

C O M M E N T

THE GREEN POLICE: CRIMINAL ENFORCEMENT IN THE ERA OF CLIMATE CHANGE

by Joshua Ozymy and Melissa Jarrell Ozymy

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I. Resources for Deterrence

Perhaps the greatest problem facing the expansion of environmental enforcement is that of resources. The work of the U.S. Environmental Protection Agency's (EPA's) Criminal Investigation Division (EPA-CID) is a difficult one, which requires investigation, coordination, and follow-through. Yet, both EPA and CID face increasing responsibilities alongside dwindling resources.¹ At present, there are less than 200 criminal investigators deployed across the country to investigate environmental crimes. In 2012, EPA employed only 175 agents, but this has diminished over time to 154 in 2015 and now it currently stands at 145 agents.² Strewn across some 40 locations in the United States and expected to investigate complex crimes in overlapping jurisdictions, this is simply well-short of what is needed to effectively police environmental crimes. Moreover, while numbers were high after 9/11, many enforcement staff were added and charged with taking on investigative responsibilities tangentially related to homeland security, rather than environmental crimes exclusively.³

For EPA-CID to be effective and for it to extend its reach, consider the investment in environmental law enforcement

versus traditional law enforcement in the United States. In 2019, the U.S. Bureau of Census estimated the country's population at 328,239,523.⁴ The Federal Bureau of Investigation's (FBI's) Uniform Crime Reporting Program notes that nationwide the rate of sworn law enforcement officers was 2.4 per 1,000 inhabitants and 3.4 per 1,000 inhabitants when considering sworn and civilian officers.⁵ Raw numbers equate to more than 680,000 law enforcement officers and almost one million total law enforcement employees. This comparison would have to include the number of criminal enforcement agents across the states and in limited cases local government for comparison, which would be extremely tough to come by.

As another point of comparison, the Bureau of Justice Statistics (BJS) notes that in 2016 there were 100,000 full-time federal law enforcement officers in the United States and its territories with about two-thirds deployed to Customs and Border Protection, the Federal Bureau of Prisons, the Federal Bureau of Investigation (FBI), and Immigration and Customs Enforcement; 47% worked in the U.S. Department of Homeland Security.⁶ Looking at this as a trend between federal agencies, in 2008, EPA-CID employed 183 agents and that declined to 157 by 2016. Based on BJS data, numbers are slightly different—EPA-CID agents increased from 202 to 214.

During the same period, other federal agencies faced declines while some sectors saw sharp increases. The National Oceanic and Atmospheric Administration (NOAA) Office of Law Enforcement decreased 18.2% from 154 to 126 full-time officers, the U.S. Forest Service declined more than 20% from 648 to 514, and the National Nuclear Security Administration dropped almost

Editors' Note: This Comment is adapted from Chapter 7 in Joshua Ozymy & Melissa Jarrell Ozymy, Toxic Intent: Environmental Harm, Corporate Crime, and the Criminal Enforcement of Federal Environmental Laws in the United States (ELI Press forthcoming 2022).

1. U.S. EPA, CRIMINAL ENFORCEMENT PROGRAM OVERVIEW 8-11 (EPA 310-K-11-001) (Oct. 2011), <https://19january2017snapshot.epa.gov/sites/production/files/documents/oceft-overview-2011.pdf>.
 2. PEER, *EPA CID Agent Count*, https://www.peer.org/wp-content/uploads/2019/11/11_21_19-Federal_Pollution_EPA_CID_Agent_Count.pdf (Nov. 21, 2019).
 3. See PEER, 2003 SURVEY OF EPA OFFICE OF CRIMINAL ENFORCEMENT, FORENSICS AND TRAINING EMPLOYEES 2-3 (2003), https://www.peer.org/wp-content/uploads/attachments/EPA-OCEFT_Survey_Sample_Essay_Responses.pdf.

4. Press Release, U.S. Census, 2019 U.S. Population Estimates Continue to Show the Nation's Growth Is Slowing, Dec. 30, 2019, <https://www.census.gov/newsroom/press-releases/2019/popest-nation.html>.
 5. FBI, *Crime in the United States (2018)*, <https://ucr.fbi.gov/crime-in-the-u.s/2018/crime-in-the-u.s.-2018/topic-pages/police-employee-data> (last visited May 11, 2022).
 6. BJS, FEDERAL LAW ENFORCEMENT OFFICERS, 2016—STATISTICAL TABLES (Oct. 2019), <https://www.bjs.gov/content/pub/pdf/fleo16st.pdf>.

17% from 363 to 302. If we look at budgets and staff as statements of value, CID was lower than many other federal law enforcement priorities using 2016 data: Bureau of Land Management (253), National Park Police (560), Food and Drug Administration, Office of Criminal Investigation (231), U.S. Mint Police (292), Amtrak Police Department (427), and the Smithsonian Institution's Office of Protective Services (620).

Research suggests that companies and individuals would be deterred from committing environmental crimes if they were rational to the extent that the chance of them being caught was sufficiently high and the penalties associated with the crime sufficiently punitive.⁷ Deterrence works on the principle that environmental law enforcement raises the costs of offending relative to the benefits to deter rational individuals and companies from offending (specific deterrence) and these actions set an example that deters other potential offenders indirectly (general deterrence).⁸ Our data suggest that 2,588 environmental crime prosecutions were undertaken as the result of EPA investigations over the last 37 years, which equates to an average of 70 per year and about 1.4 per state on average. This number is reduced further when we discount investigations that led to state-level prosecutions, which accounted for 396 or 15% of the prosecutions in our data. These numbers are very low to suggest specific deterrence in most cases or general deterrence. Cases such as *Deepwater Horizon* likely do set a specific deterrence example for the company and for the industry, but the media coverage and scope of the punishment for this case, as in Volkswagen's emissions rigging prosecution, are significant outliers compared to run-of-the-mill prosecutions.⁹

On first glance, those numbers do not seem high enough to suggest a range of bad actors would be deterred from committing crimes. Winston Harrington noted that the low probability of corporate offenders being caught and the small fines suggest a paradox for why they do not simply disobey rather than comply with the law.¹⁰ The nature of deterrence for generally law-abiding individuals and companies is beset by a series of problems to make this a true paradox, but there are inherent difficulties as well in measuring environmental crime rates or corporate crime rates generally.¹¹ Environmental regulation is often made in collaboration with the regulated community, which is very

different than traditional law enforcement and offending.¹² Much of the data on offending per se is self-reported in an effort to overcome weaknesses in the oversight regime at the federal and state level that lack resources to police the regulated community.¹³ These factors have led many researchers to assert that environmental sanctions may do little to deter crimes, given the size of the regulatory community, nature of regulation, and limited resources and reach of the enforcement community.¹⁴

Criminal enforcement resources are limited and the probability of being sanctioned for a federal environmental crime in the United States is historically fairly low.¹⁵ Research shows that while there are large penalties assessed in some environmental prosecutions, the historical probability of being punished in a significant way is not very high.¹⁶ A related question addressed by previous research is whether sanctions are punitive enough to deter crime and if law enforcement agencies are motivated to seek such penalties. Matthew Crow and colleagues found that in Florida an analysis of U.S. Fish and Wildlife Service offenses demonstrated a focus on minor crimes.¹⁷ The analysis of Florida by Joshua Cochran and others finds that relatively few felony prosecutions in the state courts stem from environmental crimes.¹⁸ James Periconi notes that New York State has a long record of successful environmental crime prosecutions, but the number of prosecutions has become stagnant over time.¹⁹ In one of the few studies on county-level environmental enforcement in Fulton, Georgia, Michael Lynch found the number of cases and mean fines to be fairly small.²⁰ Michael O'Hear finds that criminal sentencing for federal environmental offend-

7. Gary Becker, *Punishment: An Economic Approach*, 169 J. POL. ECON. 183-85 (1968).

8. Dietrich Earnhart & Lana Friesen, *Can Punishment Generate Specific Deterrence Without Updating? Analysis of a Stated Choice Scenario*, 56 ENV'T RES. ECON. 379-82 (2013). Carole M. Billiet & Sandra Rousseau, *How Real Is the Threat of Imprisonment for Environmental Crime?*, 37 EUR. J. L. & ECON. 183-86 (2014) [hereinafter Billiet & Rousseau]. Sarah L. Stafford, *The Effect of Punishment on Firm Compliance With Hazardous Waste Regulations*, 44 J. ENV'T ECON. & MGMT. 290-93 (2002).

9. Michael J. Lynch et al., *Media Coverage of Chemical Crimes: Hillsborough County, Florida, 1987-1997*, 40 BRIT. J. CRIMINOLOGY 112-14 (2000).

