From the Sewers A Perspective on the Evolution of The Federal Environmental Crimes Program*, 2009 UTAH L. REV. 1103, 1104–05 (2009); *Historical Development of Environmental Criminal Law*, *supra* note 5.

13. *An Overview of Our Practice Environmental Enforcement Section*, ENV'T & NAT. RES. DIV., U.S. DEP'T OF JUST., <https://www.justice.gov/enrd/overview-our-practice> (last updated May 14, 2015);

three staff attorneys and a dozen support staff to prosecute environmental crimes.¹⁴

Resources to investigate environmental crimes were institutionalized within EPA with the creation of the Office of Enforcement in 1981, now the Office of Enforcement and Compliance Assurance (OECA).¹⁵ Criminal investigators were hired the following year and deputized as Special Deputy U.S. Marshalls from 1984–88 to give them policing powers until full law enforcement authority was granted by the U.S. Congress in 1988.¹⁶ The Criminal Investigation Division (EPA-CID) is primarily tasked with investigating environmental crimes and employs 145 investigators (also known as Special Agents) towards this end.¹⁷ Criminal investigation is a collaborative endeavor and agents often work with other state, local, and federal law enforcement agencies, building cases off of civil inspections, formal reports or documents submitted to regulators, or former employees of companies that provide tips and information of wrongdoing.¹⁸ While efforts have been made to centralize control within EPA-CID, agents have historically enjoyed a great deal of professional autonomy and have worked within a mostly decentralized system out of field offices. Agents typically approach attorneys within DOJ-ECA or the U.S. Attorney's Office to pursue prosecution when they feel they have gathered sufficient evidence for the attorneys to convene a grand jury or file a criminal information in district court.¹⁹

Historical Development of Environmental Criminal Law, *supra* note 5. In 1982, DOJ-ECS started as a three-attorney unit within the Environmental Enforcement Section. It has evolved in staffing and organizational structure over time. Joseph B. Block, *Environmental Criminal Enforcement in the 1990s*, 3 VILL. ENV'T L.J. 33, 34 (1992); *see also* Michael Hertz, *Structures of Environmental Criminal Enforcement*, 7 FORDHAM ENV'T L.J. 679, 686–87 (2011).

14. *Environmental Crimes Section*, ENV'T & NAT. RES. DIV., U.S. DEP'T OF JUST., <https://www.justice.gov/enrd/environmental-crimes-section> (last updated July 2, 2021).

15. *About the Office of Enforcement and Compliance Assurance (OECA)*, EPA, <https://www.epa.gov/aboutepa/about-office-enforcement-and-compliance-assurance-oeca> (last updated Feb. 27, 2023).

16. EPA, REVIEW OF THE OFFICE OF CRIMINAL ENFORCEMENT, FORENSICS AND TRAINING 7 (2003). EPA originally hired two criminal investigators and over time added 20 more, for a total of 22 after 1982. The criminal investigators were granted full law enforcement authority via the Medical Waste Tracking Act of 1988 and approved to carry firearms by the U.S. Attorney General the following year. Medical Waste Tracking Act of 1988, Pub. L. No. 100-582, § 4, 102 Stat. 2950, 2958–59 (1988) (18 U.S.C. § 3063); Mushal, *supra* note 12, at 1109–11.

17. PUB. EMPS. FOR ENV'T RESP. (PEER), EPA CID AGENT COUNT (2019), *available at* https://www.peer.org/wp-content/uploads/2019/11/11_21_19-Federal_Pollution_EPA_CID_Agent_Count.pdf (indicating 145 agents in 2019); *see also* U.S. Environmental Protection Agency Criminal Enforcement Program *America's Environmental Crime Fighters*, EPA, <https://www.epa.gov/sites/production/files/documents/ocftbrochure.pdf> (last visited Mar. 4, 2023).

18. *See* Joel A. Mintz, *Treading Water' A Preliminary Assessment of EPA Enforcement During the Bush II Administration*, 34 ENV'T L. REP. (ENV'T L. INST.) 10,912, 10,923 (2004).

19. Joel A. Mintz, *Some Thoughts on the Interdisciplinary Aspects of Environmental Enforcement*, 36 ENV'T L. REP. (ENV'T L. INST.) 10,495, 10,497 (2006).

II. ADMINISTRATIVE PERSISTENCE UNDER HOSTILE REGIMES

When an individual or company is thought responsible for an environmental violation, EPA's typical approach is to attempt to bring the responsible party to comply with the law through administrative or civil remedies.²⁰ Administrative remedies are often the first step to remedying non-compliance with the law and can be issued by EPA or an appropriate state agency in the form of a warning of non-compliance, an order of correction, or fines for non-compliance with agency orders.²¹ Civil remedies are varied and include administrative orders on consent or agreement requiring the remediation of pollution, imposition of an environmental mitigation or monitoring plan, issuance of temporary or permanent injunctive relief to compel a responsible party to cease polluting, or negotiating a supplemental environmental project that allows the responsible party to meet and likely go beyond compliance with the law.²² EPA may pursue a civil lawsuit, where an administrative judge may find an individual or company liable for damages.²³ A responsible party may also choose to enter into a consent decree to regain compliance, while avoiding pleading guilty.²⁴ Alternatively, criminal enforcement focuses on fostering deterrence and punishing crimes involving significant harm and culpable conduct.²⁵ Research suggests that, since

20. *Basic Information on Enforcement*, EPA, <https://www.epa.gov/enforcement/basic-information-enforcement> (last updated Nov. 2, 2022); *Types of Approaches to RCRA Corrective Action Enforcement Actions*, EPA, <https://www.epa.gov/enforcement/types-and-approaches-rcra-corrective-action-enforcement-actions> (last updated Jan. 5, 2023); EPA, EC-G-2002-008, COORDINATION BETWEEN RCRA CORRECTIVE ACTION ACTIVITY AND CLOSURE AND CERCLA SITE ACTIVITIES (1996).

21. See *Basic Information on Enforcement*, *supra* note 20.

22. See OFF. OF ENF'T & COMPLIANCE ASSURANCE, EPA, SECURING MITIGATION AS INJUNCTIVE RELIEF IN CERTAIN CIVIL ENFORCEMENT SETTLEMENTS (2d ed. 2012); OFF. OF ENF'T & COMPLIANCE ASSURANCE, EPA, USING ALL APPROPRIATE INJUNCTIVE RELIEF TOOLS IN CIVIL ENFORCEMENT SETTLEMENTS (2021); *Supplemental Environmental Projects (SEPs)*, EPA, <https://www.epa.gov/enforcement/supplemental-environmental-projects-seps> (last updated Jan. 20, 2023). See generally OFF. OF ENF'T & COMPLIANCE ASSURANCE, EPA, EC-G-1998-12, GUIDANCE ON USE OF PENALTY POLICIES IN ADMINISTRATIVE LITIGATION (1995) (providing policy and strategic guidance to EPA representatives about penalty pleading in enforcement actions).

23. EPA is authorized to issue orders on consent (i.e., with agreement), or they may issue unilateral orders on demand that compel an entity to comply with their permit. If a responsible party fails to comply or ignores EPA's order, EPA has authority to clean up and remediate pollution then seek reimbursement costs and civil penalties in federal court. Civil judicial actions tend to follow efforts to induce compliance via other civil or administrative channels and are reserved for serious cases of non-compliance with the law that have significant effect or cause imminent endangerment. Generally, EPA can choose to enforce the law and take corrective actions for hazardous waste via RCRA or CERCLA, and cleanup actions may follow roughly the same course. See OFF. OF ENV'T GUIDANCE, U.S. DEP'T OF ENERGY, EH-231, A COMPARISON OF THE RCRA CORRECTIVE ACTION AND CERCLA REMEDIAL ACTION PROCESSES (1994); Timothy O. Schimpf, *Unleash RCRA! Letting Loose the Corrective Action Process of RCRA Can Change the World*, 29 WM. & MARY ENV'T L. & POL'Y REV. 481, 485, 489 (2005); Kundai Mufara, *RCRA Facts An Overview of the Hazardous Waste Management Law*, ERA ENV'T MGMT. SOLS. (Feb. 3, 2021), <https://www.era-environmental.com/blog/rcra-facts-an-overview-of-the-hazardous-waste-management-law>; *Types and Approaches to RCRA Correction Action Enforcement Actions*, *supra* note 20.

24. See *Basic Information on Enforcement*, *supra* note 20.

25. OFF. OF CRIM. ENF'T, EPA, THE EXERCISE OF INVESTIGATIVE DISCRETION 3-4 (1994). Congress intended criminal provisions to have a deterrent effect, which is why penalties can be significant,

the 1980s, the total number of prosecutions occurring as a result of EPA-CID investigations may be around 2,600.²⁶ Such research confirms that prosecutors tend to focus their efforts on crimes involving deceptive conduct, chronic offending, significant harm, or operating outside the boundaries of the regulatory system.²⁷

Research shows that environmental law enforcement agencies persist through supportive regimes and muddle through oppositional ones, using a mix of institutional inertia and the benefits accrued from professional autonomy.²⁸ It may be the case that Trump was a *sui generis* threat compared to a more status

including incarceration. Penalties are particularly strong for the crime of knowing endangerment, where a person's actions put another person in imminent danger of death or serious bodily injury. Environmental law provides different *mens rea* requirements, where one does not have to show intent to commit an environmental crime. Corporate officers also maintain an "authority to control" standard and are assumed to possess a burden of knowledge and obligation to safeguard employees and the public from harm caused by environmental pollution. See Barbara DiTata, *Proof of Knowledge Under RCRA and Use of the Responsible Corporate Officer Doctrine*, 7 *FORDHAM ENV'T L. REV.* 795, 797–98 (2011); Mushal, *supra* note 12, at 1119–22; Maura M. Okamoto, *RCRA's Criminal Sanctions A Deterrent Strong Enough to Compel Compliance?*, 19 *U. HAW. L. REV.* 425, 425–26 (1997); Roxanne R. Rapson & Scott R. Brown, Comment, *Mens Rea Requirements Under CERCLA Implications for Corporate Directors, Officers and Employees*, 6 *SANTA CLARA HIGH TECH. L.J.* 377, 402 (1991); Larry D. Wynne, *A Case for Criminal Enforcement of Federal Environmental Law*, 38 *NAVAL L. REV.* 105, 124–27 (1989). See generally Rita Cain, *Shareholder Liability Under Superfund Corporate Veil or Vale of Tears*, 17 *J. LEGIS.* 1 (1990); Karen M. Hansen, *"Knowing" Environmental Crimes*, 16 *WILLIAM MITCHELL L. REV.* 987 (1990); Robert G. Schwartz, Jr., *Criminalizing Occupational Safety Violations The Use of "Knowing Endangerment" Statutes to Punish Employers for Maintaining Toxic Working Conditions*, 14 *HARV. ENV'T L. REV.* 487 (1990).

26. 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, 55 tbl.2 (2021).

27. David M. Uhlmann, *Prosecutorial Discretion and Environmental Crime*, 38 *HARV. ENV'T L. REV.* 159, 159, 193–94 (2014). Criminal enforcement has been criticized as lacking a deterrent value due to both the low number of staff to police and prosecute the multitude of potential environmental crimes in the United States and the low probability of significant penalties being handed down at sentencing. If penalties are too insignificant and the probability of detection too low, then the deterrent value of criminal enforcement may be minimal. Companies in particular may see fines and other penalties as simply the cost of doing business. See Carole M. Billiet & Sandra Rousseau, *How Real is the Threat of Imprisonment for Environmental Crime?*, 37 *EUR. J.L. & ECON.* 183, 183–88 (2014) (discussing the deterrence value of environmental fines and sentences); Daniel P. Fernandez et al., *Monetary Consequences of Environmental Regulations Cost of Doing Business or Non-Deductible Penalties or Fines*, 9 *AM. U. BUS. L. REV.* 123, 125–26 (discussing the business cost of environmental compliance and tax consequences of enforcement penalties); Michael J. Lynch, *The Sentencing/Punishment of Federal Environmental/Green Criminal Offenders, 2000-2013*, 38 *DEVIANT BEHAV.* 991, 991–95 (2017) (finding a small number of criminal prosecutions in an analysis of environmental sentencing data); Joshua Ozymy & Melissa L. Jarrell, *Sub-Optimal Deterrence and Criminal Sanctioning under The U.S. Clean Water Act*, 24 *U. DENVER WATER L. REV.* 159, 169–80 (2021) (evaluating deterrence based on three decades of CWA enforcement actions data).

28. 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). See generally Joel A. Mintz, *Destruction, Confusion, Confrontation, and Disarray EPA Enforcement and Congressional Oversight in the Gorsuch Era*, in *ENFORCEMENT AT THE EPA: HIGH STAKES AND HARD CHOICES* 41 (Univ. of Texas Press ed., rev. ed. 2012).

quo president like Obama, but this is currently unknown. Trump's assault on the EPA represents an openly hostile attempt to subvert all environmental regulation, and this strategy may have prevented environmental law enforcement agencies from using their typical administrative strategies.²⁹ Trump was a threat to these organizations, contributing to years of organizational damage caused by the cumulative effect of oppositional presidents. The 2009 Financial Crisis compounded organization damages, so that agencies were "running on fumes" coming out of the Obama Era, and therefore significantly weakened before facing the extreme opposition of the Trump Administration.³⁰ It is questionable whether these agencies can accomplish much in the face of these structural challenges.³¹ Exploring the nature of the outputs of environmental criminal enforcement agencies under both Trump and Obama allowed us to analyze the accomplishments under Trump relative to his predecessor, and assess the functioning of this apparatus under continued resource scarcity and the opposition versus support dialectic from Republicans and Democrats in the White House.³²

III. DATA AND ANALYSIS

We collected data from the EPA's Summary of Criminal Prosecutions Database.³³ This resource provided data on EPA-CID criminal investigations that led to prosecution since 1983. The database contained searchable case data that includes summaries of various lengths including details on the investigation, indictment, and sentencing of environmental offenders in each of these prosecutions. We searched the database by EPA fiscal year (FY) and culled all cases where defendants were sentenced during the Trump Administration, from his inauguration on January 20, 2017, to the inauguration of President Joe Biden on January 20, 2021.³⁴ This gave us 282 total prosecutions for our analysis of

29. Joshua Ozymy & Melissa Jarrell, *Wielding the Green Stick: An Examination of Criminal Enforcement at the EPA under the Bush and Obama Administrations*, 24 ENV'T POL. 38, 41 (2015).

