

THE ASCENDANCY OF THE COST-BENEFIT STATE?

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While perhaps not appreciated until recently, the Trump Administration has an historic opportunity to dramatically advance the cost-benefit state.¹ In 2009, Entergy Corp. v.

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1. We adopt the definition of the "cost-benefit state" advanced by former OIRA Administrator Cass Sunstein—"that government regulation is increasingly assessed by asking whether the benefits of regulation justify the costs of regulation." Cass R. Sunstein, *THE COST-BENEFIT STATE: THE FUTURE OF REGULATORY PROTECTION* (ABA Sec. of Admin. L. & Reg. Prac. ed., 2002) [hereinafter *THE COST-BENEFIT STATE*]. Like Sunstein, we support this transformation "on both economic and democratic grounds." See Cass R. Sunstein, *The Cost-Benefit State*, in *COASE-SANDOR WORKING PAPER SERIES IN LAW & ECONOMICS*.1 (Univ. of Chi. L. Sch. ed., 1996), https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1497&context=law_and_economics. Equity also should be considered. For example, much regulation that fails a benefit-cost test transfers wealth from the poor to the rich, such as the federal milk marketing orders system that long ago was exempted from OIRA review.

*Riverkeeper, Inc.*² was an inflection point in the Supreme Court's treatment of the principles of benefit-cost balancing supported by every president since Ronald Reagan. Against the backdrop of this established, bipartisan administrative practice, the Court reversed what some had argued was a judicially-constructed presumption against benefit-cost balancing unless it was clearly permitted in the statute³ to reading statutory silence or ambiguity as allowing it. The progress toward the cost-benefit state continued through the Court's 2015 *Michigan v. EPA*⁴ decision, which held that the EPA's refusal to consider cost when it had the authority to do so was unreasonable, and thus unlawful. The Court now reads "silences or ambiguities in the language of regulatory statutes as permitting, not forbidding, this type of rational regulation."⁵ This change makes judicial review on this issue consistent with

See also *infra*, Section IV(C)(3) (discussing DOE energy efficiency standards). In other words, benefit-cost analysis (BCA) is necessary for balanced regulatory decisions that enhance societal well-being, is policy-neutral between pro- and anti-regulatory outcomes, and enhances transparency. The authors share a strong belief in the need for a "value of information" approach that BCA provides. See John D. Graham, *Saving Lives Through Administrative Law and Economics*, 157 U. PA. L. REV. 395, 487 (2008) (hereinafter *Saving Lives*); John D. Graham & Paul R. Noe, *Beyond Process Excellence: Enhancing Societal Well-Being*, in *ACHIEVING REGULATORY EXCELLENCE* (Cary Coglianese ed., Brookings Inst. Press 2016) (hereinafter *Beyond Process Excellence*). Compare E. Donald Elliott, *Only a Poor Workman Blames His Tools: On Uses and Abuses of Benefit-Cost Analysis in Regulatory Decision Making About the Environment*, 157(2) U. PA. L. REV. 178 (2008). In other words, BCA itself should pass a net benefits test. When conducted and used properly, we believe that BCA can easily pass that test. See, e.g., *RESOURCES FOR THE FUTURE, ECONOMIC ANALYSIS AT EPA: ASSESSING REGULATORY IMPACT* (Richard D. Morgenstern ed., 1997); *THE GREENING OF INDUSTRY: A RISK-MANAGEMENT APPROACH*, (John D. Graham & Jennifer Hartwell eds., Harv. Univ. Press 1997). One EPA study found that "the return to society from improved environmental regulations is more than one thousand times EPA's investment in cost-benefit analysis." U.S. ENVTL PROTECTION AGENCY, EPA-230-05-87-028, EPA'S USE OF COST-BENEFIT ANALYSIS: 1981-1986, 5-2 (1987) [hereinafter EPA COST-BENEFIT ANALYSIS].

2. 556 U.S. 208 (2009).

3. See, e.g., Amy Sinden, *Cass Sunstein's Cost-Benefit Lite: Economics for Liberals*, 29 COLUM. J. ENVTL. L. 191, 240 (2004) (rejecting Sunstein's "claim of an emerging set of 'cost-benefit default principles'" and arguing that the Supreme Court decisions in *American Textile* and *American Trucking* "seem to endorse, if anything, a default principle disfavoring [cost-benefit analysis]"); see also Jonathan Cannon, *The Sounds of Silence: Cost-Benefit Canons in Entergy Corp. v. Riverkeeper, Inc.*, 34 HARV. ENVTL. L. REV. 425, 438 (2010) [hereinafter *Sounds of Silence*]; JONATHAN Z. CANNON, *ENVIRONMENT IN THE BALANCE: THE GREEN MOVEMENT AND THE SUPREME COURT* 121-140 (Harv. Univ. Press, 2015) [hereinafter *ENVIRONMENT IN THE BALANCE*].

4. 135 S. Ct. 2699 (2015).

5. See *Whitman v. Am. Trucking Ass'ns, Inc.*, 531 U.S. 457, 490 (2001) (Breyer, J., concurring).

the *Chevron* doctrine more generally.⁶

The importance of clarifying the authority of regulatory agencies to implement statutes through benefit-cost balancing should not be underestimated. Since 1981, every president has ordered executive agencies to conduct benefit-cost analysis and only regulate if, and to the extent, it would do more good than harm. The majority of environmental statutes—and to our knowledge, of all regulatory statutes—are silent or ambiguous on benefit-cost balancing, but all too often agencies have interpreted their statutes as precluding full compliance with the presidential directives. Following the holdings in *Entergy*, *Michigan*, and their progeny, all agencies, including independent agencies, should reinterpret their statutes to require benefit-cost balancing, unless clearly prohibited by statute. While the Department of Transportation (DOT) has accepted this invitation and the EPA is considering it, the Executive Branch as a whole should fully embrace this extraordinary opportunity through three actions: (1) an overarching directive from the President or the Office of Management and Budget (OMB) for agencies to reinterpret their regulatory statutes to do more good than harm; (2) binding agency regulations channeling their discretion to only do more good than harm, unless clearly prohibited by statute; and (3) binding OMB regulations to ensure agencies use high quality information in benefit-cost balancing. We agree with the Supreme Court that it is “eminently reasonable” to ensure that regulations do more good than harm.⁷

Introduction.....	89
I. The Legal Landscape Prior to <i>Entergy</i>	95
A. American Textile.....	96
B. American Trucking.....	98
II. <i>Entergy</i> and <i>Michigan v. EPA</i>	100
A. <i>Entergy</i>	100
1. The Second Circuit.....	102
2. The Supreme Court.....	104
3. The Impact of <i>Entergy</i> on Prior Precedent.....	108
a. American Trucking After <i>Entergy</i>	108
b. American Textile After <i>Entergy</i>	109
B. <i>Michigan v. EPA</i>	109
III. From <i>Entergy</i> to <i>Michigan v. EPA</i> and Beyond.....	112
A. <i>Entergy</i> Applies to Apparently Restrictive Statutory Provisions	112
B. <i>Entergy</i> , <i>Michigan</i> , and Their Progeny at a Minimum Promote Benefit-Cost Balancing Under a Wide Range of Regulatory Statutes, and May Require It.....	113
1. Most Environmental Statutes Permit BCA, and Now May	

6. *Chevron USA Inc. v. Nat'l Res. Def. Council, Inc.*, 467 U.S. 837 (1984) (establishing *Chevron* deference, under which courts defer to agency readings of ambiguous statutes).

7. *Entergy*, 556 U.S. at 222.

Require It	114
2. Decision Procedures Used Instead of BCA Typically Are Not Required.....	115
a. Feasibility Analysis	116
b. Other Decision Procedures.....	117
3. A Broad Range of Statutory Provisions Accommodate BCA, and May Require It.....	119
a. Statutes That Are Silent or Ambiguous on Costs and Lack an Omnibus Factor	119
b. Statutes That Do Not Explicitly Require Benefit-Cost Analysis But Authorize the Consideration of Cost or Include an Omnibus Factor.....	122
i. “Technology-Forcing” Statutes.....	122
ii. Broad Omnibus Factors	124
c. Statutes That Clearly Authorize or Require Benefit-Cost Analysis But Are Ambiguous on the Extent or Rigor of Benefit-Cost Balancing	126
i. Rigor of Decision Standard	126
ii. Rigor of Analysis	128
C. Entergy Opened the Door to Robust Benefit-Cost Balancing	129
IV. Recommended Directives for Advancing the Cost-Benefit State	134
A. Benefit-Cost Executive Order or OMB Memorandum.....	134
B. Agency Legislative Rules on Benefit-Cost Balancing and Information Quality	137
1. EPA Regulation.....	137
a. Content	138
b. Legal Authority and Scope	139
c. The Importance of Quantitative Benefit-Cost Analysis	141
d. Consistency Doctrine and Agency Policy Change Authority.....	142
2. Regulations by Other Agencies.....	143
3. The Staying Power of Benefit-Cost Regulations	144
C. OIRA Legislative Rule on the Quality of Agency Benefit-Cost Analyses.....	146
Conclusion.....	150

INTRODUCTION

While efforts to promote the use of benefit-cost analysis⁸ (BCA) in regulatory decisionmaking have had many setbacks,⁹ over time a remarkable

8. Benefit-cost analysis is “[a] systematic quantitative method of assessing the desirability of government projects or policies when it is important to take a long view of possible side-effects.” OMB Circular A-94, Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs, Appendix A (1992) [hereinafter OMB Circular A-94]. BCA includes calculating and comparing the benefits and costs of regulatory options, including an account of foregone alternatives and the status quo, with the goal of identifying the option that would maximize societal welfare. As Justice Breyer explained in his concurring opinion in *Entergy*, [E]very real choice requires a decisionmaker to weigh advantages against disadvantages, and disadvantages can be seen in terms of (often quantifiable) costs. Moreover, an absolute prohibition would bring about irrational results. As the respondents themselves say, it would make no sense to require plants to ‘spend billions to save one more fish or plankton.’ . . . That is so even if the industry might somehow afford those billions.

556 U.S. at 231–32 (Breyer, J., concurring in part). The terms “benefit-cost analysis” (BCA) and “cost-benefit analysis” (CBA) are used interchangeably. We prefer “benefit-cost analysis” because it is the term preferred by practitioners. See SOCIETY FOR BENEFIT-COST ANALYSIS, *About SBCA*, <https://benefitcostanalysis.org> (last visited Jan. 3, 2019). We view benefit-cost analysis as a positive method, a technical activity to reveal “what is,” while we view benefit-cost balancing as a normative decisionmaking rule about “what ought to be.”

9. Congress has unsuccessfully attempted comprehensive regulatory reform legislation, including a benefit-cost test, periodically since 1981. For example, during the Reagan Administration the Regulatory Reform Act of 1981 passed the Republican majority Senate in 1982 by a vote of 94-0, but it was not acted upon in the Democrat majority House and died there. See Regulatory Reform Act of 1981, S. 1080, 97th Cong. (1982). In 1995, as part of the “Contract with America,” the Republican House passed the Risk Assessment and Cost-Benefit Act of 1995, but the companion bill, the Comprehensive Regulatory Reform Act of 1995, was actively opposed by the Clinton Administration and most Senate Democrats and died in the Republican Senate after a long floor debate and three unsuccessful cloture votes in the summer of 1995. Risk Assessment and Cost-Benefit Act of 1995, H.R. 1022, 104th Cong. (1995); Comprehensive Regulatory Reform Act of 1995, S. 343, 104th Cong. (1995). A few years later, Senate Governmental Affairs Committee Chairman Fred Thompson (R-TN) worked with Senator Carl Levin (D-MI) to garner broader bipartisan support and produced the Regulatory Improvement Act. S. 981/S. 746, 106th Cong. (1999). S. 746 received broad bipartisan support from a wide range of stakeholders and was reported by the Committee by a favorable 11-5 vote in May 1999 with a statement from the Clinton Administration that the President would sign it, but the bill did not receive floor consideration. For a brief history of Congressional regulatory reform efforts from 1981 to 1999, see Regulatory Improvement Act of 1999, S. Rep. 106-110, 106th Cong., 9-19 (July 20, 1999); see also Fred Anderson et. al., *Regulatory Improvement Legislation: Risk Assessment, Cost-Benefit Analysis and Judicial Review*, CORNELL L. FAC. PUBLICATIONS (Fall 2000),

consensus has emerged. Optimists can argue that all three branches of government, or at least a majority within them, now embrace the central role of BCA in regulatory decisionmaking. In the Executive Branch, there is a striking similarity among the principles for benefit-cost balancing and centralized review of regulation that every modern president since Ronald Reagan has required,¹⁰ including George H.W. Bush, Bill Clinton, George W. Bush, Barack Obama, and Donald Trump.¹¹ In Congress, there was recently a renewed interest in requiring benefit-cost analysis by statute.¹² Finally, the

<http://scholarship.law.cornell.edu/facpub/776/> (summarizing results of a workshop of experts convened by the Harvard Center for Risk Analysis to discuss how the contentious issue of judicial review should be addressed in legislative proposals for benefit-cost analysis or risk assessment). Most recently, the Congress has considered the Regulatory Accountability Act of 2015, which passed the Republican House but did not receive floor consideration in the Republican majority Senate. H.R. 185/S.2006, 114th Cong. (2015). For a discussion of the institutional and political impediments in the Executive Branch and Congress to maximizing societal well-being, see Graham & Noe, *Beyond Process Excellence*, *supra* note 1.

10. While Ronald Reagan formalized presidential regulatory review through the application of benefit-cost principles with the OMB as a gatekeeper of those principles under Executive Order 12291 (E.O. 12291), it did not arise in a vacuum. 46 Fed. Reg. 13193 (Feb. 17, 1981). Under President Johnson, the idea arose that BCA, which was used in reviewing Army Corps of Engineers projects, could be used for regulatory decisions. Under President Nixon, Quality of Life Reviews were conducted for rules from agencies such as the newly created Environmental Protection Agency (EPA). Under President Ford, agencies were required to prepare economic impact statements of the costs of proposed rules. Exec. Order 11821, 3 C.F.R. 926 (1974) (as amended by Exec. Order 11949, 3 C.F.R. 161 (1977)). The regulatory review efforts of President Ford and President Carter were administered by the Council on Wage and Price Stability, which filed comments on rules during the public comment process. See Caroline Cecot & W. Kip Viscusi, *Judicial Review of Agency Benefit-Cost Analysis*, 22 GEO. MASON L. REV. 575, 580–81 n. 29 (2015); Thomas D. Hopkins, Benjamin Miller, & Laura Stanley, *The Legacy of the Council on Wage and Price Stability*, MERCATUS CENTER (Aug. 26, 2014), <http://mercatus.org/publication/legacy-council-wage-and-price-stability.pdf>. In 1978—three years before President Reagan’s E.O. 12291—President Carter issued Executive Order 12044, which required agencies to prepare a regulatory analysis for all regulations costing \$100 million or more annually or imposing a major increase in costs or prices for individual industries, levels of government or geographic regions. Exec. Order 12044, 43 Fed. Reg. 12,661 (Mar. 24, 1978). Executive Order 12044 also directed OMB to assure its effective implementation, though it did not establish OMB review and approval of rules, nor provide any enforcement authority to OMB. *Id.*

11. Compare Exec. Order No. 12291, 46 Fed. Reg. 13193 (Feb. 17, 1981) (Reagan and George H.W. Bush), with Exec. Order 12866, 58 Fed. Reg. 51,565 (Oct. 4, 1993) (Clinton, George W. Bush, Obama, and Trump), and Exec. Order 13563, 76 Fed. Reg. 3821 (Jan. 21, 2011) (Obama and Trump).

12. See, e.g., Regulatory Accountability Act of 2015, H.R. 185/S.2006, 114th Cong.

Judicial Branch, and the Supreme Court in particular, has endorsed the use of BCA in a host of regulatory programs; if agencies ignore this invitation, they could undermine the very programs they want to promote.¹³

Probably the greatest consensus on the cost-benefit state is reflected in the executive orders governing regulatory analysis and review.¹⁴ Among other things, President Reagan's Executive Order 12291 (E.O. 12291) established general requirements that, "to the extent permitted by law ... [r]egulatory action shall not be undertaken unless the potential benefits to society for the regulation outweigh the potential costs to society" and "[r]egulatory objectives shall be chosen to maximize the net benefits to society."¹⁵ Similarly, President Clinton's Executive Order 12866 (E.O. 12866), the successor to the Reagan Order embraced by all subsequent administrations, requires that agencies, "to the extent permitted by law ... propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs" and "in choosing among alternative regulatory approaches . . . select those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive effects; and equity) unless a statute requires another regulatory approach."¹⁶

(2015).

13. See *Entergy Corp. v. Riverkeeper Inc.*, 556 U.S. 208 (2009) (holding that agencies have substantial discretion in interpreting statutes that are silent or ambiguous on benefit-cost balancing as authorizing it); *Business Roundtable v. SEC*, 647 F.3d 1144, 1148–49 (D.C. Cir. 2011) (stating the SEC's "failure to 'apprise itself—and hence the public and the Congress—of the economic consequences of a proposed regulation' makes promulgation of the rule arbitrary and capricious"); *Michigan v. EPA*, 135 S. Ct. 2699 (2015) (finding the EPA's failure to consider costs in determining whether regulation was "appropriate and necessary" was arbitrary and capricious); see also *Cecot & Viscusi*, *supra* note 10. Under longstanding principles of administrative law, a reviewing court must ensure that an agency does not neglect an important aspect of a problem. See *Motor Vehicle Mfrs. Ass'n, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

14. See Cass R. Sunstein, *The Stunning Triumph of Cost-Benefit Analysis*, BLOOMBERG (Sept. 12, 2012), <https://www.bloomberg.com/opinion/articles/2012-09-12/the-stunning-triumph-of-cost-benefit-analysis>.

15. Exec. Order No. 12291, § 2(b)–(c) (Feb. 17, 1981).

16. Exec. Order 12866, § 1(a), 1(b), 1(b)(6), 58 Fed. Reg. 51,565 (Oct. 4, 1993). On its face, President's Clinton's executive order has a greater focus on distributive impacts, equity, and qualitative considerations, and that difference is further clarified by its use of "justify" as the operative word for benefit-cost balancing, instead of the quantitative word "outweigh" used by the Reagan order. Moreover, while the Reagan order listed both provisions as "general requirements" and used the mandatory "shall" in directing the agencies to comply with them, the Clinton order listed the "benefits justify its costs" provision among its "principles of regulation" and listed the "maximize net benefits" provision as part of its "regulatory

President Obama's Executive Order 13563 (E.O. 13563) supplemented and reaffirmed the Clinton order and reiterates virtually verbatim the two provisions listed above, as well as others.¹⁷ Yet, E.O. 13563 further advances the cost-benefit state; it more strongly embraces benefit-cost balancing than the Clinton order by elevating both provisions to "general principles" that the agencies "must" implement and by adding a new principle promoting quantitative BCA and risk assessment: "In applying these principles, each agency is directed to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible."¹⁸

The longstanding, bipartisan support for BCA reflects the strong consensus that the goal of regulation is to enhance, not undermine, societal well-being and that BCA is the optimal decision tool to achieve that result, in light of *all* benefits and costs. As the Clinton Administration put it:

[R]egulations (like other instruments of government policy) have enormous potential for both good and harm. Well-chosen and carefully crafted regulations can protect consumers from dangerous products and ensure they have information to make informed choices. Such regulations can limit pollution, increase worker safety, discourage unfair business practices, and contribute in many other ways to a safer, healthier, more productive and more equitable society. Excessive or poorly designed regulations, by contrast, can cause confusion and delay, give rise to unreasonable compliance costs in the form of capital investments, labor and on-going paperwork, retard innovation, reduce productivity, and accidentally distort private incentives.

The only way we know how to distinguish between regulations that do good and those that cause harm is through careful assessment and evaluation of their benefits and costs. Such analysis can also often be used to redesign harmful regulations so they produce more good than harm and redesign good regulations so they produce even more net benefits.¹⁹

While proponents of the cost-benefit state should celebrate this

philosophy" and used the exhortatory "should" in speaking to the agencies. In an important respect, President Clinton's order arguably is more rigorous than the Reagan order because Executive Order 12866 directs the agencies to "promulgate *only* such regulations as are required by law, are necessary to interpret the law, or are *made necessary by compelling public need, such as material failures of private markets . . .*" Exec. Order 12866, § 1(a), 58 Fed. Reg. 51,565 (Oct. 4, 1993) (emphasis added). President Reagan's E.O. 12291 lacked a "market failure" test for regulation. We think the market failure test in Executive Order 12866 should be more rigorously implemented.

17. Exec. Order 13563, § 1(b)(1), (3), 76 Fed. Reg. 3821 (Jan. 21, 2011).

18. *Id.* § 1(c). The Obama order further directs that "[w]here appropriate and permitted by law, each agency may consider (and discuss qualitatively) values that are difficult or impossible to quantify, including equity, human dignity, fairness, and distributive impacts." *Id.*

19. OFFICE OF MGMT. & BUDGET, OFFICE OF INFO. & REG. AFF., REPORT TO CONGRESS ON THE COSTS & BENEFITS OF FEDERAL REGULATION 10 (Sept. 30, 1997); *see also, e.g., Saving*

remarkable consensus, much greater progress could have been made over the last several decades, and that progress is readily at hand if there is the will. The views expressed in this article are informed by the authors' collective experience, including having been involved in numerous reviews of regulations at the White House Office of Management and Budget's (OMB) Office of Information and Regulatory Affairs (OIRA).²⁰

Of course, there are many reasons why presidential orders directing agencies to implement regulatory statutes through benefit-cost balancing have been far less effective than they could have been. This includes the institutional limitations of the agencies and OMB;²¹ the severe and chronic underfunding of OIRA (which now has far more responsibilities and less than half the staff it had under President Reagan);²² longstanding dysfunctions, including interest group dynamics and Presidential electoral politics, as well as poor compliance with the executive orders and guidelines requiring BCA;²³ and

Lives, *supra* note 1 (and citations therein).

20. See generally *Saving Lives*, *supra* note 1, at 448–83 (for a real-world review of how BCA was used by OIRA and the agencies from 2001 to 2006 in the George W. Bush Administration).

