

### An Analysis of the Second Government Draft Report on the Costs and Benefits of Federal Regulations

### Robert W. Hahn and Robert E. Litan

Regulatory Analysis 98-1

September 1998

Robert W. Hahn and Robert E. Litan are the directors of the AEI-Brookings Joint Center for Regulatory Studies. The authors would like to thank Sarah Holden, Randy Lutter, and Petrea Moyle for their helpful comments. This paper represents the views of the authors and does not necessarily represent the views of the institutions with which they are affiliated.



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.

ROBERT W. HAHN Director ROBERT E. LITAN Codirector

### COUNCIL OF ACADEMIC ADVISERS

MAUREEN L. CROPPER	JOHN G. GIBBONS	PAUL L. JOSKOW
University of Maryland	formerly Office of Science	Massachusetts Institute
and World Bank	and Technology Policy	of Technology
JOSHUA LEDERBERG Rockefeller University	RODNEY W. NICHOLS New York Academy of Sciences	ROGER G. NOLL Stanford University
GILBERT S. OMENN University of Michigan	PETER PASSELL Milken Institute	RICHARD SCHMALENSEE Massachusetts Institute of Technology
ROBERT N. STAVINS	CASS R. SUNSTEIN	W. KIP VISCUSI
Harvard University	University of Chicago	Harvard University

### **Executive Summary**

This paper critically reviews the draft of the Office of Management and Budget's second report on the costs and benefits of federal regulation. The purpose of this analysis is to offer constructive recommendations for improving that report. Our main conclusion is that the OMB report represents an improvement over the previous year in terms of the quantity of information presented and the nature of the presentation. However, it still has some serious problems that need to be addressed. Perhaps the most serious deficiency is that the OMB fails to take adequate advantage of its in-house expertise in providing a candid assessment of the costs and benefits of regulation.

### An Analysis of the Second Government Draft Report on the Costs and Benefits of Federal Regulations

#### Robert W. Hahn and Robert E. Litan

### 1. Introduction

The direct costs of federal environmental, health, and safety regulation have grown dramatically in recent decades, and are probably on the order of \$200 billion annually. These regulatory costs, which are about the size of all federal domestic, non-defense discretionary spending, are expected to grow significantly in the next decade. The benefits of those regulations are even less certain. Yet, the economic impacts of regulation receive much less scrutiny than direct, budgeted government spending.

The potential gains of regulatory reform are substantial. Research suggests that more than half of the federal government's regulations would fail a strict benefit-cost test using the government's own numbers.<sup>2</sup> Moreover, there is ample research suggesting that regulation could be significantly improved, so we could save more lives with fewer resources.<sup>3</sup> One study 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.<sup>4</sup>

Recently, Congress has begun to show a greater interest in assessing the economic impact of regulation. In 1996, Senator Ted Stevens of Alaska added an amendment to the Omnibus Consolidated Appropriations Act of 1997 that required the director of the Office of Management and Budget (OMB) to provide Congress with estimates of the total annual costs and benefits of all federal regulatory programs and estimates of the costs and benefits of individual regulations. This statute is the first to mandate such an accounting. In September of 1997, the OMB produced its first report on the costs and benefits of regulation in response to the Stevens amendment, and it recently completed a draft of its second report.<sup>5,6</sup> This paper critically reviews the draft of the

<sup>&</sup>lt;sup>1</sup> Unless otherwise noted, all dollar amounts are in 1996 dollars.

<sup>&</sup>lt;sup>2</sup> See Hahn (1998b).

<sup>&</sup>lt;sup>3</sup> See Morrall (1986) and Viscusi (1996).

<sup>&</sup>lt;sup>4</sup> See Tengs and Graham (1996).

<sup>&</sup>lt;sup>5</sup> See OMB (1997) and OMB (1998). The page numbers cited in OMB (1998) are taken from the version in the Federal Register, which was downloaded from http://www.whitehouse.gov/WH/EOP/OMB/html/fedreg.html.

OMB's second report. Section 2 provides an evaluation of the report and offers recommendations for improvement. Section 3 concludes.

