

CHEVRONIZING AROUND COST-BENEFIT ANALYSIS

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ABSTRACT

The Trump administration’s efforts to weaken regulations were in tension with cost-benefit analysis, which in many cases supported those regulations or otherwise failed to support the administration’s deregulatory objectives. Rather than attempting to justify its actions as a matter of policy preferences, the administration responded on multiple occasions by using Chevron to interpret statutes so as to evade cost-benefit analysis. The statutory interpretation route, which we call “Chevronizing” around cost-benefit analysis, created novel challenges for courts, as it pitted traditional Chevron deference against a trend in favor of requiring agencies to regulate based on cost-benefit analysis as a matter of sound public policy. This Article evaluates these efforts and concludes that in many of these cases, the Trump administration’s attempts to leverage Chevron deference as a weapon against cost-benefit analysis—and sensible policymaking—exposed it to significant legal risk. We expect that courts will reject several of these efforts if they are ever adjudicated. In the process, the Trump administration’s machinations may have had the effect of contorting how future courts apply Chevron deference and how future administrations deploy it.

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INTRODUCTION

The Trump administration launched the most significant effort to deregulate the economy since the Reagan administration.¹ The parallels between the two administrations are significant, but there are many differences as well. Ronald Reagan ran for office on a promise to deregulate the economy, but he also benefited from political tailwinds.² A bipartisan consensus held that the economy was overregulated, and major deregulatory legislation had already been enacted during the Carter administration.³ Once in office, Reagan appointed antiregulatory officials to regulatory agencies, and, working through the Office of Management and Budget, strengthened the White House's control over those agencies.⁴ His most significant

1. See David R. Henderson, *Trump's Deregulatory Successes*, HOOVER INST., DEFINING IDEAS (July 7, 2019), <https://www.hoover.org/research/trumps-deregulatory-successes> [<https://perma.cc/6Z63-8S5R>] (discussing, from the perspective of a former economist with President Ronald Reagan's Council of Economic Advisers, several of the Trump administration's deregulatory efforts). *But see Roundup: Trump-Era Agency Policy in the Courts*, INST. FOR POL'Y INTEGRITY (last updated Jan. 4, 2021), <https://policyintegrity.org/trump-court-roundup> [<https://perma.cc/VJH8-AKDP>] (observing that the Trump administration lost 81.6 percent of litigation over deregulation).

2. HENRY OLSEN, *THE WORKING CLASS REPUBLICAN: RONALD REAGAN AND THE RETURN OF BLUE-COLLAR CONSERVATISM* 190 (2017).

3. See John Howard Brown, *Jimmy Carter, Alfred Kahn, and Airline Deregulation: Anatomy of a Policy Success*, 19 INDEP. REV. 85, 91–92 (2014) (noting how the Airline Deregulation Act, which was signed by President Jimmy Carter in 1987, was sponsored by both Senator Howard Cannon (D-Nev.) and Senator James B. Pearson (R-Kan.) and supported by Democrats and Republicans in both houses); Abner J. Mikva, *Deregulating Through the Back Door: The Hard Way To Fight a Revolution*, 57 U. CHI. L. REV. 521, 524 (1990) (“While the Republicans had a head start and a better public image on the issue of deregulation, Democrats strived to catch up. By the 1976 election, Jimmy Carter was on the offensive about deregulation, talking of sunset provisions . . . and zero-based budgeting . . .”).

4. See Jim Tozzi, *OIRA's Formative Years: The Historical Record of Centralized Regulatory Review Preceding OIRA's Founding*, 63 ADMIN. L. REV. 37, 63–67 (2011) (noting how Reagan

achievement was the creation of centralized regulatory review that required agencies to use cost-benefit analysis (“CBA”) to evaluate regulatory options.⁵ Agencies were required to conduct cost-benefit analyses of all major (in the sense of economically important) regulations,⁶ which would permit the administration to evaluate whether the regulation was worth pursuing. The genius of this move was that cost-benefit analysis appeared to be a neutral tool of policy analysis but seemed likely to produce a deregulatory effect because it was widely believed, by people in both parties, that agencies regulated excessively.⁷

administration officials created the first executive order freezing government regulations that had not gone into effect and established numerous antiregulatory policies, including requiring the Office of Management and Budget (“OMB”) and other White House departments to review proposed agency regulations); *see also* Edward P. Fuchs & James E. Anderson, *The Institutionalization of Cost-Benefit Analysis*, 10 PUB. PRODUCTIVITY REV. 25, 30–32 (1987) (describing the regulatory review agencies Reagan created, which were composed of White House officials); Andrew Rudalevige, *Beyond Structure and Process: The Early Institutionalization of Regulatory Review*, 30 J. POL. HIST. 577, 588–89 (2018) (describing the creation of Reagan’s Presidential Task Force of Regulatory Relief and the administration’s requirement that agencies submit proposed and final drafts of regulations to the OMB for approval). These deregulatory efforts were not always well received. *See* Martin Tolchin & Susan J. Tolchin, *The Rush To Deregulate*, N.Y. TIMES (Aug. 21, 1983), <https://nyti.ms/29JRS2n> [<https://perma.cc/U4FX-N3G9>] (describing congressional and public criticism of certain Reagan administration deregulatory efforts).

5. *See* Exec. Order No. 12,291, 3 C.F.R. § 127 (1982) (requiring that agencies conduct “Regulatory Impact Analysis” and report findings to the director of the OMB). For a scholarly assessment of Reagan’s regulatory executive orders, *see generally* Frank B. Cross, *Executive Orders 12,291 and 12,498: A Test Case in Presidential Control of Executive Agencies*, 4 J.L. & POL. 483 (1988); *see also* Elena Kagan, *Presidential Administration*, 114 HARV. L. REV. 2245, 2279 (2001) (concluding the Reagan and Clinton administrations’ influence over the regulatory process was largely beneficial).

6. Exec. Order No. 12,291, 3 C.F.R. § 127.

7. *See* Jefferson Decker, *Deregulation, Reagan-style*, REGUL. REV. (Mar. 13, 2019), <https://www.theregreview.org/2019/03/13/decker-deregulation-reagan-style> [<https://perma.cc/HFM6-VKG7>] (“By the late 1970s, a political and intellectual movement that crossed party lines had begun to rethink the wisdom of much economic regulation The bipartisan movement succeeded in federal deregulation of certain industries”). As Senator Ted Kennedy (D-Mass.) once said, “regulators all too often encourage or approve imreasonably [sic] high prices, inadequate service, and anticompetitive behavior. The cost of this regulation is always passed on to the consumer. And that cost is astronomical.” *Oversight of Civil Aeronautics Board Practices and Procedure: Hearings Before the Subcomm. on Admin. Prac. & Proc. of the S. Comm. on the Judiciary*, 94th Cong. 1 (1975) (statement of Sen. Edward Kennedy, Chairman, S. Subcomm. on Admin. Prac. & Proc.).

But while cost-benefit analysis remained in place through the next four presidential administrations,⁸ it exerted less deregulatory pressure after Reagan left office.⁹ It is possible that subsequent presidents put less priority on deregulation; that regulations that survived the Reagan-era housecleaning satisfied cost-benefit tests; and that, as new problems emerged, from climate change to financial instability, it turned out that additional regulation was cost-justified. Although deregulation would continue in some sectors, new regulations were found necessary in others.¹⁰

In the years leading up to Donald Trump's electoral victory, regulated industries expressed frustration with regulatory developments, including financial regulation in the wake of the financial crisis,¹¹ environmental and energy regulation in response to climate change,¹² and health care regulation pursuant to the Affordable Care Act.¹³ Candidate Trump promised to deregulate, and once in office, he initiated a deregulatory agenda.¹⁴

But in a major irony from the standpoint of the Reagan era, cost-benefit analysis now seems to be a hindrance to deregulation. The deregulations that the Trump administration proposed appear to

8. Jonathan S. Masur & Eric A. Posner, *Unquantified Benefits and Regulation Under Uncertainty*, 102 CORNELL L. REV. 87, 96 (2016) (noting how each president since Reagan "extended Reagan's [executive order requiring cost-benefit analysis] with some modifications").

9. MATTHEW D. ADLER & ERIC A. POSNER, *NEW FOUNDATIONS OF COST-BENEFIT ANALYSIS* 3–4 (2006).

10. Masur & Posner, *supra* note 8, at 128–33 (discussing an Equal Employment Opportunity Commission's accessibility regulation and an Environmental Protection Agency ("EPA") regulation of coal- and oil-fired power plants).

11. *See, e.g.*, Randall D. Guynn, *The Financial Panic of 2008 and Financial Regulatory Reform*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Nov. 20, 2010), <https://corpgov.law.harvard.edu/2010/11/20/the-financial-panic-of-2008-and-financial-regulatory-reform> [<https://perma.cc/C7EK-BTNW>] ("Critics on the right argued that [the Dodd-Frank Act] amounted to a vast expansion of Government control over the financial sector without addressing the real causes of the financial panic . . .").

12. *See, e.g.*, Press Release, Senate Comm. on Energy & Nat. Res., Sen. Murkowski Expresses Frustration with New ECA Regulations (July 27, 2012), <https://www.energy.senate.gov/2012/7/sen-murkowski-expresses-frustration-with-new-eca-regulations> [<https://perma.cc/N8M5-VV9B>] (opposing the EPA's Emission Control Area requirements that decreased the allowable percentage of sulfur for ship fuel, thus making fuel more expensive).

13. *See, e.g.*, Amy Anderson, *The Impact of the Affordable Care Act on the Health Care Workforce*, HERITAGE FOUND. (Mar. 18, 2014), <https://www.heritage.org/health-care-reform/report/the-impact-the-affordable-care-act-the-health-care-workforce> [<https://perma.cc/PBR2-LKNT>].

14. *See* John Stossel, *Trump's Deregulation Promise*, DAILY SIGNAL (Aug. 22, 2019), <https://www.dailysignal.com/2019/08/22/trumps-deregulation-promise> [<https://perma.cc/5AJA-7F3W>].

violate cost-benefit analysis—primarily because the Obama-era regulations that the Trump administration sought to repeal are backed by plausible cost-benefit analyses.¹⁵ This represents a startling shift from the role that cost-benefit analysis has typically played, and one that runs directly counter to the caricatured notion of cost-benefit analysis as necessarily antiregulatory.¹⁶

On previous occasions, when a new presidential administration has decided to alter or undo the regulations promulgated by its predecessors, the new administration has simply announced that it has different policy priorities.¹⁷ But here, the cost-benefit infirmities of Trump’s deregulations seem to have changed the equation. Whether due to the political cost of deregulating in a cost-benefit unjustified manner, or due to concern that the regulations would be struck down by the courts, the Trump administration did not appear willing to bite the bullet and acknowledge that it chose policies that fail cost-benefit analysis. Instead, it responded in several different ways. In a few cases, it simply proposed implausible cost-benefit analyses that do not survive serious scrutiny. But its most important innovation was to argue, in several important instances, that deregulation is not merely a policy choice but is also *legally required* by the underlying regulatory statute. This approach involved the manipulation of *Chevron*¹⁸ deference—under which agencies have discretionary authority to set policy when statutes are vague¹⁹—to deprive agencies of the power to consider

15. Conversely, a 2019 Council of Economic Advisers report claimed that “the Trump Administration’s new regulatory approach” had and would generate massive gains for the public. COUNCIL OF ECON. ADVISORS, *THE ECONOMIC EFFECTS OF FEDERAL DEREGULATION SINCE JANUARY 2017: AN INTERIM REPORT 2* (2019). We are skeptical of this claim, which was based on a small number of regulatory actions—supposedly representative of all Trump administration regulations—as well as statutes and other actions outside the scope of this Article. *See id.* at 4–6. But in any event the Report did not discuss any of the deregulatory actions we address in this Article, and so our conclusions are not inconsistent with any of the specific claims that the Report attempted to document.

16. *See, e.g.*, FRANK ACKERMAN & LISA HEINZERLING, *PRICELESS: ON KNOWING THE PRICE OF EVERYTHING AND THE VALUE OF NOTHING* 41–47 (2004).

17. *See, e.g.*, Michael Grunwald, *The Nation He Built*, POLITICO (Jan.–Feb. 2016), <https://www.politico.com/magazine/story/2016/01/obama-biggest-achievements-213487> [<https://perma.cc/9P8U-5T8Q>] (noting that Obama “promised dramatic policy change, vowing to reinvent America’s approach to issues like health care, education, energy, climate and finance”); *see also* Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 59 (1983) (Rehnquist, C.J., concurring in part and dissenting in part) (“A change in administration brought about by the people casting their votes is a perfectly reasonable basis for an executive agency’s reappraisal of the costs and benefits of its programs and regulations.”).

18. *Chevron U.S.A. Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837 (1984).

19. *Id.* at 842–44.

certain benefits generated by regulations. We refer to this tactic as “Chevronizing around cost-benefit analysis.”

In the balance of this Article, we discuss the Trump administration’s deregulatory approach, with a focus on Chevronizing around cost-benefit analysis. In Part I, we describe four of the Trump administration’s most significant deregulatory efforts and illustrate the various tactics used to justify them. In Part II, we evaluate these methods, assess their legality, and discuss possible policy justifications for the Trump administration’s approach. We conclude that the Trump administration’s approach—and in particular, its efforts to Chevronize around CBA—is suspect from the standpoint of law and policy.

I. TRUMP’S MAJOR DEREGULATIONS

After he took office, Trump sought to roll back many of the regulatory actions undertaken by the Obama administration. This deregulatory effort primarily involved notice-and-comment rulemaking by administrative agencies that either reversed Obama-era regulations or replaced them with substantially weaker rules.²⁰ Most of this activity involved the environmental and power sectors.²¹ This included Obama-era rules on automobile fuel economy, hazardous pollutants, energy efficiency, and—most notably—the Clean Power Plan (“CPP”), which was designed to reduce greenhouse gas emissions through regulation of electricity generation.²² These are areas in which the Trump administration made the most progress in reversing Obama-era policy.²³ In addition, unlike some of Trump’s other deregulatory

20. See Juliet Eilperin & Darla Cameron, *How Trump Is Rolling Back Obama’s Legacy*, WASH. POST (Jan. 20, 2018), <https://www.washingtonpost.com/graphics/politics/trump-rolling-back-obama-rules> [<https://perma.cc/563W-D7F2>] (showing that 96 out of 130 deregulatory actions seeking to reverse Obama-era regulations were Cabinet-level agency decisions); *Tracking Deregulation in the Trump Era*, BROOKINGS INST. (last updated Dec. 21, 2020) [hereinafter *Tracking Deregulation*], <https://www.brookings.edu/interactives/tracking-deregulation-in-the-trump-era> [<https://perma.cc/U5MK-UV4T>] (compiling Trump-era deregulatory actions, a majority of which involved rules).