10. Winston Harrington, *Enforcement Leverage When Penalties Are Restricted*, 37 J. PUB. ECON. 29-53 (1988).

11. Carol Gibbs & Sally S. Simpson, *Measuring Corporate Environmental Crime Rates: Progress and Problems*, 51 CRIME, L. & SOC. CHANGE 87-92 (2009).

12. Harland Prechel & Alesha Istvan, *Disproportionality of Corporations' Environmental Pollution in the Electrical Energy Industry*, 59 SOC. PERSP. 505-09 (2016).

13. Scott De Marchi & James T. Hamilton, *Assessing the Accuracy of Self-Reported Data: An Evaluation of the Toxics Release Inventory*, 32 J. RISK & UNCERTAINTY 57-61 (2006). Lori S. Benneer, *What Do We Really Know?: The Effect of Reporting Thresholds on Inferences Using Environmental Right-To-Know Data*, 2 REG. & GOV'T 293-95 (2008). Kate Golden, *EPA's ECHO Database: Your Two-Faced Best Friend*, SEJ.ORG, Sept. 15, 2012, at <https://www.sej.org/publications/sejournal-su-fall12/epas-echo-database-your-two-faced-best-friend>.

14. Raymond Paternoster, *How Much Do We Really Know About Criminal Deterrence?*, 100 J. CRIM. L. & CRIMINOLOGY 765-69 (2010). Harland Prechel & Lu Zheng, *Corporate Characteristics, Political Embeddedness, and Environmental Pollution by Large U.S. Corporations*, 90 SOC. FORCES 947-52 (2012). See Billet & Rousseau, *supra* note 8.

15. Michael J. Lynch et al., *Weak Probability of Punishment for Environmental Offenses and Deterrence of Environmental Offenders: A Discussion Based on USEPA Criminal Cases, 1983-2013*, 37 DEVIANT BEHAV. 1095 (2016).

16. Michael J. Lynch, *The Sentencing/Punishment of Federal Environmental Green Offenders, 2000-2013*, 38 DEVIANT BEHAV. 991-95 (2017).

17. Matthew S. Crow et al., *Camouflage-Collar Crime: An Examination of Wildlife Crime and Characteristics in Florida*, 34 DEVIANT BEHAV. 635-37 (2013).

18. Joshua C. Cochran et al., *Court Sentencing Patterns for Environmental Crimes: Is There a "Green" Gap in Punishment?*, 34 J. QUANTITATIVE CRIMINOLOGY 37-40 (2018).

19. James J. Periconi, *The State of Environmental Crime Prosecutions in New York*, 23 NAT. RESOURCES & ENV'T 15-19 (2009).

20. Michael J. Lynch, *County-Level Environmental Crime Enforcement: A Case Study of Environmental/Green Crimes in Fulton County, Georgia, 1998-2014*, 40 DEVIANT BEHAV. 1090-92 (2019).

ers to be less punitive on the whole than other federal non-environmental offenders.²¹

Other studies show that federal environmental law enforcement agencies are motivated to seek more significant punishments for more serious crimes. Kathleen Brickley's work on Resource Conservation and Recovery Act (RCRA) prosecutions finds that sanctioning outcomes are positively related to crime severity.²² We find that the most consistent predictor of criminal penalties against environmental criminals was the severity of the crime in the case.²³ Matthew Greife et al. support our finding that the strongest predictor of penalties against corporate environmental offenders is the severity of the crime committed.²⁴ David Uhlmann shows that federal prosecutors are motivated to pursue criminal charges when violations involve serious crimes measured through a series of aggregating factors, such as chronic offenses, significant harm, deceptive or misleading conduct, or operating outside the regulatory system.²⁵ Sarah Stafford shows that increases in statutory RCRA penalties in the early 1990s decreased violations, but it is hard to pin down exactly if the threat of stiffer punishments resulted in deterrence *per se*.²⁶

Studies show there may be some deterrent effect of prosecution, finding some corporations prosecuted for environmental crimes suffer collateral financial damage.²⁷ Whether the federal environmental enforcement regime is effective at deterring crime is a complex phenomenon. While there is evidence that something straightforward such as the threat of inspections increases environmental performance, this idea of general deterrence rests on research about perceptual deterrence that may not be warranted.²⁸

The existence of perceptual deterrence via the real potential of sanctioning through stiffer statutory maximum penalties, enforcement resources, and the motivation of prosecutors to pursue complex cases against big companies to seek maximum punishment is debated, but likely has already found an answer on the margins, i.e., in some cases and not others.²⁹ Prior to changes in environmental statutes in the 1980s and 1990s it was very difficult to suc-

cessfully prosecute corporate officers for environmental offenses.³⁰ Penalties were often so low prior to this time that companies could simply in theory pay them rather than comply and many did.³¹ While we do not find many corporate officers from large multinational companies charged in our analysis, we do find some cases for small- or mid-size companies and we certainly find that prosecutors are motivated to seek punishments, although their efforts tend to be tailored toward crimes that have physical evidence and are thus easier to punish, such as asbestos crimes and illegal discharge cases.³²

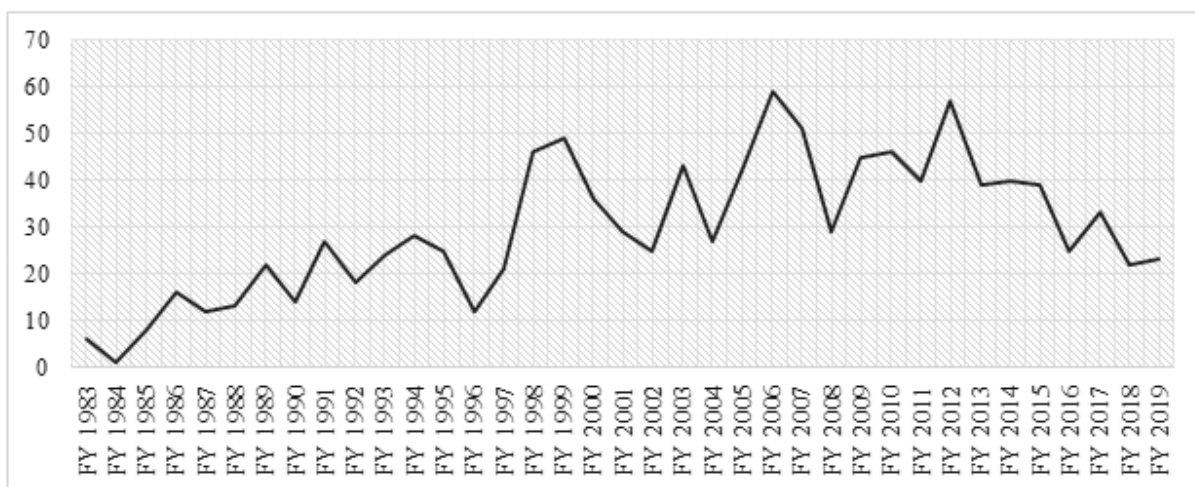
Many companies may prefer regulation and engage in rent-seeking behaviors with government, such as protection from competition or developing preferential markets or solutions for dealing with hazardous byproducts of their operation such as for sodium dioxide, coal ash, biosolids, or carbon dioxide. Weak regulations are often preferred to the open market by many companies for these reasons, as well as the potential for large companies to negotiate smaller fines, consent decrees, and other lesser penalties in court or know that the threat of litigation typically is enough to bring regulators to the bargaining table. In this sense, a weaker regulatory regime can be a positive outcome for the regulated community. They can show the semblance of regulation in place of a stronger regime and stave off public support for stronger regulation absent any government involvement.

