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NORMING IN ADMINISTRATIVE LAW

Jonathan S. Masur & Eric A. Posner¹

How do regulatory agencies decide how strictly to regulate an industry? They sometimes use cost-benefit analysis or claim to, but more often the standards they invoke are so vague as to be meaningless. This raises the question whether the agencies use an implicit standard or instead regulate in an ad hoc fashion. We argue that agencies frequently use an approach that we call “norming.” They survey the practices of firms in a regulated industry and choose a standard somewhere within the distribution of existing practices, often no higher than the median. Such a standard burdens only the firms whose practices lag the industry. We then evaluate this approach. While a case can be made that norming is appropriate when a regulatory agency operates in an environment of extreme uncertainty, we argue that on balance norming is an unwise form of regulation. Its major attraction for agencies is that it minimizes political opposition to regulation. Norming does not serve the public interest as well as a more robust standard like cost-benefit analysis.

INTRODUCTION

A furious debate about how government agencies *should* regulate when they are authorized to do so under general statutory mandates has mostly neglected the question of how agencies *do* regulate. The two questions are different, of course. The “should” question has focused in recent years on the role of cost-benefit analysis, with scholars taking sides pro or con, and some scholars advocating other standards like feasibility analysis.² In this debate, scholars cite agency regulatory impact statements (RIAs) and related materials, and judicial opinions, but mainly to criticize or defend the agencies’ explanations for their regulations. They do not usually question the agencies’ explanations or try to figure out the real springs of agency action.

¹ University of Chicago Law School. Thanks to Cass Sunstein and Jennifer Nou for helpful comments and to Kyle Trevett for excellent research assistance.

² CASS R. SUNSTEIN, *THE COST-BENEFIT STATE: THE FUTURE OF REGULATORY PROTECTION* (1996); RICHARD L. REVESZ & MICHAEL A. LIVERMORE, *RETAKING RATIONALITY: HOW COST-BENEFIT ANALYSIS CAN BETTER PROTECT THE ENVIRONMENT AND OUR HEALTH* (2011); MATTHEW D. ADLER & ERIC A. POSNER, *NEW FOUNDATIONS OF COST-BENEFIT ANALYSIS* (2006); FRANK ACKERMAN & LISA HEINZERLING, *PRICELESS: ON KNOWING THE PRICE OF EVERYTHING AND THE VALUE OF NOTHING* (2005).

A smaller literature looks at what agencies do. Some scholars provide detailed case studies that report and evaluate the reasoning used by agencies.³ Others have produced studies that evaluate agency regulations in aggregate to see if they generate benefits or costs, with mixed results.⁴ A strand of the literature focuses on political influences on agencies.⁵ But there is little attention to how agencies decide whether to regulate, and—of particular interest to us—how they decide on the level of regulatory strictness once they have decided to regulate.

In this Article, we suggest that agencies often use a distinctive style of decision-making, which we call “norming.” A norm is “a set standard of development or achievement usually derived from the average or median achievement of a large group.”⁶ We convert the noun into a verb to capture what we think agencies are doing. In deciding how strict to make a regulation, agencies may choose a level of strictness that puts significant burdens on industry outliers—the firms with the worst practices—while putting limited burdens or none at all to the firms whose practices are of average quality or better. We call this practice “norming” because it allows the statistical norm—reflecting the actual practices of industries—to provide the source of the regulatory standard. This should have the effect of truncating the distribution at the low-quality end.

While agencies do not use the word “norming” to describe their decision-making procedures, we show that they often engage in this behavior. In some cases, a statute directs an agency to engage in norming. In other cases, agencies have interpreted statutes to allow or require them to engage in norming. And in still other cases, agencies seem to engage in norming in tandem with other approaches, like feasibility analysis or cost-benefit analysis.

After providing background in Part I, we document several instances of norming in Part II. Our goal is not to survey agency behavior exhaustively but to persuade the reader that norming is a sufficiently important agency

³ W. KIP VISCUSI, *FATAL TRADEOFFS: PUBLIC AND PRIVATE RESPONSIBILITIES FOR RISK* (1992); Cass R. Sunstein, *The Arithmetic of Arsenic* (John M. Olin Program in Law and Economics Working Paper No. 135, 2001); DAVID L. HARFST & JERRY L. MASHAW, *THE STRUGGLE FOR AUTO SAFETY* (1990) (automobile safety regulation by DOT and NHTSA). See also Caroline Cecot & W. Kip Viscusi, *Judicial Review of Agency Benefit-Cost Analysis*, 22 *GEO. MASON L. REV.* 575 (2015) (discussing judicial review of CBAs).

⁴ E.g., Robert W. Hahn & Patrick M. Dudley, “How Well Does the Government Do Cost-Benefit Analysis?” (AEI-Brookings Joint Center Working Paper No. 04-01, 2004).

⁵ GEORGE J. STIGLER, *CHICAGO STUDIES IN POLITICAL ECONOMY* (1988); Jean-Jacques Laffont & Jean Tirole, *The Politics of Government Decision-Making: A Theory of Regulatory Capture* 106 *Q. J. of Econ.* 1089 (1991).

⁶ “Norm,” *Merriam-Webster*, 2017, <https://www.merriam-webster.com/dictionary/norm> (last visited Jan. 3., 2018).

practice to deserve scholarly and public attention. In Part III, we evaluate norming from the standpoint of the public good. Agencies often engage in norming, but should they? An argument can be made that norming is a reasonable way to proceed when regulators are highly uncertain about best practices, but we argue that cost-benefit analysis is the better approach. The problem with norming is that often even the average or high-quality practices within an industry cause harm to the public, justifying a regulatory response. We suggest that the major reason for norming is that it is politically attractive. Industry opposition to regulation is often intense, but when the burden of regulation falls on only the worst firms, the industry may not be opposed to it. The leading firms in the industry may even support the regulation because the outliers harm the reputation of the industry or pose costly threats to the dominance of the stronger firms. Finally, in Part IV, we further illustrate the attraction and limitations of norming by discussing instances in which courts have engaged in norming. The most familiar example comes from the jurisprudence of the Eighth Amendment, which requires courts to strike down punishments that are, in terms of harshness, outliers from the statistical distribution represented by the states.

I. REGULATORY STANDARDS AND DECISION PROCEDURES

A. Legal Standards

When Congress creates administrative agencies and gives them directions, it usually uses broad language that is susceptible to multiple interpretations. For example, one section of the Clean Air Act, which governs emissions from power plants, instructs the EPA to issue regulations that are “appropriate and necessary.”⁷ The language means not only that the EPA should issue regulations when appropriate and necessary, but that the *strictness* of a regulation should be “appropriate and necessary.” Anytime an agency regulates, it must choose a level of strictness, and that level could range from zero or *de minimis*, to extreme—in this case, for example, mandating an emission level of zero, which would destroy the power industry. Congress evidently wanted EPA to avoid both extremes but gave no guidance as to how strict the regulation should be, within the vast range between *de minimis* and maximal.

In other cases, Congress provided more concrete instructions while still leaving much to the agency’s discretion. For instance, one section of the Clean Water Act instructs the EPA to mandate the “best technology available for minimizing adverse environmental impact.”⁸ This language is less vague

⁷ 42 U.S.C. § 7412(n)(1)(A).

⁸ 33 U.S.C. § 1326(b).

than “appropriate and necessary,” but it still leaves much in doubt. Is the “best” technology the most effective (i.e., cleanest) technology, or the most efficient (i.e., cost-effective) technology? For a technology to be “available,” must it already be in use, or can it be on the drawing board? And so forth.⁹

Agencies address these ambiguities by offering interpretations or relying on decision procedures, which are reported in various regulatory documents. Under the *Chevron* doctrine, courts accept reasonable interpretations.¹⁰ The courts have sanctioned regulations based on cost-benefit analysis as well as regulations based on other types of methodologies.¹¹ However, the fact that an agency has legal authority under *Chevron* to select a particular level of regulation does not mean that the level of regulation it selected was well-chosen. Agencies have been criticized frequently both for excessively strict and insufficiently strict regulation.¹² These criticisms are often based on cost-benefit analyses, which evaluated regulations by comparing the burden on industry with the monetized benefits the regulations sought to achieve. In an effort to remedy this problem, a succession of presidents (beginning with Reagan and extending through Obama and Trump) have required most agencies to produce a cost-benefit analysis each time it promulgates a regulation with an economic impact of more than \$100 million per year.¹³ This requirement has become entrenched.¹⁴

The fact that agencies are required to perform cost-benefit analysis when regulating does not mean that they always use cost-benefit analysis to decide how stringently to regulate. In some cases, statutes appear to bar the agencies from relying on a cost-benefit analysis. Moreover, even when they use cost-benefit analysis, often different levels of regulatory strictness may all be consistent with a cost-benefit standard. Accordingly, agencies have

⁹ The administrative state is far too vast, and the various regulatory statutes far too numerous, for us to canvas even a small portion of them here. For a partial catalog of major regulatory provisions, which highlights the many variations in regulatory language, see Jonathan S. Masur & Eric A. Posner, *Cost-Benefit Analysis and the Judicial Role*, 85 U. Chi. L. Rev. (forthcoming 2018) (hereinafter “*Judicial Role*”) (Appendix).

¹⁰ *Chevron v. Natural Resources Defense Counsel*, 467 U.S. 837 (1984); Jonathan S. Masur & Eric A. Posner, *Against Feasibility Analysis*, 77 U Chi. L. Rev. 657 (2010).

¹¹ Jacob Gersen & Adrian Vermeule, *Thin Rationality Review*, 114 Mich. L. Rev. 1355 (2016) (documenting cases in which courts have been deferential to agency choice of methodology); Caroline Cecot & W. Kip Viscusi, *Judicial Review of Agency Benefit-Cost Analysis*, 22 Geo. Mason L. Rev. 575 (2015) (documenting judicial deference to agency cost-benefit analysis).

¹² STEPHEN BREYER, *REGULATION AND ITS REFORM* (1982).

¹³ Exec. Order No. 12291, 46 Fed. Reg. 13193 (Feb. 17, 1981).

¹⁴ See Masur & Posner, *Judicial Role*, *supra* note 8, at 8 (observing that the executive requirement of cost-benefit analysis has remained in force across every presidential administration since Reagan).

typically relied upon a number of different decision procedures or methodologies for selecting regulatory standards, which we describe below.¹⁵

B. Decision Procedures

Cost-benefit analysis. Under a cost-benefit analysis, an agency issues a regulation if the benefits exceed the costs. The costs typically include the expense of compliance, which may involve installing safety devices, training workers, and discontinuing production methods—capital and labor expenses borne by industry, passed on to consumers as higher prices, shareholders as lower returns, and workers as lower wages or layoffs. The benefits typically involve improvements in public health, safety, convenience, and other forms of well-being. The major virtue of cost-benefit analysis is that if (as is often claimed) the regulator’s goal is to improve public welfare, the decision procedure enables the agency to identify all aspects of public welfare that the regulation might affect, and provides a straightforward means for evaluating it.