21. *Tracking Deregulation*, *supra* note 20.

22. For an overview of the CPP, see *Fact Sheet: Overview of the Clean Power Plan*, EPA WEB ARCHIVE, <https://archive.epa.gov/epa/cleanpowerplan/fact-sheet-overview-clean-power-plan.html> [<https://perma.cc/MTT4-9QPW>].

23. A 2020 database compiled by the Brookings Institute used filters to categorize the Trump administration’s deregulatory actions by sector, like “Education” and “Telecom.” *Tracking Deregulation*, *supra* note 20. The “Environmental” filter produced the most results by a large margin. *Id.*; see also Nadja Popvich, Livia Albeck-Ripka & Kendra Pierre-Louis, *The Trump Administration Is Reversing Nearly 100 Environmental Rules. Here’s the Full List.*, N.Y. TIMES

efforts, they involved Obama-era regulations that were justified from a cost-benefit perspective.²⁴ In this Part, we examine the four most significant of these deregulations. Our goal is to expose the legal mechanisms that the Trump administration deployed to eliminate or weaken these cost-benefit-justified regulations.

A. Mercury Regulation

The Trump administration's effort to deregulate mercury emissions from power plants was the latest step on a long and twisting path.²⁵ In 1990, Congress passed an amendment to the Clean Air Act, which required the U.S. Environmental Protection Agency ("EPA") to regulate mercury emissions among other hazardous pollutants that it had neglected.²⁶ By the end of the 1990s, the EPA had placed power plants on a list of significant sources of mercury emissions, triggering a provision of the law requiring these plants to be regulated under the demanding Maximum Achievable Control Technology ("MACT") standard.²⁷ Before the EPA had a chance to promulgate a rule based on MACT for those plants, the Clinton administration ended. The Bush EPA reversed course. Rather than issue MACT standards, the EPA delisted the power plants, which meant that MACT was not required.²⁸ The EPA proposed a more relaxed regulatory regime known as the Clean Air Mercury Rule, which imposed a cap-and-trade system.²⁹ However, the Bush rule was struck down in 2008 by the D.C.

(last updated Nov. 10, 2020), <https://www.nytimes.com/interactive/2020/climate/trump-environment-rollbacks-list.html> [<https://perma.cc/GS55-D3BA>] (summarizing environmental rules that have been "targeted for reversal").

24. For example, the Trump administration reversed the Obama-era net neutrality rules. *See* Restoring Internet Freedom Act, 83 Fed. Reg. 7852 (Feb. 22, 2018) (to be codified at 47 C.F.R. pts. 1, 8, 20) ("Finding that transparency is sufficient to protect the openness of the internet and that conduct rules have greater costs than benefits, the Order eliminates the conduct rules imposed by the *Title II Order*."). The Obama Federal Communications Commission, however, never undertook a cost-benefit analysis of the net neutrality rules. L. Gordon Crovitz, Opinion, 'Economics-Free' Obamanet, WALL ST. J. (Jan. 31, 2016, 6:20 PM), <https://www.wsj.com/articles/economics-free-obamanet-1454282427> [<https://perma.cc/4K9C-YA5X>].

25. For two useful overviews, see generally Keith Harley, *Mercurial but not Swift—U.S. EPA's Initiative To Regulate Coal Plant Mercury Emissions Changes Course Again as It Enters a Third Decade*, 86 CHI.-KENT L. REV. 277 (2011); James L. Simpson, *Why EPA's Mercury and Air Toxics Standards Matter—History and Health*, 49 AM. BAR ASS'N 5 (Nov.–Dec. 2017).

26. Harley, *supra* note 25, at 280–81.

27. *Id.* at 282–83.

28. *Id.* at 283–84.

29. *Id.* at 284.

Circuit because the EPA had not complied with the legally required procedure for delisting a source of hazardous emissions.³⁰

In 2012, the now-Obama EPA revived the Clinton approach and issued MACT-based mercury-emission rules for coal- and oil-fired power plants.³¹ These are known as the Mercury and Air Toxics Standards, but we will call them collectively “the mercury rule” to avoid acronym overload. The rule was based on studies indicating that mercury emitted by power plants found its way into water bodies, where it was consumed by fish that were eaten by consumers.³² The mercury levels in these fish posed a threat to the neurological development of fetuses carried by women who consumed the fish.³³ Thus, the EPA concluded that it was “appropriate and necessary” to issue regulations, a finding required by § 112(n)(1)(A) of the Clean Air Act.³⁴ The mercury rule limited the amount of mercury emissions as well as emissions of other hazardous substances, and imposed restrictions on the operation of the power plants.³⁵ In 2015, the Supreme Court struck down the mercury rule.³⁶ The problem was that the EPA had failed to consider cost when it determined that it was “appropriate and necessary” to regulate the power plants back in 2000 and again in 2012 when it affirmed the earlier determination.³⁷ After conducting additional review to satisfy the Supreme Court’s requirement, the EPA still concluded that the rule was lawful because,

30. See *New Jersey v. EPA*, 517 F.3d 574, 577–78 (D.C. Cir. 2008) (“Because coal-fired EGUs are listed sources under section 112, regulation of existing coal-fired EGUs’ mercury emissions under section 111 is prohibited, effectively invalidating CAMR’s regulatory approach.”).

31. EPA, National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units, 77 Fed. Reg. 9304 (2012); see also *Fact Sheet: Mercury and Air Toxic Standards for Power Plants, Summary*, EPA (Dec. 2011) [hereinafter *Fact Sheet*], <https://www.epa.gov/sites/production/files/2015-11/documents/20111221matsummaryfs.pdf> [<https://perma.cc/69NA-BWUC>].

32. *Id.*

33. *Id.*

34. *Michigan v. EPA*, 576 U.S. 743, 749 (2015).

35. *Fact Sheet*, *supra* note 31.

36. *Michigan*, 576 U.S. at 758–60.

37. *Id.* at 759 (“The Agency must consider cost—including, most importantly, cost of compliance—before deciding whether regulation is appropriate and necessary.”).

even taking costs into account, the benefits were large enough to justify the regulation.³⁸

This set the stage for the Trump administration. The Trump EPA might have again delisted power plants from the list of hazardous sources, but, perhaps fearing a repetition of the Bush EPA's debacle, it chose a different deregulatory approach. Instead of delisting power plants, the Trump EPA chose to rescind the Obama EPA's earlier finding that the mercury rule was "appropriate and necessary."³⁹ Back in 2011, the Obama administration had issued a cost-benefit analysis that showed that the rule generated benefits of \$37 to \$90 billion per year at a 3 percent discount rate and costs of \$9.6 billion.⁴⁰ In 2016, it cited that cost-benefit analysis to satisfy the Supreme Court's requirement that the EPA consider cost when it made its "appropriate and necessary" determination.⁴¹ By contrast, the Trump EPA concluded that the cost-benefit analysis, in fact, showed that the regulation would not be "appropriate and necessary."⁴² The reason was that the benefit from the reduction of mercury emissions alone was only \$4 to \$6 million per year,⁴³ the vast bulk of the total benefit was

38. EPA Supplemental Finding that It Is Appropriate and Necessary To Regulate Hazardous Air Pollutants from Coal- and Oil-Fired Electric Utility Steam Generating Units; Final Rule, 81 Fed. Reg. 24,420, 24,420–21 (Apr. 25, 2016) [hereinafter Supplemental Finding] (justifying the costs of 40 C.F.R. pts. 63.9980–63.10042).

39. EPA National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units—Reconsideration of Supplemental Finding and Residual Risk and Technology Review, 84 Fed. Reg. 2670, 2670 (proposed Feb. 7, 2019) (to be codified at 40 C.F.R. pt. 63) [hereinafter Mercury Reconsideration] (rejecting the EPA's Supplemental Finding justifying the costs of 40 C.F.R. pts. 63.9980–63.10042); EPA National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units—Reconsideration of Supplemental Finding and Residual Risk and Technology Review, 85 Fed. Reg. 31,286 (Final Rule, May 22, 2020) (adopting in full the agency's proposed course of action).

40. EPA, REGULATORY IMPACT ANALYSIS FOR THE FINAL MERCURY AND AIR TOXICS STANDARDS, at ES-1 (2011), https://www3.epa.gov/ttn/ecas/docs/ria/utilities_ria_final-mats_2011-12.pdf [<https://perma.cc/D94C-K8XQ>].

41. See Supplemental Finding, *supra* note 38, at 24,425 ("Specifically, the EPA estimated that the final MATS would yield total annual monetized benefits (in 2007 dollars) of between \$37 billion to \$90 billion using a 3-percent discount rate.").

42. See Mercury Reconsideration, *supra* note 39, at 2670 (considering the cost of compliance relative to the Hazardous Air Pollutant ("HAP") benefits of regulation and proposing to find that "it is not 'appropriate and necessary' to regulate HAP emissions from coal- and oil-fired electric generating units, thereby reversing the agency's prior conclusion under the Clean Air Act § 112(n)(1)(A) and correcting flaws in the agency's prior response to *Michigan v. EPA*").

43. See *id.* at 2677 ("The total cost of compliance with MATS . . . vastly outweighs the monetized HAP benefits of the rule (\$4 to \$6 million annually).").

due to the reduction in particulate matter emissions⁴⁴ that would be generated by the same regulation.⁴⁵ Health benefits caused by reductions in particulate matter are called “co-benefits,”⁴⁶ because they result from the regulation, but not from reductions in the pollutant that is specifically being regulated.⁴⁷ For decades, agencies have treated co-benefits as on equal footing with other types of benefits when analyzing regulations.⁴⁸ However, the Trump EPA argued to the contrary, claiming that the co-benefits of regulating mercury could not be taken into account.⁴⁹ Without including the co-benefits, the cost of the regulation vastly exceeded the relevant benefit—the reduction in

44. “Particulate matter” is the catch-all term for solid and liquid particles found in the air. When inhaled, particulate matter can be extremely hazardous to human health. See *Particulate Matter (PM) Basics*, EPA, <https://www.epa.gov/pm-pollution/particulate-matter-pm-basics> [<https://perma.cc/AN3B-MGPY>] (defining particulate matter and noting its health risks). Reductions in particulate matter emissions thus lead to high levels of regulatory benefits, as in this regulation.

45. See *Mercury Reconsideration*, *supra* note 39, at 2677 (“[T]he vast majority of estimated monetized benefits resulting from MATS are associated with reductions . . . criteria pollutants and precursors to criteria pollutants that are already addressed by the cavalcade of statutory provisions governing levels of these pollutants.”).

46. See *Supplemental Finding*, *supra* note 38, at 24,440–41 (disagreeing with commentators who argued it was inappropriate to consider co-benefits, which include health benefits).

47. See *Glossary of Climate Change Terms*, EPA (Sept. 9, 2013), https://ofmpub.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details=&vocabName=Glossary%20Climate%20Change%20Terms [<https://perma.cc/FCN5-CQPU>] (defining co-benefits).

48. See, e.g., NAT’L CTR. FOR ENV’T ECON., OFF. OF POL’Y, EPA, GUIDELINES FOR PREPARING ECONOMIC ANALYSES 11-2 (2010), <https://www.epa.gov/sites/production/files/2017-08/documents/ee-0568-50.pdf> [<https://perma.cc/H484-UUEEZ>] (stating that a consideration of costs and benefits “should include directly intended effects and associated costs, as well as ancillary (or co-) benefits and costs”); see also, e.g., EPA, COSTS AND BENEFITS OF REDUCING LEAD IN GASOLINE VI-1-4 (1985), <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=9100YK16.txt> [<https://perma.cc/T4CY-WL86>] (analyzing the co-benefits of reductions in pollutants other than lead from reducing lead in gasoline).

49. See *Mercury Reconsideration*, *supra* note 39, at 2675–76; EPA National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units—Reconsideration of Supplemental Finding and Residual Risk and Technology Review, 85 Fed. Reg. 31,286, 31,298–99 (May 22, 2020) (to be codified at 40 CFR pts. 63.9980–63.10042); Connor Raso, *Examining the EPA’s Proposal To Exclude Co-Benefits of Mercury Regulation*, BROOKINGS INST. (Apr. 1, 2019), <https://www.brookings.edu/research/examining-the-epas-proposal-to-exclude-co-benefits-of-mercury-regulation> [<https://perma.cc/48SA-3YFW>] (“The EPA (and its allies) argues that co-benefits should not be included to support this required showing because they do not relate to the primary purpose of the Clean Air Act provision under which the mercury rule was issued.”).

mercury emissions.⁵⁰ Although the Trump EPA did not move to rescind the regulation, it laid the basis for a challenge by regulated parties.

The Trump EPA's conclusion was based on a legal interpretation of the Clean Air Act amendments rather than on a new cost-benefit analysis. Section 112(n)(1)(A) states:

The Administrator shall perform a study of the hazards to public health reasonably anticipated to occur as a result of emissions by electric utility steam generating units [that is, power plants] of pollutants listed under subsection (b) [mercury emissions] after imposition of the requirements of this chapter The Administrator shall regulate electric utility steam generating units under this section, if the Administrator finds such regulation is appropriate and necessary after considering the results of the study required by this subparagraph.⁵¹

The Obama EPA argued—citing the deference to which it is entitled under *Chevron*—that it was free to take into account co-benefits when determining whether a regulation was “appropriate and necessary.”⁵² This was consistent with long-standing executive branch policy that favored taking co-benefits into account.⁵³ By contrast, the Trump EPA took the position that the purpose of § 112(n)(1)(A) is to authorize regulation of mercury emissions that are needed to address the health hazards caused by those emissions.⁵⁴ If the main effect of the rule was to reduce particulate matter pollution, then it should have been issued under the section of the Clean Air Act that authorizes the EPA to

50. See Mercury Reconsideration, *supra* note 39, at 2675–78 (calculating the costs of regulation without co-benefits and concluding that HAP should not be regulated by controlling electric generating units, as the cost of the regulation exceeded its benefits).

