

**2009 Report to Congress  
on the Benefits and Costs of  
Federal Regulations  
and Unfunded Mandates on  
State, Local, and Tribal Entities**



**2009**

**Office of Management and Budget  
Office of Information and Regulatory Affairs**

**2009 REPORT TO CONGRESS  
ON THE BENEFITS AND COSTS OF FEDERAL REGULATIONS AND  
UNFUNDED MANDATES ON STATE, LOCAL, AND TRIBAL ENTITIES**

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## EXECUTIVE SUMMARY

The Office of Management and Budget (OMB) prepared this Report to Congress on the Benefits and Costs of Federal Regulations (Report) in accordance with the Regulatory-Right-to-Know Act.<sup>1</sup> This is the twelfth annual Report since OMB began issuing this Report in 1997. The Report summarizes estimates by Federal regulatory agencies of the quantified and monetized benefits and costs of major Federal regulations reviewed by OMB over the last ten years.

- The estimated annual benefits of major Federal regulations reviewed by OMB from October 1, 1998, to September 30, 2008, for which agencies estimated and monetized both benefits and costs, are in the aggregate between \$126 billion and \$663 billion, while the estimated annual costs are in the aggregate between \$51 billion and \$60 billion. These ranges reflect uncertainty in the benefits and costs of each rule at the time it was evaluated. The benefit estimates remain relatively steady as compared to those reported last year; the costs are slightly lower than those reported last year.
- Some rules are estimated to produce far higher net benefits than others. Moreover, there is substantial variation across agencies in the total net benefits produced by rules. For example, the air pollution rules from the Environmental Protection Agency (EPA) produced 65 to 88 percent of the benefits and 57 to 60 percent of the costs. Many rules have net benefits, but some rules have net costs.
- During the fiscal year 2008, executive agencies promulgated 42 major rules and quantified and monetized both benefits and costs for 13 of them. Those 13 rules were estimated to result in a total of \$8.6 billion to \$39.4 billion in annual benefits and \$7.9 billion to \$9.2 billion in annual costs.
- Of the 21 major non-budgetary final rules issued by executive agencies last year:
  - For one rule, the issuing agency did not quantify and monetize either benefits or costs.
  - For six rules, the issuing agency quantified and monetized only costs. The Department of Homeland Security issued two of these rules at an estimated annual cost of \$745 million to \$1.6 billion.
  - For one rule, the issuing agency quantified and monetized only benefits. The Department of Interior issued a migratory bird hunting rule with estimated benefits of \$711 million to \$1 billion.
  - For 13 rules, the issuing agencies quantified and monetized both benefits and costs.
- The independent regulatory agencies, whose regulations are not subject to OMB review, issued 11 major final rules. The Government Accountability Office (GAO) reported monetized benefits and costs for only one of these rules, and monetized costs

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<sup>1</sup> Section 624 of the Treasury and General Government Appropriations Act of 2001, Pub. L. No. 106-554, 31 U.S.C. § 1105 note.

for two of these rules. The Nuclear Regulatory Commission (NRC) provided cost estimates for one rule.

It is important to emphasize that the figures here have significant limitations. For example, the aggregate estimates offered here do not capture the non-monetized benefits and costs of rules. Many rules have benefits and costs that cannot be quantified or monetized in light of existing information. In fulfilling their statutory mandates, agencies must often act in the face of substantial uncertainty about the likely consequences. In some cases, monetization of particular categories of benefits – such as ecological and national security benefits – can present significant challenges. In addition, prospective estimates may contain erroneous assumptions leading to inaccurate predictions, and retrospective analysis can be an important way of increasing accuracy. While the estimates in this Report provide valuable information about the effects of regulations, they should not be taken to be either precise or complete. OMB continues to consider methods for increasing the accuracy of benefit-cost analysis.

In compliance with the Regulatory Right-to-Know Act, this Report also offers three recommendations for reform. First, it emphasizes the potential value of behaviorally informed approaches to regulation, including disclosure policies, prudent use of default rules, and simplification. Second, it suggests that regulatory impact analysis should be improved by increased clarity about costs and benefits, by greater use of retrospective analysis, and by taking account, where relevant, of the interests of future generations, of distributional effects, and of fairness. Third, it suggests the importance of using regulatory analysis as a tool of transparency and open government, by allowing public scrutiny of rules with reference to their anticipated and actual consequences.

Chapter IV provides an update on agency implementation of the Information Quality Act (IQA) (Section 515 of the Treasury and General Government Appropriations Act, 2001 (Pub. L. No. 106-554, 31 U.S.C. § 3516 note)). The chapter summarizes: a) the current status of correction requests that were received by agencies in FY 2008, including an update on the status of requests received during FY 2003 through FY 2007; b) agency annual reports for the Information Quality Bulletin for Peer Review for FY 2008; and c) brief recaps and updates on the Good Guidance Practices Bulletin and the Principles of Risk Analysis. The Federal agencies received 16 correction requests and completed 198 peer reviews, of which 51 were influential scientific assessments, in FY 2008.

This Report is being issued along with the Fourteenth Annual Report to Congress on Agency Compliance with the Unfunded Mandates Reform Act (UMRA), (Pub. L. No. 104-4, 2 U.S.C. § 1538). OMB reports on agency compliance with Title II of UMRA, which requires that each agency conduct a cost-benefit analysis and select the least costly, most cost-effective, or least burdensome alternative before promulgating any proposed or final rule that may result in expenditures of more than \$100 million (adjusted for inflation) in any one year by State, local, and tribal governments, or by the private sector. Each agency must also seek input from State, local, and tribal governments.

**PART I: 2009 REPORT TO CONGRESS**  
**ON THE BENEFITS AND COSTS OF FEDERAL REGULATIONS**

## INTRODUCTION

The Regulatory Right-to-Know Act calls for the Office of Management and Budget (OMB) to submit to Congress each year “an accounting statement and associated report” including:

- (A) an estimate of the total annual benefits and costs (including quantifiable and nonquantifiable effects) of Federal rules and paperwork, to the extent feasible:
  - (1) in the aggregate;
  - (2) by agency and agency program; and
  - (3) by major rule;
- (B) an analysis of impacts of Federal regulation on State, local, and tribal government, small business, wages, and economic growth; and
- (C) recommendations for reform.

The statute does not define “major rule.” For the purposes of this Report, we define major rules to include all final rules promulgated by an Executive Branch agency that meet any one of the following three conditions:

- Rules designated as major under 5 U.S.C. § 804(2);<sup>2</sup>
- Rules designated as meeting the analysis threshold under the Unfunded Mandates Reform Act of 1995 (UMRA);<sup>3</sup> or
- Rules designated as “economically significant” under section 3(f)(1) of Executive Order 12866.<sup>4</sup>

Chapter I summarizes the benefits and costs of major regulations issued between September 1998 and September 2008 and examines in more detail the benefits and costs of major Federal regulations issued in fiscal year 2008. It also discusses regulatory impacts on State, local, and tribal governments, small business, wages, and economic growth. Chapter II examines trends in regulation since OMB began to compile benefit and cost estimates records in 1981. Chapter III outlines recommendations for future reform. Chapter IV provides an update on agency implementation of the Information Quality Act (IQA) (Section 515 of the Treasury and

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<sup>2</sup>A major rule is defined in Subtitle E of the Small Business Regulatory Enforcement Fairness Act of 1996 as a rule that is likely to result in: "(A) an annual effect on the economy of \$100,000,000 or more; (B) a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or (C) 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 and export markets." P.L. 104-121 Sec. 804, 5 U.S.C. § 804(2).

<sup>3</sup>A written statement containing a qualitative and quantitative assessment of the anticipated benefits and costs of the Federal mandate is required under the Section 202(a) of the Unfunded Mandates Reform Act of 1995 for all rules that may result in: "the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100,000,000 or more (adjusted annually for inflation) in any one year." 2 U.S.C. § 1532(a).

<sup>4</sup>A regulatory action is considered “economically significant” under Executive Order 12866 § 3(f)(1) if it is likely to result in a rule that may 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."

General Government Appropriations Act, 2001 (Pub. L. No. 106-554, 31 U.S.C. § 3516 note)).  
Chapter V summarizes agency compliance with UMRA.

