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How Changes in the *Federal Register* Can Help Improve Regulatory Accountability

Robert W. Hahn

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Robert W. Hahn is Director of the AEI-Brookings Joint Center for Regulatory Studies, a Resident Scholar at the American Enterprise Institute, and a Research Associate at Harvard University. Sarah Holden, Fumie Yokota, and Elizabeth Cooper helped assemble and analyze the data for this paper. The helpful comments of Chris DeMuth and Robert Litan are gratefully acknowledged. The views in this paper reflect those of the author and do not necessarily represent the views of the institutions with which he is affiliated.



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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.

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Executive Summary

Congress has recently become more receptive to using economic analysis in regulatory decisionmaking. To improve regulation, an important first step is to provide useful information that is accessible to the public and other interested parties. The government is an essential source of that information for many federal regulations. Within the government, a central repository of information on regulation is the *Federal Register*.

This paper examines how the *Federal Register* could be used to improve the regulatory process by providing information to interested parties in a "user-friendly" format. Two important conclusions emerge from this analysis. First, *Federal Register* notices that present regulatory analysis currently exhibit a great deal of variation in the kind of information that is presented. Second, with some key changes in the requirements for including and presenting information, the content of these notices could be improved dramatically. While this analysis focuses on federal regulation in the U.S., the findings and policy recommendations are readily applicable to other jurisdictions dealing with regulatory reform in and outside of the U.S.

How Changes in the *Federal Register* Can Help Improve Regulatory Accountability

Robert W. Hahn

1. Introduction

Expenditures on federal environmental, health and safety regulation have grown dramatically in recent decades, and now total several hundred billion dollars annually. Over the next decade, regulations and regulatory expenditures are likely to increase significantly. As regulatory activities grow, so does the need to consider their implications more carefully. 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.¹ Moreover, there is ample research suggesting that regulation could be significantly improved, so that we could save more lives with fewer resources.² 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.³

Congress has recently become more receptive to using economic analysis in regulatory decisionmaking. For example, the Unfunded Mandates Reform Act of 1995 calls for economic assessments of government mandates affecting state governments, local governments and the private sector. Another example is an amendment that required the Office of Management and Budget to produce a report on the benefits and costs of federal regulation.⁴ While these assessments are important, more needs to be done to hold legislators accountable for the regulations that are implemented.⁵

¹ See Hahn (1998).

² See Morrall (1986) and Viscusi (1996).

³ See Tengs and Graham (1996).

⁴ See OMB (1997). One of the reasons for the increased interest in using economic analysis to evaluate regulations is the growing consensus among scholars concerning the need for such analysis. For example, see Arrow et al. (1996) and Crandall et al. (1997).

⁵ See Hahn and Litan (1997).

To improve regulation, an important first step is to provide useful information that is accessible to the public and other interested parties. The government is an essential source of that information for many federal regulations. Within the government, a central repository of information on regulation is the *Federal Register*.

This paper examines how the *Federal Register* can be used to improve the regulatory process by providing information to interested parties in a "user-friendly" format. The *Federal Register* is the focus of this analysis because it provides the text of all federal regulations and sometimes provides summaries of government analyses of significant regulations. In addition, the *Federal Register* can be found in libraries and on the Internet.⁶

The paper has two objectives: first, to identify the kind of information contained in economic assessments of regulations that are presented in the *Federal Register*; and second, to suggest how information in the *Federal Register* could be modified to make the regulatory process more transparent, thus enhancing regulatory accountability.⁷ While this analysis focuses on federal regulation in the U.S., the findings and policy recommendations are readily applicable to other jurisdictions dealing with regulatory reform both inside and outside of the U.S.⁸

Section 2 develops the basic research methodology for evaluating *Federal Register* notices and summarizes the main analytical results.⁹ Section 3 explains how to change those notices to include relevant economic information on the impacts of regulation in a user-friendly format. It also addresses issues of enforcing the proposed changes and providing useful aggregate information. Key conclusions are highlighted in Section 4.

2. Background, Methodology and Results

The last six presidents have introduced different regulatory oversight mechanisms with varying degrees of success. In 1981, President Reagan was the first president to formally

⁶ The Government Printing Office publishes the *Federal Register*. The official Web site address is: http://www.access.gpo.gov/su_docs/aces/aces140.html. For a site that reviews daily *Federal Register* entries, see: <http://www.palni.edu/gpo/>. In addition, there are several other sites that report on *Federal Register* filings.

⁷ The focus of the paper is not the validity of the information contained in the *Federal Register* notices, but rather what is and is not contained in the notices.

⁸ Many governments are currently interested in developing instruments for improving the economic efficiency of regulation and enhancing transparency. See Guasch and Hahn (1998) and OECD (1997).

⁹ Unless otherwise specified, the term "*Federal Register* notices" will be used in this paper to denote the documents that agencies publish in the *Federal Register* for their regulations. These notices may or may not

require estimation of the costs and benefits of major regulations in Executive Order 12291.¹⁰ The results of those analyses were frequently summarized in the *Federal Register*. President Bush also used that executive order. In 1993, President Clinton replaced the Reagan Executive Order 12291 with Executive Order 12866, which requires similar regulatory analyses.

The Clinton executive order aimed to make the regulatory process more efficient and transparent. It established twelve principles for writing regulations that agencies should follow “to the extent permitted by law and where applicable.”¹¹ Four of these principles are particularly relevant for this analysis.¹² First, each agency must assess the costs and benefits of a rule and only adopt it “upon a reasoned determination that the benefits of the intended regulation justify its costs.”¹³ Second, each agency should assess alternatives to the regulation.¹⁴ Third, all agencies should assess the effects of federal regulations on state, local and tribal governments.¹⁵ Last, and most importantly, all regulations should “be simple and easy to understand.”¹⁶

Federal Focus, a consulting firm, examined the Environmental Protection Agency’s compliance with Executive Order 12866.¹⁷ The authors created a report card for final and proposed regulations promulgated between April and September of 1994. Their analysis examined 222 “substantive”¹⁸ rules by the Environmental Protection Agency using *Federal*

contain economic analyses.

¹⁰ See Executive Order 12291 §3. Executive Order 12291 defined a major rule as any rule “that is likely to result in: (1) An annual effect on the economy of \$100 million or more; (2) A major increase in costs or prices for consumers, individual industries, federal, state or local government agencies, or geographic regions; or (3) Significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.” Executive Order 12291 §1(3). Reagan’s Executive Order uses the term “major.” However, Clinton’s Executive Order 12866 uses “significant” and this is the term used in this paper even though the definitions are quite similar. See discussion below for a formal definition of significant.

¹¹ See Executive Order 12866 §1(b).

¹² See Executive Order 12866 §1.

¹³ See Executive Order 12866 §1(b)(6).

¹⁴ See Executive Order 12866 §1(b)(3) and §1(b)(8).

¹⁵ See Executive Order 12866 §1(b)(9).

¹⁶ See Executive Order 12866 §1(b)(12).

¹⁷ See Federal Focus (1995).

¹⁸ They defined “substantive rules” to be rules that “were not technical or administrative types of actions such as Clean Air Act State Implementation Plan (“SIP”) approvals, minor amendments to previous rulemaking notices, solicitation of public comments, technical corrections, denials of petitions for stays, comment period extensions, reopening of comment periods, designations of air quality planning areas, and changes of address.” See Federal Focus (1995).

Register notices. The Office of Information and Regulatory Affairs (OIRA) within the Office of Management and Budget (OMB) classified forty-five of those rules as “significant.”¹⁹ The report used a number of evaluation criteria, which were based on Executive Order 12866.²⁰ For example, it examined whether the regulatory action was undertaken because of public need or law; whether costs, cost savings and benefits were assessed; if the agency made a determination that benefits justified costs; if the agency considered alternatives and selected the least burdensome option; if OIRA rejected or returned the rule to the agency for modification; and if the agency withdrew the rule.