51. Clean Air Act, 42 U.S.C. § 7412(n)(1)(A) (2018).

52. See Supplemental Finding, *supra* note 38, at 24,439 (“[N]othing in the CAA, or the supporting legislative history, suggests that benefits associated with pollutants other than the targeted pollutants are irrelevant to a benefit-cost analysis or must be ignored by the EPA in this context.”).

53. The OMB circular instructs:

Your analysis should look beyond the direct benefits and direct costs of your rulemaking and consider any important ancillary benefits and countervailing risks. An ancillary benefit is a favorable impact of the rule that is typically unrelated or secondary to the statutory purpose of the rulemaking (e.g., reduced refinery emissions due to more stringent fuel economy standards for light trucks).

OFF. OF MGMT. & BUDGET, CIRCULAR A-4 (2003), https://obamawhitehouse.archives.gov/omb/circulars_a004_a-4 [<https://perma.cc/WP3P-PVVB>].

54. Mercury Reconsideration, *supra* note 39, at 2676.

regulate particulate matter.⁵⁵ The agency presumably believed that a court, under *Chevron*, would ultimately give deference to this interpretation.

B. *The Clean Power Plan*

The Trump administration's most controversial regulatory achievement was the EPA's repeal of the Obama EPA's CCP⁵⁶ and its replacement with the Affordable Clean Energy initiative. The CPP was the Obama administration's most significant regulatory attempt to reduce the emission of carbon dioxide and other greenhouse gases, with the goal of slowing, or eventually stopping, climate change. The CPP required states to drastically reduce the quantity of greenhouse gases emitted within their borders.⁵⁷ Other air pollutants such as sulfur dioxide or particulate matter are typically "captured" or eliminated at the mouth of a smokestack or the tailpipe of a car.⁵⁸ By contrast, the technology to capture carbon dioxide after a fossil fuel has been burnt is still in its infancy,⁵⁹ and it is unclear whether it can be produced cost-effectively at scale.⁶⁰ Accordingly, the CPP would have required states to switch the mixture of fuels used to produce electricity within their

55. *See id.* ("[T]hese statements acknowledging that reductions in HAP can have the collateral benefit of reducing non-HAP emissions and vice versa, provides no support for the proposition that any such co-benefits should be the Agency's primary consideration *when making a finding under CAA section 112(n)(1)(A).*" (emphasis added)).

56. Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662 (Oct. 23, 2015) (to be codified at 40 C.F.R. pt. 60) [hereinafter Carbon Pollution Emission Guidelines for Existing Stationary Sources].

57. *Id.* at 64,673, 64,826–27.

58. *See* China Zmuida, *How To Remove Pollutants from Smokestacks*, SCIENCING (Nov. 22, 2019), <https://sciencing.com/how-6340282-remove-pollutants-smokestacks.html> [https://perma.cc/YNJ7-TX46] ("To control air pollution, methods for keeping smokestacks clean are needed to minimize the output of particulates and gas emissions."); *Capturing CO2 Directly from Truck Exhaust and Reducing Emissions 90%*, SCITECHDAILY (Dec. 31, 2019), <https://scitechdaily.com/capturing-co2-directly-from-truck-exhaust-and-reducing-emissions-90> [https://perma.cc/WPY7-XMZ6] (describing the process of capturing carbon dioxide directly in the trucks' exhaust system).

59. *See* Press Release, U.S. Dep't of Energy, U.S. Department of Energy Announces \$110M for Carbon Capture, Utilization, and Storage (Sept. 13, 2019), <https://www.energy.gov/articles/us-department-energy-announces-110m-carbon-capture-utilization-and-storage> [https://perma.cc/TZU6-STCJ] (announcing up to \$110 million in federal investment in carbon capture, utilization, and storage research and development, and noting the technology's "transformative potential").

60. *See* Carbon Pollution Emission Guidelines for Existing Stationary Sources, *supra* note 56, at 64,689, 64,727, 64,756 (noting that carbon capture technology is "energy resource intensive," expensive because of its integrated electricity systems, and more expensive than other systems of emissions reductions).

borders, decreasing the use of coal and increasing the use of (cleaner) natural gas and renewables.⁶¹

The benefits that would have been generated by the CPP fall into two categories. First, the CPP would have reduced total nationwide emissions of greenhouse gases, particularly carbon dioxide, thus decreasing the effects of climate change.⁶² The Obama EPA estimated the carbon dioxide reductions would produce approximately \$20 billion in annual benefits by 2030.⁶³ In addition, the overall reduction in coal-fired power plants would have reduced emissions of particulate matter and a number of other air pollutants that can be highly dangerous to health.⁶⁴ Like the mercury regulation described above, these were considered co-benefits.⁶⁵ These additional emissions reductions were expected to yield approximately \$24 billion in annual health benefits by the year 2030, for a total of \$44 billion in benefits.⁶⁶ The Obama EPA further predicted that the CPP would generate roughly \$8.4 billion in costs.⁶⁷ It thus appeared that the CPP would generate benefits that substantially exceeded its costs.

Trump's Affordable Clean Energy ("ACE") plan, promulgated in July 2019, reversed Obama's CPP.⁶⁸ Thus, in performing a cost-benefit analysis of the ACE plan, the Trump EPA effectively recalculated all of the costs and benefits of the CPP to determine the economic effects

61. See Daniel A. Farber, *Regulatory Review in Anti-Regulatory Times*, 94 CHI.-KENT L. REV. 383, 419–21 (2019) (“[I]n order to reduce carbon dioxide emissions, the Plan would require utilities to scale back electricity generation at coal-fired plants in favor of generators using natural gas or renewable sources.”).

62. See EPA, REGULATORY IMPACT ANALYSIS FOR THE CLEAN POWER PLAN FINAL RULE, at ES-10 (2015) [hereinafter RIA CLEAN POWER PLAN], https://www3.epa.gov/ttnecas1/docs/ria/utilities_ria_final-clean-power-plan-existing-units_2015-08.pdf [<https://perma.cc/9Z8N-KGBE>] (noting that the CPP's emission guidelines would lower the ozone concentration level).

63. *Id.* at ES-20 tbl.ES-7. This is based on a 3 percent discount rate. The Obama Regulatory Impact Analysis did not report cumulative benefits over a multiyear period. Instead, it reported only expected benefits for particular years in the future, which is why we refer to the benefits in 2030 in the text above.

64. *Id.* at ES-10.

65. *Id.*

66. *Id.* at ES-20 tbl.ES-7. The EPA reported the expected total benefits as a range of \$34 to \$54 billion (using a 3 percent discount rate). We report the midpoint of that range here. Again, the Obama EPA did not calculate total estimated benefits, only annual benefits for certain years.

67. *Id.* at ES-22 tbl.ES-9.

68. Repeal of the Clean Power Plan; Emission Guidelines for Greenhouse Gas Emissions From Existing Electric Utility Generating Units; Revisions to Emission Guidelines Implementing Regulations, 84 Fed. Reg. 32,520, 32,521 (July 8, 2019) (to be codified at 40 C.F.R. pt. 60) [hereinafter Repeal of Clean Power Plan].

of repealing that rule. Trump's economic analysis differed substantially from Obama's. First, the Trump EPA announced that it would include only domestic climate benefits in its analysis, not worldwide climate benefits.⁶⁹ That is, it counted only the benefits that would be felt by people living within the United States.⁷⁰ The domestic costs of climate change are expected to be only a small fraction of the worldwide costs, in part because the United States has only 5 percent of the world's population and only 20 percent of its economic activity.⁷¹ Accordingly, the Trump EPA predicted that the CPP would have generated only \$500 million in annual benefits from lower emissions of greenhouse gases,⁷² a 97.5 percent reduction from the Obama EPA's \$20 billion calculation.

In addition, the Trump EPA took a different approach from the Obama EPA in deciding how to count the benefits from reductions in particulate matter and other non-greenhouse gas pollutants. The Trump EPA did not treat these co-benefits as zero, as the administration did in the mercury regulation.⁷³ However, it counted an emissions reduction as a benefit only if that reduction would not have been required under existing law.⁷⁴ The Obama EPA, by contrast, had counted emissions reductions as benefits if the CPP had required

69. EPA, REGULATORY IMPACT ANALYSIS FOR THE PROPOSED EMISSION GUIDELINES FOR GREENHOUSE GAS EMISSIONS FROM EXISTING ELECTRIC UTILITY GENERATING UNITS; REVISIONS TO EMISSION GUIDELINE IMPLEMENTING REGULATIONS; REVISIONS TO NEW SOURCE REVIEW PROGRAM 4-3 (2018) [hereinafter RIA FOR PROPOSED EMISSION GUIDELINES], https://www.epa.gov/sites/production/files/2018-08/documents/utilities_ria_proposed_ace_2018-08.pdf [<https://perma.cc/W2RE-T7Z3>] (following the guidance of Executive Order 13,783 and adopting a domestic perspective in the central analysis).

70. *Id.* at ES-10; *see also* Farber, *supra* note 61, at 415–17 (analyzing Executive Order 13,783's requirement that agencies consider only domestic costs and benefits). *See generally* Arden Rowell, *Foreign Impacts and Climate Change*, 39 HARV. ENV'T L. REV. 371 (2015) (exploring U.S. agencies' increasing analysis of global impact of emissions, despite the traditional practice of only looking at domestic impact without considering their statutory authority to analyze global impact).

71. Approximately 95 percent of the costs of climate change will likely be borne by people living outside of the United States. Jonathan S. Masur & Eric A. Posner, *Climate Regulation and the Limits of Cost-Benefit Analysis*, 99 CALIF. L. REV. 1557, 1591–92 (2011); *Economy & Trade*, OFF. U.S. TRADE REPRESENTATIVE, <https://ustr.gov/issue-areas/economy-trade> [<https://perma.cc/4ZGZ-2D5H>] (“Americans generate and earn more than 20 percent of the world's total income.”).

72. RIA FOR PROPOSED EMISSION GUIDELINES, *supra* note 69, at ES-13 tbl.ES-9.

73. *Id.* at ES-10 (“We refer to air pollution health benefits as ancillary ‘co-benefits’ because they result from policies affecting CO₂, but are not the goal of this policy.”).

74. *Id.* at ES-10–11 (noting that its “modeling accounted for the current suite of local, state and federal policies expected to reduce PM_{2.5} and PM_{2.5} precursor emissions in future years”).

reductions below current pollution levels.⁷⁵ In other words, imagine that the CPP would have effectively capped emissions of particular matter in some area of the country at 50 units per year. If current law limited emissions to 100 units per year, but polluters were currently producing 150 units per year, the Obama EPA would have estimated the benefits of the CPP based on a reduction of 100 units per year (150 minus 50), while the Trump EPA would have estimated those same benefits based on a reduction of 50 units per year (100 minus 50).⁷⁶ After making this change, the Trump EPA estimated the annual co-benefits from these reductions at approximately \$8.1 billion, down from the \$24 billion estimated by the Obama EPA.⁷⁷

Despite these changes, the Trump EPA reported that its repeal of the Obama CPP would produce costs well in excess of benefits. Repealing the CPP was expected to produce net annual costs of approximately \$4.5 billion,⁷⁸ or \$54 billion in total costs through the year 2037.⁷⁹ The Trump EPA also offered a variety of different options involving partial repeals of the CPP—all of those options failed a cost-benefit test as well. Even despite the differences in CBA methodology, the Trump EPA could not escape the conclusion that the Obama CPP would produce benefits that exceeded its costs.⁸⁰

75. See RIA CLEAN POWER PLAN, *supra* note 62, at ES-17 (“[W]e multiplied the benefit-per-ton estimates by the corresponding emission reductions that were generated from air quality modeling of the proposed Clean Power Plan.”).

76. To be clear, it is entirely possible that the Trump EPA’s approach—both with respect to greenhouse gases and non-greenhouse gases—was superior and better-justified. Our goal here is not to criticize the choices made by the Trump EPA in the course of its cost-benefit analysis. Rather, our objective is to examine the effects of the Trump EPA’s decision on its overall cost-benefit analysis, as well as the EPA’s legal approach in light of that cost-benefit analysis.

77. RIA FOR PROPOSED EMISSION GUIDELINES, *supra* note 69, at ES-13 tbl.ES-9. Here, too, the EPA reported estimated annual benefits as a range from \$4.9 to \$11.4 billion, again using a 3 percent discount rate. We report the midpoint of that range.

78. *Id.* at ES-16 tbl.ES-12. This is the midpoint of a range of \$3.1 to \$6.8 billion, using a discount rate of 3 percent. In between the promulgation of the CPP and Trump’s re-estimation of its costs and benefits, the estimated compliance costs also fell. *Compare id.* (estimating annual compliance costs of \$400 million), with EPA, REGULATORY IMPACT ANALYSIS FOR THE CLEAN POWER PLAN FINAL RULE, at ES-22 tbl.ES-9 (2015), https://www3.epa.gov/ttnecas1/docs/ria/utilities_ria_final-clean-power-plan-existing-units_2015-08.pdf [<https://perma.cc/CK87-DKFC>] (estimating annual compliance costs of \$1 billion or more).

79. RIA FOR PROPOSED EMISSION GUIDELINES, *supra* note 69, at ES-16 tbl.ES-12. This is the midpoint of a range of \$37.2 to \$81.5 billion, using a discount rate of 3 percent.

