J O I N T C E N T E R
AEI-BROOKINGS JOINT CENTER FOR REGULATORY STUDIES

The Regulatory Right-to-Know Act and The Congressional Office of Regulatory Analysis Act

Joint Testimony before the Committee on Governmental Affairs U.S. Senate

Robert W. Hahn and Robert E. Litan

Testimony 99-1

April 1999

Mr. Hahn is Director of the AEI-Brookings Joint Center for Regulatory Studies, a Resident Scholar at AEI, and a Research Associate at Harvard University. Robert E. Litan is Director of Economic Studies at the Brookings Institution and Codirector of the AEI-Brookings Joint Center for Regulatory Studies. A copy of this testimony can be obtained from the Joint Center's web site: www.aei.brookings.org. The authors have benefited from the comments of Arlene Holen and Randy Lutter. The views expressed here represent those of the authors and do not necessarily reflect those of the institutions with which they are affiliated.

J O I N T C E N T E R

In response to growing concerns about understanding the impact of regulation on consumers, business, and government, the American Enterprise Institute and the Brookings Institution have established the new AEI-Brookings Joint Center for Regulatory Studies. The primary purpose of the center is to hold lawmakers and regulators more accountable by providing thoughtful, objective analysis of existing regulatory programs and new regulatory proposals. The Joint Center will build on AEI's and Brookings's impressive body of work over the past three decades that has evaluated the economic impact of regulation and offered constructive suggestions for implementing reforms to enhance productivity and consumer welfare. The views in Joint Center publications are those of the authors and do not necessarily reflect the views of the staff, council of academic advisers, or fellows.

Executive Summary

Regulation is becoming increasingly important in many aspects of our economy. Congress has traditionally paid much less attention to the benefits and costs of regulation than to directly budgeted expenditures. This imbalance needs to be rectified.

Congress is now holding hearings on the Regulatory Right-to-Know Act and the Congressional Office of Regulatory Analysis Act. Those acts, if passed, will highlight the impact of regulation on consumers and workers; help inform the process of designing new laws and regulations; and also help provide insight on how to improve existing regulations.

This testimony argues that both those bills are likely to improve regulatory accountability. We offer some specific suggestions for strengthening the Right-to-Know Act, for example, by encouraging the Office of Management and Budget regulatory oversight unit to make greater use of its expertise in evaluating the actual impacts of federal regulation on the general public. We also make some practical suggestions for implementing a congressional Office of Regulatory Analysis, including recommendations on which regulations to analyze, the scope of the analysis, and the timing of such analysis so that it can have an important impact on the regulatory process.

The Regulatory Right-to-Know Act and the Congressional Office of Regulatory Analysis Act

Robert W. Hahn and Robert E. Litan

1. Introduction

We are pleased to appear before the committee to provide our views on the Regulatory Right-to-Know Act (S. 59) introduced this session by Senators Thompson, Breaux, Lott, and Stevens and the Congressional Office of Regulatory Analysis Act introduced in the past congressional session by Senators Shelby and Bond.

The two of us have studied and written about regulatory issues for over two decades. Recently, we helped the two institutions with which we are affiliated–the American Enterprise Institute and the Brookings Institution–form a new Joint Center for Regulatory Studies which, among other things, is reviewing federal regulatory and legislative proposals.

We believe that both bills are good ideas and should be adopted, with minor modifications. Both would help ensure that regulators, lawmakers, and interested parties have better information on the benefits and costs of individual regulations as well as the cumulative impact of the entire federal regulatory effort. In that respect, the bills would help bring information disclosure about regulatory activity up to the standards long required for on-budget activity, thus enhancing regulatory accountability.

Indeed, one lesson the United States has been preaching to the rest of the world in the wake of financial crises in Southeast Asia and Russia is that activity in both the public and private sectors must be "transparent." This simply is another way of saying that the public has a "right to know" information that is relevant to decisionmaking by both firms and governments. Both bills would apply that principle to regulation in this country. It is about time.