The report found that the Environmental Protection Agency (EPA) was not complying with Executive Order 12866 for most regulations that were examined. It is important to note, however, that the report only reviewed EPA regulations over a short period of time. Moreover, the authors did not report their methodology in enough detail to allow for replication of the results. For example, they state that the benefits justified the costs for six rules.²¹ They do not indicate if the agency had to say specifically whether the benefits justified the costs, or if the authors simply drew their own conclusion.

Hahn created a regulatory scorecard for ninety-two significant final and proposed rules promulgated by five agencies over the period 1990 to mid-1995.²² To score those rules, he used both *Federal Register* notices and regulatory impact analyses (RIAs).²³ The analysis was based on four factors: if costs or cost savings were assessed; if benefits were quantified; if benefits were monetized, and if the agency determined that benefits exceeded the costs. Hahn found that a large number (99 percent) of analyses reported cost or cost savings information; most (87 percent) reported a quantification of benefits; only a few (25 percent)

¹⁹ OMB classifies rules as significant if they fall within the categories established by Executive Order 12866. “A ‘significant regulatory action’ is one that is likely to result in a rule that may: (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local or tribal governments or communities; (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) Raises novel legal or policy issues arising out of legal mandates, the President’s, or the principles set forth in this Executive Order.” See Executive Order 12866 §3(f).

²⁰ See Federal Focus (1995).

²¹ See Federal Focus (1995).

²² See Hahn (1996).

²³ An RIA typically provides an agency’s estimate of the economic and social impacts of a proposed significant regulation.

actually monetized those benefits; and even fewer (18 percent) found that monetized benefits exceeded costs.

The methodology used in this paper borrows from the studies by Federal Focus and Hahn.²⁴ I was interested in defining regulatory impact variables that could be quantified using the *Federal Register* notices as the only source of information. *Federal Register* notices were the unit of analysis because the *Federal Register* is the “official daily publication for Rules, Proposed Rules, and Notices of Federal agencies and organizations”²⁵ and the first place the rules publicly appear.²⁶ I was also interested in identifying variables that were objective in the sense that the methodology could be replicated. For example, a *Federal Register* notice had to state specifically that costs were assessed or provide an estimate of such costs in order for that analysis to be scored as having assessed costs. In short, the agency only received credit for what it *explicitly* stated in the relevant *Federal Register* notice.

The subsequent analysis takes the information provided in the *Federal Register* as given. One could obviously question the validity of that information, but that is not my intent here. Rather, I am interested in assessing the extent to which *Federal Register* notices adequately summarize potentially useful information on the impacts of regulation.²⁷ The availability of such information in a transparent format and in an easily accessible source is important because it can help oversight agencies and other interested parties check on its validity. It also permits an assessment of whether the government’s own regulatory analysis support its decisions.

The sample included final rules promulgated by regulatory agencies from 1996 through February 10, 1998 that were subject to review by the OMB. The first step in the

²⁴ See Federal Focus (1995) and Hahn (1996).

²⁵ See www.access.gpo.gov/su_docs/aces/aces140.html

²⁶ Another official publication, called the *Code of Federal Regulations* (CFR), provides a codification of general and permanent rules. However, these rules are only codified in the CFR after they are published in the *Federal Register*. “The Code of Federal Regulations (CFR) is a codification of the general and permanent rules published in the Federal Register by the Executive Departments and agencies of the Federal Government.” See www.access.gpo.gov/nara/about-cfr.html#page1

²⁷ A related issue is whether the information *not* reported is available somewhere in the government (e.g., in a regulatory impact analysis). This issue is not investigated here, but I believe it is worthwhile investigating. It could help shed light on the question of whether the *Federal Register* notices fail to report key information, or whether that information is simply not available. Recent research suggests that in many cases it is simply not available. See Hahn (1996), Bliley (1997) and Hahn (1998).

analysis was to create a list of final regulations using the OMB's list of "Executive Order Reviews Completed for Economically Significant Regulations."²⁸ I chose to review those rules because they are likely to have the largest economic and social impacts.²⁹ Thus, it is important for the public to have adequate information about them. I examined both transfer and non-transfer rules. Transfer rules typically involve large budgetary transfers³⁰ while non-transfer rules typically involve regulations aimed at protecting the environment, health and safety.³¹

I created a database with seventy-two final rules.³² Each rule was scored on pertinent information related to alternatives considered, costs, cost savings, benefits, and other essential economic information.³³ Table 1 provides a summary of the analysis. The table

²⁸ OMB classifies rules as economically significant if they fall within the subcategory of significant rules established by the Executive Order 12866: "...a rule that may: (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local or tribal governments or communities..." See Executive Order 12866 §3(f)(1).

²⁹ The General Accounting Office (GAO) also reviews rules promulgated by agencies. There were a number of instances where the information reported in the *Federal Register* notice conflicted with the information provided by GAO. For example, the Department of Housing and Urban Development's *Federal Register* notice for their rule on Single Family Mortgage Insurance does not mention an economic analysis. However, the GAO report says that one was completed and it reports cost estimates. See GAO Report OGC-96-33. During GAO's review process, the agency also examines the accompanying RIAs. This element may account for the difference.

³⁰ Transfer rules dictate how federal government receipts are spent in particular cases. Examples of transfer rules include the Medicare and social security regulations that involve transfers from general taxpayers to recipients.

³¹ Non-transfer rules, such as environmental regulations often impose large costs on society, but do not have a large on-budget component. They frequently affect private industry directly through increases in compliance costs and consumers indirectly through their impact on the prices of goods and services. They also can have important benefits, such as reductions in human health risk.

³² The list of rules was constructed from the OMB's list of economically significant rules for 1996 to February 10, 1998. Only final rules were reviewed, of which there were eighty-eight. One of the rules, EPA's National Ambient Air Quality Standards for Sulfur Oxides was set previously and the agency was required by the Clean Air Act to review its standards. After reanalyzing the standards, the agency decided not to change them. This rule was not considered in the sample because the original rule came up prior to our sample start date. There were fifteen other rules that could not be located using the *Federal Register* database. Hence the database contained seventy-two rules. The breakdown of the rules by agency was the following: the Department of Agriculture had seventeen rules; the Department of Commerce had four rules; the Department of Energy had two rules; the Department of Health and Human Services had fourteen rules; the Department of Housing and Urban Development had two rules; the Department of the Interior had three rules; the Department of Justice had one rule; the Department of Labor had three rules; the Department of Transportation had six rules; the Department of Veterans Affairs had one rule; the Environmental Protection Agency had thirteen rules; the General Services Administration had one rule; the Social Security Administration had three rules; and there were two rules that were released jointly by the Treasury Department, the Department of Commerce and the Department of Health and Human Services.

³³ Once each *Federal Register* notice was reviewed, the data were entered into a database. Each notice was then reviewed a second time to check for accuracy. See the appendix for more details on category definition, scoring, and additional data.

consists of five sections: the first section reviews alternatives; the second section reviews costs; the third section reviews cost savings; the fourth section reviews benefits; the fifth section reviews benefit-cost information and the sixth section reviews other key economic assumptions. Each of the measures on which a *Federal Register* notice was scored was dichotomous. Thus, for example, either a notice stated alternatives were considered, in which case a rule received a score of one, or it did not, in which case it received a score of zero.³⁴

Five categories of rules are considered in the table: all rules, those designated as transfer rules, non-transfer rules, rules for which a Regulatory Impact Analysis (RIA) was completed, and rules for which there was no RIA. The reason for categorizing rules this way was because I expected that transfer and non-transfer rules would present different information because the former typically involve on-budget expenditures and the latter involve off-budget expenditures. I also expected the nature of analysis to differ for rules that had an RIA and rules that did not. Specifically, rules with an RIA were expected to have more useful economic information contained in the *Federal Register*, since the notice could rely on the economic analysis done for the RIA.³⁵

The first section of the table evaluates the review of alternatives to the proposed regulation. It consists of three measures: whether a notice said alternatives were considered in the regulatory analysis, whether alternatives were actually discussed, and whether there was some attempt to quantify alternatives.