30. See Joel A. Mintz, "Running on Fumes" *The Development of New EPA Regulations in an Era of Scarcity*, 46 ENV'T L. REP. (ENV'T L. INST.) 10,510, 10,512-13 (2016).

31. Joshua Ozymy & Melissa Jarrell, *Administrative Persistence in the Face of a Hostile Regime: How the Environmental Protection Agency Can Survive the Trump Administration*, 10 ENV'T JUST. 201, 202-03 (2017).

32. Some research has given a preliminary examination of the Trump Administration's impact on environmental prosecutions, but not a complete analysis. *E.g.*, Ozymy, *supra* note 26, at 49-50; Uhlmann, *supra* note 3, at 2-3.

33. *Summary of Criminal Prosecutions*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (last visited Mar. 6, 2023). To search individual prosecutions referenced below, enter the suggested search terms under "Defendants, Name:" leaving the field set to "Contains", then click the Search button below. Search results are displayed in a table of prosecutions. Click the "View" link to the right of the desired record to open the full summary of the prosecution.

34. Our experience with the dataset is that case order should go sequentially over time within each FY, but sometimes this is not true, or cases might be added into the Database at a later time. We had to be particularly careful not to include any cases that were sentenced before or after Trump. When we gathered the data, Timothy Patrick was the last case prosecuted and adjudicated before January 20, 2021. See *Summary of Criminal Prosecutions: State v. Timothy Patrick, No. 19 CR 75 (Ohio 2021)*, EPA,

cases during the Trump Administration.³⁵ We followed a similar process in collecting data for all prosecutions adjudicated during the Obama Administration. We gathered all prosecutions where defendants were sentenced on or after Obama's inauguration on January 20, 2009, through January 19, 2017, the day before President Trump was inaugurated. This gave us 914 prosecutions for our analysis during the Obama Era.

We coded the following data from each case summary: a docket number, state identifier for which the crime was prosecuted, EPA FY of the prosecution, a brief narrative summary of each prosecution, the number of defendants listed in the summary, the presence in the case of at least one company/corporation as a defendant, presence of false statements, conspiracy, fraud, or other related criminal charges, whether a defendant was charged under state environmental laws, and the major federal laws violated in each prosecution.³⁶ From each case narrative we coded penalties assessed in each case by all individual and company defendants. We measured monetary penalties in nominal U.S. dollars including fees, assessments, fines, restitution, community service payments, and any other monetary penalty. Probation and incarceration were measured in total months assessed per case to all individual and company defendants. Community service was measured in total hours assessed per case.

Data for the analysis was derived strictly from the database. If EPA did not include a case, then it was unknown to us and not included in our research, as if other federal agencies undertook an environmental crime investigation and it was not included in the database. We did not check web materials or other legal resources to verify cases, because our data gathering technique would not be consistent across cases. We used content analysis with two coders gathering data independently for four weeks to analyze patterns. Once our understanding of the

https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search "Timothy Patrick") (last visited Mar. 6, 2023). Our dataset begins with the prosecution of Christopher Dale Miller. See *Summary of Criminal Prosecutions United States v. Christopher Dale Miller, No. 5 16-CR-205-1BO (E.D.N.C. 2017)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search "Christopher Dale Miller") (last visited Mar. 6, 2023). The prosecutions of both Isaac Cole, who was sentenced on January 13, 2017, and Omega Protein, which was sentenced on January 18, 2017, are not included in the data because their sentencing occurred a few days prior to Trump's inauguration. See *Summary of Criminal Prosecutions United States v. Isaac Cole, No. CR16-270JCC (W.D. Wash. 2017)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search "Isaac Cole") (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Omega Protein, No. 6 16-CR-00292 (W.D. La. 2017)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search "Omega Protein") (last visited Mar. 6, 2023).

35. When we coded the data there were 283 cases, but primary defendant Mark Meyer is inaccurately listed twice in the Database. See *Summary of Criminal Prosecutions United States v. Mark Meyer, No. 1 20-CR-00186 (D.N.D. 2021)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search "Mark Meyer") (last visited Mar. 6, 2023).

36. Some prosecutions, discussed below, were investigated by EPA-CID, but defendants were ultimately charged with state-level offenses or non-environmental crimes. In both the Trump and Obama analysis we include these prosecutions. We chose not to delete those cases where defendants were charged with state offenses, because we want to include all cases in the analysis and represent the full output of the agencies during these time periods as completely as possible.

patterns in the data became clearer, we began coding. We met to discuss differences and find consensus. Most discrepancies presented with complex or ambiguous sentencing data.³⁷ Inter-coder reliability for the entire project was about 95 percent.³⁸ Our findings are organized around describing the output of criminal prosecutions during the Trump Administration, then considering patterns in those prosecutions, overall penalties, whether the Administration was willing to prosecute serious crimes, and whether it was willing to seek significant penalties. For perspective, we then compare these results with the output of criminal prosecutions during the Obama Administration.

IV. RESULTS

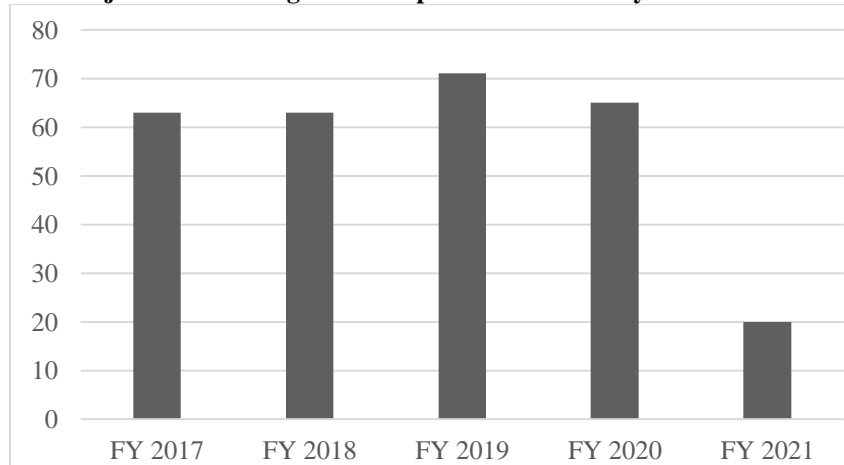
A. *Patterns in Environmental Crime Prosecutions*

We describe the total output of criminal prosecutions during the Trump Administration. Figure 1 tracks the total number of prosecutions adjudicated during this time. In FY 2017, we found sixty-three prosecutions were adjudicated. That number remained steady in FY 2018, grew to seventy-one in FY 2019, and dropped again to sixty-five in 2020. Over four years, an average of sixty-six prosecutions were adjudicated annually. In FY 2021, twenty prosecutions were adjudicated between October 1, 2020, and January 20, 2021, when Trump left office. This explains the sharp drop-off in prosecutions represented in Figure 1 below. Had the Administration continued, it seems plausible that the total prosecutions during FY 2021 would have approached the yearly average of the Administration's previous years. By our estimates a total of 282 prosecutions were adjudicated during the Trump Administration.

37. In a few case summaries, the sentencing data was ambiguous. We included David W. Surman and Carl J. Rivers in our dataset, but because prison sentences were ambiguous, we excluded them from the penalty totals in the analysis. See *Summary of Criminal Prosecutions Commonwealth v. David W. Surman, No. CR-306-18/CP-09-CR-0006989-2018 (Penn. 2020)*, EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? \(search "Surman"\)](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search \) (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions State v. Carl J. Rivers (N.Y. 2020)*, EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? \(search "Rivers"\)](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search \) (last visited Mar. 6, 2023). The summary for Jacob Lee Davis notes he must pay restitution in the form of medical monitoring to victims, but it does not specify the number of victims so the restitution is not included in our analysis below. See *Summary of Criminal Prosecutions United States v. Jacob Lee Davis, No. 19-CR-201-SWS (D. Wyo. 2020)*, EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? \(search "Jacob Lee Davis"\)](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search \) (last visited Mar. 6, 2023). Frank Onoff was sentenced to "32 months," but the summary does not specify the sentence type (i.e., whether it was community service, incarceration, etc.). However, because his co-defendant Sandy Allen was sentenced to 32 months of incarceration, in this particular case coders made the assumption that Onoff was sentenced to 32 months of incarceration as well. See *Summary of Criminal Prosecutions United States v. Frank Onoff, No. CR-5 2009CR00319 DNH (N.D.N.Y. 2020)*, EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? \(search "Onoff"\)](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search \) (last visited Mar. 6, 2023).

38. By dividing the agreed upon items by total number of coding decisions. See OLE R. HOLSTI, CONTENT ANALYSIS FOR THE SOCIAL SCIENCES AND HUMANITIES 139–40 (1969).

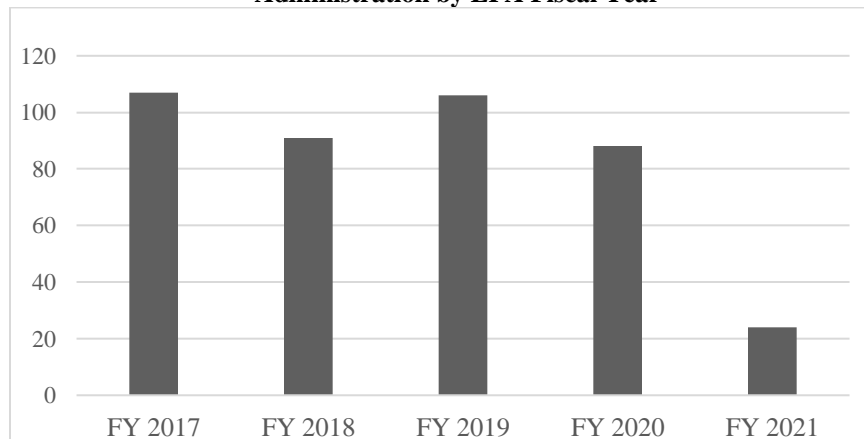
Figure 1. Total Number of Environmental Crime Prosecutions Adjudicated During the Trump Administration by EPA Fiscal Year



Source: EPA Summary of Criminal Prosecutions Database

Figure 2 shows the total number of defendants prosecuted by EPA fiscal year during the Trump Administration. In FY 2017, we estimate that 107 defendants were prosecuted. The following year, ninety-one total defendants were prosecuted. In FY 2019, 106 defendants were prosecuted, eighty-eight the following year, and twenty-four through the remaining months under the Administration from October through January. We estimated that in eighty-six prosecutions or 30 percent of total prosecutions at least one defendant was a company or a corporation in the case.

Figure 2. Total Defendants Prosecuted During the Trump Administration by EPA Fiscal Year

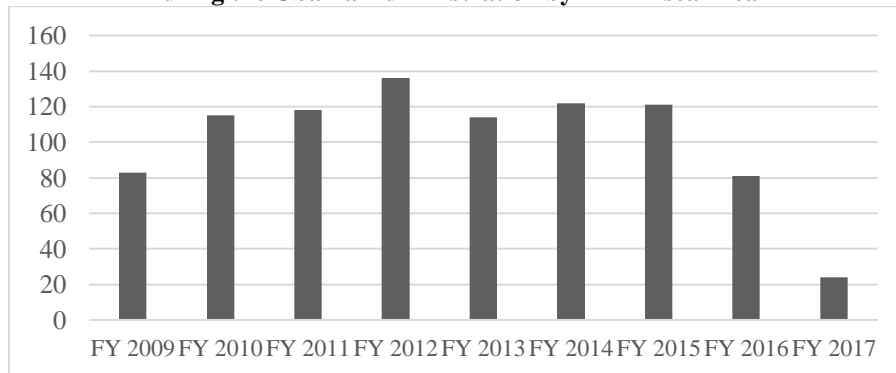


Source: EPA Summary of Criminal Prosecutions Database

We compared Trump prosecution outcome data with prosecution outcome data from the Obama Administration. Figure 3 shows the total number of environmental crime prosecutions adjudicated during the Obama presidency. Beginning with cases adjudicated in FY 2009 during Obama's first year, we found eighty-three adjudicated by the end of the fiscal year. These numbers rose to 118 in FY 2011, 136 in FY 2012, and then declined to 122 in FY 2014 and eighty-one in FY 2016. From October 2016 until Trump's inauguration, twenty-four prosecutions were adjudicated in FY 2017 under Obama.

The best comparison between the two eras is likely the first partial fiscal year and the following three fiscal years in Obama's first term (FY 2009–12) to FY 2017–20 under Trump. This shows the characteristics of the first term in office for each president, given Trump only served one term in office. Obama's DOJ totaled 453 prosecutions during this period, with an average of 113 per fiscal year. Trump totaled 262 prosecutions during this period, or an average of about sixty-six per year. By this comparison alone, the average number of prosecutions over their first and most comparable term, showed the Trump DOJ prosecuting about 58 percent fewer cases as the DOJ under Obama. The DOJ under Trump adjudicated 197 prosecutions in the first three fiscal years, compared with 316 under Obama—about 62 percent fewer cases during this period.

