1996

The Cost-Benefit State

Cass R. Sunstein

The Cost-Benefit State

Cass R. Sunstein[*]

Introduction

Gradually and in fits and starts, the American regulatory state is becoming a cost-benefit state. By this I mean that government regulation is increasingly assessed by asking whether the benefits of regulation justify the costs of regulation.

My goal in this essay is to argue, on both economic and democratic grounds, on behalf of this transformation. I attempt to bring those arguments to bear on concrete debates over the appropriate nature of the emerging cost-benefit state. I will also urge a point that is not easily contested: regulatory legislation has diverse legitimate purposes, not limited to economic efficiency alone. This point does not argue against cost-benefit analysis, but it has important implications for the uses and limits of that technique. I will also argue against efforts to drown the administrative state in paperwork through excessive procedural requirements.

A. Transformative Developments

For many years, those attempting to assess the performance of the regulatory state have been interested in statistical measures. Gross Domestic Product helps capture economic performance; can something similar be used for regulatory initiatives? The use of cost-benefit analysis can be understood partly as an effort to overcome the interest-based and anecdote-driven nature of contemporary regulation in favor of an approach that examines, in a readily understandable way, the real-world consequences of regulatory initiatives.

Within the national government, the cost-benefit principle received its most prominent initial recognition via Executive Order 12291,[1] issued by President Reagan in 1981. At least at the

[*] Karl N. Llewellyn Distinguished Service Professor of Law, University of Chicago, Law School and Department of Political Science.

[1] 3 CFR 128 (1981).

symbolic level, the movement in the direction of cost-benefit analysis was much accelerated in 1985 with the issuance of Executive Order 12498,[2] requiring that cost-benefit analysis inform the annual regulatory plan to be issued by all executive agencies. These initiatives were quite controversial insofar as they threatened to delay regulatory requirements and perhaps to transfer authority from individual agencies to OMB. But Presidents Reagan and Bush, among many others, believed that they provided a crucial mechanism by which the White House might coordinate and centralize regulation, —and ensure against measures that would do more harm than good.

Many people doubted whether President Clinton would endorse the idea that regulatory judgments should be made with close reference to cost-benefit balancing. But despite pressure from some environmental organizations, President Clinton's Executive Order 12866,[3] issued in 1993, firmly embraces cost-benefit analysis as a central ingredient in regulatory choice. The new Order does make some departures from the Reagan-Bush initiatives; but with respect to cost-benefit analysis, the change consists principally in references to "equity" and "distributional impacts" as relevant factors. These are modest changes. Thus the Executive Branch has endorsed cost-benefit balancing for over fifteen years, and it seems reasonable to suppose that insofar as the White House is overseeing the federal regulatory process, cost-benefit analysis will continue to play a central organizing role.

The executive branch has not acted alone. In reviewing regulatory decisions, courts have also enforced a form of cost-benefit balancing, at least where Congress has authorized them to do so.[4] Judges have invalidated regulatory action that imposes high costs without significant benefits,[5] and they have policed

---

[2] 3 CFR 323 (1985).

[3] 3 CFR 638 (1993).

[4] See, e.g., Corrosion Proof Fittings v. EPA, 947 F.2d 1201 (9th Cir. 1991); Competitive Enterprise Institute v. NHTSA, 984 F.2d 123 (1992).

[5] American Petroleum Institute, 448 US 148 (1980); Corrosion Proof Fittings v. EPA, 947 F.2d 1201 (9th Cir. 1991); AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir. 1992).

agency action to ensure at least a rough kind of proportionality between costs and benefits. Sometimes courts have been quite aggressive in requiring proportionality as part of their function in reviewing agency action to test whether it is "arbitrary, capricious, or an abuse of discretion."[6]

These developments have not meant that the regulatory state is now routinely subject to scrutiny for conformity with cost-benefit criteria (a vague notion, as we shall see). In fact it is not. Presidents and courts of course have sharply limited authority; they must act consistently with federal statutes, which often forbid cost-benefit balancing. Consider, for example, the Clear Air Act, the Clean Water Act, the Occupational Safety and Health Act, the Delaney Clause, and the Safe Water Drinking Act, many of whose provisions ban agencies from balancing costs against benefits. It is partly for this reason that the American regulatory state contains many regulations imposing costs not justified by benefits.[7] From existing evidence[8] it is possible, moreover, to conclude that in spite of the recent executive orders, efforts at cost-benefit balancing within the executive branch have been sporadic and episodic, and that the highly publicized executive orders have served a largely symbolic and aspirational function. Hence much of the contemporary interest in regulatory reform is directed toward Congress.

It is important to say that the national legislature has not uniformly rejected cost-benefit balancing. Some statutes enacted by Congress appear to contemplate a form of cost-benefit analysis.[9] More recently, the Unfunded Mandates Act contains two potentially relevant "sleeper" provisions, both receiving almost no public attention even from specialists, and both growing out of the Contract With America. First, significant regulatory actions must be accompanied by a statement that includes "a qualitative and quantitative assessment of the anticipated costs and benefits

---

[6] 5 USC 706.

[7] See W. Kip Viscusi, Fatal Tradeoffs (1993).

[8] See id.

[9] See Toxic Substances Control Act, 7 USC 136-136y; Fungicide, Insecticide, and Pesticide Act, 15 USC 2601-2692.

of the Federal mandate."[10] Under the second provision, all agencies must "identify and consider a reasonable number of regulatory alternatives and from those alternatives select the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule."[11] There is an exception if these steps are inconsistent with law or if the agency explains why it has not chosen that least burdensome alternative; but this provision could have significant consequences.

In 1995, Congress nearly enacted a new statute that would amend all regulatory statutes to contain a cost-benefit "supermandate." If this statute had been enacted, laws now calling for various forms of absolutism, or indifference to cost, would call for cost-benefit balancing.[12] The failure to enact a new reform statute in 1995 has spurred fresh interest in solutions to modern regulatory problems.

B. Democracy, Efficiency, and Excessive Procedural Demands

Cost-benefit requirements are of course most easily justified on economic grounds, as a way of promoting economic efficiency and thus eliminating unnecessary and wasteful public and private expenditures. But cost-benefit requirements also have strong democratic justifications. Indeed, they can be understood as a way of diminishing interest-group pressures on regulation and also as a method for ensuring that the consequences of regulation are not shrouded in mystery but are instead made available for public inspection and review. Some of the strongest arguments for cost-benefit requirements are not so much economic as democratic in character.

The economic and democratic arguments for the emerging cost-benefit state should be qualified by reference to three points, and I urge that these points should be kept in mind during the process of regulatory reform. First, cost-benefit analysis ought not to be taken to impose undue procedural requirements on agencies. Government inaction has costs of its own; it may allow severe

---

[10] 2 USC 202(a)(2).

[11] 2 USC 202 (a)(3)-(4).

[12] See Cass R. Sunstein, Congress, Constitutional Moments, and the Cost-Benefit State, 48 Stan L Rev 247 (1995).

problems to continue; and some forms of cost-benefit analysis actually fail cost-benefit analysis. They impose extensive informational demands on agencies. They create excessive delay. They obstruct desirable regulation. Thus efforts at regulatory reform should avoid the pervasive risk of excessive proceduralism.

The second point stems from the fact that some of the most promising strategies for regulatory reform require a shift from command-and-control regulation to economic incentives. In these circumstances, cost-benefit analysis should not be taken as a modest, procedural step designed to engraft new information-gathering requirements on top of existing regulatory tools. On the contrary, it should be *part and parcel of a more ambitious and thorough-going effort to move toward new and better tools, often replacing federal command and control with disclosure remedies and with economic incentives*. The shift from command-and-control to more flexible methods of obtaining regulatory goals should, in short, be a central part of the cost-benefit state.

Third, any transformation of the modern regulatory state should recognize that by itself, the bare idea of cost-benefit analysis lacks a theory of how, and how much, to value social goods. Balancing all relevant variables is of course sensible; but which variables are relevant, and how should they be valued? Economists have some instructive answers, and I will discuss some of those answers below. But in its most rigidly economistic forms, cost-benefit analysis raises serious problems, since it values all regulatory consequences under the rubric of private "willingness to pay." The willingness to pay criterion has many uses, and sometimes it should indeed be the foundation for decision. But that criterion does not capture all of the values that underlay modern regulation, and sometimes it should be used only to provide information, and not as the foundation for decision. I attempt to explain below how this point bears on regulatory reform.

I. THE NEW DEAL AND ITS AFTERMATH: A VERY BRIEF TOUR

Emerging national enthusiasm for cost-benefit balancing should be understood against the backdrop set by Franklin Delano Roosevelt's New Deal, which was of course a substantial

reformation of the original constitutional structure.[13] The New Deal qualifies as a substantial reformation above all because it refashioned the three basic cornerstones of that structure: federalism; checks and balances; and individual rights.

To compress a long story: In the 1930s the powers of the national government were expanded in an extraordinary way, to the point where the nation exercised something close to general authority to control whatever problems it sought to address. The framers' original understanding of a sharply constrained central government was therefore repudiated by the nation. There were simple grounds for this repudiation. State autonomy seemed an obstacle to democratic self-government, not a crucial part of it—especially in the midst of the Depression, when states were generally perceived as ineffectual entities buffeted about by private factions. (Of course we have come to see that the national government may suffer from the same problem.) As a result of the New Deal, state autonomy was very different in 1940 from what it had been in 1920.