80. In an updated CBA issued a year after its first assessment, the Trump EPA took an entirely different (and even less plausible) tack. There, it argued that secular trends in the energy industry put the country on track to meet the CPP’s emissions targets even without legal intervention. EPA, REGULATORY IMPACT ANALYSIS FOR THE REPEAL OF THE CLEAN POWER

To justify its deregulation, the Trump administration adopted a legal tactic reminiscent of its Chevronizing approach to the mercury regulation. The Clean Air Act directs the EPA to establish “standards of performance for any existing source”⁸¹ and then defines “standard of performance” to mean:

a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.⁸²

The Obama EPA argued that a “system of emission reduction” was capacious enough to encompass plans requiring electricity producers to switch some production from coal-fired power plants to natural gas-fired plants or renewable sources.⁸³ That is, the Obama EPA believed that it could set emissions guidelines “that would generally require power generators to change their energy portfolios,” rather than requiring “technological or operational measures that can be applied to or at a single source.”⁸⁴

PLAN, AND THE EMISSION GUIDELINES FOR GREENHOUSE GAS EMISSIONS FROM EXISTING ELECTRIC UTILITY GENERATING UNITS 2-1 (2019), https://www.epa.gov/sites/production/files/2019-06/documents/utilities_ria_final_cpp_repeal_and_ace_2019-06.pdf [<https://perma.cc/R8XW-E83L>]. According to the EPA, power generators were phasing out coal-fired power plants on their own and would continue doing so. *Id.* at 2-4. It is difficult to believe that this trend would have begun without the CPP or that it would continue if the CPP were definitively repealed. This is akin to installing a stop sign at a busy intersection, observing that traffic accidents have decreased substantially, and concluding that the stop sign was never needed. The analogy is not perfect because implementation of the CPP was stayed by a court pending the Trump EPA’s repeal. Nonetheless, it strains credulity to imagine that power generators would have taken these actions without the threat of EPA regulation (and the possibility that regulation might be reinvigorated under a subsequent administration). What is more, if the CPP would produce no costs and benefits, as the EPA now claims, there is no meaningful reason to repeal it, and the EPA has not supplied one. *Id.* at 2-1.

81. Clean Air Act, 42 U.S.C. § 7411(d)(1) (2018).

82. *Id.* § 7411(a)(1).

83. See Repeal of Clean Power Plan, *supra* note 68, at 32,523; Farber, *supra* note 61, at 421.

84. Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 82 Fed. Reg. 48,035, 48,037 (proposed Oct. 16, 2017) (to be codified at 40 C.F.R. pt. 60) [hereinafter Repeal of Carbon Pollution Emission Guidelines]; see also Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program, 83 Fed. Reg. 44,746, 44,748 (proposed Aug. 31, 2018) (to be codified at 40 C.F.R. pts. 51–52, 60). This is sometimes referred to as regulation “outside of the fence-line.”

The Trump EPA disagreed with this position. It argued instead that the text of the statute required that a “standard of performance” be applied only to each “existing source” individually, rather than involving the simultaneous shifting of capacity from “sources,” such as coal-fired plants, to “non-sources,” such as nuclear plants or renewables.⁸⁵ The EPA argued that this reading was compelled by both the reference to “any existing source” and by the use of the word “application,” claiming that “application” requires a particular object—an individual power plant—to which the system of emission reduction would be applied.⁸⁶ Accordingly, the EPA concluded that the agency “is precluded from basing [its regulatory approach] on strategies like generation shifting and corresponding emissions offsets because these types of systems cannot be put into use at the regulated building, structure, facility, or installation.”⁸⁷

It is notable that, after initially invoking its authority under *Chevron* to justify its changing interpretation,⁸⁸ the Trump EPA disclaimed any reliance on *Chevron* in announcing the final rule. Instead, the agency argued that the language of the Clean Air Act was unambiguous, and thus, there was “no interpretive room on which the EPA could seek deference for the CPP’s grid-wide management approach.”⁸⁹ That is, the agency argued that its hands were tied at *Chevron* Step One: the statute did not permit the type of regulation the Obama EPA had promulgated.

C. Corporate Average Fuel Economy Standards

1. *Federal Fuel Economy Rules.* In 2012, the National Highway Traffic Safety Administration (“NHTSA”) and the EPA together promulgated new corporate average fuel economy (“CAFE”) standards that applied to cars and light trucks beginning in Model Year

Rachel Jacobson, *Trump Administration Issues Affordable Clean Energy Rule*, WILMERHALE (June 25, 2019), <https://www.wilmerhale.com/en/insights/client-alerts/20190625-trump-administration-issues-affordable-clean-energy-rule> [<https://perma.cc/NVE5-XJCY>].

85. Repeal of Clean Power Plan, *supra* note 68, at 32,523–24.

86. *Id.* at 32,524.

87. *Id.*

88. Repeal of Carbon Pollution Emission Guidelines, *supra* note 84, at 48,039.

89. Repeal of Clean Power Plan, *supra* note 68, at 32,532. In legal terms, this means the agency argued that the case should be decided at *Chevron* Step One, whereby *Chevron* deference does not apply to unambiguous legislative commands. See *Chevron U.S.A. Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 842–43 (1984).

2017.⁹⁰ CAFE standards are imposed on a manufacturer-by-manufacturer basis⁹¹: each automobile manufacturer is required to meet a specified average fuel economy standard across all of the automobiles sold by that manufacturer in a given year.⁹² Manufacturers can improve their average fuel economy by improving the fuel economy of individual cars or simply by selling more small cars, which have higher fuel economy, and fewer large cars, which have lower fuel economy. Under the Department of Transportation (“DOT”) and EPA regulations, the formula for calculating the precise fuel economy standard was complex and dependent upon the price of oil in a given year,⁹³ but the effects were likely to be dramatic. The agencies anticipated that the average fuel economy across a manufacturer’s entire fleet of passenger cars would rise from roughly 39 miles per gallon (“mpg”) in 2017 to roughly 55 mpg in 2025, and from roughly 29 mpg in 2017 for light trucks to roughly 40 mpg in 2025.⁹⁴

The heightened fuel economy standards were expected to produce significant net benefits. NHTSA estimated that the regulations would impose costs of roughly \$155 billion but create benefits of \$630 billion, thus producing net benefits of \$475 billion.⁹⁵ The majority of the costs were so-called “technology” costs—the costs of developing and installing more fuel-efficient engines.⁹⁶ But one of the consequences of improved fuel economy is that individuals who own cars are likely to drive them more because they are cheaper to operate.⁹⁷ NHTSA thus estimated that the regulation would create an additional \$19 billion in costs from additional roadway congestion—due to cars being driven

90. 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, 77 Fed. Reg. 62,624 (Oct. 15, 2012) (codified at 40 C.F.R. pts. 85–86, 600; 49 C.F.R. pts. 523, 531, 533, 536–37).

91. Hence, the “corporate” in “corporate average fuel economy.”

92. See *Corporate Average Fuel Economy (CAFE) Standards*, U.S. DEP’T TRANSP. (Aug. 11, 2014), <https://www.transportation.gov/mission/sustainability/corporate-average-fuel-economy-cafe-standards> [<https://perma.cc/8DJ6-SRW7>].

93. See NAT’L HIGHWAY TRAFFIC SAFETY ADMIN., FINAL REGULATORY IMPACT ANALYSIS, CORPORATE AVERAGE FUEL ECONOMY FOR MY 2017-MY 2025 PASSENGER CARS AND LIGHT TRUCKS 207 (2012) [hereinafter OBAMA RIA], https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/fria_2017-2025.pdf [<https://perma.cc/LL3D-N2M3>] (explaining that the CAFE model considered the extent to which manufacturers might apply fuel-saving technology “in consideration of future fuel prices”).

94. *Id.* at 14–15 tbls.3a–b.

95. This considers automobiles produced through Model Year 2025. *Id.* at 13 tbl.2.

96. These accounted for roughly \$120 billion of the \$155 billion in total costs. *Id.* at 49 tbl.13.

97. This is known as the “rebound effect.” See *id.* at 847.

more miles—and \$9 billion in costs from additional automobile accidents.⁹⁸

On the benefits side, the primary expected benefit was a reduction in lifetime fuel expenditures by the owners of more fuel-efficient cars, approximately \$485 billion.⁹⁹ But NHTSA estimated that there would be significant additional benefits from the regulation as well, including benefits from reduced greenhouse gas emissions (\$49 billion) and reduced particulate matter and sulfur emissions (\$13 billion in total).¹⁰⁰

In 2020, Trump’s EPA and NHTSA announced a rule substantially amending the Obama-era CAFE standards with respect to Model Year 2021 and later automobiles.¹⁰¹ Trump’s rule increased fuel efficiency standards only very slightly from their 2020 levels, to 47.1 mpg for cars and 34.1 mpg for light trucks in model year 2030, rather than the more substantial increases to 55 mpg for cars and 40 mpg for light trucks required under the Obama administration rule.¹⁰² Accordingly, whereas the Obama-era rule was expected to generate significant net benefits, one might have expected that the Trump-era rule—which largely reverses the Obama rule—would generate significant net costs.

But this is not what the Trump EPA and NHTSA initially concluded. In their first attempt to calculate the costs and benefits of this new rule, those agencies estimated that fully repealing the Obama CAFE standards would avoid \$502 billion in costs and reduce benefits by only \$326 billion, for a net gain of \$176 billion.¹⁰³ This CBA

98. *Id.* at 49 tbl.13.

99. *Id.*

100. *Id.* at 50 tbl.13.

101. The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks, 85 Fed. Reg. 24,174 (Apr. 30, 2020) (to be codified at 40 C.F.R. pts. 85–86).

102. NAT’L HIGHWAY TRAFFIC SAFETY ADMIN. & EPA, FINAL REGULATORY IMPACT ANALYSIS, THE SAFER AFFORDABLE FUEL-EFFICIENT (SAFE) VEHICLES RULE FOR MODEL YEAR 2021–2026 PASSENGER CARS AND LIGHT TRUCKS 11 tbl.I-3 (Mar. 2020) [hereinafter FINAL TRUMP RIA], https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/final_safe_fria_web_version_200701.pdf [<https://perma.cc/WE7L-DHRG>].

103. NAT’L HIGHWAY TRAFFIC SAFETY ADMIN. & EPA, PRELIMINARY REGULATORY IMPACT ANALYSIS, THE SAFER AFFORDABLE FUEL-EFFICIENT (SAFE) VEHICLES RULE FOR MODEL YEAR 2021–2026 PASSENGER CARS AND LIGHT TRUCKS 17 tbl.1-5 (July 2018) [hereinafter PRELIMINARY TRUMP RIA], https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/ld_cafe_co2_nhtsa_2127-al76_epa_pria_181016.pdf [<https://perma.cc/VLU2-MR6W>]. Avoided costs are effectively benefits, and foregone benefits are effectively costs, hence the positive overall impact in this calculation.

conducted by Trump's agencies considered a slightly different time period than the one conducted by Obama's agencies, so the comparison is not quite one-to-one.¹⁰⁴ These minor discrepancies aside, the end result was a substantial divergence between the Obama administration's calculation that stricter fuel economy standards would produce significant net benefits and the Trump administration's calculation that stricter standards would produce significant net costs.

The vast divide between the Obama and Trump administrations' calculations was driven by a number of factors. First, the Trump administration estimated significantly higher technology costs than Obama. For instance, the Obama NHTSA predicted roughly \$90 billion in technology costs for Model Year 2021–25 automobiles.¹⁰⁵ By contrast, the Trump NHTSA estimated that technology costs would exceed \$123 billion across those five years.¹⁰⁶ Second, the Trump EPA calculated carbon emissions benefits and costs using the domestic cost of carbon,¹⁰⁷ while the Obama EPA used the global cost of carbon.¹⁰⁸ Accordingly, where the Obama EPA estimated benefits from higher CAFE standards of roughly \$36 billion across Model Years 2021–25,¹⁰⁹ the Trump EPA calculated the cost of foregone climate benefits from those years as only \$2.6 billion.¹¹⁰

Most importantly, the Trump administration estimated that Obama's stricter fuel economy standards would lead to an enormous increase in the total number of miles that individuals drive their cars each year.¹¹¹ Whereas the Obama EPA calculated the fuel cost savings from tighter fuel economy standards for Model Year 2021–25 automobiles at more than \$350 billion,¹¹² Trump's estimate came in

104. Compare OBAMA RIA, *supra* note 93, at 56 (considering model years 2017–25), with PRELIMINARY TRUMP RIA, *supra* note 103, at 129 (considering model years 2021–26). For instance, it is not necessarily significant that Trump estimated \$502 billion in cost savings while Obama estimated total costs of only \$155 billion.

105. OBAMA RIA, *supra* note 93, at 49 tbl.13.

106. PRELIMINARY TRUMP RIA, *supra* note 103, at 84 tbl.1-73.

107. *See id.* at 11.

108. *See* OBAMA RIA, *supra* note 93, at 904.

109. *Id.* at 50 tbl.13. This number was calculated by adding the values for carbon dioxide from the years 2021 to 2025.

110. PRELIMINARY TRUMP RIA, *supra* note 103, at 85 tbl.1-73. This number was calculated by combining the values for carbon dioxide damage reduction benefit from the years 2021 to 2025.

111. *See id.* at 993 (predicting a rebound effect of 20 percent, twice the Obama EPA's number).

112. *See* OBAMA RIA, *supra* note 93, at 49 tbl.13.

under \$82 billion.¹¹³ The reason, according to the Trump administration, was that the benefits to consumers of better fuel economy would be nearly outweighed by the fuel costs of the additional miles those consumers would drive.¹¹⁴ Relatedly, the Obama EPA estimated that tighter fuel economy standards would yield small reductions in fatalities from driving.¹¹⁵ Individuals would drive somewhat more, but the cars they drove would be newer and smaller, and thus safer. By contrast, the Trump administration estimated that loosening the fuel economy standards would save 6,340 lives,¹¹⁶ which it valued at an additional \$35.4 billion, because people would be less likely to drive cars that were more expensive to operate.¹¹⁷ These estimates—particularly the claim that stricter fuel economy standards would lead to enormous increases in driving—were widely viewed as implausible,¹¹⁸ and the agencies received significant criticism for their

113. PRELIMINARY TRUMP RIA, *supra* note 103, at 84 tbl.1-73.

114. *See id.*

115. *See* OBAMA RIA, *supra* note 93, at 50 tbl.13 (finding the value of reduced fatalities over the fifteen-year total to be between \$9 and \$568 million).

116. PRELIMINARY TRUMP RIA, *supra* note 103, at 92 tbl.1-77.

117. *Id.* at 84 tbl.1-73. In addition, if consumers would drive much more with stricter fuel standards (the Obama regulation) than they would with weaker fuel standards (the Trump deregulation), this should also mean that they gain much greater consumer surplus from driving with stricter fuel standards. If a driver owns a car with better fuel economy and chooses to drive twenty miles instead of ten, the driver must be getting some welfare benefit from the additional miles driven, despite the fact that she is paying for more gas to drive the additional miles. Accordingly, if the Trump EPA estimated that total vehicle miles driven would drop substantially under its deregulation, it should have also estimated that total consumer surplus from driving would drop substantially. But in fact, the Trump EPA's estimate of consumer surplus from driving was almost identical to the Obama EPA's estimate. *Compare* OBAMA RIA, *supra* note 93, at 49 tbl.13, *with* PRELIMINARY TRUMP RIA, *supra* note 103, at 84 tbl.1-73 (showing roughly identical numbers for consumer surplus in Model Years 2021–25). The Trump EPA does not attempt to explain or justify how it arrived at this calculation, so it is difficult to evaluate. But on its face, it appears implausible.