Figure 3. Total Number of Environmental Crime Prosecutions Adjudicated During the Obama Administration by EPA Fiscal Year

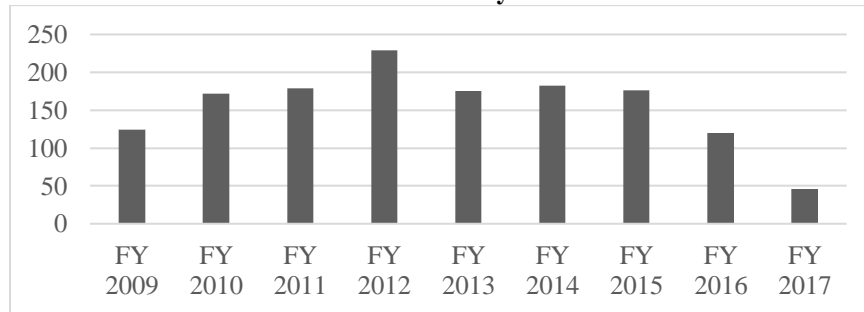


Source: EPA Summary of Criminal Prosecutions Database

Figure 4 shows the total number of defendants prosecuted per fiscal year during the Obama Administration. In FY 2009, 124 defendants were prosecuted, in FY 2011, 179 defendants were prosecuted, and in FY 2012, a high of 229 defendants were prosecuted. Prosecutions dropped significantly to 120 in FY 2016 and then forty-six in the remaining part of FY 2017 under Obama. We estimate 1,403 defendants were prosecuted during this era, or 156 defendants per fiscal year. Under Trump an estimated 416 defendants were prosecuted, or about

eighty-three per fiscal year. In the first three fiscal years, the average number of defendants prosecuted was 158 and 101 respectively.

Figure 4. Total Defendants Prosecuted During the Obama Administration by EPA Fiscal Year



Source: EPA Summary of Criminal Prosecutions Database

Figure 5 shows prosecution patterns for major federal environmental statutes during the Trump Era. These include the CWA, CAA, RCRA, FIFRA, and TSCA.³⁹ We explored what types of environmental crimes are committed and what offenses prosecutors pursue to provide an overview of the universe of environmental crime prosecution during this period. A total of sixty-three CWA prosecutions were adjudicated during this period. These prosecutions typically focused on discharges occurring without a National Pollution Discharge Elimination System (NPDES) permit or in violation of an issued permit.⁴⁰ Defendants were prosecuted for making false statements on official reports, falsifying discharge monitoring reports (DMRs), violating pretreatment standards, or violations of illegal alteration, obstruction, or similar actions undertaken without a Section 404 permit.⁴¹ Related violations for water pollution crimes included dumping waste in the ocean in violation of the Act to Prevent Pollution from Ships (APPS), violations of the RHAA for discharging into the

39. Defendants can be charged under more than one statute in a prosecution. These figures represent the number of times at least one defendant was charged under these statutes annually. For example, a defendant could be prosecuted under the CWA and RCRA in the same case, and those numbers are reflected here.

40. NPDES is the primary vehicle for regulating discharges from point sources in the United States. See *National Pollution Discharge Elimination System (NPDES)*, EPA, <https://www.epa.gov/npdes> (last updated Feb. 16, 2023).

41. Pretreatment standards refer to discharge limits for stationary sources of pollution, such as refineries, powerplants, or other sources regulated under the Act. *Pretreatment Standards and Requirements—Applicability*, EPA, <https://www.epa.gov/npdes/pretreatment-standards-and-requirements-applicability> (last updated Oct. 3, 2022). Regulated entities are required to file DMRs as part of their regulatory requirements under the CWA. See *Discharge Monitoring Report—Quality Assurance Study Program*, EPA, <https://www.epa.gov/compliance/discharge-monitoring-report-quality-assurance-study-program> (last updated Mar. 31, 2023). Altering waterways requires a Section 404 Permit from the Army Corps of Engineers, which shares regulatory authority with EPA under the CWA. *Permit Program under CWA Section 404*, EPA, <https://www.epa.gov/cwa-404/permit-program-under-cwa-section-404> (last updated Mar. 31, 2023).

navigable waters of the United States, transporting waste for purpose of dumping in violation of the Ocean Dumping Act, and violations of the Safe Drinking Water Act (SDWA).⁴² Four case examples include the prosecutions of Stephen Fritz, W. Bockstiegel Reederei GmbH & CO. KG, Christopher Dale Miller, and United Industries.⁴³

Fritz was charged with violations of the CWA for discarding water testing samples that verified a wastewater treatment plant would exceed its permit limits. Fritz reported false test results and was charged with violations of the CWA.⁴⁴ W. Bockstiegel Reederei GmbH & CO. KG, a German company, was charged with violations of the APPS. The company failed to keep an accurate Oil Record Book for its vessel Nils B.⁴⁵ Christopher Dale Miller was employed by the town of Cary, North Carolina to collect water quality samples for its drinking water system. Cary plead guilty to making materially false statements and violating the SDWA by submitting false documentation that he obtained water quality samples in a series of locations.⁴⁶ United Industries plead guilty to depositing refuse into the navigable waters of the United States in violation of the RHAA.⁴⁷ The company was dumping railcar parts into the ocean to conceal unnecessary repairs it was making under contract to several railcar operators.⁴⁸

42. The Act to Prevent Pollution from Ships (APPS) implements provisions of the International Convention for the Prevention of Pollution from Ships (MARPOL) and also regulates air pollution from ocean going vessels. See 33 U.S.C. §§ 1905–1915; *MARPOL Annex VI and the Act to Prevent Pollution from Ships (APPS)*, EPA, <https://www.epa.gov/enforcement/marpol-annex-vi-and-act-prevent-pollution-ships-apps> (last updated Sept. 19, 2022). The Ocean Dumping Act (formally, the Marine Protection, Research and Sanctuaries Act) prohibits the transportation of the waste from or to the United States for the purpose of ocean dumping. See 33 U.S.C. § 1411; *Summary of the Marine Protection, Research, and Sanctuaries Act*, EPA, <https://www.epa.gov/laws-regulations/summary-marine-protection-research-and-sanctuaries-act> (last updated Jan. 3, 2023). The Safe Drinking Water Act (SDWA) regulates drinking water in the United States. See 42 U.S.C. §§ 300f–300j; *Safe Drinking Water Act (SDWA)*, EPA, <https://www.epa.gov/sdwa> (last updated Mar. 30, 2023).

43. *Summary of Criminal Prosecutions United States v. Stephen Fritz, No. 15-412 (E.D. Penn. 2017)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search “Stephen Fritz”) (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions State v. W. Bockstiegel Reederei GmbH & CO. KGS.D., No. 16-CR-2440-DMS (Cal. 2017)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search “Bockstiegel”) (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Christopher Dale Miller, supra* note 34; *Summary of Criminal Prosecutions United States v. United Industries, LLC, No. CR 17-00726-DMG (C.D. Cal. 2018)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search “United Industries”) (last visited Mar. 6, 2023).

44. Fritz was sentenced to three years of probation, 100 hours of community service, and a \$1,000 fine. *Summary of Criminal Prosecutions United States v. Stephen Fritz, supra* note 43.

45. Failing to keep an accurate Oil Record Book is a common means to charge companies that illegally dump oil and oily mixtures overboard without a permit. Here, the company was sentenced to a \$500,000 fine and a \$250,000 community service payment. *Summary of Criminal Prosecutions State v. W. Bockstiegel Reederei GmbH & CO. KGS.D., supra* note 43.

46. Miller was sentenced to one year of probation, 120 hours of community service, and \$14,437 in restitution. *Summary of Criminal Prosecutions United States v. Christopher Dale Miller, supra* note 34.

47. The company was sentenced to pay a \$5 million fine and \$20 million in restitution to the TTX Company, Pacer International, and Greenbrier Company, all of which it defrauded. *Summary of Criminal Prosecutions United States v. United Industries, LLC, supra* note 43.

48. *Id.*

We estimate that forty-six CAA prosecutions were adjudicated during this time. The most prevalent crimes prosecuted under the CAA were related to asbestos removal.⁴⁹ The ubiquitous use of asbestos as an insulator for buildings, pipes, brake pads, floors and ceilings, creates increased opportunities for illegal removal.⁵⁰ Other crimes prosecuted under the CAA included smuggling illegal refrigerants and ozone depleting substances (ODS), unpermitted air emissions from stationary sources of pollution, tampering with monitoring devices or controls, and defrauding renewable fuel programs.⁵¹ Case examples in this category include the prosecutions of Power Plant Management Services, LLC; Jamie Patrick Alvarez; Steven Weaver; Mahmoud Mohamed Alkabbani; Hyundai Construction Equipment Americas; and Andre Mark Bernard.⁵²

49. Asbestos is regulated as a Hazardous Air Pollutant (HAP) under the National Emissions Standards for Hazardous Air Pollutants (NESHAP). *Overview of the Asbestos National Emissions Standards for Hazardous Air Pollutants (NESHAP)*, EPA, <https://www.epa.gov/asbestos/overview-asbestos-national-emission-standards-hazardous-air-pollutants-neshap> (last updated Feb. 1, 2023). Releasing it into the ambient air without a permit through remediation, disposal, or other means is a violation of the CAA. *See id.*; 42 U.S.C. § 7413(c)(1); *Criminal Provisions of the Clean Air Act*, *supra* note 10. Related crimes, such as giving false statements on reports, fraudulent testing or certification frauds for asbestos removal certification all come under this banner. *See* 42 U.S.C. § 7413(c)(2)(A); *Criminal Provisions of the Clean Air Act*, *supra* note 10. Failing to notify officials of the release of asbestos is also an offense that can be a violation of CERCLA. *See* 42 U.S.C. § 9603(b); *Criminal Provisions of the Comprehensive Environmental Response, Compensation—and Liability Act (CERCLA)*, EPA, [epa.gov/enforcement/criminal-provisions-comprehensive-environmental-response-compensation-and-liability-act](https://www.epa.gov/enforcement/criminal-provisions-comprehensive-environmental-response-compensation-and-liability-act) (last updated Mar. 27, 2023).

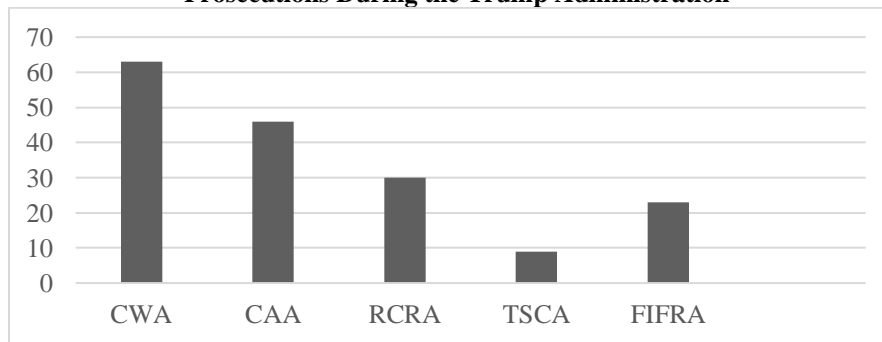
50. Don Colburn, *The Ubiquitous Asbestos*, WASH. POST (Nov. 6, 1985), <https://www.washingtonpost.com/archive/lifestyle/wellness/1985/11/06/the-ubiquitous-asbestos/b5b28f40-9118-4e28-88f1-777e474840e7/>; *Criminal Provisions of the Clean Air Act*, *supra* note 10. Schools and public facilities are regulated under the Asbestos Hazard Emergency Response Act (AHERA), which requires facilities to have an asbestos management plan. *Asbestos and School Buildings*, EPA, <https://www.epa.gov/asbestos/asbestos-and-school-buildings> (last updated Apr. 26, 2022).

51. *See Criminal Provisions of the Clean Air Act*, *supra* note 10. Stationary sources of pollution including factories, refineries, and other facilities are regulated under the CAA for purposes of controlling harmful air emissions. Any major sources of air emissions must obtain a Title V operating permit. *See Stationary Sources of Air Pollution*, EPA, <https://www.epa.gov/stationary-sources-air-pollution> (last updated Feb. 16, 2023); *Operating Permits Issued under Title V of the Clean Air Act*, EPA, <https://www.epa.gov/title-v-operating-permits> (last updated Dec. 22, 2022); *Ozone-Depleting Substances*, EPA, <https://www.epa.gov/ozone-layer-protection/ozone-depleting-substances> (last updated June 1, 2022).

52. *See Summary of Criminal Prosecutions United States v. Power Plant Mgmt. Servs., LLC, No. 3 16-CR-30021-MGM (D. Mass. 2017)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?search=Power+Plant (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Jaime Patrick Alvarez, No. CR-2016-0049 (C.D. Cal. 2017)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?search=Alvarez (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Steven Weaver, No. 18-CR-3039 (N.D. Iowa 2019)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?search=Weaver (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Mahmoud Mohamed Alkabbani, No. CR 17-311 (C.D. Cal. 2018)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?search=Alkabbani (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Hyundai Constr. Equip. Ams., No. 1 18-CR-00379 (N.D. Ga. 2019)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?search=Hyundai (last visited Mar. 6, 2023).