During the New Deal, the system of checks and balances also came under sharp criticism. To many observers, especially during the Depression, that system seemed dysfunctional for modern society.[14] Good businesses do not operate through checks and balances; why should good governments paralyze themselves in this way? Responding to such questions, Congress delegated enormous, often open-ended policymaking power to the President and also created a large number of powerful executive and independent agencies. Crucially, Congress attempted to design these agencies so as to limit the consequences of the system of checks and balances by allowing a high degree of administrative autonomy. Thus the new agencies had a large degree of discretionary authority under open-ended statutory standards. They also combined traditionally separated powers of

---

[13] See B. Ackerman, We the People vol. 1 (1993) (discussing New Deal as creation of third American constitutional regime). I borrow in this and the following section from Sunstein, Congress, Constitutional Moments, and the Cost-Benefit State, supra note.

[14] See James Landis, The Administrative Process (1935), for the classic statement.

adjudication, execution, and legislation. Certainly they were not limited by requirements of cost-benefit analysis.

These institutional shifts resulted from a central national judgment made during the Depression: that individual rights, properly conceived, included not merely the common law catalogue of private interests but also governmental protection against many of the harms and risks of a market economy. The common law was a regulatory system enjoying no special status. It should be evaluated pragmatically in terms of its consequences for the human beings subject to it. Here it often seemed to fail.

An astonishing feature of the New Deal was its relative rapidity. Many of the changes came in the brief period from 1932 through 1936. Rapid change was possible partly because it is a relatively simple step for a legislature to create a range of new bureaucratic institutions, at least if the legislature does not specify their duties in advance. The New Deal entities in fact operated pursuant to little statutory guidance; Congress usually contented itself with open-ended delegations of authority.

The New Deal reformation was the foundation for the basic orientation of the national government until the election of President Ronald Reagan, and possibly since then. One development has been of special importance: the "rights revolution" of the 1960s and 1970s. During that period, many New Deal tendencies were largely reinforced through the creation of a remarkable array of new agencies. These agencies were designed mostly to protect against threats to life, health, and safety from consumer products, workplaces, and above all the environment in general.[15] Hence this period saw the creation of the Environmental Protection Agency, the Occupational Safety and Health Administration, the Consumer Protect Safety Commission, the Council on Environmental Quality, and more.

It is notable that during both the New Deal and the rights revolution, no mechanism was created to evaluate regulatory performance. There was no system to assess whether agencies were making things better or worse. In the New Deal, any such system might have seemed peculiar in light of the widespread national enthusiasm for the President and for the possibilities of

[15] See Cass R. Sunstein, After the Rights Revolution (1990).

benign administration. Of course cost-benefit thinking was quite foreign to political actors, and hence cost-benefit analysis—which in any case had not been "invented" in anything like its current form—played little or no role in the public debate.

An especially striking feature of the period since 1980 is that the New Deal reformation has been subject to sustained national criticism, often as a result of a form of "national performance review" in which cost-benefit analysis plays a prominent role. It is worthwhile to pause over the constitution-like character of recent challenges to the current regulatory arrangements. Often it is suggested that the national government has far exceeded the appropriate limits of its authority, and that a return to the original structure would make a great deal of sense.

In this way there is a wholesale attack on the existing allocation of authority between the national government and the states. But "horizontal" issues of government structure are receiving similar attention. Many people have expressed concern about the extent of policymaking discretion given to regulatory agencies.[16] In their view, Congress should reassert its constitutional prerogatives by narrowing administrative discretion. Hence it is urged that the New Deal's enthusiasm for independent bureaucracy, and for a large lawmaking role by executive agencies, should be revisited, and that Congress should make the fundamental choices of policy.

Finally, and perhaps most fundamentally, pre-New Deal principles of private right have enjoyed a rebirth with the suggestion that modern regulatory programs violate liberty, rightly conceived.[17] Thus the movement for deregulation has called for far more sweeping changes than were urged in the Reagan period itself. Thus the takings clause has become a rallying cry for a new enthusiasm for the protection of private property—a rallying cry that has been brought by way of challenge to such well-established federal programs as the Endangered Species Act and the Federal Water Pollution Control Act's protection of wetlands.

---

[16] David Schoenbrod, Power Without Responsibility (1994).

[17] See Richard Epstein, Simple Rules for a Complex World (1995).

Some of the criticisms of regulatory performance have been far more pragmatic in character, and it is here that cost-benefit balancing, accompanied by risk analysis, has played a special role. As I have noted, the New Deal period was accompanied by no mechanism for monitoring regulatory performance. But it is now suggested that national government has failed adequately to perform the tasks assigned to it and that it has often made things worse. In this view, there is no suggestion that markets are ideal; but often markets work better than the regulatory programs designed as solutions. In sum, the question is whether the benefits justify the costs.

II. POST-NEW DEAL LEARNING ABOUT REGULATION

In the last decade, something very close to a consensus has emerged on some of the most important problems in existing government regulation. If government were to act on this consensus, it would introduce important changes. The consensus has the following features.

1. Government should engage in better priority-setting.

There can be no doubt that resources for risk reduction are badly allocated.[18] As much as $500 billion may be spent each year on regulation (putting benefits to one side),[19] and of this amount, more than $130 billion is spent on environmental protection.[20] A recent study suggests that better allocations of existing health expenditures could save an additional 60,000 lives at no increased cost—and that with better allocations, we could save the same number of lives we now save with $31 billion in annual savings.[21]

---

[18] See Stephen Breyer, Breaking the Vicious Circle (1992); Pildes & Sunstein, Reinventing the Regulatory State, 62 U Chi L Rev 1 (1995).

[19] See Thomas D. Hopkins, The Costs of Federal Regulation, 2 J Reg & Social Costs 5, 25 table 2 (1992) (estimate of $400 million).

[20] See Portney & Stavins, Regulatory Review of Environmental Policy, 8 J Risk & Uncertainty 111, 119 n. 1 (1995).

[21] Tengs et al., Five Hundred Life-Saving Interventions and their Cost-Effectiveness, Risk Analysis, forthcoming.

There are also serious and apparently unjustified asymmetries in life-saving expenditures. For transportation, there is a median per life year saved of $56,000; for occupational regulation, the number is $346,000; for environmental regulation, it is $4,207,000.[22] There are enormous variations within each group as well. Annual lives saved are highly variable.[23] Of course calculations of costs and benefits are somewhat speculative, and these numbers are of uncertain reliability. But with better allocations and more deliberative judgments, much could be done to make things better by providing more protection at identical cost.

It is well-known that cost per life saved tables show enormous and highly suggestive[24]: disparities across programs. Some regulations cost $100,000 or less per life saved; a number cost less than $1 million; many cost between $1 million and $5 million; and many range between $5 million and over $1 billion per life saved. A single number would not make sense, for reasons that we will explore; but these differences suggest that priorities are not being set in a sensible fashion.

The goal of achieving good priority-setting is undermined by the fact that agencies have quite different standards for deciding when risks are large enough to require any regulation at all.[25] The International Commission on Radiological Protection recommends that environmental factors should not be allowed to cause an incremental cancer risk, for those exposed over a lifetime, of about 3 in 1000. American agencies do not follow this recommendation, and their own practices are highly variable. The Nuclear Regulatory Commission sees 1 in 1000 as acceptable; the EPA's acceptable range varies from 1 in 10,000 to 1 in 1,000,000.

---

[22] Id.

[23] W. Kip Viscusi, Fatal Tradeoffs, supra, at 264.

[24] No more than that. To know whether there is cost-effectiveness, it is necessary to know more than cost per life saved. It is necessary to know as well (at a minimum) cost per unit of benefit; and benefits might include morbidity as well as mortality gains, improvements in recreation, mortality and morbidity gains for plants and animals, and improvements in aesthetics.

[25] See Sadowitz and Graham, A Survey of Permitted Residual Cancer Risks, 6 RISK 17 (1995).

The FDA has tried to use a standard of 1 in 1 million, but under the Delaney Clause, courts have required a standard of essentially 0.[26] OSHA's understanding of the "significant risk" requirement found in its governing statute means a risk of 1 in 1000; labor groups have sought an increase to 1 in 1 million. In the face of these variations, sensible priority-setting is unlikely.

2. Government should have a presumption in favor of flexible, market-based incentives rather than rigid commands.

Too often government has chosen to regulate through rigid commands that forbid more flexible and cost-effective means for achieving the same goal. In air and water pollution control, serious problems are caused by the "best available technology" approach, which mandates control technologies for hundreds or even thousands of firms in an exceptionally diverse nation. Compare market-based systems, which do not mandate particular results but instead impose costs on those who contribute to social harms. Consider, for example, a gasoline tax or an emissions trading system, by which people are allocated licenses that they can trade at a market price. Through such strategies, billions of dollars might be saved.[27]

Existing efforts at seeking better regulatory tools are hobbled by the statutory status quo, which sometimes forbids such tools, and which sometimes requires that they be engrafted on a bureaucratically complex system.[28] Thus a 1989 study suggested that the EPA's emissions trading program had saved between $525 million and $12 billion per year.[29] Thus the Clinton Administration calculates that its market-oriented proposals for amending the Clean Water Act could save between $1 and $12 billion over alternative approaches. Thus studies show that

---

[26] Public Citizen v. Young, 831 F.2d 1108 (DC Cir 1987).