## CHAPTER I: THE BENEFITS AND COSTS OF FEDERAL REGULATIONS

This chapter consists of two parts: the accounting statement and a brief report on regulatory impacts on state, local, and tribal governments, small business, and wages. Part A revises the benefit-cost estimates in last year's Report by updating the estimates to the end of fiscal year 2008 (September 30, 2008). As in previous Reports, this chapter uses a ten-year look-back. Estimates are based on the major regulations reviewed by OMB from October 1, 1998 to September 30, 2008.<sup>5</sup> For this reason, eight rules reviewed from October 1, 1997 to September 30, 1998 (fiscal year 1998) were included in the totals for the 2008 Report but are not included in this Report. A list of these FY 1998 rules can be found in Appendix B (see Table B-1). The removal of the eight FY 1998 rules from the ten-year window is accompanied by the addition of 13 FY 2008 rules.

All estimates presented in this chapter are agency estimates of benefits and costs or transparent modifications of agency information performed by OMB.<sup>6</sup> This chapter also includes a discussion of major rules issued by independent regulatory agencies, although OMB does not review these rules under Executive Order 12866.<sup>7</sup> This discussion is based solely on data provided by these agencies to the Government Accountability Office (GAO) under the Congressional Review Act.

Aggregating benefit and cost estimates of individual regulations—to the extent they can be combined—provides significant insight about the effects of regulations. But the resulting estimates are neither precise nor complete. Individual regulatory impact analyses vary in rigor and rely on different assumptions, including baseline scenarios, methods, and data. Summing across estimates involves the aggregation of analytical results that are not strictly comparable. As we have noted, some benefits and costs are difficult either to quantify or to turn into monetary equivalents. For purposes of policy, such nonquantified benefits and costs may be important. Some regulations have important non-quantified benefits and costs that serve as a key factor in an agency's decision to promulgate a rule. Considerations of equity, or distributional factors, may be highly relevant. Finally, prospective analyses may turn out to overestimate or underestimate both benefits and costs; retrospective analysis can be important as a corrective mechanism.<sup>8</sup>

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<sup>5</sup>All previous Reports are available at:

[http://www.whitehouse.gov/omb/infocreg\\_reports\\_congress/](http://www.whitehouse.gov/omb/infocreg_reports_congress/)[http://www.whitehouse.gov/omb/infocreg\\_regpol\\_reports\\_congress/](http://www.whitehouse.gov/omb/infocreg_regpol_reports_congress/).

<sup>6</sup>OMB used agency estimates where available. The benefit and cost ranges represent lowest and highest agency estimates using both 3 and 7 percent discount rates. If an agency quantified but did not monetize estimates, we used standard assumptions to monetize them, as explained in Appendix A. Inflation adjustments are performed using the latest available Gross Domestic Product (GDP) deflator and all amortizations are performed using a discount rate of 7 percent, unless the agency has already presented annualized, monetized results using a different explicit discount rate. OMB did not independently estimate benefits or costs when agencies did not provide quantified estimates.

<sup>7</sup>Section 3(b) of Executive Order 12866 excludes "independent regulatory agencies as defined in 44 U.S.C. 3502(10)" from OMB's regulatory review purview.

<sup>8</sup> See Greenstone (2009).

## A. Estimates of the Aggregated Annual Benefits and Costs of Regulations Reviewed by OMB over the Last Ten Years

Table 1-1 presents estimates of the total annual benefits and costs of 98 regulations reviewed by OMB over the ten-year period from October 1, 1998, to September 30, 2008, broken down by issuing agency, that met two conditions:<sup>9</sup> (1) each rule was estimated to generate benefits or costs of approximately \$100 million in any one year; and (2) a substantial portion of its benefits and costs were quantified and monetized by the agency or, in some cases, monetized by OMB. The estimates are therefore not a complete accounting of all the benefits and costs of all regulations issued by the Federal Government during this period.<sup>10</sup>

As discussed in previous Reports, OMB chose a ten-year period for aggregation because pre-regulation estimates prepared for rules adopted more than ten years ago are of questionable relevance today. The estimates of the benefits and costs of Federal regulations over the period October 1, 1998, to September 30, 2008, are based on agency analyses conducted prior to issuance of the regulation and subjected to public notice and comments and OMB review under Executive Order 12866.

**Table 1-1: Estimates of the Total Annual Benefits and Costs of Major Federal Rules by Agency, October 1, 1998 - September 30, 2008 (millions of 2001 dollars)**

Agency	Number of Rules	Benefits	Costs
Department of Agriculture	6	906-1,315	1,014-1,353
Department of Education	1	633-786	349-589
Department of Energy	6	4,954-5,391	3,067-3,118
Department of Health and Human Services	18	20,522-32,426	3,879-4,387
Department of Homeland Security	1	20-29	13-99
Department of Housing and Urban Development	1	190	150
Department of Justice	1	275	108-118

<sup>9</sup>OMB discusses, in this Report and in previous Reports, the difficulty of estimating and aggregating the benefits and costs of different regulations over long time periods and across many agencies using different methodologies. Any aggregation involves the assemblage of benefit and cost estimates that are not strictly comparable. In part to address this issue, the 2003 Report included OMB's new regulatory analysis guidance, OMB Circular A-4 that took effect on January 1, 2004 for proposed rules and January 1, 2005 for final rules. The guidance recommends what OMB defines as "best practices" in regulatory analysis, with a goal of strengthening the role of science, engineering, and economics in rulemaking. The overall goal of this guidance is a more transparent, accountable and credible regulatory process and a more consistent regulatory environment. OMB expects that as more agencies adopt our recommended best practices, the benefits and costs we present in future reports will become more comparable across agencies and programs. OMB is working with the agencies to ensure that their impact analyses follow the guidance.

<sup>10</sup>In many instances, agencies were unable to quantify all benefits and costs. We have conveyed the essence of these unquantified effects on a rule-by-rule basis in the columns titled "Other Information" in Appendix A of this and previous Reports. The monetized estimates we present necessarily exclude these unquantified effects.

Agency	Number of Rules	Benefits	Costs
Department of Labor	6	481-1605	320-347
Department of Transportation	18	11,256-19,098	5,218-8,968
Environmental Protection Agency <sup>11</sup>	40	87,042-601,469	36,853-40,851
<b>Total</b>	<b>98</b>	<b>126,277-662,584</b>	<b>50,973-59,978</b>

In assembling these tables of estimated benefits and costs, OMB applied a uniform format for the presentation to make agency estimates more closely comparable with each other (for example, annualizing benefit and cost estimates). OMB monetized quantitative estimates where the agency did not do so. For example, for a few rulemakings within the 10-year window of this Report, we have converted agency projections of quantified benefits, such as estimated injuries avoided per year or tons of pollutant reductions per year, to dollars using the valuation estimates discussed in Appendix A of this Report and Appendix B of our 2007 Report.<sup>12</sup>

The aggregate benefits reported in Table 1-1 rose slightly in comparison to those presented in the 2008 Report; the aggregate costs increased as well and in greater proportion. Rules issued by the Environmental Protection Agency (EPA) continue, as in prior years, to account for the majority of estimated benefits and costs generated by Federal regulation. More specifically, EPA rules account for 65 to 88 percent of the benefits and 57 to 60 percent of the costs.

Table 1-2 provides additional information on aggregate benefits and costs for specific agency programs. In order for a program to be included in Table 1-2, the program needed to have finalized three or more major rules in the last ten years with monetized benefits and costs.

**Table 1-2: Estimates of Annual Benefits and Costs of Major Federal Rules: Selected Programs and Agencies, October 1, 1998 - September 30, 2008 (millions of 2001 dollars)**

Agency	Number of Rules	Benefits	Costs
<b>Department of Agriculture</b>			
Animal and Plant Health Inspection Service	3	862-1,163	726-931
<b>Department of Energy</b>			
Energy Efficiency and Renewable Energy	6	4,954-5,391	3,067-3,118

<sup>11</sup> These totals include EPA's March 2005 final "Clean Air Interstate Rule." On July 11, 2008, the D.C. Circuit vacated this rule; however, in response to EPA's petition, the Court on December 23, 2008, remanded the rule without vacatur, which keeps it in effect while EPA conducts further proceedings consistent with the Court's July 11 opinion.