Power Plant Management Services, LLC and Berkshire Power Company, LLC were indicted for conspiring to violate the CAA, by tampering with air pollution control equipment and submitting false reports for the Berkshire Power Plant in Agawam, Massachusetts. The companies were prosecuted for tampering with the plant's air pollution controls to conceal excess emissions and then filed falsified reports based on the fraudulent estimates with the EPA and the Massachusetts Department of Environmental Protection (MassDEP).⁵³ Jamie Patrick Alvarez and eight co-defendants were charged with making false statements on their role in clean piping over 1,300 vehicles to allow them to fraudulently pass emissions tests.⁵⁴ Steven Weaver was prosecuted for renovating an apartment complex in Northern Iowa that he knew contained asbestos.⁵⁵

Figure 5. Patterns in Environmental Crime Prosecutions During the Trump Administration



Source: EPA Summary of Criminal Prosecutions Database

Mahmoud Mohamed Alkabbani was prosecuted for purchases of a restricted refrigerant, R-22a from a Chinese company. The refrigerant was fraudulently labeled R-134a, a legal refrigerant, rather than R-22a, a banned

53. Berkshire was sentenced to pay \$2.75 million in criminal fines and to make a \$750,000 community service payment. Power Plant Management was sentenced to pay \$500,000 in criminal fines and make a \$250,000 community service payment. The companies also agreed to pay over \$3 million in civil penalties. *Summary of Criminal Prosecutions United States v. Power Plant Mgmt. Servs., LLC*, *supra* note 52.

54. Alvarez was sentenced to twenty-four months of probation. *Summary of Criminal Prosecutions United States v. Jaime Patrick Alvarez*, *supra* note 52. Clean piping or clean scanning was undertaken to circumvent California's vehicle emissions inspection program for Los Angeles County where smog is a serious urban air pollution problem. See Press Release No. 16-021, Cent. Dist. of Cal. U.S. Att'y's Off., U.S. Dep't of Just., 9 Charged in Federal Court with Circumventing Smog Check Program by 'Clean Piping' over 1,300 Vehicles that Were Never Tested (Feb. 3, 2016), available at <https://www.justice.gov/usao-cdca/pr/9-charged-federal-court-circumventing-smog-check-program-clean-piping-over-1300>.

55. Weaver was sentenced to two years of probation and a \$100,000 fine for violations of the CAA. *Summary of Criminal Prosecutions United States v. Steven Weaver*, *supra* note 52.

refrigerant.⁵⁶ Hyundai Construction Equipment Americas was prosecuted for importing engines that were non-compliant with the EPA's new emissions standards. Investigators found a consultant had warned the company to stop importing the nonconforming construction equipment and notify EPA, but it conspired to lie to regulators and import the nonconforming engines.⁵⁷ Andre Mark Bernard was prosecuted as part of a large fraud perpetrated by Gen-X Energy Group.⁵⁸ The company falsely claimed some 60 million in renewable energy credits that were sold to other companies for \$42 million and filed false claims with the U.S. Internal Revenue Service (IRS) for \$4.3 million in tax credits.⁵⁹

In thirty prosecutions, at least one defendant was charged under RCRA. Most of these offenses centered on one or more violations of illegal storage, transport, or disposal of hazardous waste. Case examples include the prosecutions of Miguel Castillo, Edward Miller, and Jamen Douglas Wood.⁶⁰

56. The defendant was sentenced to six months home confinement, two years of probation, and a \$40,000 criminal fine. *Summary of Criminal Prosecutions United States v. Mahmoud Mohamed Alkabbani*, *supra* note 52; *Questions and Answers About R-22 Safety*, EPA, <https://www.epa.gov/snap/questions-and-answers-about-r-22a-safety> (last visited Mar. 6, 2023).

57. The company was prosecuted for making false statements under the CAA and was sentenced to pay \$1,950,000 in federal fines. *Summary of Criminal Prosecutions United States v. Hyundai Constr. Equip. Ams.*, *supra* note 52.

58. *Summary of Criminal Prosecutions United States v. Andre Mark Bernard, No. 2 17-CR-61-FTM-38MRM (M.D. Fl. 2018)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?search=Andre+Mark+Bernard (last visited Mar. 6, 2023). For a related prosecution, see Press Release No. 18-521, U.S. Dep't of Just., California Man Sentenced to 51 Months in Prison for Renewable Fuel Fraud (Apr. 20, 2021), available at <https://www.justice.gov/opa/pr/california-man-sentenced-51-months-prison-renewable-fuel-fraud>.

59. *Summary of Criminal Prosecutions United States v. Andre Mark Bernard, No. 2 17-CR-61-FTM-38MRM (M.D. Fl. 2018)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?search=Andre+Mark+Bernard (last visited Mar. 6, 2023). Bernard was sentenced to eighty-seven months in prison for conspiracy to commit wire fraud, as well as making false statements under the CAA. *Id.* The court issued a monetary judgement to Bernard for \$10.5 million, the amount he profited from the fraud. *Id.* Hector Garza, along with Tammy Garza, Freedom Fuel, and HTG Trucking, were also prosecuted as part of the Gen-X Energy Group conspiracy. See *Summary of Criminal Prosecutions United States v. Hector Garza, No. 4 17-CR-6020-SMJ (E.D. Wash. 2020)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?search=Hector+Garza (last visited Mar. 6, 2023). The Energy Independence and Security Act, Pub. L. No. 110-140, 121 Stat. 140 (2007), encouraged the production of domestic biofuel. See *Summary of the Energy Independence and Security Act*, EPA, <https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act> (last updated May 12, 2022). Companies that produced additional biofuel would be able to receive marketable credits called Renewable Identification Numbers (RINs) that could be sold to other companies. Producers could also receive tax credits. See *Renewable Identification Numbers (RINs) under the Renewable Fuel Standard Program*, EPA, <https://www.epa.gov/renewable-fuel-standard-program/renewable-identification-numbers-rins-under-renewable-fuel-standard> (last visited Mar. 6, 2023).

60. *Summary of Criminal Prosecutions United States v. Miguel Castillo, No. 1 15-CR-00360-JEI (D.N.J. 2019)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?search=Castillo (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Edward Miller, No. 8 19CR287 (D. Neb. 2020)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?search=Edward+Miller (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Jamen Douglas Wood, No. 1 17CR44 (D. Utah 2019)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?search=Jamen (last visited Mar. 6, 2023).

Miguel Castillo was president of Concord Chemical Co, Inc., which repackaged and distributed chemical products.⁶¹ In August 2010, EPA investigators conducted a site visit at the company's Camden, New Jersey facility and found it empty and containing drums of hazardous waste.⁶² EPA removed the hazardous substances from October 2010 to March 2011.⁶³ Edward Miller loaded a flatbed truck full of hazardous wastes and transported them to three different sites throughout Cheyenne County, Nebraska and engaged in illegal disposal of the wastes.⁶⁴ Jamen Douglas Wood was the project manager for Stone Castle Recycling. Wood falsified manifests to illegally dispose of some 152,000 pounds of lead-contaminated glass in a landfill.⁶⁵

In twenty-three prosecutions, at least one defendant was charged with a FIFRA crime. These actions tend to involve distributing or selling pesticides not registered with the EPA, using off-label pesticides, or smuggling pesticides. Examples include the prosecutions of Maria Elena Macias; Dipen Patel; and Terminix, USVI.⁶⁶ Maria Elena Macias was prosecuted for attempting to smuggle five one-liter bottles of Metaldane 600 into the United States.⁶⁷ Dipen Patel knowingly distributed an unregistered pesticide known as DOOM that was applied to a hotel room in Michigan City, Indiana.⁶⁸ On March 18, 2015, two employees of Terminix, USVI performed a fumigation pesticide treatment using methyl bromide to a lower unit in an apartment block in St. John, U.S. Virgin Islands. The pesticide traveled upward, causing severe injury, and resulting in the hospitalization of a family occupying the upper unit.⁶⁹

61. *Summary of Criminal Prosecutions United States v. Miguel Castillo*, *supra* note 60.

62. *Id.* Castillo was prosecuted for illegal storage of hazardous waste under RCRA and was sentenced to \$450,000 in restitution six months home confinement, and five years of probation. *Id.*

63. *Id.*

64. The defendant was prosecuted for RCRA violations and was sentenced to thirty-three months incarceration and \$25,471 in restitution. *Summary of Criminal Prosecutions United States v. Edward Miller*, *supra* note 60.

65. Wood was sentenced to forty-eight months of probation. *Summary of Criminal Prosecutions United States v. Jamen Douglas Wood*, *supra* note 60.

66. *Summary of Criminal Prosecutions United States v. Maria Elena Macias*, No. 3 20-CR-02432 (S.D. Cal. 2021), EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?search=Macias) (search "Macias") (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Dipen Patel*, No. 2 16-CR-00155-PRC (N.D. Ind. 2017), EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?search=Dipen) (search "Dipen") (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Terminix, USVI*, No. 3 17-CR-00007-CVG-RM (D.V.I. 2018), EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?search=Terminix) (search "Terminix") (last visited Mar. 6, 2023).

67. Macias was sentenced to six months of probation. *Summary of Criminal Prosecutions United States v. Maria Elena Macias*, *supra* note 66.

68. Patel was prosecuted for criminal violations of FIFRA for illegally distributing an unregistered pesticide and was sentenced to one year probation and sixty days home detention. *Summary of Criminal Prosecutions United States v. Dipen Patel*, *supra* note 66.

69. The defendant was charged with violations of FIFRA and was sentenced to pay \$9.2 million in criminal fines, restitution of \$1,242,450, a \$1,000,000 community service payment, and serve five years of probation. *Summary of Criminal Prosecutions United States v. Terminix, USVI*, *supra* note 66.

In nine prosecutions, at least one defendant was charged with criminal violations of TSCA. Most of these cases focused on lead-based paint crimes.⁷⁰ Examples include the prosecutions of Walter Clews, Bitner Brothers Construction, and Maureen Walck.⁷¹ Walter Clews was prosecuted for improperly conducting residential lead inspections at hundreds of Maryland residences between May 2010 and June 2014, in which his company certified homes as lead-free when they contained lead-based paint.⁷² Bitner Brothers Construction of Pennsylvania did renovations involving lead-based paint.⁷³ The company was prosecuted for violating workplace standards under the TSCA by conducting power grinding without a HEPA vacuum and containment system as required by law.⁷⁴ Maureen Walck was a real estate broker that sold a house in Lockport, New York containing lead-based paint.⁷⁵ Walck knowingly lied to a prospective buyer that the seller had no knowledge of the hazard when such hazards were known to the owner and Walck, and the new owner's child was diagnosed with lead poisoning.⁷⁶

Figure 6 shows patterns in environmental crime prosecutions adjudicated during the Obama Administration. The Figure shows that cases are dominated by the CWA, with 247 prosecutions where at least one defendant was charged with a crime under the Act. In 151 prosecutions, at least one defendant was

70. Title IV of TSCA regulates lead-based paint hazards in the United States. These regulations focus on protecting children and occupants of dwellings from being exposed to lead-based paint. Homes and buildings built prior to 1978 require disclosure of known lead-based paint hazards for renters and potential buyers and for training and certification for lead-based paint removal. *See Lead Regulations*, EPA, <https://www.epa.gov/lead/lead-regulations> (last updated Aug. 26, 2022).

71. *Summary of Criminal Prosecutions United States v. Walter Clews, No. 19-CR-00276 (D. Md. 2020)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search "Clews") (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Bitner Bros. Const., No. 18-CR-00157 (M.D. Penn. 2018)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search "Bitner") (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Maureen Walck, No. 17-MJ-1103 (W.D.N.Y. 2018)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search "Walck") (last visited Mar. 6, 2023).

72. Clews was charged with violating the TSCA and was sentenced to twelve months of probation and a \$10,000 fine. *Summary of Criminal Prosecutions United States v. Walter Clews, supra* note 71.

73. The company was sentenced to two years of probation and a \$10,000 fine. *Summary of Criminal Prosecutions United States v. Bitner Bros. Const., supra* note 71.

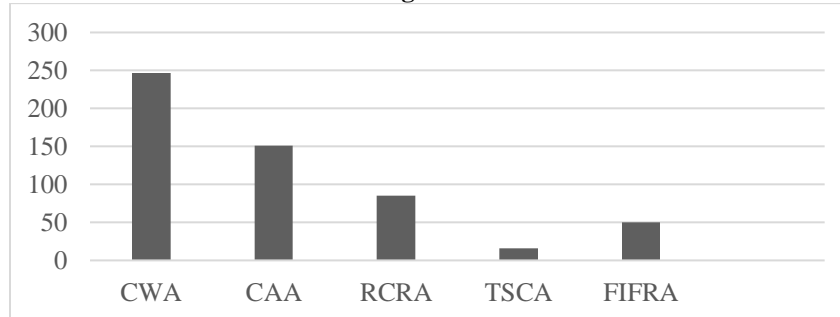
74. *Summary of Criminal Prosecutions United States v. Bitner Bros. Const., supra* note 71; *see also Renovation, Repair and Painting Program Contractors*, EPA, <https://www.epa.gov/lead/renovation-repair-and-painting-program-contractors> (last updated July 26, 2022).

75. Press Release, W. Dist. of N.Y. U.S. Att'y's Off., U.S. Dep't of Just., Realtor Pleads Guilty to Violating Lead-Based Paint Disclosure Rules, (Sept. 7, 2017), *available at* <https://www.justice.gov/usao-wdny/pr/realtor-pleads-guilty-violating-lead-based-paint-disclosure-rules>. Walck was required by federal law to disclose any known potential hazards from lead-based paint. *See id.*; *Seller's Disclosure of Information on Lead-Based Paint and/or Lead-Based Paint Hazards*, EPA, <https://www.epa.gov/lead/sellers-disclosure-information-lead-based-paint-and-or-lead-based-paint-hazards> (last updated June 19, 2022).