2. The Regulatory Right-to-Know Act

S. 59 would make permanent a requirement that Congress has imposed on the Office of Management and Budget (OMB) over the past two years: to prepare annually a report to Congress on the total benefits and costs of federal regulations.

Before those annual reports were required, the American people had no idea of the cumulative impact of federal regulatory activity. Now they know that federal regulations impose burdens on the private sector most likely in excess of $200 billion a year, depending on how the costs are defined; and according to estimates supplied by federal agencies, federal regulations deliver total benefits of at least that magnitude and conceivably much more.

The OMB reports have been far from perfect, as we will explain. But that does not mean that they should be abandoned, especially now that the agency has gained experience preparing them. In making the reporting requirement permanent, Congress should be urging OMB to improve its estimates of benefits and costs and to expand its recommendations for legislative changes.

A. Responses to Possible Objections

Before outlining our suggestions for improving S. 59, we want to anticipate a number of possible criticisms of the bill and address each in turn.

General Concerns about Using Benefit-Cost Analysis

Some interest groups object to the basic concept of collecting and reporting information on the benefits and costs of regulations for various reasons. For example, some claim that the numbers are too imprecise to be of much use. Others claim that the seeming precision of hard numbers drives out nonquantifiable considerations from regulatory decisions. And still others object on moral grounds–in particular, to the monetization of human health benefits. We do not believe that any of those objections defeats the usefulness of the kind of report that S. 59 would mandate and that OMB has already issued twice.

The broadest response to the critics is that the rear-guard battle over benefit-cost analysis, frankly, is over. Successive presidents from both parties for twenty-five years have issued and adhered to executive orders that require the executive branch agencies to analyze the benefits and costs to the best of their ability before taking regulatory action. Those orders do not require the quantification or monetization of the impossible. But they do recognize that benefit-cost analysis provides a useful *framework* for making decisions: an organized and systematic version of a list of pros and cons. We strongly suspect that if any of those individuals who object to benefit-cost analysis were to become the head of a regulatory agency, he or she would use something that approximated that method of decisionmaking, even if only implicitly. The executive orders make the analysis explicit. And S. 59 simply asks that OMB report to Congress and the American people the cumulative impact of all those decisions.

We are not oblivious to the concerns of critics, however. It is true that the current state-of-the-art does not often permit precise numerical estimates of benefits and costs. For that reason, some agencies include ranges for the relevant figures as well as best estimates. There is nothing wrong with that; indeed, specifying reasonable ranges often can be far more illuminating than offering precise estimates that do not acknowledge key uncertainties.

Although benefit-cost analysis provides a useful framework for decisionmaking, there are times when policymakers may not wish to take the results literally. For example, the numbers generated in the exercise do not remove nonquantifiable factors from decision making. Instead, they can help policymakers put *implicit* price tags on those factors so that they better understand the implications of decisions.

For example, suppose that the best estimate of the economic impact of a water pollution rule is that it would cost $500 million annually to implement while generating quantifiable social benefits of $400 million. Regulatory officials may still choose to approve the rule, however. In some cases, they may not be permitted by the authorizing statute to balance benefits and costs, in which case Congress and the public would then at least know the consequences of such a statute. Alternatively, the officials may be allowed to balance, but they recognize other *nonquantifiable* benefits–such as the benefit to society of having clean bodies of water–that, in their view, tip the balance toward adopting the rule. In that case, the benefit-cost analysis will have revealed the *implicit* value of the nonquantifiable benefits to be at least $100 million. That, too, is useful information for the public and Congress.

The critics of monetizing benefits, such as putting values on saving or extending lives and reducing the risk of injury-ignore one simple point. Whether one does it implicitly or explicitly, judgments are made all the time in both the public and private sectors about how much to spend to achieve given levels of safety. The fact is that limitless resources are not spent in pursuit of that objective. We do not spend the whole gross domestic product (GDP) attempting to save lives, however much we would like to do that. If we did, there would no other activity taking place in our society–no recreation, no travel, and no education. Instead, we all make decisions about how to trade off some objectives against others. You, as legislators, do it when you decide how much to allocate to education, to transfer payments, and to various other activities that in their own ways help save lives–national defense, medical research, and crime prevention, to name a few. Juries put values on human lives and injuries; they do not place infinite values on either. When regulators place values on saving lives or avoiding injuries, they are simply making explicit judgments that can be used to help compare the benefits with the costs that the private sector and public will be asked to pay under different regulatory proposals. In the process, they help decide how and to what extent society should allocate its scarce resources toward given regulatory objectives.