118. According to the Trump EPA's analysis, weakening fuel economy standards would actually *decrease* the total number of cars on the road, even though new cars would be cheaper to purchase. *See* Alan Krupnick, Joshua Linn & Virginia McConnell, *Critiquing the Trump Administration's Analysis of Consumer Behavior in the Proposed CAFE Standards*, RES. FOR FUTURE (Sept. 17, 2018), <https://www.resourcsmag.org/common-resources/critiquing-the-trump-administrations-analysis-of-consumer-behavior-in-the-proposed-cafe-standards> [https://perma.cc/BW8Y-SS3E] (noting "the agencies' argument that weakening the standards reduces the total size of the on-road fleet"). The agency's reason was that the higher price of new cars under the Obama rule would make used cars more valuable, and so more people would choose to hold onto their used cars. *See id.* (explaining that "tighter standards raise used vehicle prices and delay scrappage of old vehicles"). That is, the Trump EPA estimated that higher fuel economy standards would make new cars more expensive, leading to fewer new cars on the road.

calculations during the regulatory comment period.¹¹⁹ Cost-benefit analysis is subject to judicial review under the “arbitrary and capricious” standard of § 706 of the Administrative Procedure Act (“APA”).¹²⁰ Regulations have been struck down as arbitrary and capricious when they rely on obviously unjustified or nonsensical cost-benefit analyses,¹²¹ though review is often deferential.¹²² Nonetheless, the agencies’ dubious cost-benefit analysis at minimum created some risk that the regulation would not survive judicial scrutiny.

This would in turn make used cars more valuable, leading to more *used* cars on the road and fewer used cars being scrapped. The net result, according to the Trump EPA, would be more total cars on the road in a world with stricter fuel economy standards. However, this conclusion contradicts basic principles of supply and demand, *see* Alan Krupnick, Joshua Linn & Virginia McConnell, *Questions About the Trump Administration’s Cost-Benefit Analysis for Its Proposal To Freeze the CAFE Standards*, RES. FOR FUTURE (Aug. 20, 2018), <https://www.resourcesmag.org/common-resources/questions-about-the-trump-administrations-cost-benefit-analysis-for-its-proposal-to-freeze-the-cafe-standards> [<https://perma.cc/Y3BB-HX5U>] (describing the Trump administration’s proposal as being “inconsistent with economics”), as well as with previous studies of CAFE standards, which found that lower standards are associated with more cars on the road, *id.* The Trump administration also assumed that increasing the number of cars on the road by 10 percent would increase the number of miles driven by 10 percent, even if the number of drivers did not increase, which similarly seems to defy logic. *See* SYLWIA BIALEK, BETHANY DAVIS NOLL, PETER HOWARD, RICHARD REVEZS, JASON SCHWARTZ & AVI ZEVIN, INST. FOR POL’Y INTEGRITY, COMMENT REGARDING THE SAFER AFFORDABLE FUEL-EFFICIENT (SAFE) VEHICLES RULE FOR MODEL YEARS 2021–2026 PASSENGER CARS AND LIGHT TRUCKS 79 (2018) [hereinafter INST. FOR POL’Y INTEGRITY, COMMENT], https://policyintegrity.org/documents/Emissions_Standards_EPA_NHTSA_Comments_Oct2018.pdf [<https://perma.cc/Z8JC-BG75>] (explaining that the Trump administration’s conclusion that the increase in total fleet size would automatically lead to an increase in the total vehicle miles traveled was illogical).

119. *See generally* INST. FOR POL’Y INTEGRITY, COMMENT, *supra* note 118 (offering quantitative critiques of many of the calculations in the Trump administration’s cost-benefit analysis); *see also* JOSHUA LINN, ALAN KRUPNICK, BENJAMIN LEARD & VIRGINIA MCCONNELL, COMMENTS TO NHTSA AND U.S. EPA ON THE SAFER AFFORDABLE FUEL-EFFICIENT (SAFE) VEHICLES RULE FOR MODEL YEARS 2021–2026: PASSENGER CARS AND LIGHT TRUCKS 18 (2018), https://media.rff.org/documents/Comments_10-25-18_EPA-NHTSA_final.pdf [<https://perma.cc/M582-QL5E>].

120. 5 U.S.C. § 706(2)(A) (2018); *see* *Motor Vehicles Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 46 (1983) (subjecting a rescission order of NHTSA to the “arbitrary and capricious” standard). Other commentators agree with this stance. INST. FOR POL’Y INTEGRITY, COMMENT, *supra* note 118, at 10.

121. *See generally* Caroline Cecot & W. Kip Viscusi, *Judicial Review of Agency Cost-Benefit Analysis*, 22 GEO. MASON L. REV. 575 (2015) (surveying a large number of cases in which courts have evaluated agency cost-benefit analyses and finding that appellate courts have rejected many CBAs for being faulty).

122. *See* Jacob Gersen & Adrian Vermeule, *Thin Rationality Review*, 114 MICH. L. REV. 1355, 1358 (2016) (finding that agencies have won 92 percent of arbitrariness challenges at the Supreme Court).

In response, the Trump administration issued a substantially revised cost-benefit analysis when it finalized the rule in April 2020. The agencies' improbably high projections of cost savings from loosening fuel economy standards had been replaced by much smaller estimates. Rather than saving 6,340 lives, the Trump rule was now projected to save 3,344 lives.¹²³ The Trump EPA's estimate of the foregone climate benefits from loosening fuel economy standards doubled, from \$2.6 billion to \$5.2 billion.¹²⁴ And the agencies' estimate of the foregone fuel savings more than doubled, from \$82 billion to \$185.1 billion.¹²⁵ All told, the Trump administration now calculated that loosening fuel economy standards would generate *negative* benefits of \$13.1 billion.¹²⁶ That is, this new regulation would do more harm than good.¹²⁷

This is a startling admission. As with the CPP, it is remarkable that an agency with every political incentive to doctor its cost-benefit analysis could not produce a plausible CBA that yielded its desired conclusion. Some scholars have suggested that CBA can be easily manipulated to yield whatever result a policymaker desires.¹²⁸ The

123. FINAL TRUMP RIA, *supra* note 102, at 11 tbl.I-3.

124. *Id.* at 48 tbl.I-74.

125. *Id.*

126. *Id.* at 49 tbl.I-74. Again, the comparison is not quite apples-to-apples with the prior Trump CBA. In its final rule, the Trump administration allowed fuel economy standards to rise very slightly (by about 3 mpg over the course of a decade) from the Model Year 2020 levels set by Obama, rather than holding them constant. *See id.* at 15–16, tbls.I-8 & I-10. This would tend to depress the Trump administration's calculation of benefits. On the other hand, the final CBA calculated costs and benefits through 2029, rather than 2026 as in the earlier CBA. *See id.* at 14 tbl.I-6. This would tend to inflate the administration's calculation of benefits. These minor discrepancies are not enough to account for the full difference between the two cost-benefit analyses (which totaled nearly \$190 billion), particularly given that they pull in opposite directions.

127. The EPA and NHTSA noted that using a discount rate of 7 percent for future costs and benefits, rather than 3 percent, the rule would create \$16.1 billion in benefits (instead of \$13.1 billion in costs), and thus that the expected "net benefits straddle zero." *Id.* at 9. Nonetheless, there are strong reasons to believe that 3 percent (or lower) is a more appropriate discount rate than 7 percent. *See generally* Daniel A. Farber & Paul A. Hemmersbaugh, *The Shadow of the Future: Discount Rates, Later Generations, and the Environment*, 46 VAND. L. REV. 267 (1993) (arguing for lower discount rates). But even if one places that point to the side, it is remarkable that the EPA and NHTSA admitted that this deregulation would yield negative benefits under a set of typical (if not preferred) assumptions.

128. *See* FRANK ACKERMAN & LISA HEINZERLING, PRICELESS: ON KNOWING THE PRICE OF EVERYTHING AND THE VALUE OF NOTHING 61–90 (2004); Rebecca M. Bratspies, *Regulatory Trust*, 51 ARIZ. L. REV. 575, 618 n.230 (2009) ("Recent attempts to reduce the assumed value of a human life in calculating costs and benefits, a change that would obviously reduce the benefits

Trump administration's experiences with the CPP and the CAFE standards rollback stand as evidence to the contrary and demonstrate CBA's robustness in the face of political machinations.

Nonetheless, the fuel economy deregulation may face an uncertain future in the courts. Courts have struck down regulations as arbitrary and capricious when their CBAs appeared obviously faulty or revealed that the regulation's costs would exceed its benefits, as is the case here.¹²⁹ Cost-benefit analysis has already exerted a disciplining force on the Trump administration once, when it required the EPA and NHTSA to revise its initial implausible estimates. It may exert such a force again if a court rejects the fuel economy deregulation wholesale.

2. *California's Clean Air Act Waiver.* As it turned out, eliminating the Obama-era CAFE standards and replacing them with much weaker fuel economy rules did not, by itself, succeed in lowering national fuel-economy standards. The state of California has authority under the Clean Air Act to promulgate air quality standards that are more stringent than federal air quality standards.¹³⁰ To do so, California must obtain a waiver from the EPA that exempts it from being preempted by federal rules.¹³¹ California has received dozens of such waivers in

attributable to health and safety regulation, graphically reveal how malleable cost-benefit analysis can be."); Farber, *supra* note 61, at 432 ("[T]he experience of the Trump Administration may strengthen the argument that cost-benefit analysis is too malleable to be considered reliable."); Sidney A. Shapiro & Christopher H. Schroeder, *Beyond Cost-Benefit Analysis: A Pragmatic Reorientation*, 32 HARV. ENV'T L. REV. 433, 446 (2008) ("[W]e know that CBA is easily biased by an analyst's policy preferences because the methodology depends on malleable inferences and assumptions."); Mark Eliot Shere, *Building Trust: Conservatives and the Environment*, 20 HARV. J.L. & PUB. POL'Y 829, 855 (1997) ("Risk assessments typically follow an elaborate procedure that makes them malleable, expensive, and time consuming."). *But see* Jonathan S. Masur, *Cost-Benefit Analysis Under Trump: A Comment on Dan Farber's Regulatory Review in Anti-Regulatory Times*, 94 CHI.-KENT L. REV. 665, 670–71 (2019) (arguing that the experience with CBA under Trump demonstrates that CBA is not nearly as malleable as its critics maintained).

129. *See, e.g.*, *Owner-Operator Indep. Drivers Ass'n, Inc. v. Fed. Motor Carrier Safety Admin.*, 494 F.3d 188, 205 (D.C. Cir. 2007) (scrutinizing the agency's modeling choices and rejecting the regulation on the basis that it did not articulate a reasonable explanation for dubious modeling decisions); *Pub. Citizen v. Fed. Motor Carrier Safety Admin.*, 374 F.3d 1209, 1218 (D.C. Cir. 2004) (same); *Corrosion-Proof Fittings v. EPA*, 947 F.2d 1201, 1222–23 (5th Cir. 1991) (striking down the EPA's proposed asbestos regulation because it would create costs in excess of benefits). *See generally* Cecot & Viscusi, *supra* note 121 (surveying a large number of cases in which courts have evaluated agency CBAs and finding many cases in which regulations have been rejected for faulty CBAs).

130. Clean Air Act, 42 U.S.C. § 7543(b)(1) (2018).

131. *Id.* § 7543(b).

the past, including waivers from the Obama administration that remained in effect after the Trump EPA announced its intention to roll back Obama-era CAFE standards.¹³² Pursuant to that waiver, California announced an agreement with several major automakers that it would promulgate Obama’s CAFE standards as its own, and that these automakers would abide by them.¹³³ Because of the size and importance of the California market, and the difficulty of manufacturing different automobiles with different levels of fuel economy for different states, the California rules would likely regulate fuel economy for all cars manufactured and sold throughout the country.¹³⁴

In September 2019, the Trump administration announced that it was withdrawing California’s preemption waiver.¹³⁵ It made two arguments. First, it argued that California did not need stricter fuel economy standards to meet “compelling and extraordinary conditions,” as required by the Clean Air Act.¹³⁶ According to the Trump administration, California’s standards were primarily intended to reduce emissions of carbon dioxide and help curb climate change.¹³⁷ But, the Trump agencies argued, because climate change is a global problem, and California’s carbon emissions do not remain in California or affect only Californians, California cannot claim to have an “extraordinary condition” that warrants particular standards.¹³⁸

132. *See Vehicle Emissions California Waivers and Authorizations*, EPA, <https://www.epa.gov/state-and-local-transportation/vehicle-emissions-california-waivers-and-authorizations> [<https://perma.cc/9GNY-2C5Y>] (providing a list of federal register notices for Californian waivers); *California Greenhouse Gas Waiver Request*, EPA, <https://www.epa.gov/regulations-emissions-vehicles-and-engines/california-greenhouse-gas-waiver-request> [<https://perma.cc/J44K-R99D>] (discussing Californian waivers and providing related documents associated with waiver requests).

133. *California and Major Automakers Reach Groundbreaking Framework Agreement on Clean Emission Standards*, OFF. GOV. GAVIN NEWSOM (July 25, 2019), <https://www.gov.ca.gov/2019/07/25/california-and-major-automakers-reach-groundbreaking-framework-agreement-on-clean-emission-standards> [<https://perma.cc/DCX2-E65S>].

134. *Id.* (noting that the framework agreement maintains a national approach for participating automakers who will sell these cleaner cars nationwide).

135. The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program, 84 Fed. Reg. 51,310 (Sept. 27, 2019) (to be codified at 40 C.F.R. pts. 85–86; 49 C.F.R. pts. 531, 533) [hereinafter SAFE One National Program Rule].

136. *Id.* at 51,340; 42 U.S.C. § 7543(b)(1)(B).

137. *See* SAFE One National Program Rule, *supra* note 135, at 51,329.

138. *Id.* at 51,339 (“The GHG emissions from California cars are no more relevant to the pollution problem at issue (*i.e.*, climate change) as it impacts California than are the GHG emissions from cars being driven in New York, London, Johannesburg, or Tokyo . . .”).