21. See, e.g., *Beyond Process Excellence*, *supra* note 1, at 72–87 (discussing the institutional impediments in the Executive Branch to ensuring that regulations do more good than harm, such as bureaucratic turf battles among the agencies, failure to utilize both internal and external expertise, bias, the mismatch between the vast volume of regulation and OIRA's shrinking resources, the large volume of "stealth regulation" such as guidance not submitted for OIRA review, lack of support for OIRA by varying administrations or leaders, and lack of judicial review for benefit-cost balancing).

22. When OIRA was created in fiscal year (FY) 1981, it had a full-time equivalent ceiling of about ninety-seven staff; by FY2016, OIRA had about forty-seven staff. See Susan Dudley & Melinda Warren, *REGULATORS' BUDGET FROM EISENHOWER TO OBAMA: AN ANALYSIS OF THE U.S. BUDGET FOR FISCAL YEARS 1960 THROUGH 2017* 20 (Reg. Stud. Ctr., Geo. Wash. Univ. et al. eds., May 2016). In contrast, the agency staff dedicated to writing, administering, and enforcing regulations rose from 146,000 in FY1980 to over 278,000 in FY2016. As OIRA's budget was reduced from about \$14 million in 1981 to \$8 million in FY2016 in constant 2009 dollars, the agencies' budgets increased from about \$16.4 billion in FY1980 to over \$61 billion in FY2016 (in constant 2009 dollars). At the same time, OIRA's statutory responsibilities have grown through a wide variety of requirements, including: the Small Business Regulatory Enforcement Fairness Act, the E-Government Act, the Unfunded Mandates Reform Act, the Congressional Review Act, the Information Quality Act, the Regulatory Right-to-Know Act, the Small Business Paperwork Relief Act, and a variety of appropriations riders. See Letter from Paul R. Noe, Vice President of Public Policy, Am. Forest & Paper Ass'n, to Mabel Echols, OIRA (March 16, 2009), *on file with author*.

23. See, e.g., Jonathan Masur & Eric A. Posner, *Unquantified Benefits and the Problem of Regulation Under Uncertainty*, 102 *CORNELL L. REV.* 87, 101–02 (2016) (and citations therein) (documenting gross non-compliance with the applicable BCA requirements; through a survey of 106 major rules issued from 2010–2013, finding that only two rules fully quantified costs and

the lack of judicial enforcement.²⁴ But one of the greatest, yet most readily addressable, impediments to the cost-benefit state is that the regulatory agencies have interpreted their statutes to limit their obligation to fully engage in benefit-cost balancing,²⁵ and thus to comply with the presidential directives.²⁶

This article analyzes the evolution in Supreme Court decisions on the use of BCA in regulatory decisionmaking that highlight this issue for public scrutiny and provides specific recommendations for Executive Branch reforms. Our focus is not so much on whether the courts are in the process of developing a benefit-cost default rule (though we agree that they are),²⁷ but rather on

benefits and concluding that “regulatory agencies are regulating in the dark”); Robert W. Hahn, *Regulatory Reform: What Do the Government’s Numbers Tell Us?*, in RISKS, COSTS AND LIVES SAVED 208, 239 (Oxford Univ. Press ed., 1996) (and citations therein) (comprehensively reviewing major rules issued between 1990–1995 and concluding that the quality of BCA varied widely from very poor to very good; estimates of net benefits likely are substantially overstated; half the rules would not pass a cost-benefit test; and agencies could dramatically improve the average quality of BCA by following a few simple guidelines); see also Tammy O. Tengs & John D. Graham, *The Opportunity Costs of Haphazard Social Investments in Life-Saving*, in RISKS, COSTS AND LIVES SAVED 167, 172–73 (Oxford Univ. Press ed., 1996) (finding that reallocation of life-saving resources could save 60,000 more lives per year at no increased cost, or save \$31 billion annually with equivalent benefits); EPA COST-BENEFIT ANALYSIS, *supra* note 1, at S-3, S-4 (documenting successful examples of the EPA saving tens of millions to billions of dollars by using BCA in regulatory decisions, but also documenting many instances where the EPA exercises its discretion to interpret statutory provisions to prohibit or impede the use of BCA).

24. See, e.g., *Beyond Process Excellence*, *supra* note 1 (discussing the political and other impediments in the Executive Branch and Congress to ensuring that regulations do more good than harm and exhorting legislatures to enact a judicially enforceable benefit-cost test); Jonathan S. Masur & Eric A. Posner, *Cost-Benefit Analysis and the Judicial Role*, 85 U. CHI. L. REV. 935, 981 (2018).

25. We use the term “benefit-cost balancing” consistent with the executive orders on regulatory planning and review. At a minimum, the benefits of the rule should justify its costs. In its more robust form, benefit-cost balancing should, all else being equal, lead to the selection of the regulatory alternative that maximizes net benefits. See *supra* note 8, 15–18 and accompanying text.

26. See John D. Graham & Paul R. Noe, *A Paradigm Shift in the Cost-Benefit State*, THE REG. REV. (Apr. 26, 2016), <https://www.theregreview.org/2016/04/26/graham-noe-shift-in-the-cost-benefit-state/>; see also *infra* Section IV(B).

27. Compare Masur & Posner, *supra* note 24, at 976–81 (citing Justice Kagan’s dissenting opinion in *Michigan v. EPA* and discussing an emerging default rule under federal common law—that is not yet law—that “agencies must weigh costs and benefits, at least in some fashion, absent an explicit statement to the contrary”), with Cass R. Sunstein, *Cost-Benefit Analysis and Arbitrariness Review*, 41 HARV. L. REV. 1, 40 (2017) (“Under the APA, agencies must avoid arbitrariness, and a regulation that imposes costs without conferring benefits . . . increases environmental risks on net, or that imposes very high costs for trivial gains” is “arbitrary.”), and *id.* at 15 (also discussing Justice Kagan’s dissent in *Michigan v. EPA* and concluding “[t]he

the currently unexercised power of the Executive Branch to fully embrace the cost-benefit state. Specifically, the article argues that the Court's *Entergy* decision was an important inflection point—from an apparent presumption against benefit-cost analysis to embracing it—and that the positive trajectory continued through the Court's 2015 *Michigan v. EPA* decision. From an initial attempt to discourage the Executive Branch's use of BCA at the advent of President Reagan's ground-breaking Executive Order 12291, the Supreme Court has clarified that agencies have the broad authority to interpret silent or ambiguous statutes as permitting, not forbidding, this type of rational regulation. This has cleared the path for the Executive Branch to fully exercise this authority, and we recommend that it decisively do so through: (1) a presidential or OMB directive for agencies to reinterpret their regulatory statutes to require benefit-cost balancing, unless clearly prohibited by the statute; (2) binding agency legislative rules to ensure agency regulations do more good than harm; and (3) a binding OMB legislative rule to ensure the quality of agency benefit-cost analyses. We believe that the time has come for government-wide, binding requirements for agencies to use rigorous BCA unless prohibited by the text of the statute. This paradigm shift could produce a substantially more evidence-based, beneficial, and predictable regulatory system.

I. THE LEGAL LANDSCAPE PRIOR TO ENTERGY

Before *Entergy*, the Supreme Court appeared to strongly disfavor BCA. A trilogy of Supreme Court decisions ruled against the use of BCA—*Tennessee Valley Authority v. Hill*, *American Textile Manufacturers Institute v. Donovan*, and *Whitman v. American Trucking Associations, Inc.*. But it was not until after President Reagan's groundbreaking executive order on BCA, E.O. 12291, that the Court seemed to establish a “presumption” against BCA, starting with *American Textile*.²⁸

dissenters clearly adopted a background principle that would require agencies to consider costs unless Congress prohibited them from doing so. There is every reason to think that the majority—which did, after all, invalidate EPA's regulation—would embrace that principle as well.”).

28. *Am. Textile Mfrs. Inst., Inc. v. Donovan*, 452 U.S. 490 (1981) (holding that the U.S. Occupational Safety and Health Administration (OSHA) was not required to engage in BCA in setting “feasible” public health and safety standards, reasoning that Congress did not make its intent clear on the face of the statute); *Whitman v. Am. Trucking Ass'ns, Inc.*, 531 U.S. 457 (2001) (finding it “implausible” that the “modest” standard to set national ambient air quality standards at a level “requisite to protect public health with an adequate margin of safety” gave the EPA the discretion to determine whether costs should moderate the standards). A few years before *American Textile* and E.O. 12291, the Supreme Court held in the newsworthy “snail darter case” that the plain language in Section 7 of the Endangered Species Act (ESA) prohibited completion of the Tellico Dam, regardless of the costs. *Tenn. Valley*

A. *American Textile*

In *American Textile Manufacturers Institute, Inc. v. Donovan*, the Court addressed whether the Occupational Safety and Health Administration (OSHA) was required to apply a quantitative BCA in adopting a workplace standard for cotton dust, and to ensure that its costs bore a reasonable relationship to its benefits.²⁹ The pertinent statutory provision requires OSHA to set the standard “which most adequately assures **to the extent feasible** . . . that no employee will suffer material impairment of health or functional capacity.”³⁰ The Court concluded that “cost-benefit analysis by OSHA is **not required** by the statute *because feasibility analysis is*.”³¹ Writing for the 5-3 majority, Justice Brennan interpreted “feasible” to mean “capable of being done, executed, or effected,” and reasoned that “[a]ny standard based on a balancing of costs and benefits by the Secretary that strikes a different balance than that struck by Congress would be inconsistent with the command set forth” in the statute.³²

In dicta, Justice Brennan further asserted, “Congress itself defined the basic relationship between costs and benefits, by placing the ‘benefit’ of worker health above all other considerations save those making attainment of this ‘benefit’ unachievable.”³³ He then pronounced, “[w]hen Congress **has intended that an agency engage in cost-benefit analysis, it has clearly indicated such an intent on the face of the statute.**”³⁴ He also reviewed several other statutes, including the Clean Water Act and the Clean Air Act, and asserted that those statutes “demonstrate that Congress uses specific language when intending that an agency engage in cost-benefit analysis.”³⁵

Auth. v. Hill, 437 U.S. 153 (1978). However, there is no evidence that a “presumption” against BCA animated the Court’s holding. See Cannon, *Sounds of Silence*, *supra* note 1, at 438–39. To the contrary, despite the plain statutory language, Chief Justice Burger’s majority opinion injects his personal view that sacrificing a completed dam to protect an obscure species of no economic value lacks common sense and disserves the public good. *Id.* Moreover, in the face of the statutory text, a dissent by Justice Powell, joined by Justice Blackmun, argued that weighing costs and benefits was necessary to avoid an “absurd result.” *Id.* Thus, the ostensible presumption against benefit-cost balancing first arose in the Supreme Court in *American Textile*, several months after issuance of the President Reagan’s groundbreaking benefit-cost order E.O. 12291. See *infra*, Section II(A).

29. *American Textile*, 452 U.S. 490 (1981).

30. The Occupational Safety and Health Act of 1970, 29 U.S.C. § 655(b)(5) (emphasis added).

31. 452 U.S. at 509 (emphasis added).

32. *Id.*

33. *Id.*

34. *Id.* at 510 (emphasis added).

35. *Id.* at 510–11.

Thus, at the advent of President Reagan's E. O. 12291 and three years before *Chevron*, the Supreme Court seemed to establish a strong presumption against BCA in implementing regulatory statutes; benefit-cost balancing apparently required clear congressional authorization on the face of the statute. This anti-BCA dicta was so strong that, for decades, many legal theorists claimed that *American Textile* reflected a presumption against the use of BCA in the absence of express statutory language allowing it.³⁶

But in fact, the holding in *American Textile* was limited to the relatively modest proposition that Section 6(b)(5) of the Occupational Safety and Health Act did not **require** OSHA to apply quantitative BCA in adopting the cotton dust standard. As Justice Rehnquist stated in his dissenting opinion with Chief Justice Burger:

Respondents, including the Secretary of Labor at least until his post argument motion, counter that Congress itself balanced benefits and costs when it enacted the statute, and that the statute *prohibits* the Secretary from engaging in a cost-benefit type balancing. Their view is that the Act merely requires the Secretary to promulgate standards that eliminate or reduce such risks 'to the extent . . . technologically or economically feasible.' As I read the Court's [majority] opinion, it takes a different position. It concludes that, at least as to the 'Cotton Dust Standard,' the [OSH] Act does not require the Secretary to engage in a cost-benefit analysis, which suggests of course that the Act *permits* the Secretary to undertake such an analysis if he so chooses.³⁷

Justice Rehnquist further stated that, "the 'feasibility standard' is no standard at all" and concluded that the critical statutory language—"to the extent feasible"—is so vague and precatory as to be an unconstitutional delegation of legislative authority to the Executive Branch.³⁸ In his view, by failing to choose whether to mandate, permit, or prohibit cost-benefit analysis, Congress violated the nondelegation doctrine.³⁹ As Justice Rehnquist reasoned:

The Court seems to argue that Congress *did* make a policy choice when it enacted the 'feasibility' language," because it believed that "Congress required the Secretary to engage in something called 'feasibility analysis.' But those words mean nothing at all. They are a legislative mirage, . . . assuming any form desired by the beholder. Even the Court does not settle on a meaning. It first suggests that the language requires . . . what is 'capable of being done' . . . [which] is merely precatory . . . then seems to adopt the Secretary's view that feasibility means 'technological and economic feasibility.' But there is nothing in the words of § 6(b)(5), or their legislative history, to suggest why they should be so limited. One wonders why the 'requirement' of § 6(b)(5) could not include considerations of administrative or even political feasibility. Thus the words 'to the

36. See ENVIRONMENT IN THE BALANCE, *supra* note 3, at 123-24; Sinden, *supra* note 3.

37. *American Textile*, 452 U.S. at 544 (internal citations omitted).

38. *Id.* at 545.

39. *Id.* at 546.

extent feasible' provide no meaningful guidance to those who administer the law.⁴⁰

In Justice Marshall's papers made public years after the decision, it is clear that the Court did not intend a broader anti-BCA presumption:⁴¹

An initial draft of Justice Brennan's opinion circulated among his fellow justices stated that the statute 'precluded' CBA. The Court was not required to go this far in its holding: OSHA in this case had rejected CBA and therefore all that was necessary was a ruling that the rejection was permissible. But Brennan believed that the statute should be read to prohibit CBA and that it was in everyone's interest for the Court to make that clear. Justice Stevens, who represented the fifth vote necessary for a majority upholding OSHA, persuaded Brennan that 'an advisory opinion' on this issue would be ill-advised. In the final opinion, "precluded" became "not required."⁴²

Nonetheless, OSHA and others go further and interpret *American Textile* as prohibiting OSHA from using BCA because Congress required "feasibility analysis."⁴³

B. *American Trucking*

Twenty years after *American Textile*, the Supreme Court in *American Trucking* went even further in holding that Section 109 of the Clean Air Act *unambiguously bars* the use of BCA in setting National Ambient Air Quality Standards (NAAQS) under *Chevron* Step One. The petitioners had challenged the EPA's NAAQS for particulate matter and ozone, arguing that the EPA's interpretation of its regulatory authority as unconstrained by BCA violated the non-delegation doctrine—because it provided no limiting principle that could justify a non-zero standard.

Justice Scalia, writing a unanimous decision for the Court on this issue, determined that the statutory and historical context of Section 109 was dispositive. For decades, the courts had held that "economic considerations [may] play no part in the promulgation of ambient air quality standards

40. *Id.* (internal citations omitted).

41. ENVIRONMENT IN THE BALANCE, *supra* note 3, at 123–24.

42. *Id.* Given the question presented in *American Textile*—whether OSHA was *required* to apply a quantitative benefit-cost analysis in adopting a workplace standard for cotton dust and to ensure that its costs bore a reasonable relationship to its benefits—the Court's holding was that BCA was "*not required*." But it is unsurprising that Justice Brennan's additional dictum that BCA was "not required **because feasibility analysis is**" would lead many to conclude that Congress had mandated feasibility analysis and prohibited BCA. This confusion has continued for decades. *See infra*, note 50 and accompanying text.

43. On the legislative and political history of the OSHA, *see* JOHN D. GRAHAM ET AL., IN SEARCH OF SAFETY: CHEMICALS AND CANCER RISK 80–114 (Harv. Univ. Press, 1988). On OSHA's interpretation, *see, e.g.*, Revising the Beryllium Standard for General Industry, 83 Fed. Reg. 63,746, 63,760 (Dec. 11, 2018).

under Section 109.”⁴⁴ The Court found that the text of Section 109 clearly did not permit the EPA to consider costs in setting the standards.⁴⁵ Moreover, other provisions of the Clean Air Act expressly authorized consideration of costs, whereas Section 109 did not. The Court stated “[w]e have therefore refused to find implicit in ambiguous sections of the CAA an authorization to consider costs that has elsewhere, and so often, been expressly granted.”⁴⁶

The Court emphasized:

Accordingly, to prevail in their present challenge, respondents **must show a textual commitment of authority** to the EPA to consider costs in setting NAAQS under § 109(b)(1). **And** because § 109(b)(1) and the NAAQS for which it provides are the engine that drives nearly all of Title I of the CAA, . . . **that textual commitment must be a clear one. Congress**, as we have held, does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions – it **does not, one might say, hide elephants in mouseholes.**⁴⁷

Finally, the Court looked askance at the constitutional arguments based on the nondelegation doctrine; such a challenge had last succeeded in the Supreme Court in the 1930s.⁴⁸

In short, following *American Textile* and the challenging oral argument and opinion in *American Trucking*, many concluded that benefit-cost balancing had to be explicitly authorized in the statute to be a limiting principle for regulatory decisionmaking, although we think this was a misinterpretation of the actual holdings in those cases. Strong language in both opinions was interpreted to embody a presumption against benefit-cost balancing,⁴⁹ in contrast to the principles promoting BCA in the executive orders governing regulatory development and review since 1981. As one scholar concluded:

In sum, Professor Sunstein’s claim of an emerging set of “cost-benefit default principles” heralding the arrival of the Cost-Benefit State in which all government actions are evaluated under the standard of CBA, seems, on closer inspection to be exaggerated. . . . But most startling of all is the fact that on two occasions, the so-called “cost-benefit default principles” have been explicitly tested in the Supreme Court, and on both occasions the high Court has roundly rejected them. The Court’s **holding** in the Cotton Dust Case [*American Textile*] that Congress **must** use clear and explicit language if it intends an agency to engage in CBA and its **holding** in *American Trucking* that authorization for EPA to consider costs under the Clean Air Act must “flow from a textual commitment that is clear” seem to endorse, if anything, a **default**

44. *Whitman v. Am. Trucking Ass’ns., Inc.*, 531 U.S. 457, 464 (2001) (citing *Lead Indus. Assn., Inc. v. EPA*, 647 F.2d 1130, 1148 (D.C. Cir. 1980)).

45. *Id.* at 465.

46. *Id.* at 467 (citations omitted).

47. *Id.* at 468 (emphasis added).

48. *Id.* at 472–76.

49. See e.g., *supra* note 3 (and citations therein).

principle disfavoring CBA. Nonetheless, Professor Sunstein asks us to accept that the courts are moving inexorably toward adoption of a cost-benefit default principle. I, for one, am not holding my breath.⁵⁰

Yet, even in *American Trucking*, a prescient view of the potential ramifications of the majority's reasoning animated a separate concurring opinion by Justice Breyer, who feared that the majority opinion could lead to irrational results. While he concurred with the holding, the author of *Breaking the Vicious Circle*⁵¹ warned:

But I would not rest this conclusion solely upon § 109's language or upon a presumption, such as the Court's presumption that any authority the Act grants the EPA to consider costs must flow from a 'textual commitment' that is 'clear.' . . . In order better to achieve regulatory goals – for example, to allocate resources so that they save more lives or produce a cleaner environment – regulators must often take account of all of a proposed regulation's adverse effects, at least where those adverse effects clearly threaten serious and disproportionate public harm. Hence, I believe that, other things being equal, **we should read silences or ambiguities in the language of regulatory statutes as permitting, not forbidding, this type of rational regulation.** In these cases, however, other things are not equal.⁵²

Nonetheless, following *American Textile* and *American Trucking*, the ostensible default rule against BCA was far-reaching, particularly because Congress so often does not specifically address BCA in statutes. Only a minority of statutes expressly require BCA, and only a small minority of statutes expressly forbid it. Most statutes are ambiguous or silent on the role of BCA, and it is here that *Entergy* and *Michigan v. EPA* can have a major impact.

II. ENTERGY AND MICHIGAN V. EPA

A. *Entergy*

Entergy involved a challenge to an EPA regulation on cooling water intake structures (CWIS) at large existing electric power plants under section 316(b) of the Clean Water Act. The operation of electric power plants requires CWIS that extract large amounts of water from nearby water bodies to cool the facilities. The purpose of the regulation was to protect populations of fish and shellfish that, particularly in egg or larva form, can be killed by being

50. Sinden, *supra* note 3, at 239–40 (emphasis added).

51. STEPHEN BREYER, *BREAKING THE VICIOUS CIRCLE: TOWARD EFFECTIVE RISK REGULATION* (Harv. Univ. Press 1993) (illustrating how even well-intentioned, open, and politically responsive regulation of health and environmental risks can bring about counterproductive results and arguing for a more coordinated risk-based regulatory system grounded in scientific and technical expertise and analysis).

52. *American Trucking*, 531 U.S. at 490 (emphasis added).

“impinged” (squashed against intake screens of) or “entrained” (sucked through) CWIS.

The Clean Water Act employs a variety of “best technology” standards to regulate the nation’s waters. Section 316(b) requires that the standard for CWIS “reflect the best technology available for minimizing adverse environmental impact.”⁵³ For about thirty years prior to the section 316(b) rulemaking, after an early misstep on a rulemaking,⁵⁴ the EPA had implemented the provision on a case-by-case basis, requiring the use of technology with a cost was not “*wholly disproportionate* to the environmental benefit to be gained.”⁵⁵ When it developed the national regulation, with the strong encouragement of OMB, the EPA based the standard on benefit-cost balancing. Likewise, the EPA provided for a site-specific variance based on BCA. The rule also would have provided for alternative compliance by allowing utilities to undertake restoration measures to enhance the populations of fish and shellfish.⁵⁶

Specifically, in its Phase II⁵⁷ 316(b) rule for existing large power plants,⁵⁸ the EPA set a national performance standard based on a suite of technologies whose cost was not “*significantly greater*” than the benefits of reducing impingement mortality and entrainment for all life stages of fish and shellfish and which approached the performance of closed-cycle cooling systems. The EPA expressly declined to mandate closed-cycle cooling systems⁵⁹ or

53. 33 U.S.C. § 1326(b).