[27] See T. Tietenburg, Emissions Trading 38-59 (1985); Portney et al., The EPA at Thirtysomething, 21 Envl. L. 1461 (1991).

[28] See, for example, the "offset" provisions of the nonattainment program of the Clean Air Act, which impose a "lowest achievable emissions rate" requirement in addition to the offset program.

[29] Hahn and Hester, Marketable Permits, 16 Ecol L Q 361, 374 and Table 2 (1989).

incentive-based mechanisms for controlling air pollution could have accomplished the same amount at one-quarter the cost.[30]

An especially valuable incentive-based approach consists of disclosure of information. Government might disclose risk-related information on its own, as it has in the case of cigarette smoking, or it might require companies to provide such information to workers and consumers. If, for example, companies offer information about risk, consumer and worker behavior will probably be affected. The national government has offered many initiatives in this direction. In particular, the Toxic Release Inventory of the Superfund Amendments appears to have been highly successful, spurring voluntary reductions at relatively low cost, and without requiring governmental mandates.[31] A great deal of work remains to be done in conceiving and designing appropriate informational approaches to risk.

3. Government should be aware of, and attempt to counteract, harmful unintended consequences.

Many regulatory initiatives have unintended harmful consequences, and under existing institutions, there is no systematic way to ensure that those consequences receive attention. Hence regulation tends to be based on partial perspectives emerging from close attention to mere pieces of complex problems. Selective attention is a hallmark of almost all current institutional arrangements.

A particular problem arises from "health-health" tradeoffs, which arise when regulation of one health risk increases another health risk.[32] It is important to ensure that risk regulation does not actually increase risks on balance. Suppose, for example, that elimination of asbestos—a carcinogenic substance—makes cars less safe, because asbestos is the best substance to use in making brake linings. Or suppose that the ban on asbestos encourages companies to use even more dangerous substitutes. It is

---

[30] See Tom Tietenburg, Emissions Trading (1985).

[31] See Robert Percival et al., Environmental Law and Policy (1992).

[32] See John Graham and Jonathan Wiener, Risk-Risk Tradeoffs (1995), for an excellent overview; see also Symposium, 8 Journal of Risk & Uncertainty 5 (1994); Aaron Wildavsky, Searching for Safety (1987).

pervasively true that controls on one risk may increase another risk. Unfortunately, risk regulation is not designed with this problem in mind.

There is also an incipient literature suggesting that regulatory expenditures can actually cost lives, since regulatory expenditures can produce greater unemployment and hence poverty, and since poor people do not live as long as people who are not poor. A 1990 study attempted to develop a model to quantify the common sense view that "richer is safer."[33] According to Keeney, a single fatality might result from an expenditure of from $3 million to $7.5 million. In a concurring opinion in a 1991 case involving occupational safety and health regulation, Judge Williams invoked this evidence to suggest that OSHA's refusal to engage in cost-benefit analysis might not be

beneficial for workers.[34] Judge Williams reasoned that if a fatality results from an expenditure of $7.5 million, some regulations might produce more fatalities than they prevent. Many regulations of course cost more than $7.5 million per life saved (see Table 1). In Judge Williams' view, an agency that fails to measure costs against benefits might be failing to measure mortality gains against losses.

The claimed relationship between wealth reductions and mortality is controversial.[35] But a number of studies find such a relationship. Consider the summary in Table 1.[36]

---

33 Kenney, Mortality Risks Induced by Economic Expenditure, 10 Risk Analysis 147 (1990).

34 International Union v. OSHA< 938 F.2d 1310, 1326-27 (DC Cir. 1991) (Williams, J., concurring).See also Building & Constr. Trades Dept. v. Brock, 838 F.2d 1258 (DC Cir 1988), suggesting that "leaning toward safety may sometimes have the perverse effect of increasing rather than decreasing risk." Id. at 1267. See also New York State v. Brown, 854 F.2d 1379, 1395 n. 1 (D. C. Cir., 1988 (Williams, J., concurring): "extravagant expenditures on health may in some instances affect health adversely, by foreclosing expenditures on items—higher quality food, shelter, recreation, etc.—that would have contributed more to the individual's health than the direct expenditures thereon."

35 See Portney and Stavins, Regulatory Review of Environmental Policy, 8 J. Risk & Uncertainty 111 (1995).

36 See Lutter and Morrall, Health-Health Analysis, 8 J Risk & Uncertainty 43, 49 (1994).

These findings should be taken with many grains of salt; existing evidence is in its infancy. In particular, there is reason to believe that expenditures that reduce the income of poor people have far more serious mortality effects than expenditures that reduce the income of rich people.[37] In any case it would certainly be good for government to know about unintended adverse consequences and to try to counteract them to the extent feasible. There is now no systematic mechanism by which government regulators can be made attentive to harmful unintended consequences.

4. Government needs more information, and it should create better incentives to compile and provide accurate information.

Often government lacks information about the harms that regulation is designed to counteract. Often it must act, or fail to act, in a context of a considerable scientific uncertainty. It follows that

---

[37] See Chapman & Hariharan, Do Poor People Have a Stronger Relationship between Income and Mortality Than the Rich?, 12 J Risk & Uncertainty 51 (1996).

any exercise of quantification can be illusory, or at least give the impression of far more knowledge than people actually have.

In these circumstances government should put a high premium on acquiring as much accurate information as possible. Much of the relevant information can be found in the private sector, which is in the best position to know about the costs of controlling risks and about actual emissions levels. The current regulatory structure does not create good incentives for compiling accurate information on these counts; indeed, it creates incentives to distort the facts. Hence industry faces incentives to report that the costs will be far higher than they will actually be.[38] It certainly does not encounter proper incentives to compile more information than is now available. Of course there is an omnipresent risk that governmental risk analysis will be skewed by well-organized private interests.

---

[38] See, e.g., Cotton Dust: An OSHA Success Story?, in W. Kip Viscusi, Fatal Tradeoffs (discussing the extreme overstatement of compliance costs by industry).

5. Technocratic, economic, and democratic judgments all have their appropriate place.

It seems clear that government should respond to reasonable judgments about risk; but whose judgments should be counted as reasonable? Countless studies have shown that there are systematic differences between expert and citizen judgments about risk.[39] This is one of the most robust findings in an extensive literature. Consider Table 2.

What is the reason for these differences? Some of them are attributable to citizens' ignorance of the facts. The ignorance has many sources, including sensationalistic media reports and heuristics that produce systematic biases.[40] Thus people tend to think that an event is more likely when it is "available," that is, when its occurrence can come readily to mind. It may be for this reason that people think that deaths from accidents occur much more often than deaths from disease, when in fact the numbers are about the same. The availability heuristic suggests that what people think will be partly an artifact of what the media emphasize. Notably, the media tend to emphasize unusual and provocative events rather than chronic risks.[41] The result is substantial distortions in policy, reflected in the "pollutant of the month" syndrome that characterizes regulatory responses.

TABLE 2
RATING HEALTH RISKS

	Public	EPA Experts
1. Hazardous waste sites	Medium-to-	low
2. Exposure to worksite chemicals	High	
3. Industrial pollution of waterways	Low	
4. Nuclear accident radiation	Not ranked	
5. Radioactive waste	Not ranked	

39 See Pildes & Sunstein, Reinventing the Regulatory State, 62 U Chi L Rev 1 (1995).

40 See Colim Camerer, Individual Decision Making, in The Handbook of Experimental Economics (J. Kagel and A. Roth eds. 1995).

41 See Greenberg et al., Network Evening News Coverage of Environmental Risk, 9 Risk Analysis 119 (1989).

6. Chemical leaks from underground storage tanks	Medium-to-	low
7. Pesticides	High	
8. Pollution from industrial accidents	Medium-to-	low
9. Water pollution from farm runoff	Medium	
10. Tap water contamination	High	
11. Industrial air pollution	High	
12. Ozone layer destruction	High	
13. Coastal water contamination	Low	
14. Sewage-plant water pollution	Medium-to-	low
15. Vehicle exhaust	High	
16. Oil spills	Medium-to-	low
17. Acid rain	High	
18. Water pollution from urban runoff	Medium	
19. Damaged wetlands	Low	
20. Genetic alteration	Low	
21. Non-hazardous waste sites	Medium-to-	low
22. Greenhouse effect	Low	
23. Indoor air pollution	High	
24. X-ray radiation	Not ranked	
25. Indoor radon	High	
26. Microwave oven radiation	Not ranked	

When citizens misperceive the facts, government should not respond to them. Citizen judgments that are based on mistaken beliefs should be corrected through education. And when they are mistaken, government should try to act on the basis of reality rather than fiction. For public judgments to govern, it is important to ensure that they are undergirded by sound science, as opposed to sensationalistic anecdotes or scare tactics. There is nothing undemocratic about a governmental refusal to respond to a demand for regulation that is based on factual ignorance. On the contrary, a system of representative democracy has as one of its central justifications the "filtering" of ignorant judgments.