Second, the Trump administration argued that state fuel economy standards were preempted by the Energy Policy and Conservation Act, which does not allow for state waivers.¹³⁹ That law states:

When an average fuel economy standard prescribed under this chapter is in effect, a State or a political subdivision of a State may not adopt or enforce a law or regulation related to fuel economy standards or average fuel economy standards for automobiles covered by an average fuel economy standard under this chapter.¹⁴⁰

This creates an obvious conflict with the Clean Air Act, which—in the context of fuel economy standards—would seem to explicitly permit precisely the sort of state action that the Energy Policy and Conservation Act prohibits. The only two courts to have confronted this issue both resolved it in favor of the Clean Air Act, and thus in favor of the state seeking a preemption waiver.¹⁴¹ Nonetheless, the Trump administration asserted that those courts were wrong and that states should be categorically preempted from issuing their own fuel economy standards under the Energy Policy and Conservation Act.¹⁴²

Notably, the Trump administration claimed that it should be entitled to *Chevron* deference with respect to both of these arguments.¹⁴³ Like the federal CAFE standards themselves, the rule withdrawing California’s waiver was jointly promulgated by the EPA and NHTSA, the agencies charged with administering the relevant sections of the Clean Air Act¹⁴⁴ and Energy Policy and Conservation Act,¹⁴⁵ respectively. Relatedly, the EPA and NHTSA took the position that the withdrawal of California’s waiver was not a “rule” under

139. *Id.* at 51,311.

140. 49 U.S.C. § 32919(a) (2018).

141. *See Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie*, 508 F. Supp. 2d 295, 399 (D. Vt. 2007); *Cent. Valley Chrysler-Jeep, Inc. v. Goldstene*, 529 F. Supp. 2d 1151, 1190 (E.D. Cal. 2007).

142. SAFE One National Program Rule, *supra* note 135, at 51,314.

143. *See id.* at 51,333, 51,351.

144. *Id.* at 51,351 (“Where states are now adopting standards . . . far removed from NAAQS attainment planning or more specifically directed at global air pollution, EPA as the agency charged with implementing the Clean Air Act is acting well within that role in setting out an interpretation that aligns with Congressional intent.” (citing *Chevron U.S.A. Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 843 (1984))).

145. *Id.* at 51,320 (“However, to the extent there is any ambiguity, NHTSA is the expert agency and its regulation adopted in this document is entitled to deference.”).

Executive Order 12,866.¹⁴⁶ It thus declined to perform a cost-benefit analysis.

The withdrawal of California’s Clean Air Act waiver is consistent with our theme of Chevronizing around CBA. Here, too, the Trump administration has deployed a series of legal arguments, coupled with a claim for *Chevron* deference, to evade consideration of the policy consequences of its actions. We evaluate the merits of these legal arguments in greater depth in the next Part.

D. General Service Lamps

In the waning days of the Obama administration, the Department of Energy (“DOE”) issued a regulation that would have banned the sale of traditional incandescent light bulbs in 2020.¹⁴⁷ The regulation, along with the 2007 law that authorized it, led to the rapid growth of a market in energy-efficient light bulbs, including fluorescent, halogen, and LED.¹⁴⁸ However, demand for the cheaper, less efficient incandescent light bulb remained strong, and the industry opposed the Obama regulation.¹⁴⁹ In September 2019, the DOE issued a final rule withdrawing the Obama regulation.¹⁵⁰

The replacement 2019 regulation was accompanied by a quite mysterious cost-benefit analysis purporting to show that the regulation would reduce costs. Based on the industry’s “confidential estimates of total domestic shipments for the years 2015 to 2018,” and with its commitment to data transparency temporarily forgotten,¹⁵¹ the DOE argued that its regulation would reduce costs in the form of a “reduction in uncertainty” equal to roughly \$50 million to \$200 million per year.¹⁵² As far as we can understand, the “reduction in uncertainty” referred to uncertainty about whether the DOE itself would ultimately

146. *Id.* at 51,352 (“EPA’s action here, however, is not a rule as defined by Executive Order 12866, consistent with its previous actions on waiver requests, and is therefore exempt from review by the Office of Management and Budget as required for rules and regulations by Executive Order 12,866.”).

147. Energy Conservation Program: Energy Conservation Standards for General Service Lamps, 82 Fed. Reg. 7276, 7322 (Jan. 19, 2017) [hereinafter Energy Conservation Standards].

148. Nadja Popovich, *America’s Light Bulb Revolution*, N.Y. TIMES (Mar. 8, 2019), <https://nyti.ms/37RyiMO> [<https://perma.cc/4E8Q-QRDQ>].

149. *Id.*

150. Energy Conservation Program: Definition for General Service Lamps, 84 Fed. Reg. 46,661, 46,662 (Sept. 5, 2019) (to be codified at 10 C.F.R. pt. 430).

151. *Id.* at 46,674.

152. *Id.*

decide on a new efficiency rule allowing the sale of incandescent light bulbs or would instead trigger the statute's backstop, which would have barred traditional incandescent bulbs. Because the industry cannot predict what the DOE will do, it must be prepared to deliver a large volume of light bulbs that will satisfy demand regardless of what happens. This, of course, would be a larger volume than if the industry knew that incandescent light bulbs would be barred or not. Though commenters were concerned that this regulation would cause environmental harm, the DOE rejected these concerns on the ground that it has not yet determined what the energy conservation standard will be.¹⁵³

It is hard to make sense of this analysis. The practical effect of the regulation was to allow incandescent light bulbs to be sold in 2020. A proper cost-benefit analysis would estimate the effects on the environment and compare them to the consumer surplus from sales of incandescent bulbs. Since this analysis has not been performed, we do not know whether withdrawal would be cost-justified.¹⁵⁴ But the effect on inventory is a second-order concern, and the argument that the regulation has no environmental effect is disingenuous, because the DOE has not yet decided what a future conservation standard will be. The result of this deregulation will be that more incandescent light bulbs will be sold and used than would have been had the deregulation never occurred. If pretending otherwise is not arbitrary and capricious, we do not know what is.

II. CHEVRONIZING AROUND COST-BENEFIT ANALYSIS

The preceding examples demonstrate that CBA is not as malleable as some of its critics have contended.¹⁵⁵ For its repeals of the Obama-era mercury regulation, the CPP, and fuel economy standards, the Trump EPA was able to massage some of the numbers at the margin, but could not bring itself to argue that the new mercury and CPP regulations were cost-justified. With respect to the repeal of the general service lamp standards and its initial CBA of the fuel economy standards, the Trump EPA did gin up phony CBAs, but their phoniness was plain to anyone who cared to examine them.

153. *Id.* at 46,670–71.

154. The Obama regulation did not include a cost-benefit analysis on the ground that the regulation was not a “major rule.” Energy Conservation Standards, *supra* note 147, at 7320.

155. *See supra* note 128. and accompanying text.

By way of contrast, it is notable that the Trump administration made most of its significant deregulatory inroads in areas where CBA has not traditionally been required, or in ways that are not normally subject to CBA. Thus, for example, the reduction of resources for enforcement is not subject to a cost-benefit requirement;¹⁵⁶ nor is the reduction in reliance on scientific advisory boards.¹⁵⁷ The withdrawal of regulations under the Congressional Review Act does not require a CBA.¹⁵⁸ Similarly, the Federal Communications Commission was able to withdraw Obama's net neutrality regulation without offering a CBA.¹⁵⁹ The Trump administration's recent revision of regulations for implementing the Endangered Species Act also involved a regulatory area in which agencies have not used cost-benefit analysis and are, in fact, prohibited by statute from taking economic considerations into account.¹⁶⁰ And the administration's immigration-related actions, including the withdrawal of the Deferred Action for Childhood Arrivals ("DACA") program, generally did not require CBAs for various reasons. In the case of DACA, for example, cost-benefit

156. Alex Leary, *Trump Administration Pushes To Deregulate with Less Enforcement*, WALL ST. J. (June 23, 2019, 7:12 PM), <https://www.wsj.com/articles/trump-administration-pushes-to-deregulate-with-less-enforcement-11561291201> [<https://perma.cc/FDD5-XTUC>] (noting that Trump attempted to deregulate "by not hiring people to do the work of enforcing rules that are on the books").

157. Jill Colvin, *Trump Aims To Slash Number of Federal Advisory Committees*, ASSOCIATED PRESS (June 14, 2019), <https://apnews.com/4e36550332c74894b8b87f4ed51aaff> [<https://perma.cc/45NX-98DT>].

158. Under the Congressional Review Act ("CRA"), 5 U.S.C. §§ 801–08 (2018), Congress can overturn a proposed agency rule by a joint resolution of disapproval. *Id.* § 802. Congress does not need to justify its decision with cost-benefit analysis because the executive orders requiring CBA are not applicable to Congress. The 115th Congress (2017–2018) overturned sixteen rules under the CRA, whereas only one rule had previously been overturned since the law's passage in 1996. MAEVE P. CAREY & CHRISTOPHER M. DAVIS, CONG. RSCH. SERV., THE CONGRESSIONAL REVIEW ACT (CRA) 1 (2018), <https://fas.org/sgp/crs/misc/IF10023.pdf> [<https://perma.cc/Y2UB-HGFB>].

159. Historically, independent agencies such as the Federal Communications Commission have not been subject to the same CBA requirements as traditional executive branch agencies. According to one analysis, "E.O. 12866, like its predecessor orders that were issued by President Ronald Reagan (E.O. 12291 and E.O. 12498), does not apply the cost-benefit analysis or OIRA review to independent regulatory agencies such as the Federal Reserve Board and Securities and Exchange Commission." MAEVE P. CAREY, CONG. RSCH. SERV., R43056, COUNTING REGULATIONS: AN OVERVIEW OF RULEMAKING, TYPES OF FEDERAL REGULATIONS 4 n.23 (2019), <https://fas.org/sgp/crs/misc/R43056.pdf> [<https://perma.cc/WY6T-L8E5>].

160. Endangered and Threatened Wildlife and Plants; Regulations for Listing Species and Designating Critical Habitat, 84 Fed. Reg. 45,020, 45,024–25 (Aug. 27, 2019) (to be codified at 50 C.F.R. pt. 424).

analysis was not required because the administration merely abandoned the Obama administration's decision not to enforce certain laws.¹⁶¹ Where CBA is required, the administration had to work around CBA rather than disregard it completely. CBA created tension with the Trump administration's deregulatory goals.

The Trump administration responded to this tension with a variety of tactics designed to evade or frustrate cost-benefit analysis. Some of these tactics were straightforward and relatively well understood. Others were innovations. The Sections that follow categorize these tactics and evaluate their legality. We conclude that most of them are illegal or should be held to be illegal. But cracking down on these actions would, in some cases, require courts to subject the Trump administration's actions to a level of scrutiny that they have not traditionally been willing to apply to administrative action.

In the cases of mercury, fuel economy, and the CPP, the administration tried to evade CBA rather than falsify it. Its strategies in these cases involved what this Article calls "Chevronizing around CBA"—using the executive branch's authority over legal interpretations to evade or nullify the results of cost-benefit analysis. In the mercury case, the administration argued that while the Obama-era mercury regulation generated benefits greater than the costs, some of those benefits—the co-benefits—did not count. These co-benefits did not count because the agency was legally prohibited from issuing a mercury regulation unless the mercury-related health benefits of the regulation alone exceeded the costs. Here, the agency's argument was based on *Chevron* Step Two: the EPA argued that the statute was ambiguous, and thus the agency was entitled to deference in its interpretation excluding co-benefits. Similarly, the Trump administration justified its withdrawal of California's Clean Air Act waiver with reference to its authority under *Chevron* Step Two and claimed that it was not even required to perform a cost-benefit analysis of its policy choice. In its repeal of the CPP, by contrast, the EPA operated at *Chevron* Step One: it argued that the statute unambiguously prohibited the agency from regulating in the manner dictated by the CPP, cost-benefit consequences notwithstanding.

161. The cost-benefit test of E.O. 12,866 applies to "regulatory actions," Exec. Order No. 12,866 § 6(a)(3), (a)(3)(C), 3 C.F.R. 638, 645–46 (1994), *reprinted as amended in* 5 U.S.C. § 601 (2018), defined as actions leading up to a final rule or regulation designed to have the effect of law, *id.* § 3(d)–(e). Thus, it does not apply to enforcement decisions. *Cf.* *Dep't of Homeland Sec. v. Regents of the Univ. of Cal.*, 140 S. Ct. 1891, 1914 (2020) (noting that the Department of Homeland Security has "considerable flexibility in carrying out its responsibility").

These two approaches are species of the same genus. In both cases, the agency used an interpretation of the Clean Air Act to escape the consequences of its cost-benefit analysis. Below, we analyze these two efforts in depth.

A. *Chevronizing Around Cost-Benefit Analysis at Step Two: The Cases of Mercury and Fuel Economy*

1. *Mercury*. As we explained above, the section of the Clean Air Act under which the Obama EPA regulated mercury requires that regulation be “appropriate and necessary.”¹⁶² The Trump EPA argued that this language was ambiguous, that the EPA now interpreted the language to exclude consideration of co-benefits, and that the EPA’s interpretation was entitled to deference under *Chevron* Step Two.¹⁶³

This flavor of the *Chevronizing* strategy is potentially powerful because regulatory statutes are frequently ambiguous. This ambiguity creates interpretive space for the agency under *Chevron*, space that the agency can use to craft a legal interpretation that excludes benefits or costs. Still, an agency’s authority under *Chevron* is not limitless. Even if a statute is ambiguous, Step Two of the *Chevron* framework nonetheless requires that that the executive branch’s interpretation of ambiguous language be “reasonable.”¹⁶⁴

The meaning of this term has given rise to much scholarly debate. Some scholars have taken the position that *Chevron*’s two steps both call for statutory construction: Step One asks “whether the *text* of the agency’s governing statute nullifies the agency’s position,” while Step Two asks “whether other conventional tools of construction cast doubt on the agency’s position.”¹⁶⁵ Others have suggested that *Chevron* Step Two calls for a more substantive type of review, possibly arbitrary and capricious review under the APA.¹⁶⁶ This version of *Chevron* Step Two

162. See *supra* note 34 and accompanying text.

163. See *supra* notes 39–55 and accompanying text.

164. *Chevron U.S.A. Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 844 (1984).