<sup>12</sup> The 2007 Report is available at [http://www.whitehouse.gov/omb/inforeg\\_regpol\\_reports\\_congress/](http://www.whitehouse.gov/omb/inforeg_regpol_reports_congress/). We note that there are ongoing discussions regarding the scientific assumptions underlying the benefits per ton numbers that we use to monetize benefits that were not monetized. If, for instance, assumptions similar to those described at <http://www.epa.gov/air/benmap/bpt.html> were used, these estimates would be somewhat higher.

Agency	Number of Rules	Benefits	Costs
<b>Department of Health and Human Services</b>			
Food and Drug Administration	11	2,491-13,870	914-1,219
Center for Medicare and Medicaid Services	6	16,884-17,356	2,671-2,874
<b>Department of Labor</b>			
Occupational Safety and Health Administration	4	471-1,594	362-389
<b>Department of Transportation</b>			
National Highway Traffic Safety Administration	10	9,454-17,185	3,982-7,710
<b>Environmental Protection Agency</b>			
Office of Air	26	82,433-580,604	30,824-34,480
Office of Water	9	2,011-11,267	3,004-3,371

The ranges of benefits and costs reported in Tables 1-1 and 1-2 were calculated by adding the lower bounds of agencies' estimates for each of the underlying rules to generate an aggregate lower bound, and similarly adding the upper bounds of agencies' estimates to generate an aggregate upper bound. The range reported by the agency for each rule reflects the agency's uncertainty about the likely impact of the rule. In some cases this range is a confidence interval based on a formal uncertainty analysis. In most cases, however, the ranges are generated using an informal sensitivity analysis in which input parameters are varied across a "plausible" range.

The benefits and costs presented in Tables 1-1 and 1-2 are not necessarily correlated. In other words, when interpreting the meaning of these ranges, the reader should not assume that when benefits are in fact on the low end of their range, costs will also tend to be on the low end of their range. This is because, for some rules, there are factors that affect costs that have little correlation with factors that affect benefits (and vice-versa). Accordingly, to calculate the range of net benefits (i.e., benefits minus costs), one should not simply subtract the lower bound of the benefits range from the lower bound of the cost range, and similarly for the upper bound. Rather, it may be possible for the true benefits to be at the lower bound and true costs to be at the upper bound, as well as vice-versa. Thus, for example, it is possible that the net benefits of DOL rules, taken together, could range from \$82 million to \$1.2 billion per year.

There is substantial uncertainty in many of the benefits estimates in Table 1-2. Because the benefits associated with the clean air rules dominate the total benefits across the Federal government, we provide additional information. We also note that EPA has invested substantial resources to quantify some aspects of that uncertainty over the last few years. Even so, a large degree of uncertainty remains in benefit estimates for clean air rules. More generally, the ranges of benefits and costs presented in Tables 1-2 should be treated with caution. If the reasons for uncertainty differ across individual rules, aggregating high and low-end estimates can result in totals that may be misleading. In the case of the EPA rules reported here, however, a substantial portion of the uncertainty is similar across several rules, including (1) the uncertainty in the

reduction of premature deaths associated with reduction in particulate matter and (2) the monetary value of reducing mortality risk. The majority of the large estimated benefits of EPA rules is attributable to the reduction in public exposure to a single air pollutant: fine particulate matter. EPA is working with OMB to improve methods to quantify the degree of technical uncertainty in benefits estimates and to make other improvements to EPA's Regulatory Impact Analyses.<sup>13 14</sup>

Because these estimates exclude non-major rules and rules adopted more than ten years ago, the total benefits and costs of all Federal rules now in effect are likely to be significantly larger than the sum of the benefits and costs reported in Table 1-1. More research would be necessary to produce comprehensive estimates of total benefits and costs by agency and program. And as noted, it is important to consider retrospective, as opposed to ex ante, estimates of both benefits and costs.

In order for comparisons or aggregations to be meaningful, benefit and cost estimates should correctly account for all substantial effects of regulatory actions, not all of which may be reflected in the available data. Any comparison or aggregation across rules should also consider a number of factors that our presentation does not address. Agencies have adopted different methodologies—for example, different monetized values for effects (such as mortality), different baselines in terms of the regulations and controls already in place, different rates of time

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<sup>13</sup>For example, a committee of the National Research Council/National Academy of Sciences released the study National Research Council (2002), which recommends improvements to EPA benefits estimates. In addition, we continue to work with EPA to incorporate recommendations from recent NRC reports, Miller, et al (2006) and National Research Council (2008).

<sup>14</sup> The wide range of benefits estimates for particle control does not capture the full extent of the scientific uncertainty in measuring the health effects associated with exposure to fine particulate matter and its constituent elements. The six key assumptions in the benefits estimates are as follows:

1. Inhalation of fine particles is causally associated with premature death at concentrations near those experienced by most Americans on a daily basis. Although biological mechanisms for this effect have not been established definitively yet, the weight of the available epidemiological evidence supports an assumption of causality.
2. All fine particles, regardless of their chemical composition, are equally potent in causing premature mortality. This is an important assumption, because PM produced via transported precursors emitted from EGUs may differ significantly from direct PM released from diesel engines and other industrial sources, but no clear scientific grounds exist for supporting differential effects estimates by particle type.
3. The impact function for fine particles is approximately linear within the range of ambient concentrations under consideration. Thus, the estimates include health benefits from reducing fine particles in areas with varied concentrations of PM, including both regions that are in attainment with fine particle standard and those that do not meet the standard.
4. The forecasts for future emissions and associated air quality modeling are valid. Although recognizing the difficulties, assumptions, and inherent uncertainties in the overall enterprise, these analyses are based on peer-reviewed scientific literature and up-to-date assessment tools, and we believe the results are highly useful in assessing this proposal.
5. Benefits estimated here reflect the application of a national dollar benefit-per-ton estimate of the benefits of reducing directly emitted fine particulates from point sources. Because they are based on national-level analysis, the benefit-per-ton estimates used here do not reflect local variability in population density, meteorology, exposure, baseline health incidence rates, or other local factors that might lead to an over-estimate or under-estimate of the actual benefits of controlling directly emitted fine particulates.
6. The value of mortality risk reduction is taken largely from studies of the willingness to accept risk in the labor market.

preference, and different treatments of uncertainty. These differences are reflected in the estimates provided in Tables 1-1 and 1-2. And while we have generally relied on agency estimates in monetizing benefits and costs, our reliance on agency data in this Report should not be taken as an OMB endorsement of all the varied methodologies used by agencies to estimate benefits and costs.

We have noted that many of these major rules have important non-quantified benefits and costs that may have been a key factor in an agency's decision to promulgate a rulemaking. These qualitative issues are discussed in Table A-1 of Appendix A, agency rulemaking documents, and previous editions of this Report. Table A-1 also provides links to agency analyses that are available electronically.

## **B. Estimates of the Benefits and Costs of FY 2008's Major Rules**

In this section, we examine in more detail the estimated benefits and costs of the 42 major final rules for which OMB concluded review during the 12-month period beginning October 1, 2007, and ending September 30, 2008. These major rules represent approximately 15 percent of the 277 final rules reviewed by OMB and approximately one percent of the 3,773 final rules published in the *Federal Register* during this period. OMB believes, however, that the benefits and costs of major rules account for the majority of the total benefits and costs of all rules subject to OMB review.<sup>15</sup>

Of the 42 rules, 21 implement Federal budgetary programs, which primarily caused income transfers, usually from taxpayers to program beneficiaries. Accordingly, we refer to these rules as "transfer rules." The remaining 21 rules are non-budgetary regulations, which we will refer to as simply "regulations."

### ***Regulations***

Agencies estimated the both the quantified benefits and costs of only 13 of the 21 regulations in FY 2008; these estimates are aggregated by agency in Table 1-3 and are included in the accounting statement in Section A of this chapter.<sup>16</sup> Table 1-4 lists each of these 21

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<sup>15</sup> We discussed the relative contribution of major rules to the total impact of Federal regulation in detail in the "response-to-comments" section on pages 26-27 of the 2004 Report. In summary, our evaluation of a few representative agencies found that major rules represented the vast majority of the benefits and costs of all rules promulgated by these agencies and reviewed by OMB.