54. The EPA’s first attempt at a section 316(b) rulemaking was remanded by the Fourth Circuit on procedural grounds, and decades passed without the EPA issuing new rules. *See* *Appalachian Power Co. v. Train*, 566 F.2d 451 (4th Cir. 1977).

55. *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 224 (2009).

56. A disclosure: the authors worked on the rule while at OMB. The Phase II 316(b) rule permitted facilities to comply by implementing restoration measures “in place of or as a supplement to installing design and control technologies and/or adopting operational measures that reduce impingement mortality and entrainment.” 40 C.F.R. § 125.94(c). Unfortunately, in interpreting section 316(b) and designing the rule, the EPA focused on outputs (reducing impingement and entrainment of individual eggs, larva, etc.) and not outcomes (reducing harm to overall fish populations), which, among other things, likely substantially overstated the benefits of costly closed-cycle cooling systems. Moreover, the provisions for restoration measures, which could have produced substantial benefits by directly and significantly increasing fish populations, were struck down by the Second Circuit as exceeding the EPA’s statutory authority under the court’s “technology-forcing” view of section 316(b).

57. The regulations were to proceed in three phases: Phase I (new large CWIS); Phase II (existing large power plants – at issue here), and Phase III (focused on smaller industrial facilities).

58. *See* *Final Regulations to Establish Requirements for Cooling Water Intake Structures at Phase II Existing Facilities*, 69 Fed. Reg. 41,576 (July 9, 2004).

59. Closed-cycle cooling systems recirculate the water used to cool the facility, and consequently extract less water from the adjacent waterway, proportionately reducing

equivalent reductions in impingement and entrainment (as it had done for new power plants in the Phase I rule), because of the “generally high costs” of retrofitting existing facilities and the benefits of complying with the Phase II rules could “approach those of closed-cycle recirculating at less cost with fewer implementation problems.”⁶⁰ The EPA’s rule also permitted site-specific variances from the national performance standards if the power plant could demonstrate either that the costs of compliance would be “significantly greater” than the benefits or that the costs of compliance were significantly greater than the costs considered by the EPA in setting the standards.

While the benefits of the EPA’s standard were estimated to approach those of closed-cycle systems, mandating closed-cycle cooling systems would have cost about nine times more than the alternative technologies allowed by the Agency—at least \$3.5 billion per year versus \$389 million per year; a subsequent independent analysis estimated cost savings of about \$40 billion in net present value.⁶¹ In the preamble to the rule, the EPA explained that, under its interpretation of the Best Technology Available (BTA) standard, “there should be some reasonable relationship between the cost of cooling water intake structure control technology and the environmental benefits associated with its use.”⁶²

1. *The Second Circuit*

Riverkeeper, Inc., an environmental group that had entered into a consent decree with the EPA in 1995 to obtain regulations under section 316(b), challenged the Phase II rules as unlawful in the Second Circuit for relying on BCA. The Second Circuit agreed, holding that: (1) the cost-benefit standard was impermissible under the plain language of section 316(b); (2) the cost-benefit site-specific variance also was unlawful; and (3) the provision for restoration measures was impermissible.⁶³ Writing the opinion for the Second

impingement and entrainment. *Entergy*, 556 U.S. at 214 n. 2.

60. *Id.* at 216 (citing 69 Fed. Reg. at 41,605–06).

61. 69 Fed. Reg. at 41,605, 41,666. A case study of the 316(b) rule concluded that the “EPA clearly chose an approach that imposed a considerably lighter burden on society. The record provides substantial evidence that the agency considered a lower-cost alternative to meeting a standard with the potential to save approximately \$3 billion in annualized dollars or approximately \$40 billion in present value.” Scott Farrow, *Improving the CWS Rule Regulatory Analysis: What Does an Economist Want?*, in REFORMING REGULATORY IMPACT ANALYSIS 176, 182 (Winston Harrington et al. eds., 2009)

62. 69 Fed. Reg. at 41,609.

63. *Riverkeeper, Inc. v. EPA*, 475 F.3d 83 (2d Cir. 2007). The Second Circuit court stated that its review was frustrated by lack of clarity in the record as to whether the EPA was construing the statute to permit BCA or misapplying cost-effectiveness analysis (CEA). *Id.*

Circuit panel, then-Judge Sotomayor emphasized:

While the statutory language suggests that EPA may consider costs in determining BTA, in that a technology that cannot be reasonably borne by the industry is not ‘available’ in any meaningful sense, cost-benefit analysis is not similarly supported by the language or purpose of the statute. Section 316(b) expressly requires a technology driven result, *cf. Natural Res. Def. Council, Inc. v. EPA*, 822 F.2d 104, 123 (D.C. Cir. 1987) (“[T]he most salient characteristic of [the CWA’s] statutory scheme, articulated time and again by its architects and embedded in the statutory language, is that it is technology-forcing.”), not one driven by cost considerations or an assessment of the desirability of reducing adverse environmental impacts in light of the cost of doing so. A selection of BTA based on cost-benefit considerations is thus impermissibly cost-driven, but a selection based in part on cost-effectiveness considerations, while taking cost into account, remains technology-driven.⁶⁴

While acknowledging that section 316(b) did not contain or cross reference the specific factors that the EPA must consider in determining BTA, the Second Circuit relied on its view that other provisions of the Clean Water Act—those that provide for effluent limitation guidelines for existing and new sources of pollutants and are cross-referenced in section 316(b)—did not authorize BCA. The court noted that while the Act expressly required the EPA to balance benefits and costs in implementing the “best practical control technology currently available” (BPT) standard for existing sources beginning in 1977, Congress did not expressly *require* cost-benefit balancing for implementing the subsequent “best available technology economically achievable” (BAT) standard starting in 1989.⁶⁵ Likewise, the circuit court found that the “best available demonstrated control technology” (BADT) standard for new sources did not require the EPA to conduct CBA.

Invoking *American Textile* as establishing a presumption against CBA, the Second Circuit court concluded:

The statute therefore precludes cost-benefit analysis because Congress itself defined the basic relationship between costs and benefits. Moreover, this conclusion is further supported by the fact that *Congress in establishing BTA did not expressly permit the Agency to consider the relationship of a technology’s cost to the level of reduction of adverse environmental impact it produces*. When Congress has intended that an agency engage in cost-benefit analysis,

The court stated, “[i]f the EPA construed the statute to permit cost-benefit analysis, its action was not based on a permissible construction of the statute.” *Id.* at 104 (citing *Chevron USA Inc. v. Nat’l Res. Def. Council, Inc.*, 467 U.S. 837, 843 (1984)). This is a *Chevron* Step One analysis. In the alternative, the court stated that if the EPA misunderstood or misapplied CEA, its decision was “arbitrary and capricious because the Agency relied on factors Congress [had] not intended it to consider.” *Id.*

64. *Id.* at 99.

65. *Id.* at 98.

it has clearly indicated such intent on the face of the statute.⁶⁶

The Second Circuit panel found that the EPA could only permissibly consider cost in two ways: first, to determine the most effective technology on the optimally best performing facilities that can be “reasonably borne” by the industry, which constitutes the benchmark for performance, and second, once this determination has been made, the EPA may consider other factors, including cost-effectiveness,⁶⁷ to choose a less expensive technology that achieves essentially the same results as the benchmark.⁶⁸ The Second Circuit panel further noted that, the “EPA is by no means required to engage in cost-effectiveness analysis. Indeed, to require the Agency to conduct cost-effectiveness analysis would transform such analysis into a primary factor in choosing BTA, which clearly is contrary to the technology-forcing principle that animates the CWA.”⁶⁹ In implementing the BTA standard, the EPA had derived the concept of “economic practicality,” including a reasonable relationship between costs and environmental benefits, from the only specific reference to section 316(b) in the congressional debates, a floor speech of a representative. The Second Circuit stated that, “the ‘paucity’ of legislative history ‘counsels against imputing much specific intent to Congress beyond the section’s words themselves.’”⁷⁰

Given the indications that the EPA engaged in BCA, the Second Circuit remanded the rule for the EPA to explain the Agency’s conclusions.⁷¹ The circuit court noted: “At the outset, it is difficult to discern from the record how the EPA determined that the cost of closed-cycle cooling could not be reasonably borne by the industry. Additionally, the EPA did not explain its statement that the suite of technologies ‘approach[es]’ the performance of closed-cycle cooling.”⁷²

2. *The Supreme Court*

The Supreme Court granted certiorari on the sole question whether section 316(b) authorizes the EPA “to compare costs with benefits in determining the ‘best technology available for minimizing adverse environmental

66. *Id.* at 99 (emphasis added and internal quotations and citations omitted).

67. Cost-effectiveness analysis is “[a] systematic quantitative method for comparing the costs of alternative means of achieving the same stream of benefits or a given objective.” *Id.* at 98 n.10 (citing OMB Circular A-94, Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs, Appendix A (1992)).

68. *Id.* at 99–100.

69. *Id.* at 100 n.12.

70. *Id.* at 101 (citing *Riverkeeper I*, 358 F.3d 174, 186 n.12 (2d Cir. 2004)).

71. *Id.* at 103.

72. *Id.*

impact’ at cooling water intake structures.”⁷³ In a 6-3 decision, the Court reversed the Second Circuit and upheld the regulation as a valid exercise of the EPA’s authority to interpret ambiguous statutes under *Chevron*. Specifically, the Supreme Court upheld, as a “reasonable interpretation of the statute,” the EPA’s view that section 316(b) “permits consideration of the technology’s cost and of the relationship between those costs and the environmental benefits produced.”⁷⁴

In the majority opinion, Justice Scalia was joined by the four other conservative justices plus Justice Breyer in holding that the EPA permissibly relied on BCA in setting the standards under section 316(b). Section 316(b) is *silent* on the use of cost-benefit analysis and has no additional statutory factors to guide the interpretation of the standard, “best technology available for minimizing adverse environmental impact.”⁷⁵ However, the majority applied fundamental administrative law principles—particularly the canons of statutory interpretation and *Chevron* deference—and found that the text of section 316(b), when compared with the text and statutory factors of four parallel provisions in the Clean Water Act, led to the conclusion that “it was well within the bounds of reasonable interpretation for EPA to conclude that cost-benefit analysis is not categorically forbidden.”⁷⁶ The Court explained, “[i]t is eminently reasonable to conclude that § 1326(b)’s silence is meant to convey nothing more than a refusal to tie the agency’s hands as to whether the cost-benefit analysis should be used, and if so to what degree.”⁷⁷ The Court further explained that:

In defining the “national performance standards” themselves the EPA assumed the application of technology whose benefits “approach those estimated” for closed-cycle cooling systems at a fraction of the cost: \$389 million per year, as compared with (1) at least \$3.5 billion per year to operate compliant closed-cycle cooling systems (or \$1 billion per year to impose similar requirements on a subset of Phase II facilities), and (2) significant reduction in the energy output of the altered facilities.⁷⁸

The Court also noted the relatively small financial benefits of \$83 million from avoided fish mortalities, along with non-use benefits of indeterminate value.⁷⁹ In this vein, the Court also upheld the EPA’s provision for cost-

73. *Id.* at 217.

74. *Id.* at 217–18 (citations omitted).

75. *See generally* 33 U.S.C. § 1326(b).

76. *Entergy*, 556 U.S. at 223.

77. *Id.* at 222.

78. *Id.* at 224 (citing 69 Fed. Reg. 51666) (creating increased air pollution) (internal citations omitted).

79. *Id.* The Court also stated that, while not conclusive, that fact that the EPA has been proceeding on a case-by-case basis with a weaker benefit-cost balancing approach (costs

benefit variances, though Justice Breyer would have remanded to get more explanation on why the EPA changed from its thirty-year, weak cost-benefit test for variances (cost “wholly disproportionate” to the environmental benefit to be gained) to a stronger test of costs “significantly greater” than the benefits of complying.

Justice Breyer’s partial concurrence invoked the absurd results doctrine, expressing concern that *prohibiting* BCA “would bring about irrational results.” While he relied on the legislative history of the Clean Water Act to conclude that Congress had limited the EPA’s authority to use strict cost-benefit comparisons, Justice Breyer agreed with the majority and believed that Congress did not forbid the benefit-cost test that the EPA used in the Section 316(b) rule:

Any such prohibition would be difficult to enforce, for every real choice requires a decisionmaker to weigh the advantages and disadvantages, and disadvantages can be seen in terms of (often quantifiable) costs. Moreover, an absolute prohibition would bring about *irrational results*. As the respondents themselves say, it would make no sense to require plants to “spend billions to save one more fish or plankton.” Brief for Respondents, Riverkeeper, Inc., et al. 29. That is so even if the industry might somehow afford those billions. And it is particularly so in an age of limited resources available to deal with grave environmental problems, where too much wasteful expenditure devoted to one problem may well mean considerably fewer resources available to deal effectively with other (perhaps more serious) problems.⁸⁰

Notably, Justice Scalia’s *Chevron* analysis collapsed the traditional two-step inquiry into one step – whether the Agency’s interpretation of the statute was “reasonable.”⁸¹ That approach raised a strong objection from Justice

“wholly disproportionate” to the environmental benefit) tends to show EPA’s regulatory approach was reasonable. *Id.* at 224–25. The Court noted that “[a]s early as 1977, the agency determined that, while § 1326(b) does not *require* cost-benefit analysis, it is also not reasonable to ‘interpret Section [1326(b)] as requiring use of technology whose cost is wholly disproportionate to the environmental benefit to be gained.’” *Id.* (citing *In re Public Service Co. of New Hampshire*, 1 E.A.D. 332, 340 (1977)).

80. *Id.* at 232–33 (emphasis added). Justice Breyer’s reasoning about “irrational results” echoes Justice Powell’s dissent in *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 194–95 (1978), which also relied on the “absurd results” doctrine. *See supra* note 28.

81. *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 218 n.4 (2009). Under *Chevron*, the traditional two-step test for determining whether a reviewing court should defer to an agency’s interpretation of a statute it administers is as follows: “First, always, is the question whether Congress has spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter . . .” (A contrary agency interpretation must give way). Second, “if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency’s answer is based on a permissible construction of the statute.” *Chevron USA Inc. v. Nat’l Res. Def. Council, Inc.*, 467 U.S. 837, 842–43 (1984).

Stevens (the author of *Chevron*) in his dissent; he countered that, under the traditional *Chevron* Step One (which asks whether Congress has spoken to the precise question at issue), “Congress’ silence may have meant to foreclose cost-benefit analysis.”⁸² We surmised that Justice Scalia may have been in the process of rethinking *Chevron*, as have others. Matthew Stephenson and Adrian Vermeule praised Justice Scalia’s one-step approach in *Entergy* because “[t]here is no good reason why we should decide whether the statute has only one possible reading before deciding simply whether the agency’s interpretation falls into the range of permissible interpretations.”⁸³ While agreeing with Stephenson and Vermeule that “this is convincing as a logical proposition,” Jonathan Cannon has reluctantly concluded that:

[T]he single-inquiry approach may have the subtle effect of increasing the discretion of the reviewing court by allowing it to deploy the “traditional tools” of interpretation either in a vigorous search for definitive statutory meaning (the traditional Step One analysis) or in a more deferential examination of permissibility (the traditional Step Two analysis), or some combination of the two.⁸⁴

We agree with Cannon’s conclusion that the net effect of Justice Scalia’s one-step approach is pro-BCA, though we do not share his views on the motivations for it.

Regardless, if Justice Scalia’s one-step inquiry in *Entergy* is more traditionally viewed as encompassing two separate questions, the results are pro-BCA. Specifically: (1) was the agency action within the bounds of the law judged by Congress’ legal command, expressed in its instructions about the agency’s authority⁸⁵ and (2) was the agency action within the bounds of law judged by considerations such as reasonableness?⁸⁶ BCA is a striking example of how those two questions interact.⁸⁷ In *Entergy*, Justice Scalia seems to be signaling that, so long as there are no unambiguous Congressional instructions *against* using BCA (no logical conflict with another statutory instruction, nor a bar to BCA per *American Trucking*—i.e., question one is satisfied), then BCA may be used because it is “eminently reasonable”⁸⁸ (i.e., BCA inherently satisfies question two).

82. *Entergy*, 556 U.S. at 218 n.5.

83. Matthew C. Stephenson & Adrian Vermeule, *Chevron Has Only One Step*, 95 VA. L. REV. 597, 602 (2009) (citing *Entergy* with approval).

84. *Sounds of Silence*, *supra* note 3, at 448.

85. *Cf. Chevron*, 467 U.S. at 842 (discussing Step One).

86. *Cf. Administrative Procedure Act*, 5 U.S.C. § 706.

87. See Email from Paul R. Noe to Ronald A. Cass, Dean Emeritus, B.U. L. Sch. (May 4, 2016; July 24, 2019), *on file with author*.

88. *Entergy*, 556 U.S. at 222. Under the arbitrary and capricious standard for judicial review of agency policymaking that the Supreme Court adopted in *Motor Vehicle Mfrs. Ass’n, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 34 (1983), courts consider the adequacy and rationality of the agency’s decision-making process, not merely the reasonableness of its policy choice. See Jeffrey A. Pojanowski, *Without Deference*, 81 MO. L. REV. 1075, 1085–86 (2016).

3. *The Impact of Entergy on Prior Precedent*

In *Entergy*, the Supreme Court clarified that the broad statements in *American Trucking* and *American Textile*—which some scholars claimed created a presumption against BCA—were merely non-binding dicta, not holdings, and unpersuasive dicta at that. Moreover, after *Entergy* it no longer plausible to categorically assume that, because Congress explicitly authorized the agency to consider cost in some provisions of authorizing statutes, it must necessarily have intended to prohibit cost considerations in other statutory provisions that are silent or ambiguous.

a. *American Trucking After Entergy*

In *American Trucking*, the Supreme Court’s conclusion that the EPA cannot consider costs in developing a NAAQS hinged in part on its observation that other parts of the Clean Air Act explicitly required the EPA to consider costs, while Section 109 was silent. The Court was applying the canon of statutory construction, *expressio unius est exclusio alterius*: the expression of one thing is the exclusion of another. In the context of environmental statutes, and many other types of regulatory statutes, if this canon dominated, it could have severely limited the cost-benefit state, especially because Congress is so often silent or ambiguous on cost-benefit balancing in countless statutory provisions.⁸⁹

But in reaching its holding in *Entergy*, the Court rejected this approach by distinguishing *American Trucking* and limiting it to its core holding. The *Entergy* majority stated that, “*American Trucking* thus stands for the rather unremarkable proposition that sometimes statutory silence, when viewed in context, is best interpreted as limiting agency discretion,” but concluded that section 316(b)’s silence “cannot bear that interpretation.”⁹⁰

As Cass Sunstein foresaw many years before *Entergy*, *American Trucking* never should have been interpreted as requiring express statutory language to permit agencies to consider cost, nor as disfavoring statutory interpretations of silent or ambiguous statutes to authorize BCA:

[H]ere [in *American Trucking*], as elsewhere, the *expressio unius* idea should be taken with many grains of salt. If Congress has not, under some ambiguous statutory term, referred to costs, it will often be because Congress, as an institution, has not resolved the question whether costs should be considered. And if this is so, the agency is entitled to consider costs if it chooses. [citing *Chevron*] The fact that Congress explicitly refers to costs under other provisions is not a good indication that, under an ambiguous text, costs are statutorily irrelevant. This would be an extravagant and therefore implausible inference. The use of the *expressio unius* approach in [*American Trucking*] is best taken as a

89. See Sunstein, THE COST-BENEFIT STATE, *supra* note 1, at 50.

90. 556 U.S. at 223.

sensible way of fortifying the most natural interpretation, and not at all as a way of urging that explicit references to cost in some provisions means that costs may not be considered under ambiguous provisions.

What about concerns about agency discretion? Agencies are typically allowed to interpret statutory ambiguities, and in countless cases in which that principle is invoked, the agency exercises a great deal of discretion over basic issues of policy and principle. To allow an agency to decide to consider costs is not to allow it to exercise more discretion than it does in numerous cases. Where the statute is unclear, agencies should be authorized to seek ‘rational regulation,’ and nothing in [*American Trucking*] suggests otherwise.⁹¹

Indeed, to our knowledge, the only court of appeals decision that ever has rejected an agency decision to use benefit-cost balancing as exceeding the agency’s authority under *Chevron* was the Second Circuit’s *Riverkeeper* ruling,⁹² which the Supreme Court roundly repudiated.⁹³

b. American Textile After Entergy

In addition to limiting *American Trucking*, *Entergy* also remedied the anti-BCA dicta in *American Textile*. The Court noted that *American Textile* had relied in part on the statute’s failure to mention BCA in holding that OSHA was not required to engage in this analysis when setting certain health and safety standards, and the Court hastened to add, “[b]ut under *Chevron*, that an agency is not *required* to do so does not mean that an agency is not *permitted* to do so.”⁹⁴ Thus, the Court exposed as dicta and swept aside the supposed presumption against BCA that Justice Brennan had tried to establish in *American Textile*, which the Second Circuit had misapplied as law, and which the dissenting justices in *Entergy*⁹⁵ would have similarly applied.

B. Michigan v. EPA

Six years after *Entergy*, the Supreme Court not only strongly reaffirmed its logic that BCA is *permissible* even in the face of statutory silence, but further determined that absent Congressional instructions to the contrary, benefit-cost balancing may be *required* to ensure that the regulation is not arbitrary and capricious. In *Michigan v. EPA*,⁹⁶ the Court held that the EPA’s

91. Sunstein, THE COST-BENEFIT STATE, *supra* note 1, at 51 (citations omitted).

92. See Jonathan S. Masur & Eric A. Posner, *Against Feasibility Analysis*, 77 U. CHI. L. REV. 657, 670 (2010).

93. *Riverkeeper, Inc. v. EPA*, 475 F.3d 83 (2d Cir. 2007), *rev’d Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208 (2009).