The simple formulation masks numerous complexities and problems, both normative and methodological—the topic of a vast literature.¹⁶ We will not rehearse these problems here, except to note one of them which is relevant to our current topic. Because of the complexity of the economy and human behavior, it is often difficult to determine whether an incremental increase in the stringency of the regulation will produce more net benefits or more net costs. Agencies that demand a high degree of certainty before regulating may thus end up regulating too little, while agencies that forge ahead despite uncertainty are often accused of recklessness. For the same reason, agencies may find it difficult to defend reasonable but speculative judgments when their regulations are challenged in court.¹⁷

Feasibility analysis. Because some statutes require agencies to implement regulations where “feasible,” an idea has developed that agencies should conduct “feasibility analysis,” which means that the agency should regulate as strictly as possible short of driving firms or industries out of

¹⁵ C.R.S. Rep. No. R41561 (2016)

¹⁶ See, e.g., ACKERMAN & HEINZERLING, *supra* note 2, at 37-40; John C. Coates IV, *Cost-Benefit Analysis of Financial Regulation: Case Studies and Implications*, 124 *Yale L. J.* 882 (2014); Jeffrey N. Gordon, *The Empty Call for Benefit-Cost Analysis in Financial Regulation*, 43 *J. Legal Stud.* 351 (2014)

¹⁷ See Jonathan S. Masur & Eric A. Posner, *Unquantified Benefits and the Problem of Regulation Under Uncertainty*, 102 *CORNELL L. REV.* 86 (2015) (hereinafter “*Unquantified Benefits*”), for a discussion. See also Amy Sinden, *The Problem of Unquantified Benefits*, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3087370 (unpublished manuscript 2017).

business.¹⁸ Agencies that conduct feasibility analysis sometimes try to predict a regulation's effect on unemployment within the industry, and they curtail regulation if the predicted effect seems excessive; at other times, they try to predict how many firms will be driven into bankruptcy, and again curtail regulation if the number seems too large.

Feasibility analysis is, in principle, a simpler and more manageable procedure than cost-benefit analysis because the regulator does not need to evaluate all the effects of a regulation, only some of them. But this is also the chief objection to feasibility analysis. Because consumers and investors incur costs from regulation, and their well-being is part of the public good, their losses should be taken into account by the agency.¹⁹ Other problems with feasibility analysis includes its focus on business failure (which is not necessarily bad), and the ambiguity of the regulatory standard.

Narrow tradeoffs (for example, risk-risk). In some cases, agencies focus on a few of the most important and salient effects of regulations while ignoring others.²⁰ Consider, for example, a regulation that approves a pharmaceutical. The drug might reduce the risk of one bad outcome (including death) but also create risks of others. In risk-risk analysis, the agency evaluates a regulation according to its impact on a narrow range of severe risks (death or serious injury or illness) while ignoring other effects on well-being, which may be difficult to quantify.

Like feasibility analysis, risks-risk analysis neglects many of the welfare effects of regulation. Risk is not the only thing that matters; so does, for example, the price tag on an automobile.

Quality-adjusted life years and cost-effectiveness analysis. In healthcare regulation, an ambitious effort has been made to evaluate medical procedures according to how much they extend life adjusted by quality.²¹ The approach reflects the intuition that a medical procedure that extends life by 10 years but also does not alleviate suffering might be worse than an alternative medical procedure that extends life by 8 years but does alleviate

¹⁸ See David M. Driesen, *Distributing the Cost of Environmental, Health, and Safety Regulation: The Feasibility Principle, Cost-Benefit Analysis, and Reform*, 32 B.C. ENVTL. AFF. L. REV. 1 (2005).

¹⁹ Masur & Posner, *Against Feasibility Analysis*, *supra* note 10, at 682-84. *But see* David M. Driesen, *Two Cheers for Feasible Regulation*, 35 HARV. ENVTL. L. REV. 313, 318-20 (2011).

²⁰ Jonathan Baert Wiener & John D. Graham, *Resolving Risk Tradeoffs*, in RISK VERSUS RISK: TRADEOFFS IN PROTECTING HEALTH AND THE ENVIRONMENT 226, 228-29 (John D. Graham & Jonathan Baert Wiener eds., 1995).

²¹ Matthew D. Adler, *QALYS and Policy Evaluation: A New Perspective*, 6 YALE HEALTH POL'Y & ETHICS 1, 12-15 (2006).

suffering. The QALY approach is meant to reflect that individuals often prefer the second procedure to the first. Since cost remains a consideration—hospitals cannot spend an infinite amount of money on medical procedures—but is not directly included in the analysis, this type of procedure is a type of cost-effectiveness analysis. On this approach, the question is, given a budget, how is that budget best spent to advance well-being. A virtue of this approach is it avoids the problems of monetization. The defect is that a budget must be determined, and it is hard to see how the agency (or Congress) can determine the budget in the first place without performing cost-benefit analysis or another form of welfare analysis.

Break-even analysis. Sometimes an agency is able to estimate the costs of a regulation but not the benefits (or, on rare occasions, the benefits but not the costs). This might be because the benefits are hard to price, but it is more commonly used when the benefits themselves are simply uncertain, such as when the agency is unsure how many premature deaths the regulation is likely to prevent.²² In such a case, an agency employing break-even analysis would calculate the “break-even point”: the quantity of benefits that the regulation must produce in order for costs to equal benefits.²³ Thus, for instance, imagine that a regulation is expected to cost \$100 million, and the agency values each life saved at \$10 million. The break-even point for this regulation is ten lives.

The problem with break-even analysis is that it does not actually tell the agency whether or not to regulate (much less how stringently to regulate).²⁴ In the example above, what good does it do the agency to know that the break-even point is ten lives if (by hypothesis) the agency does not know how many lives the regulation will save? In order to actually make decisions, the agency must formulate some estimate of the likely benefits or have some intuitive sense of whether benefits will exceed costs. Break-even analysis thus often reduces to a kind of incomplete cost-benefit analysis.

Intuitive (or ad hoc) balancing. This approach involves a broad and comprehensive look at all the possible effects of regulation, akin to cost-benefit analysis, but without monetization of the benefits (and sometimes the costs as well). In these cases, the agency often insists that the benefits cannot be reliably monetized because of the uncertainty of the effects of the

²² Regulation does not actually “save lives,” in the sense that everyone will die eventually. Accordingly, some experts speak of regulation as “prolonging life” or “preventing premature death.” We use these various terms interchangeably here.

²³ Daniel A. Farber, *Breaking Bad? The Uneasy Case for Regulatory Breakeven Analysis*, 102 CAL. L. REV. 1469, 1487-89 (2014).

²⁴ Masur & Posner, *Unquantified Benefits*, *supra* note 17, at 93.

regulation or the nature of the benefits, which can be intangible and abstract, such as the pleasure that people derive from knowing that wilderness is preserved even if they do not visit it.²⁵ When the agency regulates, it does so on the ground that the benefits justify the costs even though a formal cost-benefit analysis cannot be performed.

Intuitive balancing is ubiquitous in daily life as well as in government. When employers offer amenities to employees, they often rely on a rough intuitive sense and do not bother trying to do a cost-benefit analysis, which may be unreliable. When governments build monuments, parks, and other public amenities, they will typically calculate the costs but often rely on a rough sense of the public interest in these amenities rather than try to monetize the benefits. Thus, intuitive balancing should not be dismissed out of hand. But its major defect is that because benefits and costs are not fully monetized, they decisionmaker may make an error or be subject to some type of bias. It is also difficult for outsiders, including researchers and auditors, to evaluate the project.

Democratic procedures. Finally, agencies always solicit the views of regulated entities, as they are required by law, but sometimes they go farther and try to arrange agreements, votes, and other forms of participation among those directly affected by a regulatory program. Within constraints, and subject to the agency's supervision, a form of democracy prevails, in the sense that the ultimate regulation or project emerges from debate and presumably reflects the self-interested calculations of the affected parties.²⁶ Under the democratic approach, the agency avoids the burden of evaluating potential regulations based on a notion of the public good, but takes the risk that the democratic procedure it chooses ends up excluding some affected people or giving improper weight to sophisticated parties who figure out how to game the system.

There are not always distinct lines between these approaches: overall, agencies frequently adopt a kind of pluralistic approach, defending their regulations by claiming that they are consistent with multiple decision procedures. Agencies often estimate valuations and report them without performing a complete cost-benefit analysis, or estimate some valuations while ignoring others.²⁷ Regulatory impact analyses often include a range of overlapping approaches. In many of them, agencies seem to engage in intuitive balancing and cost-benefit analysis, and also to take account

²⁵ Eric A. Posner & Cass R. Sunstein, *Moral Commitments in Cost-Benefit Analysis*, VA. L. REV. (forthcoming 2018)..

²⁶ For some examples, see Karen Bradshaw, *Democratic Risk Management* (unpublished manuscript 2017).

²⁷ Masur & Posner, *Unquantified Benefits*, *supra* note 17, at 112-115,

concerns about feasibility and unemployment.²⁸ And, as we will demonstrate, actual agency practice often involves a kind of norming, even if the agency is nominally using one of these other decision procedures.

II. NORMING IN PRACTICE

A. What Is Norming?

Norming is yet another approach to regulation. It can take different forms, and so to ground intuitions, we start with a simple example.

Imagine that the EPA must regulate a particular practice in a particular industry, for example, ozone emissions from power plants. Upon investigation, it learns that the various power plants emit different amounts of ozone. There could be various reasons for this variation. For example, some plants might have been constructed more recently with the best new technology, which results in less ozone emission just because of the efficiency of that technology. Alternatively, some plants might have better technology because they are operated more cautiously by managers who worry about legal and reputational consequences, or because they are located in states or other jurisdictions where local legal standards for pollution are stricter. Or plants might not emit much ozone because of the particularities of their location, which might allow them to use inputs or adopt production processes that generate less ozone than other plants do. We can imagine many other reasons; we explore some of them below. For now, the basic point is that there will be natural variation in ozone emissions across plants.

The exact shape of that distribution will also depend on the circumstances, but our argument does not depend on that shape having any specific form. The major point is that all (realistic) distributions have tails. At the right tail, firms emit more ozone than other firms; at the left tail, they emit less. In the middle of the distribution, the firms cluster around average levels of emissions. We also bracket, within limits, the nature of the variable in question. The EPA may be concerned about the overall level of emission per plant; or the level of emission relative to something else, like units of production; or the costs that the firms have incurred in reducing emissions. The variable will be normatively relevant to whatever EPA's statutory mandate is—presumably, to advance the well-being of people who are exposed to the pollution, or of people generally (including consumers and workers).

To understand what norming is, let's start with how the EPA would approach the problem of setting a level of regulatory strictness using cost-

²⁸ *Id.* at 117-18.

benefit analysis. In principle, the EPA could require firms to reduce ozone emissions to zero (equivalently: to install expensive technology or shut down production), or the EPA could impose a de minimis regulation (requiring the plants to do nothing at all), or anything in between. A cost-benefit analysis tells the EPA to set the level that maximizes benefits (usually in terms of human health, including reduced mortality risk, lower medical expenses, and so on) net of costs (the costs to the firms). The best regulation based on a cost-benefit analysis could turn out to require all firms, most firms, or a few firms, or no firms, to reduce emissions. Everything depends on what the underlying variables are.

In the case of norming, the EPA derives from the distribution itself the proper level of regulation. We define norming to mean that the EPA sets the level of regulatory strictness somewhere between the best firm and zero. Every firm that exceeds the standard may continue to conduct business as usual. Every firm that falls below the standard must bring its production into compliance with the standard.