In general, there was little consideration of alternatives.³⁶ For all seventy-two rules, thirty-one (43 percent) considered alternatives; only nineteen (26 percent) discussed specific alternatives; and eight (11 percent) quantified them. Comparing transfer rules with non-transfer rules reveals that alternatives were considered, discussed and quantified less frequently for transfer rules. For example, seven (21 percent) of the transfer rules considered alternatives while twenty-four (63 percent) of non-transfer rules did. Comparing notices that had no RIAs with notices that had RIAs reveals a similar pattern. In the case of notices with

³⁴ For some cases the zero-one scoring was insufficient and scores of three and four were given. Four was given if the category did not apply to the rule. Three was given if the rule had no impact for the category.

³⁵ Most rules (89 percent) that did not involve transfers had RIAs (thirty-four of thirty-eight). A lower proportion (68 percent) of transfer rules had RIAs (twenty-three of thirty-four). The quality of RIAs, however, can vary dramatically across rules. Frequently, transfer rules do not receive the same level of scrutiny in the RIA analysis.

³⁶ There were four rules that identified statutory restrictions on considering alternatives, including EPA's rules

no RIAs, no alternatives were considered, discussed or quantified. For notices with RIAs, thirty-one (54 percent), or slightly over half, said that alternatives were considered.

The second section of the table reviews information on costs. It consists of three measures: whether a notice said costs were assessed, whether costs were reported, and whether costs were monetized.³⁷ The pattern is similar to the pattern observed with alternatives, except the notices say costs were assessed in more cases.³⁸ Of all the rules, forty-nine (68 percent) stated that costs were assessed; forty-one (57 percent) reported the costs, and thirty-nine (54 percent) monetized them. The number of non-transfer rules that said they assessed costs was slightly higher than for transfer rules, but notices with RIAs stated that costs were assessed much more often. For notices with RIAs, forty-six (81 percent) said that costs were assessed compared with only three (20 percent) for those notices that had no RIA.

Notices said that cost savings were assessed in only about one-fifth of all cases. In some cases, rules may have simply not had cost savings, so it is difficult to know whether this number is a good estimate of the number of rules that actually would yield cost savings. Interestingly, of the sixteen notices stating that cost savings were assessed, fourteen actually provided estimates of those savings—a fairly high proportion when compared with the overall cost or benefit category.

Notices stated that benefits were assessed in about half of the cases, but benefits were rarely reported and almost never monetized by agencies. Of all the rules, thirty-eight (53 percent) stated that benefits were assessed; twenty-seven (38 percent) reported benefits in the *Federal Register* notice and fifteen rules (21 percent) monetized those benefits. Notices for non-transfer rules noted, reported and provided monetary estimates of benefits more frequently than transfer rules. The same pattern was observed in comparing notices that had RIAs with notices that did not.

Rules rarely state that benefits exceed costs. Only fifteen of the notices (21 percent)

for particulate matter and ozone.

³⁷ For costs to be assessed, the agency had to state in the *Federal Register* notice that costs had been assessed. For costs to be identified, the agency had to give a description and some quantification of the costs in the *Federal Register* notice. For costs to be monetized, the agency had to provide dollar estimates for the costs of the rule. See appendix for more details.

³⁸ Relatively few notices identified information pertaining to administrative costs, local and state government costs and other costs. See appendix.

stated that the benefits of the rules exceeded the costs. This was somewhat surprising because Executive Order 12866 calls for an adoption of the regulation “only upon a reasoned determination that the benefits of the intended regulation justify its costs.”³⁹

Relatively few notices (24 percent) reported key economic information on the present value of costs and/or benefits; annual estimates were reported more frequently (40 percent), perhaps reflecting the fact that such estimates were more prevalent in RIAs. In general, notices for transfer rules presented benefit-cost information more frequently than notices for non-transfer rules. The same patterns were observed for notices with RIAs when compared with notices without RIAs.

The final section provides information on two key economic assumptions—the discount rate and the year dollar of the estimates. Of the seventy-two rules, forty-one applied to more than one year.⁴⁰ The discount rate was reported only about one-third of the time for those rules involving multiple years. The dollar year was reported in only six percent of all cases and ten percent of rules involving multiple years. In the case of transfer rules, the dollar year was never reported, perhaps reflecting that the dollar year is clearer for budgetary transfers. Yet the dollar year was only reported fifteen percent for non-transfer rules involving multiple years. Notices for non-transfer rules and rules with RIAs did better at reporting these details than notices with transfer rules and notices without RIAs, respectively.

The database provides examples of specific rules that scored well and poorly. Individual scoring of the rules was based on a point system, where a rule received a point for each category that was effectively addressed in the accompanying *Federal Register* notice.⁴¹ Examples of non-transfer rules that scored well and poorly are the 1997 Quality Mammography Standards rule and the 1996 Revisions to the Export Administration Regulations respectively. The 1997 Child and Adult Care Food Program and the 1997 Disaster Reserve Assistance Program rules are examples of transfer rules that scored well and poorly respectively.⁴² The Mammography rule scored the best of the non-transfer rules

³⁹ See Executive Order 12866 §1(b)(6).

⁴⁰ The remaining rules were either applied to one year or were unclear based on the *Federal Register* notice.

⁴¹ The maximum score a rule could receive was thirty-one if it was applicable to more than one year and twenty-eight if it only applied to one year. The rules that scored well both applied to more than one year. The rules that had low scores did not apply to more than one year.

⁴² The 1997 Quality Mammography Standards was a Food and Drug Administration rule that established standards for mammography facilities and facility evaluation. The 1997 Child and Adult Care Food

and obtained a score of twenty-six. It successfully reported information on costs, cost savings and benefits. The only categories it did not score well on were the discussion or quantification of alternatives, the itemization cost savings and reporting the dollar year. The Food Program rule scored the best of the transfer rules and obtained a score of twenty-two. It also reported information on costs, cost savings and benefits. The only categories it did not assess were the consideration alternatives, a statement that the benefits of the rule exceeded the costs, or a report of the discount rate, the dollar year of the estimates or whether the totals were in the present value. The Export Regulations, a non-transfer rule, and the Disaster Reserve rule, a transfer rule, both scored poorly receiving only one point each.⁴³ The only category the rules reported assessing was the paperwork impact. The average score for all the rules was ten, for transfer rules it was eight, and for non-transfer rules it was thirteen.

There are several conclusions to be drawn from this analysis of the economic information contained in *Federal Register* notices. First, few notices do a good job of reporting key economic information concerning costs, benefits, regulatory alternatives, and key economic assumptions. The question remains whether such information is readily available. While I cannot provide a quantitative answer to this question, it is likely that much more information is available than reported. For example, in only about sixty percent of the cases did notices report monetized costs for rules with RIAs; yet Hahn found that cost or cost savings were estimated in virtually all of the cases he examined.⁴⁴ Thus, it is quite likely that the *Federal Register* notices are not taking advantage of important information contained in RIAs. Moreover, such information should be available if Clinton's Executive Order 12866 has been implemented effectively.⁴⁵

A second important conclusion is that notices for transfer rules tend to report less information on their economic impacts than notices for non-transfer rules. This is due, in part, to the difference in nature of these rules and the level of scrutiny each receives. The

Program was a Department of Agriculture rule that amended the regulations governing the reimbursement for meals served in day care homes. The 1997 Disaster Reserve Assistance Program was a Department of Agriculture rule that provided assistance to farmers whose production of livestock feed was adversely affected by severe winter conditions. The 1996 Revisions to the Export Administration Regulations was a Department of Commerce rule that implemented the President's reform of computer export controls.