Looking at this issue from the perspective of annual cases in Figure 1, one can see investigations by EPA-CID ended up as completed prosecutions only once in 1984. By 1989, this climbed to 22 prosecutions and further increased to 46 by 1998. The annual high point was 59 in 2006 and this decreased to 29 by 2008 and rose to 57 by 2012. By 2018, annual prosecutions dropped again to 20. Many prosecutions take multiple years to go from investigation to sentencing, so each year itself has little meaning in most instances. The broader movement trends up over time with institutionalization of the criminal enforcement process in the 1980s and then increases significantly relative to past prosecutions by the 1990s, which does not

21. Michael M. O'Hear, *Sentencing the Green-Collar Offender: Punishment, Culpability, and Environmental Crime*, 95 J. CRIM. L. & CRIMINOLOGY 133-34 (2004).
22. Kathleen F. Brickley, *Charging Practices in Hazardous Waste Crime Prosecutions*, 62 OHIO ST. L.J. 1077-124 (2001).
23. Joshua Ozymy & Melissa L. 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 RES. 71-73 (2016).
24. Matthew J. Greife et al., *Corporate Environmental Crime and Environmental Justice*, 28 CRIM. JUST. POL'Y REV. 327 (2017).
25. David M. Uhlmann, *Prosecutorial Discretion and Environmental Crime*, 38 HARV. ENV'T L. REV. 159 (2014) [hereinafter Uhlmann].
26. Sarah L. Stafford, *The Effect of Punishment on Firm Compliance With Hazardous Waste Regulations*, 44 J. ENV'T ECON. & MGMT. 290-93 (2002).
27. Matthew J. Greife & Michael O. Maume, *Do Companies Pay the Price for Environmental Crimes?: Consequences of Criminal Penalties on Corporate Offenders*, 73 CRIME, L. & SOC. CHANGE 337-56 (2020).
28. Paul B. Stretesky & Jackie Gabriel, *Self-Policing and the Environment: Predicting Self-Disclosure of Clean Air Act Violations Under the U.S. Environmental Protection Agency's Audit Policy*, 18 SOC'Y & NAT. RESOURCES 884 (2005).
29. See the debated positions by Lazarus and Brickley on these points, Richard J. Lazarus, *Assimilating Environmental Protection Into Legal Rules and the Problem With Environmental Crime*, 27 LOY. L. REV. 867-70 (1994). See

KATHLEEN F. BRICKEY, ENVIRONMENTAL CRIME: LAW, POLICY, PROSECUTION 9 (New York: Aspen Publishers 2008).

30. David T. Barton, *Corporate Officer Liability Under RCRA: Stringent But Not Strict*, 4 BRIGHAM YOUNG U. L. REV. 1548-51 (1991).
31. David Wann, *Putting Offenders Behind Bars*, 29 ENVIRONMENT 5-7 (1987).
32. Increasing penalties for knowing violations not only raises the specter of punishment for offenders, but also works to encourage individuals and company employees to self-disclose violations to avoid such punishments. In the 1990s, the reinventing government era under President Bill Clinton went further to encourage self-disclosures, as well as self-policing in the hopes that regulation would be less confrontational and deterrence-based and more innovative and conciliatory as companies would find more efficient ways to obey the law. Research casts some doubt on the efficacy of the latter. See Paul B. Stretesky & Jackie Gabriel, *Self-Policing and the Environment: Predicting Self-Disclosure of Clean Air Act Violations Under the U.S. Environmental Protection Agency's Audit Policy*, 18 SOC'Y & NAT. RESOURCES 871-87 (2005); Paul B. Stretesky & Michael J. Lynch, *Does Self-Policing Reduce Chemical Emissions?*, 46 SOC. SCI. J. 459-73 (2009); and Paul B. Stretesky et al., *Does the Modernization of Environmental Enforcement Reduce Toxic Emissions? An Examination of Self-Policing, Criminal Prosecutions, and Toxic Releases in the United States, 1988-2014*, 37 SOCIOLOGICAL SPECTRUM 48-62 (2017).

Figure 1. Total Criminal Prosecutions by Fiscal Year Since 1983

become the apogee so much as the year more prosecutions happened to be settled. These numbers alone do not show a distinctly positive trend with time, but an ebb and flow. If annual settled prosecutions were the metric for deterrence, it would not seem as though EPA-CID creates much of a deterrent effect. Such a conclusion would again assume the typical relationship between offenders and law enforcement, which is simply not the case with environmental regulation and thus deterrence is a difficult concept to pin down.

Based on the same data, we were able to break down our analysis to the total number of cases annually involving at least one company since 1983. We find a grand total of 1,092 cases prosecuted involving a company over the last 37 years. We find one case in 1984. This number rises to 27 in 1991, 49 by the end of the decade, and 59 by 2006. This trend falls and rises to 57 by 2012 and drops to 22 by 2018. The trajectory thus rises and falls over time, mostly increasing with professionalization, but starts to fall again in the last few years. Average prosecutions were about 30, which considering the number of criminal enforcement agents assigned to investigate environmental crimes, and the complex responsibilities of the U.S. Department of Justice (DOJ), the average number of prosecutions seems to generically come in line with expectations for resources, i.e., you would be alarmed with 10 annual prosecutions, but equally shocked if there were 200.

II. The Big Stick

Perhaps another method by which we can tackle the deterrent value of criminal enforcement is to look at the big penalty cases as the yardstick for perceptual deterrence. Large penalties represent the will of investigators and prosecutors to tackle large penalty cases and demonstrates their motivation to seek serious penalties for serious crimes.³³

Certainly, bad guys would look at the potential for punishment through the lens of highly salient prosecutions or at least their lawyers might advise them to pay attention.³⁴

In Table 1, we give some examples of salient and expensive cases for corporate environmental crimes. Not unexpectedly, we do not see any relatively large penalty cases against corporations in the 1980s. The prosecution of A&A Land Development in 1991 prosecuted as a RICO case and illegal discharge represents a substantial \$30 million fine. Adjusted for inflation in 2019 dollars, this equates to over \$82 million today. The 1997 case against Refrigeration USA for an extensive and illegal freon importation scheme would be valued at over \$59 million today. Besides the case against Louisiana Pacific in 1998, the next big penalty case comes against Evergreen International in 2005 with a \$30 million Clean Water Act (CWA) prosecution and Overseas Shipholding in 2007 for a MARPOL/conspiracy prosecution leading to a \$37 million penalty.

Large penalty corporate cases then increase with the BP Texas City refinery explosion prosecuted under the Clean Air Act (CAA) in 2009, the two cases against Wal-Mart Missouri and California in 2013 for violations relating to illegal discharges and lack of employee training for hazardous materials, and the Duke Energy coal ash spill settled for \$102 million in 2015. The cases against Volkswagen AG and IAV GmbH netted over \$2.9 billion in penalties in 2019 dollars, only eclipsed by the BP and Transocean prosecutions for *Deepwater Horizon* that resulted in over \$4.8 billion in 2019 dollars.

To place these prosecutions in context, they demonstrate the ability and drive of federal prosecutors to pursue complex cases against multinational corporations. Certainly, a \$4 billion penalty for gross negligence and obstructing the U.S. Congress sends a signal to potential offenders, as does almost \$3 billion in inflation-adjusted penalties for a long-

33. See Uhlmann, *supra* note 25, at 159.

34. Richard A. Posner, *An Economic Theory of the Criminal Law*, 85 COLUM. L. REV. 1193-200 (1985).

Table 1. The Dirty Dozen: Largest Corporate Monetary Penalties

Year	Company	Nominal Penalty	2019 Dollars
FY 1991	A&A Land Development	\$44,002,800	\$82,596,357.12
FY 1997	Refrigeration USA	\$37,372,826	\$59,530,371.19
FY 1998	Louisiana Pacific	\$37,235,000	\$58,401,155.80
FY 2005	Evergreen International	\$30,000,000	\$39,271,428.57
FY 2007	Overseas Shipholding	\$37,000,000	\$45,621,769.83
FY 2009	BP Products	\$50,000,000	\$59,583,428.50
FY 2013	Wal-Mart MO/CA	\$220,000,000	\$241,437,432.66
FY 2013	BP, PLC	\$4,000,000,000	\$4,389,771,502.90
FY 2014	Transocean	\$400,000,000	\$431,969,789.13
FY 2015	Duke Energy	\$102,000,000	\$110,021,703.08
FY 2017	Volkswagen AG	\$2,800,000,000	\$2,920,363,903.39
FY 2019	IAV GmbH	\$35,000,000	\$35,000,000

term emissions-rigging scheme. Another way to contextualize these outcomes is that a dozen cases represent 76% of all corporate monetary penalties assessed in the data.³⁵ It would be very difficult to assess empirically the deterrent value of these large penalty cases, but they are certainly infrequent, if not substantial, particularly for potential violators of the CWA and the CAA.

If we exclude the Wal-Mart, BP, Transocean, Duke, and Volkswagen AG cases that are so substantial, we can graph these penalties over time with some semblance of order and perspective. In Figure 2, we adjust all nominal penalties against companies to 2019 dollars by fiscal year and graph them over time. We see these rising from almost \$240,000 in 1983 to \$111 million by 1991 if we adjust for inflation. By 2001, this rises again to over \$133 million and then \$156 by 2007. When you exclude these large penalty cases and adjust for inflation, the picture begins to change and overall company penalties start to drop after 2007 and decline to just over \$16 million by 2016 and up to \$58 million by 2019.