76. *Summary of Criminal Prosecutions United States v. Maureen Walck, supra* note 71. Walck was sentenced to pay a \$1,000 fine and \$53,326.07 in restitution to the victim. *Id.* We found fifty-two prosecutions that focused on state-level environmental crimes in the database, with 18 percent of overall prosecutions focusing on a state-level offense. These data show a high level of cooperation between state and federal environmental law enforcement.

charged under the CAA and in eighty-five prosecutions at least one defendant was charged under RCRA. In fifty prosecutions, at least one defendant was charged under FIFRA. In sixteen prosecutions, at least one defendant was charged under TSCA. These patterns mirror Trump, with the CWA dominating, followed by the CAA, RCRA, and several state-level prosecutions.⁷⁷

Figure 6. Patterns in Environmental Crime Prosecutions during the Obama Administration



Source: EPA Summary of Criminal Prosecutions Database

B. The Prosecution of Serious Crimes

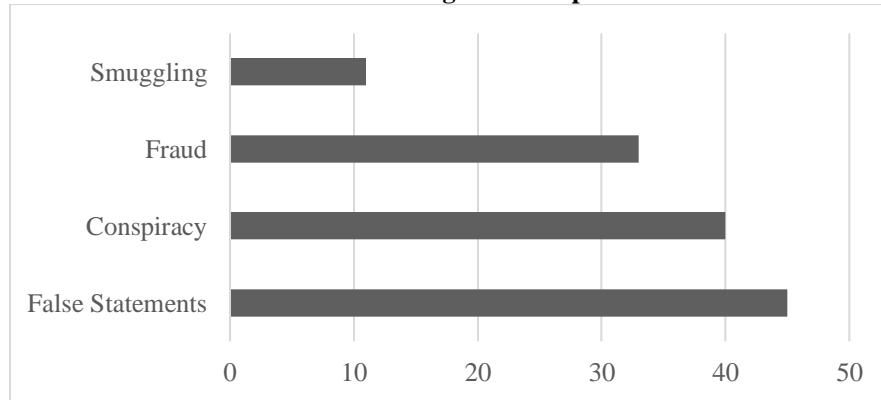
Next, we explored whether prosecutions undertaken during the Trump Administration focused on crimes involving serious harm and culpable conduct. To answer this question, we coded cases for whether crimes involved some secondary, non-environmental criminal offense, like false statements, conspiracy, fraud, or related Title 18 violations. We measured the seriousness of the offense by coding for whether there was a human or animal victim noted in the case summary. While imperfect, these measures helped us ascertain if there were contributing factors to many crimes outside of environmental offenses.

Figure 7 shows the total number of common criminal charges in environmental crime prosecutions occurring during the Trump Administration. Of the offenses committed by environmental criminals during this period, making false statements was the most common.⁷⁸ Whether giving false statements to investigators or official documents, in forty-five prosecutions, or 16 percent of all prosecutions, at least one defendant knowingly violated the law by giving false statements.

77. In 178 prosecutions, defendants were ultimately charged for state-level violations.

78. A defendant can be charged with multiple crimes in a particular case. Each number in the Figure represents the total cases where we coded at least one defendant being charged with any of these offenses. We did not code the total number of defendants that were charged with any of these charges. If we had coded for the total number of defendants per case charged with a given violation, the overall number here would be larger.

Figure 7. Common Criminal Charges in Environmental Crime Prosecutions during the Trump Administration



Source: EPA Summary of Criminal Prosecutions Database

In forty prosecutions, or 14 percent of the overall prosecutions in our data, at least one defendant was charged with conspiracy. Examples include the prosecutions of Malek Jalal and William Letona.⁷⁹ The defendants sold what was purported to be recycled vegetable oil to companies that would also garner them tax credits and RINs that could be sold to other producers. Upon being served a subpoena, Jalal, the co-owner of Unity Fuels, worked with his employee Letona to alter of falsify documents related to the fraud.⁸⁰ The case was investigated by both EPA-CID and IRS Criminal Investigation.⁸¹

In thirty-three prosecutions, or about 12 percent of our data, at least one defendant was charged with fraud. For example, Michael Wagner was prosecuted for marketing a highly flammable propane and isobutene gas as a drop-in replacement refrigerant for Freon and shipped the product across state lines without proper safety devices.⁸² EPA-CID investigated the case with The U.S. Department of Transportation Office of Inspector General (OIG), The Federal Bureau of Investigation (FBI), The Pipeline and Hazardous Materials Safety Administration (PHMSA), and the Louisiana Liquefied Petroleum Gas

79. *Summary of Criminal Prosecutions United States v. William Letona, No. 2 16-CR-00207 (S.D. Ohio 2017)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search “Letona”) (last visited Mar. 6, 2023).

80. *Summary of Criminal Prosecutions United States v. William Letona, supra* note 79. Jalal pled guilty to conspiracy and obstruction and was sentenced to sixty months incarceration, three years supervised release, a \$12,500 fine, and \$1,017,087 in restitution to Pasadena Refining, Hess Corporation, and the IRS. *Id.* Letona plead guilty to conspiring to obstruct a grand jury investigation and was sentenced to six months community confinement, six months home detention, three years of supervised release, and 100 hours of community service. *Id.*

81. *Id.*; see generally *Criminal Investigation*, INTERNAL REVENUE SERV., <https://www.irs.gov/compliance/criminal-investigation> (last updated Mar. 9, 2023).

82. *Summary of Criminal Prosecutions State v. Michael Wagner, No. C-13075-16 (La. 2017)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search “Wagner”) (last visited Mar. 6, 2023).

Commission.⁸³ Wagner pled guilty to attempted theft by means of fraudulent conduct, practices, or representations.⁸⁴

In eleven prosecutions, or 4 percent of overall prosecutions, at least one defendant was charged with smuggling. For example, Christopher Martin was prosecuted for smuggling counterfeit pet products into the United States.⁸⁵ The defendant smuggled veterinary products into the country and used false labels, such as Frontline and Frontline Plus between January 2008 and July 2015.⁸⁶ Martin pled guilty to trafficking in counterfeit labels.⁸⁷ Across all 282 prosecutions, in 131 prosecutions or about 46 percent of total prosecutions, at least one defendant was charged with one of these non-environmental, criminal charges.

Figure 8 shows common criminal charges in environmental crime prosecutions occurring during the Obama Administration. We find that, like the Trump Administration, common criminal charges are dominated by false statements. In 189 prosecutions or about 21 percent of the data, at least one defendant was charged with false statements. In ninety-two prosecutions, or 10 percent of the data, at least one defendant was charged with conspiracy. In sixty-four prosecutions or 7 percent of the data, at least one defendant was charged with fraud, and in ten cases, or one percent of the data, at least one defendant was charged with smuggling. In comparison, under Trump's administration, 16 percent of cases involved false statements, 14 percent involved conspiracy, about 12 percent fraud, and about 4 percent smuggling. Under Trump's administration, a larger percentage of criminal charges were brought for smuggling, fraud, and conspiracy, but a smaller percentage for false statements.

83. *Id.* This prosecution is a good example of the coordination and cooperation between state and federal law enforcement agencies in environmental crime prosecutions. For more information about the agencies involved, see U.S. DEP'T OF TRANS.: OFF. OF THE INSPECTOR GEN., <https://www.oig.dot.gov/> (last visited Mar. 6, 2023); U.S. DEP'T OF TRANS.: PIPELINE & HAZARDOUS MATERIALS SAFETY ADMIN., <https://www.phmsa.dot.gov/> (last visited Mar. 6, 2023); LA. LIQUIFIED PETROLEUM GAS COMM'N, <http://lpg.dps.louisiana.gov/> (last visited Mar. 6, 2023).

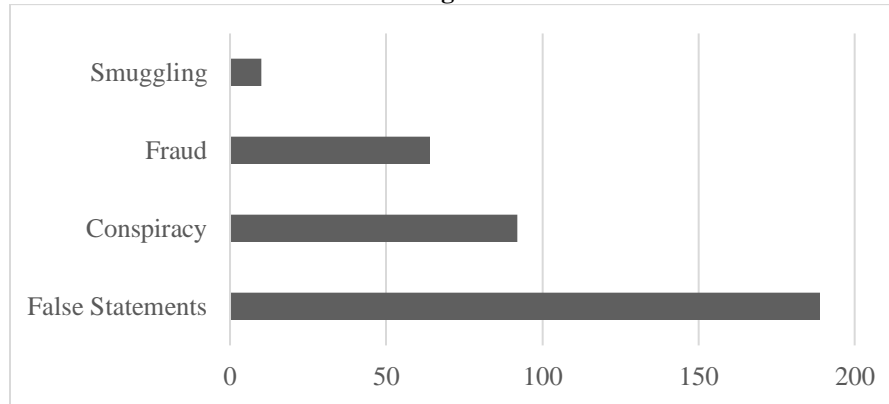
84. Wagner was sentenced to a six-month suspended sentence, two years of probation, and \$130,834.25 in restitution. *Summary of Criminal Prosecutions State v. Michael Wagner*, *supra* note 82.

85. *Summary of Criminal Prosecutions United States v. Christopher Martin*, No. 15-CR-00372-S (S.D. Tex. 2018), EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?search=Christopher%20Martin) (search "Christopher Martin") (last visited Mar. 6, 2023).

86. *Id.*

87. *Id.* Martin was sentenced to forty-seven months incarceration, three years supervised release, and held jointly and severally liable for \$867,150 in restitution. *Id.*

Figure 8. Common Criminal Charges in Environmental Crime Prosecutions during the Obama Administration



Source: EPA Summary of Criminal Prosecutions Database

Table 1 shows the severity of cases prosecuted during the Trump Administration, as the percentage of cases that contain identifiable human and non-human animal victims. We coded data when the cases summaries noted that a human was injured or killed because of an environmental crime. We also coded cases when an animal was injured or killed. In some cases, it was difficult to know the number of victims associated with a crime, so prosecutions were coded for the presence of a human or non-human animal victim.

Table 1. Environmental Crime Prosecutions during the Trump Administration with Identifiable Human and Non-Human Animal Victims

<i>Description</i>	<i>Number</i>	<i>Percentage</i>
Total Cases with at Least One Human Victim	27	9.57
With at Least One Case of Death	4	1.42
With at Least One Case of Injury	26	9.22
Total Case with at Least One Animal Victim	8	2.84

Source: EPA Summary of Criminal Prosecutions Database

In twenty-seven prosecutions, or almost 10 percent of overall prosecutions during this period, we identified human victims of environmental crimes. In four cases, at least one individual was killed and in twenty-six cases at least one person was injured. In eight prosecutions, at least one animal victim could be identified in the case summary. The most serious cases involving death include Wood Group PSN, which was prosecuted for negligence that led to the explosion

on Black Elk Energy's West Delta 32 facility in the Gulf of Mexico.⁸⁸ The company admitted that their employees were negligent in authorizing welding on a wet oil tank that ignited, killing three workers and injuring others. The company admitted to failing to conduct numerous safety inspections and was charged with false reporting and violations under the CWA for the unpermitted discharges of oil into the Gulf.⁸⁹ Additionally, C&J Well Services, Inc. was prosecuted for violating its own policy of providing welding training to workers, not supervising welding work, not providing hot work permits for welding, and not following internal auditing procedures. An employee was welding an uncleaned tanker trailer that ignited and fatally injured him at the company's Williston, North Dakota facility.⁹⁰ Similarly, Environmental Enterprises, Inc. was prosecuted when a fire broke out at the company's hazardous waste facility in Cleveland, Ohio that burned two workers, and ultimately killed an employee.⁹¹

Exposure to toxic or hazardous chemicals and other substances, such as asbestos, pesticides, and lead-based paint, were also sources of injury in

88. *Summary of Criminal Prosecutions United States v. Wood Grp. Prod. Servs. Network, No. 15-197 H (E.D. La. 2017)*, EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? \(search "Wood Group"\)](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search \) (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Black Elk Energy, No. 15-197 SECT H (E.D. La. 2017)*, EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? \(search "Black Elk"\)](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search \) (last visited Mar. 6, 2023).

89. *Summary of Criminal Prosecutions United States v. Wood Grp. Prod. Servs. Network, supra* note 88. The company was sentenced to \$9.5 million in fines and community service payments. *Id.* The prosecution of Black Elk Energy would also count here, and the company was sentenced to pay \$4.2 million in monetary penalties. *Summary of Criminal Prosecutions United States v. Black Elk Energy, supra* note 88. Grand Isle Shipyard, Inc. was also prosecuted in the case: it plead guilty to CWA violations and agreed to a \$500,000 criminal fine and thirty-six months of probation. *Summary of Criminal Prosecutions United States v. Grand Isle Shipyard, Inc., No. 15-197 SECT H (E.D. La. 2019)*, EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? \(search "Grand Isle"\)](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search \) (last visited Mar. 6, 2023). These could be treated as three separate cases of human victims, as these prosecutions are listed separately in the dataset. It could also be treated as one case with multiple companies prosecuted for the deaths of Avelino Tajonera, Elroy Corporal, and Jerome Malagapo.

90. *Summary of Criminal Prosecutions United States v. C&J Well Servs., Inc., No. 1 19-CR-00079-DLH (D.N.D. 2019)*, EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? \(search "C&J"\)](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search \) (last visited Mar. 6, 2023). The defendant was prosecuted for violating workplace standards regarding the cleaning of oil tanks and was sentenced to pay a \$500,000 fine, \$1.6 in restitution to Payne's estate, and three years of probation. *Id.* On October 14, 2021, the maintenance manager was sentenced to "time served, eighteen months supervised release and \$100 special assessment." EPA, 310-N-15-007, ENV'T CRIMES CASE BULL.: SEPT.-OCT. 2021, at 4 (2021), *available at* nepis.epa.gov (search "Reisinger"); *see also Former Manager Pleads Guilty to Obstructing Worker Death Investigation*, INDUS. EQUIP. NEWS (Mar. 10, 2021), <https://www.iem.com/safety/news/21319253/former-manager-pleads-guilty-to-obstructing-worker-death-investigation>.