94. *Entergy*, 556 U.S. at 223 (emphasis in original). Here the *Entergy* majority echoes the dissent of Justice Rehnquist in *American Textile*. See *supra*, Section II, note 37 and accompanying text.

95. 556 U.S. at 238 (Stevens, J., dissenting).

96. 135 S. Ct. 2699 (2015).

determination to regulate hazardous air pollutants (HAPs), such as mercury from power plants, was arbitrary and capricious because the Agency refused to consider cost. Under Section 112(n) of the Clean Air Act, the EPA can regulate HAPs from power plants only if it concludes that regulation is “appropriate and necessary.” When it deemed regulation of power plants “appropriate,” the EPA stated that cost was “irrelevant” to its decision to regulate.⁹⁷ Instead, the EPA found regulation “appropriate” because the emissions posed risks to the public health and the environment and because controls were available and, thus, the Agency found regulation “necessary” because other Clean Air Act regulations did not eliminate these risks.

Writing for a 5-4 majority, Justice Scalia applied basic principles of administrative law, including *Chevron* deference and the canons of statutory interpretation, and, citing *Motor Vehicle Manufacturers Assoc., Inc. v. State Farm Mutual Automobile Insurance Co.*,⁹⁸ emphasized that agency action is unlawful if it does not rest on a consideration of the relevant factors. The majority then held that the EPA strayed beyond the bounds of reasonable interpretation in concluding that cost is not a relevant factor in determining whether to regulate under the “capacious” phrase, “appropriate and necessary.” Citing Justice Breyer’s concurring opinion in *Entergy* that had invoked the absurd results doctrine, Justice Scalia reasoned:

No regulation is ‘appropriate’ if it does significantly more harm than good. . . . There are undoubtedly settings in which the phrase ‘appropriate and necessary’ does not encompass cost. But this is not one of them. Section 7412(n)(1)(A) directs EPA to determine whether ‘regulation is appropriate and necessary.’ Agencies have long treated cost as a centrally relevant factor when deciding whether to regulate. Consideration of cost reflects the understanding that reasonable regulation ordinarily requires paying attention to the advantages *and* disadvantages of agency decisions. It also reflects the reality that “too much wasteful expenditure devoted to one problem may well mean considerably fewer resources available to deal effectively with other (perhaps more serious) problems.” *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 233 (2009) (Breyer, J., concurring in part and dissenting in part). ***Against the backdrop of this established administrative practice, it is unreasonable to read an instruction to an administrative agency to determine whether ‘regulation is appropriate and necessary’ as an invitation to ignore cost.***⁹⁹

Thus, *Michigan v. EPA* is a logical corollary of *Entergy*. While Section 112(n)

97. *Id.* at 2708. The majority found that EPA did not say that “cost-benefit analysis would be deferred until later,” nor that consideration of cost at subsequent stages would ensure that “costs were not disproportionate to benefits.” *Id.* at 2709.

98. *Motor Vehicle Mfrs. Ass’n, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (a reviewing court must ensure that an agency does not neglect an important aspect of a problem).

99. 135 S. Ct. at 2707–08 (emphasis added).

did not explicitly require benefit-cost analysis and was silent on cost consideration, the omnibus factors of “appropriate” and “necessary” were easily broad enough to encompass benefit-cost balancing, and it was arbitrary and capricious for the EPA to interpret the statute as making cost an “irrelevant” factor.¹⁰⁰ This is particularly so against the backdrop of longstanding executive orders requiring agencies to conduct and use benefit-cost analysis for developing economically significant regulations.

Strikingly, even the four dissenting Justices agreed that the EPA was required to adequately consider cost at some stage of the rulemaking process, stating:

Cost is almost always a relevant – and usually, a highly important – factor in regulation. Unless Congress provides otherwise, an agency acts unreasonably in establishing a standard-setting process that ignore[s] economic considerations. . . . At a minimum, that is because such a process would ‘threaten[] to impose massive costs far in excess of any benefit.’ *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 234 (2009) (Breyer, J., concurring in part and dissenting in part).¹⁰¹

As Jonathan Masur and Eric Posner, as well as Sunstein, have concluded, Justice Kagan’s dissent suggests “**a default rule: agencies *must* weigh costs and benefits, at least in some fashion, absent an explicit statement to the contrary.**”¹⁰² While Masur and Posner think this general position is not yet law—the *Michigan* majority did not comment on it either way¹⁰³—the momentum is very strong. Indeed, Sunstein has asserted (and we agree) that “[t]here is every reason to think that the majority—which, after all, invalidated EPA’s regulation—would embrace that principle as well.”¹⁰⁴ To paraphrase Justice Kagan’s comment on the Court’s Scalian turn toward textualism, the Justices are all benefit-cost balancers now.

100. As a predicate to the “appropriate and necessary” determination for regulating power plants, Section 112(n) required the EPA to conduct three studies, including a study on mercury emissions that encompassed the health and environmental effects, available control technologies, and the costs of such technologies.” *Id.* at 2708.

101. *Id.* at 2717–18 (Kagan, J. dissenting) (emphasis added; internal citation omitted). Writing for the four dissenters, Justice Kagan agreed with the majority that the EPA’s regulation would be unreasonable if the Agency did not consider cost, *id.* at 2714–15, but she concluded that the “EPA reasonably found it was ‘appropriate’ to decline to analyze costs” at the early stage of the rulemaking process and did so in subsequent rounds following its conclusion that regulation was appropriate and necessary. *Id.* at 2717.

102. Masur & Posner, *supra* note 24, at 976 (emphasis added); Sunstein, *supra* note 27, at 15 (“The [*Michigan*] dissenters clearly adopted a background principle that would require agencies to consider costs unless Congress prohibited them from doing so.”).

103. Masur & Posner, *supra* note 24, at 976; see also Sunstein, *supra* note 27, at 15.

104. Sunstein, *supra* note 27, at 15.

III. FROM *ENTERGY* TO *MICHIGAN V. EPA* AND BEYOND

While the importance of *Entergy* and *Michigan* may not be fully appreciated, that could change if the Trump Administration wants to strongly promote the use of benefit-cost analysis in regulatory decisionmaking. If, prior to *Entergy*, a statute had been enacted saying that “*unless prohibited* by statute, each agency *may* use benefit-cost analysis in setting regulatory standards,” that would have been viewed as a major achievement in the regulatory reform movement. But that type of specific legislative direction is now unnecessary, because *Entergy* affirmed that the Executive Branch has that authority.¹⁰⁵

Entergy empowers the political branches by clarifying that the responsibility for important policy decisions rests with the democratically accountable branches of government, including the executive branch, led by the president. Agencies can no longer plausibly claim that they are *prohibited* from considering cost unless Congress clearly foreclosed that option by statute, and it rarely has. Likewise, an administration cannot lock its successors into implausibly narrow statutory interpretations that purport to prohibit benefit-cost balancing without clear statutory text to support that position. Indeed, if the cost-benefit state is fully embraced, efforts to reverse that progress may be futile. Several key points merit emphasis.

A. *Entergy Applies to Apparently Restrictive Statutory Provisions*

At first glance, the statutory provision in *Entergy* might seem particularly *unaccommodating* to benefit-cost balancing. Section 316(b) is *silent* on both benefit-cost analysis and cost. Moreover, many believed that the statutory provision, “**best** technology available for **minimizing** adverse environmental

105. There is a debate in the academic literature whether statutes such as the Clean Air Act that grant authority to subsidiary officials, such as the Administrator of the EPA, should be read as implicitly granting *Chevron* authority to the President as opposed to the agency head. Compare Elena Kagan, *Presidential Administration*, 114 HARV. L. REV. 2245 (2001), with Robert V. Percival, *Who’s In Charge? Does the President Have Directive Authority over Agency Regulatory Decisions?*, 79 FORDHAM L. REV. 2487 (2011), and Peter L. Strauss, *Overseer, or ‘the Decider’? The President in Administrative Law*, 75 GEO. WASH. L. REV. 696 (2007). See also Lisa Heinzerling, Response, *Classical Administrative Law in the Era of Presidential Administration*, 92 TEXAS L. REV. 171 (2014) (suggesting that agencies should not get *Chevron* deference if their statutory interpretations have been dictated by OIRA). As a practical matter, the distinction between the President as “overseer” and the President as “decider” makes little difference because, in our experience, if the White House indicates its preference for benefit-cost analysis, most agency heads will follow suit or resign. See also Cary Coglianese & Kristin Firth, *Separation of Powers Legitimacy: An Empirical Inquiry Into Norms About Executive Power*, 164 U. PA. L. REV. 1869 (2016) (noting little difference in public perceptions of responsibility if President directs, as opposed to suggests, an action).

impact,” was a maximal regulation standard that *prohibited* BCA. While this was the unanimous view of the Second Circuit court, it was rejected by the Supreme Court’s 6-3 majority. And if the seemingly very restrictive text of section 316(b) can accommodate BCA, presumably few statutes cannot. Agencies could exercise their discretion in interpreting similarly restrictive statutes to permit benefit-cost balancing.

Indeed, as noted above, many viewed section 316(b) as particularly restrictive in the context of other provisions in the Clean Water Act that explicitly require BCA or the consideration of cost. The Second Circuit had rejected the EPA’s use of BCA due, in part, to its belief that that other provisions of the Clean Water Act (e.g., the BPT standard) required the Agency to balance costs and benefits, whereas the BAT and BDAT standards expressly authorized only the consideration of cost. The Supreme Court rejected this reasoning, however, finding instead that section 316(b)’s silence on the consideration of cost or BCA merely conveyed discretion to the agency to decide whether and how BCA should be used. The Court refused to invoke the *expressio unius* canon to prohibit the EPA from benefit-cost balancing under section 316(b).¹⁰⁶ Agencies could follow this precedent to find that similar statutory provisions—which are silent or ambiguous on cost considerations or BCA while other provisions elsewhere in the statutory framework clearly allow it—permit benefit-cost balancing, or even require it.

B. Entergy, Michigan, and Their Progeny at a Minimum Promote Benefit-Cost Balancing Under a Wide Range of Regulatory Statutes, and May Require It

While *Entergy* did not expressly mandate that agencies use BCA to implement silent or ambiguous statutes, it significantly raised the ante for agencies that eschew it. *Entergy* made clear that if the statute is ambiguous, the agency has the discretion to use BCA. But under basic principles of administrative law, the corollary is that if the agency does not balance benefits and costs, it must provide a reasoned explanation why it is regulating in a manner that may do more harm than good, or provide a reasoned explanation why it is indifferent to doing more harm than good.¹⁰⁷ Absent a reasoned explanation, the agency’s rule may be overturned as arbitrary and capricious. In other words, *Entergy* is a *Chevron* case deciding that the question whether a

106. *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 222 (2009) (“[S]ilence is meant to convey nothing more than a refusal to tie the agency’s hands as to whether cost-benefit analysis should be used, and if so to what degree.”).

107. Daryl Joseffer, Panelist Comments at the 2009 National Lawyers Convention: The Future of Benefit-Cost Analysis in Environmental Policy (Nov. 12, 2009), <https://www.youtube.com/watch?v=-ZjuyHkeSkg>. Joseffer formerly served as Assistant to the U.S. Solicitor General and defended the section 316(b) rule before the Supreme Court.

statute permits BCA is to be analyzed under the *Chevron* framework—like any other question of statutory interpretation, and not in light of a presumption against BCA—but there is something more. Once it is clear that an agency has the authority to use BCA—which is the optimal decision procedure to promote social welfare—the failure to do so is arbitrary, absent a clear contrary statutory instruction or a compelling non-arbitrary explanation. That implicit logic in *Entergy* became explicit in *Michigan v. EPA*,¹⁰⁸ as discussed above.¹⁰⁹

1. *Most Environmental Statutes Permit BCA, and Now May Require It*

The majority of regulatory provisions in environmental statutes, and most likely the majority of all regulatory statutes, neither explicitly require nor explicitly prohibit benefit-cost analysis, but rather, are silent or ambiguous. For example, among the ten major environmental regulatory statutes enacted from the 1960s to the 1980s, only two contained provisions that require benefit-cost analysis for core agency actions: the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA).¹¹⁰ In addition, the Energy and Policy Conservation Act requires the DOE to conduct BCA for energy efficiency standards.¹¹¹ On the other hand, a small minority of environmental statutory provisions forbid BCA: Section 109 of the Clean Air Act¹¹² for setting NAAQS, as interpreted in

108. 135 S. Ct. 2699 (2015).

109. *See supra*, Section III(B); *Michigan v. EPA*, 135 S. Ct. 2699, 2716–17 (Kagan, J., dissenting) (“**Cost is almost always a relevant – and usually, a highly important – factor in regulation. Unless Congress provides otherwise, an agency acts unreasonably in establishing a standard-setting process that ignore[s] economic considerations.**”) (emphasis added); *see also* Masur & Posner, *supra* note 24, at 975–76; Sunstein, *supra* note 27, at 40–41.

110. *Cf.* Cannon, *Sounds of Silence*, *supra* note 3, at 426 n. 3 (and citations therein). FIFRA includes a provision for the EPA to mitigate unreasonable environmental effects. *See* 7 U.S.C. § 136(b)(b) (defining an “unreasonable adverse environmental effect”). Before being amended in 2016, TSCA required the EPA to balance costs, benefits and risks. *See* 15 U.S.C. § 2605(c)(1) (2015). A provision in the Endangered Species Act requires the Fish and Wildlife Service (FWS) to perform an economic analysis of critical habitat designations. *Compare* *N.M. Cattle Growers Ass’n v. U.S. Fish & Wildlife Serv.*, 248 F.3d 1277, 1285 (10th Cir. 2001) (concluding that Congress intended that the FWS conduct a full analysis of all economic impacts of a critical habitat designation and criticizing the FWS’s baseline approach that took the costs and benefits of species listing as a given), *with* *Ariz. Cattle Growers Ass’n v. Salazar*, 606 F.3d 1160 (9th Cir. 2010) (upholding the FWS’s baseline approach in light of the purpose of BCA in that context).

111. 42 U.S.C. § 6295(o)(2)(B)(i). *See* Cecot & Viscusi, *supra* note 10, at 602–03.

112. 42 U.S.C. § 7409(b).

American Trucking, and Section 4 of the Endangered Species Act¹¹³ for the decision to list a species. For environmental statutes enacted since the 1990s, Congress amended the Safe Drinking Water Act to authorize BCA in setting maximum contaminant levels for drinking water, but as part of a compromise to repeal a zero-risk standard, precluded BCA in setting pesticide tolerances for food.¹¹⁴ In 2016, Congress amended TSCA¹¹⁵ and prohibited consideration of costs in assessing the unreasonableness of risks, while authorizing consideration of costs in selecting risk management provisions.¹¹⁶

Most provisions in environmental statutes are silent or ambiguous regarding benefit-cost analysis and are thus open to significant reexamination and reinterpretation after *Entergy* and *Michigan*. This includes provisions of the Clean Water Act, the Resource Conservation and Recovery Act, the Clean Air Act, the Comprehensive Environmental Response, the Compensation and Liability Act, the Endangered Species Act, the pre-1996 Safe Drinking Water Act provisions, the Emergency Planning and Community Right-to-Know Act, and the Oil Pollution Act of 1990.¹¹⁷ To our knowledge, this pattern holds true for wide range of regulatory statutes in many other fields of law as well.

2. *Decision Procedures Used Instead of BCA Typically Are Not Required*

All too often, an agency interprets a statutory provision that is silent or ambiguous on the role of BCA—perhaps with analysis of some legislative history to support the agency’s preferred interpretation of the legislative text—to establish a decision standard inconsistent or in conflict with the executive order requiring benefit-cost balancing.¹¹⁸

113. 16 U.S.C. § 1533(b)(1)(A).

114. See Cannon, *Sounds of Silence*, *supra* note 3, at 426 n. 3 (and citations therein). For drinking water protection, Congress permitted but did not require the EPA to rely on benefit-cost balancing in setting maximum contaminant levels. See Safe Drinking Water Act of 1996, 42 U.S.C. § 300g-1(b)(3)(C)(i)(III)-(IV). In the area of pesticide tolerances for food, as part of the compromise necessary for Congress to drop the zero-risk standard of the Delaney Clause, Congress also changed the requirement for benefit-cost balancing for pesticide tolerances for food to requiring pesticide tolerances that are within a reasonable risk range; however, Congress retained BCA for other parts of FIFRA.

115. Frank R. Lautenberg Chemical Safety for the 21st Century Act, Pub. L. No. 114-182, 130 Stat. 448 (June 22, 2016), 15 U.S.C. § 2601 *et seq.*

116. Compare 15 U.S.C. § 2605(b), with 15 U.S.C. § 2608(e)(2).

117. Cannon, *Sounds of Silence*, *supra* note 3, at 426.

118. Paul R. Noe, *Crossing the Regulatory Divide to Enhance Societal Well-Being*, THE REG. REV. (Aug. 28, 2018), <https://www.theregreview.org/2018/08/28/noe-crossing-regulatory-divide/>.

a. *Feasibility Analysis*

A common example of how agencies avoid BCA is when they interpret a regulatory statute to require some kind of “feasibility analysis” instead. For example, in environmental or workplace safety statutes, Congress often provides general direction to the agency to regulate on a technological or health basis, such as to achieve some form of “best available” technology or adequate level of health or safety protection.¹¹⁹ Some scholars, like the Second Circuit and the dissenting Justices in the *Entergy Corp. v. Riverkeeper* proceeding, have argued that such statutes *require* “feasibility analysis” and *prohibit* BCA.¹²⁰ In contrast to BCA, which compares benefits and costs of various regulatory options and seeks the option that maximizes societal well-being,¹²¹ feasibility analysis examines whether it is technologically feasible to implement the regulatory standard, and whether regulation will cause substantial economic harm to the regulated industry—perhaps even to the point of triggering widespread plant shut-downs.¹²² Feasibility analysis enshrouds a wide range of agency practices and statutory mandates, but in some applications may only bar regulations that would threaten bankruptcy to a significant segment of the regulated industry.¹²³ Under this approach to feasibility analysis, a less stringent regulatory option cannot be selected over a more stringent option if the more stringent option would not lead to plant closures.¹²⁴

Compelling evidence shows that feasibility analysis lacks a normative justification, is readily manipulable, can be a subterfuge for decisions arrived at on other grounds, and can just as easily lead to under-regulation as to over-regulation.¹²⁵ As Justice Rehnquist put it in his *American Textile* dissent, “the ‘feasibility standard’ is no standard at all . . . assuming any form desired by the beholder.”¹²⁶ Accordingly, agencies should exercise their policymaking discretion to replace feasibility analysis with benefit-cost analysis.¹²⁷

119. See Masur, *supra* note 92, at 662–63 (and citations therein).

120. *Id.*

121. See *supra* note 8 (and citations therein)

122. See, e.g., Masur, *supra* note 92, at 663 n. 22.

123. *Id.* at 663 n. 23.

124. *Id.* at 663 n. 24.

125. See, e.g., *id.* (arguing that feasibility analysis lacks a normative justification and should have no place in government regulation); John D. Graham & Paul R. Noe, *A Reply to Professor Sinden’s Critique of the ‘Cost-Benefit State*, THE REG. REV. (Sept. 27, 2016), <https://www.theregreview.org/2016/09/27/graham-noe-reply-critique-cost-benefit-state/>.

126. *Am. Textile Mfrs. Inst., Inc. v. Donovan*, 452 U.S. 490, 544–45 (1981) (Rehnquist, J., dissenting); see *supra* Section II, note 40 and accompanying text.

127. Masur, *supra* note 92 (recommending that agencies exercise their policymaking discretion under the *Chevron* doctrine to replace feasibility analysis with benefit-cost analysis).

b. *Other Decision Procedures*

In addition to feasibility analysis, there are many other decision procedures that agencies use instead of BCA. Jonathan Masur and Eric Posner have catalogued such procedures and have noted their deficiencies compared with BCA, as follows:¹²⁸

- *Narrow tradeoffs*: a focus on a few of the most important effects of regulation while ignoring others (i.e., risk-risk analysis). Like feasibility analysis, risk-risk analysis ignores many of the welfare effects of regulation.
- *Quality-adjusted life years/cost-effectiveness analysis*: a determination how, given a budget, it can be best spent. While it avoids challenges of monetization, it is hard to see how the budget can be determined in the first place without BCA or some other form of welfare analysis.
- *Break-even analysis*: when benefits (or in rare cases, costs) are highly uncertain, it can estimate the “break-even point,” the quantity of benefits the regulation must produce for costs to equal benefits. But to make a rational decision, the agency needs some estimate of the likely benefits, and break-even analysis is a kind of incomplete and deficient BCA.
- *Intuitive, ad hoc, balancing*: a broad look at the possible effects of regulation, but without the monetization of benefits (and sometimes costs) provided by BCA. Major defects are that the lack of monetized benefits and costs can lead the decisionmaker to err or be subject to bias and can make it difficult for reviewers and other interested parties to evaluate the decision.
- *Democratic procedures*: through soliciting views of regulated entities and sometimes even arranging agreements, votes, and other forms of participation among those directly affected by a regulatory program, the regulation presumably reflects the interests of the affected parties. Among other things, this risks excluding some affected people or giving undue weight to sophisticated parties who can game the system.
- “*Norming*”: an approach identified and named by Masur and Posner in which agencies survey the practices of firms in a regulated industry and choose a standard somewhere in the distribution of existing practices, often no higher than the median.¹²⁹ Masur and Posner conclude that while norming may have some utility in particular circumstances, such as extreme uncertainty, it is on balance an “unwise form of

128. Jonathan S. Masur & Eric A. Posner, *Norming in Administrative Law*, 68 DUKE L.J. 1383, 1388–93 (2019) (and citations therein).