⁴³There were six rules that had a score of one and one rule that had a score of zero. The two rules discussed here were chosen because they were not prevented by statute from assessing costs and benefits.

⁴⁴ See Hahn (1996).

⁴⁵ For a useful discussion of some of the strengths and weaknesses RIAs under Executive Order 12866, see

regulatory review process appropriately focuses more efforts on non-transfer rules because those rules are more likely to involve regulation. A related point is that notices that rely on RIAs generally report more information than notices without RIAs. This is because RIAs provide economic information that can be easily reported in the *Federal Register*.

Third, few rules report that monetized benefits actually exceed monetized costs. This pattern is consistent with Hahn.⁴⁶ It suggests that Executive Orders 12291 and 12866 have been ineffective in stopping many rules that would fail a benefit-cost test.

Finally, information on benefits and costs is in relatively short supply in the *Federal Register* notices. Thus, it is frequently difficult to ascertain the likely economic impacts of a rule on consumers from reading such notices.⁴⁷ The next section discusses an approach for addressing this deficiency.

3. Suggestions for Reform

This section examines how economic information can be presented in the *Federal Register* in a way that holds regulators and lawmakers more accountable, thus making the regulatory process more transparent. The focus is on presenting a summary of the economic impacts of a regulation in a “Regulatory Impact Summary” (RIS), which would be part of the *Federal Register* notice for all significant regulations.

As noted previously, the *Federal Register* has the potential to provide a vital information link for the public, interested parties and government officials. Yet, the preceding analysis reveals that a large number of *Federal Register* notices do not contain essential information. This observation does not necessarily imply an agency failed to complete an analysis or did not discuss that analysis in another document, but it does show that agencies

GAO (1998).

⁴⁶ See Hahn (1996).

⁴⁷ These conclusions are similar to GAO’s report on the incorporation by agencies of the OMB’s “Best Practices.” See OMB (1996). GAO reviewed twenty RIAs of economically significant rules that were released between July 1996 and March 1997. They examined whether agencies followed OMB’s guidelines requiring consideration of alternatives and calculation of costs and benefits when making regulatory decisions. GAO found upon reviewing the RIAs, which generally provide more detail than *Federal Register* notices but are not typically published in the *Federal Register*, that some did not follow OMB’s guidance. But they found a higher percentage included consideration of alternatives and reporting of costs and benefits than the *Federal Register* notices reviewed for this paper. See GAO (1998).

are not reporting potentially useful information in a visible and accessible place.⁴⁸

Providing sufficient information, however, is not enough. It needs to be provided in a standard format to help encourage wider readership and greater transparency. Currently, each agency, and often each department, has a particular style for presenting information in the *Federal Register*.⁴⁹ While the details of regulations and their impacts vary, there are enough common elements in an economic evaluation to justify a standard format.

It is particularly important to achieve some degree of uniformity in presenting a Regulatory Impact Summary. The purpose of the RIS is not to replace the *Federal Register* notice, but to provide a clear and concise summary of a rule's impacts. Presently, agencies are not legally required to present any particular information in the *Federal Register* notice. They are only required to make a regulation's text available in a place accessible to the public.⁵⁰

A prototype for an RIS is shown in Table 2. The RIS is divided into four parts: background on the rule, the overall impact of the rule, a description of costs and benefits, and an examination of regulatory alternatives.⁵¹

3.1 Descriptive Information

The purpose of the first section of the form is to identify and provide a brief description of the type and scope of the rule. The entries for "Agency and Department/Office Name", "Contact Person," "Telephone Number," "Title of the Rule," "RIN Number," and "Docket Number" are self-evident. For the "Type of Rulemaking" the agency should indicate whether the rule is final, interim, proposed or a notice. "Type of Rule" establishes if the regulation primarily affects the budget or primarily involves regulation of the private sector,

⁴⁸ Most of the government's information on regulations is primarily available at the agency or in the Office of Management and Budget's Docket Office, access to which is difficult and costly for most citizens and interested parties. Therefore, I would suggest that each department keep a copy of each of its *Federal Register* notices on its Web site. In addition, agencies should publish their regulatory impact analyses online.

⁴⁹ For example, the Food and Drug Administration, in implementing the National Environmental Policy Act under its jurisdiction, presents a summary of the rule, then comments on the proposed rule and near the end of the rule presents its economic analysis. In contrast, the Department of Energy, in its rule on the Energy Conservation program for refrigerators and freezers, presents an introduction, some background on the rule, then discusses the technological feasibility of the rule and provides an economic justification for the rule. The comments on the proposed rule were addressed within the text of the rule as opposed to being in a separate section of the notice.

⁵⁰ See 5 USC §604.

⁵¹ GAO (1998) suggests that each RIA contain an executive summary that includes all the costs and benefits, describes the uncertainties of the costs and benefits and compares the alternatives considered by the agency.

individuals or government entities.

For "Statutory Authority for the Rule" the agency should state what statute or law gives it the authority to implement the rule.⁵² For "Rulemaking Impetus" the agency should indicate what events or law led them to draft the rule.⁵³ The "Description" should be brief and explain what area the rule regulates and how it regulates it.

3.2 Overall Impact

Executive Order 12866 classifies a rule as "significant" if it has an impact on the economy of \$100 million or more in one year. The Unfunded Mandates Reform Act classifies a rule as "significant" if the regulation has an impact on the private sector and or state or local governments of more than \$100 million in one year.⁵⁴ Therefore, the first question in this section identifies whether the rule is significant and if it will have a large impact on the economy. Executive Order 12866 also requires that agencies "propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs," to the extent permitted by law.⁵⁵ This section asks for a best estimate of the benefits and costs, a determination of whether quantifiable benefits exceed costs and a discussion of the level of confidence in the benefit-cost estimates.

3.3 Costs and Benefits

This section is divided into a subsection on cost and cost savings and a subsection on benefits. The section on costs is motivated by the Unfunded Mandates Reform Act of 1995 and Executive Order 12866, which both require that agencies assess the cost of rules.⁵⁶ The first question asks for information on both the annual and present value of costs and/or cost

⁵² "Statutory Authority for the Rule" is required by the Regulatory Flexibility Act. See 5 USC §603.

⁵³ "Statutory Authority for the Rule" is required by the Regulatory Flexibility Act. See 5 USC §603.

⁵⁴ There are other requirements for a rule to be significant. See 2 USC §1532 and Executive Order 12866 §3(f).

⁵⁵ See Executive Order 12866 §1(b)(6).

⁵⁶ See 2 USC §1532 for the Unfunded Mandates Reform Act, which requires a written statement that includes an assessment of costs for a rule that imposes costs of \$100 million or more on State, local and tribal governments or the private sector. Executive Order 12866 in §1(b)(6) requires as a regulatory principle that costs be assessed. §6 (a)(3)(B) requires that costs are assessed for significant rules and §6(a)(3)(C) requires that costs be assessed for economically significant rules.

savings of a rule.⁵⁷ Annual information on cost is useful to determine expenditure patterns over time. The present value calculation gives an estimate of the real value of resources that would be spent in implementing the regulation. The first entry “Total Costs or Cost Savings” requires that the agency give a best estimate of the total costs or cost savings. The entries below break out costs or cost savings into smaller categories that are of interest.⁵⁸ “Compliance Costs or Cost Savings” refers to the direct costs or cost savings that the private sector will incur in implementing the rule.⁵⁹ If the rule is regulatory then the expectation is that most of the costs or cost savings would fall into this category. “Administrative Costs or Cost Savings” refers to those costs or cost savings that are incurred in administering the rule at different levels of government. “Federal Budget Costs or Cost Savings” refers to impacts on the federal budget from implementing the rule.⁶⁰ If the rule is a transfer rule then the expectation is that most of the costs or cost savings would fall into this category. “Local/State Budget Costs or Cost Savings” refers to the budgetary impacts of the rule on state and local governments. Those estimates are specifically required by the Unfunded Mandates Reform Act.⁶¹ If the costs or cost savings imposed by the rule do not fall into any of the categories then the agency should enter them into “Other Costs or Cost Savings.” Agencies can briefly explain their rationale for the cost estimates and expound on their approach in the body of the notice.