91. Environmental Enterprises, Inc. was charged with negligent homicide and sentenced to pay a \$5,000 fine. *Summary of Criminal Prosecutions State v. Env't Enters., Inc., No. B1406608A (Ohio 2017)*, EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? \(search "Environmental Enterprises"\)](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search \) (last visited Mar. 6, 2023); Sarah Brookbank, *Company Will Pay \$5K Negligent Homicide Guilty Plea*, CINCINNATI ENQUIRER (May 31, 2017), <https://www.cincinnati.com/story/news/2017/05/31/environmental-enterprises-pay-5-k-after-worker-died-accident/348907001/>.

environmental crime prosecutions.⁹² John Williams, the Senior Corporate Manager for Willmax Capital Management, negligently exposed more than 100 people to asbestos during a renovation project in Denver, Colorado.⁹³ Williams pled guilty to violations of the CAA for negligently placing other people in imminent danger of death or bodily injury.⁹⁴ Likewise, Dyno Nobel, Inc. was prosecuted for discharging some six tons of anhydrous ammonia into ambient air over a three-day period beginning on July 30, 2015.⁹⁵ The company made several attempts to restart their urea plant, which emitted noxious odors and nearby residents reported had subsequently reported breathing difficulties and eye irritation.⁹⁶

Mora Development Company pled guilty to illegally discharging sewage into the stormwater system without a NPDES permit in violation of the CWA.⁹⁷ Harcros Chemicals, Inc. was prosecuted for releasing a poison gas cloud from its Atchison, Kansas facility.⁹⁸ The cloud formed when 4,000 gallons of sulfuric acid was combined with 5,800 gallons of sodium hypochlorite.⁹⁹ Community members were evacuated and approximately 140 individuals sought medical attention.¹⁰⁰ Curtis Technology, Inc. was prosecuted for illegally transporting hazardous waste from its facility in California without a manifest.¹⁰¹ The company's president and a maintenance employee transported hazardous waste

92. See *Summary of Criminal Prosecutions United States v. Black Elk Energy*, *supra* note 88. The previously-mentioned prosecutions of Terminix USVI and Maureen Walck provide examples of pesticide and lead-based paint exposure injuring individuals. See *Summary of Criminal Prosecutions United States v. Terminix*, *supra* note 66; *Summary of Criminal Prosecutions United States v. Maureen Walck*, *supra* note 71.

93. *Summary of Criminal Prosecutions United States v. John Williams, No. 16-CR-00355-LTB (D. Colo. 2017)*, EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? \(search "John Williams"\)](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search \) (last visited Mar. 6, 2023).

94. *Id.* Williams was sentenced to eight months in prison, one year of supervised release, and a \$100,000 fine. Willmax capital was ordered to serve five years of probation and pay for medical monitoring for the affected residents. *Id.*

95. *Summary of Criminal Prosecutions United States v. Dyno Nobel, Inc., No. 3 18-CR-63-SI (D. Or. 2018)*, EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? \(search "Dyno"\)](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search \) (last visited Mar. 6, 2023).

96. *Id.* The company was prosecuted under CERCLA for failure to notify officials of the release and was sentenced to pay a \$250,000 fine and serve two years of probation. *Id.*

97. The company was sentenced to pay a \$3 million criminal fine, five years of probation, and make restitution to a family whose children were affected by the discharge of some twenty-nine million gallons of sewage. *Summary of Criminal Prosecutions United States v. Mora Dev. Co., No. 3 16-CR-00018-01 (D.P.R. 2018)*, EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? \(search "Mora Development"\)](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search \) (last visited Mar. 6, 2023).

98. *Summary of Criminal Prosecutions United States v. Harcros Chems., Inc., No. 19-40021-01/02-HLT (D. Kan. 2020)*, EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? \(search "Harcros"\)](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search \) (last visited Mar. 6, 2023). Harcros and MGP Ingredients, Inc. were each fined \$1 million for violation the CAA. *Id.*

99. *Id.*

100. *Id.*

101. *Summary of Criminal Prosecutions United States v. Curtis Tech., Inc., No. 20-CR-00715Cal. (S.D. Cal. 2020)*, EPA, [https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? \(search "Curtis Technology"\)](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? (search \) (last visited Mar. 6, 2023).

to three residences in San Diego, the areas were evacuated, and chemicals had to be denotated on-site by a bomb squad.¹⁰²

Animal deaths occurred due to illegal pesticide use and illegal discharges into waterways. Illegal pesticide use was typically motivated by the desire to use registered pesticides off-label, which killed migratory birds and other animals or the other common scenario was when illegal discharges of toxic substances into waterways killed fish.¹⁰³ John Purviance was prosecuted for off-label use of registered pesticides to kill feral hogs on his ranch.¹⁰⁴ This illegal use also killed numerous bird species, including those protected under the Migratory Bird Treaty Act (MBTA).¹⁰⁵

Table 2 shows cases of identifiable human and animal victims in prosecutions undertaken during the Obama Administration. Three percent of cases involve an identifiable human victim and 1.3 percent of cases those prosecutions involved at least one death. At least one injury occurred in 2.3 percent of prosecutions. In 5.5 percent of cases, we find at least one non-human animal victim injured or killed. In the Trump data, almost 10 percent of cases involved at least one human victim, with about 9 percent leading to injury and 1.4 percent to death. In about 3 percent of cases, we find at least one non-human animal victim killed or injured. With the human victim data, the percentage of cases prosecuted under Trump was much higher, but the numbers were similar, though Obama served twice as long in office.

102. *Id.* The company was sentenced to pay a \$45,000 fine. *Id.*

103. *See, e.g., Summary of Criminal Prosecutions United States v. John Purviance, No. 5 17-CR-00003-001 (E.D. Tex, 2017)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search “John Purviance”) (last visited Mar. 6, 2023). Purviance was prosecuted for off-label use of a registered pesticide under FIFRA and the illegal taking of protected migratory birds under the MBTA. He was ordered to pay restitution of \$4,198 and a fine of \$2,375. *Id.*

104. *Id.*

105. *See id.* For other cases involving criminal violations of FIFRA, *see Summary of Criminal Prosecutions United States v. Terry Foster, No. 1 20-CR-61-CCB (N.D. Ga. 2020)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search “Terry Foster”) (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. David Meyer, No. 1 20CR10006 (D.S.D. 2020)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search “David Meyer”) (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Kevin Deiter, No. 3 20CR30065 (D.S.D. 2020)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search “Kevin Deiter”) (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Mark Meyer, supra* note 35.

Table 2. Environmental Crime Prosecutions during the Obama Administration with Identifiable Human and Non-Human Animal Victims

<i>Description</i>	<i>Number</i>	<i>Percentage</i>
Total Cases with at Least One Human Victim	27	2.95
With at Least One Case of Death	12	1.31
With at Least One Case of Injury	21	2.30
Total Case with at Least One Animal Victim	50	5.47

Source: EPA Summary of Criminal Prosecutions Database

C. Obtaining Significant Penalties

In the final section, we analyze the ability of prosecutors to secure significant penalties under Presidents Trump and Obama. We begin our analysis in Table 3, which aggregated the total penalties assessed to all individual and company defendants during the Trump Administration. We aggregated penalties in the category of total monetary penalties in nominal dollars, total probation in months, total incarceration in months, and total community service in hours.

Table 3. Total Penalties Assessed to Defendants in Environmental Crime Prosecutions during the Trump Administration

<i>Total Monetary Penalties</i>	<i>Total Probation</i>
Individuals- \$185,856,916	Individuals- 6237 Months
Companies- \$2,970,629,523	Companies- 2160 Months
<i>Incarceration</i>	<i>Community Service</i>
3463 Months	5232 Hours

Source: EPA Summary of Criminal Prosecutions Database

Prosecutors obtained significant penalties from individual and company defendants during the Trump Administration. Total monetary penalties assessed

to all individual defendants in our data amounted to over \$185 million. Penalties assessed to companies were even more significant, exceeding \$2.9 billion. Collectively, by our estimates, prosecutors obtained over \$3.1 billion in penalties from offenders during this period. Almost 700 years of probation were assessed to defendants in these prosecutions, including about 520 years of probation to individual defendants and 180 years of probation assessed to companies. Individual defendants were also cumulatively sentenced to over 289 years of incarceration and over 5200 hours of community service.

The total penalties assessed to all individual and company/corporate defendants in the Obama Administration are found in Table 4. We estimated that total monetary penalties assessed to individual defendants exceeded \$511 million during this period. Corporations were ordered to pay over \$1.2 billion in monetary penalties when Obama was in office. Individual defendants were collectively sentenced to almost 1,800 years of probation by our estimates and corporate defendants some 736 years of probation. Defendants were collectively sentenced to serve about 839 years in prison and serve 15,489 hours of community service.

Table 4. Total Penalties Assessed to Defendants in Environmental Crime Prosecutions during the Obama Administration

<i>Total Monetary Penalties</i>	<i>Total Probation</i>
Individuals: \$511,826,333	Individuals: 21,592 Months
Companies: \$1,121,688,549	Companies: 8833 Months
<i>Incarceration</i>	<i>Community Service</i>
10,069 Months	15,489 Hours

Source: EPA Summary of Criminal Prosecutions Database

During the Trump Era, individual defendants received about \$185 million in monetary assessments and corporate defendants over \$2.9 billion. The latter

figure is greatly skewed by the Volkswagen prosecution.¹⁰⁶ Yet the prosecution continued through during Trump and such a significant penalty was assessed, which is a significant accomplishment of the DOJ during this period. The top penalties assessed to companies included the prosecution of Transocean for its role in Deepwater Horizon, Duke Energy Progress for the Dan River coal ash spill near Eden, North Carolina, Wal-Mart Missouri and Wal-Mart California for failing to implement hazardous waste training programs, and BP Products North America for negligence in the Texas City Refinery Explosions that killed fifteen workers.¹⁰⁷

In the Transocean case, the company was charged with violations of the CWA and sentenced to pay \$400 million in criminal penalties and serve five years of probation.¹⁰⁸ Duke Energy Progress was charged with violations of the CWA and sentenced to pay \$102 million in fines and community service payments, as well as maintain approximately \$3.4 billion in reserves to cover any legal obligations resulting from its coal ash impoundments in the future.¹⁰⁹ Wal-Mart California was charged under the CWA and sentenced to pay some \$110 million in penalties.¹¹⁰ Wal-Mart Missouri was charged under FIFRA and sentenced to pay \$110 million in penalties.¹¹¹ BP Products pled guilty to knowing violations of the CAA and was sentenced to pay a \$50 million federal fine and serve thirty-six months of probation.¹¹² All of these large-penalty corporate cases exceed the DOJ's efforts under Trump, with the exception of the Volkswagen case. It is important to note that BP was prosecuted for its role in the Deepwater Horizon disaster during the Obama Administration and agreed to serve sixty months of probation and pay \$4 billion in criminal fines, which

106. See *Summary of Criminal Prosecutions United States v. Volkswagen AG, No. 16-CR-20394 (E.D. Mich. 2017)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search "Volkswagen") (last visited Mar. 6, 2023) (assessing \$2.8 billion against Volkswagen in this one prosecution alone).

107. *Summary of Criminal Prosecutions United States v. Transocean, LTD, No. 2 13-CR-00001-JTM-SS (E.D. La. 2014)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search "Transocean") (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Duke Energy Progress, Inc., No. 15-CR-00062,67,68 (E.D. N.C. 2015)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search "Duke Energy Progress") (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Wal-Mart Cal., Nos. 13-CR-033-JSC-1 and CR 13 334 MAG, (C.D. Cal. 2013)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search "Wal-Mart California") (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Wal-Mart Mo., No. 4 13-CR-00135 (W.D. Mo. 2013)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search "Wal-Mart Missouri") (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. BP Prods. N. Am., No. 4 07-CR-434, (S.D. Tex. 2009)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search "BP Products") (last visited Mar. 6, 2023).

108. *Summary of Criminal Prosecutions United States v. Transocean, LTD, supra* note 107.

109. *Summary of Criminal Prosecutions United States v. Duke Energy Progress, Inc., supra* note 107.

110. *Summary of Criminal Prosecutions United States v. Wal-Mart Cal., supra* note 107.

111. *Summary of Criminal Prosecutions United States v. Wal-Mart Mo., supra* note 107.

112. *Summary of Criminal Prosecutions United States v. BP Prods. N. Am., supra* note 107.

represents the largest federal (and likely state) environmental crime penalty in U.S. history.¹¹³

Other prosecutions of note include United Industries, which was found to have defrauded its customers and dumped railyard parts into the navigable waters of the United States over a series of years.¹¹⁴ Fines and restitution totaled \$25 million in the case for violations of the RHAA. Terminix was prosecuted for off-label use of a registered pesticide that injured a family, resulting in over \$11 million in fines, restitution, and community service payments.¹¹⁵ Monsanto was prosecuted for spraying banned pesticides on its research crops at a company facility in Maui, Hawaii.¹¹⁶ The company applied the pesticides after receiving notice from EPA the previous year that their use was prohibited. The company also instructed workers to enter the fields after seven days, knowing that they should not be permitted into the area for at least thirty days after a spraying.¹¹⁷ The company was charged under FIFRA for the off-label use and RCRA for illegal storage.¹¹⁸ The company paid \$10.2 million in penalties, including a \$6 million fine for the RCRA violations, \$200,000 for the FIRA violation, and a \$4 million community service payment.