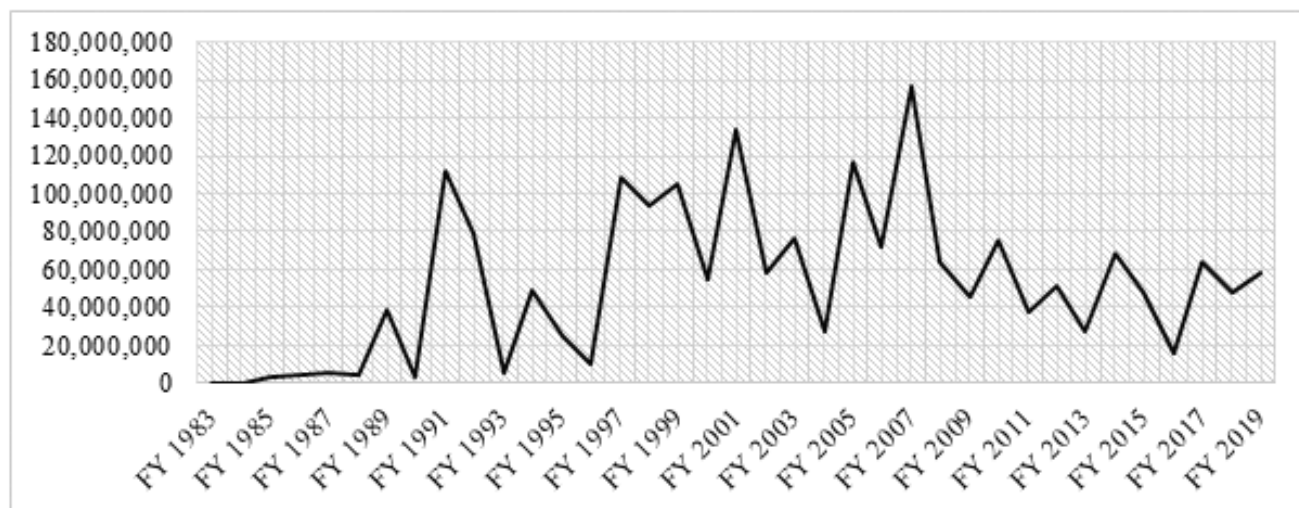
35. *U.S. Inflation Calculator*, <https://www.usinflationcalculator.com/>. This measure uses the Consumer Price Index. Noting again here that the BP prosecution could not be found through normal search terms applied to the other cases during data collection and is thus not included in totals throughout the book. Legal citation for cases in the table follow: A & A Land Development (50% of the penalty was assessed to the related company, Vulpis Brothers, Ltd., S.D.N.Y. No. 89-446); Refrigeration USA (S.D. Fla. No. CR:96-0267-CR-MORENO); Louisiana Pacific Corp. (D. Colo. No. 95-CR-215); Evergreen International SA (D. Or. No. CR 05-238-TJH); Overseas Shipholding Group (E.D.N.C. No. 7:06-CR-125-1F); Wal-Mart Missouri (W.D. Mo. No. 4:13-CR-00135); Wal-Mart California (C.D. Cal. Nos. 13-CR-033-JSC-1 & CR 13 334 MAG); BP Products North America (S.D. Tex. No. 4:07-CR-434); Transocean LTD (E.D. La. No. 2:13-CR-00001-JTM-SS); BP, PLC (E.D. La. No. 2:12-CR-00292-DEK); Duke Energy Progress, Inc. (E.D.N.C. No. 15-CR-00062,67,68); Volkswagen AG (E.D. Mich. No. 16-CR-20394); IAV GmbH (E.D. Mich. No. 16-CR-20394).

Most of these penalties were not against large multinational companies like BP or Transocean. Large penalties represented examples of prosecutions that put forth significant resources to punish willful and knowing violations of the law. Many cases involved smaller companies and such penalties would have been out of line with the nature of the crime and the need for punishment and deterrence. In this light, we can view the nature of punishing companies for committing environmental crimes as one of opportunity for prosecutors to have and to take. There are likely many examples of crimes settled through civil action to avoid the resources needed for prosecution, given the outcomes can be more flexible in civil cases and just as substantial. The cases in Figure 2 represent public prosecutions to both punish and make a point.

In Table 2 (on page 10532), we explore 11 of the largest monetary penalties assessed to individual defendants in cases since 1983. In this table, we list the primary defendant and aggregate all monetary penalties assessed to individuals (not companies, although they are defendants in some cases), and the total months of incarceration and probation assessed to all individual defendants in each case. If these are examples of salient cases against individuals, there might be some argument for a general deterrent value. These cases also give some range of what types of crimes will receive such large penalties at sentencing.

The obvious trend in these cases is that seven are connected to biofuel fraud related to renewable fuel credit taxes. Some, such as the case against Jeffrey David Günselman and his co-defendants, involved false production of biofuels to fraudulently obtain tax credits. Rodney Rashawn Hailey sold renewable identification numbers to brokers and oil companies for biofuel that his company did not produce. William Bradley also engaged in the false production of biofuel to achieve renewable/tax credits.

Figure 2. Total Monetary Penalties Assessed to Companies by Fiscal Year in Current Dollars Since 1983



Brian Carmichael (primary defendant is E-Biofuels), Philip Joseph Rivkin, and Gregory Schnabel all engaged in a version of this fraud. All but one was prosecuted under the CAA and all were prosecuted with concomitant criminal charges, such as false statements, conspiracy, and fraud.

The penalties tended to be so high, because the fraud, i.e., falsely claim to produce biofuels, take the tax credits, and/or then sell the renewable energy credits to unsuspecting buyers on the open market, generated substantial returns in the millions of dollars for the fraudulent behaviors. These cases were arguably easier than other crimes to prosecute, as you have a direct paper trail that can uncover the fraudulent tax filing, subsequently fraudulently sold renewable energy credits, and of course the fact that these companies and their owners either did not physically exist and produce biofuel or merely pretended to do so.³⁶

In a way, the biofuel cases are an aberration in the individual penalty cases. The Eric Farbent case is attached to the widescale fraudulent asbestos testing and demolition conspiracy prosecuted as a RICO case in New York. Newell Smith was also prosecuted for asbestos crimes. The only other outliers here are that of Benjamin Franklin Pass, owner of P&W Oil Company, who would transport and reprocess large amounts of oil to be resold. Pass became aware in October 2009 that testing showed the oil was severely contaminated with polychlorinated biphenyls and he continued to instruct employees to illegally blend and mix the contaminated oil. Pass also falsely certified his employees, failed to pay income taxes, and was sentenced

to 42 months in prison and ordered to pay over \$22 million in restitution to Colonial Oil and International Paper that contaminated their facilities.

The Randy Jones case is a bit of an outlier. Jones was a corrosion coordinator for Shell Pipeline Company. He violated the Pipeline Safety Act and made false statements by failing to conduct corrosion tests from January to December 2011 for a pipeline that transported aviation fuel for Shell. A hole in the pipeline released some 9,000 gallons of fuel that melted asphalt and damaged other property at General Mitchell International Airport in Milwaukee, Wisconsin. The cleanup cost for the spill was \$19.3 million. Jones was sentenced to 10 years of probation and ordered to pay \$19,337,785 in restitution.

Charles Ferris Callihan is also somewhat of an outlier case. Callihan and his co-defendants, employees of Explo Systems a company whose primary business was to demilitarize military munitions, conspired to transport munitions to unpermitted facilities from January 2010 to November 2012 in an effort to defraud the U.S. Army. Callihan submitted false documents and gave false statements to landfills to dispose of the hazardous waste and to the government. On October 15, 2012, an explosion occurred at Camp Minden at a facility leased by Explo that destroyed the bunker, trailer, derailed 11 rail cars, shattered windows in a four-mile radius, and caused an evacuation of the town of Doyline, Louisiana. In addition to the \$35 million in restitution the defendants were ordered to pay, they also collectively were sentenced to 225 months in prison.³⁷

We can now examine the top-12 most punitive prison sentences handed down to all individual defendants in a single case since 1983. While both civil and criminal penalties can include probation or monetary penalties, Table 3

36. Case numbers for the table follow: Gregory Schnabel (S.D. Ohio No. 2:17-CR-169); Benjamin Franklin Pass (E.D.N.C. No. 7:12-CR-85-1-D); Eric Farbent (N.D.N.Y. No. 02-CR-51); Jeffrey Gunselman (N.D. Tex. No. 5:12-CR-00078-C-BG); Rodney Rashawn Hailey (D. Md. No. 1:11-CR-00540-WDQ); Randy Jones (E.D. Wis. No. 14-CR-220); William Bradley (S.D. Ohio No. 2:15CR44); Richard Smith (S.D. Ohio No. 2:15-CR-44); Newell Lynn Smith (E.D. Tenn. No. 2:11-CR-82); Philip Joseph Rivkin (S.D. Tex. No. H 14-603M/H14-250c); Brian Carmichael (S.D. Ind. No. 1:13-CR-0189SEB-TAB); Charles Ferris Callihan (W.D. La. No. 16-CR-00214-06).