The next few entries in the form involve the mechanics of discounting. Discounting is fundamental to converting costs and benefits that occur at different points in time into a present value. Therefore, an agency has to identify the specific years in which the costs or cost savings would occur, determine what year the rule becomes effective and select a discount rate. In general, the agency should use the discount rate suggested by an oversight agency, such as the Office of Management and Budget, to help standardize estimates.⁶² The

⁵⁷ The form asks for a single annual estimate of costs, cost savings, and benefits. More information could usefully be included in other parts of the *Federal Register* notice.

⁵⁸ The categories are not mutually exclusive. Thus, the numbers in the different categories will not necessarily add to the total.

⁵⁹ The Unfunded Mandates Reform Act specifically requires that private sector costs be assessed by an agency when considering a rule. See 2 USC §1532. This estimate should include additional paperwork burdens.

⁶⁰ For example, a rule to clean up federal toxic waste sites could result in increased expenditures at the Department of Defense.

⁶¹ See 2 USC §1532.

⁶² Different discount rates may be warranted for different problems, such as those with particularly long time horizons. However, here the first-order problem is developing some economic standards that facilitate

costs or cost savings should then be discounted back to the year in which the rule becomes effective. If the rule only applies to one year, then discounting the estimate is unnecessary. The years in which the costs or cost savings are incurred should be entered into “Identify the years in which the costs or cost savings are imposed.” The “Dollar Year of the Costs or Cost Savings Estimates” should be the year in which the rule becomes effective and the agency must then state what discount rate they used in their calculations.

The second set of questions under this subsection identifies key segments that are affected directly. The Regulatory Flexibility Act requires that the impact on small business be assessed.⁶³ The Unfunded Mandates Reform Act requires that the impact on the private sector and local, state and tribal governments be assessed.⁶⁴ Those impacts should then be checked off in the appropriate boxes and the dollar amounts should be estimated.

In addition to assessing costs, Executive Order 12866 and the Unfunded Mandates Reform Act both require that agencies assess the benefits of a rule. The analysis is similar to that required of costs and cost savings.⁶⁵ Annual and present value benefit estimates should be reported. Agencies should preferably enter dollar values, but that is not required. If dollar estimates cannot be obtained, then some other estimates of benefits should be provided where appropriate, such as tons of pollution reduced. “Total Benefits” requires that the agency give a best estimate of the total benefits. The entries separate benefits into different categories. “Health Benefits” refers to the benefits that accrue from reduced human health risks or reductions in mortality and morbidity resulting from a rule. “Pollution Benefits” refer to benefits from a reduction in pollution, for example 100 tons of carbon dioxide.^{66, 67} If the benefits do not fall into any of these categories then they should be

comparison across *most* proposed and final rules. See, for example, Arrow et al. (1996) and OMB (1996).

⁶³ See 5 USC §603. I am opposed to singling out the impact on small business of regulations, while not considering the more general impact on consumers and larger businesses as well. Nonetheless, small business is inserted here because of different statutory requirements that reflect its political strength.

⁶⁴ See 2 USC §1532.

⁶⁵ For the Unfunded Mandates Reform Act see 2 USC §1532. The regulatory principles of Executive Order 12866 require in §1(b)(6) that benefits are assessed. The assessment of benefits is again required by the executive order for significant rules in §6(3)(B) and for economically significant rules in §6(3)(C). Again, it is inappropriate to simply sum estimates of future benefits as this does not account for the time value of money. If the rule only applies to one year, then discounting the estimates is unnecessary.

⁶⁶ To the extent such benefits result in reductions in health risks, the numbers in the different categories may not add to the estimate of total benefits.

⁶⁷ When health and pollution benefits are expressed in physical or human terms, such as lives saved or tons of pollution reduced, agencies should apply standard values to convert those numbers into dollar estimates. It

entered into the “Other Benefits” category. Agencies are then asked to briefly explain their rationale for the benefit estimates. The next few entries in the form again relate to discounting and the beneficiaries of the benefits.⁶⁸ The process for completing this section is analogous to the section on costs.

3.4 Alternatives to the Regulation

The final section of the form addresses the alternatives that agencies should consider when regulating. Executive Order 12866, the Unfunded Mandates Reform Act and the Regulatory Flexibility Act all require that when an agency regulates, alternatives be considered to the extent permitted by law.⁶⁹ In particular, Executive Order 12866 identifies principles of regulation that require agencies to assess the costs and benefits of all alternatives, including the option of not regulating, and select the approach that maximizes net benefits.⁷⁰ The Regulatory Flexibility Act requires that agencies give a description of the alternatives considered by agencies and a statement as to why each alternative was rejected.⁷¹ For these reasons, the form includes a section asking the agency to list and briefly describe the alternatives it considered and why those alternatives were rejected. If alternatives were not considered then the agency must also give an explanation. The RIS then asks for dollar estimates of the costs and benefits of each alternative.

For any particular rule that is deemed “significant,” I am suggesting that the appropriate regulatory agency complete every entry in the RIS. If an answer is not provided for a section, the agency should give a detailed explanation of why it did not complete that section. Whenever possible, an agency should always give dollar estimates and if not, explain

would be desirable for an agency, such as the Office of Management and Budget, to specify a baseline set of benefit values for purposes of that estimation. If those values are not specified, then the agency should specify such values in the RIS. In either case, the agency should explain the basis for its benefit estimates in the notice itself.

⁶⁸ Typically, the same discount rate should be applied to costs and benefits, so the entries concerning discounting permit a simple check to determine whether the agency actually used the same discount rate.

⁶⁹ Executive Order 12866 requires the consideration of alternatives as part of its regulatory principles that agencies should follow unless legally prohibited or inappropriate. §1(b)(3) and §1(b)(8). Consideration of alternatives is also required of agencies promulgating economically significant rules that they submit to OIRA unless prohibited by law §6(3)(c)(iii). The Regulatory Flexibility Act requires the consideration of alternatives as part of the initial flexibility analysis that agencies must complete. 5 USC §603. The Unfunded Mandates Reform Act requires consideration of alternatives for any rule that results in the expenditure of \$100 million or more by State, local and tribal governments or by the private sector. 2 USC §1535(a)

⁷⁰ An exception to the requirement occurs if a statute requires another approach. §1(a).

why.⁷² Agencies should be clear and precise in answering each question. If a question is not applicable to the rule, then the agency should state this and provide a detailed explanation.⁷³

There is a precedent for providing summary information on regulations. Presently, some states, like California, Pennsylvania and Michigan, have a regulation summary form that each agency must complete when submitting a regulation. California provides a particularly good example. They have a four-page form that serves as a summary and must be in each rule's rulemaking record.⁷⁴ The form became a requirement in March 1998, so it is too early to evaluate the results.

If states are undertaking such measures, there is no reason why federal agencies can not do the same. Moreover, an RIS and the accompanying economic analysis in the *Federal Register* should apply not only to significant regulations overseen by the OMB, but also to all federal regulations whose annual impact is likely to exceed \$100 million. In particular, there is no reason to exempt independent agencies, such as the Federal Communications Commission and the Federal Energy Regulatory Commission.⁷⁵

It should not be assumed that this form will be completed faithfully, even if Congress passes a law requiring it. Agencies will not reform unless they have an incentive to do so. We suggest therefore, that the OMB police agencies to insure that they are complying with the proposed reforms. But mere compliance is not enough. The oversight agency needs to also provide an assessment of the quality of the analysis. This assessment could also be included in the *Federal Register* at an appropriate time.