Our main conclusion is that the report represents an improvement over the previous year in terms of the quantity of information presented and the nature of the presentation. However, it still has some serious problems that should be rectified. Perhaps the most serious deficiency is that the OMB fails to take adequate advantage of its deep in-house expertise in providing a candid assessment of the costs and benefits of regulation.

#### 2. Evaluation and Recommendations

The first OMB report on the costs and benefits of federal regulation was pathbreaking in that it was the first comprehensive attempt by a government agency to tally up federal regulatory costs and benefits.<sup>7</sup> The second draft report builds on that effort and makes several improvements. These include presenting upper and lower bound estimates on individual and aggregate impacts of regulation; developing a more comprehensive database on the costs and benefits of recent regulations based on an agency's own analysis; presenting more information on the aggregate costs and benefits of regulation; monetizing benefits that were quantified, but not monetized, by the agencies; presenting new information on regulations assessed by independent agencies; comparing "before-and-after" economic evaluations of selected regulations; and examining the extent to which regulatory analyses are adhering to best practices.<sup>8</sup>

While these improvements are important, the report leaves the reader with the misguided impression that the regulatory process and regulation are generally improving. We find it hard to reconcile this with the fact that the number of regulations that would not pass a strict benefit-cost test using the government's numbers is still significant.

<sup>&</sup>lt;sup>6</sup> The Office of Information and Regulatory Affairs is the office within the OMB that is responsible for overseeing regulation and it also has primary responsibility for producing the report discussed here.

<sup>&</sup>lt;sup>7</sup> See OMB (1997).

<sup>&</sup>lt;sup>8</sup> See OMB (1996) and Arrow et al. (1996).

<sup>&</sup>lt;sup>9</sup> For example, the OMB claims, "that agencies are continuing to reform and improve their regulatory programs." See OMB (1998, 44055).

The following ten recommendations include suggestions for improving this report and suggestions that the OMB may consider including in their report to Congress.

### Recommendations for Improving the Draft Report

<u>Recommendation 1</u>: The OMB should rely more heavily on its own expertise to inform judgments about the costs and benefits of regulation and the quality of agency analysis.

One problem with both the first OMB report and the draft of the second report is that they fail to take advantage of the expertise that resides within the OMB to evaluate the economic impact of regulations. The major advantage that the OMB analysts have over other potential authors of this report, such as academics, is that they are more familiar with the details of regulations and regulatory analyses. *Nowhere* in the report does the OMB take advantage of its expertise to provide estimates that would allow a comparison with the estimates prepared by the agencies.

We think this is a fundamental problem that the OMB should address by providing its own best estimates of the costs and benefits of individual regulations and regulatory activity in general. Where possible, it should also provide quantitative information on the uncertainty of the estimate, such as a range. It is clear from the OMB's earlier correspondence with the agencies that it frequently disagrees with agency assessments. Those disagreements should be highlighted and explained in a document such as this. Thus, the OMB review could provide a kind of quality check on agency analyses.

The OMB should also not treat all estimates as equal. For example, it cites OECD work on measuring the economic impact of deregulation using macroeconomic models.<sup>13</sup> It is better to

<sup>&</sup>lt;sup>10</sup> The best estimate should be a single number, not a range.

<sup>&</sup>lt;sup>11</sup> More information on the nature of the uncertainty, such as the variance, should be provided when it is available.

<sup>&</sup>lt;sup>12</sup> It may not be possible to perform this assessment in the current report; however, the OMB has the technical expertise to provide such evaluations in future reports.

<sup>&</sup>lt;sup>13</sup> See OMB (1998, 44040) and OECD (1997).

put more weight on rigorous microeconomic studies, which evaluate the impacts of deregulation in specific industries.<sup>14</sup>

The OMB should continue to evaluate regulation in accord with its report on Best Practices. In this draft, it presents examples of how agencies properly applied best practices in their regulatory analyses.<sup>15</sup> This discussion should be complemented by a discussion of how agencies did not apply best practices as well.

# <u>Recommendation 2</u>: The OMB should focus more on the incremental costs and benefits of new regulations and less on aggregate economic impacts.