<sup>16</sup> Note that while the DOT's Hours of Service of Drivers final rule is listed in Table 1-4, the benefits and costs of this rule are not included in the benefit and cost totals for 2008 in Table 1-1. This is because this interim final rule reestablished policies on the maximum time truck drivers were able to drive per day and per week, and the minimum period before which truck drivers could restart the count of their weekly driving time. These policies were put in place through previous rulemakings on the same subject, but were vacated in 2007 by the United States Court of Appeals for the DC Circuit, which held that the Agency had failed to provide an opportunity for public comment on certain aspects of their Regulatory Impact Analysis. Furthermore, the analysis accompanying this interim final rule analyzed the impact of maintaining these policies relative to the disruptive impact of their prompt removal, not relative to previous fully-implemented policies. Since OMB already reported and attributed the benefits and costs of the Hours of Service Regulations to other rulemakings, and those policies were maintained by this interim final rule,

regulations and, where available, provides information on their monetized benefits and costs. We summarize the available information on the non-monetized impacts and provide links to agency's regulatory impact analyses, where available, for these regulations in the "other information" column of Table A-1.

We are able to present monetized benefits and costs for 62 percent (13 of 21) of the rules, and about 92 percent (12 of 13) of the non-homeland security-related rules. The Department of the Interior did not estimate costs for the final rule setting conditions for migratory bird hunting. This rule should be considered deregulatory since hunting would be prohibited without this rule. The costs depend on the value of other recreational alternatives. We do not include those migratory bird hunting rules in the totals in Tables 1-1 through 1-3.

**Table 1-3: Estimates, by Agency, of the Total Annual Benefits and Costs of Major Rules: October 1, 2007 - September 30, 2008 (millions of 2001 dollars)**

Agency	Number of Rules	Benefits	Costs
Department of Energy	1	120-182	33-38
Department of Health and Human Services	1	53-56	45-56
Department of Homeland Security	1	20-29	13-99
Department of Labor	1	40-336	2-20
Department of Transportation*	3	849-949	189-212
Environmental Protection Agency	6	7,475-37,810	7,591-8,780
<b>Total</b>	<b>13</b>	<b>8,558-39,363</b>	<b>7,874-9,203</b>

\*Two DOT rules are included in these totals. See Footnote 16.

**Table 1-4: Estimates of the Total Annual Benefits and Costs of Major Rules Reviewed, October 1, 2007 - September 30, 2008 (millions of 2001 dollars)**

Rule	Agency	Benefits	Costs	Explanation of OMB Calculations
Right Whale Ship Strike Reduction	DOC/ NOAA	Not estimated	105*	We converted agency annual cost estimates to 2001 dollars
Energy Efficiency Standards for Residential Furnaces and Boilers	DOE/ EE	120-182	33-38	We converted agency annual impact estimates to 2001 dollars
Fire Safety Requirements for Long-Term Care Facilities: Sprinkler Systems (CMS-3191-F)	HHS/ CMS	53-56	45-56	We converted agency annual impact estimates to 2001 dollars

we felt that including the benefits and costs of this rulemaking in the 10-year totals would constitute double counting.

<b>Rule</b>	<b>Agency</b>	<b>Benefits</b>	<b>Costs</b>	<b>Explanation of OMB Calculations</b>
Group Health Plans and Health Insurance Issues Under the Newborns and Mothers Health Protection Act	HHS/ CMS, DOL/ EBSA and Treas/ IRS	Not estimated	119-238*	We converted agency annual cost estimates to 2001 dollars
Substances Prohibited from Use in Animal Food or Feed to Prevent the Transmission of Bovine Spongiform Encephalopathy	HHS/ FDA	Not estimated	58-72*	We converted agency annual cost estimates to 2001 dollars
Changes to the Visa Waiver Program to Implement the Electronic System for Travel Authorization (ESTA) Program	DHS/ OS	20-29	13-99	We converted agency annual impact estimates to 2001 dollars
Documents Required for Travelers Entering the United States at Sea and Land Ports-of-Entry from within the Western Hemisphere	DHS/ USCBP	Not estimated	268-284*	We converted agency annual cost estimates to 2001 dollars
Minimum Standards for Driver's Licenses and Identification Cards Acceptable to Federal Agencies for Official Purposes	DHS/ OS	Not estimated	477- 1,331*	We converted agency annual cost estimates to 2001 dollars
Migratory Bird Hunting; 2008 to 2009 Migratory Game Bird Hunting Regulations	DOI/ FWS	711- 1002*	Not estimated	We converted agency annual benefit estimates to 2001 dollars
Section 404 Regulation—Default Investment Alternatives under Participant Directed Individual Account Plans	DOL/ EBSA	Not estimated	Not estimated	
Employer Payment for Personal Protective Equipment	DOL/ OSHA	40-336	2-20	We converted agency annual impact estimates to 2001 dollars
Transport Airplane Fuel Tank Flammability Reduction	DOT/ FAA	21-66	60-67	We converted agency annual impact estimates to 2001 dollars
Hours of Service of Drivers	DOT/ FMCSA	0-1760*	0-105*	We converted agency annual impact estimates to 2001 dollars
Regulatory Relief for Electronically Controlled Pneumatic Brake System Implementation	DOT/ FRA	828-884	130-145	We converted agency annual impact estimates to 2001 dollars
Implementation of a Revised Basel Capital Accord	TREAS/ OCC and TREAS/ OTS	Not estimated	101-797*	We converted agency annual cost estimates to 2001 dollars
Control of Emissions from New Locomotives and New Marine Diesel Engines Less Than 30 Liters per Cylinder	EPA/ AR	4,145- 14,550	295-392	EPA reported estimated impacts in the years of 2020 and 2030. We linearly interpolated the impact for the transition period and annualized at 7 percent and 3 percent from 2007 to 2020, and 2020 to 2030. We converted agency annual impact estimates to 2001 dollars

Rule	Agency	Benefits	Costs	Explanation of OMB Calculations
Control of Emissions from Nonroad Spark-Ignition Engines and Equipment	EPA/ AR	899- 4,762	196-200	EPA reported estimated impacts in the years of 2020 and 2030. We linearly interpolated the impact for the transition period and annualized at 7 percent and 3 percent from 2007 to 2020, and 2020 to 2030. We converted agency annual impact estimates to 2001 dollars
Review of the National Ambient Air Quality Standards for Ozone	EPA/ AR	1,581- 14,934	6,676- 7,730	EPA reported estimate impacts in the year 2020. We converted agency annual impact estimates to 2001 dollars
Petroleum Refineries--New Source Performance Standards (NSPS)	EPA/ AR	176- 1,669	27	EPA reported estimated impact in the year 2012. We converted agency annual impact estimates to 2001 dollars
Lead-Based Paint; Amendments for Renovation, Repair and Painting	EPA/ OPPTS	657- 1,611	383-417	We converted agency annual impact estimates to 2001 dollars
Definition of Solid Wastes Revisions	EPA/ SWER	16-285	14	We converted agency annual impact estimates to 2001 dollars
<b>*Not included in Table 1-3. See footnote 16.</b>				

Table 1-5 presents the available information on the three major homeland security regulations adopted in the past year by the Department of Homeland Security (DHS). The Department of Homeland Security (DHS) estimated the benefits of only one of its three major rules: the final rule modifying the Visa Waiver Program to implement the Electronic System for Travel Authorization (ESTA). The benefits of some homeland security regulations are a function of the likelihood and severity of a hypothetical future terrorist attack; on both issues, judgments are conjectural. For this reason, such benefits are very difficult to forecast, quantify, and monetize. It would be highly desirable to obtain methods to respond to this challenge. In the future, improved methods might consider research in such areas as behavioral economics and complex systems studies; these include ambiguity aversion, prospect theory, instabilities around zero, non-objective probabilities, and nonlinearities. A great deal of research explores “the social amplification of risk,” which signals the fact that certain harms, when they come to fruition, create a large set of additional harms and risks.<sup>17</sup>