129. *Id.* at 1383, 1393–1415.

regulation” that “does not serve the public interest as well as a more robust standard like cost-benefit analysis.”¹³⁰

As Masur and Posner note, “there are not always distinct lines between these approaches: overall, agencies frequently adopt a kind of pluralistic approach, defending their regulations by claiming they are consistent with multiple decision procedures.”¹³¹ They further analyze how actual agency practice often involves some kind of norming, even if the agency nominally is using one of the other decision procedures listed above.¹³² Ultimately, they conclude that, absent compelling circumstances, BCA is the best decision procedure for promoting public welfare, stating “[t]here is an irony in the fact that critics of cost-benefit analysis have long derided it as a tool used to block beneficial regulation.”¹³³

Despite the many decision procedures that agencies have used instead of BCA, the actual text of regulatory statutes typically do not prohibit benefit-cost balancing.¹³⁴ Moreover, none of the longstanding executive orders on benefit-cost balancing require or promote the use of feasibility analysis or the other decision procedures listed above.¹³⁵ And, of course, since statements in the legislative history do not satisfy the Constitutional Bicameralism and Presentment requirements for becoming law, they neither require nor authorize violating the longstanding presidential benefit-cost directive.¹³⁶

130. *Id.* at 1383. In certain instances, norming is required by statute. *See id.* at 1396.

131. *Id.* at 1392.

132. *Id.* at 1392–1415.

133. *Id.* at 1383, 1388–93, 1430–31. As the EPA put it:

Environmentalists often fear that economic analysis will lead to less strict environmental regulations in an effort to save costs, but our study reveals that the opposite is just as often the case . . . At times benefit-cost analysis has led to more efficient regulations by showing how more stringent alternatives would bring about a greater reduction in pollution without a commensurate increase in costs . . . At other times the analysis showed that the costs of more stringent regulations would be disproportional to the expected benefits. While these improvements cannot be attributed solely to benefit-cost analysis, it is fair to say that the analyses played major roles in bringing about the regulatory improvements.

EPA COST-BENEFIT ANALYSIS, *supra* note 1, at 2, S-3, S-4 (showing that the use of BCA supported an increase in total net benefits of: (1) \$6.7 billion for EPA’s regulation of lead in fuels (from a more stringent standard and greater health and welfare benefits); (2) \$3.6 billion for its regulation of used oil (from reduce regulatory costs and greater risk reduction); and (3) \$40 million for its regulation on pre-manufacture review (from reduced regulatory costs, with no significant reduction in effectiveness).

134. Masur, *supra* note 92; Noe, *supra* note 118.

135. *See* Exec. Order 12291, § 2; Exec. Order 12866, § 1; Exec. Order 13563, § 1.

136. Noe, *supra* note 118

Thus, under *Entergy* and *Michigan*, a wide range of statutory provisions could be reexamined to accommodate BCA and applying BCA may avoid arbitrariness challenges. This includes, for example, many provisions in the Clean Air Act, the Clean Water Act, and many others.¹³⁷

3. *A Broad Range of Statutory Provisions Accommodate BCA, and May Require It*

Reflecting the broad range of relevant statutes, three subcategories are briefly examined below to explore their amenability to BCA—statutory provisions that: (1) are silent or ambiguous on the consideration of costs and lack an “omnibus factor,”¹³⁸ (2) do not explicitly require BCA but authorize consideration of costs or contain one or more broad “omnibus factors,” or both, and (3) authorize BCA but are ambiguous on the extent or the rigor of the benefit-cost balancing that may be done. We conclude that *Entergy*, *Michigan*, and their progeny promote benefit-cost balancing in interpreting all of the subcategories of statutes—and may even require it.

a. *Statutes That Are Silent or Ambiguous on Costs and Lack an Omnibus Factor*

The first subcategory of statutes is silent or ambiguous on the consideration of costs and lack an omnibus factor. Such statutes include the provision at issue in *Entergy*, and thus these statutes should fall within its ambit. Unless the statute provides otherwise, this likely is the case even where other provisions in the statute explicitly provide for consideration of cost or BCA—as *Entergy* makes clear regarding the Clean Water Act, despite *American Trucking* and its application of the *expressio unius* canon of statutory construction.

In the case of a statute that directs the EPA to set ambient air quality standards at levels “requisite to protect the public health” with an “adequate margin of safety,” *American Trucking* found that “read naturally, that discrete criterion does not encompass cost; it encompasses health and safety.”¹³⁹ However, *Entergy* and then *Michigan* limited *American Trucking* to “the modest

137. See Masur, *supra* note 92, at 662–67 n. 20, 713; Masur & Posner, *supra* note 24, at 975, 982–86.

138. We create the term “omnibus factor” to capture broad, open-ended statutory decisional criteria that can serve as a catch-all authorizing the agency to consider any factor important for determining the regulatory standard that might not otherwise be specified by Congress. Omnibus factors often are placed at the end of a list of specific statutory criteria and, in any event, include broad terms, such as anything that the agency head considers to be appropriate, necessary, relevant, reasonable, practical, in the public interest, etc.

139. *Michigan v. EPA*, 135 S. Ct. 2699, 2709 (citing *Whitman v. Am. Trucking Ass’ns., Inc.*, 531 U.S. 457, 467 (2001)).

principle” that “where the Clean Air Act expressly directs the EPA to regulate on the basis of a factor that on its face does not include cost, the Act normally should not be read as implicitly allowing the Agency to consider cost anyway.”¹⁴⁰ Yet, many statutes are not so circumscribed, especially “technology-based” statutes.¹⁴¹ Agencies clearly can reinterpret such statutes to accommodate benefit-cost balancing after *Entergy*.¹⁴² Accordingly, many other statutory provisions that are silent or ambiguous on cost could be revisited after *Entergy*. A few examples could include provisions of the Clean Air Act,¹⁴³ the Occupational Health and Safety Act,¹⁴⁴ and the Mine Safety and Health Act.¹⁴⁵

140. *Id.* Note that *Michigan* seems to go beyond *Entergy* in limiting *American Trucking* to the Clean Air Act, and *EME Homer City* further limits the application of *American Trucking* in a Clean Air Act case.

141. Although a narrow health-based standard is a more challenging case, as a matter of pure linguistics, one could question whether there is a significant difference, in potentially limiting benefit-cost balancing, between a statutory provision to set a standard to reflect the “best technology available for minimizing adverse environmental impact” and a provision to set a health-based standard necessary to protect public health. And while the Supreme Court clearly resolved in *American Trucking* that the EPA cannot base a NAAQS—“requisite to protect the public health” with “an adequate margin of safety”—on BCA, it remains elusive as to what limiting principle allows the EPA to set non-zero NAAQS standards while claiming that is lawful within its jurisdiction, a question that none of the litigants want to raise. See Joseffer, *supra* note 107 (comments of Daryl Joseffer, former Assistant to the Solicitor General, who defended the section 316(b) rule before the Supreme Court, and Judge Stephen Williams, U.S. Court of Appeals for the D.C. Circuit, who wrote the majority opinion for the D.C. Circuit in the *American Trucking* case).

142. As Justice Scalia explained, if the respondents and the dissent were correct that § 1326(b)’s silence on cost-benefit analysis made it “*a fortiori* true that the BTA test permits no consideration of cost whatsoever, not even the ‘cost-effectiveness’ and ‘feasibility’ analysis that the Second Circuit approved” . . . and “[i]f silence here implies prohibition, then the EPA could not consider any factors in implementing § 1326(b) – an obvious logical impossibility.” *Entergy v. Riverkeeper, Inc.*, 556 U.S. 208, 222 (2009).

143. 42 U.S.C. § 7502(c)(1) (“[T]hrough the adoption, at a minimum, of reasonably available control technology . . .”).

144. See 29 U.S.C. § 652(8) (requiring “conditions . . . reasonably necessary or appropriate to provide . . .”); 29 U.S.C. § 655(b)(5) (requiring “the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence . . .”).

145. See 30 U.S.C. § 811(a)(6)(A) (“[S]tandards which most adequately assure on the basis of the best available evidence that no miner will suffer material impairment . . .” Additional considerations of “highest degree of health and safety” include “the latest available scientific data . . . the feasibility of the standards, and experience gained under this and other health and safety laws.”). For a more comprehensive list of examples, see Masur, *supra* note 92, at 713.

A case that illustrates the Supreme Court's growing receptivity to cost consideration—despite *American Trucking*—is *EPA v. EME Homer City Generation*.¹⁴⁶ The “Good Neighbor Provision” of the Clean Air Act requires the EPA to address the complex problem of curtailing air pollution emitted in upwind States that causes harm in downwind States. The relevant statutory provision directs the EPA to ensure that state implementation plans “contain adequate provisions . . . prohibiting . . . any source or other type of emissions activity within the State from emitting any air pollutant in *amounts* which will . . . *contribute significantly* to nonattainment in, or interfere with maintenance by, any other State with respect to any . . . national . . . ambient air quality standard.¹⁴⁷ While the statutory provision does not mention cost (like the NAAQS provision at issue in *American Trucking*), the EPA interpreted the statute to allow the Agency to consider both the *magnitude* of upwind States' contributions and the *cost* of eliminating them in implementing its Transport Rule.¹⁴⁸

The industry respondents argued that the statute only allowed the EPA to consider the “amounts” of pollution, not the costs, in determining the emissions “budget” for each regulated upwind State under the Transport Rule. However, the Supreme Court, by a 6-2¹⁴⁹ majority, affirmed the EPA's interpretation as a permissible construction of the statute under *Chevron*. With Justice Ginsburg writing for the majority, the Court determined that the EPA's cost-effective allocation of emission reductions among upwind States was a permissible, workable, and equitable interpretation of the Good Neighbor Provision.¹⁵⁰ The majority further stated: “The Agency has chosen, sensibly in our view, to reduce the amount easier, i.e., less costly, to eradicate, and nothing in the text of the Good Neighbor Provision precludes that choice.”¹⁵¹

Justice Scalia, joined by Justice Thomas, strenuously dissented, arguing that *American Trucking* was dispositive. Justice Scalia wrote that the Good Neighbor Provision was even more absolute in barring cost considerations than CAA Section 109 at issue in *American Trucking*.¹⁵² The plain language of the statute, he reasoned, meant that the EPA could only require reductions in proportion to the “amounts” of pollutants for which each upwind State was responsible, not on the basis of how cost-effectively each could decrease

146. 134 S. Ct. 1584, 1596–97 (2014).

147. 42 U.S.C. § 7410(a)(2)(D)(i).

148. *EME Homer City*, 134 S. Ct. at 1596–97.

149. Justice Alito was recused.

150. *EME Homer City*, 134 S. Ct. at 1602–09.

151. *Id.* at 1607.

152. *Id.* at 1616 n. 3.

emissions.¹⁵³

Thus, the liberal wing of the high court, plus two conservatives, found more room for cost considerations in the Clean Air Act (albeit cost-effectiveness analysis, not full BCA) than the author of *Entergy*. Furthermore, the *EME Homer City Generation* majority not only accepted that cost-effectiveness analysis was permissible in the face of statutory silence on the issue, but also endorsed the EPA's statutory interpretation as one that "makes good sense."¹⁵⁴ Thus, since *Entergy* limited *American Trucking*, the Supreme Court seems more likely to uphold the permissibility of cost consideration and BCA, even in the face of statutory silence, much less ambiguity.¹⁵⁵

b. Statutes That Do Not Explicitly Require Benefit-Cost Analysis But Authorize the Consideration of Cost or Include an Omnibus Factor

The second subcategory of statutes—which do not explicitly require BCA but provide for agency consideration of costs, or include an omnibus factor, or both—should allow or even require benefit-cost balancing under *Entergy* and *Michigan*. Numerous statutes may not explicitly require BCA but they list a number of factors that are consistent with benefit-cost balancing; BCA offers a transparent way to take the statutory factors into account. Many of these statutes may explicitly permit or require the agency to consider cost. In addition, or alternatively, these statutes may include a broad omnibus factor that would allow the agency head to consider any other factor that she deems "appropriate," "necessary," "relevant," "reasonable," "practical," "in the public interest," etc. Under *Entergy* and its progeny, statutes authorizing consideration of cost, or containing an omnibus factor, permit benefit-cost balancing, unless the statute unambiguously instructs otherwise.

i. "Technology-Forcing" Statutes

There are many ambiguous statutory provisions with some kind of "best" technology standard. The majority in *Entergy* clearly found that the determination of the "best" technology in Clean Water Act Section 316(b) "may well involve consideration of the technology's relative costs and benefits."¹⁵⁶ Many other "technology-based" standards in the Clean Water Act may be open to benefit-cost balancing after *Entergy*, such as the standard for national effluent limitation guidelines in Section 311(b)(2)(A), "best available

153. *Id.* at 1610.

154. *Id.* at 1607.

155. See, e.g., Cecot & Viscusi, *supra* note 10, at 587.

156. *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 218 n. 5.

technology economically achievable” (BAT).¹⁵⁷ The Act specifies the relevant factors for assessing BAT:

Factors relating to the assessment of best available technology shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of various types of control techniques, process changes, *the cost of achieving such effluent reduction, non-water quality environmental impacts (including energy requirements), and such other factors as the Administrator deems appropriate.*¹⁵⁸

As discussed in the Second Circuit’s *Riverkeeper* opinion, for many years the EPA has interpreted this provision to only accommodate a limited form of cost-effectiveness analysis (e.g., cost per pound of pollutant discharge avoided) to choose among a relatively narrow range of regulatory alternatives, rather than allowing for full benefit-cost balancing in setting the regulatory standard.¹⁵⁹ The EPA has argued that another statutory standard, “best practical control technology currently available” (BPT), which Congress considered to be less stringent than BAT, explicitly requires benefit-cost balancing. The only difference in the statutory factors is the silence on benefit-cost balancing for BAT, though both provisions include a broad omnibus factor. The EPA has thus concluded that Congress intended the EPA not to consider benefit-cost balancing in implementing BAT rules. But *Entergy* strongly supports the conclusion that the EPA may conduct benefit-cost balancing for BAT, as well as BPT, because the statute’s “silence is meant to convey nothing more than a refusal to tie the agency’s hands as to whether cost-benefit analysis should be used, and if so to what degree.”¹⁶⁰

Thus, the position that Congress prohibited the EPA from using full benefit-cost balancing in implementing such a provision is highly questionable and unpersuasive after *Entergy* and *Michigan*. The relevant factors, including the omnibus factor, “such other factors as the Administrator deems **appropriate**,” are broad enough to encompass balancing costs and benefits. Furthermore, in *Riverkeeper* itself, the Second Circuit based its holding on the

157. 33 U.S.C. § 1311(b)(2)(A).

158. *Id.* § 1314(b)(2)(B) (emphasis added).

159. Traditionally, in developing effluent limitation guidelines, the EPA uses CEA like a tax, and typically sets its target in the range of \$10-\$100 per toxic weighted pound equivalent of the pollutant reduced. However, in the effluent limitation guidelines for electric utility steam generating units, the EPA raised this to \$368 per pound for the bottom ash subcategory, a level likely to drive the closure of many coal-fired utilities. See Kevin L. Bromberg, Assistant Chief Couns., U.S. Small Bus. Admin., Remarks at the Society for Benefit-Cost Analysis 8th Annual Conference: Role of Cost-Effectiveness, EPA Water Pollution Controls, 1981–2015 (Mar. 17, 2016).

160. *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 222 (2009); see also Sunstein, COST-BENEFIT STATE, *supra* note 1, at 49–53.

proposition that BCA was precluded under the BAT test, as well as the BADT test. But on review, the Supreme Court majority disagreed, stating that “[i]t is not obvious to us that . . . [this] proposition[] is correct.”¹⁶¹ While this is dictum, the majority signals that interpreting BAT and BADT to authorize benefit-cost balancing likely is a reasonable statutory interpretation that merits deference. Finally, language such as BAT arguably even *requires* balancing benefits and costs after *Michigan*; as Justice Scalia stated, “[n]o regulation is ‘**appropriate**’ if it does significantly more harm than good.”¹⁶²

This logic could be extended to a wide range of statutes that authorize cost considerations and/or include a broad omnibus factor. Under the Clean Air Act, for example, this could include the determination of best available control technology (BACT) under the Prevention of Significant Deterioration program,¹⁶³ and setting New Source Performance Standard standards.¹⁶⁴

ii. *Broad Omnibus Factors*

Statutes including broad omnibus factors, absent a clear conflicting statutory instruction, fall within the ambit of *Michigan v. EPA*. Even in the case of relatively narrow, “health-based” statutes, *Entergy* and *Michigan* support benefit-cost balancing. For example, the Resource Conservation and Recovery Act¹⁶⁵ requires the EPA to, among other things, regulate generators and transporters of solid waste, as well as owners and operators of solid waste treatment, storage, and disposal facilities. RCRA requires the EPA in most of those regulations to “establish such standards . . . as may be *necessary* to protect human health and the environment.”¹⁶⁶ While the Act is generally silent regarding costs, the EPA interpreted the legislative history, which the Agency has acknowledged “can be difficult and is often the subject of debate,” and concluded that the Agency could not consider the cost burden on

161. *Entergy*, 556 U.S. at 220–21.

162. *Michigan v. EPA*, 135 S. Ct. 2699, 2707 (2015) (emphasis added).

163. See 42 U.S.C. § 7475(a)(4) (“subject to the best available control technology for each pollutant”); 42 U.S.C. § 7479(3) (defining BACT as the “maximum degree of reduction . . . taking into account energy, environmental, and economic impacts and other costs”).

164. 42 U.S.C. § 7411(a)(1) (“best system of emission reduction . . . taking into account the cost . . . and any nonair quality health and environmental impact and energy requirements . . . [that has been] adequately demonstrated.”). For a more comprehensive list of examples, see Masur, *supra* note 92, at 713.

165. Resource Conservation and Recovery Act (RCRA) refers to the Solid Waste Disposal Act as amended by RCRA and the Hazardous and Solid Waste Amendments Act of 1984. 42 U.S.C. § 6901-6991i.

166. *Id.* (emphasis added); 42 U.S.C. §§ 6922–24.

the industry and implement benefit-cost balancing to mitigate the standards.¹⁶⁷ The EPA determined it only could consider cost-effectiveness in choosing among limited alternatives that would meet the standards chosen.¹⁶⁸ The key consideration for the EPA was not the final statutory language, but the fact that, during legislative negotiations, changes were to the bill to drop a clear *mandate* for benefit-cost balancing.¹⁶⁹

Under *Entergy* and *Michigan*, that interpretation is open to reexamination. As the *Entergy* majority stated, it is “eminently reasonable to conclude” that a statute’s “silence is meant to convey nothing more than a refusal to tie the agency’s hands as to whether cost-benefit analysis should be used, and if so to what degree.”¹⁷⁰ Nothing on the face of the statute precludes BCA. Indeed, under *Michigan*, the omnibus factor “necessary” is not only broad enough to accommodate BCA, but it arguably may *require* BCA.¹⁷¹ Finally, “public health” is a well-established field focused on using limited public resources to protect the health of the general public in a cost-effective manner. In the absence of absolute protection of either public health or the environment, a reasonable interpretation of “protect” includes consideration of costs, including substitution risks.

The logic of *Entergy* and *Michigan* applies to a vast array of statutory provisions, as briefly illustrated by the preceding examples. Indeed, Masur and Posner have catalogued dozens of statutory provisions that likely not merely **allow** BCA and benefit-cost balancing under *Entergy* (as they arguably are less restrictive than Clean Water Act section 316(b))—but that may **require** the use of BCA under *Michigan* (as they may use ambiguous language akin to the “appropriate and necessary” provision at issue there or invoke BCA more directly); these include many provisions of the Clean Air Act and the Clean Water Act.¹⁷²

167. EPA BENEFIT-COST ANALYSIS, *supra* note 1, at 3–6.

168. *Id.*; see Hazardous Waste Management System: Identification and Listing of Hazardous Waste, 45 Fed. Reg. 33,084, 33,089 (May 19, 1980).

169. The relevant House subcommittee dropped language requiring the EPA to take into account “to the greatest extent possible” the “economic cost and benefits of achieving such standards,” and in reconciling the House and Senate bills, the requirement to “reasonably protect” human health and the environment was changed to “protect” human health and the environment. 45 Fed. Reg. 33,084, 33,089 (May 19, 1980) (emphasis added).

170. *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 222 (2009).

171. See *Michigan v. EPA*, 135 S. Ct. 2699, 2701 (2015) (refusing to consider cost in a decision on whether to regulate was arbitrary and capricious under the “capacious” phrase, “appropriate and necessary”). *Michigan* took the next step beyond *Entergy* by holding that the “capacious phrase,” “appropriate and necessary,” not only *allowed* the consideration of costs and some form of benefit-cost balancing, but *required* it.

172. Masur & Posner, *supra* note 24, at 975, 982–86 (including, among others, Clean Air

c. Statutes That Clearly Authorize or Require Benefit-Cost Analysis But Are Ambiguous on the Extent or Rigor of Benefit-Cost Balancing

The third subcategory of statutory provisions clearly authorizes or requires BCA but is ambiguous as to the extent of the benefit-cost balancing or the rigor of the analysis. Here, *Entergy, Michigan*, and their progeny promote rigorous benefit-cost balancing.

Under *Chevron*, the inquiry is two-fold. First, applying the traditional tools of statutory construction, did Congress address the use of BCA and the extent of its use? “If the intent of Congress is clear, that is the end of the matter.” But if Congress did not address the issue, or the intent of Congress is unclear, the question is whether the agency’s interpretation of the statute as allowing robust benefit-cost balancing is “permissible” or “reasonable.” In this case, *Entergy* invites such an interpretation, since it determined that benefit-cost balancing is “eminently reasonable.”¹⁷³

i. Rigor of Decision Standard

Consider the Energy Policy and Conservation Act (EPCA), as amended by the Energy Independence and Security Act of 2007, which prescribes energy conservation standards for various consumer products and certain commercial and industrial equipment. The EPCA clearly requires benefit-cost balancing, but the *extent* of the benefit-cost balancing is ambiguous. Under the EPCA, any new or amended energy conservation standard issued by the U.S. Department of Energy (DOE) must be designed to achieve the maximum improvement in energy efficiency that is “technologically feasible and **economically justified**.”¹⁷⁴ Moreover, the new or amended standard must result in a significant conservation of energy.¹⁷⁵

In deciding whether a proposed standard is “economically justified,” the DOE must determine whether the benefits of the standard exceed its burdens.¹⁷⁶ The DOE must make this determination by considering, to the greatest extent practicable, the following seven statutory factors:

- (I) the **economic impact** of the standard on manufacturers and consumers of the products subject to the standard;
- (II) the **savings** in operating costs throughout the estimated average life of the covered products in the type (or class) **compared to**

Act provisions for BACT, BSER, RACT and NESHAPs, as well as various Clean Water Act provisions for effluent limitation guidelines).