Both the aggregate impacts and incremental impacts of regulation are important. There are, however, diminishing returns to focusing on aggregate impacts because this is not where the OMB's expertise lies. Moreover, measures of aggregate impacts do not help inform decisions on individual regulations, although they can affect overall policy. Whether the aggregate impact of past regulation has been beneficial on net, as the EPA study suggests, or closer to neutral, is largely immaterial for policies that are pursued in the future. Each of those regulatory policies needs to be evaluated on its own merits. Thus, the OMB should focus on incremental impacts of recent and proposed regulations because Congress and regulators can most easily influence decisions regarding those regulations.

## <u>Recommendation 3</u>: The OMB should be careful to avoid making statements about net costs and benefits that can not be substantiated.

There are several statements about the nature of regulatory benefits and reforms that require further explanation. For example, the OMB argues, "that agencies are continuing to reform and improve their regulatory programs" without providing any facts to support this assertion. Another example concerns statements about the benefits of certain regulatory activities. The report does not estimate the net benefits of antitrust activity, but claims that

<sup>&</sup>lt;sup>14</sup> For example, see Winston (1993). For a piece suggesting that many of the gains from deregulation may have been underestimated, see Winston (1998).

<sup>&</sup>lt;sup>15</sup> See OMB (1998, 44050).

<sup>&</sup>lt;sup>16</sup> See US EPA (1997).

<sup>&</sup>lt;sup>17</sup> As the report recognizes, there is an important role for scholarship evaluating the impact of existing regulations.

<sup>&</sup>lt;sup>18</sup> See OMB (1998, 44055).

"clearly this type of government policy creates important social benefits." In this case, some indication of the magnitude would be useful. Moreover, the report estimates that disclosure costs for some independent regulatory agencies are about \$7 billion and then argues that "although benefits have not been quantified we expect that they are significantly greater than \$7 billion." The OMB's assertion may be correct, but the basis for its expectation is unclear and the agency should state it.

# <u>Recommendation 4</u>: The OMB should work on presenting results in ways that could be more useful for policy makers.

The OMB offers a number of different ways of presenting information on aggregate benefits and individual regulation. It would be helpful to expand the presentation in some areas. At the aggregate level, the OMB should carefully note categories in which the aggregate benefits exceed the costs. For example, it appears that controlling particulate matter and lead resulted in large aggregate net benefits while controls on the remaining pollutants either did not offer positive net benefits or had insufficient evidence about net benefits to permit a conclusion. It would also be useful to know the pattern of costs and benefits over time, so one could get an idea of the marginal net benefits from controlling pollution in a given year. In principle such information should be available using the kinds of models discussed in the EPA §812 retrospective study.<sup>21</sup>

In examining individual regulations, it would be helpful if the OMB aggregated some of the information into a scorecard. For example, a scorecard could specify the number of regulations that pass or fail a cost-benefit test using available data about monetary benefits of rules.<sup>22</sup> The OMB should also consider aggregating net costs and benefits by regulatory program and by agency. Such a presentation would help identify programs that should be improved or eliminated. Finally, the OMB could rank rules by the agencies and the OMB's best estimate of their expected net benefits and cost-effectiveness.<sup>23</sup> Much of the raw material for these kinds of assessments is in the draft OMB report or could be constructed by using the OMB database.

<sup>&</sup>lt;sup>19</sup> The report notes that it does not estimate the benefits of antitrust activities. See OMB (1998, 44038Footnote 6 in the report.).

<sup>&</sup>lt;sup>20</sup> See OMB (1998, 44041).

<sup>&</sup>lt;sup>21</sup> See US EPA (1997).

<sup>&</sup>lt;sup>22</sup> See, for example, Federal Focus (1995) and Hahn (1998c).

<sup>&</sup>lt;sup>23</sup> See Morrall (1986).

One important step taken by the OMB was to monetize benefits of selected regulations where agencies had reported some other quantifiable estimate, such as reductions in pollution. This is important, but they should go further. For example, the OMB should consider applying a standard statistical value of life saved across different activities.<sup>24</sup>

Recommendation 5: The OMB should interpret its mandate broadly to include major regulatory initiatives at independent agencies and future policies that could involve major regulatory authority.