Figure 1: Norming

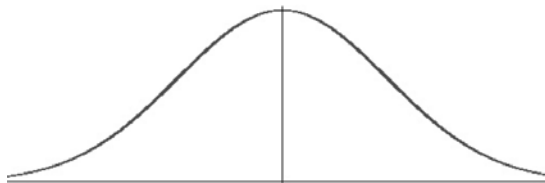


Figure 1 illustrates the simple point we are trying to make. Imagine that the horizontal axis represents a variable of interest to the regulator—such as the amount of pollution that a factory emits, increasing from left to right. The vertical axis represents the number of factories at any given level of pollution. While Figure 1 shows a normal curve, the distribution could have any shape. The vertical line shows the “norm” chosen by the regulator. The factories that fall to the right of the vertical line are out of regulatory compliance. If the regulation is enforced, those factories will be either shut down or brought into compliance. As a result, the right tail of the post-regulation distribution will be truncated.

While the regulation at Figure 1 sets the standard at the median factory, an agency that engages in norming, as we define it, could set the standard at any location along the distribution. A weak standard would be located at the right side of the distribution; nearly all firms would be in compliance. A strict standard would be located at the left side of the distribution; nearly all firms would be out of compliance. The distinctive feature of norming is that the regulatory standard is internal to existing practices of the industry—it is based on the distribution of existing firm

practices—rather than derived from exogenous factors like cost, benefit, and risk.

Another question raised by norming is the nature of the variable of interest to the regulator. In our example, we suggested that an agency might be concerned about the amount of pollution emitted per factory. However, an agency might care more about the amount of pollution per unit of production, or per unit of social benefit, or the social harm per unit of production, or some other measure. As we will see below, agencies norm on the basis of a range of different variables.

In some cases, agencies explicitly acknowledge that they are engaging in norming, and sometimes the governing statutes even require it. This is particularly true in the context of environmental law. In other cases, another type of decision procedure (such as feasibility analysis) reduces to norming as it is practiced by agencies. Finally, in a third category of cases, agencies engage in norming as a shortcut, anticipating that it will lead to good (though not ideal) regulation.

In the sections that follow, we survey some of the most important regulatory agencies, spanning a wide variety of areas of law. We demonstrate the ways in which those agencies rely upon norming in their regulatory decision-making.

B. Environmental Law

The EPA relies substantially upon norming. In some cases, a statute explicitly directs the agency to engage in norming; in other cases, the agency has interpreted its governing statutes to require norming, even when other options might be available. Here, we focus upon two EPA case studies, one based upon the Clean Water Act, and one based upon the Clean Air Act. We then briefly survey other sections of the environmental laws and describe the ways in which they require the EPA to engage in norming as well.

1. *Clean Water Act.*

The Clean Water Act requires the EPA to regulate the discharge of conventional pollutants from existing point sources by mandating the “best practicable control technology currently available.”²⁹ The statute further directs the EPA to determine the best practicable control technology by considering:

²⁹ 33 U.S.C. § 1311(b)(1)(A).

the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application, ... the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, non-water quality environmental impact . . . and such other factors as the Administrator deems appropriate . . .

. . .³⁰

In applying this language, the EPA has employed a regulatory methodology that it terms “average of the best.” The EPA identifies the best-performing polluters within the category of polluters being regulated, where the “best-performing” polluters are those who emit the least pollution, and requires all the polluters to perform as well as the average of the best-performing polluters—hence, “average of the best.” The “average of the best” standard appears to have originated in congressional debates over the Clean Water Act in 1972.³¹ The standard was initially proposed by Senator Edmund Muskie, the sponsor and principal drafter of the Clean Water Act, during Senate floor debates over the Clean Water Act.³²

One example of this methodology comes from the EPA’s 1987 regulation of producers of organic compounds, plastics, and synthetic fibers.³³ Manufacturers of these products emit a wide variety of hazardous pollutants.³⁴ In the course of its regulation, the EPA first identified 304 sources of pollution (factories) that would be subject to regulation.³⁵ It then selected the 99 sources (of these 304) that were employing the “best” technology to control emissions.³⁶ (The agency concluded that the best technology was “biologic treatment,” followed by “secondary clarification as necessary to assure adequate treatment of solids.”)³⁷ Of these 99 sources, the EPA then selected the 71 plants that had achieved the greatest pollution

³⁰ 33 U.S.C. § 1314(b)(1)(B).

³¹ Thomas B. Arnold, *Effluent Limitations and NPDES: Federal and State Implementation of the Federal Water Pollution Control Act Amendments of 1972*, 15 B.C. L. REV. 767, 767-83 (1974).

³² 118 Cong. Rec. 33696 (1972) (“The Administrator should establish the range of “best practicable” levels based upon the average of the best existing performance by plants of various sizes, ages, and unit processes within each industrial category.”).

³³ EPA, Organic Chemicals and Plastics and Synthetic Fibers Category Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards, 52 Fed. Reg. 42,522 (1987).

³⁴ *Id.* at 42,526-27.

³⁵ *Chemical Manufacturers Association v. EPA*, 870 F.2d 177, 208-09 (5th Cir. 1989).

³⁶ *Id.* at 208; EPA, Organic Chemicals and Plastics and Synthetic Fibers Guidelines, *supra* note 30 at 42, 534-35.

³⁷ EPA, Organic Chemicals and Plastics and Synthetic Fibers Guidelines, *supra* note 30 at 42, 534.

reduction—the plants whose emissions were no more than 40 mg of pollutant material per liter of water discharged into the public waterways.³⁸ The EPA set the regulatory standard equal to the average level of pollution control of these 71 plants.³⁹

At first glance, it might appear as though the EPA has normed to a fairly stringent degree. In setting the regulatory standard equal to the average of the best 71 plants, the agency pegged its regulation to (approximately) the 36th-best-performing source, out of 304 sources subject to the regulation. This is roughly the 88th percentile of all existing sources. However, the agency makes clear that the regulation would not be nearly so onerous as that description might sound. According to the agency, the appropriate technology was *already* “in place at 156 of 304 direct discharging plants” to be regulated.⁴⁰ Accordingly, of the 304 regulated emitters of pollution, roughly 36 would already be in compliance with the regulation, and another 120 have the necessary pollution control equipment in place and need only to operate it properly. Only 148 of 304 plants (49%) were required to construct or install new equipment, at a total cost of \$215.8 million.⁴¹ Thus, the norm was set close to the median, as in Figure 1.

This regulation dealt with “conventional” pollutants, which are governed under the Clean Water Act by the “best practicable technology” standard. Other sections of the Clean Water Act variously direct the EPA to mandate the “best technology available for minimizing adverse environmental impact,”⁴² the “best conventional pollutant control technology,”⁴³ the “best available technology economically achievable,”⁴⁴ and the “best available demonstrated control technology.”⁴⁵ Each of these standards involves some type of norming, typically selected by the EPA with regard to the legislative history of the Clean Water Act. For instance, the “best available technology economically achievable” applies to the EPA’s regulation of “toxic” pollutants, such as cyanide, which are especially harmful to human health and can be fatal in small doses.⁴⁶ Here, too, the language is ambiguous and could permit the application of a variety of potential standards. And here, too, the EPA has adopted a particular rule based upon its reading of the legislative history. When regulating under the

³⁸ *Id.* at 42, 534-35.

³⁹ Chemical Manufacturers Association, 870 F.2d at 208.

⁴⁰ EPA, Organic Chemicals and Plastics and Synthetic Fibers Guidelines, *supra* note 30 at 42,536-37.

⁴¹ *Id.* at 42,537.

⁴² 33 U.S.C. § 1326(b)

⁴³ 33 U.S.C. § 1311(b)(2)(E)

⁴⁴ 33 U.S.C. § 1311(b)(2)(A)(i).

⁴⁵ 33 U.S.C. § 1316(a)(1)

⁴⁶ 33 U.S.C. § 1311(b)(2)(A)(i).

“best available technology” standard, the EPA pegs its regulation to the single best-performing plant—the source with the lowest level of pollution emitted.⁴⁷

This is, of course, the most stringent possible version of norming—norming to the furthest outlier. However, while this is the most stringent statutory standard contained within the Clean Water Act,⁴⁸ even this standard directs the agency to regulate based upon technology that already exists and is in use within the industry. The agency does not mandate the development or installation of new technology that no firm yet employs.

2. *Clean Air Act*

Unlike the Clean Water Act, the Clean Air Act includes a statutory standard that explicitly demands norming. Section 112 of the Clean Air Act authorizes the EPA to regulate sources of “hazardous” pollutants, which are particularly dangerous airborne chemicals that Congress and the agency have selected and listed.⁴⁹ The statute requires that the EPA regulate so as to produce “the maximum degree of reduction in emissions of the hazardous air pollutants.”⁵⁰ The statute then defines “maximum degree of reduction” differently for new pollution sources—those that are constructed after regulation is already in place—and existing sources, those that predate regulation. For new sources, the statute provides that the EPA must prescribe emissions standards that are at least as stringent as “the emission control that is achieved in practice by the best controlled similar source.”⁵¹ This is equivalent to the Clean Water Act’s “best available control technology” standard, though here it is written into the statute rather than having been created by the agency. For existing sources of pollution, the statute directs the EPA to promulgate standards that are at least as stringent as “the average emission limitation achieved by the best performing 12 percent of the existing

⁴⁷ *Kennecott v. EPA*, 780 F.2d 445, 448 (4th Cir. 1985); *A Legislative History of the Water Pollution Control Act Amendments of 1972*, 93d Cong., 1st Sess. (Comm. Print 1973), at 170, 798. The production of organic chemicals, plastics, and synthetic fibers also involves the release of these types of chemicals, and so the EPA set limits on those types of pollutants in the same regulation as well. *Chemical Manufacturers Association*, 870 F.2d at 226-27; EPA, *Organic Chemicals and Plastics and Synthetic Fibers Guidelines*, *supra* note 30 at 42,538-40. David Driesen describes this approach as “follow-the-leader.” David Driesen, *Distributing the Costs of Environmental, Health, and Safety Protection*, *supra* note 19 at 44-46 (2005).

⁴⁸ *Entergy v. Riverkeeper*, 556 U.S. 208 (2009)

⁴⁹ 42 U.S.C. § 7412(b).

⁵⁰ *Id.* § 7412(d); § 7412(g)(2)(A). This is sometimes referred to as requiring the “maximum achievable control technology” (MACT). The two formulations are equivalent.

⁵¹ *Id.* § 7412(d)(3).

sources.”⁵² This is the Clean Air Act’s version of “average of the best,” here again written directly into the statute.⁵³

Notably, the statute does not require that the agency regulate only to the standard set by the average of the best-performing twelve percent. This is only a floor; the agency may regulate more stringently if it wishes.⁵⁴ In practice, however, the EPA regularly sets its regulatory standards equal to the average of the best twelve percent. For instance, in 2004 the EPA issued a regulation limiting hazardous air pollutant emissions from boilers and process heaters.⁵⁵ These types of heaters emit a range of hazardous chemicals, including arsenic and chromium.⁵⁶ First, EPA divided the boilers into 18 categories and classified the hazardous air pollutants into four types, for a total of $18 \times 4 = 72$ boiler-pollutant subcategories to be regulated.⁵⁷ In accordance with the statute, the EPA then determined the “average of the best” polluters for these seventy-two subcategories. For 25 of them, the agency set emissions standards.⁵⁸ For the other 47, the agency refused to impose any sort of emissions limitation whatsoever, because “the best-performing sources were not achieving emissions reductions through the use of an emission control system.”⁵⁹ That is, even the “best-performing” sources were doing nothing to reduce their emissions.⁶⁰

The EPA then announced that it would not impose more stringent regulation than that dictated by the “average of the best.” The agency explained:

As documented in the memorandum “Methodology for Estimating Costs and Emissions Impacts for Industrial, Commercial, and Institutional Boilers and Process Heaters National Emission

⁵² *Id.* § 7412(d)(3)(A).