37. Vicki Welborn, *Update: Explo Officials Get Years Behind Bars, Ordered to Pay Millions in Restitution*, KTBS.com, Nov. 27, 2018, at https://www.ktbs.com/news/update-explo-officials-get-years-behind-bars-ordered-to-pay-millions-in-restitution/article_026d5874-f29b-11e8-a854-2b81dcfd752.html.

Table 2. The Dirty Dozen II: Largest Individual Monetary Penalties

Year	State	Defendant	Crime	Nominal Penalty	Prison	Probation
2007	NY	Eric C. Farbent	Asbestos	\$72,661,945	746	336
2013	TX	Jeffrey David Gunselman	Biofuel Fraud	\$55,075,000	188	0
2013	MD	Rodney Rashawn Hailey	Biofuel Fraud	\$51,300,000	150	0
2014	NC	Benjamin Franklin Pass	PCBs	\$21,373,143	42	0
2015	WI	Randy Jones	Pipeline Spill	\$19,337,785	0	120
2015	OH	William Bradley	Biofuel Fraud	\$23,000,000	167	0
2015	OH	Richard Smith	Biofuel Fraud	\$23,000,000	167	0
2015	TN	Newell Lynn Smith	Asbestos	\$31,165,731	149	0
2016	TX	Philip Joseph Rivkin	Biofuel Fraud	\$138,000,000	121	0
2017	IN	Brian Carmichael	Biofuel Fraud	\$55,295,068	650	36
2018	OH	Gregory Schnabel	Biofuel Fraud	\$26,244,437	63	0
2019	LA	Charles Ferris Callihan	Munitions Disposal	\$35,397,347	225	0

examines the biggest stick available to federal prosecutors when dealing with individual, rather than company defendants. We are leaving out the large incarceration prosecutions previously discussed for Farbent and Carmichael, although Farbent makes an appearance in the related prosecution of AAR Contractors.

The most common theme we see is the presence of serious criminal behaviors in these 12 cases. Four cases involve RICO or racketeering-focused cases. The previously discussed case against Charles Arcangelo was a RICO case centered on conspiracy and illegal disposal of hazardous materials under RCRA.³⁸ The RICO case against Angelo Paccione was tied into the previous case, which involved extensive operations to illegally dispose of asbestos and other hazardous materials through a series of company-owned landfills and recycling operations. Alexander Salvagno was a defendant in the illegal asbestos testing and demolition conspiracy case and it was tried as a RICO case and was tied to AAR Contractor.

The highest-profile racketeering case we find is against the former mayor of Detroit Michigan, Kwame Kilpatrick. The former mayor was indicted for his role in a high-profile public corruption scandal. Kilpatrick used his position as mayor, as well as a Michigan State House Representative, to engage in a racketeering conspiracy involving extortion, bribery, tax evasion, and mail fraud for which he was sentenced to 28 years in prison. The crux of this long-standing

conspiracy was to extort public contractors to use Bobby Ferguson who obtained a portion of the \$73 million in revenue obtained through the scheme of which he shared with Kwame and Bernard Kilpatrick. Mayor Kilpatrick also personally accepted payments and property totaling over \$1 million from persons seeking business with the city. Thirty-two other individuals were convicted. Because Mayor Kilpatrick was investigated by EPA, the case is included in the data, although the focus of the case was the racketeering and conspiracy.

Brent Bushau was a case involving conspiracy to steal more than \$3 million in refrigerants and resell them. The state of the crime is not listed in the case summaries. Robert Lucas Jr., was in the case against Bill Hill Acres, Inc., which illegally filled in a wetland and built a 2,600-acre subdivision in Vancleave, Mississippi. The project defrauded some 600 families as the septic and stormwater problems caused by the illegal action made the development uninhabitable for many home buyers. David Eugene Turner and his co-defendants operated an illegal migrant labor camp near Jacksonville, Florida, where they would round up homeless laborers, and pay them in untaxed cigarettes, alcohol, and crack cocaine. Besides conspiracy to distribute cocaine and illegal transport of laborers, they were charged under the CWA for piping raw sewage into a creek. Shamon Anton Williams was prosecuted with seven other members of the Carver Village Thoroughbreds gang near Savannah, Georgia, for federal firearms and drug trafficking offenses. EPA-CID participated in the investigation.³⁹

Thomas Anthony Davazo was involved in a biofuel fraud case. Katie Dolinger was prosecuted with her co-defendants for manufacturing methamphetamines in

38. Case numbers for the table follow: Charles Arcangelo (D. Conn. No. N-88-43TFGD); Angelo Paccione (S.D.N.Y. No. 89-446); Alexander Salvagno (N.D.N.Y. No. 5:02-CR-51); Kwame Kilpatrick (E.D. Mich. No. 2:10-CR-20403-4TH SD); Brent Bushau (No. 01CR0610); Robert Lucas Jr. (S.D. Miss. No. 1:04CR60GuRo-001); David Eugene Turner (M.D. Fla. No. 3:05-CR-00159-TJC-MMH); Shamon Anton Williams (S.D. Ga. No. CR416-343-01); Thomas Anthony Davazo (M.D. Fla. No. 2:15-CR-00141-UA-MRM); Katie Dolinger (S.D. W. Va. No. CR:06-Nov-2002); Mark Anthony Dorner (E.D. Mo. No. 4:00CR396SNL); Charles Colbert (S.D.N.Y. No. 85-1134).

39. "Drenched in Blood Itself": 8 Indicted in Savannah Violent Drugs/Guns, SAVANNAH MORNING NEWS, July 6, 2016, at <https://www.savannahnow.com/crime-courts-news/2016-07-06/drenched-blood-itself-8-indicted-savannah-violent-drugsguns-gang-probe>.

Table 3. The Dirty Dozen III: Largest Prison Sentences

Year	State	Defendant	Crime	Prison
1986	NY	Charles Colbert	Importation Fraud and Conspiracy	312
1989	CT	Charles Arcangelo	RICO	564
1991	NY	Angelo Paccione	RICO	604
2001	MO	Mark Anthony Dorner	Methamphetamine production	953
2003	WV	Katie Dolinger	Chemical Production	232
2005	NY	Alexander Salvagno	RICO	619
2005	*	Brent Bushau	Conspiracy and Theft of Refrigerants	492
2006	MS	Robert J. Lucas Jr.	Built a Subdivision on Wetlands	282
2007	FL	David Eugene Turner	Illegal Labor Camp	626
2014	MI	Kwame Kilpatrick	Public Corruption	603
2017	FL	Thomas Anthony Davanzo	Biofuel Fraud	256
2017	GA	Shamon Antwon Williams	Gang Activity	230

West Virginia. Waste from the manufacturing process was dumped into a creek, bringing the attention of EPA-CID to the case, which was a similar scenario to the prosecution of Mark Anthony Dorner. Charles Colbert was president of a company prosecuted for fraudulently shipping a recycled chlorinated solvent mixture to a company in Zimbabwe.

Our research shows us some of the obstacles to advancing the case for a greater push for enhanced criminal enforcement of federal environmental laws. We have found that enforcement of the CWA, the CAA, and RCRA disproportionately defines criminal enforcement in the United States. Much of this comes down to the way such criminal provisions are constructed, the scope of the act, and the regulatory reach. The CWA sets up a vast permitting system, beginning at publicly owned treatment works (POTWs) and expands outward. Any person or entity discharging into the waters of the United States will run up against the Act with some important exemptions afforded to concentrated animal feeding operations, fracking, and a few other sectors of the economy. The regulated community includes public and private water treatment plants, sewers, stormwater, ships and vessels, residential subdivisions, and any development that involves altering a wetland or waterway. We would argue this permitting system, although flawed in what is allowed to be discharged or altered, was a great success, as was the significant investment that Congress made in constructing and updating POTWs in the 1970s and early 1980s. For mobile sources, the CWA has been much less effective.

Even though this permitting system has been devolved to the states, it sets up a paperwork trail and often physical evidence that aids in prosecution. With over 800 cases or 32% of prosecutions, the CWA reigns supreme in criminal enforcement. It is unsurprising that illegal discharges make up about one-quarter of all prosecutions

stemming from EPA investigations over the last 37 years. The remainder of the prosecutions outside of unpermitted alteration of waterways, i.e., §404 permit and related violations, often had some relationship to prosecuted illegal or unpermitted discharges.