Significantly, the executive orders instructing the agencies to conduct regulatory analyses do not mandate that all benefits be monetized in every case–only that this be done to the extent practicable. It is noteworthy that S. 59 does not even go so far, for it speaks only of "effects." We believe that the bill should go further and follow the approach of current Executive Order 12886. Specifically, the bill should include additional language instructing OMB to estimate both benefits and cost in monetary terms, to the extent practicable. Furthermore, Section 6 of the bill–which instructs OMB (with advice from the Council of Economic Advisers) to issue guidelines to agencies to standardize their measurement of benefits and costs–should also instruct OMB to standardize the monetization of benefits and costs, when such estimates are available.

Many Statutes Do Not Require Regulatory Balancing

A second possible objection to S. 59 would question the usefulness of a regulatory accounting when a number of regulatory statutes do not allow the balancing of benefits and costs. We believe that the annual report is nonetheless useful.

As noted, executive orders have for over two decades required regulatory analyses to be conducted, even for regulations where balancing is not allowed. We believe that this is so because regulators still find estimates of benefits and costs useful in rendering their decisions, if for no reason than to have a basic "reality check" before issuing their rules. Furthermore, whether or not the information is used to provide such a check, Congress and the public have a right to know the impact of the rules that are being promulgated under statutes that prohibit balancing. Such information could lead Congress to change its mind about the statutes, as in fact Congress has done in recent years by changing the Delaney Clause of the Food, Drug and Cosmetic Act and introducing some balancing language in the Safe Drinking Water Act.

The annual reports can also help Congress consider the overall "balance" of the regulatory effort: in particular, whether private sector resources might be reallocated so as to generate even larger benefits for the same aggregate cost. In that regard, one well-known study by researchers at Harvard found that a reallocation of mandated expenditures toward those regulations with the highest payoff to society could save as many as 60,000 more lives a year at no additional cost. Whether that is the right number is not the point. That kind of inquiry should be of central importance to Congress. But Congress cannot begin to address such issues without having the kind of information included in the OMB annual report, which under S. 59 must include not only total benefits and costs, but similar information by agency, agency program, and major rule.

Official Estimates May Be Based on Unreliable Studies

A third possible objection questions the value of the annual report to the extent that OMB and/or the agencies include estimates of questionable reliability. In particular, is it possible that OMB and/or the agencies can "game" Congress by displaying estimates strongly favoring existing regulations, so as to fend off possible criticism?

In fact, we are sympathetic to that concern. The most important difference between OMB's report of 1997 and the 1998 report is that the more recent one includes a new estimate of the benefits of the Clean Air Act from the so-called Section 812 study, which EPA estimated at over $3 trillion annually (at the high end). That estimate alone pushed the upper bound of benefits of all federal regulation to $3.5 trillion, compared with a total cost range of $170-$230 billion.

While we recognize that the EPA estimate was the product of a peer-reviewed study, even OMB highlighted the strong sensitivity of the estimate to a number of assumptions and pointedly noted that other agencies held different views from EPA about those assumptions. That is hardly surprising. While we believe that the Clean Air Act may indeed produce benefits well in excess of its costs, we also believe that the EPA estimate, which OMB only indirectly questions in its report, on its face lacks credibility. Can one statute really generate benefits that are approximately 40 percent of the nation's annual GDP?

It is therefore understandable why some might question the usefulness of a report that accepts agency estimates without independent analysis. There is nothing in S. 59 that would prevent OMB from continuing to follow that practice in the future.