⁵³ Section 112 of the Clean Air Act was passed as part of the Clean Air Act Amendments of 1990, P.L. 101-549 (1990). By the time this section was enacted into law, the EPA had been using the “average of the best” standard (and the “best-performing” standard) for decades. This provided Congress with a model for how to draft the new statute.

⁵⁴ 42 U.S.C. § 7412(d)(3)(A) (“shall not be less stringent, and may be more stringent than”).

⁵⁵ EPA, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 69 Fed. Reg. 55,218 (2004). A process heater is a type of heater used to heat liquids, and it is often used for food or chemical processing, hence the name.

⁵⁶ *Id.* at 55,218.

⁵⁷ *Id.* at 55,222-24; *Natural Resources Defense Council v. EPA*, 489 F.3d 1250, 1254-55 (D.C. Cir. 2007).

⁵⁸ *Natural Resources Defense Council v. EPA*, 489 F.3d at 1254-55.

⁵⁹ EPA, National Emissions Standards for Hazardous Air Pollutants, 69 Fed. Reg. at 55,233.

⁶⁰ *Natural Resources Defense Council v. EPA*, 489 F.3d at 1254-55.

Standards for Hazardous Air Pollutants” in the docket, EPA did consider the cost and emission impacts of a variety of regulatory options more stringent than the MACT floor for each subcategory. The EPA recognizes that for some subcategories, more stringent controls than the MACT floor can be applied and achieve additional emissions reductions. However, EPA also determined that the cost impacts of such controls were very high. Considering both the costs and emissions reductions, EPA determined that it would be infeasible to require any options more stringent than the floor level.⁶¹

The document referenced in the EPA’s explanation does indeed include cost estimates for two more stringent regulatory options.⁶² However, it does not include any comparison between the costs of these regulatory options and the benefits they would be expected to produce.⁶³ For that, one must turn to the EPA’s own Regulatory Impact Analysis (RIA). The RIA includes calculations of the costs and benefits of the regulation the EPA eventually chose, plus *one* of the more stringent alternatives described in the “Methodology” document.⁶⁴ Under both the rule the agency selected and the one alternative it analyzed, the net benefits of the regulation are significant—on the order of \$15 billion, depending on the discount rate chosen.⁶⁵ At the same time, the EPA concluded that the more stringent regulation would produce slightly lower net benefits than the laxer regulation it selected.⁶⁶

It is thus possible that the EPA was justified in regulating only to the level of the “average of the best,” which meant leaving 45 heater/pollutant subcategories unregulated. However, the agency did not analyze the other more stringent regulatory option described in the “Methodology” document, much less a comprehensive set of alternatives.⁶⁷ By confining itself to an examination of existing practices, rather than engaging in a full-fledged cost-benefit analysis, the agency committed itself to norming.

⁶¹ *Id.* at 55,237.

⁶² Jim Eddinger, Eastern Research Group, Methodology for Estimating Costs and Emissions Impacts for Industrial, Commercial, and Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants 9-14 (Tables 3-2 and 3-3), [https://yosemite1.epa.gov/ee/epa/ria.nsf/vwAN/A.2002.19-C.pdf/\\$file/A.2002.19-C.pdf](https://yosemite1.epa.gov/ee/epa/ria.nsf/vwAN/A.2002.19-C.pdf/$file/A.2002.19-C.pdf).

⁶³ *Id.*

⁶⁴ EPA, Regulatory Impact Analysis for the Industrial Boilers and Process Heaters NESHAP 10-2 (Table 10-1), <https://www3.epa.gov/ttnecas1/regdata/RIAs/indboilprocheatfinalruleRIA.pdf>.

⁶⁵ *Id.* at 10-51.

⁶⁶ *Id.* The agency found that net benefits would drop by \$160 million, or approximately 1% of the total, if it adopted the more stringent regulation.

⁶⁷ *Id.* at 10-2.

Many other parts of the Clean Air Act similarly speak in the language of norming, even though they do not require it so explicitly as Section 112. Above, we cited a section of the Clean Air Act that calls for the agency to regulate to the extent “appropriate and necessary.” As we noted, this ambiguous language does not offer the agency much guidance and does not appear to contemplate norming. But other parts of the law are clearer. One section instructs the EPA to mandate the “best system of emission reduction . . . adequately demonstrated,”⁶⁸ another requires the “best available control technology”⁶⁹ (much like the Clean Water Act), and a third mandates “reasonably available control technology.”⁷⁰

All of these statutory formulations within the Clean Water Act and Clean Air Act direct the EPA to norm. They instruct the EPA to select a level of regulation based upon “available” or “achievable” technology, presumably already in use by some regulated parties, and mandate that technology across the board. While different statutory sections of the Clean Water Act and Clean Air Act call for regulation at varying levels of stringency, they simply represent different levels of norming. For instance, the EPA norms differently when regulates under the “best available technology” standard in the Clean Water Act and when it regulates under the “best practicable technology” standard.⁷¹ While the location of the “norm” may be different, the underlying norming methodology is the same.

B. Workplace Safety

The Occupational Safety and Health Act authorizes the Occupational Safety and Health Administration (OSHA) to promulgate regulations regarding workplace safety. OSHA must impose the regulation “which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity.”⁷² This statutory language gave rise to so-called “feasibility analysis,” which we criticized in an earlier article.⁷³ Under feasibility analysis, the agency imposes the strictest possible regulation that will not lead to mass layoffs or bankrupt significant numbers of firms within the regulated industry.⁷⁴

⁶⁸ 42 U.S.C. § 7411(a)(1)

⁶⁹ 42 U.S.C. § 7475(a)(4)

⁷⁰ 42 U.S.C. § 7502(c)(1)

⁷¹ See *Entergy v. Riverkeeper*, 556 U.S. at 211.

⁷² 29 U.S.C. § 655(b)(5).

⁷³ Jonathan S. Masur & Eric A. Posner, *Against Feasibility Analysis*, 77 U. CHI. L. REV. 657 (2010).

⁷⁴ *Id.*

Feasibility analysis involves a kind of norming. In broad strokes, the feasibility approach directs OSHA to avoid imposing substantial regulatory costs on an industry. One obvious means of accomplishing this is to set regulatory standards that many firms within the industry already meet, thus imposing no additional costs on those firms. Indeed, this is precisely how OSHA often regulates. We offer two examples.

The first comes from a major OSHA rule on workplace air contaminants.⁷⁵ In this regulation, OSHA identified hundreds of hazardous chemicals to which employees are exposed in the workplace. In preparation for the regulation, OSHA surveyed over 1.1 million workplaces.⁷⁶ It found that over 500,000 workplaces used one of the chemicals being regulated. But of those 500,000 workplaces, only 131,005 (or roughly 26%) “would incur some costs to comply with the new limits.”⁷⁷ That is, nearly 75% of all workplaces that used one of the chemicals at issue were already in compliance with the regulation.

OSHA’s relatively weak regulations were the result of a deliberate choice. In setting these standards, OSHA did not engage in “true” feasibility analysis, in the sense of determining how stringently it could regulate without causing mass layoffs or significant bankruptcies. Instead, it relied on standards that had been proposed by the American Conference of Governmental and Industrial Hygienists (ACGIH).⁷⁸ ACGIH standards are well known in the field for being relatively lax, in part because the ACGIH largely relies upon industry surveys and data when setting them.⁷⁹ In fact,

⁷⁵ Occupational Safety and Health Administration, Air Contaminants, 54 Fed. Reg. 2332 (1989).

⁷⁶ Occupational Safety and Health Administration, 54 Fed. Reg. at 2728.

⁷⁷ *Id.*

⁷⁸ *Id.* at 2724-25; Sidney A. Shapiro & Thomas O. McGarity, *Not So Paradoxical: The Rationale for Technology-Based Regulation*, 1991 DUKE L.J. 729, 737-38 (1991).

⁷⁹ Barry I. Castleman & Grace E. Ziem, *Corporate Influence On Threshold Limit Values*, 13 AM. J. INDUS. MED. 531, 537 (1988) (finding that many of the ACGIH standards were promulgated with reference to “unpublished corporate studies”); James C. Robinson, Dalton G. Paxman & Stephen M. Rappaport, *Implications of OSHA’s Reliance on TLVs in Developing the Air Contaminants Standard*, 19 AM. J. INDUS. MED. 3, 10-11 (1991) (criticizing the ACGIH standards for excessive reliance on industry reporting and inconsistency with the scientific literature); Shapiro & McGarity, *supra* note 76, at 738 n. 57 (“ACGIH ignores published scientific material and relies more heavily on industry-supplied data”). In fact, OSHA’s regulation was even laxer than the ACGIH guidelines would have dictated: “OSHA failed to designate 67 substances covered by the rulemaking as carcinogens, and excluded an additional 68 substances from the ruling altogether, despite the cancer designations from NIOSH, ACGIH, NTP, EPA, and IARC.” Dalton G. Paxman & James C. Robinson, *Regulation of Occupational Carcinogens under OSHA’s Air Contaminants Standard*, 12 REGULATORY TOXICOLOGY & PHARMACOLOGY 296, 302 (1990). This critique of OSHA’s Airborne Contaminants rule is trenchantly made in Shapiro & McGarity, *supra* note 76, at 736-38.

there was evidence that the ACGIH was itself engaged in norming, and that it had arrived at these standards precisely because they were already in widespread use throughout the industry. As the chairman of the ACGIH committee charged with devising the standards explained, the standards “have been based on a decade or two of industrial experience Clearly, such procedures can yield indisputable data on which realistic [standards] can be derived”⁸⁰ Another former chairman of the same committee even alleged directly that the committee had been overly influenced by the regulated industry and charged industry consultants with engaging in “chicanery.”⁸¹ In the words of one pair of commentators, “Our conclusion is that [the ACGIH standards] for chemical substances are a compromise between health-based considerations and strictly practical industrial considerations, with the balance seeming to strongly favor the latter.”⁸² It is little wonder that so few firms were required to expend resources to comply with the new OSHA standards.

OSHA never explicitly states that it was engaged in norming. It is possible that it was unaware of the ACGIH’s reliance on norming, that it arrived at these standards after some other type of analysis, and that the resemblance to norming is mere coincidence. Yet it seems reasonable to infer that the agency chose this standard precisely because it had already been so widely adopted. OSHA was surely aware that the ACGIH standards had already been widely adopted, and it must have known of ACGIH’s reputation for adopting standards congenial to industry. The standard is also lax—too lax, according to most experts.⁸³ The only thing to recommend the ACGIH standards is the fact that they had already been widely adopted. It looks very much as if OSHA was just norming to the 25th percentile.

Our second example is a 1991 OSHA rule regulating risks related to bloodborne pathogens such as hepatitis B and HIV.⁸⁴ The purpose of the regulation was to mandate consistent and reliable safety practices for workplaces, such as dentists’ or doctors’ offices, where workers might come into contact with blood.⁸⁵ OSHA, however, did not create the safety standards out of whole cloth. Rather, the regulations mirrored a set of guidelines that the Centers for Disease Control (CDC) had released years earlier.⁸⁶ By the

⁸⁰ S.A. Roach & S.M. Rappaport, *But They Are Not Thresholds: A Critical Analysis of the Documentation of Threshold Limit Values*, 17 AM. J. INDUS. MED. 727, 741 (1990).

⁸¹ *Id.*

⁸² S.A. Roach & S.M. Rappaport, *But They Are Not Thresholds: A Critical Analysis of the Documentation of Threshold Limit Values*, 17 AM. J. INDUS. MED. 727, 741 (1990).