Executive Order 12866 requires agencies, to the extent permitted by law, to “propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs.” The Office of Information and Regulatory Affairs works actively with agencies to promote compliance with this requirement. It is noteworthy that for all but one entry in Table 1-4 – Transport Airline Fuel Tank flammability reduction – the benefits exceeded the costs for much or most of the estimated range. The exception was an unusual rule designed to protect against low-probability disasters in the context of air travel. Acknowledging the uncertainties, the Federal Aviation Administration said that “When modeling discrete rare events such as fuel tank explosions, it is important to understand and evaluate the distribution around the mean value rather than to rely only on a single point estimated value. This variability analysis indicates there is a substantial (23 percent) probability that the quantified benefits will be greater than the costs.” The FAA concluded “that the correct public policy choice is to eliminate the substantial

<sup>17</sup> See Pidgeon, et al. (2003).

probability of a high consequence fuel tank explosion accident by proceeding with the final rule.”<sup>18</sup>

**Table 1-5: Estimates of the Total Annual Benefits and Costs of Major Federal Rules: Major Homeland Security Regulations, October 1, 2007-September 30, 2008 (millions of 2001 dollars)**

<b>Rule</b>	<b>Agency</b>	<b>Benefits</b>	<b>Costs</b>
Minimum Standards for Driver’s Licenses and Identification Cards Acceptable to Federal Agencies for Official Purposes	DHS/ OS	DHS stated that the goal of this rulemaking is to improve security and lessen the vulnerability of federal buildings, nuclear facilities, and aircrafts to terrorist attack.	477-1,331
Changes to the Visa Waiver Program to Implement the Electronic System for Travel Authorization (ESTA) Program	DHS/ USCBP	20-29	13-99
Documents Required for Travelers Entering the United States at Sea and Land Ports-of-Entry from within the Western Hemisphere	DHS/ USCBP	DHS was unable to estimate the reduced probability of terrorist attack that will result from this rule. Instead, CBP estimated the critical risk reduction that would have to occur in order for the costs of the rule to equal the benefits—or the “break-even” risk reduction. As calculated, the critical risk reduction required for the rule to break even ranges from 3 percent to 34 percent, depending on the terrorist attack scenario analyzed.	268-284
<b>Total</b>		<b>20-29</b>	<b>759-1,714</b>

When benefits cannot easily be quantified, application of break-even analysis can be useful in particularly challenging analytical situations.<sup>19</sup> Suppose, for example, that the costs of a rule are \$500 million, but that the quantified benefits of a rule are \$300 million, and that the remaining benefits cannot be quantified. It is clear that those benefits would have to equal \$200 million in order for the benefits to justify the costs. An approach of this kind has proved informative in assessing regulations designed to protect against some national security risks.

For the purposes of Table 1-5, we have annualized and converted the cost estimates to 2001 dollars in a manner similar to Table 1-4. Available information on how the agency forecasts that the rule will improve security or otherwise prevent or mitigate the consequences of a terrorist attack is also summarized.

OMB has also compiled the total impact of all major, economically significant homeland

<sup>18</sup> 73 Fed. Reg. 42489 (July 21, 2008).

<sup>19</sup> Willis and LaTourrette (2008).

security rules that have been finalized since the creation of the DHS, and for which agencies have provided monetized costs. Since DHS was created, agencies have finalized 17 major homeland security regulations that impose a total annual cost on the economy of between \$4.2 billion to \$8.6 billion a year.

### ***Rules Implementing or Adjusting Federal Budgetary Programs--“Transfer” Rules***

OMB reviewed 21 economically significant rules that implement or adjust Federal budgetary programs. Of these, three rules were issued by the Department of Agriculture (USDA), two by the Department of Education (ED), 13 by the Department of Health and Human Services (HHS), one by the Department of Interior (DOI), and two by the Social Security Administration (SSA). The budget outlays associated with these rules are “transfers” from taxpayers to program beneficiaries, on behalf of program beneficiaries, or fees collected from program beneficiaries. Therefore, consistent with past Reports, OMB refers to these rules as “transfer” rules.

Although rules that facilitate Federal budget programs are subject to Executive Order 12866 and OMB Circular A-4, and are reviewed by OMB, past Reports have focused primarily on regulations that have effects primarily through private sector mandates. This focus is justified in part on the ground that agencies typically do not estimate the social costs and benefits of transfer rules and instead report their estimated budgetary impacts. The regulatory impact analyses thoroughly analyze the budgetary implications of economically significant rules. Transfer rules often do impose real costs on society to the extent that they cause people to change behavior, either by directly prohibiting or mandating certain activities, or, more often, by altering prices and costs. The costs resulting from these behavior changes are referred to as the “deadweight loss” associated with the transfer. The Regulatory Right-to-Know Act requires OMB to report the social costs and benefits of these rules, and OMB encourages agencies to report these costs and benefits for transfer rules; OMB will consider incorporating these estimates in future Reports. In this Report, the 21 transfer rules and their budgetary impacts are listed in Table 1-6.

**Table 1-6: Agency Rules Implementing or Adjusting Federal Budgetary Programs,  
October 1, 2007 - September 30, 2008<sup>20</sup>**

<b>Rule [FR Cite]</b>	<b>Agency</b>	<b>Estimated Budget Expenditure or Savings</b>	<b>Description</b>
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): Revisions in the WIC Food Packages [72 FR 68965]	USDA/ FNS	\$4.8 million/year (7%), \$5.5 million/year (\$2008, 2008-2012) from State WIC Agencies to Federal Government	These figures represent a reduction in program costs, and in corresponding transfers from FNS to State WIC agencies, of less than 0.1% of the annual WIC budget.  State agencies must develop cash value mechanisms for delivery of fruit and vegetable benefits.
Emergency Agricultural Assistance, 2007 [72 FR 72878]	USDA/ FSA	\$674-702 million/year (7% and 3%, \$2008, 2008) from Federal Government to Producers	The livestock compensation and catfish grant programs will provide compensation payments to producers that have incurred livestock (including catfish) feed losses between January 1, 2005, and February 28, 2007.
Emergency Agricultural Assistance, 2007; Crops and Livestock Indemnity [72 FR 72864]	USDA/ FSA	\$1600-2000 million/year (7% and 3%, \$2008, 2008) from Federal Government to Producers	The programs will provide compensation payments to producers that have incurred livestock feed losses between January 1, 2005 and February 28, 2007.
Federal Perkins Loan Program, Federal Family Education Loan Program, and William D. Ford Federal Direct Loan Program [72 FR 61960]	ED/ OPE	\$2914 million/year (7%), \$2906 million (3%) (\$2008, 2008-2013) from Loan Program Participants to Federal Government	The Federal Perkins Loan Program, Federal Family Education Loan Program, and William D. Ford Federal Direct Loan Program are amended to strengthen and improve the administration of the loan programs authorized under title IV of the Higher Education Act of 1965.
Title IV of the Higher Education Act of 1965, as Amended (TEACH Grant Program) [73 FR 35471]	ED/ OPE	\$16 million/year (7%, 3%) (\$2008, 2008-2012) from Federal Government to Post Secondary Students	The Student Assistance General Provisions, and the regulations for the Teacher Education Assistance for College and Higher (TEACH) Education Grant Program and the Federal Pell Grant Program are amended in response to the Ensuring Continued Access to Student Loans Act of 2008 (Pub. L. 110-227) and the Higher Education Opportunity Act of 2008 (Pub. L. 110-315) (HEOA).

<sup>20</sup> The benefit and cost estimates for these rules should be treated with caution and may not reflect actual amounts transferred due to a variety of reasons, such as other legislation, changes in program participation, changes in market conditions, etc. Prospective impacts are estimated at the time of rulemaking to reflect, in part or whole, requirements for estimating regulatory impacts as described in OMB Circular A-4 for economically significant rules, and are in general different from annual budget accounting practices, which detail current levels of expenditures from these rules. Agencies have used different methodologies and valuations in quantifying and monetizing effects.