But this is only part of the story. Some of the differences between citizens and experts have nothing to do with misunderstanding of the facts; they involve values instead. Experts focus principally on aggregate lives at stake. By contrast, ordinary citizens care about a range of other variables: whether risks are equitably distributed, faced by future generations,

especially dreaded, well-understood, and voluntarily incurred.[42] The psychological research can be summarized in the following way:

TABLE 3

Risk Characteristic	Aggravating Factor	Mitigating Factor
Nature of risk	Dreaded	Acceptable
Permanence	Irreversible/uncontrollable	Reversible/controllable
Duration	Faced by future generations	Faced by those now living
Equity	Unfairly distributed	Fairly distributed
Source of risk	Man-made	Found in nature
Freedom	Voluntarily incurred	Forced exposure
Existing understanding	Known to science	Unknown
Reflection to status quo	New	Old

Qualitative distinctions of this kind do not play a role in expert assessments. But citizen judgments on these points are entirely reasonable. They deserve respect, at least in a democracy. It is therefore important to ensure that any regulatory reform takes account of public judgments about which risks are most severe—so long as those judgments are both reflective and informed.

6. Government should concentrate on basic ends rather than on means.

A pervasive problem in federal regulation arises when regulatory policy becomes an arena for interest-group struggle. This happened most famously with efforts in 1977 to use the Clean Air Act to promote the interests of eastern coal[43] and, in 1990, with interest-group lobbying on behalf of ethanol and other

[42] See, e.g., Slovic, Beyond Numbers, in Acceptable Evidence 48 (D. Mayo and R. Hollander eds. 1991); Slovic, Perception of Risk, 236 Science 280 (1987); Kraus, Malmfors, and Slovic, Intuitive Toxicology, 12 Risk Analysis 215 (1992); W. Kip Viscusi, Carcinogen Regulation: Risk Characteristics and the Synthetic Risk Bias, 85 Am Econ Rev 50 (1995).

[43] See Bruce A. Ackerman & William Hassler, Clean Coal/Dirty Air (1981).

parochial interests.[44] Interest-group maneuvering is an omnipresent issue in federal regulation.

It is possible to limit interest-group power—and at the same time to reduce cost—through legislative attention to ends rather than to means of achieving those ends. When Congress focuses on ends, it makes it less likely that interest-group struggle over means will convert regulation into a struggle among groups with high stakes in particular means. And when Congress focuses on ends, it makes it more likely that the democratic process will be attending to the important questions. Thus "performance standards" are generally better than "design standards." What matters is whether the level of emissions is low or high, not whether the relevant company has installed scrubbers. In general, Congress should let administrators decide on the appropriate means for reaching legislatively-decreed ends, and administrators should, to the extent feasible, be permitted to rely on market forces to choose those means. If an industry can comply with a sulfur dioxide emission standard with clean coal, or with energy conservation methods, government should be entirely satisfied.

These, then, are the principal lessons of the last generation of experience with regulation. If we keep them in mind, we might think that it is well past time to enact what might be described metaphorically as an Administrative Substance Act, complementing the Administrative Procedure Act, which now governs agency behavior. The point of such an act would be to capture new learning with respect to regulatory successes and failures.

III. COST-BENEFIT ANALYSIS AS A CORRECTIVE: EFFICIENCY AND DEMOCRACY

A. Problems and Solutions

In light of these considerations, a new and general requirement of (some form of) cost-benefit balancing seems a natural corrective. Indeed, such a requirement might well

---

[44] See Adler, Clean Fuels, Dirty Air, in Environmental Politics 19, 28-29 (Michael Greve and Fred Smith eds. 1992).

incorporate an understanding of many of the lessons learned in the last decades about problems in the regulatory state.

Thus an effort at balancing relevant variables should promote better priority-setting, by ensuring that agencies proceed against the problems that are most severe and that can be reduced at least cost. To the extent that inefficiencies are produced by attention to relatively small problems at the expense of large ones, cost-benefit balancing holds out a great deal of promise. Indeed, if it is clear that an agency is devoting public and private resources to small problems, perhaps its action will be invalidated in court. There is certainly precedent for this sort of result, which should impose good ex ante incentives on administrators and also work against "regulation by anecdote" and pressures imposed by well-organized private groups.[45] And when the result of cost-benefit analysis shows significant expense for little gain, perhaps Congress and the President will attempt to provide correctives.

Movement in the direction of cost-benefit balancing should simultaneously place a premium on acquisition of further information on the central matters: How dangerous, exactly, is (for example) dioxin or benzene? And what would be the real-world consequences of trying to reduce or eliminate exposure to it? If we are interested in the most effective and efficient tools, cost-benefit analysis seems especially desirable. And if, as seems clear, regulators could often produce the same degree of environmental gain through economic incentives rather than command and control—and do so at a greatly reduced price—cost-benefit analysis (accompanied by a requirement of cost-effectiveness, which it should be understood to include) ought to spur a shift toward economic incentives. We have seen that a large part of the case for performance standards and for economic incentives is that they accomplish regulatory goals at lower cost. Hence a willingness to examine costs and benefits might well lead to the selection of better tools for accomplishing regulatory goals.

Thus far I have been emphasizing economic considerations; but there is also, and less familiarly, a democratic argument for making cost-benefit analysis a central feature of regulatory government. As has become increasingly clear, the American

---

[45] Corrosion Proof Fittings v. EPA, 947 F.2d 1201 (9th Cir. 1991).

administrative state is far from a democratic utopia. Existing regulatory outcomes do not reflect the deliberative judgments of the polity. On the contrary, many current outcomes are a product of a odd combination of factors: interest-group power, selective attention, "legislation by anecdote," media sensationalism, entrepreneurial legislators, and sheer lack of information.

To offer a brief overview of a complex story[46]: Many regulatory outcomes are driven by well-organized groups with a stake in certain technologies. Hence regulations issued with a public-spirited veneer often reflect factional power; and the democratic process never focuses on whether these outcomes are actually justified in terms of their consequences. Consider, for example, the infamous requirement of "scrubbing" for all coal, clean and dirty, a requirement that failed any reasonable effort at cost-benefit balancing, but that was favored by the producers of especially dirty eastern coal.[47] The basic phenomenon has been replicated with interest group maneuvering over fuels to be favored in the most recent Clean Air Act. If cost-benefit analysis had been required, the special-interest character of the legislation would have been transparent or somewhat at least harder to conceal.

There is another point. It is very important for regulation to be subject to review by representatives and citizens with an understanding of its consequences. And whether or not the outcome of cost-benefit analysis should be the exclusive criterion for decision, it is clear that public judgments can be better informed if people know what the costs and the benefits are. Many statutes emerge because of an anecdote, or a few anecdotes, that are taken to require a full and immediate response.[48] Anecdote-driven statutes may well fail to produce social benefits on balance; in any case it would be desirable to know whether they do so. Cost-benefit analysis is a way of helping to frame that issue. From the democratic point of view, then, cost-benefit

---

[46] Relevant discussion can be found in Bruce Ackerman and William Hassler, Clean Coal/Dirty Air (1981); Aaron Wildavsky, But Is It True? (1995); Cass R. Sunstein, After the Rights Revolution ch. 3 (1990).

[47] See B. Ackerman and W. Hassler, Clean Coal/Dirty Air (1981).

[48] See A. Wildavsky, But Is It True? (1995).

analysis might be favored on the ground that as compared to the status quo, it is likely to reduce interest group power over the administrative state and at the same time to bring relevant issues into the open.

To say this is not to say that democratic defects would be removed with a cost-benefit "supermandate." If cost-benefit analysis is understood to depend on aggregated private willingness to pay, it raises many doubts from the democratic point of view. Citizens in a democratic society base their decisions on reflective judgments, not on aggregated willingness to pay—a point to which I will return. Moreover, cost-benefit analysis is by itself nearly empty; good analysts need to make a range of theoretical and empirical judgments. In the process, interest groups can play a large role in characterizing both costs and benefits. Judgments about consequences of regulation are no mere technocratic exercise. Often agencies are acting in a realm of great factual uncertainty, and small shifts in assumptions can produce enormous variations on both cost and benefit sides. Interest group power and self-interest will undoubtedly affect the relevant data. Indeed, some of the enthusiasm for cost-benefit analysis is undoubtedly driven by the political desires of powerful private groups, including companies with their own financial interests at stake. Their principal goal is not to discipline agencies through better policy analysis, or to produce better regulations, but instead to reduce the level of regulation whatever its content and whatever its justification. As we will soon see, this point leads to three important qualifications, all of them bearing on the appropriate design of the cost-benefit state.

B. Historical Notes

I have said that the executive branch has been the most important institution in developing cost-benefit analysis, and a few historical notes will help put current developments in perspective. It is especially important to see the limited role of courts in the reviewing process as it has been designed by many presidents. It is also important to understand the extent to which cost-benefit balancing has been an innovation from the executive branch, embracing many diverse administrations.