This year, the OMB included a very good discussion of major rules issued by independent agencies. However, it should have gone further and analyzed some proposed regulatory initiatives, such as the requirement that long distance subscribers have their rates increased in order to subsidize connecting schools and libraries to the Internet. In that case, analysis and data were available.<sup>25</sup>

An even more important omission is the absence of a review of the Administration's policies for addressing climate change.<sup>26</sup> A careful analysis of that document would have revealed that it has serious flaws. These include a failure to provide a quantitative or monetized estimate of the incremental benefits of climate protection from the Administration's policies, a failure to compare the costs and benefits of the policy, a failure to assess reasonable alternatives, such as less stringent targets and timetables, and an overly optimistic assessment of how international permit markets will lower U.S. costs for reducing greenhouse gas emissions. Indeed, there is evidence that the Administration's proposal does not conform to the OMB's Best Practices for the economic analysis of regulations.

Recommendation 6: The OMB should more carefully evaluate the strengths and weaknesses of the EPA §812 retrospective study if it wants to use those numbers. Specifically, it should estimate the sensitivity of the study's results to changes in arbitrary assumptions.

<sup>&</sup>lt;sup>24</sup> We recognize there are theoretical reasons that this number can vary across life-saving activities, but presenting both analyses might be useful to see how sensitive the results were to such comparisons. The OMB should also consider using life-years when this is available, or even quality-adjusted life-years.

<sup>&</sup>lt;sup>25</sup> The so-called "e-rate" regulation looks very much like a tax, but it is regulatory in the sense that a regulatory agency implemented the policy. Hausman argues that the economic welfare losses associated with the imposition of the e-rate on telephone companies, and ultimately consumers, is on the order of \$2.4 billion per year in 1998 dollars. See Hausman (1998, 19)

<sup>&</sup>lt;sup>26</sup> See Administration's Economic Analysis (1997).

Undoubtedly, one of the most controversial parts of the OMB report is its use of the EPA §812 retrospective study, which provides estimates of the aggregate benefits of Clean Air. An incisive critique of that aspect of the report is contained in Lutter.<sup>27</sup> A few general points can be made. First, based on the EPA study, the OMB says benefits could be as high as \$3.38 trillion, which is over 40 percent of GNP. 28 While it is possible, it would seem to defy common sense to think that past federal environmental regulations netted that much for the economy.<sup>29</sup> Second, a series of technical assumptions and omissions suggest the benefits are overestimated. Possible sources of bias include definition of the baseline; <sup>30</sup>See OMB (1998, 44043). <sup>31</sup> the estimation of benefits using willingness to pay estimates for incremental changes in risk; the omission of costs associated with increases in harmful Ultraviolet-B radiation; and the assumption that reductions in particulate matter concentrations yield health benefits immediately without any delay. The OMB notes, for example, that a reasonable change in the assumption about the latency period between the onset of emission reductions and the reduction in health risks would cut the upper bound benefit number by a factor of two, or \$1.26 trillion!<sup>32</sup> Third, the OMB should have directly incorporated these plausible scenarios into its own estimates of net benefits. Instead, the OMB chose to take the EPA study's numbers as given for purposes of reporting the range on benefits. This may be the safest way out, but we think it is also misleading.

### Making Recommendations to Congress

We would urge the OMB to be bolder in its recommendations to Congress, since Congress specifically requested that the OMB help provide such suggestions.<sup>33</sup>

<sup>&</sup>lt;sup>27</sup> See Lutter (1998).

<sup>&</sup>lt;sup>28</sup> See OMB (1997, 44044).

<sup>&</sup>lt;sup>29</sup> Looked at another way, the calculation suggests that people should be willing to give up over 40 percent of all good and services currently produced for those benefits!

<sup>&</sup>lt;sup>30</sup> The EPA study assumes that no additional controls would have been in place in the absence of federal programs.

<sup>&</sup>lt;sup>31</sup> See OMB (1998, 44043).