But that does not mean that the reports are useless. It is important to have the administration on record as to what it believes the values of its regulatory effort to be, just as the administration every year must defend its annual budget. But the buck does not stop there, so to speak. Congress can and should play a role in questioning the basis for regulatory estimates, just as it does now for budget requests. The annual regulatory report thus serves as the beginning of debate and thoughtful deliberation, not the end of them.

Over two decades ago, Congress recognized that it could not properly discharge its appropriations and budget responsibilities without having its own analytical arm to provide independent evaluations of the administration's budget request. Hence, in 1974, it created the Congressional Budget Office (CBO). We believe that the assessment of regulatory impacts deserves the same kind of independent consideration. Therefore, we will shortly discuss why we believe that the proposal to establish a counterpart to CBO for regulatory analysis is also meritorious.

Finally, we note that S. 59 can be implemented with few additional resources. In any event, to the extent additional resources are required, we believe that they are well worth the cost. There is the potential to save billions of dollars annually while ensuring that consumers get better regulatory results. And there is reason to believe that the government does not spend enough money analyzing the potential for improving regulations. An average homebuyer, for example, spends about ten times more per dollar actually invested in housing than regulators spend analyzing expenditures that are required by regulations.

B Suggested Modifications

Having strongly defended the need for S. 59, we nonetheless believe that it could be improved in several respects, either in the body of the bill or in accompanying legislative history.

First, OMB should be required in its report to recommend each year some minimum number (perhaps ten) of regulations, programs or program elements that should be reformed or eliminated. Those recommendations should be based on a careful assessment of the likely economic benefits and costs of the regulation or program. We are concerned that without such a requirement OMB may choose not to recommend any regulations or programs for elimination or reform. Indeed, OMB chose not to make such recommendations in its first report to Congress and only briefly addressed the topic in its second report.

Second, OMB should identify in each report some minimum number of regulations (such as five) where its assessment of the likely impact of a regulation substantially differs from that of the agency proposing the regulation. The issues relating to the Section 812 Study provide perhaps the most dramatic illustration of what can happen when OMB adopts without change an agency estimate of benefits and costs: in that case, the estimate on its face raises more questions than it answers and thus can cast a cloud over the reliability of OMB's entire report. If OMB is critical of certain agency estimates, but unable or unwilling to provide its own estimates, then at least it ought clearly to indicate that to be the case.

Third, Congress should develop mechanisms for better enforcement of the OMB guidelines. OMB has already issued guidance to agencies on how to measure the benefits and costs of proposed regulations and formats for reporting that information. While there is room for improvement, the fundamental problem is one of enforcement. We suggest that OMB, in addition to providing guidance, issue an annual peer-reviewed statement about the extent to which agencies are complying with such guidance. That statement could be included in the associated report. In addition, when agencies are not complying, Congress should take the

degree of agency compliance into account in setting appropriations for the agency and in instructing the agency how to proceed in the coming year.

Fourth, as noted above, the bill should make clear that the estimates of both benefits and costs should be stated in monetary terms, to the extent practicable or feasible. By estimating benefits in monetary terms to the extent feasible, they can be compared more easily. At the same time, the limitations of such comparisons need to be noted.

Fifth, the statute should require OMB to redo the regulatory analyses on a select number of existing rules. As it is now, OMB has been relying on estimates in the professional academic literature (to which we have contributed) to provide baseline estimates of existing regulations and has then buttressed those estimates with agency estimates of their most recently adopted rules. As some critics have rightly pointed out, the baseline estimates are getting dated. Firms have perhaps responded to mandates issued long ago in different ways from what was initially expected. In addition, scientists or other analysts may have learned more about the magnitude of the benefits of certain rules. As a result, it is important that OMB incrementally look back over the existing body of regulations and update the benefit and cost estimates.

Why not have the agencies do that? The major reason is to begin to develop some independence in the estimates. Where those estimates suggest a need for modification of some rules, then those results can help form the basis of the recommendations in changes in regulations that S. 59 would mandate. The agencies can then get to work considering those modifications based on the new estimates.