173. *Entergy*, 556 U.S. at 222.

174. 42 U.S.C. § 6295(o)(2)(A) (emphasis added).

175. *Id.* § 6295(o)(3)(B).

176. *Id.* § 6295(o)(2)(B)(i).

any increase in the price of, or in the initial charges for, or maintenance expenses of, the covered products which are likely to result from the imposition of the standard;

- (III) the total projected amount of energy, or as applicable, water, **savings** likely to result directly from the imposition of the standard;
- (IV) any **lessening of the utility or the performance** of the covered products likely to result from the imposition of the standard;
- (V) the impact of **any lessening of competition**, as determined in writing by the Attorney General, that is likely to result from the imposition of the standard;
- (VI) the **need for national energy and water conservation**; and
- (VII) **other factors the Secretary considers relevant**.¹⁷⁷

Our understanding is that the DOE energy efficiency rules, like most agency rules, claim to have substantial net benefits. However, in implementing the EPCA, the DOE does not seek to *maximize net benefits* as directed by Executive Orders 12866 and 13563, but rather, to mandate the greatest level of energy efficiency that is technologically feasible at a *cost justified by the benefits*. A significant flaw in the DOE's approach is that it assesses whether a standard is economically justified relative to the *status quo only*. If multiple potential levels of the energy efficiency standard satisfy this criterion, the DOE selects through a "step down" analysis the standard that achieves maximum energy savings. By its nature, this approach can impede selection of the option that maximizes net benefits considering cost and other adverse impacts.¹⁷⁸

Following *Entergy*, it is evident that the DOE could interpret the EPCA as allowing full benefit-cost balancing. The EPCA contains broad language considering benefits and costs. Not only should the maximum improvement in energy efficiency be "economically justified," but the Secretary may also consider, among other things: the economic impact of the standard on

177. *Id.* § 6295(o)(2)(B)(i)-(VII) (emphasis added); *see also* NRDC v. Herrington, 768 F.2d 1355 (D.C. Cir. 1985). The EPCA also establishes a rebuttable presumption that a standard is economically justified if the Secretary finds that the additional cost to the consumer of purchasing a product complying with an energy conservation standard level will be less than three times the value of the energy savings during the first year that the consumer will receive as a result of the standard, as calculated under the applicable test procedure. 42 U.S.C. § 6295(o)(2)(B)(iii).

178. *See* Energy Conservation Program: Energy Conservation Standards for Walk-in Coolers and Freezers, 79 Fed. Reg. 32,050, 32,110 (Table V.35), 32,113 (Table V.42) (June 3, 2014). The DOE declined to select an option that maximized net benefits, despite the fact that the less stringent option (TSL 1) would have provided greater net benefits to consumers (\$6.24 billion) than the selected option (TSL 2, \$3.98 billion). Including the social benefits of CO₂ and NO_x reductions at a three percent discount rate likewise showed greater net benefits for TSL 1 (\$18.2 billion) than the selected option TSL 2 (\$15.9 billion).

consumers of the products, any increase in the price for the covered products, the impact of any lessening of competition, plus any other factors that the Secretary considers “relevant.”

This “capacious” statutory language could be interpreted to allow the design of energy efficiency regulations that maximize net benefits, enabling the DOE to design optimal regulations that are more beneficial for consumers. For example, the DOE’s regulations could allow significantly less costly, though somewhat less energy efficient, appliances to compete in the marketplace. This could make consumers better off, particularly lower income and poor consumers whose interests may be unfairly disregarded under the DOE’s current statutory interpretation and disregarded generally in the regulatory process.¹⁷⁹ This also could encourage the DOE to produce higher quality analyses that do not characterize trade-offs that are rational for some consumers as inherently irrational.¹⁸⁰

ii. *Rigor of Analysis*

A case of an agency’s use (or misuse) of poor quality BCA involves the Securities and Exchange Commission (SEC), an independent regulatory agency. Among other things, the Dodd-Frank Act¹⁸¹ authorized the SEC to expand proxy ballot access for shareholder-nominated candidates for boards of directors. Animated by concerns over the impact of limited board accountability on the financial crisis, the SEC proposed Rule 14a-11, which would have required that companies include qualifying shareholder nominees on proxy ballots. This was one of the most controversial regulations in the history of the SEC and Congress interceded with the Dodd-Frank Act. However, in 1996, Congress had also required the SEC to consider effects on “efficiency, competition, and capital formation.”¹⁸² The pertinent

179. For a discussion on how the regulatory process may fail to adequately consider the interests of the poor and a proposed remedy, see Graham, *Savings Lives*, *supra* note 1, at 516–24.

180. See Ted Gayer & W. Kip Viscusi, Working Paper No. 12-21, *Overriding Consumer Preferences With Energy Regulations*, MERCATUS CENTER 7 (July 2012) (noting that “[t]he principle impetus for respecting consumer decisions can be traced to the fundamental role of heterogeneity in mandating uniformity. Differences in preferences and income generate different consumer demand for products.”); Brian F. Mannix & Susan E. Dudley, *The Limits of Irrationality as a Rationale for Regulation*, 34 J. POL. ANALYSIS & MGMT. 705 (2015) (noting the tendency of regulators to use artificially low discount rates that do not account for the budget constraints of consumers).

181. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010), (codified in disparate sections of the U.S. Code).

182. See Note, *Administrative Law—Corporate Governance Regulation—D.C. Circuit Finds SEC Proxy Access Rule Arbitrary and Capricious for Inadequate Economic Analysis*—Business Roundtable v.

statutory provision provides:

Whenever pursuant to this chapter the Commission is engaged in rulemaking, or in the review of a rule of a self-regulatory organization, and is required to consider or determine whether an action is *necessary or appropriate in the public interest*, the Commission shall also consider, in addition to the protection of investors, whether the action will promote *efficiency, competition, and capital formation*.¹⁸³

The D.C. Circuit Court of Appeals unanimously vacated Rule 14a-11. Writing for the court—and expounding the logic of *Michigan v. EPA* four years before its arrival—Judge Ginsburg stated the SEC’s “failure to ‘apprise itself—and hence the public and the Congress—of the economic consequences of a proposed regulation’ makes promulgation of the rule arbitrary and capricious and not in accordance with law.”¹⁸⁴ Judge Ginsburg further criticized the SEC because it had,

[I]nconsistently and opportunistically framed the costs and benefits of the rule; failed adequately to quantify certain costs or to explain why those costs could not be quantified; neglected to support its predictive judgments; contradicted itself; and failed to respond to substantial problems raised by commenters.¹⁸⁵

This case demonstrates how courts generally are embracing and requiring more rigorous benefit-cost analyses, particularly when BCA is required. Once the permissibility of, or mandate for, benefit-cost balancing is established, the question arises whether there is any limitation on the extent of its use or its rigor.

C. Entergy Opened the Door to Robust Benefit-Cost Balancing

The 316(b) agency rule in *Entergy* employed a relatively flexible benefit-cost test: whether costs are “significantly greater than” the benefits. While one could interpret this flexible benefit-cost test as indicating that the EPA “sought only to avoid extreme disparities between costs and benefits,”¹⁸⁶ nothing in the majority opinion in *Entergy* precludes agencies from pursuing full and robust benefit-cost balancing in the face of statutes that are silent or ambiguous. Of course, if the plain language of the statute precludes full benefit-cost balancing, that is the end of the matter under *Chevron*. But as indicated earlier, our sense is that relatively few statutes speak with such clarity.

SEC, 647 F.3d 1144 (D.C. Cir. 2011), 125 HARV. L. REV. 1088 (2012).

183. 15 U.S.C. § 78c(f) (emphasis added).

184. *Business Roundtable v. SEC*, 647 F.3d 1144, 1148–49 (D.C. Cir. 2011) (citing *Chamber of Commerce*, 412 F.3d at 144); *Pub. Citizen v. Fed. Motor Carrier Safety Admin.*, 374 F.3d 1209, 1216 (D.C. Cir. 2004) (finding the rule was arbitrary and capricious because agency failed to consider a factor required by statute).

185. *Business Roundtable*, 647 F.3d at 1148–49.

186. *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 224 (2009).

Some scholars who disfavor BCA have argued that *Entergy* does preclude full benefit-cost balancing. For example, Jonathan Cannon has argued:

If the ruling in *Entergy* can be said to reflect any presumption about [BCA] at all, that presumption may fall pointedly short of an embrace of strict [BCA] formulations. Justice Breyer's partial concurrence is revealing on this issue. After carefully rehearsing the pros and cons of [BCA], Justice Breyer countenances a rudimentary form of [BCA]—a rough balancing of costs and benefits to screen out regulatory options whose costs are wholly disproportionate to their benefits. He excludes from his default interpretation a more rigorous [BCA] keyed to achieving an efficient or welfare-maximizing outcome. While less definite on this question, Justice Scalia's opinion can be read to suggest that in the absence of express statutory authorization, [BCA] should be limited to an informal weighing of costs and benefits as a reasonableness check. For their part, the three dissenting Justices are openly skeptical of [BCA] and the related efficiency goal as contrary to the purposes of remedial legislation such as the Clean Water Act. If the emergence of "the cost-benefit state" in America is inevitable, as [Cass] Sunstein has argued, the Supreme Court has not placed itself in the vanguard of that transformation.¹⁸⁷

We respectfully disagree, however, and think this is an unpersuasive reading of *Entergy*. First, the regulation at issue in *Entergy* did involve a relatively flexible benefit-cost standard, so it is unsurprising that the Justices' opinions speak in those terms. Second, to the extent Justice Breyer has a more limited view of benefit-cost balancing under section 316(b), his partial concurrence is not essential to the 6-3 majority holding. Moreover, while Justice Breyer believes the legislative history of the Clean Water Act indicates a concern that the EPA not get bogged down in "formal cost-benefit proceedings and futile attempts at comprehensive monetization,"¹⁸⁸ these concerns are not foreign to the implementation of the executive orders that require benefit-cost balancing, nor to the applicable OMB guidelines for BCA. Indeed,

187. Cannon, *Sounds of Silence*, *supra* note 3, at 427–28; see also Amy Sinden, *Cost-Benefit Analysis, Ben Franklin, and the Supreme Court*, 4 U.C. IRVINE L. REV. 1175, 1211–12 (2014) (arguing that *Entergy* gave the EPA discretion only to employ "informal" BCA, a "secondary check or litmus test after a particular regulatory action has already been chosen by other means," and not to use "formal" BCA, "a decision-making standard that selects the optimal regulatory alternative from a whole range of options"). We respectfully disagree and think that this view of how and when BCA should be used is contrary to the BCA executive orders and related guidance. See also Amy Sinden, *A Cost-Benefit State? Reports of Its Birth Have Been Greatly Exaggerated*, 46 ENV'T L. REV. 10,933 (2016) (arguing that *Entergy* (2009), *EME Homer City* (2014), and *Michigan* (2015) "did not so much eliminate the Supreme Court's previously emerging anti-cost presumption as narrow and perhaps more clearly define it" so that "the Court's anti-cost presumption no longer applies to *informal* [cost-benefit analysis (CBA)] and feasibility analysis," but that *Entergy* "can be read to at least gesture in the direction of a continuing presumption against *formal* CBA.") (emphasis added).

188. *Entergy*, 556 U.S. at 235 (Breyer, J., concurring in part).

OMB's guidelines and E.O. 12866 explicitly recognize that costs and benefits sometimes cannot be rigorously monetized, and even where most effects can be monetized, there may be significant uncertainty in the estimates.¹⁸⁹ Sophisticated use of BCA does not foist upon agencies the Hobson's choice of either monetizing all benefits and costs or ignoring them.

Furthermore, Justice Scalia's statements in the majority opinion regarding the relatively flexible cost-benefit test in the section 316(b) rule, apparently responding to Justice Breyer, concede nothing; a more rigorous cost-benefit test was simply not before the Court.¹⁹⁰ To the contrary, the majority opinion indicates that ignoring cost-benefit considerations is arbitrary and capricious absent Congressional instructions to the contrary; the majority further states that there must be some statutory basis for limiting the formality of the cost-benefit test, and absent that statutory language a more robust form of BCA should be allowed:

In the last analysis, even respondents ultimately recognize that some form of cost-benefit analysis is permissible. They acknowledge that the statute's language is 'plainly not so constricted as to require EPA to require industry petitioners to spend billions to save one more fish or plankton.' Brief for Respondents Riverkeeper, Inc. et al. 29. *This concedes the principle – the permissibility of at least some cost-benefit analysis – and we see **no statutory basis for limiting its use** to situations where the benefits are de minimis rather than significantly disproportionate.*¹⁹¹

Even more pointedly, the Court stated, "silence is meant to convey nothing more than a refusal to tie the agency's hands as to whether cost-benefit analysis should be used, **and if so to what degree.**"¹⁹²

Finally, some anti-BCA scholars seem to view "formal" BCA as something separate and distinct from "informal" BCA.¹⁹³ But this reflects a

189. See *supra*, notes 15–18 (and accompanying text); OMB Circular A-4, <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A4/a-4.pdf>.

190. The majority noted, "Other arguments may be available to preclude such a rigorous form of cost-benefit analysis as that which was prescribed under the statute's former BPT standard, which required weighing 'the total cost of application of technology' against 'the . . . benefits to be achieved.' But that question is not before us." *Entergy*, 556 U.S. at 222–25. Jonathan Cannon has noted that Professor Richard Lazarus, who argued the case for respondents Riverkeeper, Inc. et al., speculated that Justice Scalia may have offered this dicta to hold the vote of Justice Kennedy. See Cannon, *Sounds of Silence*, *supra* note 3, at 450 n. 164.

191. *Entergy*, 556 U.S. at 225–26 (emphasis added).

192. *Id.* at 222 (emphasis added).

193. See, e.g., Amy Sinden, *Formality and Informality in Cost-Benefit Analysis*, 2015 UTAH L. REV. 93, 96 (2015) (describing informal and formal cost-benefit analysis as "two ends of this spectrum" that "actually have very little in common other than the general approach of juxtaposing positive and negative impacts.").

Informal [BCA] relies on qualitative descriptions intuitively compared and gives no more

misunderstanding of the practice. Rather, “formal” BCA is more conventionally viewed as a subset of BCA, which includes “informal” BCA. The two provisions that have served as the engines driving the relevant executive orders illustrate this point—the regulatory alternative that maximizes net benefits is a subset of those alternatives with benefits that justify their costs. Moreover, a “value of information” approach to BCA contemplates the possibility that, in some cases, a rough balancing of benefits and costs satisfies the needs of optimal decisionmaking.¹⁹⁴ In other cases, optimal decisionmaking necessitates robust, quantitative BCA that allows for more granular selection from among the regulatory options.

As Justice Scalia reasoned in *Entergy*, once opponents of BCA concede the principle that some form of BCA is permissible under the statute, they must show a “statutory basis for limiting its use.”¹⁹⁵ Because “formal” BCA is a subset of BCA, if “informal” BCA is permissible, exceptionally specific statutory text would be necessary to bar “formal” BCA. In other words, if using the broader category of BCA falls within the range of permissible statutory interpretations, then, presumably, using the narrower subset of formal BCA also would be permissible.

In contrast to Justice Brennan in *American Textile* and the Second Circuit below, the *Entergy* majority did not substitute its own policy preferences for a politically accountable branch of government. Rather, the *Entergy* majority jettisoned the purported presumption against BCA of *American Textile* and applied the canons of statutory construction and *Chevron* deference to the agency’s construction of a silent statute as allowing benefit-cost balancing. In future cases on other rules, the question after *Entergy* will be whether there is statutory language *prohibiting* robust, quantitative BCA. We think that such statutory language is rare.

Finally, *Weyerhaeuser Co. v. U.S. Fish and Wildlife Service*,¹⁹⁶ illustrates the Supreme Court’s receptivity to probing judicial review of agency benefit-cost determinations. The U.S. Fish and Wildlife Service (“the Service”)

than general guidance. The most formal varieties of [BCA], on the other hand, rely on numbers and mathematics and purport, at least, to provide precise answers. Moreover, the two techniques play entirely different roles in the decisionmaking process. Informal [BCA] provides no more than a secondary check on a decision that has been made by other means, while formal [BCA] provides, at least in theory, a standard-setting tool for identifying the optimal choice from among a whole range of regulatory alternatives.

Id.; see also Cannon, *Sounds of Silence*, *supra* note 3, at 428–29 (distinguishing between “the weak form of [BCA]” to avoid absurd regulatory alternatives and “the strong form of [BCA]” to maximize welfare).

194. See *supra*, note 1 (and citations and text therein).

195. *Entergy*, 556 U.S. at 225–26.

196. 139 S. Ct. 361 (2018).

designated a timber area (“Unit 1”) that was not occupied by the dusky gopher frog as critical habitat for this species under the Endangered Species Act (ESA).¹⁹⁷ In a unanimous 8-0 decision,¹⁹⁸ the Supreme Court held that: (1) only “habitat” of the species is eligible for designation as critical habitat; and (2) decisions not to exclude areas from critical habitat are judicially reviewable.¹⁹⁹ The Court vacated the judgment and remanded the case for the Fifth Circuit Court of Appeals to address questions related to both issues, including: (1) whether the frog could survive in Unit 1; and (2) whether the Service’s assessment of the costs and benefits of the critical habitat designation and the resulting decision not to exclude Unit 1 was arbitrary, capricious, or an abuse of discretion. Weyerhaeuser contended that even if Unit 1 could properly be classified as critical habitat, the Service should have excluded it under ESA Section 4(b)(2), which requires the Secretary to “tak[e] into consideration the economic impact . . . of specifying any particular area as critical habitat” and authorizes him to “exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat.”²⁰⁰

Weyerhaeuser contended that the Service: (1) improperly weighed the costs of designating Unit 1 against the benefits of *all* proposed critical habitat, rather than the benefit of designating Unit 1 alone, and (2) did not fully account for all of the economic impacts of designating Unit 1.²⁰¹ The Fifth Circuit had held that the Service’s decision not to exclude Unit 1 was committed to agency discretion by law and therefore unreviewable. In vacating the Fifth Circuit’s judgment, the Supreme Court cited the “strong presumption favoring judicial review of administrative action”²⁰² and emphasized that Weyerhaeuser presented a classic administrative law claim that the agency did not appropriately consider all the relevant statutory factors:

Specifically, Weyerhaeuser contends that the Service ignored some costs and conflated the benefits of designating Unit 1 with the benefits of designating all of the proposed critical habitat. *This is the sort of claim that federal courts routinely assess when determining whether to set aside an agency decision as an abuse of discretion under [the APA, 5 U.S.C.] § 706(2)(A).*²⁰³

Thus, the Supreme Court is inviting lower courts to ensure that agencies perform robust, credible BCA to justify their decisions.

Following *Entergy*, it is clear that the Administration not only could

197. 16 U.S.C. § 1533(a)(1).

198. Justice Kavanaugh did not participate.

199. *Weyerhaeuser*, 139 S. Ct. at 307–08.

200. 16 U.S.C. § 1533(b)(2).

201. *Weyerhaeuser*, 139 S. Ct. at 371–73.

202. *Id.*

203. *Id.* at 371 (emphasis added).

embrace benefit-cost analysis in a wide array of regulatory programs, but also could do so rigorously. To our knowledge, only one court of appeals has ever rejected an agency decision to use benefit-cost balancing as exceeding the agency's authority, and that case was the Second Circuit's *Riverkeeper* ruling,²⁰⁴ which the Supreme Court overturned.²⁰⁵ Nothing in the Court's *Entergy* opinion precludes agencies from pursuing full and robust benefit-cost balancing in the face of statutes that are silent or ambiguous on BCA. Rather, *Entergy* and subsequent cases have opened the door for agencies to exercise their discretion in performing robust benefit-cost balancing to carry out their statutory obligations.

IV. RECOMMENDED DIRECTIVES FOR ADVANCING THE COST-BENEFIT STATE

There are multiple options for implementing the principles that emerge from *Entergy*, *Michigan*, and their progeny. We first recommend a presidential executive order or OMB memorandum directing the agencies to implement their regulatory statutes through benefit-cost balancing—unless clearly prohibited by statute. Second—and most important—whether or not the overarching directive is issued, the agencies should reinterpret their regulatory statutes as allowing benefit-cost balancing and commit themselves to doing so through legislative rules establishing a judicially enforceable benefit-cost test, plus information quality standards. Third, OMB should issue a judicially enforceable legislative rule to further ensure the quality of the economic, technical, and scientific data and analyses supporting economically significant regulations or influential disseminations of information. Both regulatory and deregulatory actions must proceed through rulemaking, and we envision each of the above options covering both types of actions, thereby providing a measure of assurance that both regulation and deregulation is evidence-based and reasonable.

A. *Benefit-Cost Executive Order or OMB Memorandum*

Since 1981, the executive orders on benefit-cost analysis have only required agencies to conduct and use the analysis “to the extent permitted by law.”²⁰⁶ As discussed above, agencies all too often have interpreted their regulatory statutes to preclude full compliance with this presidential directive when the statutory text neither authorized nor required non-compliance. To

204. Masur, *supra* note 92, at 670.

205. *Riverkeeper, Inc. v. EPA*, 475 F.3d 83 (2d Cir. 2007), *rev'd Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208 (2009).