<b>Rule [FR Cite]</b>	<b>Agency</b>	<b>Estimated Budget Expenditure or Savings</b>	<b>Description</b>
Changes to the Hospital Inpatient Prospective Payment Systems and FY 2009 Rate (CMS-1390-P) [73 FR 48433]	HHS/ CMS	\$4749 million/year (7%, 3%) (\$2008, 2008-2009) from Federal Government to IPPS Medicare Providers	The \$4.749 billion reflects increased transfers from FY 2008 to FY 2009. Operating payments are estimated to increase by \$4.709 billion. Also included are projected savings associated with the hospital-acquired conditions policy, estimated at \$21 million. In addition, this estimate includes the hospital reporting of quality data program costs (\$2.39 million), estimated new technology payments of \$9.54 million, and all finalized operating payment policies. The increase in capital payments in FY 2009 compared to FY 2008 is expected to be \$40 million. The operating and capital payments should result in a net increase of \$4.749 billion to IPPS providers.
Changes to the Hospital Outpatient Prospective Payment System and Ambulatory Surgical Center Payment System Calendar Year 2008 Payment Rates (CMS-1392-C) [72 FR 66579]	HHS/ CMS	\$3400 million (\$2007, 2008) from Federal Government to OPPS Medicare Providers  \$4635 million (\$2007, 2008) from Federal Government to Medicare Providers	The \$3.4 billion transfer reflects the estimated total increase in expenditures (taking into account not only the market basket update, but also enrollment, utilization, and case-mix changes) under the OPPS for CY 2008 compared to CY 2007. Also, there will be no net change in Medicare expenditures in CY 2008 as a result of implementing the revised ASC payment system and the ASC provisions in the OPPS final rule. The revised system will result in savings of \$220 million over 5 years due to migration of new ASC covered surgical procedures from hospital outpatient departments (HOPDs) and physicians' offices to ASCs over time.  The \$4.635 billion in increased transfers from FY 2007 to FY 2008 reflects an overall increase of 4.3 percent in operating payments, which translates to an estimated increase of \$4.29 billion, including hospital reporting of quality data program costs (\$1.89 million) and all operating payment policies. It also includes a capital payments increase of 1.2 percent per case, yielding an estimated capital payments increase of \$342 million in FY 2008 compared to FY 2007. The operating and capital payments should result in a net increase of \$4.63 billion to IPPS providers.
Elimination of Reimbursement under Medicaid for School-Based Administration Expenditures and Certain Transportation Costs (CMS-2287-F) [72 FR 73635]	HHS/ CMS	\$718 million/year (7%), \$721 million/year (3%) (\$2007, 2009-2013) from Federal Government to State governments	This proposed rule, CMS-2287-P, estimates a total savings of \$3.62 billion for FY 2009-2013. This translates to a yearly savings of \$635 million in FY 2009, \$675 million in FY 2010, \$720 million in FY 2011, \$770 million in FY 2012 and \$820 million in FY 2013.
Health Care-Related Tax Revisions (CMS-2275-F) [73 FR 9685]	HHS/ CMS	\$88 million/year (7%), \$87 million/year (3%) (\$2008, 2012) from State governments and Federal Government	This rule revises the threshold under the indirect guarantee hold harmless arrangement test to reflect the provisions of the Tax Relief and Health Care Act of 2006.

<b>Rule [FR Cite]</b>	<b>Agency</b>	<b>Estimated Budget Expenditure or Savings</b>	<b>Description</b>
Hospice Wage Index for FY 2009 (CMS-1548-P) [73 FR 46463]	HHS/ CMS	\$100 million/year (7%, 3%) (\$2008, 2009) from Hospices to Federal Government	The final rule estimates that the total hospice payments for FY 2009 will decrease by \$100 million as a result of the application of the 25 percent reduction in the budget neutrality adjustment factor (BNAF) and the updated wage data.
Medicare Advantage and Prescription Drug Programs: MIPPA-Related Marketing Revisions (CMS-4138-IFC) [73 FR 54207]	HHS/ CMS	\$838 million/year (7%), \$874 million/year (3%) (\$2008, 2010-2018) from Private-Fee-for-Service Plans to Federal Government  \$71 million/year (7%), \$73 million/year (3%) (\$2008, 2010-2018) from Federal Government to Medicare Part D Sponsors	This rule also will cost \$27 million in 2008 to Medicare Advantage organizations and prescription drug plan sponsors.
Option for Prescription Drug Plans to Lower their Premiums for Low-Income Subsidy Beneficiaries (CMS-4133-F) [73 FR 18176]	HHS/ CMS	\$156 million/year (7%), \$163 million/year (3%) (\$2009, 2018) from Federal Government to Health Plans	The CY 2009 cost of \$90 million is due to increased Federal premium subsidy payments, which are primarily the result of allowing a greater number of low-income beneficiaries to remain in their current plan, rather than reassigning them to a lower cost plan. The federal costs in this table represent FY 2009 through FY 2018.
Policy and Technical Changes to the Medicare Prescription Drug Benefit (CMS-4130-F) [73 FR 20985]	HHS/ CMS	\$39 million/year (7%), \$36 million/year (3%) (\$2008, 2017) from Federal Government to Part D Plan Recipients	The estimate reflects the estimated vaccine administration expenditures by the Federal government to Part D plans for FY 2008- FY 2017.
Prospective Payment System and Consolidated Billing for Skilled Nursing Facilities— Update for FY 2009 (CMS-1534-P) [73 FR 46415]	HHS/ CMS	\$780 million/year (7%, 3%) (\$2008, 2009) from Federal Government to Skilled Nursing Facility (SNF) Medicare Providers	Overall estimated payments for SNFs in FY 2009, compared with FY 2008, reflect an increase of \$780 million dollars. SNFs in urban and rural areas are estimated to experience a positive change of 3.4 percent in estimated payments compared with FY 2008.
Prospective Payment System for Long-Term Care Hospitals RY 2009: Annual Payment Rate Updates (CMS-1393-F) [73 FR 26787]	HHS/ CMS	\$110 million/year (7%, 3%) (\$2009, 2009) from Federal Government to LTCH Medicare Providers	This final rule estimates \$110 million in increased LTCH PPS payment transfers from RY 2008 to RY 2009. This reflects an overall increase of 2.5 percent (from RY 2008 to RY 2009) and is based on the most recent available LTCH data and the finalized policies, rates and factors presented in the RY 2009 final rule.
Revisions to Payment Policies under the Physician Fee Schedule, and Other Part B Payment Policies CY 2008; Revisions to the Payment Policies of Ambulance Fee Schedule CY 2008 [72 FR 66221]	HHS/ CMS	Transfer amount: \$6000 million (3%, 7%) (\$2007, 2008)  Physicians to Federal Government	The changes reflect an estimated decrease in expenditures of \$6.0 billion from physicians, other practitioners, and suppliers who receive payment under the Medicare Physician Fee Schedule : ESRD Medicare Providers : ambulance suppliers, DME suppliers, and Medicare suppliers billing for Part B drugs to Federal Government.

<b>Rule [FR Cite]</b>	<b>Agency</b>	<b>Estimated Budget Expenditure or Savings</b>	<b>Description</b>
Standards for E-Prescribing under Medicare Part D (CMS-0016-F) [73 FR 18918]	HHS/ CMS	Not Estimated	This rule requires Medicare Part D and Medicare Advantage plans to support electronic transmission of basic prescription data to and from doctors and pharmacies.
Targeted Case Management (CMS-2237-IFC)	HHS/ CMS	\$251 million/year (7%), \$253 million/year (3%) (\$2007, 2008-2012) from State governments to Federal government	CMS estimates Federal Medicaid spending on case management and targeted case management services will be reduced by approximately \$205 million in FY 2008, \$228 in FY 2009, \$253 million in FY 2010, \$279 million in FY 2011 and \$307 million in 2012. This yields a total estimated figure of \$1,272 million between FY 2008 and FY 2012.
Reduction in Oil and Gas Royalty Rates in the Outer Continental Shelf under the Deep Water Royalty Relief Act [73 FR 58467]	DOI/ MMS	\$20 - 189 million/year (7%), \$17-192 million/year (3%) (\$2007, 2007-2034) from Federal government to Oil industry	This policy is required by court order. No added deepwater development is expected to occur due to royalty relief authorized by this rule.
Amendments to the Ticket to Work and Self-Sufficiency Program (967F)	SSA	\$99 million/year (7%), \$103 million/year (3%) (\$2008, 2008-2012) from Federal Government to Social Security beneficiaries	The rules expands beneficiary eligibility to receive tickets under this program in order to increase the incentives for providers of employment services, vocational rehabilitation services, and other support services to participate in this program.
Proposed Suspension of New Claims to the Federal Reviewing Official Review Level (3394F)	SSA	\$70 million/year (7%), \$74 million/year (3%) (\$2008, 2008-2012) from SSA beneficiaries to Federal Government	The rule modifies the disability administrative adjudication processes to suspend new claims to the Federal reviewing official (FedRO) level, now operating in the Boston region.