We recognize that our suggestions would require OMB to hire consultants in the same way that agencies now do this for the new rules they develop–and that this will cost some money. The amount, of course, will depend on the minimum number of such analyses Congress mandates. The total additional resources in any event should not exceed several million dollars. Given the fact that many existing rules now impose annual costs on the private sector in the billions of dollars, not to devote some small measure of added resources would be penny-wise and pound-foolish.

3. **The Congressional Office of Regulatory Analysis Act**

You have also asked to us to assess the Congressional Office of Regulatory Analysis Act, which Senator Shelby proposed last year (as did Representative McIntosh in the House). That act would create a CORA to provide Congress with "independent, timely, and reasoned analysis of existing and anticipated Federal rules." As noted earlier, such an office would serve as the regulatory counterpart to CBO.

A. Why CORA Is Sound

We believe that the CORA proposal is sound for three reasons: first, because it is likely to serve as an independent check on the analysis done in the executive branch by OMB and the agencies; second, because it will help to make the regulatory process more transparent; and third, because Congress can use the independent analysis to help improve regulation and the regulatory process.

OMB's Office of Regulatory and Information Affairs (OIRA) faces inherent limits in the scope of its review of individual regulatory proposals. OIRA is headed by a political appointee chosen by the same administration that appoints the heads of the regulatory agencies. There is likely, therefore, to be some implicit understanding that the head of OIRA is not to press the agencies "too hard" because he or she is on the same "team" as the agency heads. Even if the head of OIRA were given authority to challenge regulations, the basis for those challenges is rarely made public; and the scope of those challenges is likely to be limited. The constraints on OMB are manifested in its annual report, in which it has, so far, simply accepted the benefits and cost estimates compiled by the agencies instead of providing any of its own assessments. CORA would not face those constraints but instead would be able to provide its independent analysis, much as CBO has done in the budget arena.

CORA would also make the regulatory process more transparent by providing both a more independent and a more public voice than OIRA. As noted below, CORA could submit comments on proposals that would help the public and Congress gauge their accuracy.

Congress can use CORA to help implement its recent legislation. For example, Congress adopted legislation (the Small Business Regulatory Enforcement Fairness Act) giving itself the opportunity for at least sixty days after a regulation is finalized to disapprove

it before it becomes effective. Congress has yet to exercise that responsibility. As it is now, if and when Congress chooses to do so, it will have to rely on the agency's own estimates of the impacts of a rule and on any other data that interested parties may or may not have submitted in the rulemaking record. Significantly, Congress now has no *credible, independent source of information* upon which to base such decisions. That is analogous to the pre-CBO Congress, which had to make budget and appropriations decisions based solely on the information developed by the executive branch. We doubt seriously that, whatever their day-to-day criticisms of CBO may be, few if any members of Congress would wish to return to the pre-CBO era for appropriations decisions. Analogously, Congress should want to create an office to provide information and assessments of the impacts of regulations that are independent of those of the agency.

CORA could also aid Congress in periodically assessing the need to modify its own regulatory statutes. The OMB annual report, mandated by S. 59, would assist in that effort, but again, it will be based solely on the information that OMB chooses to convey to Congress. CORA can and should provide an independent assessment of that report, a responsibility that should be added to the language of the bill.

B. Implementation Issues

The CORA proposal raises a number of practical questions that this committee should consider before deciding whether to recommend it to the full Senate. We examine those questions below and suggest the need for modifying the bill in some cases and providing guidance in the form of legislative history in others.

What should be the scope of CORA's duties?

The Shelby draft of last year would require CORA to perform its own regulatory impact analysis (RIA) for every "major rule." We do not believe that CORA has to go that far–in effect, replicating everything the agencies do, but without anywhere near the level of resources. Instead, Congress and the public would be better served if CORA reviewed the RIAs and the rules–both as they are proposed (see further comments below) and when they are issued–for their methodological and factual integrity and for whether they reflect a

consideration of reasonable alternatives and whether they are consistent with the authorizing statute. In other words, CORA should be doing the same kind of review that OIRA now performs, only without the political constraints.

In addition, as we have just suggested, CORA should also be required to provide Congress with an assessment of the OMB annual report, much as CBO now does with the annual budget.