206. *See* Exec. Order 12291, § 2; Exec. Order 12866, § 1; Exec. Order 13563, § 1(b).

overcome longstanding agency resistance to fully implementing the benefit-cost directive, we recommend a supplemental executive order or OMB memorandum reaffirming the longstanding requirement for the agencies to conduct BCA and adding a new requirement for the agencies, as needed, to reinterpret their regulatory statutes and implement them through benefit-cost balancing, unless clearly prohibited by statute; the directive also could require OIRA to issue a legislative rule to ensure that agencies follow best practices in conducting and using BCA.²⁰⁷ This would change what, in many cases, is a current de facto presumption against BCA, as illustrated by the EPA rulemaking in *Entergy*, to a powerful presumption for BCA. The burden of persuasion to show that BCA and benefit-cost balancing is prohibited would shift to the agency, rather than OIRA being required to show that BCA is permissible. For example, the directive could require that, unless clearly prohibited by statute, each agency shall review, and as necessary and appropriate, revise its interpretation of its statutory authority for issuing regulations to ensure that the incremental benefits of its regulations justify the

207. Authority for this directive derives from Article II of the U.S. Constitution. The “vesting” clause provides that “[t]he executive Power shall be vested in a President of the United States of America.” U.S. CONST. art. II, § 1, cl. 1. The “take care” clause empowers the President to “take Care that the Laws be faithfully executed.” U.S. CONST. art. II, § 3. The “opinions” clause authorizes the President to “require the Opinion, in writing, of the principal Officer in each of the executive Departments, upon any Subject relating to the Duties of their respective Offices.” U.S. CONST. art. II, § 2, cl. 1. As the Office of Legal Counsel stated when approving the legality of President Reagan’s E.O. 12291, “It is well established that [the “take care”] provision authorizes the President, as head of the Executive Branch, to ‘supervise and guide’ executive officers in ‘their construction of the statutes under which they act in order to secure that unitary and uniform execution of the laws which Article II of the U.S. Constitution evidently contemplated in vesting general executive power in the President alone.” U.S. Dep’t of Justice, Office of Legal Couns., *Proposed Executive Order Entitled “Federal Regulation”* (Feb. 13, 1981) (citing *Myers v. United States*, 272 U.S. 52, 135 (1926)). As that Office of Legal Counsel (OLC) opinion notes, “The ‘take care’ clause charges the President with coordinating the execution of many statutes simultaneously,” avoiding “confusion and inconsistency [that] could result as agencies interpreted open-ended statutes in differing ways.” *Id.* In addition, the OLC opinion states that “[a]t least as a general rule, the President’s authority of ‘supervis[ion] in his administrative control’ . . . permits him to require the agencies to follow procedures that are designed . . . to promote ‘unitary and uniform execution of the laws’” *Id.* (citing *Myers*, 272 U.S. at 135 and the opinions clause). Furthermore, the OLC opinion concluded that is permissible for the President to “require executive agencies to be guided by principles of cost-benefit analysis even where an agency, acting without presidential guidance, might choose not to do so.” *Id.*; see also, Peter L. Strauss & Cass R. Sunstein, *The Role of the President and OMB in Informal Rulemaking*, 38 ADMIN. L. REV. 181, 197, 200 (1986) (concluding that the opinions clause empowers the President to require agency officials to prepare regulatory impact analyses, including BCA).

incremental costs. The overarching directive could explain the importance of benefit-cost analysis and benefit-cost balancing to enhance societal well-being and to ensure that agency regulations are not arbitrary and capricious, consistent with *Entergy* and *Michigan v. EPA*.

In addition to directing the executive departments and agencies to embrace benefit-cost balancing in their interpretation of their statutes, we believe that the President has the authority to, and should, require the same of the so-called “independent” regulatory agencies, consistent with the longstanding recommendation of the American Bar Association (ABA) that was reaffirmed in 2016.²⁰⁸ In 1990, the ABA recommended that “presidential review should apply generally to all federal rulemaking, including that by independent regulatory agencies.”²⁰⁹ This ABA recommendation closely followed the earlier recommendation of the Administrative Conference of the United States.²¹⁰ In 2002, President George W. Bush also issued Executive Order 13272, Proper Consideration of Small Entities in Agency Rulemaking, which directed both executive and independent regulatory agencies covered by the Regulatory Flexibility Act to enhance their compliance with the Act. In 2009, the ABA Section of Administrative Law and Regulatory Practice recommended that President Obama extend executive oversight to the independent regulatory agencies.²¹¹ On July 11, 2011, President Obama issued Executive Order 13579, Regulation and Independent Regulatory Agencies, which exhorted independent regulatory agencies to *voluntarily* comply with the Obama order on BCA and regulatory review, Executive Order

208. See American Bar Association, Section of Administrative Law and Regulatory Practice, *Improving the Administrative Process: A Report to the President-Elect of the United States* 5–10 (2016) (urging the President-elect to extend executive oversight and BCA to independent agencies, including to “use benefit-cost analysis for economically significant rules *unless prohibited by law*”) [hereinafter *ABA 2016 Report*]. The report further notes:

It is essential that the development of regulatory policies be guided by thoughtful analysis that can reconcile tradeoffs, and that regulations be carefully calibrated to achieve their goals in the most efficient and effective manner possible. Benefit-cost analysis can reveal the most promising alternatives to achieve statutory goals . . . [and urging the use of] state-of-the-art risk and benefit assessment methods to support optimal risk management.

Id. (emphasis added). A disclosure: one of this article’s co-authors, Paul Noe, co-chaired the work group that developed the *ABA 2016 Report*.

209. See American Bar Association House of Delegates, *Recommendation: Presidential Review of Rulemaking* (Annual Meeting 1990).

210. See ACUS Recommendation 88-9, *Presidential Review of Agency Rulemaking* (Feb. 2, 1989) (same).

211. See Letter from Russell H. Frisby, Chair, ABA Section of Administrative Law & Regulatory Practice, to OMB Office of Information and Regulatory Affairs (March 16, 2009).

13563, Improving Regulation and Regulatory Review. In 2016, the ABA Section of Administrative Law and Regulatory Practice recommended that, regardless of the 2016 election's outcome, the president should bring this trajectory to its logical conclusion and require the independent regulatory agencies to conduct benefit-cost balancing under OMB review.²¹² We agree.

We note that, even with the broad reach of the directive and the limited resources of OIRA and other offices in the Executive Office of the President, the directive could be efficiently implemented. The general counsels of the executive agencies and the so-called independent agencies could be tasked with reviewing their regulatory statutes for any provisions that clearly prohibit benefit-cost balancing. They then could follow up with OIRA, the OMB General Counsel, and the White House Counsel to discuss problematic statutes, if any, that might need to be accommodated or exempted. OMB could coordinate any appeals to the Office of Legal Counsel in the Department of Justice.

B. Agency Legislative Rules on Benefit-Cost Balancing and Information Quality

Most important, each agency could issue legislative rules as a supplement or substitute for the presidential or OMB directive. First, the regulations should commit the agency to implementing its regulatory statutes through benefit-cost balancing, unless clearly prohibited by the text of the statute authorizing the rule. This would address the agency discretion issue addressed in *Entergy, Michigan* and related cases. Second, the regulations should include provisions to ensure the quality of the BCA, and any related risk assessment. This would address the “garbage in, garbage out” problem: the usefulness and value of benefit-cost analysis depends on the quality of information and analyses used. Because these regulations would be judicially enforceable, they would ensure a robust transition toward the cost-benefit state.

1. EPA Regulation

The EPA has activity underway that could accomplish this goal. In 2018, the EPA issued an Advance Notice of Proposed Rulemaking (ANPRM) titled “Increasing Consistency and Transparency on Considering Costs and Benefits in the Rulemaking Process.”²¹³ The ANPRM sought comment on whether, and how, the EPA should provide a consistent and transparent interpretation relating to the consideration of weighing costs and benefits in making regulatory decisions. The EPA also solicited comment on whether, and how, these regulations should also prescribe specific analytic approaches to quantifying the costs and benefits of EPA regulations.

212. *ABA 2016 Report*, *supra* note 208, at 9–10.

213. 83 Fed. Reg. 27,524 (June 13, 2018).

In May 2019, a memorandum from EPA Administrator Andrew Wheeler followed the EPA's ANPRM and directed the heads of each media office—air, water, solid waste, and chemical safety—to develop a media-specific notice-and-comment rulemaking on how benefit-cost balancing and analytical best practices will be applied under each statute.²¹⁴ The air office apparently will proceed first, with the Administrator directing that a proposed Clean Air Act regulation be promulgated in 2019.²¹⁵ Supporters of the EPA memorandum included former Obama OIRA Administrator Cass Sunstein,²¹⁶ free-market scholars,²¹⁷ and the business community.²¹⁸

a. Content

The legislative rule that the EPA (and other agencies) would issue could contain an overarching provision to ensure that the agency's rules will do more good than harm. For example, the BCA regulation could state that, unless clearly prohibited by the text of the statute authorizing the rule, the EPA shall not propose or adopt a significant rule unless the incremental benefits justify the incremental costs. This benefit-cost provision would supplement, but not supersede, the decision criteria specified in the statute authorizing the rule. In addition to the benefit-cost test, the EPA regulation should include provisions to ensure the quality of the relevant data and regulatory impact analysis, including the BCA and any related risk assessment. Specifically, these information quality provisions should ensure that the data and analyses are the best available, transparent, and capable of being reproduced, as well as objective as a matter of presentation and substance, unbiased, and based on the weight of the scientific evidence.

214. Memorandum from EPA Administrator Andrew R. Wheeler to Assistant Administrators, *Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process* (May 13, 2019), <https://www.epa.gov/environmental-economics/administrator-wheeler-memorandum-increasing-consistency-and-transparency>.

215. *Id.*

216. Cass Sunstein, *EPA Chief Says the Right Thing. Will He Do It?*, BLOOMBERG (May 28, 2019, 6:00 AM), <https://www.bloomberg.com/opinion/articles/2019-05-28/epa-s-wheeler-on-costs-of-clean-air-regulation>.

217. James Broughel, *Trump's EPA Scores a Slam Dunk for Science*, MORNING CONSULT (May 29, 2019), <https://morningconsult.com/opinions/trumps-epa-scores-slam-dunk-science/>.

218. Jay Timmons, the CEO of the National Association of Manufacturers, stated that “[r]eforming the way the EPA performs cost-benefit analysis is likely to have a greater positive impact on the future of manufacturing in America than any single EPA regulatory action.” Press Release, Nat'l Assoc. of Manufacturers, *NAM Statement on EPA Cost-Benefit Rule Memorandum* (May 21, 2019), <https://www.nam.org/nam-statement-on-epa-cost-benefit-rule-memorandum-4966/>.

To the extent that the agency regulates under statutory provisions that conflict with or cannot fully accommodate the overarching benefit-cost provision—such as the EPA’s Clean Air Act provisions for NAAQS²¹⁹ and National Emissions Standards for Hazardous Air Pollutants (NESHAPs)²²⁰—the agency could address those statutes in subparts allowing cost to be considered to the extent not clearly prohibited by statute. For example, the EPA can consider costs in implementing NAAQS²²¹ or in setting NESHAPs above the floor.²²²

b. Legal Authority and Scope

We think that the EPA and other regulatory agencies have clear legal authority to issue legislative rules specifying how they will consider and balance costs and benefits in designing and promulgating various substantive regulations under the agencies’ statutory authorities. A legislative rule on how the agency interprets provisions of its regulatory statutes to require BCA is within the heartland of agency authority under *Chevron*. Unless a statutory provision unambiguously precludes BCA—which is very unlikely after *Entergy* and *Michigan*—there should be little doubt that such a legislative rule would be lawful.²²³

219. See Clean Air Act, 42 U.S.C. § 7409; *Whitman v. Am. Trucking Ass’ns., Inc.*, 531 U.S. 457 (2001) (stating that Section 109 of the Clean Air Act “unambiguously bars” the EPA from considering cost when establishing a NAAQS).

220. See 42 U.S.C. § 7412.

221. See *id.* § 7409.

222. See *id.* § 7412.

223. An alternative approach might be for OIRA to issue government-wide a judicially enforceable regulation directing agencies to balance costs and benefits pursuant to an executive order—similar to how the White House Council on Environmental Quality (CEQ) issues regulations implementing the National Environmental Policy Act (NEPA) pursuant to an executive order. Executive Order 11991, issued by President Carter in 1977, directed CEQ to issue regulations providing uniform standards for the implementation of NEPA and required agencies to comply with the CEQ regulations. See also Exec. Order 13807, 82 Fed. Reg. 40,463 (Aug. 24, 2018) (issued by President Trump and directing CEQ to develop a list of actions to enhance and modernize the Federal environmental review and authorization process). However, we think that the more prudent course, on both legal and practical grounds, is for regulatory agencies to issue such BCA and information quality regulations under the statutes providing their regulatory authority and for OIRA to issue a government-wide legislative rule under its statutory authority to address the quality of BCA and related analyses, including probabilistic risk assessment. See *infra*, Section V(C). The Office of Legal Counsel opinion on President Reagan’s E.O. 12291 is instructive on the legal impediment to establishing judicial enforcement of benefit-cost balancing through an executive order in the absence of a Congressional delegation of authority or mandate. While E.O. 12291 contained a

Regarding the scope of the legislative rule, the agency could issue a single, overarching legislative rule that broadly applies to its various regulatory statutes (as the BCA executive orders do), or the agency could proceed on a statute-by-statute basis, as EPA Administrator Andrew Wheeler stated in his May 2019 memorandum. Some statutes contain “housekeeping” provisions explicitly authorizing regulations necessary to carrying out the EPA’s functions under the statute.²²⁴ Even in the absence of such specific statutory provisions, however, the EPA and other agencies have the inherent authority under general principles of administrative law.²²⁵ Although this does not mean that an agency can, by regulation, “modify unambiguous requirements imposed by a federal statute,”²²⁶ in the EPA’s case and many others, the relevant statutory provisions virtually never include an unambiguous requirement for the agency to promulgate a regulation with benefits that do not justify its costs. Moreover, sound policy—and the presidential benefit-cost directives—demand regulations do more good than harm. Finally, *Entergy* and *Michigan* counsel that rules that do more harm than good are vulnerable to an arbitrariness challenge.

Accordingly, the EPA and other agencies should promulgate regulations establishing consistent policies, procedures, and considerations for addressing

provision excluding judicial review of an agency’s compliance with the order, OLC cautioned: “[e]ven without the provision, compliance with the order would probably be immunized from review because the order has not been promulgated pursuant to a specific grant of authority from Congress to the President and thus lacks the ‘force and effect of law’ concerning private parties.” U.S. Dep’t of Justice, Office of Legal Couns., *Proposed Executive Order Entitled “Federal Regulation”* (Feb. 13, 1981) (and cases cited therein).

224. See, e.g., Clean Air Act, 42 U.S.C. § 7601(a)(1); Clean Water Act, 33 U.S.C. § 1361(a).

225. See, e.g., *Citizens to Save Spencer Cty. v. EPA*, 600 F.2d 844, 873–74 (D.C. Cir. 1979) (upholding EPA regulations providing for a transition between new and modified sources subject to PSD review under the original PSD program and those covered under CAA section 165 as provided in the 1977 amendments); see also *Morton v. Ruiz*, 415 U.S. 199, 231 (1974) (“The power of an administrative agency to administer a congressionally created and funded program necessarily requires the formulation of policy and the making of rules to fill any gap left, implicitly or explicitly, by Congress.”).

In addition to the authority provided by the statute authorizing the agency rulemaking and any housekeeping provisions, the Administrative Procedure Act prohibits arbitrary agency action, 5 U.S.C. § 706(2)(A), and grants every agency “all authority necessary to comply with the requirements of [the Act] through the issuance of rules or otherwise.” 5 U.S.C. § 559. As the case law including *Entergy* and *Michigan v. EPA* makes clear, the failure to balance benefits and costs is arbitrary, absent contrary statutory language. See *supra*, Section III(B), notes 100–104 and accompanying text.

226. *Util. Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427, 2446 (2014).

the costs and benefits of their rules. The same factors logically can, and should, be applied across statutes and any differences needed to reflect limitations in statutory authority could be addressed in subsections of a single regulation.²²⁷

These considerations support the EPA setting out in a single regulation how it will address costs and benefits when issuing substantive rules. Issuing a single regulation also would help improve the likelihood that questions concerning those procedures would be resolved in a single consolidated proceeding for judicial review, rather than in multiple, potentially-conflicting opinions.²²⁸ However, the EPA could also proceed on a statute-by-statute basis, as the agency has indicated it prefers to do.

c. The Importance of Quantitative Benefit-Cost Analysis

Legislative rules that provide for robust, quantitative, and judicially-enforceable BCA would significantly overcome the dysfunctions in the current regulatory process.²²⁹ Masur and Posner make a compelling case for judicial enforcement of quantitative BCA.²³⁰ First, opponents of judicial review of agency BCA argue that generalist judges should defer to agency experts, all else being equal. But as Masur and Posner explain, “all else is not equal”—agencies may make mistakes or be biased (consciously or unconsciously), including being subject to pressure from their political

227. This is the approach the EPA took, for example, when it adopted the Consolidated Permit Regulations. *See* 45 Fed. Reg. 33,287 (May 19, 1980). There, the EPA recognized that permitting under five programs, involving four statutes (CAA, CWA, RCRA, and SDWA), would benefit from clear and consistent procedural rules based on the same administrative record. *See* *NRDC v. EPA*, 673 F.2d 392, 395–96, 399 (D.C. Cir. 1982). The EPA took a similar approach to procedures for assessing administrative penalties and revoking or suspending permits under 10 statutes it implements. 40 C.F.R. pt. 22. There, as in the Consolidated Permit Regulations, the EPA recognized the efficiency and clarity resulting from setting forth general rules applicable to such enforcement proceedings, with any differences required by individual statutes set out in supplemental rules. *See* 40 C.F.R. § 22.1(b); 45 Fed. Reg. 24,360 (April 9, 1980). For similar reasons, the EPA subsequently decided to consolidate the procedural rules for penalties where an adjudicatory hearing is required under the Administrative Procedure Act (APA) with those where penalty proceedings are not subject to the APA. *See* 63 Fed. Reg. 9,464–65 (Feb. 25, 1998). The EPA also took the same approach in issuing a single regulation governing judicial review under EPA-administered statutes. 40 C.F.R. pt. 23. Finally, the EPA saw the merit in a single set of requirements for providing for public participation in the development of policies and issuance of permits under the CWA, RCRA, and the SDWA. *See* 40 C.F.R. pt. 25.

228. *See* *NRDC*, 673 F.2d at 399–400.

229. *See* *supra* Section I, notes 21–26 and accompanying text.

230. Masur & Posner, *supra* note 24, at 935.

masters, which the independent judiciary is insulated from.²³¹ Second, quantification of BCA—and related analyses, such as any risk assessment—“changes the terms of the debate” because it significantly facilitates judicial review; quantification compels regulators to disclose their decisionmaking in a transparent process that can be readily evaluated by generalist reviewers.²³² Indeed, given the ubiquity of quantified evaluation in daily life—e.g. accounting rules, student grading, consumer product ratings, college rankings, borrower credit scores, and bank ratings—the claim that government regulations and projects cannot be subject to quantified evaluation is bizarre.²³³ Third, evidence shows that courts can competently review BCA.²³⁴ BCA is “foremost a decision *procedure*”—e.g., did the agency quantify costs and benefits, translate them into comparable units, and determine that the benefits justify the costs.²³⁵ For courts, “requiring agencies to comply with this procedure is no more difficult than forcing them to comply with the procedural elements of the APA.”²³⁶ Although BCA also requires substantive judgments, such as estimates of agency valuations, that are more challenging for courts to review, courts nonetheless can advance “administrative rationality” by correcting readily identifiable substantive errors—e.g., failing to consider trade-offs, including the cost of substitutes; failing to discount over time; discounting inconsistently; or failing to discuss relevant peer-reviewed studies—and by demanding that agencies offer explanations beyond boilerplate.²³⁷

d. Consistency Doctrine and Agency Policy Change Authority

The EPA and other agencies embracing BCA would presumably be grounded both in an accurate exposition of the law and prescriptive reasoning about optimal and responsive policy, and we think that this administrative change can be justified and upheld by the courts on both grounds. As

231. *Id.* at 939.

232. *Id.* at 939–40.

233. *Id.* at 940–41.

234. See Cecot & Viscusi, *supra* note 10; Reeve T. Bull & Jerry Ellig, *Judicial Review of Regulatory Impact Analysis: Why Not the Best?*, 69 ADMIN L. REV. 725 (2017) (courts could effectively review the quality of agencies’ regulatory impact analyses if they were given more concrete guidance on what a regulatory impact analysis must include); Reeve T. Bull & Jerry Ellig, *Statutory Rulemaking Considerations and Judicial Review of Regulatory Impact Analysis*, 70 ADMIN. L. REV. 873 (2018) (judicial review is a key element that induces agencies to respond to analytic requirements).

235. Masur & Posner, *supra* note 24, at 949.

236. *Id.* at 981.

237. *Id.* at 942, 950, 981.

discussed above, advancing the cost-benefit state is supported by the evolution in the case law, including *American Textile*, *State Farm*, *Chevron*, *American Trucking*, *Entergy*, and *Michigan*, as well as by BCA's advantages over other decision procedures for enhancing societal well-being. The agencies are free to change their existing policies as long as they provide a reasoned explanation for the change, but they should display awareness that they are changing position, show there are good reasons for the new policy, and consider reliance interests in longstanding policies, as well as facts and circumstances that underlay or were engendered by prior policies.²³⁸

2. Regulations by Other Agencies

The EPA legislative rule, and the authority for it, could serve as the model for other agencies, both the benefit-cost balancing provision and the information quality provisions. In December 2018, the U.S. Department of Transportation (DOT) updated its benefit-cost guidelines,²³⁹ and then agency officials expressed an interest in codifying the guidelines in a regulation²⁴⁰ and did so in December 2019.²⁴¹ The DOT "rule on rules" includes a "benefits outweigh costs" standard for DOT regulation, and while this is an important precedent, we think it would be preferable for the EPA and other agencies to adopt a clear "incremental benefits justify incremental costs" standard, as well as information quality provisions to ensure that the agency's data, benefit-cost analysis and any related risk assessment are the

238. See *Encino Motorcars v. Navarro*, 136 S. Ct. 2117, 2125–26 (2016); see also Randy J. Kozel & Jeffrey A. Pojanowski, *Administrative Change*, 59 UCLAL. REV. 112 (2011); William W. Buzbee, *The Tethered President: Consistency and Contingency in Administrative Law*, 98 B.U. L. REV. 1357 (2018).