Excluding the BP *Deepwater Horizon* case, about \$1.25 billion in monetary fines were levied against CWA offenders, alongside 34,000 months of probation, and over 5,000 months of incarceration. We see some of the largest penalty cases against corporate offenders levied under the CWA as well. Evergreen International, Overseas Shipholding, the Wal-Mart prosecutions, Duke Energy, and of course Transocean and BP for *Deepwater Horizon* all make for a significant portion of historical penalties. Including all cases moves the needle to over \$5 billion, and that is important if you look at relative deterrence and specific deterrence for the particular companies that committed the offenses, this specific law, and the companies that are regulated by it and the corporate lawyers that proffer expensive advice on their behalf and talk about it at professional conferences and in closed conference rooms. Just removing the two against BP and Transocean drops penalties to about \$866 million overall, which is not terribly significant given the size of the regulated community and related economic activity, but it is not insignificant either.

The criminal enforcement of the CAA reflects the difficulty of policing emissions from stationary sources. Asbestos-centric crimes became the focus of the criminal division and federal prosecutors early on. We find that 12% of total prosecutions focus on asbestos and about 59% of CAA prosecutions are asbestos-centric. With over \$3.6 billion in monetary penalties assessed to defendants over the last 37 years that criminally violated the CAA, the number is substantial. Like the CWA prosecutorial universe, this number is greatly skewed by the \$2.8 billion Volkswagen

AG prosecution and as we have seen previously the biofuel tax credit fraud cases greatly skew this number as well. Still some 16,000 months of probation, 7,600 months of incarceration, and over 17,000 hours of community service were metered out.

RCRA violators were subjected to a grand total of about \$293 million in monetary penalties, 18,000 months of probation, 7,000 months of incarceration, and 33,000 hours of community service. Their crimes were generally straightforward, and a combination of illegal transport, storage, disposal, and other issues related to the improper handling of hazardous wastes. Fifty-four percent of these prosecutions involved one or more of these cradle-to-grave crimes. RCRA crimes made up 15% of total prosecutions since 1983 and was second only to illegal discharge cases in the major themes we uncovered.

III. Politics and the Future of Criminal Enforcement

Our own summary judgment on what many scholars, practitioners, and the career staff at EPA itself would mostly agree with is that criminal enforcement had its heyday long ago. As with any established regulatory agency, the initial years are beset by greater freedoms, public involvement, and mission-driven work.⁴⁰ New employees have fewer rules, more professional discretion, and the opportunities to work with the regulated community seem greater.⁴¹ EPA-CID was always designed to make hard choices with limited resources and from the very beginning the unit realized, as will all federal environmental law enforcement, it would have to be selective in its enforcement decisions.⁴² As the director of the Office of Enforcement Earl Devaney noted to staff over two decades ago, it is unlikely it will ever be large enough in size to fully defeat the ever-expanding universe of environmental crime and it must maximize its presence and impact through discerning case selection, and then proceed with investigations that advance EPA's overall goal of regulatory compliance and punishing criminal wrongdoing.⁴³ DOJ's Environmental Crimes Section falls roughly into the same category.⁴⁴

As any scholar of bureaucracy may note, this rosy picture declines over time.⁴⁵ The regulated community starts to understand how to manipulate the regulatory agency. They often engage in rent-seeking behaviors, or find ways to cope with regulation and use it as a tool for relative

stasis, rather than substantive change.⁴⁶ Any organization of relative size will realize the statistical odds of getting caught with your pants down for an environmental regulation are rare. EPA and state regulators do not police private businesses and when they investigate, they often give advanced notice. There are no environmental police on the beat—you know when they are coming, and it is not often. As the regulated community has grown and disinvestment has occurred, much of what EPA has accomplished in the regulator scheme works in substance, but much of it does not because of weak enforcement. The corollary to a few cops on the beat is that while important federal statutes such as the CAA, the CWA, and RCRA do cover a lot of regulatory territory, they also cede significant ground to the regulated community.⁴⁷

At the half-century mark, EPA has become an established federal regulatory agency. In this environment, there will be few big wins, the foundations have been laid, and resources are limited.⁴⁸ Politicians also disagree on the scope of criminal enforcement and have historically fought over the reach of EPA-CID.⁴⁹ Even in the best of times, EPA's political and financial support has been mixed.⁵⁰ EPA-CID has come of age and big-time wins or major changes seem unlikely. The unit still maintains a strong culture of professionalism and focus on deterrence and willingness to do its job, despite significant obstacles.⁵¹

In February 2020, a national poll of registered voters asked participants to pick their top-three issues that will affect their presidential vote choice in November. Republicans noted the economy, immigration, and healthcare as the top-three issues, with none noting environmental policy generally, and only 6% noting climate change was a top issue. While Democrats and Independents did not mention environmental policy, they did note climate change as a top issue at 29% and 19%, respectively.⁵² In a country fac-

40. JOEL A. MINTZ, ENFORCEMENT AT THE EPA: HIGH STAKES AND HARD CHOICES 10 (Univ. of Texas Press 2012).

41. Joel A. Mintz, *Some Thoughts on the Interdisciplinary Aspects of Environmental Enforcement*, 36 ELR 10495-96 (July 2006).

42. U.S. DOJ-ECS, *Historical Development of Environmental Criminal Law*, <https://www.justice.gov/enrd/about-division/historical-development-environmental-criminal-law> (last updated May 13, 2015).

43. EARL E. DEVANEY, THE EXERCISE OF INVESTIGATIVE DISCRETION 2-3 (1994), <https://www.epa.gov/sites/production/files/documents/exercise.pdf>.

44. Judson W. Starr, *Turbulent Times at Justice and EPA: The Origins of Environmental Criminal Prosecutions and the Work That Remains*, 59 GEO. WASH. L. REV. 900-02 (1991).

45. See Joel A. Mintz, *Treading Water: A Preliminary Assessment of EPA Enforcement During the Bush II Administration*, 34 ELR 10912 (Oct. 2004).

46. DANIEL J. FIORINO, THE NEW ENVIRONMENTAL REGULATION (MIT Press 2006). THEODORE LOWI, THE END OF LIBERALISM: THE SECOND REPUBLIC OF THE UNITED STATES (Norton 1997). Dan Wood & Richard Waterman, *The Dynamics of Political Control of the Bureaucracy*, 85 AM. POL. SCI. REV. 801-28 (1991). Dan Wood, *Modeling Federal Implementation as a System: The Clean Air Case*, 36 AM. J. POL. SCI. 40-67 (1992).

47. Joshua Ozymy & Melissa L. Jarrell, *Wielding the Green Stick: An Examination of Criminal Enforcement at the EPA Under the Bush and Obama Administrations*, 24 ENV'T POL. 40-42 (2015).

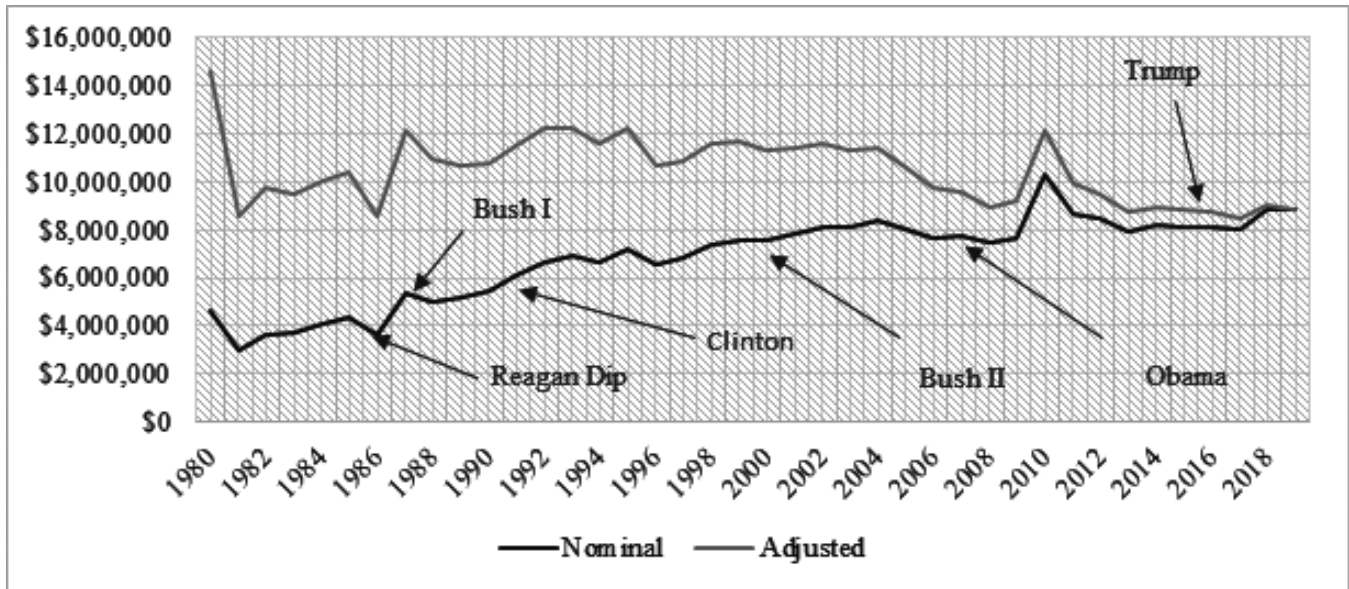
48. Joel A. Mintz, *Running on Fumes: The Development of New EPA Regulations in an Era of Scarcity*, 46 ELR 10510-12 (June 2016).