The most direct precursor to the current structure of executive oversight of regulation via cost-benefit analysis was the system of "Quality of Life" reviews initiated in the Nixon administration.[49] Nixon's response to the expanding administrative bureaucracy was to create a "counter-bureaucracy" in the White House. He doubled the executive office staff, created the modern OMB, and established the Domestic Council (chaired by a top aide, John Ehrlichman). The Council met with representatives of different departments having jurisdiction over a problem and tried to develop coordinated policy positions for presidential approval.[50] In the "Quality of Life" review process, agencies were required to submit significant rules to OMB in advance of publication in the Federal Register. OMB's principal duty was to circulate the agency draft to other agencies for review and comment. Although the process was intended to apply to all agencies, only EPA and OSHA were actually subject to the reviewing process. OMB's function was rarely substantive; it served instead a coordinating function.[51]

President Ford continued the interagency review process and added to it a process designed to control the effects of regulation on inflation. Most important, the Council on Wage and Price Stability (CWPS) reviewed regulations for their effects on inflation. In addition, OMB promulgated a circular to agencies arguing that the inflationary impact of a proposed rule could best be assessed through a quantitative cost-benefit comparison. The Council's role was principally technical, consultative, and advisory. It was understood that the relevant agency might well persist in the face of CWPS disagreement. Congress ultimately enacted a statute allowing CWPS to participate in rulemaking and to explore adverse effects on inflation.

President Carter built on the Ford precedent through a successor to CWPS, the Regulatory Analysis Review Group (RARG). RARG consisted of representatives from major agencies, OMB, CWPS, and the Council on Economic Advisors.

---

[49] I borrow here from Pildes & Sunstein, Reinventing the Regulatory State, 62 U Chi L Rev 1 (1995).

[50] Richard Nathan, The Administrative Presidency 28-38 (1983).

[51] See Carnegie Commission, Risk and the Environment 48-49 (1993).

The purpose of this fifteen-agency group was to conduct interagency review of cost-effectiveness analyses, which were required of "significant" rules from relevant agencies. Notably, the executive order establishing the RARG review process did not require cost-benefit analysis. In fact RARG reviewed relatively few rules, though the President did resolve a few highly controversial issues.

All of these efforts were designed to increase interagency dialogue, coordination, and analytical precision, as well as to reduce regulatory costs. But the decisive step came within a week of President Reagan's inauguration, with the formal creation of a mechanism for OMB review of major regulations. The most important of the new innovations, contained in Executive Order 12291, were (1) a set of substantive principles for all agencies to follow, "to the extent permitted by law," including a commitment to cost-benefit analysis, (2) a requirement that a Regulatory Impact Analysis, including cost-benefit analysis, accompany all "major" rules, and (3) a formal mechanism for OMB oversight, with a general understanding that OMB had some (undefined) substantive control. President Reagan considered subjecting the independent agencies to the new order, but ultimately declined to do so, partly because of concerns about legal authority, but mostly because of fears of an adverse congressional reaction. The independent agencies were asked voluntarily to comply with Executive Order 12291; all of them declined.

Executive Order 12291 proved extremely controversial. Nonetheless, President Reagan expanded on the basic idea four years later with Executive Order 12498. As noted above, that order established a requirement that agencies submit "annual regulatory plans" to OMB for review. The result is an annual publication, the Regulatory Program of the United States, which contains a discussion of all proposed actions that might be either costly or controversial. Executive Order 12498 served to increase the authority of agency heads over their staffs, by exposing proposals to top-level review at an early stage. But it also increased the authority of OMB, by allowing OMB supervision over basic plans, and by making it hard for agencies to proceed without OMB preclearance. There is no systematic evidence that the

OMB reviewing process created more rational regulation, though OMB did try to control the most extreme regulations.

The Bush Administration's principal innovation was the Council on Competitiveness, chaired by the Vice President. The Council engaged in occasional review of agency rules, operating as a kind of supervisor of OMB itself. It also set out a number of principles and proposals for regulatory reform. President Clinton's Executive Order 12866 is the latest step in this process; for present purposes, it is sufficient to say that it endorses the basic commitments of the two Reagan orders, while attempting to diminish public concerns about interest-group power over regulation, by providing a process to resolve conflicts and procedures for greater openness.[52] Executive Order 12866 is the foundation for a series of "reinventing government" initiatives designed to shift attention to governmental performance and to increase flexibility for the private sector.[53]

Even with these executive orders, the problems traced in Part I—poor priority-setting, ineffective tools, and so forth—have persisted, and hence the movement for regulatory reform has not lost momentum. Thus the Unfunded Mandates Reform Act makes some modest steps in the direction of statutory cost-benefit requirements for all regulations. Thus Congress is now considering more aggressive "supermandates" cutting across all existing legislation. A general requirement of cost-benefit balancing from the national legislature has much to commend it. But there are three important issues that any such requirement must address: excessive proceduralism; appropriate regulatory tools; and the matter of valuation.

IV. EXCESSIVE PROCEDURALISM

During recent efforts at regulatory reform, including those within the executive branch, it is possible to detect two competing strands. The first strand is technocratic and highly professionalized: an effort to improve regulatory performance by

---

[52] See Pildes and Sunstein, Reinventing the Regulatory State, 62 U Chi L Rev 1 (1995).

[53] See Albert Gore, Common Sense Government (1996).

ensuring close attention to real-world consequences as these can be understood through the most sophisticated regulatory tools. For committed technocrats, the idea is to discipline the administrative state by assessing actual effects. Where the costs of regulation are low and the benefits high, nothing is wrong with regulation.[54] The second strand is reactionary: an effort to eliminate regulation whether or not it can be justified. Here cost-benefit requirements are combined with detailed procedural and information-gathering burdens, and also (ironically) with limits on appropriations—limits that will make it harder for agencies to comply with their new duties. Here the goal is not to improve but to obstruct regulation. Thus recent reform proposals have included blanket moratoriums on new regulations (a truly crude and lazy strategy for "reform") and costly "look back" provisions requiring agencies to do extended analyses of old regulations and to defend those analyses in court.

In the 1990s, enthusiasm for cost-benefit balancing has stemmed from both technocrats and reactionaries.[55] Mutually beneficial alliances are certainly possible. Good technocrats knows that regulation often makes little sense, and good reactionaries know that cost-benefit analysis can slow down regulation. But for those interested in public-spirited regulatory reform, the task for the future is to ensure that technocratic goals predominate. Otherwise cost-benefit analysis will simply serve as an obstacle to regulation whether or not it is desirable. If this happens, cost-benefit analysis, as a tool for decisionmakers, will ultimately breed public cynicism and distrust. This would be a disaster for those who seek to improve administrative performance.

For current reformers, a central problem is that cost-benefit analysis can result in excessive proceduralism—in the form of delay and paperwork requirements unaccompanied by corresponding gain. It should be unnecessary to emphasize that cost-benefit requirements can impose costly procedural duties on

---

54 See, e.g., W. Kip Viscusi, Fatal Tradeoffs (1993), and consider the Reagan Administration's decision to eliminate lead from gasoline, a decision founded on cost-benefit balancing.

55 See the discussion in Sunstein, Congress, Constitutional Moments, and the Cost-Benefit State, 48 Stan. L. Rev. 247 (1996).

agencies, and sometimes it is not clear that those duties produce benefits that justify the costs. Cost-benefit analysis will, in some forms, fail cost-benefit analysis.

There are two more particular problems here. First: If agencies are required to compile and compare the costs and benefits of every possible variation on a proposal under review, they will spend all their time calculating costs and benefits, and there will be a large incentive to stick with the status quo whatever its content. Existing procedural requirements have sometimes had just this effect. If cost-benefit analysis is supposed to be an engine for reform, status quo bias would be ironic unintended consequence.[56] Second: If agencies are required to defend all their rules, including existing rules, in complex administrative processes and eventually in court, they may spend all their resources in the defense of rules and hence in the employment of lawyers. Private cooptation of regulatory resources is a serious risk in proposals that subject agency decisions to excessive judicial control.

Take the first problem first. We can get some purchase on the problem by observing that in recent judicial decisions under statutes that call for balancing, there has been a tendency to require agencies to calculate the costs and benefits of a wide range of alternative proposals.[57] Naturally agencies resist this step, sometimes with the plausible argument that the gain of additional information is not worth the costs of acquiring it (including the costs of maintaining the status quo in the reviewing period). To be sure, the agency might be acting arbitrarily if it makes this decision; perhaps it has failed to investigate an alternative that is much better and that can be investigated cheaply. But courts are in a poor position to know whether this is so, and in general their own institutional ignorance ought to lead them to accept an agency's argument to this effect unless the argument can be shown to be unreasonable.

A broad lesson emerges from this conclusion. Agencies may well be reluctant to devote their resources to exploring the costs

---

[56] See the discussion of status quo bias in J. Mashaw and D. Harfst, The Struggle For Auto Safety (1990).

[57] Corrosion Proof Fittings v. EPA, 947 F.2d 1201 (9th Cir. 1991). See also AFL-CIO, supra note.

and benefits of, say, ten alternatives to the proposal under discussion, on the theory that the costs of the exploration would not justify the benefits. From this point we can conclude that any legislative requirement of cost-benefit balancing should give agencies some room to allocate resources as they wish—including the investigatory resources that are involved in cost-benefit analysis itself.