239. U.S. DEP'T. OF TRANSP., DOT ORD. 2100.6, POLICIES AND PROCEDURES FOR RULEMAKINGS (Dec. 20, 2018).

240. Stephen Bradbury, General Counsel, U.S. Dep't of Transp., Remarks at the Federalist Society Seventh Annual Executive Branch Review Conference (May 8, 2019).

241. Administrative Rulemaking, Guidance, and Enforcement Procedures, 49 C.F.R. part 5 (Dec. 3, 2019), <https://www.transportation.gov/sites/dot.gov/files/docs/regulations/359656/administrative-rule.pdf>. The DOT "rule on rules" codifies a series of important reforms to its rulemaking, guidance, and enforcement practices, including a judicially enforceable benefit-cost test for DOT regulations. See 49 C.F.R. § 5.13(e)(1)(ii) ("If the regulatory action is expected to impose costs, either a reasoned determination that **the benefits outweigh the costs** or, if the particular rulemaking is mandated by statute or compelling safety need notwithstanding a negative cost-benefit assessment, a detailed discussion of the rationale supporting the specific regulatory action proposed and an explanation of why a less costly alternative is not an option.") (emphasis added). Since the DOT "rule on rules" is a rule of agency procedure, it was exempt from the notice-and-comment requirements of the APA and was issued directly in final form.

best available, transparent, capable of being reproduced, as well as objective as a matter of presentation and substance, unbiased, and based on the weight of the scientific evidence.²⁴²

3. *The Staying Power of Benefit-Cost Regulations*

Finally, while our primary focus has been on the legal authority of an administration to willingly embrace the cost-benefit state, the holdings and logic of *Entergy* and *Michigan* extend two levels beyond that. First, as is implicit in *Entergy* and explicit in *Michigan*, an agency's refusal to balance benefits and costs when authorized to do so can render its rules vulnerable to an arbitrariness challenge. Second, if an administration fully embraces the cost-benefit state through binding legislative rules, its successors may be hard-pressed to reverse course—not merely on policy or political grounds, but as a matter of law. At that point, reversing the cost-benefit state would require overcoming the emerging default rule, apparently supported by nine Justices, that “agencies **must** weigh costs and benefits, at least in some fashion,”²⁴³ absent a clear statutory instruction to the contrary.

As a general proposition, it is not readily apparent how reversing a “do more good than harm” standard that accommodates conflicting statutory instructions would not be arbitrary and capricious;²⁴⁴ doing more good than harm is the essence of rational decisionmaking. As *State Farm* makes clear, “an agency changing its course by rescinding a rule is obligated to supply a reasoned analysis for the change beyond that which may be required when

242. We think it is preferable to adopt an “**incremental** benefits justify **incremental** costs” standard because optimal regulation ordinarily should not go beyond maximizing net benefits, since beyond that, incremental costs exceed incremental benefits. As discussed above, it also is important for an agency “rule on rules” to include information quality provisions to ensure that the agency’s data and regulatory impact analysis, including the benefit-cost analysis and any related risk assessment, are of acceptable quality, to address the “garbage in, garbage out” problem.

243. Masur & Posner, *supra* note 24, at 976.

244. Compare Masur & Posner, *supra* note 24, at 975–81 (discussing an emerging default rule under federal common law that agencies *must* weigh cost and benefits absent contrary Congressional instructions), with Sunstein, *supra* note 27, at 40–42 (concluding that “[u]nder the APA, agencies must avoid arbitrariness, and a regulation that imposes costs without conferring benefits is arbitrary”). Sunstein also states that there may be some case-specific non-arbitrary explanations for “failing to engage in some form of quantified cost-benefit analysis, showing that benefits do in fact justify costs,” including: (1) statutes that forbid cost consideration; (2) qualitative explanations are sufficient; (3) quantifying costs and benefits is infeasible; (4) values such as dignity, equity, and fairness might be relevant and difficult or impossible to quantify; and (5) welfare effects of the regulation may not be adequately captured by monetized BCA. *Id.*

an agency does not act in the first instance.”²⁴⁵ When courts review such an agency action, they “consider the adequacy and rationality of the agency’s decision-making process, not just the reasonableness of its policy choice.”²⁴⁶ As discussed above, BCA is the optimal decisionmaking procedure to enhance societal well-being.²⁴⁷ Under *State Farm*, “the agency must examine the relevant data and articulate a satisfactory explanation for its action, including a ‘*rational connection between the facts found and the choice made.*’”

In reviewing the agency’s explanation [the reviewing court] must ‘consider ***whether the decision was based on a consideration of the relevant factors*** and whether there has been a clear error of judgment.’ Normally, an agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, ***entirely failed to consider an important aspect of the problem***, offered an *explanation for its decision that runs counter to the evidence before the agency*, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.²⁴⁸

Absent unambiguous statutory language to the contrary, weighing costs and benefits is “always a relevant—and usually, a highly important—factor in regulation.”²⁴⁹ Ironically, the surest way to solidify the Court’s emerging default rule on BCA could be to challenge a legislative rule codifying it.

In any event, codifying a “do more good than harm” standard would provide greatly needed regulatory certainty. Regulatory proposals would rise or fall based on the evidence, rather than shifting political winds, raw emotion, or power politics. Of course, an evidence-based regulatory system would not eliminate the need for value judgments, but it would facilitate the implementation of value judgments through a rational and transparent framework. An evidence-based regulatory system would also powerfully incentivize the development of much stronger evidence, help ensure that regulations are beneficial, and help bridge the partisan divide. In contrast to the status quo, under which the executive branch has a relatively uncontested monopoly over BCA, judicially enforceable BCA standards would incentivize the development of competing information and analyses because there would be a venue (the courts) in which to challenge the evidence before relatively unbiased arbiters (Article III judges).

245. *Motor Vehicle Mfrs. Ass’n, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42 (1983).

246. See Pojanowski, *supra* note 88, at 1085–86.

247. *E.g.*, *supra* Section IV(B)(2). As noted in that subsection and elsewhere in this article, BCA is the optimal decision procedure for enhancing public welfare, and alternative decision procedures are inferior to BCA because they fail to fully account for social costs and benefits and to balance them for an optimal regulatory decision.

248. *State Farm*, 463 U.S. at 43 (emphasis added and citations omitted).

249. See *Michigan v. EPA*, 135 S. Ct. 2699, 2716 (2015) (Kagan, J., dissenting).

Accordingly, embracing the cost-benefit state could deliver a more sustainable regulatory system and greatly enhance societal well-being.

C. *OIRA Legislative Rule on the Quality of Agency Benefit-Cost Analyses*

As a supplement to the provisions in the agency rules on the quality of economic, technical, and scientific data and analysis recommended above, OIRA should issue a legislative rule focused on the quality of benefit and cost estimates. This could further address the “garbage in, garbage out” problem.

During the George W. Bush Administration, when the authors served at OIRA, OMB issued government-wide information quality guidelines that applied to the agencies²⁵⁰ under the so-called Information Quality Act (IQA).²⁵¹ Those guidelines applied to many issues, including measures of benefits and costs, BCA and risk assessment. While questions remain about whether agency decisions under those guidelines might be judicially reviewable,²⁵² the case law generally has been slow to crystallize.²⁵³ To address agency non-compliance with those guidelines, as well as OMB Circular A-4, OIRA could codify core elements of how to estimate, quantify, and monetize benefits and costs in a judicially enforceable legislative rule.

We believe that OIRA has the legal authority to issue such a legislative rule. The strongest argument arises from the text of two related statutes, the Paperwork Reduction Act (PRA)²⁵⁴ and the IQA. Section 3504 of the PRA establishes OMB’s authority over seven different categories of government information issues,²⁵⁵ and Section 3516 empowers OMB to “promulgate

250. Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility and Integrity of Information Disseminated by Federal Agencies, 67 Fed. Reg. 8,452 (Feb. 22, 2002).

251. Consolidated Appropriations Act FY 2001 of 2000, Pub. L. No. 106-554, 114 Stat. 2763A-153–2763A-154.

252. See, e.g., James W. Conrad, Jr., *The Information Quality Act – Antiregulatory Costs of Mythic Proportions?*, 12 U. KAN. J.L. & PUB. POL’Y 521, 538–39 (2002–2003).

253. While the Fourth Circuit has held that decisions under agency IQA guidelines are not judicially reviewable, see *Salt Inst. v. Thompson*, 440 F.3d 156, 159 (4th Cir. 2006), both the D.C. and Ninth Circuits have declined to affirm district court decisions on the basis of *Salt Institute’s* logic, thus preserving the question of reviewability for a more appropriate case. See *Prime Time Int’l Co. v. Vilsack*, 599 F.3d 678 (D.C. Cir. 2010); *Ams. for Safe Access v. Dep’t of Health & Human Servs.*, No. 07-17388, 2010 WL 4024989, at *1 (9th Cir. Oct. 14, 2010); *Harkonen v. DOJ*, 800 F.3d 1143 (9th Cir. 2015). Presumably they did so because the better logic is that agency decisions under the IQA guidelines, as final agency actions for which there is no other adequate remedy, are reviewable under the APA. See 5 U.S.C. § 704.

254. 44 U.S.C. § 3501 et seq.

255. The seven categories, each addressed by a different subsection, are (b) information management, (c) information collection, (d) information dissemination, (e) statistical policy and coordination, (f) records management, (g) privacy and security, and (h) federal

rules, regulations, or procedures necessary to exercise the authority provided by” the PRA.²⁵⁶ While Section 3504 uses the word “guidelines” throughout its text, OMB has issued an entire Code of Federal Regulations (C.F.R.) part containing legally-binding regulations to implement the information collection provisions set out in Section 3504(c)²⁵⁷—demonstrating that the PRA’s use of the word “guidelines” was not intended to limit OMB’s power to issuing non-mandatory guidance. OMB has equivalent legal authority to issue regulations to implement Section 3504(d), which addresses information dissemination. And in fact, the IQA requires OMB to “issue guidelines under sections 3504(d)(1) and 3516 of [the PRA] . . . for ensuring and maximizing the quality, objectivity, utility and integrity of information . . . disseminated by Federal agencies”²⁵⁸ While the IQA uses the term “guidelines,” it clearly does so to be consistent with section 3504, and not to limit OMB’s authority. Consistently, the IQA is codified in the United States Code as a note under Section 3516. Additionally, Section 3506 of the PRA—

information technology. *Id.* § 3504. With respect to general information resources management policy under § 3504(b), “the Director shall – (1) *develop and oversee the implementation of uniform information resources management policies, principles, standards and guidelines*; [and] (2) foster greater sharing, dissemination, and access to public information, including through . . . (B) *the development and utilization of common standards for information collection, . . . processing and communication . . .*” (emphasis added). The term “information resources” means “information and related resources . . .,” 44 U.S.C. § 3502(6), and the term “information resources management” means “*the process of managing information resources to accomplish agency missions and to improve agency performance . . .*” 44 U.S.C. § 3502(7) (emphasis added). With respect to information dissemination under § 3504(d), “the Director shall *develop and oversee the implementation of policies, principles, standards and guidelines to – (1) apply to Federal agency dissemination of public information, . . . and (2) promote public access to public information and fulfill the purposes of [the Act], including through the effective use of information technology.*” 44 U.S.C. § 3504(d) (emphasis added). Under § 3501, the purposes of the Paperwork Reduction Act include, among others, to:

(2) *ensure the greatest possible public benefit from and maximize the utility of information created, collected, maintained, used, shared and disseminated by or for the Federal Government*; (3) coordinate, integrate, and to the extent practicable and appropriate, *make uniform Federal information resources management policies and practices as a means to improve the productivity, efficiency, and effectiveness of Government programs . . .*; (4) *improve the quality and use of Federal information to strengthen decisionmaking, accountability, and openness in Government and society; . . .* [and] (6) *strengthen the partnership between the Federal Government and State, local, and tribal governments by minimizing the burden and maximizing the utility of information created, collected, maintained, used, disseminated, and retained by or for the Federal Government . . .*

Id. § 3501 (emphasis added).

256. *Id.* § 3506(a).

257. See 5 U.S.C. § 1320.

258. Information Quality Act, Pub. L. No. 106-554, § 515(a), 114 Stat. 2763A-153.

addressing “Federal agency responsibilities”—provides that “[t]he head of each agency shall be responsible for . . . complying with the requirements of [the PRA] and related policies established by [OMB].”²⁵⁹ Importantly, even though OMB did not codify its IQA guidelines in the C.F.R., the D.C. Circuit has referred to them as “binding” on agencies and has afforded them *Chevron* deference.²⁶⁰

Second, the IQA requires an administrative petition process “allowing affected persons to seek *and obtain* correction of information . . . that does not comply with the guidelines.” The mandatory language “and obtain” indicates that Congress intended the IQA guidelines to be legally binding.²⁶¹ Indeed, the IQA’s text is written in broadly mandatory terms, including that the OMB guidelines “shall . . . apply to . . . Federal agencies” and “shall . . . require that each Federal agency issue guidelines and establish a correction mechanism.” Courts have interpreted such language as evidence of a mandatory intent by Congress.²⁶² As an amendment to the PRA, the IQA applies to both cabinet agencies, as well as independent agencies.²⁶³

Finally, the Regulatory Right-to-Know Act²⁶⁴ requires that OMB not only to prepare and present to Congress an annual report on the costs and benefits of federal regulations, including accounting statements, but also requires OMB to provide the agencies with “guidelines to standardize measures of costs and benefits.”²⁶⁵ This provides further support for an OMB legislative rule on objectively estimating and measuring benefits and costs.

Thus, there is ample evidence that Congress intended the IQA guidelines, that OMB issues, to be binding and that, whatever the legal status of the current guidelines, OMB has the authority to promulgate a similar binding rule through notice-and-comment rulemaking.²⁶⁶ While the foregoing addresses the binding nature of OMB’s guidelines, the same logic extends to the agency guidelines as well.²⁶⁷ Accordingly, the IQA could help provide legal support for the information quality provisions in the agency legislative rules on BCA, as recommended above.

A potential counterargument to Congress’s mandatory intent could be its

259. 44 U.S.C. § 3506(a)(1)(B).

260. *See* Prime Time Int’l Co. v. Vilsack, 599 F.3d 678, 685 (D.C. Cir. 2010).

261. Conrad, *supra* note 252, at 536.

262. *Id.* at 537.

263. *See* Paperwork Reduction Act, 44 U.S.C. § 3502(1), (5).

264. *See* Regulatory Right-to-Know Act, Consolidated Appropriations Act FY 2001 of 2000, Pub. L. No. 106-554, 114 Stat. 2763A-161.

265. *Id.* § 624(c).

266. Conrad, *supra* note 252, at 536–42.

267. *Id.*

use of the term “guidelines” in the IQA. On closer examination, however, the better reading of the term “guidelines” in the IQA supports that the “guidelines” should be legislative rules, and this interpretation falls within OMB’s *Chevron* authority. As noted above, PRA Section 3504(d)(1) uses the term “guidelines,” but PRA “guidelines” can in fact be regulations that bind agencies.²⁶⁸ In drafting the IQA to direct OMB to issue “guidelines under section[] 3504(d)(1) of . . . the Paperwork Reduction Act,” Congress most plausibly was just aligning the terminology in the IQA with the PRA. More generally, Congress has often used the term “guidelines” in other legislation when it intended binding regulations. Beyond the PRA itself, examples include “effluent limitation guidelines” authorized under the Clean Water Act²⁶⁹ and the federal sentencing guidelines.²⁷⁰ The touchstone is not simply the terminology, but the substance and effect of the measure.²⁷¹ Finally, but perhaps most importantly, if Congress intended the IQA guidelines to be non-binding, Congress could have referred merely to Section 3504(d)(1), and would not have needed to refer to Section 3516. Conversely, interpreting the IQA guidelines to be non-binding would make the IQA’s reference to Section 3516 surplusage, and courts strongly disfavor such interpretations.²⁷²

Case law distinguishing binding legislative rules from non-binding guidance focus on whether the rule is issued pursuant to legislative authority, and especially whether it fills a “legislative gap” such that the statute would be inoperative without it.²⁷³ The OMB government-wide guidelines are such rules; the IQA would have no effect without them.²⁷⁴ OMB’s use of notice-and-comment procedures and mandatory language in the guidelines would be further evidence of their binding nature.²⁷⁵

We think that the IQA and PRA, as well as the RRTKA, would provide OIRA with ample statutory authority to issue a legislative rule directing the agencies on how to perform high quality benefit-cost analyses and

268. Conrad, *supra* note 252, at 536–37. As noted above, OMB has issued PRA rules that are codified at 5 C.F.R. § 1320; its IQA guidelines could certainly be codified there as well.

269. Clean Water Act, 33 U.S.C. § 1314(b); *see also* E.I. Du Pont de Nemours & Co. v. Train, 430 U.S. 112, 124–36 (1977).

270. *See* Sentencing Reform Act of 1984, 28 U.S.C. 994(a)(1) (2000) (requiring the U.S. Sentencing Commission to issue “guidelines”); *see also* Stinson v. United States, 508 U.S. 36, 42 (1993).

271. *See* Anderson v. Butz, 550 F.2d 459, 463 (4th Cir. 1977) (“[T]he label attached is not controlling.”).

272. *See* Obduskey v. McCarthy & Holthus LLP, 139 S. Ct. 1029, 1037 (2019).

273. *See* Am. Mining Congress v. U.S. Dep’t of Labor, 995 F.2d 1106, 1112 (D.C. Cir. 1993); Am. Hosp. Ass’n v. Bowen, 834 F.2d 1037, 1045–47 (D.C. Cir. 1987).

274. Conrad, *supra* note 252, at 536–37.

275. *Id.* at 536–38.

probabilistic risk assessments to support reasonable regulations that would fulfill a “do more good than harm” standard. In addition to this statutory authority, the OIRA information quality regulation could be supported by the recommended executive directive.²⁷⁶ The OIRA regulation could further ensure that the data and analyses supporting important regulatory decisions are the best available, transparent, and capable of being reproduced, as well as objective as a matter of presentation and substance, unbiased, and based on the weight of the scientific evidence.²⁷⁷ We believe that such an OIRA legislative rule could be enforceable in court by members of the public and organizations that are adversely affected by agency non-compliance.

CONCLUSION

Reasonable minds can agree that the goal of regulation is to enhance, not undermine, societal well-being. BCA, despite its limitations, is the best decisionmaking tool to ensure that regulations are evidence-based and actually do enhance societal well-being. Over the last four decades, there have been many advances toward the cost-benefit state; “government regulation *is* increasingly assessed by asking whether the benefits of regulation justify the costs.”²⁷⁸ But far greater progress is readily at hand.

While *Entergy* and *Michigan v. EPA* may not have been fully appreciated, their potential may be fully realized if the Trump Administration, and future administrations, embrace benefit-cost balancing. From this perspective, *Entergy* and *Michigan* may be viewed as an important inflection point in the trajectory toward the cost-benefit state. Since 1981, every president has required the executive agencies to apply benefit-cost balancing in implementing regulatory statutes “to the extent permitted by law.”²⁷⁹ “Against the backdrop of

276. See *supra* Sec. V(A), note 207 and accompanying text. As the Office of Legal Counsel stated when approving the legality of President Reagan’s benefit-cost order, E.O. 12291: “[T]he President would not exceed any limitation on his authority by authorizing . . . the OMB Director to supervise agency rulemaking as the order would provide . . . The function of . . . the Director . . . would be supervisory in nature. It would include such tasks as . . . *the development and implementation of uniform systems of methodology . . .*” U.S. Dep’t of Justice, Office of Legal Couns., *Proposed Executive Order Entitled “Federal Regulation”* (Feb. 13, 1981) (emphasis added).

277. Cf. Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility and Integrity of Information Disseminated by Federal Agencies, 67 Fed. Reg. 8,457–60.

278. See Sunstein, THE COST-BENEFIT STATE, *supra* note 1 (emphasis added); Cass R. Sunstein, *Thanks, Justice Scalia, for the Cost-Benefit State*, BLOOMBERG VIEW (July 7, 2015), <https://www.bloomberg.com/opinion/articles/2015-07-07/thanks-justice-scalia-for-the-cost-benefit-state>.

279. Exec. Order 12291, § 2; Exec. Order 12866, § 1(b); Exec. Order 13563, § 1(b).

this established administrative practice,²⁸⁰ the Supreme Court in *Entergy* shifted from an apparent presumption—that benefit-cost analysis *cannot* be applied unless explicitly authorized by the statute—to deferring to agency interpretations of “silences or ambiguities in the language of regulatory statutes as permitting, not forbidding, this type of rational regulation.”²⁸¹ In *Michigan*, the Court took the next step by clarifying that when an agency has the authority to balance benefits and costs, refusing to do so may render the agency’s regulations vulnerable to an arbitrariness challenge. Most regulatory statutes are silent or ambiguous on benefit-cost analysis, and we may be on the threshold of a paradigm shift²⁸² that could fundamentally rebalance the administrative state and enhance societal well-being.

President Trump has an historic opportunity to dramatically advance the cost-benefit state. After *Entergy*, *Michigan*, and their progeny, it is clear that the President or OMB may lead the regulatory agencies—including the independent agencies—to reexamine and modernize their statutory interpretations to require benefit-cost balancing in implementing all regulatory programs, *unless clearly prohibited* by the statute authorizing the rule. The regulatory agencies, too, can issue legally binding regulations to commit themselves to do more good than harm. Further, OMB can issue legally binding regulations to ensure the quality of economic, technical, and scientific analysis to support regulatory decisions. We recommend that the Trump Administration take these pivotal steps to ensure that regulations do more good than harm.²⁸³

280. *Michigan v. EPA*, 135 S. Ct. 2699, 2707 (“Agencies have long treated cost as a centrally relevant factor when deciding whether to regulate . . . *Against the backdrop of this established administrative practice*, it is unreasonable to read an instruction to an administrative agency to determine whether “regulation is appropriate and necessary” as an invitation to ignore cost.”) (emphasis added).

281. *Whitman v. Am. Trucking Ass’ns, Inc.*, 531 U.S. 457, 490 (2001).

282. *Graham*, *supra* note 26.

283. *See, e.g., Graham, Beyond Process Excellence*, *supra* note 1 (arguing that the quest for regulatory excellence should focus on outcomes informed by benefit-cost balancing to ensure regulations do more good than harm).