165. See Ronald M. Levin, *The Anatomy of Chevron: Step Two Reconsidered*, 72 CHI.-KENT L. REV. 1253, 1278–80 (1997); see also Kenneth A. Bamberger & Peter L. Strauss, *Chevron’s Two Steps*, 95 VA. L. REV. 611, 614 (2009); Peter L. Strauss, “Deference” Is Too Confusing—Let’s Call Them “Chevron Space” and “Skidmore Weight,” 112 COLUM. L. REV. 1143, 1162–65 (2012).

166. Mark Seidenfeld, *A Syncopated Chevron: Emphasizing Reasoned Decisionmaking in Reviewing Agency Interpretations of Statutes*, 73 TEX. L. REV. 83, 127, 130–31 (1994); Catherine M. Sharkey, *Cutting in on the Chevron Two-Step*, 86 FORDHAM L. REV. 2359, 2384–85 (2018).

would direct a court to scrutinize the policy choices underlying the agency's action, rather than merely engaging in a legalistic analysis of the agency's statutory interpretation.¹⁶⁷ Empirical studies of *Chevron* have shown that appellate courts subscribe to each of these interpretations at various times.¹⁶⁸

Here, if *Chevron* Step Two were given any sort of substantive content, we suspect that it would be fatal to the Trump EPA's repeal of mercury regulations.¹⁶⁹ That deregulation would create billions of

Still other scholars have argued that *Chevron* has only one step, see generally Matthew C. Stephenson & Adrian Vermeule, *Chevron Has Only One Step*, 95 VA. L. REV. 597 (2009).

167. See Sharkey, *supra* note 166, at 2383–84.

168. Kent Barnett & Christopher J. Walker, *Chevron in the Circuit Courts*, 116 MICH. L. REV. 1, 34–35 (2017); Richard M. Re, *Should Chevron Have Two Steps?*, 89 IND. L.J. 605, 638–40 (2014).

169. It is worth noting that, across a wide variety of legal contexts, courts will sometimes treat the word “reasonable” as if it requires a comparison between costs and benefits. For examples from federal regulatory law, see 45 AM. JUR. 2d *Job Discrimination* §§ 200, 210 (2019) (stating that when determining whether an accommodation is reasonable under the Americans with Disabilities Act, “courts are permitted to take into account the reasonableness of the cost of any necessary workplace accommodation, the availability of alternatives therefor, or other appropriate relief in order to achieve an equitable and appropriate remedy,” and an employer does not need to provide an accommodation if doing so would be “unduly costly, extensive, substantial, or disruptive”); *Am. Textile Mfrs. Inst., Inc. v. Donovan*, 452 U.S. 490, 511 n.30 (1981) (discussing the requirement that the Consumer Product Safety Commission promulgate rules that are reasonably necessary to eliminate an “unreasonable risk” of injury require “a generalized balancing of costs and benefits”); 15 AM. JUR. 2d *Civil Rights* § 403 (2019) (“An accommodation is reasonable under the Fair Housing Act if it is both efficacious and proportional to the costs to implement it.”). For examples from tort law, see *McCarty v. Pheasant Run, Inc.*, 826 F.2d 1554, 1558 (7th Cir. 1987) (“Ordinarily the innkeeper knows much more about the hazards of his trade than the guest, and can take reasonable (=cost-justified) steps to reduce them, while ordinarily the guest can do little to protect himself against them.”); see also *E. River S.S. Corp. v. Transamerica Delaval, Inc.*, 476 U.S. 858, 865 (1986); *United States v. Carroll Towing Co.*, 159 F.2d 169, 173 (2d Cir. 1947) (L. Hand, J.); *Md. Cas. Co. v. City of Jackson*, 493 So. 2d 955, 960 n.3 (Miss. 1986); *People Express Airlines, Inc. v. Consol. Rail Corp.*, 100 N.J. 246, 266–67 (1985); *Micallef v. Miehle Co.*, 39 N.Y.2d 376, 386 (1976); FOWLER V. HARPER, FLEMING JAMES, JR., OSCAR S. GRAY, *THE LAW OF TORTS* 467–68 (2d ed. 1986); W. PAGE KEETON, DAN B. DOBBS, ROBERT E. KEETON & DAVID G. OWEN, *PROSSER AND KEETON ON THE LAW OF TORTS* § 31 at 173 (5th ed. 1984). For examples from property law, see *RESTATEMENT (SECOND) OF TORTS* § 826 (Am. L. Inst. 1975) (stating land use is unreasonable if “the gravity of the harm o[u]tweighs the utility of the actor’s conduct,” or if “the harm caused by the conduct is serious and the financial burden of compensating for this and similar harm to others would not make the continuation of the conduct [n]ot feasible”); *Kopeccky v. Nat’l Farms, Inc.*, 510 N.W.2d 41, 48 (Neb. 1994) (holding that when a judge is unable to determine an invasion is unreasonable as a matter of law, the jury decides the question of reasonableness after weighing the gravity of harm against the utility of the actor’s conduct); 12 *POWELL ON REAL PROPERTY* § 79C.06 (2019) (stating that in the context of evaluating zoning changes, “courts have generally tried to balance

dollars in net costs and would create no identified nonmonetary benefit that might justify such a loss. That hardly seems reasonable, or, for that matter, “appropriate and necessary.”

There is a related problem with the EPA’s interpretation that renders it unreasonable. Under the Trump administration’s view, the EPA is allowed to limit pollution that generates mercury-related harms and pollution that generates particulate matter-related harms, but it cannot count both harms when evaluating a regulation that does both.¹⁷⁰ It is hard to think of a justification for such an approach, and the Trump administration did not supply one.

The problem with the Trump EPA’s stance was that it could have compelled the agency to engage in unnecessarily wasteful regulation. Imagine that the EPA is considering a rule that limits emissions from factories. The anticipated rule imposes costs of \$1 billion on businesses and results in lower emissions of two substances, X and Y. Suppose further that the X reduction produces benefits of \$0.9 billion and the Y reduction produces benefits of \$0.8 billion. The rule passes a cost-benefit analysis because the joint benefits of \$1.7 billion exceed the \$1 billion cost.

Now, further suppose that two different laws authorize the EPA to regulate X and Y. Call these law-X and law-Y. Each law imposes different substantive standards. The EPA may regulate X only if “appropriate and necessary,” while the EPA may regulate Y only if regulation “serves the public interest.” Instead of issuing one regulation to reduce emissions of both X and Y, the EPA could issue separate regulations of X (under law-X) and Y (under law-Y). However, regulation-X alone would impose costs of \$0.7 billion, and regulation-Y alone would impose costs of \$0.6 billion, for a total of \$1.3 billion. It would thus be optimal for the EPA to regulate both chemicals with a single rule.

Suppose a court held that the statutory language was ambiguous and the EPA deserved *Chevron* deference. The EPA then decided to interpret the statute to exclude co-benefits and bar the single regulation. Would a court hold that the EPA’s regulation was reasonable at *Chevron* Step Two?

We are pretty sure the answer would be “no.” The standards “appropriate and necessary” and “the public interest” do not exclude

the public gain from the particular provision against the private loss sustained by the property owner”).

170. See *supra* notes 44–55 and accompanying text.

considerations of co-benefits. On the contrary, they invite the agency to consider all relevant effects of the regulation. Excluding co-benefits from the analysis would push the agency toward inefficient alternatives and block regulations that would benefit public welfare. We do not think a court could reasonably interpret these standards to require the EPA to exclude co-benefits. Put more generally, it would seem unreasonable for an agency to select—as a matter of that agency’s discretion—a legal interpretation that compels the agency to act wastefully or inefficiently. Deliberately exercising agency discretion to achieve unnecessarily wasteful ends seems the antithesis of reasonableness.

To test this intuition, let us consider some more extreme cases. Imagine that the EPA regulates under law-X and the co-benefit is now something over which the EPA has no authority. Let us imagine that the EPA could prove the co-benefit is reducing violent crime. The regulated industry argues that the EPA cannot take this co-benefit into account and therefore, the regulation should be struck down because the costs exceed the authorized benefits.

The industry is wrong. The EPA should consider reductions in violent crime—or, more precisely, reductions in deaths, injuries, and property loss—as long as a causal relationship between the emissions and violent crime can be established. The goal of regulation should be to increase overall social welfare. This requires analyzing all of the effects of a regulation, not merely the intended effects or those specifically named by the statute.

Imagine, for example, that the regulation produces *costs* rather than benefits—a “co-cost”—by, for example, increasing violent crime. The EPA would be on firm ground if it put the relevant outcomes into a cost-benefit analysis. The issue is not whether the regulation produces benefits or costs by affecting behavior that the underlying statute did not seek to influence; the issue is whether the benefits and costs are actually borne by the relevant group of people and borne in a way that is clear and measurable.

This last point is worth emphasizing. Virtually all regulations affect behaviors across many dimensions. A pollution-control regulation will typically reduce many types of emissions, not just one.¹⁷¹ It would be strange for the agency to ignore the effects of other types of emissions—good or bad—just because the agency acts pursuant to a

171. See *supra* Part I.B (discussing the various reductions in pollutants from the Clean Power Plan).

statute that regulates only the one emission type. The same regulation could, by increasing the cost of goods produced by the factory, have a range of other effects—on the safety of products built with the factory’s inputs, on employment, or on working conditions in the factory. Similarly, regulation of fuel economy standards can affect the amount of fuel consumed and the price of automobiles, but will also affect pollution, traffic fatalities, and more. These effects are unavoidable, so if the agency is not allowed to take them into account, its regulations will often cause great harm. Indeed, the vast majority of costs and benefits that figured into the Trump administration’s CBA of its fuel economy standards are actually co-costs and co-benefits: increased or reduced traffic fatalities, environmental harms, and so forth.¹⁷² Yet the Trump administration continued to consider co-costs and co-benefits in this context without any recognition that it was acting inconsistently with its approach to mercury.

In its defense of the mercury regulation repeal, the Trump EPA hedged a bit by suggesting a more restricted version of its rule against considering co-benefits. It argued that the problem with the mercury regulation was that the “primary” benefit was the reduction of non-mercury emissions.¹⁷³ We can see the force of this argument by considering a semi-hypothetical example. Imagine that the EPA wants to reduce cigarette smoking because of its public health effects and so issues an environmental regulation that limits how much cigarette smoke a person may produce. Then the EPA conducts a cost-benefit analysis in which it finds that virtually all the benefits come from preventing the deaths of smokers themselves rather than from second-hand smoke “pollution” caused by their “emissions.” It is evident that the agency is trying to regulate in a way outside its authority—which here belongs to the Food and Drug Administration. A fair interpretation of the authorizing statutes suggests that the EPA may not regulate cigarette smoking, and it cannot avoid this restriction by purporting to regulate smoke emissions.

One can imagine a similar argument even when an agency issues rules that affect outcomes within its authority. Imagine that Congress tells the EPA to regulate mercury emissions strictly, but to regulate particulate matter emissions with a light touch. The EPA then issues a regulation that strictly regulates both types of emissions and justifies the regulation with a cost-benefit analysis in which the effects on

172. *See supra* Part I.C.1.

173. *See supra* notes 54–55 and accompanying text.

particulate matter play the dominant role. Here, an argument could be made that the EPA acted improperly. But the actual mercury rule presents the opposite scenario. The standard for regulating particulate matter emissions is what is “requisite to protect the public health.”¹⁷⁴ The Supreme Court has held that this requires the EPA to regulate particulate matter emissions without regard to cost¹⁷⁵—which is to say, even more stringently than it regulates mercury.¹⁷⁶ On these terms, then, the EPA’s choice is quite proper.

It is important to emphasize that if this provision of the Clean Air Act *unambiguously* barred consideration of co-benefits, then the EPA would be obligated, at *Chevron* Step One, not to consider them in its regulatory decisions. This is the position the Trump EPA took with respect to the CPP, which we discuss below. But this was *not* the Trump EPA’s view of the statute authorizing it to regulate mercury, and we suspect it is highly unlikely that a court would ever hold that “appropriate and necessary” unambiguously bars consideration of co-benefits.¹⁷⁷ Here, the Trump EPA’s refusal to take co-benefits into account was the agency’s own choice—an exercise of the agency’s policy discretion. The agency deliberately selected an interpretation that would force it to create more costs than benefits. Such an attempt to *Chevronize* around cost-benefit analysis should not be deemed “reasonable.”

2. *Fuel Economy.* The EPA and NHTSA’s claims to *Chevron* deference in withdrawing California’s Clean Air Act waiver raise different issues. Consider first the EPA’s argument that California did not face “compelling and extraordinary conditions” that necessitate a waiver.¹⁷⁸ The EPA argued that “the term ‘extraordinary’ should refer to circumstances that are specific to California.”¹⁷⁹ “Extraordinary” means “going beyond what is usual, regular, or customary,” or

174. 42 U.S.C. § 7409(b)(1) (2018).

175. *Whitman v. Am. Trucking*, 531 U.S. 457, 466–67 (2001).

176. *Michigan v. EPA*, 576 U.S. 743, 756 (2015) (“‘Appropriate and necessary’ is a far more comprehensive criterion than ‘requisite to protect the public health’; read fairly and in context, as we have explained, the term plainly subsumes consideration of cost.”).

177. In another case, the D.C. Circuit approved the EPA’s reliance on co-benefits. *See U.S. Sugar Corp. v. EPA*, 830 F.3d 579, 625 (D.C. Cir. 2016). If the Obama EPA exercised its discretion properly to consider co-benefits, then the Trump EPA’s reversal, without any explanation based on policy considerations, seems arbitrary.

178. 42 U.S.C. § 7543(b)(1)(B).

179. *SAFE One National Program Rule*, *supra* note 135, at 51,341.

“exceptional,”¹⁸⁰ and the statute is specifically meant to allow waivers for particular states while excluding others.¹⁸¹ Accordingly, the Trump EPA’s interpretation of the statute appears reasonable at minimum, and it is perhaps even the best interpretation of the statute.

What is more dubious was the EPA’s claim that “while effects related to climate change in California could be substantial, they are not sufficiently different from the conditions in the nation as a whole to justify separate State standards.”¹⁸² California is certainly not the only state to have been affected by climate change. But it has been affected in a manner—including the outbreak of vast wildfires, accompanied by power blackouts meant to reduce the incidence of such fires, among other things—that is different and arguably more severe than most other states.¹⁸³ Even though the EPA is entitled to *Chevron* deference as to its interpretation of the Clean Air Act, its conclusion that California does not meet the terms of the statute is subject to arbitrary and capricious review under the APA.¹⁸⁴ As we have noted, arbitrary and capricious review is often—though not always—quite limited.¹⁸⁵ But if a court conducts a more searching inquiry, we suspect that the EPA’s determination is unlikely to survive.