⁸³ See sources cited in *supra* note 78.

⁸⁴ Department of Labor, Occupational Safety and Health Administration, Occupational Exposure to Bloodborne Pathogens, 56 Fed. Reg. 64,004 (1991).

⁸⁵ *Id.* at 64,006-08.

⁸⁶ *American Dental Ass’n v. Martin*, 984 F.2d 823, 824 (1993).

time OSHA got around to promulgating the regulation, most businesses had already implemented their own safety rules based upon the CDC's regulation and were already in compliance with the rule or close to it. Here is how OSHA described the status quo ante:

Since the requirements of the standard closely follow the guidelines issued by the Centers for Disease Control (CDC) on universal precautions (UP), efforts by many organizations to adhere to the guidelines have created a solid base of practices and technology for the supplemental implementation of the standard. Based on recent surveys conducted by the Agency and other information available in the rulemaking docket, OSHA produced quantitative estimates of the compliance baseline, or extent of current compliance. OSHA found that most establishments have already implemented measures to protect workers from occupational exposure to blood and other potentially infectious materials, and that many are very close to full compliance with this standard.⁸⁷

Sure enough, after surveying the regulated population, OSHA found that pre-regulatory rates of compliance ranged as high as 85 to 90 percent for certain industries and certain requirements.⁸⁸

It may seem odd or indefensible to criticize an agency for adopting CDC guidelines in its regulation. After all, the CDC is presumably expert in this area, and it may well have selected the optimal level of precautions when formulating its guidelines. However, here that turned out not to be the case. OSHA's regulations proved to be inadequate, particularly with respect to injuries from handling dirty needles. In response, nine years later Congress passed a new law, the Needlestick Safety and Prevention Act, mandating a new round of bloodborne pathogen regulation.⁸⁹ OSHA promulgated new guidelines, and those remain in effect today.⁹⁰

As with OSHA's air contaminant regulation, the agency never states directly that it is engaged in norming.⁹¹ But we can infer that OSHA likely adopted these standards because they were already in such widespread use. OSHA's industry survey predated its regulatory decision. When it promulgated the regulation, it was aware that a high percentage of firms were

⁸⁷ Department of Labor, Occupational Exposure to Bloodborne Pathogens, 56 Fed. Reg. at 64,039.

⁸⁸ *Id.* at 64,060-63.

⁸⁹ Pub. L. 106-430 (2000).

⁹⁰ U.S. Department of Labor, Quick Reference Guide to the Bloodborne Pathogens Standard, https://www.osha.gov/SLTC/bloodbornepathogens/bloodborne_quickref.html

⁹¹ Neither does the CDC, which did not have the same reputation as the ACGIH for adopting standards dictated by industry.

already in compliance. It is also unlikely that OSHA arrived at these standards through any other type of decision procedure. The standards are substantially weaker than what either cost-benefit analysis or feasibility analysis would have dictated.⁹² Indeed, they were viewed as so insufficient that Congress passed new legislation to mandate stricter standards less than a decade later. Accordingly, even without any explicit indication, it is likely that OSHA's bloodborne pathogen regulations were the result of norming.

C. Financial Regulation

Banks are heavily regulated because they impose risks on the economy. The harmful externality arises from two sources. First, because banks play a central role in the financial system, and because banks are linked together through financial transactions, the collapse of one bank can cause the collapse of the entire financial system, resulting in a sudden withdrawal of credit from the economy. Because businesses depend on credit, bank collapse can in turn cause business collapse. Second, because the government supplies insurance to the banking system—to minimize the risk of a financial crisis—banks externalize some of the risks they take on the government and hence the taxpayer. To deter excessive risky financial activities, the government regulates banks.⁹³

Much of the risk caused by the banking system comes from banks' reliance on demand deposits for the bulk of their capital needs. As a result, banks are highly leveraged. High leverage leads to high returns for shareholders, but also high risk, which is externalized on taxpayers. To counter this risk, regulators impose capital requirements. These regulations require banks to raise a certain portion of their capital from equity. The capital requirement designates that portion—which has varied from about 5 to 8% over the years. For example (and simplifying greatly), if a bank owns assets worth \$100, and the capital requirement is 5%, then it can be funded with no more than \$95 of debt. The other \$5 must take the form of equity.

Banks, like other businesses, do not necessarily maximize their profits by relying as much as possible on debt. There are business reasons—related to tax, corporate governance, and other considerations—that cause business

⁹² Recall that under feasibility analysis, OSHA is expected to regulate to the greatest extent possible without causing mass layoffs or widespread firm bankruptcies. Masur & Posner, *Against Feasibility Analysis*, *supra* note 73. Here, fewer than half of the affected firms needed to take any action at all, much less lay off even a single employee. Department of Labor, Occupational Exposure to Bloodborne Pathogens, 56 Fed. Reg. at 64,060.

⁹³ See ANAT R. ADMATI & MARTIN HELLWIG, *THE BANKERS' NEW CLOTHES: WHAT'S WRONG WITH BANKING AND WHAT TO DO ABOUT IT* 108 (2013); Allen N. Berger & Christa H.S. Bouwman, *How Does Capital Affect Bank Performance During Financial Crises?*, 109 J. FIN. ECON. 146, 149-150 (2013).

to choose varying mixes of debt and equity. Many banks maintain relatively high capital ratios. However, the risk externality and government insurance cause banks at the margin to substitute debt for equity.

Congress has required regulators to set capital requirements, but provided little guidance.⁹⁴ Regulators thus have had considerable discretion in choosing the stringency of capital requirements. In earlier work, one of us shows that rather than determine capital requirements using cost-benefit analysis, regulators have engaged in norming.⁹⁵ They have chosen capital requirements that were typically below the capital ratios that prevailed in the vast majority of banks. The effect was to burden only the least capitalized banks, the outliers on the distribution of capital ratios. Notably, the financial agencies justified the capital requirements they chose based on just this point—that the requirements would burden only a small number of banks.

One of many examples comes from the mid-1980s. In 1983, Congress passed the International Lending Supervision Act, which required the bank regulators to “achieve and maintain adequate capital by establishing minimum levels of capital” for the banking system.⁹⁶ The language provides no guidance whatsoever but because the statute was passed in response to an earlier banking crisis, the agencies understood that they were supposed to raise capital levels. In 1985 the bank regulators raised capital requirements to 5.5% for primary capital and 6% for total capital.

None of the three major regulators explained why they set capital requirements at these new levels. What they did say was that the new levels would affect relatively few banks. The Comptroller of the Currency, which regulates national banks, said:

[A]pproximately 95% of all national banks had a primary capital ratio in excess of 6%, a level which would exceed the primary capital requirement established by this regulation. In addition, most of the larger multinational and regional banks (which generally have lower capital ratios than smaller banks) had primary and total capital ratios which would exceed the minimum requirements.⁹⁷

In other words, the regulation would affect only a small percentage of banks—5% of them. This is a classic example of norming.

⁹⁴ Eric A. Posner, *How Do Bank Regulators Determine Capital-Adequacy Requirements?*, 82 U. CHI. L. REV. 1853 (2015).

⁹⁵ *Id.*

⁹⁶ ILSA § 908(a)(1), 97 Stat at 1280, codified as amended at 12 USC § 3907(a)(1).

⁹⁷ Comptroller of the Currency, *Minimum Capital Ratios: Issuance of Directives*, 50 Fed. Reg. 10,207, 10,208 (1985).

There is good reason to believe that the regulations were far from adequate. Most economists believe that capital requirements should be much higher.⁹⁸ Decades later, after the financial crisis, regulators finally jacked up capital regulations to a respectable level. Norming may have been tempting in earlier years because it allowed bank regulators to impose restrictions on the worse banks without stirring resistance from the entire industry. But with the benefit of hindsight, we can see that this approach was a serious mistake.

D. Automobile Safety

The regulation of automobile safety by the Department of Transportation (DOT) has been, from its inception, an exercise in norming. In 1966, Congress passed the Motor Vehicle Safety Act, which delegated authority to the DOT to promulgate safety regulations.⁹⁹ The law directed the Secretary of Transportation to “establish by order appropriate Federal motor vehicle safety standards. Each such Federal motor vehicle safety standard shall be practicable, shall meet the need for motor vehicle safety, and shall be stated in objective terms.”¹⁰⁰ The law then specified that the DOT should immediately engage in at least two rounds of regulation. For the first round of regulation, the law required the DOT to “issue initial Federal motor vehicle safety standards based upon existing safety standards.”¹⁰¹ That is, Congress explicitly instructed the agency to set its initial regulatory standards according to what firms in the industry were already doing. For the second round, the law merely directed the agency to issue “new and revised” safety standards.¹⁰² The Motor Vehicle Safety Act thus resembles Section 112 of the Clean Air Act, in that norming is explicitly written into the language of the statute.

In 1970, the National Commission on Product Safety commissioned an outside report by a group of lawyers and law professors to evaluate the DOT’s progress in regulating auto safety.¹⁰³ The report examined the agency’s first 34 regulations and found that 29 of the 34 were either “not significant” or had “minor significance” in altering the ways in which automobiles were designed and built.¹⁰⁴ The report concluded:

⁹⁸ ADMATI & HELLWIG, *supra* note 93, at 104 (2013).

⁹⁹ Motor Vehicle Safety Act, P.L. 89-563, 8 Stat. 718 (1966).

¹⁰⁰ *Id.* § 103(a).

¹⁰¹ *Id.* § 103(h).

¹⁰² *Id.*

¹⁰³ Federal Consumer Safety Legislation: A Study of the Scope and Adequacy of the Automobile Safety, Flammable Fabrics, Toys, and Hazardous Substances Programs (June, 1970) (a special report prepared under the direction of H.A. Heffron for the Nat. Comm’n on Product Safety).

¹⁰⁴ *Id.* at 56-59.

[T]he best that may be said for the safety standards issued thus far is that they incorporate some of the best of current practice in the automobile industry. Almost every performance requirement was derived from industry development and practice. Industry has led and Government has followed. The agency has chosen from among industry's best practices those suitable for issuance as performance requirements. If this pattern continues, progress in the issuance of safety standards could move no faster than industry's progress in developing and putting into practice particular safety advances.¹⁰⁵

This remained the case even after the agency was no longer required to promulgate regulations “based upon existing safety standards.”¹⁰⁶ As one study put it, “As a practical matter, however, the ‘existing standards’ requirement of the statute far outlived the initial rules. The point is well illustrated by the second generation of safety standards These thirteen rules were no more innovative than the first generation had been.”¹⁰⁷

Decades later, the DOT—and its subunit, the National Highway Traffic Safety Administration (NHTSA)—now regulate under new authority from new statutes that do not require norming so explicitly. Nonetheless, the agency still regularly engages in regulatory norming, though not to the same degree as in the late 1960s. Consider, for example, a 2011 NHTSA rule meant to protect automobile occupants from being thrown from their cars during accidents.¹⁰⁸ In 2005, Congress passed a law aimed at preventing deaths from accidents in which automobiles flipped or rolled over, sometimes referred to as “rollover crashes.”¹⁰⁹ That law directed the DOT to “initiate rulemaking proceedings, for the purpose of establishing rules or standards that will reduce vehicle rollover crashes and mitigate deaths and injuries associated with such crashes,”¹¹⁰ and (like the Motor Vehicle Safety Act) required that those standards be “practicable.”¹¹¹

Rollover accidents can become particularly deadly if automobile passengers and drivers who are not wearing seatbelts are thrown from the

¹⁰⁵ *Id.* at 60. See also Mashaw & Harfst, *supra* note 4 at 70 (“It was also becoming clear that public regulation had been largely ineffectual in forcing automotive technology.”).