The largest penalties were levied because of the Volkswagen vehicle emissions rigging scandal.¹¹⁹ The company installed defeat devices so that their diesel engines could detect when they were being subjected to fuel mileage testing and register inflated fuel economy values.¹²⁰ Some 11 million cars worldwide had the defeat device installed.¹²¹ The company pled guilty to wire fraud, conspiracy, obstruction of justice, violations of the CAA, and importation of

113. *Summary of Criminal Prosecutions United States v. BP, PLC, No. 2 12-CR-00292-DEK (E.D. La. 2013)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?action=3&prosecution_summary_id=2468 (last visited Mar. 6, 2023). For unknown reasons, this case was not searchable when we analyzed the data. As such, we had to exclude it from our analysis totals to maintain the integrity of our data gathering approach. If this case were included, total corporate monetary penalties during the Obama Administration would exceed \$6 billion, more than double the \$2.97 billion assessed during the Trump Administration, but this must again be taken in the context of Obama's two terms in office versus one for Trump.

114. *Summary of Criminal Prosecutions United States v. United Indus., LLC, No. CR 17-00726-DMG (C.D. Cal., 2018)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search "United Industries") (last visited Mar. 6, 2023).

115. *Summary of Criminal Prosecutions United States v. Terminix, USVI, supra* note 66.

116. *Summary of Criminal Prosecutions United States v. Monsanto Co., No. 1 19-CR-00162 (D. Haw. 2020)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search "Monsanto" and input the fiscal year "2020") (last visited Mar. 6, 2023).

117. *Id.*

118. *Id.*

119. *Summary of Criminal Prosecutions United States v. Volkswagen AG, supra* note 106.

120. See Nick Carey & David Shepardson, *Volkswagen Pleads Guilty in U.S. Court in Diesel Emissions Scandal*, REUTERS (Mar. 10, 2017), <https://www.reuters.com/article/us-volkswagen-emissions-idUSKBN16H1W4>. The software was installed in 580,000 U.S. vehicles. The company agreed to pay \$4.3 billion in civil and criminal penalties. *Id.*

121. Russell Hotten, *Volkswagen The Scandal Explained*, BBC NEWS (Dec. 10, 2015), <https://www.bbc.com/news/business-34324772>.

merchandise by means of false statements.¹²² They entered into a plea agreement to pay a \$2.8 billion criminal penalty.¹²³ IAV GmbH, the company that engineered and designed the systems in the Volkswagen case, was ordered to pay a \$35 million criminal penalty.¹²⁴

While many of these large penalty corporate prosecutions began prior to the Trump Administration, the ability of prosecutors to seek and achieve such significant penalties provides insight into their ability to seek serious penalties during this era. Yet removing these five cases from the data would reduce total monetary penalties to companies to only about \$90 million during this period. The Volkswagen case was the second largest criminal penalty historically assessed to a corporation, after the \$4 billion in criminal fines levied against British Petroleum for the Deepwater Horizon disaster.¹²⁵ Six Volkswagen executives were also indicted for their role in the emissions scandal, and some fled the country.¹²⁶

Total monetary penalties against individual defendants were not as significantly influenced by a few large outlier penalties, but prosecutors did seek significant monetary penalties and prison sentences for several offenders. For example, Christopher Gattarello was prosecuted for demolishing a National Acme facility in Cleveland Ohio and releasing a significant amount of asbestos.¹²⁷ The defendant also defrauded a number of companies by creating false invoices.¹²⁸ Additionally, Charles Ferris Callihan was prosecuted with other officials from Explo Systems, Inc. for falsely certifying the company had

122. *Summary of Criminal Prosecutions United States v. Volkswagen AG*, *supra* note 106.

123. *Id.*

124. *Summary of Criminal Prosecutions United States v. IAV GmbH, No. 16-CR-20394 (E.D. Mich., 2019)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search “IAV”) (last visited Mar. 6, 2023).

125. *Summary of Criminal Prosecutions United States v. BP, PLC*, *supra* note 113. The company plead guilty to obstruction, manslaughter, and violations of the CWA and MBTA. BP admitted its highest-ranking supervisors on the Deepwater Horizon knew the Macondo Well was unstable and did not take action to prevent the oil spill. Their actions caused the death of eleven men and facilitated one of the worst environmental disasters in U.S. history. The company also obstructed a Congressional investigation into the disaster. The company entered into numerous civil settlements with state, local, and federal governments, as well as private individuals. *See id.*; *Deepwater Horizon–BP Gulf of Mexico Oil Spill*, EPA, <https://www.epa.gov/enforcement/deepwater-horizon-bp-gulf-mexico-oil-spill> (last updated Aug. 31, 2022).

126. Steven Overly, *Six Volkswagen Executives Indicted in Emissions-Cheating Scandal*, WASH. POST (Jan. 11, 2017), <https://www.washingtonpost.com/news/innovations/wp/2017/01/11/justice-department-volkswagen-to-plead-guilty-to-three-criminal-counts-in-emissions-scandal/>. The executives ended up as fugitives on the EPA’s Most Wanted List. *See EPA Fugitives*, EPA, <https://www.epa.gov/enforcement/epa-fugitives> (last updated July 11, 2022).

127. Carl Monday, *Trash Hauler First Exposed by Carl Monday Sentenced to Prison for Illegal Dumping*, CLEVELAND 19 NEWS (July 7, 2017), <https://www.cleveland19.com/story/35836014/trash-hauler-first-exposed-by-carl-monday-sentenced-to-prison-for-illegal-dumping/>.

128. *Summary of Criminal Prosecutions United States v. Christopher Gattarello, No. 1 14CR353 (N.D. Ohio 2017)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search “Gattarello”) (last visited Mar. 6, 2023). Gattarello was charged for CAA violations, and he was sentenced to fifty-seven months incarceration and to split \$7.8 million in restitution with his co-defendants. *Id.*

demilitarized munitions, when they had either illegally certified them to be sent to landfills not permitted to accept hazardous waste or the wastes were illegally stored.¹²⁹ On October 15, 2012 a storage bunker exploded at Camp Minden outside the town of Doyline, Louisiana.¹³⁰ Windows were broken in a four-mile radius, the bunker was destroyed, and the town evacuated.¹³¹

The other major penalty cases against individuals came from defrauding the renewable biofuels program to fraudulently claim to produce biofuels to claim federal tax credits and/or generate RINs to be sold to other producers.¹³² One was part of the conspiracy perpetuated by Gen-X Energy Group,¹³³ Ben Wootton and Race Miner were prosecuted for a similar fraud involving Keystone Biofuels.¹³⁴ Matthew Taylor engaged in a similar conspiracy to defraud the IRS by claiming tax credits and failing to produce biofuel.¹³⁵

129. Sean Green, *Explo Officials Sentenced in Camp Minden Conspiracy*, BOSSIER PRESS-TRIB. (Nov. 29, 2018), <https://bossierpress.com/explo-officials-sentenced-in-camp-minden-conspiracy/>; *Summary of Criminal Prosecutions United States v. Charles Ferris Callihan, No. 16-CR-00214-06 (W.D. La. 2019)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search “Ferris”) (last visited Mar. 6, 2023).

130. *Summary of Criminal Prosecutions United States v. Charles Ferris Callihan*, *supra* note 129.

131. *Id.* We coded some 225 months of incarceration assessed to all defendants in the case, as well as over \$35 million in monetary penalties and restitution.

132. *Summary of Criminal Prosecutions United States v. Scott Johnson, No. 4 15-CR-6042-SMJ (E.D. Wash. 2017)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search “Scott Johnson”) (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Donald Paul Holmes, No. 4 15-CR-6044-SMJ-1 (E.D. Wash. 2018)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search “Paul Holmes”) (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Andre Mark Bernard, No. 2 17-CR-61-FTM-38MRM (M.D. Fla. 2018)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search “Mark Bernard”) (last visited Mar. 6, 2023); *Summary of Criminal Prosecutions United States v. Keystone BioFuels, Inc., No. 17 143 (M.D. Pa. 2021)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search “Biofuels Inc.”) (last visited Mar. 6, 2023).

133. Scott Johnson, Donald Paul Holmes, and Andre Mark Bernard were prosecuted for a conspiracy to defraud the renewable energy program perpetuated by the Gen-X Energy Group. *Summary of Criminal Prosecutions United States v. Scott Johnson*, *supra* note 132; *Summary of Criminal Prosecutions United States v. Donald Paul Holmes*, *supra* note 132; *Summary of Criminal Prosecutions United States v. Andre Mark Bernard*, *supra* note 132. Johnson was sentenced for conspiracy to defraud the government and wire fraud, and he was given a ninety-seven-month prison sentence, three years supervision, and almost \$15.7 million in restitution. Holmes was sentenced to seventy-eight months incarceration and held jointly and severally liable for the restitution. Andre Mark Bernard was sentenced to eighty-seven months in prison and a \$10.5 million penalty. Press Release No. 17-865, Off. of Pub. Affs., U.S. Dep’t of Just., New York Man Pleads Guilty to Multi-State Biodiesel Fraud Scheme (Aug. 2, 2017), available at <https://www.justice.gov/opa/pr/new-york-man-pleads-guilty-multi-state-biodiesel-fraud-scheme>.

134. *Summary of Criminal Prosecutions United States v. Keystone BioFuels, Inc.*, *supra* note 132. The company was sentenced to five years of probation, to restitution to the IRS of \$4,149,383.41, and to restitution to the Pennsylvania Department of Environmental Protection of \$5,076,376.07. *Id.* Wootton was sentenced to seventy months incarceration, and Miner was sentenced to sixty-six months incarceration; both men were ordered to pay restitution in the same amount as the company. *Id.*; Press Release No. 20-1133, Off. of Pub. Affs., U.S. Dep’t of Just., Pennsylvania Biofuel Company and Owners Sentenced on Environmental and Tax Crime Convictions Arising out of Renewable Fuels Fraud (Oct. 20, 2020), available at <https://www.justice.gov/opa/pr/pennsylvania-biofuel-company-and-owners-sentenced-environmental-and-tax-crime-convictions>.

135. *Summary of Criminal Prosecutions United States v. Matthew Taylor, No. 1 18-cr-00197, 2020 (D. Colo. 2021)*, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (search

V. DISCUSSION

Our findings suggest that outputs were steady during the Trump Administration. The number of defendants prosecuted was also consistent within a range. Prosecutorial trends were not significantly different between the Trump and Obama Administrations either. We found investigators and prosecutors willing to pursue serious cases as well. Sixteen percent of cases involved false statements, 14 percent conspiracy, and almost 12 percent fraud. Almost half of all prosecutions involved some additional contributing offense—suggesting many of these are serious offenses. About 9.5 percent of cases involved at least one human victim killed or injured during the commission of an environmental crime.

Prosecutors were able to obtain significant penalties. We found over \$3.1 billion in monetary penalties assessed in these cases, along with almost 8,000 months of probation and 3,500 months of incarceration assessed at sentencing. As previously mentioned, monetary penalties are heavily skewed by the \$2.8 billion Volkswagen verdict.¹³⁶ Yet the ability of prosecutors to pursue complex prosecutions against multinational corporations and other companies persisted in the data, and about 30 percent of these prosecutions involved at least one company as a defendant. We estimated that 416 total defendants were prosecuted during the Administration. Additionally, research shows that between 2005–14, the average number of prosecutions was eighty-five with 148 defendants prosecuted.¹³⁷

Limited research on previous presidential administrations shows that the Obama Administration, on average, prosecuted more defendants and obtained a greater number of penalties than the Trump Administration, which is to be expected.¹³⁸ Our research supports that prosecution outputs were greater overall during Obama's administration than Trump's. That objective difference is only part of a greater narrative: how and why environmental enforcement and the regulatory state works, despite hostile presidential regimes or the COVID-19 Pandemic, which likely had some unquantifiable effect during the latter part of the Trump Administration.

The empirical picture of environmental crime prosecution is more complex than the simple narrative that Democrats are good for the environment and

“Matthew Taylor”) (last visited Mar. 6, 2023). Taylor pled guilty to one count of conspiracy to defraud the United States, conspiracy to commit money laundering, and money laundering. He was sentenced to eighty-three months incarceration and to pay \$7.2 million in restitution. *Id.*; Press Release No. 20-254, Off. of Pub. Affs., U.S. Dep't of Just., Colorado Man Sentenced to 83 Months in Prison for Role in \$7.2 Million Biodiesel Tax Credit Scheme (Mar. 2, 2020), available at <https://www.justice.gov/opa/pr/colorado-man-sentenced-83-months-prison-role-72-million-biodiesel-tax-credit-scheme>.

136. *Summary of Criminal Prosecutions United States v. Volkswagen AG*, *supra* note 106.

137. David M. Uhlmann, *Prosecutorial Discretion and Environmental Crime Redux: Charging Trends, Aggravating Factors, and Individual Outcome Data For 2005–2014*, 8 MICH. J. ENV'T. & ENERGY L. 297, 312 (2019).

138. Ozmy et al., *supra* note 26, at 55.

Republicans bad. We find this result to be the case for environmental prosecutions during the Trump Administration. The more difficult picture for policing and prosecuting serious environmental crimes in the future will be whether agencies have the stamina and structural integrity to withstand continued vacillations in presidents, while also handling growing budgetary constraints, alongside expanded climate change mandates, which Congress and the President may not be willing to fund and consistently support.

VI. CONCLUSIONS AND RECOMMENDATIONS

Our recommendations for the Biden Administration for improving environmental criminal enforcement are three-fold: increase budgetary support for environmental law enforcement, enhance criminal enforcement efforts in environmental justice communities, and prioritize environmental justice as a national policy issue.