<sup>&</sup>lt;sup>32</sup> See OMB (1998, 44035).

<sup>&</sup>lt;sup>33</sup> Section 625 (a)(4) of the Treasury and Government Appropriations Act of 1998 (P.L. 105-61) directs the OMB to provide, "Recommendations from the Director and a description of significant public comments to reform or eliminate any Federal regulatory program or program element that is inefficient, ineffective, or is not a sound use of the Nation's resources." See OMB (1998, 44034).

## <u>Recommendation 7</u>: The OMB should list programs for reform and elimination.

For two years in a row, the OMB report has concluded that it cannot identify programs for reform or elimination.<sup>34</sup> Yet, ironically, the OMB has no problem advocating the Administration's proposal for electricity reform.<sup>35</sup>

Because the OMB is still "seeking comment on regulatory programs or program elements that are inefficient, ineffective, or not a sound usage of the nation's resources," we thought we would present a table to initiate the discussion. Table 1 provides suggestions for a number of laws and regulations that should be eliminated based on economic efficiency. It reveals that the programs span both economic and social regulation. As can be seen from the table, annual welfare losses are in the billions of dollars for some programs. There is also ample room for significantly reforming regulatory programs. For example, expenditures on the Superfund program to clean hazardous waste sites could be dramatically reduced while enhancing economic efficiency and reducing overall risk.<sup>37</sup>

# <u>Recommendation 8</u>: The OMB should examine strategic reforms that could improve the regulatory process.

The OMB is well positioned to identify improvements for the quality of regulatory analysis. For example, it could suggest a series of rewards and sanctions for agencies that conduct good analysis. Those rewards could take the form of financial incentives or incentives related to the oversight process itself. Agencies that routinely produce high quality analysis could be subjected to less oversight by the OMB.

The OMB should consider evaluating different proposals for providing better information on the impacts of regulation. One such proposal that has merit is the Congressional Office of

<sup>&</sup>lt;sup>34</sup> The OMB states at the end of the draft report that "...at this stage we do not believe it is appropriate to make recommendations on specific regulatory programs based on the incomplete and uneven data that we discuss at length above." See OMB (1998, 44055).

<sup>&</sup>lt;sup>35</sup> See OMB (1998, 44055).

<sup>&</sup>lt;sup>36</sup> See OMB (1998, 44054).

<sup>&</sup>lt;sup>37</sup> See Viscusi and Hamilton (forthcoming).

Regulatory Analysis. A Congressional Office of Regulatory Analysis is a good idea because it could provide another credible source of information on the costs and benefits of regulation.

<u>Recommendation 9</u>: The OMB should suggest how Congress could use publications, such as the *Federal Register*, to make the regulatory process more transparent.

The *Federal Register* is a central repository of information on regulation, and it is easily accessible. It could be used to improve the regulatory process by providing information to interested parties in a "user-friendly" format. While current *Federal Register* notices on regulatory activities exhibit a wide degree of variation, Congress could instruct the OMB to develop a standardized framework that agencies could use to present information on the economic impact of regulations.<sup>38</sup>

<u>Recommendation 10</u>: The OMB should suggest that Congress require OMB and all federal regulatory agencies to produce an annual report on the costs and benefits of regulatory activities.

Requiring each regulatory agency to produce an annual report on the costs and benefits of its regulatory activities and requiring OMB to continue to produce an annual report on the costs and benefits of all agency regulatory activities would make the regulatory process more transparent. These requirements could also improve estimates of the economic impact of regulatory activity. In addition, the agency reports would help OMB produce its overall assessment of the impact of federal regulation.

This is the second consecutive year in which the OMB has produced a report on the economic impacts of federal regulation. It appears that the OMB will not produce it for another two years. Two years is too long. The machinery is in place to produce this report annually, the incremental costs are low, and the value-added is high. Congress should therefore require the OMB to produce this report annually. We believe both of the OMB reports are helping make the regulatory process more transparent, thus holding regulators and lawmakers more accountable for their actions.