¹⁰⁶ Motor Vehicle Safety Act § 103(h).

¹⁰⁷ Mashaw & Harfst, *supra* note 4 at 78.

¹⁰⁸ U.S. Department of Transportation, National Highway Traffic Safety Administration, Federal Motor Vehicle Safety Standards, Ejection Mitigation; Phase-In Reporting Requirements; Incorporation by Reference, 76 Fed. Reg. 3212 (2011).

¹⁰⁹ Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, Pub. Law 109-59 (2005).

¹¹⁰ 49 U.S.C. § 30128.

¹¹¹ 49 U.S.C. § 30111.

vehicle through a window. NHTSA thus set out to promulgate regulations that would keep automobile occupants inside of their vehicles even if they did not wear seatbelts. There were two potential technologies: side curtain airbags, which would deploy in the event of a crash and hold occupants inside the automobile; and advanced lamination techniques for automobile glass (“advanced glazing,” in industry parlance) that would prevent window glass from shattering on impact.¹¹² These two technologies are complementary, and the agency could have mandated both.¹¹³ Nonetheless, it opted to require only the former—the installation of side curtain airbags.¹¹⁴

Although the agency does not admit as much, norming appears to be a significant part of the reason that it elected to require only airbags and not advanced glazing as well. By the agency’s calculation, 55% of Model Year 2011 automobiles were already equipped with side curtain airbags that would trigger in the event of a rollover accident.¹¹⁵ Even some much older automobiles met the regulatory standards, including the 2004 Honda Accord¹¹⁶ and the 2003 Toyota Camry.¹¹⁷ Model Year 2011 automobiles typically arrive on the market in Fall 2010, and the regulation was not set to take effect until September 2014, around the time that Model Year 2015 automobiles would be released.¹¹⁸ Accordingly, it is likely that by September 2014, many more than 55% of automobiles would have included the appropriate type of airbag.¹¹⁹ By contrast, advanced glazing was far less common within the industry.

The comments that the DOT received are instructive. Automobile manufacturers and their trade groups—including the Alliance of Automobile Manufacturers, the Association of International Automobile Manufacturers, and firms such as Ford and General Motors—were “generally supportive of

¹¹² DOT, 76 Fed. Reg. at 3213-15.

¹¹³ NHTSA, Office of Regulatory Analysis and Evaluation, National Center for Statistics and Analysis, Final Regulatory Impact Analysis, FMVSS No. 226 Ejection Mitigation 135 n. 164 (2011).

¹¹⁴ *Id.* at 3212. To be precise, the agency set a safety standard—based upon what would happen to a vehicle occupant subject to a crash of a particular level of force—that could be met by installing only the airbag technology, rather than both technologies in tandem.

¹¹⁵ NHTSA, *supra* note 109, at 46.

¹¹⁶ *Id.* at 136.

¹¹⁷ *Id.* at 137.

¹¹⁸ *Id.* at 46.

¹¹⁹ The agency did note that as few as 53% of the currently deployed airbags would be fully effective per the terms of the regulation. Accordingly, only $55\% \times 53\% = 29\%$ of existing automobiles would require no modifications to become compliant with the regulation. *Id.* at 112-13. Nonetheless, the other 26% of automobiles with curtain airbags that were not fully compliant would likely only require minor modifications in order to make them compliant.

many aspects” of the new rule.¹²⁰ The manufacturers complained that the regulations were somewhat too stringent, which is to be expected; if the regulation had been weaker, even more than 55% of existing automobiles would already have been in compliance.¹²¹ But they generally favored the agency’s decision to require only airbags and not advanced glazing as well. Some comments were explicit on this point: “Ford commented that side glazing retention in real-world rollover crashes is random and unpredictable and expressed the belief that FMVSS No. 226 should be focused on rollover-activated side curtain technology.”¹²²

The regulation easily passed a cost-benefit analysis: the DOT projected approximately \$2.3 billion in benefits (based upon preventing 373 fatalities and 476 serious injuries per year) against only \$507 million in costs.¹²³ This is not surprising. Norming will often lead to regulations that pass cost-benefit tests, precisely because lagging firms are only being asked to install technology that leading firms have already validated. The question is whether the DOT could have generated even *greater* net benefits by requiring advanced glazing in addition to side curtain airbags. Here, the evidence is less certain; the agency did not offer a precise estimate of the costs and benefits of advanced glazing.¹²⁴ But the agency’s imprecise calculations suggest that mandating advanced glazing in addition to curtain airbags plausibly could have increased the regulation’s net benefits.¹²⁵

In sum, the DOT selected a regulatory standard that was weaker than CBA would recommend and had already been adopted by more than half of the industry (and was therefore supported by the industry). This suggests that the agency was engaged in norming, and that reliance on norming, as opposed to some other type of decision procedure, may have led the agency to promulgate a suboptimal regulation.

III. NORMING: COSTS AND BENEFITS

A. The Case for Norming

¹²⁰ DOT, 76 Fed. Reg. at 3220.

¹²¹ *Id.*

¹²² *Id.* On the other side, both consumer-oriented public interest groups (including Public Citizen) and the Insurance Institute for Highway Safety (an insurance-funded research organization) argued that the regulation should have required advanced glazing as a complement to airbags. *Id.* at 3221. These groups presumably possess far less political clout than the nation’s automakers in combination.

¹²³ DOT, 76 Fed. Reg. at 3293-94 (Tables 42-45). These are the cost-benefit figures at a 3% discount rate. Using a 7% discount rate, the benefits are slightly lower but still much greater than the costs.

¹²⁴ NHTSA, FRIA, at 115-134.

¹²⁵ *Id.*

While we are skeptical that norming is a proper method for agency regulation, we begin by sketching out a possible defense of it. To fix intuitions, imagine an industry that consists of a large number of firms. The firms sell to consumers who are mostly different from residents who live nearby their production facilities; only the residents are harmed when the firms pollute. Assume that the firms are identical in all respects except two. First, every firm emits a different amount of pollution into the atmosphere in the course of manufacturing consumer goods. We can imagine the firms arrayed along a horizontal line, from the least-polluting firms to the most-polluting firms, with most of the firms clustered in the middle around the mean level of emissions. Assume that the firms differ with respect to the quality, sophistication, and hence expense of the pollution-control technology they use; the firms that have invested more in that technology emit less pollution. Second, every firm charges a price for its products that is inversely related to the amount of pollution that it emits. The most-polluting firm charges the lowest price; the least-polluting firm charges the highest price; and so on. Accordingly, we assume that the cost savings that a firm enjoys when it avoids reducing emissions are passed on to the consumer in the form of lower prices.

Before we analyze regulatory approaches, we should address an obvious question, which is how such variation is possible in the first place. In a perfectly competitive market, consumers would buy from the most-polluting firms because they offer the lowest prices and the consumers are not affected by the pollution; the other firms would go out of business. But in a more realistic setting, variation is not surprising. If the price differences are small, consumers might not be influenced by them, and prefer instead to buy from trusted brands or convenient outlets. Some firms might enjoy market power because of their location or other advantages. The firms might vary because they have installed pollution-control technologies at different times, have gambled with technologies that turned out to perform better than or worse than average, or are managed differently. Variation in state tort law and regulation may also account for differences in the firms' pollution-control technologies.

Let us first consider how a regulator would approach this industry if it uses cost-benefit analysis. The regulator would ask whether the higher-quality pollution control equipment generates benefits greater than the costs. The benefits accrue to nearby residents who inhale the pollution, while the costs are borne by consumers who buy the products. Notably, the regulator would not pay attention to the variation among firms with respect to the pollution control technology that they use and the amount of pollution they emit. The cost-benefit analysis could reveal that even the least-polluting firm

pollutes too much—the harms to residents exceed the benefits to consumers. If so, the regulator would issue a regulation that burdens all the firms, requiring all of them to install more technology and reduce emissions to a level below the best-performing firm. Alternatively, the cost-benefit analysis could also reveal that none of the firms should be regulated—even the worst-performing firm produces benefits greater than the costs. Any other level of regulatory stringency is also possible.

By contrast, an agency that followed the norming approach would use the distribution itself to set the level of strictness mandated by the regulation. For example, this could involve requiring all firms to use the quality of pollution-control technology (or emit pollution) at a level at least as good as that of the median firm. Of course, one could imagine other approaches roughly consistent with the idea of norming. The regulator might choose a level of stringency that affects only the bottom X% of firms—where X could be 5, 10, 75, or any other number.¹²⁶ The idea of norming does not tell us how much of the tail of the distribution is targeted; only that the regulator takes the distribution as given and targets some portion of the tail.

Under what conditions could norming be superior to cost-benefit analysis? The major challenge of cost-benefit analysis is estimating valuations. The regulator must value both the benefits of a regulation (in our example, health benefits, including saved medical costs) and the costs (in our example, the cost of pollution-control technology). Both types of valuation can be difficult. Many benefits of regulation are hard to monetize—including avoided mortality risk, intangible health benefits like fewer headaches, and enhancement of natural beauty. The cost of regulation also can be hard to estimate because technology can change rapidly, causing compliance costs to fall. When an agency engages in norming, it avoids having to estimate costs and benefits, which also means it avoids the risk that calculation errors will cause it to issue a regulation that is too strong or too weak.

Still, norming can be superior to cost-benefit analysis only if there is reason to believe that the firm above the regulatory threshold is emitting the optimal amount of pollution, or at least that it is closer to the optimum than a regulator using cost-benefit analysis could get. But why would firms voluntarily incur costs to reduce pollution below the profit-maximizing level? There would need to be a source of constraint on pollution independent of federal regulation. We can imagine such constraint arising from several sources.

First, the variation could come from state law. Imagine that in most (but not all) states, an optimal (or at least very good) tort or regulatory regime prevails. If most firms are in the states with the optimal tort regime, then most

¹²⁶ Or conceivably, 100.

firms will issue the optimal amount of pollution. The firms that issue an excessive amount of pollution are located in the states with suboptimal tort law. A federal regulation that required all firms to use the pollution control technology of the median firm (or to emit no more pollution than the median firm) would eliminate the inefficient outliers in the spirit of norming. Here, the national regulator may lack the information needed to conduct cost-benefit analysis but can piggyback off the independent efforts of state courts and regulators around the country.¹²⁷

Second, the variation could come from market structure. Imagine a form of market segmentation in which most firms offer reasonable-quality products to most consumers while a few firms offer low-quality products to unsophisticated consumers. Such segmentation occurs in many industries. For example, in credit markets banks tend to offer higher-quality products—lower-risk loans that are adequately explained—than do some mortgage brokers, payday lenders, and other bottom feeders, which offer complex and risky products that lure unsophisticated borrowers. A regulator could believe that by mandating the terms and product features of the best firms, it will drive out of business the firms that pose unreasonable risks to consumers.

Third, the variation could come from management choices made under different levels of information, and reflecting different risk preferences among managers and investors. Imagine, for example, that entrepreneurs set up exchanges or clearinghouses in order to act as intermediaries among various sophisticated market agents. The entrepreneurs must choose various features of their business, for example, the magnitude of margin requirements. In making this choice, the entrepreneur must balance the costs and benefits of its customers. Different entrepreneurs make different judgments, resulting in variation across institutions. A regulator who thinks that uniformity is desirable might reasonably believe that the median balance is optimal, and accordingly mandate it by regulation.¹²⁸

In many cases, we observe private associations choosing to mandate standards among their members. When they do so, they typically observe a variation of actions, and choose a standard somewhere in the middle. This is familiar from ethical codes of conduct among lawyers, accounting standards, medical standards, and so on. In these cases, the regulator may believe that the association chooses a standard that protects the reputation of the industry,

¹²⁷ An important case of this involves preemption, when federal regulators issue regulations that preempt diverse state legal regimes.