One method of enforcement would be for the OMB to produce a scorecard, similar to ours, for proposed and final rules. It could publish that scorecard and an evaluation in an annual report on the economic impacts of federal regulation. That evaluation should include a candid assessment of the quality of particular agency analyses.

A scorecard is desirable because it would allow an assessment of whether agencies are providing more information, more consistently over time and it is easy to understand. In

⁷¹ See 5 USC §604.

⁷² Executive Order 12866 allows a quantification of costs and benefits or a qualitative description of them. See Executive Order 12866 §1(a). However, quantification is preferred particularly for the template.

⁷³ The agency should not be required to do so if law prohibits it.

⁷⁴ See California Executive Order W-144-97 §3. For the form see, State of California, Economic and Fiscal Impact Statement, Regulations and Orders STD. 399 (Rev. 2-98).

⁷⁵ Some exemptions may be required, such as those related to actions affecting the money supply.

providing this information, the scorecard would also make the regulatory process more transparent. Another more direct mechanism for enforcement is to prohibit any regulations from moving forward unless the OMB or some other designated agency has determined that the reporting requirements set forth here have been satisfied.⁷⁶

4. Conclusions

Two important conclusions emerge from this analysis. First, *Federal Register* notices that present regulatory analysis currently exhibit a great deal of variation in the kind of information that is presented. Second, with some key changes in the requirements for including and presenting information, the content of these notices could be improved dramatically.⁷⁷ In addition, such information can be aggregated in a way that provides insight into how well or poorly agencies are complying with guidelines to make their analyses more transparent.

I have suggested that each agency be required to fill out a Regulatory Impact Summary for each significant regulation. This standardization will make it easier for the public, interest groups, and academics to obtain information on the government's views of the benefits and costs of regulation. In addition, it will enable interested parties and government agencies to assess the impact of government regulation and the quality of agency analyses. For example, based on the information contained in an RIS, the OMB could present a scorecard in its annual report on the benefits and costs of regulation that would give legislators and the public a quick way to evaluate the performance of agencies in doing regulatory analyses.

The information identified in the Regulatory Impact Summary is similar to that required by Executive Order 12866, the Unfunded Mandates Reform Act and the Regulatory Flexibility Act. Congress should simply consider passing an amendment requiring that the information be summarized and produced in the form suggested here. The cost would be trivial, and the benefits could be potentially quite large.

⁷⁶ Regulations that are in response to emergency situations could be exempted, but the scope for such exemptions should be narrow.

⁷⁷ The findings of this paper are consistent with some of my earlier work, which examines both *Federal Register* notices and regulatory impact analyses Hahn (1996) and Hahn (1998).

Critics could argue that my recommendations for improving the process are hardly worth doing because of the large impact that politics has on regulation. They would be wrong--not because politics does not have a large impact, but because analysis can help to make the decisionmaking process more transparent, thus changing the nature of the politics and hopefully leading to more informed policy judgements.

Simply requiring agencies to complete a form, however, will not necessarily improve the quality of the information provided. But if the basic information is at least available in one place, it becomes easier to check that all the requisite information is provided. In addition, the oversight agencies and other interested parties can more easily assess its quality.

Critics of my policy recommendations might also say that making the government's analysis available is not particularly useful because of potential bias in the analysis. If such bias exists, and I believe it does, it will be easier for skeptics to show how the analysis can be improved if the findings from the analysis are readily available.

Clearly, more needs to be done to improve the government's analysis of regulations. I believe the key to improving such analysis is to increase the amount of competition and attention such analyses receive inside and outside of government. One proposal worthy of consideration is a bill to establish a congressional oversight agency charged with assessing regulations. This agency could compete with the existing oversight office within the Office of Management and Budget.⁷⁸ Such competition could yield better regulatory analysis and greater transparency at a reasonable cost.

Regulatory reform will not happen overnight. Nor will it happen as the result of a single reform. This paper has argued that one important avenue for reform is to enhance regulatory accountability by providing better access to regulatory information. The *Federal Register* can and should be used to enhance access to such information.

⁷⁸ See Hahn and Litan (1998).

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Table 1
Summary of Information in Federal Register Notices

	<i>All Rules</i>	<i>Non-Transfer</i>	<i>Transfer</i>	<i>RIA</i>	<i>No-RIA</i>
<i>Number of Rules in the Database</i>	72	38	34	57	15
Alternatives					
Notice said alternatives were considered	31 43%	24 63%	7 21%	31 54%	0 0%
Alternatives discussed	19 26%	13 34%	6 18%	19 33%	0 0%
Alternatives quantified	8 11%	6 16%	2 6%	8 14%	0 0%
Costs					
Notice said costs were assessed	49 68%	28 74%	21 62%	46 81%	3 20%
Costs reported	41 57%	25 66%	16 47%	38 67%	3 20%
Monetized costs reported	39 54%	23 61%	16 47%	36 63%	3 20%
Cost Savings					
Notice said that cost savings were assessed	16 22%	10 26%	6 18%	15 26%	1 7%
Cost savings were reported	15 21%	10 26%	5 15%	14 25%	1 7%
Monetized cost savings reported	14 19%	9 24%	5 15%	13 23%	1 7%
Benefits					
Notice said that benefits were assessed	38 53%	26 68%	12 35%	37 65%	1 7%
Benefits reported	27 38%	22 58%	5 15%	26 46%	1 7%
Monetized benefits reported	15 21%	11 29%	4 12%	15 26%	0 0%
Costs and Benefits					
Notice states that benefits exceed costs	15 21%	10 26%	5 15%	14 25%	1 7%
Monetized costs and benefits	14 19%	10 26%	4 12%	14 25%	0 0%
Present Value of costs and/or benefits reported*	10 24%	9 33%	1 7%	10 26%	0 0%
Annual estimate of costs and/or benefits reported	29 40%	20 53%	9 26%	28 49%	1 7%
Key Economic Assumptions					
Discount rate reported*	13 32%	11 41%	2 14%	13 34%	0 0%
Dollar year reported	4 6%	4 11%	0 0%	4 7%	0 0%

* The present value and the discount rate categories percentages are computed based on the forty-one rules whose *Federal Register* notices said applied to more than one year. The "All Rules" column was based on all forty-one rules. There were twenty-seven non-transfer; fourteen transfer; thirty-eight RIA and three non-RIA rules that appeared to apply to more than one year and these were the amounts used to calculate the percentages.

**Table 2
Regulatory Impact Summary**

I. BACKGROUND ON RULE AND AGENCY

AGENCY AND DEPARTMENT/OFFICE NAME	
CONTACT PERSON	TELEPHONE NUMBER
TITLE OF THE RULE	
RIN NUMBER	DOCKET NUMBER
TYPE OF RULEMAKING (FINAL/INTERIM/PROPOSED/NOTICE)	TYPE OF RULE (REGULATORY/BUDGET IMPACT)
STATUTORY AUTHORITY FOR THE RULE	RULEMAKING IMPETUS
BRIEF DESCRIPTION OF THE RULE	

II. OVERALL IMPACT

1. Will the rule have an impact on the economy of \$100 million or more? Yes No
2. Best estimate of the present value of quantifiable benefits of the rule \$ _____
3. Best estimate of the present value of quantifiable costs of the rule \$ _____
4. Do the quantifiable benefits outweigh the quantifiable costs? Yes No

Discuss level of confidence in the benefit-cost estimates and key uncertainties. _____

5. Identify benefits or costs that were not quantified. _____

III. COSTS AND BENEFITS

A. Estimated Incremental Costs or Cost Savings

1. Costs or cost savings and breakdown of quantifiable costs or cost savings by type.

	Annual	Present Value
Total Costs or Cost Savings		
Compliance Costs or Cost Savings	_____	_____
Administrative Costs or Cost Savings	_____	_____
Federal Budget Costs or Cost Savings	_____	_____
Local/State Budget Costs or Cost Savings	_____	_____
Other Costs or Cost Savings	_____	_____