Although agencies are not required to produce an annual report, many attempt to estimate the economic impact of specific regulations. The production of an annual report would allow

<sup>&</sup>lt;sup>38</sup> See Hahn (1998b).

agencies to synthesize the results of these analyses, and may help improve the analyses by highlighting inconsistencies or other weaknesses. Ensuring independent agencies produce useful annual reports is perhaps the greatest challenge. A consensus seems to be emerging that the independent agencies are producing little information that evaluates the economic impact of their regulations. This finding is consistent with the OMB's review, a report by the General Accounting Office, and research by Furchtgott-Roth and Hahn.<sup>39</sup> The OMB notes that last year it received comments "from several independent economic regulatory agencies suggesting that we had not emphasized the potential benefits of economic regulation enough." The requirement of an annual report will push independent agencies to show that they are producing the claimed economic benefits.

#### 3.Conclusion

This paper has provided a critical review of the OMB's second draft report on the costs and benefits of regulation. That report is the best of its kind in the world. It improves on the previous year's report by adding data and analysis in a variety of areas. We believe it will set the standard for the development of similar analyses at the state level and in other countries.

However, there is still need for improvement. The chief ingredient missing from this report is the collective wisdom of the OMB professionals that review regulations for a living. Those experts should provide an independent assessment of the economic impact of regulation. Sharing those insights would enable interested parties to obtain a better sense of how economists most familiar with the individual regulations tally up the costs and benefits. The OMB's assessment could then be compared with independent assessments to develop a more complete picture of the costs and benefits of regulation.

<sup>39</sup> See GAO (1998), Hahn (1998c) and Furchtgott-Roth (1996). More generally, Hahn (1998c) and Furchtgott-Roth (1996) find that regulatory agencies provide very little information on the economic impacts of a large number of regulatory activities in which they are engaged.

10

\_

<sup>&</sup>lt;sup>40</sup> See OMB (1998, 44041).

#### References

- Administration Economic Analysis. 1998. The Kyoto Protocol and the President's Policies to Address Climate Change. Washington D.C.
- Arrow, Kenneth J., Cropper, Maureen L., Eads, George C., Hahn, Robert W., Lave, Lester B., Noll, Roger G., Portney, Paul R., Russell, Milton, Schmalensee, Richards, Smith, V. Kerry, and Stavins, Robert N. 1996. *Benefit-Cost Analysis in Environmental, Health, and Safety Regulation: A Statement of Principles*. Washington, D.C.: AEI Press.
- Crandall, Robert W., DeMuth, Christopher C., Hahn, Robert W., Litan, Robert E., Nivola, Pietro S. and Portney, Paul R. 1997. *An Agenda for Reforming Federal Regulation*. Washington, D.C.: AEI Press and Brookings Press.
- DeMuth, Christopher C. 1980. "The Regulatory Budget." Regulation March/April: 29-44.
- Federal Focus Inc. 1995. Ensuring Accountability for Developing Well-Founded Federal Regulations, An initial 'report card' on compliance with key directives of the regulatory executive order (E.O. 12866). Washington, D.C.
- Furchtgott-Roth, Harold. 1996. "Neglect of Costs in Federal Regulation: Benign or Malignant." Paper presented at conference, Regulatory Reform: Making Costs Count, December 9, at the American Enterprise Institute, Washington, D.C.
- General Accounting Office. 1998. Regulatory Reform: Major Rules Submitted for Congressional Review During the First 2 Years. Washington, D.C.
- Hahn, Robert W. 1998a. "Government Analysis of the Benefits and Costs of Regulation." *Journal of Economic Perspectives*. Forthcoming.
- Hahn, Robert W. 1998b. "How Changes in the *Federal Register* Can Help Improve Regulatory Accountability." Working Paper 98-1, AEI-Brookings Joint Center for Regulatory Studies, Washington D.C.
- Hahn, Robert W. 1998c. *Reviving Regulatory Reform: A Global Perspective*, New York: Cambridge University Press and AEI Press. Forthcoming.
- Hahn, Robert W. and Litan, Robert E. 1997. *Improving Regulatory Accountability*. Washington D.C.: AEI Press and Brookings Institution Press.
- Hausman, Jerry. 1998. Taxation by Telecommunications Regulation, The Economics of the E-Rate. Washington D.C.: AEI Press.
- Litan, Robert E. and Nordhaus, William D. 1983. *Reforming Federal Regulation*. New Haven, Connecticut: Yale University Press.