With respect to the conflict between the Clean Air Act and the Energy Policy and Conservation Act, the outcome is equally uncertain. The Energy Policy and Conservation Act explicitly requires NHTSA to consider “the effect of other motor vehicle standards of the Government on fuel economy” when setting fuel economy standards.¹⁸⁶ Courts have held that when the EPA grants California a preemption waiver, this waiver effectively transforms California’s fuel economy standards into federal standards and requires that NHTSA

180. *Extraordinary*, MERRIAM-WEBSTER DICTIONARY ONLINE, <https://www.merriam-webster.com/dictionary/extraordinary> [<https://perma.cc/G48V-28GK>].

181. 42 U.S.C. § 7543(b).

182. SAFE One National Program Rule, *supra* note 135, at 51,344.

183. *The Climate Connection to California’s Wildfires*, N.Y. TIMES (Oct. 27, 2020), <https://nyti.ms/2DLpT4I> [<https://perma.cc/Z5NR-TUF9>].

184. 5 U.S.C. § 706 (2018).

185. *Compare* Gersen & Vermeule, *supra* note 122, at 1358, 1362 (finding that the overwhelming majority of agency decisions survive “arbitrary and capricious” challenges at the Supreme Court), *with* Cecot & Viscusi, *supra* note 121, at 590–603 (finding higher rates of reversal in the lower courts than Gersen & Vermeule).

186. 49 U.S.C. § 32902(f) (2018).

take them into account.¹⁸⁷ It was on this basis that two federal courts held that the Energy Policy and Conservation Act does not preempt states from promulgating fuel economy regulations pursuant to an EPA waiver.¹⁸⁸ Once California has obtained an EPA waiver, its standards have the status of federal regulations, and the Energy Policy and Conservation Act cannot block them.

Of course, these cases were decided in the presence of federal agencies that were favorably inclined toward the state regulations at issue. The federal government was not a party to either lawsuit, and the courts did not refer to *Chevron* deference or the agencies' position. But it is nonetheless entirely possible that those cases could have come out differently had the courts been required to defer to reasonable agency constructions of the statutes. That, in turn, again raises the question of whether an agency interpretation of a statute can be reasonable under *Chevron* Step Two if it compels the agency to take an action that is not cost-benefit justified. An honest cost-benefit analysis, had the EPA and NHTSA been required to produce one, would likely show that denying California a Clean Air Act waiver created costs in excess of benefits. Indeed, that is what a (more) honest cost-benefit analysis of the Trump administration's fuel economy standards demonstrated. Yet here, because no cost-benefit analysis was produced, it would be challenging for a court to puncture the EPA and NHTSA's result. It is thus possible that the withdrawal of California's waiver would survive a court challenge.

*B. Chevronizing Around Cost-Benefit Analysis at Step One:
The Clean Power Plan*

As with its approach to repealing the mercury regulation, the Trump administration's strategy with regard to repealing the CPP represented a type of *Chevronizing* around CBA. Here, too, the administration was faced with an unfavorable CBA. However much it attempted to massage the numbers, its analysis revealed that repealing the CPP would create huge net costs and lead to many unnecessary

187. *Cent. Valley Chrysler-Jeep, Inc. v. Goldstene*, 529 F. Supp. 2d 1151, 1168–69, 1172 (E.D. Cal. 2007).

188. *Id.* at 1172; *Green Mountain Chrysler v. Crombie*, 508 F. Supp. 2d 295, 348–50 (D. Vt. 2007). The courts held, in the alternative, that the Energy Policy Conservation Act's preemption provision should be read very narrowly, and that it did not preempt the state fuel economy standards. *Goldstene*, 529 F. Supp. 2d at 1174–75; *Crombie*, 508 F. Supp. 2d at 330–35.

deaths.¹⁸⁹ In response, the Trump EPA took the position that its hands were tied—the Clean Air Act allowed only regulations that could be applied to a single power plant and did not allow regulation of the overall mixture of fuel sources used in a state.¹⁹⁰ In advancing this argument, the EPA did not claim that it was entitled to deference under *Chevron*. Instead, it argued that the statute unambiguously prohibited regulation of the type employed in the CPP.¹⁹¹

On its own terms, this is a dubious conclusion. Recall that the Clean Air Act requires the EPA to implement the “best system of emission reduction.”¹⁹² The word “system” is amenable to a wide variety of interpretations.¹⁹³ The standard definition of the word would include large-scale plans favoring some types of energy production over others.¹⁹⁴ In addition, the Clean Air Act never states explicitly that the only permissible standards are those that can be applied within boundaries of each regulated source. The Trump EPA inferred this from the words “existing source” and “application,”¹⁹⁵ but that is not the only reasonable interpretation of those words, particularly when they are read in context with the phrase “system of emission reduction.”

Nonetheless, one can see why the Trump EPA adopted this legal strategy. This version of Chevronizing around CBA at Step One—if it were upheld by the courts—would have served three overlapping purposes for the Trump administration. First, it would have justified the agency’s decision to repeal the CPP, despite the fact that the CPP creates benefits well in excess of costs. It would also have insulated the repeal decision from arbitrary and capricious review under the APA—if the CPP was unlawful, it could not be arbitrary and capricious to

189. See *supra* notes 78–80 and accompanying text.

190. Repeal of Clean Power Plan, *supra* note 68, at 32,556; see also *supra* notes 81–87 and accompanying text.

191. Repeal of Clean Power Plan, *supra* note 68, at 32,527 (“After reconsidering the relevant statutory text, structure, and purpose, the Agency now recognizes that Congress ‘spoke to the precise question’ of the scope of CAA section 111(a)(1) and clearly precluded the unsupportable reading of that provision asserted in the CPP. Accordingly, this action repeals the CPP.”); see also *supra* notes 88–89 and accompanying text.

192. 42 U.S.C. § 7411(a)(1) (2018).

193. Repeal of Clean Power Plan, *supra* note 68, at 32,528.

194. See *System*, MERRIAM-WEBSTER ONLINE DICTIONARY, <https://www.merriam-webster.com/dictionary/system> [<https://perma.cc/P57K-WQ6C>] (defining “system” as “a regularly interacting or interdependent group of items forming a unified whole”).

195. Repeal of Clean Power Plan, *supra* note 68, at 32,523.

repeal it. Second, it would bind the hands of any future EPA, operating under a different president, that might attempt to reinstate the CPP. If the Clean Air Act is unambiguous, the views of any given EPA as to the statute's meaning are irrelevant.¹⁹⁶ Third, this approach would not have required the EPA to argue that the statute is ambiguous and that its interpretation—which would generate greater costs than benefits—is reasonable. As we suggested in the prior Section, courts may be reluctant to accept as reasonable a discretionary interpretation that produces costs in excess of benefits and forecloses the most efficient options.¹⁹⁷ Here, the EPA attempted to escape that bind by arguing that it possesses no interpretive discretion.¹⁹⁸

Arguing that an interpretation is permitted under *Chevron*, as in the case of mercury, creates different types of legal risks than arguing that an interpretation is mandated by an unambiguous statute, as with the CPP.¹⁹⁹ But in both cases, an agency that does not have a strong argument on policy grounds for repealing existing regulations has resorted to legal interpretation as a mechanism for evading CBA.

CONCLUSION

The Trump administration's deregulatory project exposed some serious tensions in the structure of the administrative state. On the one hand, a tradition of judicial deference to the executive, exemplified by the *Chevron* doctrine, suggests that when the governing statute is ambiguous, courts will—or should—give Trump a free hand to roll back regulation. Congress gave the president discretion over policy, and the question whether to regulate or deregulate falls within that policy discretion. Courts should therefore defer to the president's

196. *Chevron U.S.A. Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 842–43 (1984) (“If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.”).

197. *See supra* Part II.A.1.

198. Repeal of Clean Power Plan, *supra* note 68, at 32,523 (“The text of the CAA is inconsistent with that interpretation, and the context, structure, and legislative history confirm that the statutory interpretation underlying the CPP was not a permissible construction of the Act.”).

199. It is possible that, in the course of litigation, the Trump EPA might have attempted to argue in the alternative that it was entitled to *Chevron* deference in the event that a court viewed the language of the Clean Air Act as ambiguous. However, this line of argument would likely have been foreclosed by the *Chenery* doctrine, which does not permit agencies to rely upon arguments or justifications that were not offered at the time a regulation was promulgated. *See Amy R. Motomura, Rethinking Administrative Law's Chenery Doctrine: Lessons from Patent Appeals at the Federal Circuit*, 53 SANTA CLARA L. REV. 817, 822–23 (2014).

policy judgments. On the other hand, the rise of cost-benefit analysis suggests that courts should push back against the executive branch when its regulatory decisions violate a cost-benefit test, even if the relevant statutory language is broad and ambiguous. The president's choice to regulate or deregulate any particular industry is therefore constrained by facts about the world—people's preferences and the costs of regulatory compliance—which the president is required to respect.

We see three ways to resolve this tension. First, one could grab the *Chevron* horn of the dilemma and argue that in the presence of an ambiguous statute, the executive branch can do what it wants, cost-benefit analysis notwithstanding. Indeed, the cost-benefit requirement itself began as an initiative by the executive branch and was only later enforced by courts. And even then, it was enforced only sporadically.²⁰⁰ The Trump administration could have argued that what the president giveth, the president may taketh away. But at minimum, this window of discretion appears to be narrowing. Courts have increasingly found an unambiguous cost-benefit requirement in the statutory language that agencies are required to enforce.²⁰¹ If this trend continues, executive discretion will further erode. We suspect that the sloppy cost-benefit analyses used by the Trump administration would be rejected by the courts as arbitrary and capricious, further strengthening this emerging cost-benefit norm.

Second, one could go the other direction and argue that executive branch administrative discretion is a myth or, at least, is becoming one. Even where statutory language is ambiguous, the executive branch must comply with cost-benefit analysis, or perhaps even try to maximize social welfare. Courts will push back if the branch does not.

200. See, e.g., *Bus. Roundtable v. SEC*, 647 F.3d 1144, 1148–56 (D.C. Cir. 2011); *Corrosion-Proof Fittings v. EPA*, 947 F.2d 1201, 1218–23 (5th Cir. 1991). See generally Jonathan S. Masur & Eric A. Posner, *Cost-Benefit Analysis and the Judicial Role*, 85 U. CHI. L. REV. 935 (2018) [hereinafter Masur & Posner, *Judicial Role*] (discussing judicial review of agencies' defective cost-benefit analyses for regulations).

201. See *Michigan v. EPA*, 576 U.S. 743, 749 (2015) (“The statute expressly requires the Agency to consider cost (alongside other specified factors) when imposing beyond-the-floor standards.”); *Bus. Roundtable*, 647 F.3d at 1148–49 (setting aside a Securities and Exchange Commission action under the APA for “inconsistently and opportunistically fram[ing] the costs and benefits of the rule”); Cass R. Sunstein, *Cost-Benefit Analysis and Arbitrariness Review*, 41 HARV. ENV'T L. REV. 1, 11–13 (2017) (describing why some judges may favor cost-benefit balancing as a check on administrative agencies while others may avoid it because they are not well trained in resolving empirical issues).

But this view raises numerous difficult and familiar questions. Do the courts have the capacity to second-guess the judgments of experts in regulatory agencies?²⁰² Many such judgments involve technical questions, including, for example, which of a number of conflicting studies is most credible and how valuations should be extrapolated from limited data. Courts are notoriously skittish, probably for good reason, about overruling the executive's judgment with regard to technical issues over which the courts have substantially less expertise, even though technical analyses can be misused to support politically preferred outcomes.

Third, there may be a middle way. One possibility is that the executive branch's discretion is at a maximum when it chooses whether to regulate and how much, and at a minimum when it seeks to eliminate or curtail existing regulations. Consider, for example, the choice whether to issue a strict regulation or a moderate regulation. Imagine that both regulations pass a cost-benefit analysis in the sense of being preferable to the status quo, but they generate different wealth levels and perhaps distributional consequences and involve different levels of uncertainty about consequences. Under existing law, a court is likely to defer to the executive's choice, and this may well be the proper approach. By contrast, if the executive seeks to replace an earlier modest regulation with a strict regulation, or a strict regulation with a modest regulation or no regulation at all, a court should be more likely to insist that the revision be cost justified.²⁰³ Experience with the status quo regulation, and the economic analysis and related materials that the government had used to justify the regulation, might give a court the information it needs to review the regulatory reform.

Whatever the preferred solution, our main point is that when a statute neither unambiguously permits or prohibits cost-benefit analysis, the tradition of *Chevron* deference and the emerging cost-benefit norm are in tension—and one will have to give. The Trump administration laid this contradiction bare by so obviously trying to use *Chevron* to evade cost-benefit analysis, and now courts may have to decide what to do. The tension reflects an underlying theoretical

202. See generally Masur & Posner, *Judicial Role*, *supra* note 200 (discussing judicial review of agencies' defective cost-benefit analyses for regulations); see also cases cited in *supra* note 200.

203. This would involve a change to existing law, under which the Supreme Court has typically required the same degree of explanation from an agency for a regulatory change, or deregulation, as it has for an agency's original regulation. *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 514 (2009).

uncertainty about how much discretion the executive should have over public policy, whether courts should curtail that discretion, and, if so, to what degree. This tension is also reflected in the efforts by commentators and some judges to revive the nondelegation doctrine, which would require Congress to curtail the discretion of the executive by engaging in regulation itself rather than delegating regulatory authority to agencies.²⁰⁴ The problem with the nondelegation doctrine is that it imposes a burden on Congress for which it lacks institutional capacity, due to the highly complex and ever-changing challenges of regulation.²⁰⁵ A cost-benefit norm that constrains the executive without imposing new burdens on Congress may be the solution to this problem.

204. *See Gundy v. United States*, 139 S. Ct. 2116, 2123–24 (2019) (describing the limits of Congress’s power to delegate to agencies).

205. CASS R. SUNSTEIN, *THE COST-BENEFIT REVOLUTION* 27–38 (2018) (explaining the rationale from expertise for delegating substantial authority to agencies).