Now turn to the second problem. It is easy to understand the impetus toward proposals to require agencies to review existing rules. Many such rules no longer make sense; changed circumstances have made them obsolete or even counter-productive.[58] Thus a presidential dictate to agencies to ensure against obsolescence would be highly desirable. It would be even better for agencies to adopt rules that are likely to make sense over time, as in consensus standards that draw on private practices or, even better, performance standards that do not make it necessary for agencies to change so rapidly over time. Good technocrats are well-disposed toward ideas of this sort.

But a special problem will be created if Congress requires agencies to "look back" and review the costs and benefits of existing rules and to defend their analyses in court. Hence the "look back" idea creates real risks; it may allow private parties to coopt public resources by requiring endless reviews of old rules. There is no assurance that any private right to require new assessments of such rules will make much sense. It is easy to imagine a system in private groups are allowed to challenge analyses not so as to ensure better policy analysis, but so as to fend off and delay sensible regulatory initiatives. Of course this happens all the time. In the last generation, expensive procedural requirements have produced a kind of "ossification" of rulemaking, in which agencies are deterred from proceeding at all, and ultimately pushed toward less effective alternatives.

Alert to these problems, Presidents Reagan, Bush, and Clinton did not allow their executive orders to be reviewable by courts. Hence the requirements of these executive orders play no role in court, and cost-benefit balancing has been a matter for

---

[58] See Eisner and Kaleta, Federal Agency Review of Existing Regulations, 48 Administrative Law Review 139 (1996).

agencies alone (except to the extent that governing statutes mandate cost-benefit balancing). For the future it probably makes sense to allow court review to ensure that agency judgments about costs and benefits are not arbitrary. It also seems reasonable for presidents to impose on agencies a duty to ensure against obsolete regulations. But it probably does not make sense to surround the process with "look back" requirements designed to enable courts to require agencies to do cost-benefit analyses of past rules. Of course this is an issue that cannot be settled through first principles; it has large empirical dimensions. A degree of experimentation would be desirable before Congress attempts a statutory solution.

V. COST-BENEFIT BALANCING AND COMMAND-AND-CONTROL

Congress is now considering proposals to amend many existing statutes to call for cost-benefit analysis. As we have seen, some such shift is quite promising. A number of statutes forbid balancing and call for absolutism,[59] and such approaches are not easy to justify. Moreover, it is important to offer some criteria by which to monitor regulatory performance, and cost-benefit analysis is probably the best available technique for embarking on a form of "national performance review" in the regulatory context.

Standing by itself, however, a shift in the direction of cost-benefit analysis would be only a modest improvement over the status quo. Unless it is understood in a particular way—as a part of and a stimulus to a far larger change in direction—a decision to engraft a cost-benefit requirement onto current law would represent an insufficiently fundamental departure from the system of command and control regulation. In fact a skeptic might say that by itself, a requirement of cost-benefit analysis allows legislators to take credit for "getting the regulators under control" without forcing them to make hard choices, which would remain left to agencies and the President. This credit-claiming device can hardly substitute for fundamental reform.

---

[59] See, e.g., Clean Air Act, 42 USC 7401-7671q; Endangered Species Act, 16 USC 1531-1544, the Delaney Clause, 21 USC 348(C)(3)(A).

Imagine—to take a rough analogy—if the Soviet Union had decided (in, say, 1986) to replace an "absolutist" five-year plan for producing wheat with another five-year plan, one that better recognized the need for balancing competing variables. This step might well have been an improvement; but a five-year plan based on governmental balancing is no less a five-year plan than one based on governmental absolutism. Governmental dictation of outcomes rooted in cost-benefit analysis is better than governmental dictation based on absolutism, but neither is ideal.

In fact it would be easy to imagine a generation of dreary cycles with respect to regulatory reform. In those cycles, conservatives might require more balancing, more procedures, and fewer deadlines for administrators; liberals then argue against cost-benefit analysis and for solely health-based or solely technology-based standards, fewer procedures, citizen suits for regulatory beneficiaries, and stricter deadlines; conservatives, a few years later, seek greater procedural requirements and more attention to costs; liberals respond with the familiar litany; and so on until, say, 2050. Something of this kind is not a bad description of regulatory debates since 1980. But its continuation would represent an enormous failure of imagination and creativity. It would fix American policy in outmoded debates of the early 1970s, before the outpouring of learning that makes the "more" or "less" debate seem to unhelpful.

A cost-benefit state ought not to content itself with governmental specification of outcomes after governmental cost-benefit judgments. It ought instead *to encourage nongovernmental actors to generate information and to produce outcomes on the basis of incentives produced by democratic judgments*. For example, a great advantage of economic incentives and disclosure remedies is that they reduce the informational burden on government and shift that burden to people who know relevant costs and benefits. Instead of requiring a certain technology for cars—a question that government is ill-equipped to answer—government might impose a fee or a tax on high-polluting vehicles. The latter strategy imposes a far less severe information-gathering burden on government, which no longer need choose among technologies. That choice would be made by the (legally constrained) market.

As I have suggested, cost-benefit analysis, properly understood, should help spur use of better regulatory tools. It should be understood as part of a general movement away from command-and-control regulation. I will return to this point below.

VI. Problems of Valuation

Advocates of cost-benefit analysis have urged Congress to enact a "substantive supermandate" requiring all agencies to calculate costs and benefits and even to make cost-benefit analysis the "decisional criterion." Enough has been said thus far to suggest why such proposals are attractive. But how, exactly, are costs and benefits to be valued? Should market failure, as defined by economists, be the basis for understanding all of government regulation? These points raise large questions about the foundations of the modern regulatory state. In this section I suggest reasons for caution about the traditional economic understanding of regulation, but nonetheless endorse a shift in the direction of a substantive supermandate.

A. Valuing Life and Health

1. Some theoretical issues.

If a substantive supermandate is to be superimposed on the regulatory state, it makes sense to try to understand what cost-benefit balancing actually entails. Much of the national debate in recent years has involved the value of cost-benefit analysis—with proponents seeing cost-benefit analysis as a method for disciplinary administrative power by calling for salutary balancing, and adversaries fearing that cost-benefit analysis is a cold-hearted way of sacrificing human health and life for the sake of mere dollars. But this is at best a caricature. By itself, the notion of cost-benefit analysis is very close to empty; everything depends on how costs and benefits are characterized and on how underlying issues of valuation are resolved.

In fact there are two sorts of criticisms that might be made of a proposed framework (or supermandate) for evaluating governmental performance. One sort of criticism is that the framework is wrong—that it ignores certain important variables,

or that it is founded on an indefensible theory of value. Another sort of criticism is that it is *incompletely specified*—that its meaning depends on further subsidiary judgments that have yet to be offered. Cost-benefit analysis is properly subject to the first kind of criticism to the extent that it purports to align all social values along the single metric of aggregated private willingness to pay, and to evaluate all social and economic regulation by reference to that criterion. Inventive economists have devised many intriguing methods for discerning the "shadow prices" of goods not normally traded on markets; such methods have their uses, but their value and limitation result from their foundations in the idea of private willingness to pay. Regulation may be rooted in redistributive rather than allocative goals, and for fully legitimate reasons; consider the anti-discrimination laws as examples. To the extent that cost-benefit analysis is rooted in the technical economists' understanding, it has a great deal to offer, but it cannot capture all of the appropriate goals of regulation.[60]

As a political creed—as it operates within Congress and the executive branch—the principal problem with cost-benefit analysis is that it is incompletely specified. Its meaning depends on how costs and benefits are characterized and on how issues of valuation are resolved. Are equitable concerns a part of cost-benefit analysis? Suppose, for example, that a certain environmental risk is concentrated among African-Americans. Can a good cost-benefit analysis take this into account? (We should hope so, whatever private willingness to pay may suggest.) Or suppose that some of the benefits of regulation are aesthetic. How will these benefits be valued? Of course there is an extensive literature on valuation of human life and environmental goods.[61] By itself cost-benefit analysis does not take a stand on the associated controversies; but regulators must take some such stand. My suggestion here is that it is always appropriate to identify costs and benefits so as to inform analysis, and even to require that benefits justify costs, but that regulators should not

[60] See the parallel points in L. Lave, Benefit-Cost Analysis: Do the Benefits Exceed the Costs?, in Risks, Costs, and Lives Saved (Robert Hahn ed. 1996).

[61] See, e.g., W. Kip Viscusi, Fatal Tradeoffs (1993).

claim that benefits and costs must be grounded in traditional economic criteria involving private willingness to pay.

2. The range of regulatory enactments.

The modern state includes a diverse array of regulatory statutes, with diverse legitimate purposes, including but not at all limited to economic efficiency. Consider the following:

> Many important regulatory statutes are of course plausibly understood in terms of economic efficiency; they can be seen as efforts to counteract market failures. The Federal Insecticide, Fungicide, and Rodenticide Act and the Toxic Substances Control Act are examples. Such statutes may be designed to overcome an absence of sufficient information; harms to third parties; or collective action problems of various sorts.
>
> Some statutes are designed to eliminate illegitimate discrimination. Though some people think that such statutes can be defended on efficiency grounds,[62] their animating impulse has little to do with economic efficiency. They should be understood as an effort to eliminate second-class citizenship for members of certain social groups. Of course this does not mean that cost is no object. Such statutes should have cost-effectiveness as a goal, and effects on productivity are not irrelevant.
>
> Some statutes are designed to protect cultural aspirations.[63] Examples include measures safeguarding the national parks, encouraging high-quality programming, and protecting endangered species.
>
> Some statutes are designed to transform preferences, perhaps by altering existing social norms that press choices in a particular direction. When choices are a product of reputational incentives and hence social norms, and when those choices shorten lives, government might attempt to

---

[62] Lundberg and Starz, Private Discrimination and Social Intervention in Competitive Labor Markets, 73 Am. Ec. Rev. 340 (1983).