How many rules should CORA review?

If it is required to analyze all major rules, CORA is likely to be doing thirty or so analyses a year (and maybe more, counting the rules of independent agencies). The Shelby draft also requires CORA to analyze nonmajor rules if they are so requested by a Senate or House committee.

The ability of CORA to carry out that full mandate depends on the level of resources Congress gives it. Our view that CORA should learn to walk before it runs, and therefore, should start on the small side–perhaps with fifteen to twenty senior-level analysts–and only ramp up in the number of personnel as it gains experience (by comparison, although OIRA has more employees, it has, to our knowledge, only about fifteen to twenty-five senior-level regulatory analysts).

If that view is sustained–indeed, if CORA is given even fewer resources at the outset–then serious attention should be given to limiting the number of rules analyzed. At a minimum, therefore, we would propose striking the requirement that CORA analyze nonmajor rules. In addition, for major rules, CORA should be able to devote more resources to reviewing very important rules with potentially large economic impacts than to major rules of lesser import.

How much information should CORA get, and when should it get it?

The Shelby draft (which closely tracks the McIntosh proposal in the House) would ensure that CORA gets the same information that OMB now gets when reviewing rules. As a practical matter, that means that CORA would get the regulatory impact analyses and underlying supporting materials that are placed in the rulemaking record, along with the

notice of proposed rulemaking (NPRM), at the time the rule is proposed. CORA also should have access to any other materials the agency used to help prepare its RIAs, so that it has the data and models necessary to replicate agency results on benefits and costs. And, of course, CORA should get all comments filed in the public record after the comment period closes.

We understand that the administration has previously objected to the CORA proposal for intruding excessively into the rulemaking process. There is a valid concern here. CORA should not be created to replicate everything the agencies do, just as CBO was not created to replicated everything that OMB does or that the budget offices of the individual agencies do. Instead, CBO was created to provide a "check"–an independent source of evaluation.

CORA can and should play the same role. It can do that, for example, by placing its own comments in the rulemaking record of the agencies during the comment periods, which typically last from 90–120 days. Indeed, we suggest that the language of the bill and/or its legislative history strongly encourage CORA to provide such comments, which should help give the agencies early warning of what CORA is likely to say in its report to Congress after the rules are issued. Where the RIAs, their supporting documents, and NPRMs have provided insufficient information for CORA to submit meaningful comments, CORA should say so in its comments and thus put the agency on notice of the need to do more homework before issuing the final rule (a circumstance Congress can and should take into account in deciding whether to review rules after they are issued). Knowing that CORA may file such comments would provide a powerful incentive for agencies to compile thorough records and analyses before proceeding with their NPRMs.

When should CORA get its information? In particular, should it get it when OMB does–which is often well before the NPRM, at the stage when the agencies are just scoping out their options and in the preliminary stages of their analysis? The administration's objections to the proposal seem to center on the answer to this question being yes. But the proposal can be easily modified to clarify that CORA is to receive the information that OMB obtains only at the time when rules are proposed. That should alleviate the administration's legitimate concern about excessive intrusion into the deliberations of the agencies, but at the same time leave enough time for CORA to do its work. As long as CORA is not doing its own RIA–which we have counseled against–the 90–120 day comment periods that are typical of agency rulemakings should allow sufficient time for CORA to carry out its functions. But just to be sure, Congress may want to add language in the bill allowing CORA to request the

agency to hold open its comment period for an additional period–perhaps thirty to sixty days–when CORA believes that additional time is warranted and when the agency has not otherwise claimed a need for issuing the rule on an "emergency basis" (an option that should be retained).

C. Staffing CORA

As noted above, we believe that it is appropriate for CORA to build up a staff over time with individuals from backgrounds similar to those of the analysts now working at OIRA. In addition, we believe that CORA should have a permanent set of well-known independent scientists, economists, and other technicians on peer-review panels. CORA can and should draw on those individuals for advice and, in appropriate cases, for help in preparing analyses. The members of the peer-review panels should be individuals of unquestioned expertise and of high standing in their academic or professional communities. No individual should be chosen to serve on a panel working on a particular rule if he or she works in an industry affected by that rule or could benefit financially from its adoption. The same conflict-of-interest considerations should apply to putting individuals on peer-review panels who work for public-interest organizations that have stated their views on the rule or related rules.