First, increase budgetary and staffing support for environmental law enforcement. The current number of EPA-CID special agents may fall below 150 for the entire country, well short of the level achieved in the mid-1990s.¹³⁹ DOJ-ECS attorneys that specialize in environmental crimes number less than four dozen.¹⁴⁰ Without a basic level of staff support under growing mandates, the possibilities for any level of general deterrence are low.¹⁴¹

The data on budgets and staffing reveals stagnant support stretching back to the 2009 Financial Crisis. Figure 9 tracks the ENRD's budget from FY 2009 to FY 2020 in nominal dollars.¹⁴² The overall budget for the ENRD has not even kept pace with inflation. In FY 2009 the budget was about \$103 million, which grew to \$109 million the following year, and then declined to \$107 million in FY 2014. The budget hovered around \$110 million from the end of the Obama Era to the end of the Trump Era. In inflation-adjusted dollars, the FY 2009 budget was \$124 million, showing that in real dollars the budget has declined.¹⁴³

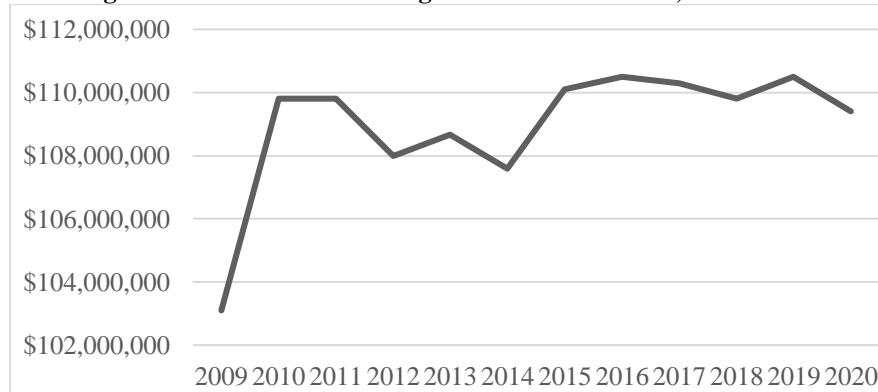
139. See PUB. EMPS. FOR ENV'T RESP., EPA CID AGENT COUNT (2019), available at https://www.peer.org/wp-content/uploads/2019/11/11_21_19-Federal_Pollution_EPA_CID_Agent_Count.pdf (indicating fewer than 150 EPA CID agents in 2017, 2018, and 2019). The Pollution Prosecution Act of 1990 created a statutory minimum of 200 investigative staff for EPA-CID. See Pub. L. 101-593, § 202, 104 Stat. 2954, 2962 (1990).

140. *Environmental Crimes Section*, U.S. DEP'T OF JUST., <https://www.justice.gov/enrd/environmental-crimes-section> (last updated July 2, 2021).

141. Lynch, *supra* note 27, at 991.

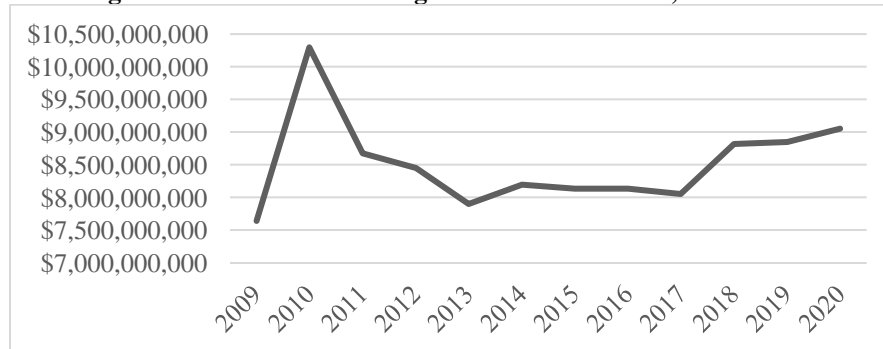
142. Budgetary data for the ENRD is found by searching the DOJ's Budget and Performance Summary for fiscal years and scrolling down for the ENRD budget. See *Budget and Performance*, U.S. DEP'T OF JUST., <https://www.justice.gov/doj/budget-and-performance> (last updated Mar. 13, 2023) (select the desired fiscal year under "Budget and Performance Summary" then scroll down and select "Environment and Natural Resources Division (ENRD)"). Prior years to FY 2015 are found in the Archives. See *Justice Management Division Archive*, U.S. DEP'T OF JUST., <https://www.justice.gov/archives/jmd/justice-management-division-archive> (last updated Jan. 4, 2023).

143. This is adjusting the \$103 million budget in 2009 dollars to 2020 dollars. See *Inflation Calculator*, U.S. INFLATION CALCULATOR, <https://www.usinflationcalculator.com> (last visited Mar. 6, 2023).

Figure 9. ENRD Enacted Budget in Nominal Dollars, FY 2009-20

Source: DOJ Budget and Performance Summaries

Examining the EPA's enacted budget since 2009 shows a similar pattern to the ENRD in Figure 10. For FY 2009, the nominal budget was about \$7.6 billion and the following year it rose to about \$10.3 billion. For the remainder of the Obama Administration the budget stagnated around an average of \$8.2 billion.¹⁴⁴ The budget increased nominally at the end of the Trump Administration and by FY 2020 was again above \$9 billion. Adjusted for inflation, the 2009 budget was about \$9.2 billion, exceeding the current FY budget in real dollars.¹⁴⁵ As with the ENRD budget, funding for both agencies stagnated before Trump entered office.

Figure 10. EPA Enacted Budget in Nominal Dollars, FY 2009-20

Source: U.S. EPA

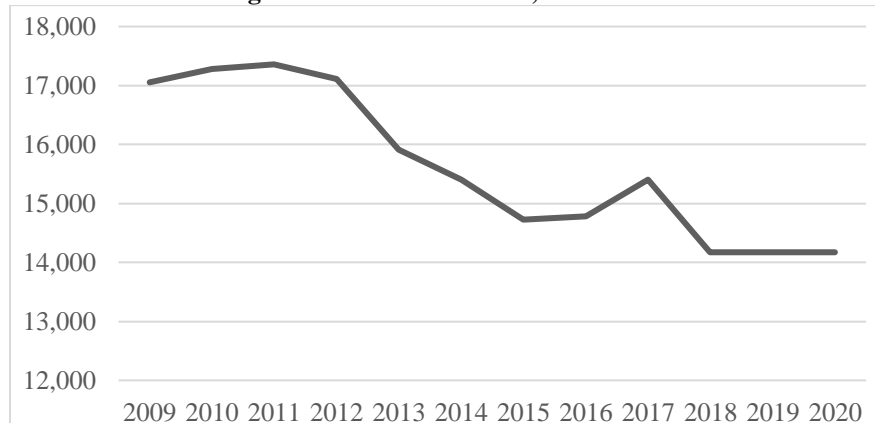
Figure 11 shows that staffing numbers for the EPA have generally been stagnant for years. The agency's overall workforce exceeded 17,000 employees

144. EPA's Budget and Spending, EPA, <https://www.epa.gov/planandbudget/budget> (last updated Feb. 28, 2023).

145. See Inflation Calculator, *supra* note 143.

in FY 2009. That number remained steady through FY 2012. By FY 2013, workforce dropped to 15,913 and further declined to 14,725 by FY 2015. By FY 2018 the numbers stagnated again at 14,172 and remains the same in FY 2020. While these are broad metrics, they hint to the broader empirical pattern of stagnation and decline over time, rather than a singular drop when Trump enters office.

Figure 11. EPA Workforce, FY 2009-20



Source: U.S. EPA

Our second recommendation is to prioritize enforcement efforts, especially in environmental justice communities. EPA should go farther to fund and support community policing efforts in environmental justice communities.¹⁴⁶ Organized community members can help police environmental crimes and work with prosecutors, give victim impact statements, and be involved in myriad ways.¹⁴⁷ These communities are often chronic victims of environmental crimes with few resources to overcome knowable and present environmental harms across the fence line (or under it).¹⁴⁸

Our final recommendation for improving environmental law enforcement efforts in the Biden Administration is to continue to bring environmental justice

146. EPA could broaden and encourage participation in its Report a Violation program. See OFF. OF CRIM. ENF'T, FORENSICS & TRAINING, EPA, 310-K-11-001, CRIMINAL ENFORCEMENT PROGRAM 6-7 (2011).

147. Community policing could be enhanced through expansion of the EJ Small Grants Program. See *Environmental Justice Small Grants Program*, EPA, <https://www.epa.gov/environmentaljustice/environmental-justice-small-grants-program> (last updated Mar. 27, 2023).

148. In a series of cases the courts have started to recognize environmental crime victims as having a series of procedural rights under the federal Crime Victims' Rights Act (CVRA). See 18 U.S.C. § 3771. Courts have applied these rights to environmental justice communities, possibly most forcefully in *United States v. CITGO Petroleum Corporation*, 893 F.Supp.2d 848 (S.D. Tex. 2012). See Melissa L. Jarrell & Joshua Ozymy, *Real crime, Real Victims Environmental Crime Victims and the Crime Victims' Rights Act (CVRA)*, 58 CRIME, L. & SOC. CHANGE 373, 374-77 (2012).

to the forefront as an important public policy issue.¹⁴⁹ Fortunately, the Biden Administration has moved in the right direction, by directing federal agencies to set a goal of 40 percent of the benefits of certain programs, including legacy environmental pollution, towards disadvantaged communities.¹⁵⁰ The DOJ and EPA have developed related enforcement strategies to prioritize environmental violations in environmental justice communities.¹⁵¹ Environmental justice is inextricably tied to both environmental racism and environmental crime with real victims. Unless the public starts making the connections between the two, and sees how devastating these injustices are as a public policy problem, these environmental crimes will not be treated seriously in the public mind or the legal system.¹⁵² Further funding for stronger criminal enforcement of environmental crime and the recognition and support of environmental crime victims is sorely overdue in the United States.¹⁵³ Providing additional resources for EPA and DOJ

149. See *The Biden Plan to Secure Environmental Justice and Equitable Economic Opportunity*, BIDEN-HARRIS, <https://joebiden.com/environmental-justice-plan/> (last visited Mar. 6, 2023); *Justice40 A Whole-Of-Government Initiative*, THE WHITE HOUSE, <https://www.whitehouse.gov/environmentaljustice/justice40/> (last visited Mar. 6, 2023).

150. See *Justice40 A Whole-Of-Government Initiative*, *supra* note 149; Exec. Order No. 14,008, 86 Fed. Reg. 7,619 (Feb. 1, 2021). The Justice40 Initiative directs funds that can help environmental justice communities, while the White House Environmental Justice Interagency Council, created through Executive Order 14,008, titled “Tackling the Climate Crisis at Home and Abroad,” helps develop strategies and coordination to press forward on helping marginalized communities. See *White House Environmental Justice Interagency Council*, THE WHITE HOUSE, <https://www.whitehouse.gov/environmentaljustice/white-house-environmental-justice-interagency-council/> (last visited Mar. 6, 2023).

151. See Press Release, EPA, New Enforcement Strategy Advances President Biden’s Environmental Justice Agenda (May 5, 2022), available at <https://www.epa.gov/newsreleases/new-enforcement-strategy-advances-president-bidens-environmental-justice-agenda>; Press Release No. 21-76, U.S. Dep’t of Just., Environment and Natural Resources Division Distributes Memorandum Summarizing Enforcement Policies and Priorities (Jan. 19, 2021), available at <https://www.justice.gov/opa/pr/environment-and-natural-resources-division-distributes-memorandum-summarizing-enforcement>; *Environmental Justice in Enforcement and Compliance Assurance*, EPA, <https://www.epa.gov/enforcement/environmental-justice-enforcement-and-compliance-assurance> (last updated Nov. 28, 2022); Press Release, EPA, Companies to Pay for Cleanup of Groundwater at Montrose Superfund Site Following Settlement with EPA, Justice Department, California Department of Toxic Substances Control (Oct. 5, 2021), available at <https://www.epa.gov/newsreleases/companies-pay-cleanup-groundwater-montrose-superfund-site-following-settlement-epa>.

152. Melissa L. Jarrell, *Environmental Crime and Injustice Media Coverage of a Landmark Environmental Crime Case*, 6 SW. J. CRIM. JUST. 25, 27–28 (2009).

153. For a lengthier discussion of crime victims’ rights under the law and the movement for expanded rights, see Paul G. Cassell, *Barbarians at the Gate? A Reply to the Critics of the Victims’ Rights Movement*, UTAH L. REV. 479, 479–506 (1999); Douglas E. Beloof, *Weighing Crime Victims’ Interests in Judicially Crafted Criminal Procedure*, 56 CATHOLIC U. L. REV. 1135, 1135–38 (2007); Paul G. Cassell, *The Victims’ Rights Amendment A Sympathetic, Clause-by-Clause Analysis*, 5 PHX. L. REV. 301 (2012). For a discussion of these rights applied to environmental justice communities, see Joshua Ozymy & Melissa L. Jarrell, *Of Sex Crimes and Fencelines How Recognition of Environmental Justice Communities as Crime Victims Under State and Federal Law can Help Secure Environmental Justice*, 38 PACE ENV’T L. REV. 109, 119–27 (2020).

to enhance criminal enforcement efforts, increasing criminal enforcement near environmental justice communities, and prioritizing environmental justice as a national policy issue, will help to reenergize and prioritize federal environmental law enforcements to do the needed work to protect all Americans, but particularly the most vulnerable among us, from environmental harm.