[63] See Cass R. Sunstein, After the Rights Revolution 57-60 (1990).

respond.[64] Regulation involving smoking, recycling, educational programming, and sexual harassment can be understood in these terms.

Some statutes are designed to redistribute resources to the poor or to others understood as having a good claim to public help. To be sure, regulation is a poor tool for this purpose, and purportedly public-spirited redistribution may really be benefiting well-organized interest groups with little claim to public assistance. But redistribution plays a large role in modern administration. The Social Security Act is an obvious example of redistributive law; the Agricultural Adjustment Act can be understood in this way, with appropriate qualifications for its interest-group dimensions.

It would undoubtedly be possible to mention other possibilities. The point is that the highly diverse grounds for federal regulation raise questions about cost-benefit analysis as the sole basis for regulation—and even about identifying costs and benefits as such in a value-free way.

If it is intended as an amendment to the regulatory state, a cost-benefit supermandate could be understood in many different ways. In its most ambitious form, it would amount to an endorsement of the principle of economic efficiency as the exclusive basis—the "decisional criterion"—for interpretation and application of all statutes. This would be a fundamental change both because it would understand cost-benefit analysis in a particular way—as a term for the criterion of economic efficiency—and because it would amend statutes that, when enacted, seemed motivated by something other than the efficiency criterion. If this were the understanding of the supermandate, all of the statutes to which the supermandate applies would henceforth be understood in efficiency terms. To say the least, this would be a dramatic shift in national policies and practices.

Another, less ambitious possibility is that the cost-benefit criteria would be understood in efficiency terms, but only for those

---

64 See Sunstein, Social Norms and Social Roles, 96 Colum L Rev (forthcoming May 1996).

statutes that were originally designed to promote economic efficiency. Under this approach, a cost-benefit supermandate would not alter the basic understandings that underlie existing statutes. It would instead have a more modest but nonetheless important goal: imposing a particular understanding of rationality on statutes formerly understood and implemented in a less precise, more ad hoc, and more intuitive way.

A third and least ambitious possibility is that cost-benefit criteria would be understood in a less technical and more common-sensical way, as an invitation to balancing a range of variables under statutes that had formerly been thought to be absolutist and hence to forbid balancing. On this view, a supermandate would not be so ambitious as to call for use of purely economic criteria. Its more modest goal would be to ask administrators to look at costs, or adverse effects, as well as at benefits. This has probably been the goal of the majority of those members of Congress who have been in favor of a substantive supermandate. And if the supermandate is understood in these terms, it makes a great deal of sense. As we will see, the principal objection to such a supermandate is that it is too open-ended; Congress can and should take steps to make it clearer, though—I emphasize—without mandating the efficiency criterion outside of the context of "market failure" statutes.

3. Theory and practice.

In legislative proposals dealing with cost-benefit analysis, almost no guidance has been offered on the crucial issue of how to value relevant variables. For this reason the provisions look highly substantive but are in fact largely procedural. Without guidance to constrain valuation, a requirement of cost-benefit analysis is quite open-ended.

To be sure, it would be possible to conclude that Congress should restrict itself to a call for cost-benefit analysis and leave the details to agencies. Perhaps Congress lacks the detailed understanding that would enable it to answer the more specific questions. Moreover, an open-ended mandate would certainly not be meaningless. It would send agencies a signal about the need for balancing a range of considerations, and any such procedural requirement will affect outcomes. Courts may invalidate outcomes

that, by general understandings, seem out of line with existing practice or too absolutist.[65] Certainly there is a difference between agency behavior under balancing statutes and agency behavior under statutes that forbid balancing.[66] But those concerned about administrative discretion would urge some greater guidance from the national legislature. I offer two suggestions here.

4. Qualitative factors.

An important fact here has been encountered in Part I: People care not simply about aggregate amount of lives lived, but also about a range of factors involving the nature of the particular risk. For most people, among the most salient contextual features are: (1) the catastrophic nature of the risk; (2) whether the risk is uncontrollable; (3) whether the risk involves irretrievable or permanent losses; (4) whether the risk is voluntarily incurred; (5) how equitably distributed the danger is or how concentrated on identifiable, innocent, or traditionally disadvantaged victims; (6) how well understood the risk in question is; (7) whether the risk would be faced by future generations; and (8) how familiar the risk is. Many of these factors are reflected in the willingness to pay criterion.[67]

Any required cost-benefit analysis for diverse regulatory agencies should reflect these points. Any cost-benefit analysis should, moreover, be accompanied by a more disaggregated and more qualitative description of the consequences of government action, so that Congress and the public can obtain a fuller picture than the crude and misleadingly precise "bottom line" of the cost-benefit analysis. This is not at all to deny that it is important to be precise and quantitative when agencies can be precise and quantitative. It is only to say that any "bottom line" about how to characterize and assess costs and benefits will involve judgments about values, not about science, and Congress and the public should see what those judgments are.

---

[65] Corrosion Proof Fittings v. EPA, 947 F.2d 1201 (5th Cir. 1991).

[66] Compare Toxic Substances Control Act and Fungicide, Insecticide, and Rodenticide Act with Clean Air Act and Delaney Clause and EDA.

[67] See George Tolley et al., Valuing Health for Policy (1994).

5. Floors and ceilings.

It is of course troublesome to assign dollar values for life, partly for the reasons I have sketched; but since tradeoffs of multiple kinds are inevitable, it may be best for Congress to set out some guidelines, floors, and ceilings governing expenditures, without pretending to say how much a life is "really worth." In light of the diversity of regulated risks, no single number would make sense for valuing life. It may well make sense to set *benchmark standards* of, say, $10 million per life saved as the maximum amount and $3 million as the minimum. These benchmarks might be accompanied by explicit permission for agencies to select a lower or higher number if the agency can explain that special circumstances call for that higher number. On this view, the data emerging from studies of revealed preferences would be used not because it reflects "actual" or acontextual valuations, but because for pragmatic purposes, it provides a good place to start, one that is better supported and more usable than any available alternative.

There is crudeness, however, in the very notion of "dollars per life saved." A well-functioning regulatory state should not be interested in how many lives are saved. but in how many statistical years, or how many decently livable statistical years, are added by regulation.[68] Hence Congress might set floors and ceilings not for lives saved but for life-years saved, with permission to depart on the basis of justifications that are publicly articulated and are reasonable on the merits.

Without a figure per life or per "quality life year" saved, agencies effectively have discretion to weight costs and benefits however they wish; this is a good reason for Congress to offer some guidelines. At a minimum Congress should require agencies to be explicit about their valuations, so that what they do will be subject to legislative and public oversight and review.

6. Substitute risks.

We have seen that there is a pervasive problem in risk regulation, one that is only now receiving public attention. The

[68] See Zackhauser and Shepard, Where Now For Saving Lives?, 40 Law and Contemp. Probs. 5 (1976).

problem occurs when the diminution of one risk simultaneously increases another risk. It would be good for Congress to consider a new provision to this effect:

"(1) Agencies shall ensure, to the extent feasible, that regulations do not create countervailing risks that are greater than those of regulated risks.

(2) This section shall not apply if it is inconsistent with the provisions of the enabling statute pursuant to which the agency is acting."

A cost-benefit supermandate, properly interpreted, may well incorporate an understanding of this sort. But it would be best to make such a requirement explicit.

VII. AMBITIOUS THINKING FOR THE COST-BENEFIT STATE

Thus far I have offered some relatively modest suggestions. For the cost-benefit state, three more ambitious strategies would accomplish a great deal more.

1. Rank risks and reallocate resources to more severe problems.

As Justice Breyer has suggested, a statute might well give the President some degree of the authority to divert public and private resources from small environmental problems to large ones, so as to ensure greater cost-effectiveness in government and better priority-setting.[69] There are some dangers with this proposal; a small group of bureaucrats should not have the authority to decide on basic social priorities. But a greater degree of presidential priority-setting would make sense.

Justice Breyer's approach should be qualified by keeping in mind the fact that people are legitimately concerned with the various contextual factors discussed above—the voluntariness of the risk, its potentially catastrophic character, whether it is especially dreaded, whether it is equitably distributed, and so forth. Ideas of this sort have received some modest attention in Congress; but the proposals have not been very ambitious.

---

[69] This is basically the approach suggested in S. Breyer, Breaking the Vicious Circle (1993).

2. Encourage and allow plans from private sector that show greater (but cheaper) reductions.

Often the problem with federal regulation is that the government lacks knowledge of the least expensive means of producing the preferred regulatory end. If the private sector were permitted to select the means, it could do so far more cheaply. The point has been recognized in Europe and Japan, under the general rubric of "environmental contracting."[70] In the Netherlands, for example, government has experimented with comprehensive, multi-media environmental targets for pollution reduction, accompanied by agreements from industry groups to achieve overall targets. In return for these agreements, government agrees to eliminate otherwise applicable pollutant-by-pollutant regulations, and to reduce any changes in requirements during the length of the contract period.