- Lutter, Randall W. 1998. Comment on the OMB Steven's Summary of the §812 Retrospective Report to Congress. Comment 98-2, AEI-Brookings Joint Center for Regulatory Studies, Washington D.C.
- Morrall, John F. 1986. "A Review of the Record." Regulation 10: 25-34.
- Office of Management and Budget, 1998. Draft Report to Congress on the Costs and Benefits of Federal Regulations. Office of Management and Budget, Office of Information and Regulatory Affairs, Washington, D.C.
- \_\_\_\_\_\_. 1997. Report to Congress on the Costs and Benefits of Federal Regulations. Office of Management and Budget, Office of Information and Regulatory Affairs, Washington, D.C.
- \_\_\_\_\_\_. 1996. Economic Analysis of Federal Regulations Under Executive Order No. 12866. Washington, D.C.
- Organization for Economic Cooperation and Development. 1997. The OECD Report on Regulatory Reform Volume I: Sectoral Studies. Paris, France.
- Tengs, Tammy, and John D. Graham. 1996. "The Opportunity Costs of Haphazard Social Investments in Life-Saving." In *Risks, Costs, and Lives Saved: Getting Better Results from Regulation*, ed. Robert W. Hahn. New York and Washington, D.C.: Oxford University Press and AEI Press.
- U.S. Environmental Protection Agency. 1997. *The Benefits and Costs of the Clean Air Act, 1970-1990.* Washington, D.C.
- Viscusi, W. Kip. 1996. "The Dangers of Unbounded Commitments to Regulate Risk." In *Risks*, *Costs*, *and Lives Saved: Getting Better Results from Regulation*, ed. Robert W. Hahn. New York and Washington, D.C.: Oxford University Press and AEI Press.
- Viscusi, W. Kip and James T. Hamilton, "Are Risk Regulators Rational? Evidence from Hazardous Waste Cleanup Decisions," *American Economic Review*, forthcoming.
- Winston, Clifford. 1998. "U.S. Industry Adjustment to Economic Deregulation." *Journal of Economic Perspectives* 12(3):89-110.
- \_\_\_\_\_\_. 1993. "Economic Deregulation: Days of Reckoning for Microeconomist." *Journal of Economic Literature* 31: 1263-89.

Table 1
Regulations and Programs That Could Be Targeted For Elimination

Regulation/Act	Description	Welfare Loss
International Trade	Various tariffs and quotas	\$3.5 billion annual welfare
Restrictions	constrain international trade.	loss (1990\$)
Jones Act	Ships traveling between	\$2.8 billion annual welfare
	U.S. ports must be built in	loss (1991\$)
	U.S. shipyards, owned by	
	U.S. citizens, and operated	
	by an American crew.	
Milk Marketing Orders	USDA price discrimination	\$343 - \$608 million annual
	scheme raises the price of	welfare loss (1985\$)
	fluid milk and drives down	
	the price of manufactured	
	milk products.	
Davis-Bacon Act	Federally funded	\$200 million annual welfare
	construction projects are	loss (1988\$)
	required to pay laborers	
	"prevailing wages."	
Corporate Average Fuel	Each auto manufacturer	\$4 billion welfare loss from
<b>Economy Standards</b>	must meet federal average	1978 through 1989 (1990\$)
	fuel economy standards.	
<b>Land Disposal Regulation</b>	1995 Rule prohibits the	\$143 million annual
	disposal of various untreated	expected cost. Benefits are
	hazardous wastes.	not monetized (1992\$)
Off-Label Drug Use	Manufacturers cannot	Not available
	legally advertise a	
	pharmaceutical product for	
	any use that the FDA has	
	not specifically approved.	
Glass-Steagall Act	1933 Act prohibits	Not available
	commercial banks from	
	underwriting corporate	
	securities.	

Sources: Provided in Hahn (1998a).