Explain _____

Identify the year(s) in which the costs or cost savings occur. _____

Report the dollar year of the costs or cost savings estimates. _____

Give the discount rate used in the calculations. _____%

2. Will the costs or cost savings be imposed on the: (check one/more)

Private Sector Small Businesses State or Local Government

Private Sector Impact \$ _____

Small Business Impact \$ _____

State or Local Government Impact \$ _____

B. Estimated Incremental Benefits

1. Benefits and breakdown of quantifiable benefits by type.

	Annual	Present Value
Total Benefits	_____	_____
Health Benefits	_____	_____
Pollution Benefits	_____	_____
Other Benefits	_____	_____

Explain _____

Identify the year(s) in which the benefits accrue. _____

Report the dollar year of the benefit estimates. _____

Give the discount rate used in the calculations. _____%

2. Give a brief description of who will benefit. _____

IV. ALTERNATIVES TO THE REGULATION

1. List (by number) and briefly describe the alternatives to the rule that were considered and why they were rejected. If no alternatives were considered, explain why not.

2. Summarize the costs and benefits for each alternative considered.

	Costs	Benefits
Alternative 1	\$ _____	\$ _____
Alternative 2	\$ _____	\$ _____
Alternative 3	\$ _____	\$ _____

Appendix

This appendix is divided into two parts. The first part provides definitions for the categories used in reviewing *Federal Register* notices so that scoring can be replicated if desired. The second part provides a discussion of information on other categories that were examined.

1. Glossary of Categories

The glossary is divided into the following sections: alternatives, definition of costs, cost savings and benefits, a compilation of categories that are analogous for costs, cost savings and benefits, cost-only categories, cost savings-only categories, benefit-only categories, cost and benefit categories, quantitative details, other impacts and other details.

Alternatives

Notice said alternatives were discussed: An agency only had to state in the *Federal Register* notice that alternatives were considered. It did not have to specify those alternatives or discuss them.

Alternatives discussed: The agency had to briefly describe the alternative(s).

Alternatives quantified: The agency had to report cost and/or benefit numbers for the alternative(s).

Costs, Cost Savings and Benefits

In this section, the phrase “cost/cost savings/benefits” refers to three distinct categories of cost, cost savings, and benefits. Each of these categories is scored separately on the variables discussed below.

Costs: Anything that the agency stated was a cost was considered to be a cost.

Cost Savings: If the agency stated that the estimate was a cost saving or a saving, then it was considered to be a cost saving.

Benefits: Anything the agency stated was a benefit was considered to be a benefit.

Notice said costs/cost savings/benefits were assessed: The agency had to state in the *Federal Register* notice that costs/cost savings/benefits were assessed. However, it did not have to state the actual costs/cost savings/benefits or discuss them.

Reported costs/cost savings/benefits: The agency had to provide some assessment of the costs/cost savings/benefits of the rule in the *Federal Register* notice. The estimates did not have to be monetized.

Monetized costs/cost savings/benefits reported: Monetized costs/cost savings/benefits were reported when the agency published dollar estimates of the costs/cost savings/benefits, in the *Federal Register* notice.

Costs/cost savings/benefits monetized and itemized: The agency had to provide dollar estimates for costs/cost savings/benefits and publish a breakdown of those monetized estimates.

Cost-only categories

This paper divides costs into a number of categories: private sector compliance, budgetary, administrative, local or state government and other costs. These categories are not mutually exclusive. Agencies rarely designated a category explicitly. The following definitions were used in scoring costs:

Private sector compliance costs were costs incurred by the private sector in complying with the rule.

Budgetary costs were costs incurred by the federal government in enacting the rule.

Administrative costs were costs, like paperwork, that were incurred in administering the requirements of the rule.

Local or state government costs were costs incurred by local and state governments in complying or enforcing the rule.

Other costs were any other costs the rule imposed.

Cost Savings-Only Categories

Like the categories for costs, the categories for cost savings are not mutually exclusive. Agencies rarely designated a category explicitly. The following definitions were used in scoring cost savings:

Compliance cost savings were cost savings from reducing private sector compliance costs.

Budget cost savings were cost savings obtained from a reduction in budget outlays.

Savings from fuel or energy efficiency were cost savings that arose from the rule increasing fuel or energy efficiency.

Benefit-Only Categories

Benefits are divided into a number of categories: pollution, health, “other” environmental and other benefits. These categories are not mutually exclusive. Agencies rarely designated a category explicitly. The following definitions were used in scoring benefits:

Pollution benefits were classified as benefits from reducing any kind of pollution.

Health benefits were benefits from reducing morbidity and mortality.

“Other” benefits for the environment were any other environmental benefits resulting from the rule and included any benefits to the environment other than pollution benefits. An example would be wetlands preservation.

Other benefits were any other benefits resulting from the rule.

Source of benefits unclear: The source was unclear because the *Federal Register* notice was unclear.

Costs and Benefits

Notice states that benefits exceed costs: The agency had to state in the notice that the benefits exceeded the costs. An independent assessment was not conducted of whether the agency’s reported benefits outweighed the costs.

Monetized cost and benefit estimates reported: The agency had to provide dollar estimates for both benefits and costs.

Monetized costs and benefits, cost savings and benefits, or costs and cost savings: The agency had to provide dollar estimates for one of these combinations of costs, cost savings and benefits.

Monetized and itemized costs and benefits, cost savings and benefits, or costs and cost savings: The agency had to provide dollar estimates and breakdowns of those estimates for one of these combinations of costs, cost savings and benefits.

Prohibited from considering costs and benefits: Sometimes agencies were legally prohibited from considering or calculating cost and benefit estimates during the regulatory process. An agency needed to state in the *Federal Register* notice that a statute or law prohibited a cost-benefit analysis.

Quantitative Details

Notice revealed that rule applies to more than one year: This category was satisfied if the agency stated that the rule applied to more than one year or if the estimates were broken down over multiple years.

Discount rate reported: Self-evident.

Present value of costs and or benefits reported: The agency had to specifically state that the estimate was in present value terms.

Dollar year reported: The agency had to report the year the cost and/or benefit estimates were in.

Annual estimates of costs and/or benefits: The cost and/or benefit estimates were reported in annual numbers.

Other Impacts

Assessed paperwork impacts: The agency had to say that paperwork impacts were assessed according to the Paperwork Reduction Act. The agency could state that there was or was not an impact. It could also state that the nature of the rule meant it did not have to assess those impacts because it did not apply.

Assessed local and state government impacts: The agency had to say it assessed the impact on local and state governments according to the Unfunded Mandates Reform Act. The agency could state that there was or was not an impact. It could also state that the nature of the rule meant it did not have to assess those impacts because it did not apply.

Assessed small business impact: The agency had to say it conducted a Regulatory Flexibility Analysis to assess the impact on small businesses. The agency could state that there was or was not an impact. It could also state that the nature of the rule meant it did not have to assess those impacts because it did not apply.

Other Details

Transfer Rule: A rule was judged a transfer if its primary impact was on federal budget payments. Examples of transfer rules are the Medicare and social security regulations that change levels of payment from taxpayers to recipients. They differ systematically from non-transfer rules in that they do not impose direct social costs upon society.

RIA Developed: An RIA is a regulatory impact assessment. The agency obtained credit for the category if it stated in the *Federal Register* notice that an RIA was produced.

2. Other Data

This section is divided into a discussion of data related to regulatory impact assessments, costs, cost savings, benefits, benefits and costs, application of rules to more than one year, and assessment of other impacts.