In the United States, the EPA has taken modest steps in the same direction. Thus the EPA has moved toward more cooperative solutions that use social pressures and moral suasion to encourage the use of innovative, low-cost pollution reduction techniques. The Green Lights Program, informing business about energy-efficient light fixtures, is an example, as is a recent program designed to encourage voluntary reductions in seventeen highly toxic chemical emissions.[71] Consider also OSHA's Star program, allowing companies with a demonstrably good safety record to rely on self-policing rather than government oversight. EPA is attempting to develop an Environmental Leadership program to parallel the Star program.

So too, EPA and Amoco concluded that a plantwide approach would do better in decreasing chemical releases than does the existing command and control system; unfortunately, nothing happened, but the conclusion should affect regulatory reform efforts. Under the 1990 Clean Air Act, companies can, in essence, "contract out" of technology-based controls for five years

---

[70] See Peter Mennell and Richard B. Stewart, Environmental Law and Policy 420-22 (1995). See Jan M. van Dunne, Environmental Contracts and Covenants (1993).

[71] See Wilkins and Hunt, Agency Discretion and Advances in Regulatory Theory, 63 George Washington L Rev 479, 492-98 (1995)

if they achieve a 90% reduction in toxic pollutants before EPA promulgates relevant regulations.[72] Under most federal statutes, however, EPA cannot approve private plans as substitutes for public mandates, even if the plans promise better results for less money. Congress should move in the direction of allowing private substitutes, so long as government monitoring is maintained. Of course it remains important to know whether the benefits from the private alternative are higher than the costs; perhaps the private alternative is cheaper but still not worthwhile on balance. What I am suggesting is that more creative, cooperative, and flexible programs, enlisting the informational advantages of the private sector, could be a large improvement over the status quo.

3. Regulate with incentives.

We have seen throughout that command-and-control regulation can be highly dysfunctional. Sometimes relevant statutes forbid agencies from choosing incentive-based strategies even if agencies know that such strategies would work better. Congress might enact a particular provision to solve this problem. It might say, for example, "Notwithstanding any other provision of law, an agency shall be permitted to regulate with economic incentives, if it can show that these methods will produce the same benefits in a more cost-effective manner."[73] Of course such a provision would involve risks. It could create further litigation, perhaps initiated by self-interested private groups seeking to stall desirable regulation. It could allow agencies unenthusiastic about regulatory mandates to proceed with less effective means of achieving compliance. But the problems with existing processes—excessive costs, insufficient regulatory benefits—are sufficient to make it worthwhile to move in this direction.

CONCLUSION

The United States is embarking increasingly on the project of assessing government regulation by asking whether the benefits justify the costs. The regulatory state is slowly becoming

---

[72] 42 USC 112(h)

[73] I borrow here from Statement of Jonathan Wiener, Before the Committee on Governmental Affairs, United States Senate, March 8, 1995.

something like a cost-benefit state; this is an unmistakable feature of public life in many institutions of American government. Thus in the last decade and more, the executive branch has attempted to embrace a form of cost-benefit analysis for specific purposes—to promote better priority-setting, to move toward market-oriented tools, to exempt de minimis risks, to attend to informed public judgments, to foster voluntary and least-cost compliance, and to focus on ultimate results rather than methods and processes. Similar steps can be found in Congress and the federal courts; but they remain tentative and incipient.

In light of the chaotic and uncoordinated character of modern regulation, the absence of good priority-setting, and the system of "legislation by anecdote," movement in the direction of a cost-benefit state is in many ways a salutary development. As we have seen, balancing is far better than absolutism. The point is especially important in light of the fact that with respect to protection of human health, absolutism may actually be counterproductive and hence far from what it seems. Indeed, absolutism may impair rather than improve health. But cost-benefit balancing can lead to excessive proceduralism, especially insofar as it is required via litigation. Moreover, the idea of cost-benefit analysis needs a great deal of specification, and it is hardly sufficient to engraft a supermandate of "balancing" on top of a structure of command and control regulation. Any such mandate should be part of a general movement toward more flexible regulatory tools.

I have suggested that a general background requirement of cost-benefit balancing—a substantive supermandate—should be enacted. I have also suggested that in describing costs and benefits, Congress should allow room for a diverse array of values, and not limit agencies to the criterion of private willingness to pay. Sometimes regulation attempts to alter preferences and norms; sometimes it has little to do with aggregated willingness to pay. An Administrative Substance Act, amending the regulatory state, should include the background requirement I have described and also require agencies to act in a cost-effective fashion. A cost-benefit state, understood in these terms, could

make large improvements by offering initiatives that make sense under any reasonable theory of value.

This Working Paper is a preliminary version of a chapter of a book, *Reforming Federal Regulating* (Robert Hahn editor, forthcoming 1997). Readers with comments should address them to:

Cass R. Sunstein
Karl N. Llewellyn Distinguished Service Professor
The Law School
The University of Chicago
1111 East 60th Street
Chicago, Illinois 60637

Chicago Working Papers in Law and Economics (Second Series)

1. William M. Landes, Copyright Protection of Letters, Diaries and Other Unpublished Works: An Economic Approach (July 1991).
2. Richard A. Epstein, The Path to *The T. J. Hooper*: The Theory and History of Custom in the Law of Tort (August 1991).
3. Cass R. Sunstein, On Property and Constitutionalism (September 1991).
4. Richard A. Posner, Blackmail, Privacy, and Freedom of Contract (February 1992).
5. Randal C. Picker, Security Interests, Misbehavior, and Common Pools (February 1992).
6. Tomas J. Philipson & Richard A. Posner, Optimal Regulation of AIDS (April 1992).
7. Douglas G. Baird, Revisiting Auctions in Chapter 11 (April 1992).
8. William M. Landes, Sequential versus Unitary Trials: An Economic Analysis (July 1992).
9. William M. Landes & Richard A. Posner, The Influence of Economics on Law: A Quantitative Study (August 1992).
10. Alan O. Sykes, The Welfare Economics of Immigration Law: A Theoretical Survey With An Analysis of U.S. Policy (September 1992).
11. Douglas G. Baird, 1992 Katz Lecture: Reconstructing Contracts (November 1992).
12. Gary S. Becker, The Economic Way of Looking at Life (January 1993).
13. J. Mark Ramseyer, Credibly Committing to Efficiency Wages: Cotton Spinning Cartels in Imperial Japan (March 1993).

14. Cass R. Sunstein, Endogenous Preferences, Environmental Law (April 1993).

15. Richard A. Posner, What Do Judges and Justices Maximize? (The Same Thing Everyone Else Does) (April 1993).
16. Lucian Arye Bebchuk and Randal C. Picker, Bankruptcy Rules, Managerial Entrenchment, and Firm-Specific Human Capital (August 1993).
17. J. Mark Ramseyer, Explicit Reasons for Implicit Contracts: The Legal Logic to the Japanese Main Bank System (August 1993).
18. William M. Landes and Richard A. Posner, The Economics of Anticipatory Adjudication (September 1993).
19. Kenneth W. Dam, The Economic Underpinnings of Patent Law (September 1993).
20. Alan O. Sykes, An Introduction to Regression Analysis (October 1993).
21. Richard A. Epstein, The Ubiquity of the Benefit Principle (March 1994).
22. Randal C. Picker, An Introduction to Game Theory and the Law (June 1994).
23. William M. Landes, Counterclaims: An Economic Analysis (June 1994).
24. J. Mark Ramseyer, The Market for Children: Evidence from Early Modern Japan (August 1994).
25. Robert H. Gertner and Geoffrey P. Miller, Settlement Escrows (August 1994).
26. Kenneth W. Dam, Some Economic Considerations in the Intellectual Property Protection of Software (August 1994).
27. Cass R. Sunstein, Rules and Rulelessness, (October 1994).
28. David Friedman, More Justice for Less Money: A Step Beyond *Cimino* (December 1994).
29. Daniel Shaviro, Budget Deficits and the Intergenerational Distribution of Lifetime Consumption (January 1995).
30. Douglas G. Baird, The Law and Economics of Contract Damages (February 1995).

31. Daniel Kessler, Thomas Meites, and Geoffrey P. Miller, Explaining Deviations from the Fifty Percent Rule: A Multimodal Approach to the Selection of Cases for Litigation (March 1995).
32. Geoffrey P. Miller, Das Kapital: Solvency Regulation of the American Business Enterprise (April 1995).
33. Richard Craswell, Freedom of Contract (August 1995).
34. J. Mark Ramseyer, Public Choice (November 1995).
35. Kenneth W. Dam, Intellectual Property in an Age of Software and Biotechnology (November 1995).
36. Cass R. Sunstein, Social Norms and Social Roles (January 1996).
37. J. Mark Ramseyer and Eric B. Rasmusen, Judicial Independence in Civil Law Regimes: Econometrics from Japan (January 1996).
38. Richard A. Epstein, Transaction Costs and Property Rights: Or Do Good Fences Make Good Neighbors? (March 1996).
39. Cass R. Sunstein, The Cost-Benefit State (May 1996).