D. Alternatives to a CORA

We believe that it is best for the independent review function to be lodged in a separate congressional agency. Otherwise, if made a part of CBO or GAO, the office is likely to have less clout, and there is a greater chance that its activities will get lost amid the larger functions already performed by those agencies.

4. **Conclusion**

Regulation is becoming increasingly important in many aspects of our economy. It has an important effect on our quality of life and the costs of goods and services; it also affects the ability of firms to compete in an increasingly global economy.

The Regulatory Right-to-Know Act and the Congressional Office of Regulatory Analysis Act, if passed, will help enhance regulatory accountability. Those acts would help highlight the impact of regulation on consumers and workers. In addition, they would inform the process of designing new laws and regulations and could also help provide insights on how to improve existing regulations.

Congress has traditionally paid much less attention to the benefits and costs of regulation than to directly budgeted expenditures. That imbalance needs to be rectified.

Congress needs to have better information on the likely benefits and costs of regulations that flow from the laws it passes. In addition, American citizens have a right to know how regulations are likely to affect them in everyday life.

Related Readings

AEI-Brookings Joint Center for Regulatory Studies. 1998. *Conference Summary: Changing the Way We Think about Regulation.* www.aei.brookings.org.

Arrow, Kenneth J., Maureen L. Cropper, George C. Eads, Robert W. Hahn, Lester B. Lave, Roger G. Noll, Paul R. Portney, Milton Russell, Richard Schmalensee, V. Kerry Smith, and Robert N. Stavins. 1996. *Benefit-Cost Analysis in Environmental, Health, and Safety Regulation: A Statement of Principles.* Washington, D.C.: AEI Press.

Breyer, Stephen G. 1993. *Breaking the Vicious Circle.* Cambridge, Mass.: Harvard University Press.

Crandall, Robert W., Christopher DeMuth, Robert W. Hahn, Robert E. Litan, Pietro S. Nivola, and Paul R. Portney. 1997. *An Agenda for Federal Regulatory Reform.* Washington, D.C.: AEI Press and Brookings Institution Press.

Graham, John D., and Jonathan B. Wiener, eds. 1995. *Risk vs. Risk: Tradeoffs in Protecting Health and the Environment.* Cambridge, Mass.: Harvard University Press.

Hahn, Robert W. 1998. "Government Analysis of the Benefits and Costs of Regulation." *Journal of Economic Perspectives* 12(4): 201–10.

Hahn, Robert W., ed. 1996. *Risks, Costs, and Lives Saved: Getting Better Results from Regulation.* New York and Washington, D.C.: Oxford University Press and AEI Press.

Hahn, Robert W., and Robert E. Litan. 1997. *Improving Regulatory Accountability.* Washington, D.C.: AEI Press and Brookings Institution Press.

Lutter, Randall. 1998. *An Analysis of the Use of EPA's Clean Air Benefit Estimates in OMB's Draft Report on the Costs and Benefits of Regulation.* Regulatory Analysis 98-2. Washington, D.C.: AEI-Brookings Joint Center for Regulatory Studies.

Morgenstern, Richard D., ed. 1997. *Economic Analysis at EPA: Assessing Regulatory Impact.* Washington, D.C.: Resources for the Future.

_____, Office of Information and Regulatory Affairs. 1997. *Report to Congress on the Costs and Benefits of Federal Regulations.* Washington, D.C.: Government Printing Office.

Office of Management and Budget, Office of Information and Regulatory Affairs. 1998. *Report to Congress on the Costs and Benefits of Federal Regulations.* Washington, D.C.: Government Printing Office.

U.S. General Accounting Office. 1999. *Regulatory Accounting: Analysis of OMB's Reports on the Cost and Benefits of Federal Rules,* Draft Report to Congressional Requesters. Washington, D.C.: Government Printing Office.