¹²⁸ The idea is formalized in the Condorcet Jury Theorem, which has been widely discussed in the academic literature. See, e.g., Paul H. Edelman, *On Legal Interpretations of the Condorcet Jury Theorem*, 31 J. LEGAL STUD. 327 (2002); Dhammika Dharmapala & Richard H. McAdams, *The Condorcet Jury Theorem and the Expressive Function of Law: Theory of Informative Law*, 5 AM. L. & ECON. REV. 1 (2003); Eric A. Posner & Cass R. Sunstein, *The Law of Other States*, 59 STAN. L. REV. 131 (2006).

and endorse it through regulation because the association is in a better position to assess benefits and costs than the regulator is. The regulator thus converts the industry standard into a licensing requirement or other independent source of law.

Generalizing from these examples, we conclude that norming may be superior to cost-benefit analysis when (1) estimating costs and benefits is extremely hard for the government; and (2) the industry in question either does not create negative externalities (in the area in which the regulator regulates) or is forced to internalize them by other sources of law, considerations of reputation, and so on. When these conditions are met, the argument for norming boils down to a claim that the large number of firms that cluster around the median are more likely to have made a correct judgment than the small number of outliers. The regulator thus uses the pattern of behavior of the firms as a source of information that is more easily obtainable than the information needed to estimate the costs and benefits of particular technologies.

B. The Problems with Norming

While the case for norming may be sound on theoretical grounds, we are skeptical that the empirical conditions for norming prevail in many markets. We are also concerned that norming may cause independent problems, such as cartelization, and may be susceptible to political misuse. We leave political misuse for Section C and address the other issues here.

Costs and benefits. The case for norming rests on the difficulty of estimating costs and benefits. While in some quarters commentators remain skeptical about cost-benefit analysis,¹²⁹ this decision procedure has become routine in government because of its many advantages. The quantification problem arises for many reasons: some benefits (e.g., longevity, natural beauty) are hard to measure; so are some costs, because of the speed with which technology changes; and it is often difficult to trace out chains of causation from regulation to business behavior. Yet these problems are ubiquitous in ordinary life—for businesses as much as for regulators—and quantification remains the standard procedure. When uncertainty exists, one makes rough rather than precise estimates; and when uncertainty is high enough, the normal solution is not to adopt some other procedure for regulation but not to regulate in the first place. Regulators, like businesses, can reduce uncertainty by investing in research.

¹²⁹ See, e.g., Coates, *supra* note 16, at 890.

If businesses use cost-benefit analysis (normally, called net present value analysis) to evaluate projects, then regulators can, too. Agencies can also put in place institutional procedures that allow them to revisit cost-benefit analyses that rely on uncertain estimates, and revise them as necessary, in this way learning from experience.¹³⁰

Externalities; market regulation. Our second basis for skepticism is that most regulation is necessary because of the problem of externalities, and norming is a particularly unwise approach to regulating externalities. Take the paradigm case of pollution. Firms pollute in order to keep their costs down. Because the harm is borne by third parties, the firms do not face any penalty (except possibly a reputational penalty if the pollution is discovered) in the absence of a legal response. If the legal or regulatory response is itself based on the activity of the median firm, then the law will allow harmful levels of pollution rather than stopping it. While the norming regulator may shut down the worst polluters, it would do much better using cost-benefit analysis if the median or above-median firms also emit excessively high levels of pollution, as one would predict from normal market incentives.

In the previous section, we provided some scenarios in which state law or reputational sanctions prevent the worse kind of abuse, and so norming could be justified.¹³¹ But the scenarios do not seem likely to prevail in practice. A major reason for federal regulation is that state regulation is inadequate. Reputational sanctions are also typically weak. The best case for norming arises when the industry does not generate externalities, but since the major reason for regulation is to counter externalities, the best case will not arise very often. Exchanges and clearinghouses, for example, are regulated because of the negative external effects caused by financial crises, which the collapse of an exchange or clearinghouse could spark. If these institutions did not produce negative externalities, there would be little reason to regulate them in the first place.

Cartelization. Many economists believe that firms have used regulation to raise barriers to entry into their industry.¹³² A common interpretation of licensing requirements, for example, is that they mandate business practices that most firms in the industry already use, while forcing out marginal firms or excluding new entrants who can offer the same goods and services at lower prices if they are not required to engage in the median or normal practice. If the business practice is unnecessary and undesired by consumers, the effect of the regulation is to reduce competition, which

¹³⁰ For a discussion, see Masur & Posner, *Unquantified Benefits*, *supra* note 17, at 335.

¹³¹ Except possibly in the case of regulations designed to preempt inconsistent state law.

¹³² Robert D. Tollison, *Public Choice and Legislation*, 74 VA. L. REV. 339, 343 (1988).

benefits incumbent firms while harming consumers. Because the “norming” approach does not involve direct evaluation of the benefits and costs of existing business practices, the regulator may end up mandating business practices that reduce competition. Indeed, as we argue in Section C, this may explain why norming seems to be a regulatory approach that businesses support.

Indeterminacy. As our case studies illustrated, norming is merely an umbrella term that covers a vast range of regulatory stringency. The standard does not itself tell the regulator whether to regulate at the 50th percentile, the 1st percentile, or the 99th percentile. One can narrow down the approach by making certain assumptions. If, for example, the firms in the industry do not generate externalities on others, there is a theoretical reason for using the 50th percentile.¹³³ But if the firms do generate externalities, a higher percentile should be used. The case studies also show another problem: how does the regulator identify the behavior that should be “normed”? For capital regulation, regulators initially relied upon simple capital ratios that relied only on the proportion of equity to assets. As it became clear that simple capital ratios did not accurately measure the risk level of banking because they ignore the riskiness of the underlying assets and liabilities, regulators moved to a more complicated system.¹³⁴ In the environmental examples, it was never clear why the EPA chose one measure of pollution rather than another. We suspect that agencies resolved both of these issues by relying either on an informal cost-benefit test or succumbing to pressure from industry or other interest groups.

C. The Political Appeal of Norming

This brings us to the biggest concern with norming: that it is an appealing way to regulate from a political rather than a social standpoint. Agencies may choose to norm rather than conduct cost-benefit analysis or another procedure because norming is easier, less vulnerable to judicial and public scrutiny, and less likely to provoke political opposition from industry. There are a number of reasons for this.

First, as we have observed, the major advantage of norming is that it puts a low burden on the resources of agency decision-makers. Rather than perform studies of the costs and benefits of various technologies, the regulator need only survey industry practice. While the limited resources of

¹³³ This conclusion would follow from the Condorcet Jury Theorem. Adrian Vermeule, *Many-Minds Arguments in Legal Theory*, 1 J. LEGAL ANALYSIS 1, 17-24 (2009).

¹³⁴ See Posner, *supra* note 91 at 156.

regulators may justify the use of shortcuts from time to time, this particular shortcut is extreme.

Second, norming may be appealing because it shields regulations from judicial review. Because norming puts less of a burden on regulators than cost-benefit analysis does, regulators that use norming are also less likely to make identifiable errors that can be used against them when regulations are challenged in court. In the case of cost-benefit analysis, regulators can be (and have been) criticized for using inconsistent discount factors and valuations; ignoring relevant academic studies; underestimating costs and exaggerating benefits; and so on.¹³⁵ Because there is an established methodology for performing cost-benefit analysis, industry can retain credible experts to identify these errors. While courts do not invariably strike down regulations that are based on cost-benefit analyses that contain errors—in fact, rarely do—the litigation risk is real, and a significant preoccupation for agencies.¹³⁶

By contrast, when an agency engages in norming, the only way for the regulator to err is to mischaracterize the distribution of industry practices, or to choose a threshold that is inconsistent with the statute or the arbitrary and capricious standard of the Administrative Procedure Act. There is nothing complicated about the first task. If, for example, the relevant variable is the expense of the safety equipment that has been installed in factors, or the amount of emissions, then the regulator will be able to rely on either publicly available data or data collected from the industry, and it is simply a matter of describing the distribution.

The choice of the regulatory threshold is more complicated. An agency could, in principle, set the threshold exactly at the mean, near the bottom of the tail, or nearly anywhere else on the distribution. The issue here is that since there is no technical way to do so—no established formula or procedure that provides a baseline against which errors could be identified—it would be difficult for a challenger to explain to a court why the chosen regulatory threshold is improper.¹³⁷

¹³⁵ Masur & Posner, *Unquantified Benefits*, *supra* note 17, at 342.

¹³⁶ See *Corrosion Proof Fittings v. E.P.A.*, 947 F.2d 1201 (5th Cir. 1991); *Business Roundtable v. S.E.C.*, 647 F.3d 1144 (D.C. Cir. 2011); Bruce Kraus & Connor Raso, *Rational Boundaries for SEC Cost-Benefit Analysis*, 30 *YALE J. ON REG.* 289 (2013).

¹³⁷ However, in an early case a court struck down a capital regulation, and in doing so put its finger exactly on the problem with norming:

Mr. Vaez’s testimony [that the bank “ranked near the bottom of its peer group in all of the equity related ratios”] does not demonstrate a correlation between the Bank ranking towards the bottom of its peer in an analysis of equity related ratios and a finding that the Bank’s capital level was unsafe and unsound. Obviously, this peer group analysis indicates that a majority of banks, approximately the same size

Third, because norming tends to result in low regulatory burdens for most of the regulated industry, industry opposition is likely to be muted, relative to more aggressive regulatory approaches like cost-benefit analysis. In the area of financial regulation, for example, it is well known that banks tend not to challenge regulations. While commentators have argued that banks refrain from challenging regulations because they fear retaliation from regulators,¹³⁸ another reason might be that the banks believe that the regulations actually serve their interest or are weak enough to be tolerated. The automobile industry's largely positive response to NHTSA's side curtain airbag regulation offers a similar example.¹³⁹

In sum, while norming may be justified under narrow conditions, agencies might use it more generally because it is easy to do and protects them from opposition and scrutiny.

IV. NORMING ELSEWHERE IN THE LAW

A. Constitutional Law

Many constitutional scholars believe that the Supreme Court engages in a procedure akin to norming. In many cases, when people challenge a law of a particular state, the Court surveys the relevant laws of all the states. If few or no other states have enacted such a law, the court might find in this pattern a "consensus" on certain constitutional values. The "outlier" state is ruled out of constitutional bounds, and its law is struck down.

This procedure is best known from Eighth Amendment jurisprudence. The Eighth Amendment bars criminal punishments that are "cruel and unusual."¹⁴⁰ The Court has ruled that these terms are to be understood in light of evolving norms, evidence of which is supplied by the practices of the states and even of foreign countries. For example, in *Coker v. Georgia*, the Court

as *Bellaire Bank*, maintain a higher level of equity than *Bellaire Bank*. This analysis may indicate that further investigation is needed. It does not, by itself, prove that the Bank's capital level was unsafe and unsound. It is very possible that all the banks in the peer group are maintaining a safe and sound capital level. Without a connection between the peer group analysis and a finding of unsafe and unsound capital levels, therefore, the peer group analysis does not support the Comptroller's finding that the Bank's capital level was unsafe and unsound.