### ***Major Rules Issued by Independent Regulatory Agencies***

The Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA)<sup>21</sup> requires the Government Accountability Office (GAO) to submit to Congress reports on major rules, including rules issued by agencies not subject to Executive Order 12866 — the independent regulatory agencies. In preparing this Report, we reviewed the information contained in GAO reports on benefits and costs of major rules issued by independent agencies for the period of October 1, 2007 to September 30, 2008. GAO reported that four agencies issued a total of 11 major rules during this period.

Table 1-7 lists each of these rules and the extent to which GAO reported benefit and cost estimates for the rule. Monetized benefits and costs were reported for only one of these rules; monetized costs alone were reported for two rules. FCC did not prepare benefit-cost analysis for

<sup>21</sup> Pub. L. No. 104-121.

their rules. NRC assessed costs for the “Occupational Dose Records, Labeling Containers, and the Total Effective Dose Equivalent” rule. SEC provided qualitative information on costs. OMB does not know whether the rigor of the analyses conducted by these agencies is similar to that of the analyses performed by agencies subject to OMB review. For purposes of obtaining a full accounting, it would be highly desirable to obtain better information on the costs and benefits of these rules.

OMB provides in Appendix C of this Report a summary of the information available on the regulatory analyses for major rules by the independent agencies over the past ten years. This summary is similar to the ten-year look-back for regulation included in recent Reports. It examines the number of major rules promulgated by independent agencies as reported to the GAO from 1999 through 2008, which are presented in Table C-1.<sup>22</sup> Information is also presented on the extent to which the independent agencies reported benefit and cost information for these rules in Tables C-2 through C-4.

**Table 1-7: Major Rules Issued by Independent Regulatory Agencies, October 1, 2007 - September 30, 2008**

Agency	Rule	Information on Benefits or Costs	Monetized Benefits	Monetized Costs
Federal Communications Commission	Exclusive Service Contracts for Provision of Video Services in Multiple Dwelling Units and Other Real Estate Developments (73 FR 1080)	No	No	No
Federal Communications Commission	Wireless E911 Location Accuracy Requirements (73 FR 8617)	No	No	No
Federal Communications Commission	In the Matter of Promoting Diversification of Ownership in the Broadcasting Services (73 FR 28361)	No	No	No
Federal Communications Commission	Public Safety and Homeland Security Bureau Establishes Post-Reconfiguration 800 MHz Band Plan for the US-Canada Border Regions (73 FR 33728)	No	No	No
Federal Energy Regulatory Commission	Mandatory Reliability Standards for Critical Infrastructure Protection (73 FR 7368)	Yes	No	Yes
Nuclear Regulatory Commission	Occupational Dose Records, Labeling Containers, and the Total Effective Dose Equivalent (72 FR 68043)	Yes	Yes	Yes
Nuclear Regulatory Commission	Revision of Fee Schedules; Fee Recovery for FY 2008 (73 FR 32386)	Yes	No	Yes

<sup>22</sup> OMB did not finalize a Report in 1999; OMB reconstructed the estimates for this period based on GAO reports. Prior to the 2003 Report, OMB did not report on independent agency major rules on a fiscal year basis, but rather on an April-March cycle. Similar to last year, OMB is reporting all of the rules from 1999 through 2008 on a fiscal year basis (see Table C-1). The number of rules presented in earlier Reports may therefore not match the number of rules presented here.

Agency	Rule	Information on Benefits or Costs	Monetized Benefits	Monetized Costs
Securities and Exchange Commission	Revisions to Rules 144 and 145 (72 FR 71546)	Yes	No	No
Securities and Exchange Commission	Acceptance from Foreign Private Issuers of Financial Statements Prepared in Accordance with International Financial Reporting Standards without Reconciliation to US GAAP (73 FR 986)	Yes	No	No
Securities and Exchange Commission	Definition of Eligible Portfolio Company under the Investment Company Act of 1940 (73 FR 29045)	Yes	No	No
Securities and Exchange Commission	Internal Control over Financial Reporting in Exchange Act Periodic Reports of Non-Accelerated Filers (73 FR 38094)	Yes	No	No

### C. The Impact of Federal Regulation on State, Local, and Tribal Governments, Small Business, Wages, and Economic Growth

Sec. 624 (a)(2) of the Regulatory Right-to-Know Act requires OMB to present an analysis of the impacts of Federal regulation on State, local, and tribal governments, small business, wages, and economic growth.

#### *Impacts on State, Local, and Tribal Governments*

Over the past ten years, seven rules have imposed costs of more than \$100 million per year (\$2001) on State, local, and tribal governments (and thus have been classified as public sector mandates under the Unfunded Mandates Reform Act of 1995).<sup>23</sup>

- *EPA’s National Primary Drinking Water Regulations: Disinfectants and Disinfection Byproducts (1998)*: This rule promulgates health-based maximum contaminant level goals (MCLGs) and enforceable maximum contaminant levels (MCLs) for about a dozen disinfectants and byproducts that result from the interaction of these disinfectants with organic compounds in drinking water. The rule will require additional treatment at about 14,000 of the estimated 75,000 covered water systems nationwide. The costs of the rule are estimated in the range of \$650 to \$730 million annually. The quantified benefits estimates range from zero to 9,300 avoided bladder cancer cases annually, with an estimated monetized value of \$0 to \$4 billion per year. Qualitative benefits may include

<sup>23</sup>We note that EPA’s proposed rules setting air quality standards for ozone and particulate matter may ultimately lead to expenditures by State, local, or tribal governments of \$100 million or more. However, Title II of the Unfunded Mandates Reform Act provides that agency statements of compliance with Section 202 must be conducted “unless otherwise prohibited by law.” 2 U.S.C. § 1532 (a). The conference report to this legislation indicates that this language means that the section “does not require the preparation of any estimate or analysis if the agency is prohibited by law from considering the estimate or analysis in adopting the rule.” H.R. Conf. Rep. No. 104-76 at 39 (1995). EPA has stated, and the courts have affirmed, that under the Clean Air Act, the criteria air pollutant ambient air quality standards are health-based and EPA is not to consider costs in setting the standards.

possible reductions in rectal and colon cancer and adverse reproductive and developmental effects.

- *EPA's National Primary Drinking Water Regulations: Interim Enhanced Surface Water Treatment* (1998): This rule establishes new treatment and monitoring requirements (primarily related to filtration) for drinking water systems that use surface water as their source and serve more than 10,000 people. The purpose of the rule is to enhance health protection against potentially harmful microbial contaminants. EPA estimates that the rule will impose total annual costs of slightly more than \$300 million per year. The rule is expected to require treatment changes at about half of the 1,400 large surface water systems, at an annual cost of \$190 million. Monitoring requirements add \$96 million per year in additional costs. All systems will also have to perform enhanced monitoring of filter performance. The estimated benefits include average reductions of 110,000 to 338,000 cases of cryptosporidiosis annually, with an estimated monetized value of \$0.5 billion to \$1.6 billion, and possible reductions in the incidence of other waterborne diseases.
- *EPA's National Pollutant Discharge Elimination: System B Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges* (1999): This rule expands the existing National Pollutant Discharge Elimination System program for storm water control. It covers smaller municipal storm sewer systems and construction sites that disturb one to five acres. The rule allows for the exclusion of certain sources from the program based on a demonstration of the lack of impact on water quality. EPA estimates that the total cost of the rule on Federal and State levels of government and on the private sector is \$803.1 million annually. EPA has considered alternatives to the rule, including the option of not regulating, but found that the rule was the option that was “most cost effective or least burdensome, but also protective of the water quality.”
- *EPA's National Primary Drinking Water Regulations; Arsenic and Clarifications to Compliance and New Source Contaminants Monitoring* (2001): This rule reduces the amount of arsenic that is allowed to be in drinking water from 50 ppb to 10 ppb. It also revises current monitoring requirements and requires non-transient, non-community water systems to come into compliance with the standard. This rule may affect either State, local or tribal governments or the private sector at an approximate annualized cost of \$206 million. The monetized benefits of the rule range from \$140 million to \$198 million per year. Qualitative benefits may include reductions in skin and kidney cancer where the skin cancer endpoints are well-established.
- *EPA's National Primary Drinking Water Regulations: Long Term 2 Enhanced Surface Water Treatment* (2005): The rule protects against illness due to cryptosporidium and other microbial pathogens in drinking water and addresses risk-risk trade-offs with the control of disinfection byproducts. It requires the use of treatment techniques, along with monitoring, reporting, and public notification requirements, for all public water systems that use surface water sources. The monetized benefits of the rule range from approximately \$260 million to \$1.8 billion. The monetized costs of the rule range from approximately \$80 million to \$130 million.