49. 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. 590-95 (1995).

50. See Joel A. Mintz, *Neither the Best of Times Nor the Worst of Times: EPA Enforcement During the Clinton Administration*, 35 ELR 10390-93 (June 2005).

51. Memorandum from John Peter Suarez, Assistant Administrator, U.S. EPA Office of Enforcement & Compliance Assurance, on Management Review of the Office of Criminal Enforcement, Forensics and Training, at 5 (Dec. 15, 2003), available at <https://www.epa.gov/sites/production/files/documents/occef-review03.pdf>.

52. Top Issues for Voters, PROCON.ORG, https://2020election.procon.org/view_resource.php?resourceID=007111#climatenexus (Feb. 2020). Even after the onslaught of Covid-19 and the subsequent economic collapse, a poll of likely voters asking their top issue responded as follows: 54% preventing Social Security cuts; 29% universal healthcare; 26% raising the minimum wage; 25% reducing the wealth gap; and 24% fighting climate change.

Figure 3. EPA Budget in Nominal and Inflation-Adjusted Dollars Since 1980

ing intense competition from globalization, the financialization of the economy that amplifies boom/bust cycles, decades of governmental policies that have allowed severe inequality to blossom, disinvestment in infrastructure, and an escalating debt load at all levels of government that faces financial catastrophe from current demographic shifts, if voters across the spectrum care more about healthcare, jobs, and immigration, can climate change bring resources and attention back to EPA to help it accomplish an even more difficult mission in the future?

With a renewed focus on its mission, EPA would still face a few serious problems—the somber reality of discretionary federal spending and the mixed support between political parties in Congress for stronger environmental policy. EPA funding over time, when adjusted for inflation, is not increasing. Inspections have been decreasing in recent years in the face of the inertia of neglect and inconsistency levied at the Agency.⁵³ Figure 3 graphs the trends in EPA's budget from 1980-2019 in nominal and inflation-adjusted dollars in \$1,000 units. In nominal dollars, it appears that EPA's budget has been on an upward trajectory since 1980, with a larger dip in the Ronald Reagan Administration and a rise in the Barack Obama Administration. The Agency's nominal budget in 1980 was about \$4.6 billion, but adjusted for inflation, it was actually over \$14 billion in current dollars. In nominal dollars, we see a dip in 1986 and 1996, but mostly an upward trajectory through FY 2005. Spending

reached a high point by exceeding \$10 billion in 2010 and then slowly declined to \$8.8 billion by 2019.

Adjusted for inflation, we see that the budget has been declining for the past 39 years.⁵⁴ This decline certainly reflects politics, but not to the severe degree one might assume. Republican and Democratic presidents and Congresses are often at loggerheads over environmental regulation and funding strong policies and enforcement.⁵⁵ Whether particular presidents can greatly impact the shorter term trends in support is not disputable, but one can argue the point over the longer trends.⁵⁶

In a principal-agent game, there are multiple institutional and non-institutional actors trying to influence the policies and outcomes of regulatory agencies.⁵⁷ The president, Congress, the courts, interest groups, and even social movements attempt to have their say in what government does.⁵⁸ EPA is beset by high-salience activities paired with complex policy mandates, which gives it both attention and discretion (see the Social Security Administration for a federal agency that has little discretion or attention

This was followed by deporting illegal aliens (18%), protecting the Second Amendment (17%), and building a U.S.-Mexican border wall (16%). Lorie Konish, *Preventing Social Security Benefit Cuts Is a Top Priority for Americans in 2020 Election, Survey Finds*, CNBC, Aug. 19, 2020, at <https://www.cnbc.com/2020/08/19/preventing-social-security-benefit-cuts-is-a-top-priority-in-2020-election.html>.

53. U.S. EPA, FISCAL YEAR 2019 EPA ENFORCEMENT AND COMPLIANCE RESULTS 10 (Feb. 13, 2020), <https://www.epa.gov/sites/production/files/2020-02/documents/fy19-enforcement-annual-results-data-graphs.pdf>.

54. U.S. EPA, *EPA's Budget and Spending*, <https://www.epa.gov/planandbudget/budget> (last updated May 2, 2022).

55. Joshua Ozmy & 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 RES. 71-73 (2016).

56. Joshua Ozmy & Melissa Jarrell, *Administrative Persistence in the Face of a Hostile Regime: How the EPA Can Survive the Trump Administration*, 10 ENV'T JUST. 1-3 (2017).

57. Matthew A. Auer, *Presidential Environmental Appointees in Comparative Perspective*, 68 PUB. ADMIN. REV. 68-71 (2008). Ronald H. Rosenberg, *Doing More or Doing Less for the Environment: Shedding Light on EPA's "Stealth" Method of Environmental Enforcement*, 35 B.C. ENV'T AFF. L. REV. 175-80 (2008).

58. Jeb Barnes, *Courts and the Puzzle of Institutional Stability and Change: Administrative Drift and Judicial Innovation in the Case of Asbestos*, 61 POL. RES. Q. 636-48 (2008).

to its day-to-day activities).⁵⁹ This makes their decisions political, but affords them greater professional autonomy to do their job because Congress can empower them with funds or legislation, yet often does not have the time or knowledge to construct complex policies or enforce them. These information asymmetries between principals that seek control and agents that seek growth and autonomy benefit the Agency.⁶⁰

Principals must also compete and over the past four decades the federal government has been defined by divided, rather than unified government. Rare is the opportunity to strongly empower EPA or destroy it. What we find is more of a pattern with enforcement outcomes in the book mirroring “neither the best of times nor worst of times.”⁶¹ Democratic presidents never seem to have enough time, will, or opportunity with Congress to truly empower the Agency and Republicans chip away at it, but have failed to render its criminal enforcement efforts mute over the years. Unfortunately, this means CID and EPA often plod along playing catch up in more sympathetic political environments and trying to survive hostile ones.

President Reagan is probably the best example of a Republican president trying to deal a death blow to an Agency only a decade in its development. The Reagan Administration was fairly hostile to environmental regulations and he used the bully pulpit and appointment of Anne Gorsuch as chief both as a cudgel to reduce spending, reach, and scope of enforcement. Gorsuch did all of the things President Reagan promised she would do in speech and practice—reducing enforcement, lowering budgets, not filling key positions, and trying to change the culture of the Agency. Many of these efforts succeeded in the short term and we see the dip in funding by 1986 that actually follows Gorsuch being cited for contempt of Congress for withholding records, infighting in the Agency and with congressional supporters of EPA, the demoralization and exit of staff, but ultimately her resignation in less than two years on the job. We then see William Ruckelshaus being reappointed to fill the gap as head Administrator and these efforts to weaken enforcement and demoralize staff dissipate.⁶²

George H.W. Bush’s Administration saw key additions to the CAA, a rising budget, and staff. President Bill Clinton did not end up supporting the Agency as much as thought and disappointed many in the environmental community. Beset by a hostile U.S. House of Representatives, better political organization by the Republican party, and more conservative attitudes developing in the American public against welfare and big government,

President Clinton failed to truly advance the Agency’s mission in a systematic manner.⁶³ His contributions were not negative, but certainly not as positive as environmentalists would have hoped to reverse the negative trends of the President Reagan era. This trend may have changed if Vice President Al Gore had been elected in 2000, given his public support and importance set on the environment in his campaign and overall environmental record in Congress. He, however, like President George W. Bush, may have just as easily been beset by the 9/11 attack that would have rerouted his ambitions.

President Bush employed tactics similar to President Reagan’s. He was not supportive of environmental policy, focused on a traditional Republican ploy of returning authority to the states in order to reduce the federal enforcement presence, and focused on the appointment of loyalists rather than careerists in key positions in the Agency.⁶⁴ President Obama made many strides toward enhancing environmental policy, particularly in light of growing public concern over climate change. The Agency’s budget increased, as did staffing, and the emphasis of stronger regulation for coal plants that occurred alongside the development of fracking that made natural gas reserves abundant, and consistent federal tax credits to develop wind power and solar power, the country saw a shift away from building new coal plants in Bush II toward such plants shutting down for the first time in generations.⁶⁵ These increases in funding for staff and enforcement were not strong enough to counter long-term neglect of the Agency.⁶⁶

EPA’s workforce numbers are also stagnant and declining over time. We show total workforce in Figure 4. Total workforce in 1980 was 13,078. This started to drop in President Reagan’s first term, but began to rise in George H.W. Bush’s Administration up to a high point of 18,110 in 1999. With a few exceptions, workforce numbers begin a slow decline by 2000 falling to 14,172 today. As discussed previously, CID enforcement agents have been declining as well. Outside of the initial Reagan Administration drop, we generally see an increase through President Clinton, but then mostly stasis. While there was some investment in the Obama Administration, it was not enough. The line starts to trend down again by his second term and continues to this day.