First Nat'l Bank of Bellaire v. Comptroller of Currency, 697 F.2d 674, 686 (5th Cir. 1983). However, such cases appear to be rare.

¹³⁸ Scott Polakoff, *Fear of Retaliation Stifles Banks' Appeals to Regulators*, *American Banker*, Apr. 8, 2015, available at <https://www.americanbanker.com/opinion/fear-of-retaliation-stifles-banks-appeals-to-regulators>

¹³⁹ See *supra* Part II.D.

¹⁴⁰ U.S. Const. Amend. VIII.

struck down a law that imposed the death penalty on those convicted of raping an adult woman. After pointing that “at no time in the last 50 years have a majority of the States authorized death as a punishment for rape,” and pointing to other indications that most states disapprove of this practice, the Court ruled that the punishment is cruel and unusual, and hence unconstitutional.¹⁴¹ Following the same style of reasoning, the Court has struck down laws that impose the death penalty on children and mentally retarded people who commit capital crimes.¹⁴²

Some scholars have argued that, in Judge Easterbrook’s words, the Court “extirpates outliers” in many other areas of its jurisprudence, including equal protection and substantive due process.¹⁴³ Consider the contraception ban struck down in *Griswold*¹⁴⁴ or the sodomy law struck down in *Lawrence v. Texas*.¹⁴⁵ In both of these cases, the Court ruled against a single state or small number of states whose laws deviated in significant measure from the laws of other states.¹⁴⁶ It is possible to see this type of logic in the Court’s procedural due process and Second Amendment¹⁴⁷ cases as well. The Court’s occasional reference to the laws of other countries fits this pattern as well. When deciding Eighth Amendment or due process cases, the Court sometimes surveys the laws of other countries—particularly developed democracies—to ascertain whether American law is an outlier. This is norming of a more stringent type, where the U.S. is normed to a high standard set by just a few countries.

This practice can be compared with other constitutional methods. Originalist scholars, for example, argue that a court should strike down statutes that violate the original understanding of the Constitution.¹⁴⁸ It is irrelevant whether any, many, or most states have similar statutes. If certain gun control laws violate the Second Amendment, it is irrelevant whether most states have those gun control laws: they must all be struck down. Another standard view, according to which courts should protect minorities shut out

¹⁴¹ *Coker v. Georgia*, 433 U.S. 584 (1977).

¹⁴² *Roper v. Simmons*, 543 U.S. 551 (2005); *Atkins v. Virginia*, 536 U.S. 304 (2002).

¹⁴³ The phrase comes from Frank H. Easterbrook, *Abstraction and Authority*, 59 U. CHI. L. REV. 349, 370 (1992).

¹⁴⁴ *Griswold v. Connecticut*, 381 U.S. 479 (1965).

¹⁴⁵ *Lawrence v. Texas*, 539 U.S. 558 (2003).

¹⁴⁶ Michael J. Klarman, *Rethinking the Civil Rights and Civil Liberties Revolutions*, 82 VA. L. REV. 1, 6 (1996). For a recent critical discussion, see Justin Driver, *Constitutional Outliers*, 81 U. CHI. L. REV. 929 (2014).

¹⁴⁷ Cass R. Sunstein, *Second Amendment Minimalism: Heller as Griswold*, 122 HARV. L. REV. 246 (2008).

¹⁴⁸ BRYAN A. GARNER & ANTONIN G. SCALIA, *READING LAW: THE INTERPRETATION OF LEGAL TEXTS* (2012).

of the political process,¹⁴⁹ also rejects the relevance of frequency of such statutes. If most or even all states have laws that discriminate against racial or sexual minorities, for example, those laws are still unconstitutional. It would make no sense for a court committed to protecting minorities to uphold those laws, or limit itself to striking down the most discriminatory statutes in the very worst states while upholding less discriminatory statutes in the remaining states.

The Court's norming practice has been the topic of considerable debate, with a great deal of attention paid to whether the Court has applied the outlier-extirpation approach in a consistent and reasonable matter. On the merits of the procedure, most scholars seem skeptical. They argue that a consensus among the states does not necessarily reflect much about the views and constitutional values of the people, or even of the state legislatures. A few scholars have suggested that the Court's approach could make sense. As Cass Sunstein puts it, "consensus may have epistemic value: if most people believe that X is true, X may well be true, certainly under favorable conditions."¹⁵⁰ If most states believe that executing mentally disabled people is cruel, then it may well be cruel.

As Sunstein's comment suggests, the case for outlier-extirpation is informational, just as the case for norming is. The difference between the administrative and constitutional settings is that the regulators are mainly concerned with facts about the world—whether a type of pollution causes harms, for example—while in constitutional cases the focus is on moral or constitutional values.¹⁵¹ If such things as constitutional values exist, and if they are reflected in state legislation, then the Supreme Court may discover those values by observing the practices of states rather than relying on the possibly defective intuitions of the justices. The logic of information aggregation applies in both cases.

The Court's jurisprudence shows the benefits and limits of norming. On the one hand, the Court's use of norming seems understandable because in many cases it has no external standard for evaluating the laws of the states. To the extent that these laws reflect information—about facts or values—they can reasonably be used as a source to derive a national standard if such a standard is called for. On the other hand, the Court's approach is vulnerable to the objections that we have seen. If state legislatures do not independently

¹⁴⁹ JOHN H. ELY, *DEMOCRACY AND DISTRUST: A THEORY OF JUDICIAL REVIEW* (1980).

¹⁵⁰ Sunstein, *supra* note 142, at 265. *See also* Posner & Sunstein, *supra* note 124; CASS R. SUNSTEIN, *A CONSTITUTION OF MANY MINDS: WHY THE FOUNDING DOCUMENT DOESN'T MEAN WHAT IT MEANT BEFORE* (2009).

¹⁵¹ Also facts matter. For instance, it may be important to know whether the death penalty deters if that is relevant to the ultimate constitutional question. *See* Posner & Sunstein, *supra* note 124.

reflect on the advisability of these laws before enacting them, or if states are not trying to arrive at socially optimal answers, the normative force of the pattern is questionable.

A major difference between agency practice and judicial practice is that the agencies are far more concerned with behavior that generates externalities. Where, as we have discussed, a business practice causes harms to third parties, the regulator should try to stop that practice or at least restrain it. While the firm at the center of the distribution causes less harm than the outlier, both firms should be regulated. In contrast, most of the Supreme Court cases we have discussed do not involve externalities in such a straightforward way. If Connecticut bans contraception, it does not harm people in Oklahoma or California. There are other areas of the law that restrict states from imposing externalities on each other—for example, the domestic commerce clause, which blocks states from imposing trade barriers on each other. Because the states externalize costs through trade barriers, the outlier-extirpation approach would be unwise and does not appear to be used by the Court, as one would expect.

B. Incorporation of Custom in the Common Law

Another style of norming occurs in pockets of the common law where courts derive legal standards from the customary practices of firms. In tort law, for example, courts frequently use custom to determine the level of due care for the purpose of establishing whether a defendant acted negligently. Custom may supply evidence of due care, or even the standard itself.¹⁵² This is common in the area of medical malpractice, among many others, where doctors are held to the community standard rather than required to comply with an independent cost-benefit analysis. In contract law, courts sometimes use industry custom to fill in gaps or resolve ambiguities in contracts.¹⁵³ Incorporation of custom also sometimes occurs in statutory interpretation, especially when statutes are vague and subject to judicial elaboration over time. In intellectual property law, industry standards are used to determine the meaning of fair use and the point at which an invention becomes obvious, among other concepts.¹⁵⁴ Examples in common and statutory law can be easily multiplied.

¹⁵² See Richard A. Epstein, *The Path to The T. J. Hooper: The Theory and History of Custom in the Law of Tort*, 21 J. LEGAL STUD. 1 (1992).

¹⁵³ See, e.g., Lisa Bernstein, *Custom in the Courts*, 110 NW. U. L. REV. 63 (2015).

¹⁵⁴ See Jennifer E. Rothman, *The Questionable Use of Custom in Intellectual Property*, 93 VA. L. REV. 1899 (2007); *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007) (law of patent obviousness)

Incorporation of custom can be contrasted to other methods for resolving common-law disputes. In tort law, a defendant's behavior can be subject to a cost-benefit test, like the Hand formula. In *The T.J. Hooper*, Judge Hand himself rejected custom as a defense because he believed that industry customs will be insufficient to protect third parties.¹⁵⁵ In contract law, judges may prefer to rely on more traditional methods of contractual interpretation, such as scrutinizing the evidentiary record for the intentions of the parties, which may deviate from custom. These approaches can lead to different levels of liability. In tort law, if an industry adopts a common practice that externalizes harm on third parties, then a court that defers to custom will hold liable only the worst offenders, while a court that uses a cost-benefit test may end up holding liable everyone or nearly everyone in the industry.

In theory, custom can be efficient, or otherwise desirable, but even its major defenders agree that the conditions under which it is efficient are limited.¹⁵⁶ When an industry consists of similarly situated agents who enter into repeated interactions with each other—trading goods and services, for example—it is easy to see why, as a matter of theory, the customs they adopt might be welfare-maximizing for the group. But custom is less likely to be welfare-maximizing if the agents have different levels of wealth, market power, and sophistication, and especially when their customary behavior externalizes costs on third parties.¹⁵⁷ An industry “custom” of discharging toxic waste in public waterways is hardly likely to be desirable from the social perspective.

Incorporation of custom into the common law offers an analogy to norming in agency regulation. In both cases, the legal decision-maker uses community standards—the “norms” of business behavior—to determine legal standards, and in doing so targets outliers while sparing the normal or above-normal firm from liability. Given that regulatory agencies have inherited many of the duties of the common law courts, it may be unsurprising that regulatory agencies have adopted a practice that has been common among those courts. But this is not to say that the practice is wise.

CONCLUSION

Many regulators engage in norming—setting regulatory standards on the basis of what existing firms are already doing. In some cases, norming is explicitly written into the statutes that authorize regulatory action; in other

¹⁵⁵ *The T.J. Hooper*, 60 F.2d 737 (2nd Cir. 1932).

¹⁵⁶ See ROBERT C. ELLICKSON, *ORDER WITHOUT LAW* (1991); Epstein, *supra* note 152, at 32.

¹⁵⁷ ERIC A. POSNER, *LAW AND SOCIAL NORMS* 37 (2002).

cases, agencies have adopted norming as a matter of their own discretion. In either case, the result is that agency regulation is often tethered closely to existing industry practice.

It is possible to mount a defense of norming as appropriate agency practice. If firms within an industry are already self-regulating in some manner, that is a strong indication that the regulation will provide at least some health and safety benefits without unduly harming the industry. An agency process of norming and re-norming over time could act as a ratchet, increasing the level of regulatory stringency in a manner that consistently passes a cost-benefit test. If agencies are trying to ensure that they first do no harm, there is a lot to be said for norming.

But norming is inferior to cost-benefit analysis. Norming unduly privileges the status quo; CBA does not. There is an irony in the fact that critics of CBA have long derided it as a tool used to block beneficial regulation.¹⁵⁸ In fact, agencies themselves have hamstrung regulation by engaging in norming rather than following whatever regulatory course CBA would dictate. Perhaps this is the result of political necessity—perhaps agencies would struggle to promulgate regulations if they faced concerted opposition from every major firm each time they attempted to act. If so, those who favor stricter regulation should pressure agencies to rely on cost-benefit analysis.

¹⁵⁸ *E.g.*, ACKERMAN & HEINZERLING, *supra* note 2, at 45-48.