RIAs

The expectation was that transfer rules would have a lower percentage of RIAs than non-transfer rules because closer scrutiny would be given to non-transfer rules. The data support this view. Sixty-eight percent of transfer rules and eighty-nine percent of non-transfer rules have RIAs. Ten of the rules included the RIA with the *Federal Register* notice.

	All Rules	<i>Non-Transfer</i>	<i>Transfer</i>	<i>RIA</i>	<i>No-RIA</i>
Number of Final Rules in Database	72	38	34	57	15
Agency Developed an RIA	57 79%	34 89%	23 68%	57 100%	0 0%

Cost Categories

As expected, the percentage of rules with cost estimates for private sector compliance costs was much lower for transfer than non-transfer rules and the budgetary costs were higher for transfer than non-transfer rules. This is because transfer rules tend to affect the budget and non-transfer rules typically have a direct impact on the private sector. Relatively few notices reported information pertaining to administrative costs, local and state government cost and other costs.

	<i>All Rules</i>	<i>Non-Transfer</i>	<i>Transfer</i>	<i>RIA</i>	<i>No-RIA</i>
<i>Number of Rules in the Database</i>	72	38	34	57	15
Cost Categories reported					
Private Sector compliance costs	27 38%	24 63%	3 9%	27 47%	0 0%
Budgetary Costs	21 29%	6 16%	15 44%	18 32%	3 20%
Administrative Costs	13 18%	7 18%	6 18%	11 19%	2 13%
Local and/or State Government Costs	7 10%	4 11%	3 9%	7 12%	0 0%
Other Costs	2 3%	1 3%	1 3%	2 4%	0 0%

Cost Savings Categories

Notices indicated that only non-transfer rules had compliance cost savings or savings from fuel or energy efficiency. In addition, more transfer rules had budget cost savings than non-transfer rules.

	<i>All Rules</i>	<i>Non-Transfer</i>	<i>Transfer</i>	<i>RIA</i>	<i>No-RIA</i>
<i>Number of Final Rules in Database</i>	72	38	34	57	15
<u>Cost Savings categories reported</u>					
Compliance cost savings	6 8%	6 16%	0 0%	6 11%	0 0%
Budget cost savings	8 11%	3 8%	5 15%	7 12%	1 7%
Savings from fuel or energy efficiency	3 4%	3 8%	0 0%	3 5%	0 0%

Benefits

All but one of the rules without an RIA did not report benefits whereas twenty-six of the rules with RIAs reported at least some kind of benefit. This result was expected because rules with RIAs are more likely to attempt to assess benefits. All of the pollution and health benefits were reported by the non-transfer rules: nine (24 percent) and eleven (29 percent) respectively. “Other” Benefits for the environment included environmental benefits other than pollution reductions (e.g., rebuilding of the fish stock).

	<i>All Rules</i>	<i>Non-Transfer</i>	<u>Transfer</u>	<i>RIA</i>	<i>No-RIA</i>
<i>Number of Final Rules in Database</i>	72	38	34	57	15
<u>Benefit Categories reported</u>					
Pollution Benefits	9 13%	9 24%	0 0%	9 16%	0 0%
Health Benefits	11 15%	11 29%	0 0%	11 19%	0 0%
"Other" Benefits for the environment	3 4%	2 5%	1 3%	3 5%	0 0%
Other Benefits	7 10%	2 5%	5 15%	6 11%	1 7%
Source of Benefits Unclear	1 1%	0 0%	1 3%	1 2%	0 0%

Benefits and Costs

Only four of the rules were prevented by statute from considering costs and benefits when making regulatory decisions. Those four rules explicitly stated that they were prohibited from considering costs and benefits and anything beyond what was established by the authorizing statute. However, there were many other rules than did not assess costs and benefits, but whether or not they were prohibited by statute could not be determined from the *Federal Register*.

	<u>All Rules</u>	<i>Non-Transfer</i>	<i>Transfer</i>	<i>RIA</i>	<i>No-RIA</i>
<i>Number of Final Rules in Database</i>	72	38	34	57	15
Prohibited from considering costs and benefits	4 6%	4 11%	0 0%	3 5%	1 7%

Monetization and Itemization of Costs, Cost Savings and Benefits

For costs, cost savings and benefits there were a significantly lower number of rules that provided an itemized estimate. An even lower number of rules provided monetized and itemized estimates for costs and benefits, cost savings and benefits or cost and cost savings.

	<i>All Rules</i>	<i>Non-Transfer</i>	<i>Transfer</i>	<i>RIA</i>	<i>No-RIA</i>
<i>Number of Rules in the Database</i>	72	38	34	57	15
Costs					
Costs Monetized	39 54%	23 61%	16 47%	36 63%	3 20%
Costs Monetized and Itemized	20 28%	15 39%	5 15%	19 33%	1 7%
Cost Savings					
Cost Savings Monetized	14 19%	9 24%	5 15%	13 23%	1 7%
Cost Savings Monetized and Itemized	5 7%	2 5%	3 9%	5 9%	0 0%
Benefits					
Benefits Monetized	15 21%	11 29%	4 12%	15 26%	0 0%
Benefits Monetized and Itemized	8 11%	6 16%	2 6%	8 14%	0 0%
Costs, Cost Savings and Benefits					
Monetized Costs and Benefits, Cost Savings and Benefits or Costs and Cost Savings	11 15%	7 18%	4 12%	11 19%	0 0%
Monetized and Itemized Costs and Benefits, Cost Savings and Benefits or Costs and Cost Savings	6 8%	5 13%	1 3%	6 11%	0 0%

Application to more than one year

For some of the rules, it was clear from the notices that they applied to more than one year. There were more non-transfer rules twenty-seven (79 percent) that applied to more than one year than transfer rules. This can be explained by the fact that regulatory rules (e.g., those involving non-transfers) typically apply to several years whereas budgetary rules may apply to a single year. Many more rules with RIAs than rules without RIAs were relevant for more than a year. Most rules without RIAs were unclear as to when the rule was applicable.

	<i>All Rules</i>	<i>Non-Transfer</i>	<i>Transfer</i>	<i>RIA</i>	<i>No-RIA</i>
<i>Number of Rules in the Database</i>	72	38	34	57	15
FR notice revealed that rule applies to more than one year	41	27	14	38	3
	57%	71%	41%	67%	20%
Unclear if the rule applies to more than one year	22	8	14	11	11
	31%	21%	41%	19%	73%

Assessment of Other Impacts

A large fraction of the notices said rules assessed impacts for paperwork, local and state governments and small businesses. The biggest difference between categories was those with RIAs and those without. As expected those without RIAs assessed other impacts less frequently than those with RIAs did. There were not large differences between transfer and non-transfer rules.

	<i>All Rules</i>	<i>Non-Transfer</i>	<i>Transfer</i>	<i>RIA</i>	<i>No-RIA</i>
<i>Number of Rules in the Database</i>	72	38	34	57	15
Rules that assessed paperwork impacts	66	35	31	53	13
	94%	97%	91%	95%	93%
Agency found an impact	53	30	23	44	9
	80%	86%	74%	83%	69%
Agency found no impact	13	5	8	9	4
	20%	14%	26%	17%	31%
Rule not applicable to act	2	2	0	1	1
Did not assess impact	4	1	3	3	1
Rules that assessed state and local government impacts	52	27	25	44	8
	83%	79%	86%	85%	73%
Agency found an impact	19	12	7	19	0
	37%	44%	28%	43%	0%
Agency found no impact	33	15	18	25	8
	63%	56%	72%	57%	100%
Rule not applicable to act	9	4	5	5	4
Did not assess impact	11	7	4	8	4
Rules that assessed small business impact	55	31	24	48	7
	93%	94%	92%	96%	78%
Agency found an impact	31	18	13	31	0
	56%	58%	54%	65%	0%
Agency found no impact	24	13	11	17	7
	44%	42%	46%	35%	100%
Rule not applicable to act	13	5	8	7	6
Did not assess impact	4	2	2	2	2