Political principals compete with an Agency culture born out of the need to deter criminal action. Like law enforcement in general, EPA-CID must operate with much fewer officers than it needs to deter specific and general crimes. That culture of valuing deterrence has persisted throughout various presidential and congressional regimes that have been hostile or supportive. The long-

59. JAMES Q. WILSON, *BUREAUCRACY: WHAT GOVERNMENT AGENCIES DO AND WHY THEY DO IT* (Basic Books 1991).

60. Mark Atlas, *Enforcement Principals and Environmental Agencies: Principal-Agent Relationships in a Delegated Environmental Program*, 41 L. & Soc’y REV. 939-80 (2007). James A. Barnes, *Implementing Presidential Policy Agendas Administratively: A View From the Inside*, 69 PUB. ADMIN. REV. 586-94 (2009).

61. See Mintz, *Neither the Best of Times Nor the Worst of Times*, *supra* note 50.

62. Joel A. Mintz, *EPA Enforcement of CERCLA: Historical Overview and Recent Trends*, 41 SW. L. REV. 645-59 (2012).

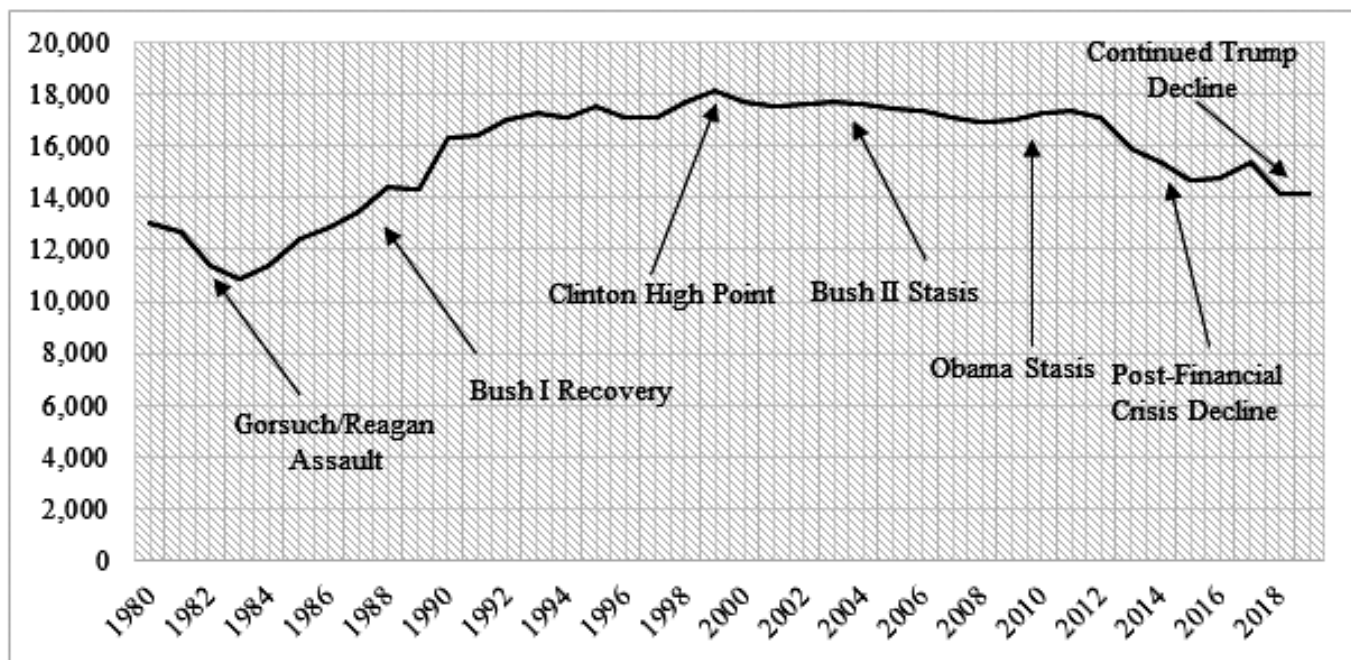
63. Mintz, *Some Thoughts*, *supra* note 41. Evan. J. Ringquist, *Political Control and Policy Impact in EPA’s Office of Water Quality*, 39 AM. J. POL. SCI. 336-63 (1995).

64. Mintz, *“Treading Water,” supra* note 45.

65. See Mintz, *EPA Enforcement of CERCLA*, *supra* note 62.

66. Public Employees for Environmental Responsibility (PEER), *EPA CID Agent Count*, https://www.peer.org/wp-content/uploads/2019/11/11_21_19-Federal_Pollution_EPA_CID_Agent_Count.pdf (Nov. 21, 2019).

Figure 4. EPA Workforce by Fiscal Year Since 1980



term effects on Agency morale and goal achievement have been more permanent.

Opponents of EPA realized there was too much public and political support to simply end a large federal regulatory agency. President Reagan’s hard-charging attitude certainly affected the Agency in many negative ways, as did Bush II, and certainly President Trump. The Trump Administration actively sought to impugn most government agencies, staff the highest positions with arguably unqualified people, sow dissent, reduce budgets and scope, and lower morale. The Agency and its enforcement efforts have persisted in this environment for 37 years, but the aggregate effects on the Agency and its staff over so many years and setbacks, as well as disappointments from supporters, have taken a permanent toll. The Agency’s criminal enforcement efforts will persist, but it will likely have to do more with less because of a lack of political agreement in Washington, D.C., over its value and general existence, as well as longer-term structural forces in the federal budget of which it has little control.⁶⁷

EPA’s budget was, like many regulatory programs, a victim of the 2008-2009 financial crisis. Funding did not return to many agencies and non-discretionary spending and entitlements have increasingly eaten up the lion’s share of the federal budget. The Congressional Budget Office (CBO) provides a stark outlook on U.S. debt and spending as current long-term demographic trends continue. Prior to the Covid-19 pandemic, which will no doubt escalate the financial problems of the federal government, the CBO

estimates the number of Americans over aged 65 will skyrocket as will concomitant entitlement spending in Social Security, Medicare (particularly Medicare), and debt to fund it. By 2049, healthcare spending, Social Security, and interest on the debt will dominate federal spending and push out other programs as debt reaches close to 150% of the gross domestic product.

This trend was already happening prior to 2008, which escalated the problem more quietly in the form of reduced spending for everything else, and it will continue to increase exponentially. As the CBO noted in their 2019 report, this debt is directly affected by investor confidence and the desire to purchase U.S. Treasury securities. Now that the government has taken on arguably much more debt in 2022 than in response to 2008’s crisis, the U.S. Federal Reserve was forced to keep interest rates ultra-low or federal debt would reach astronomical proportions if interest rates had to be increased even modestly to attract investors to buy such securities.⁶⁸

How EPA can muscle for additional funding in this environment will prove difficult. The federal government has been moving for years to increase spending for the elderly at the cost of the young. The latter pays for this shift in personal debt and declining long-term prospectus for social services themselves when they reach advanced age. Without changes in healthcare policy in the United States in particular, efforts to shore up Social Security, and increased revenues to lower debt, the outlook for federal spending on environmental policy and enforcement looks

67. *Running on Fumes*, *supra* note 48. Joshua Ozymy & Melissa L. Jarrell, *Wielding the Green Stick: An Examination of Criminal Enforcement at the EPA Under the Bush and Obama Administrations*, 24 ENV’T POL. 38-56 (2015).

68. *Budget and Economic Data*, CONGRESSIONAL BUDGET OFFICE, <https://www.cbo.gov/about/products/budget-economic-data#4> (last visited Mar. 12, 2022).

bleak over the next three decades, even with a more sympathetic administration.

Even a renewed emphasis on the environment in the public's mind via the specter of climate change will have to compete with non-discretionary spending, past promises made, a constituency that always votes, and the growing acknowledgment that the interests of the elderly and working age populations are incongruent. Unless the former are

willing to accept cuts in benefits now, the latter will have to accept that those cuts will likely come to them later, if they have not already. Regardless of how different groups see their interests, cuts will likely come regardless of their entrenchment. Hopefully, investment in the environment will not come because the effects of climate change are seen much more rapidly than anticipated.