- *EPA's National Primary Drinking Water Regulations: Stage 2 Disinfection Byproducts Rule* (2006): The rule protects against illness due to drinking water disinfectants and disinfection byproducts (DBPs).<sup>24</sup> The rule effectively tightens the existing standards by making them applicable to each point in the drinking water distribution system individually, rather than only on an average basis to the system as a whole. EPA has determined that this rule may contain a Federal mandate that results in expenditures by State, local, and tribal governments, and the private sector, of \$100 million or more in any one year. While the annualized costs fall below the \$100 million threshold, the costs in some future years may be above the \$100 million mark as public drinking water systems make capital investments and finance these through bonds, loans, and other means. EPA's year-by-year cost tables do not reflect that investments through bonds, loans, and other means spread these costs out over many years. The cost analysis in general does not consider that some systems may be eligible for financial assistance such as low-interest loans and grants through such programs as the Drinking Water State Revolving Fund.
- *DHS's Chemical Facility Anti-Terrorism Standards Rule* (2007): This rule establishes risk-based performance standards for the security of our nation's chemical facilities. It requires covered chemical facilities to prepare Security Vulnerability Assessments (SVAs), which identify facility security vulnerabilities, and to develop and implement Site Security Plans (SSPs), which include measures that satisfy the identified risk-based performance standards. The rule also provides DHS with the authority to seek compliance through the issuance of Orders, including Orders Assessing Civil Penalty and Orders for the Cessation of Operations. DHS has determined that this rule constitutes an unfunded mandate on the private sector. In the regulatory impact assessment published with this rule, DHS estimates that there are 1,500 to 6,500 covered chemical facilities. DHS also assumes that this rule may require certain municipalities that own and/or operate power generating facilities to purchase security enhancements. Although DHS is unable to determine if this rule will impose an enforceable duty upon State, local, and tribal governments of \$100 million (adjusted annually for inflation) or more in any one year, it has been included in this list for the sake of completeness.

Although these seven rules were the only ones over the past ten years to require expenditures by State, local and tribal governments exceeding \$100 million (adjusted for inflation), they were not the only rules with impacts on other levels of governments. For example, many rules have monetary impacts lower than the \$100 million threshold, and agencies are also required to consider the Federalism implications of rulemakings under Executive Order 13132.

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<sup>24</sup> While causal links have not been definitively established, a growing body of evidence has found associations between exposure to DBPs and various forms of cancer, as well as several adverse reproductive endpoints (e.g., spontaneous abortion).

## *Impact on Small Business*

Consistent with the direction in the Regulatory Right-to-Know Act to consider small business impacts, the need to be sensitive to the impact of regulations and paperwork on small business is recognized in Executive Order 12866, “Regulatory Planning and Review.” The Executive Order calls on the agencies to tailor their regulations by business size in order to impose the least burden on society, consistent with achieving regulatory objectives. It also calls for the development of short forms and other efficient regulatory approaches for small businesses and other entities. Moreover, in the findings section of SBREFA, Congress states that “... small businesses bear a disproportionate share of regulatory costs and burdens.”<sup>25</sup> Each firm has to determine whether a regulation applies, how to comply, and whether it is in compliance. As firms increase in size, fixed costs of regulatory compliance are spread over a larger revenue and employee base, which often results in lower regulatory costs per unit of output.

Many statutes and regulations explicitly attempt to reduce the burdens on small businesses. For example, many agencies tailor regulations to mitigate undue burdens on small business and to offer regulatory relief, including exemptions for small businesses and slower phase-in schedules. Moreover, agencies are required to assess the effect of regulations on small businesses under the Regulatory Flexibility Act (RFA).<sup>26</sup> Under the RFA, whenever an agency comes to the conclusion that a particular regulation will have a significant economic effect on a substantial number of small entities, the agency must conduct both an initial and final regulatory flexibility analysis. This analysis must include an assessment of the likely burden of the rule on small entities and an analysis of alternatives that may afford relief to small entities while still accomplishing the regulatory goals.

The evidence of the effects of regulation on small business remains far from clear. We have cited in previous Reports research by the Small Business Administration (SBA) Office of Advocacy, suggesting that small entities disproportionately shoulder regulatory and paperwork burdens. The Office of Advocacy has sponsored three studies that estimate the burden of regulation on small businesses.<sup>27</sup> In a study sponsored by SBA (and cited in our 2003 Report), Dean, et al, concludes that environmental regulations act as barriers to entry for small firms.<sup>28</sup> In a more recent study, published in 2005, Crain finds that regulatory costs per employee decline as firm size—as measured by the number of employees per firm—increases. Crain find that the total cost of Federal regulation (environmental, workplace, economic, and tax compliance regulation) is 45 percent greater per employee for firms with fewer than 20 employees than for firms with over 500 employees.

Becker offers a more complex view, focusing on the effect of air pollution regulation on small business.<sup>29</sup> He finds although “progressively larger facilities had progressively higher unit abatement costs, *ceteris paribus*,”<sup>30</sup> the relationship between the firm size and the pollution abatement costs vary depending on the regulated pollutant. For troposphere ozone, the

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<sup>25</sup> Section 202(2) of Pub. L. No. 104-121.

<sup>26</sup> 5 U.S.C. §§ 601-612.

<sup>27</sup> Crain (2005). The other two reports are Hopkins (1995) and Crain and Hopkins (1999).

<sup>28</sup> Dean, et al. (2000).

<sup>29</sup> Becker (2005).

<sup>30</sup> *Ibid.*, p. 163.

regulatory burden seems to fall substantially on the smallest three quartiles of plants. For SO<sub>x</sub>, the relationship between regulatory burden and the firm size seems to be U-shaped. For total suspended particles, new multi-unit emitting plants in the smallest size class had \$265 more capital expenditure (per \$10,000 of value added) in non-attainment counties than similar plants in attainment counties, while those in the larger size classes had an additional \$511-687 in expenditure...though the rise was not monotonic.”<sup>31</sup> The evidence in the literature is therefore mixed. OMB continues to investigate the relevant questions in order to obtain a more precise picture.

### *Impact on Wages*

The impact of Federal regulations on wages depends on how “wages” are defined and on the types of regulations involved. Generalizations are difficult, because a great deal depends on the nature of the relevant market. If “wages” are defined narrowly as workers’ take-home pay, regulations that are designed to increase worker safety, for example, may well decrease average wage rates, while regulations that are designed to set prices or conditions of entry for specific sectors, may well increase them, especially for specific groups of workers. If “wages” are not restricted to take-home pay, and are defined more broadly as the real value or utility of workers’ income, the directions of the effects of the two types of regulation can be reversed. A regulation that increases safety may make workers better off even if it decreases wages. OMB continues to evaluate this question, and the discussion here is preliminary.

#### *1. “Social” Regulation*

“Social” regulation—defined as rules designed to improve health, safety, and the environment—creates benefits for workers, consumers, and the public. When compliance costs are imposed (even if lower than the ex ante estimates), they must be paid for by some combination of workers, business owners, and consumers through adjustments in wages, profits, and/or prices. This effect is most clearly recognized for occupational health and safety standards, where it is possible that expensive regulations will result in reductions in wages.

In the case of occupational health standards case, workers are likely to be better off if health benefits exceed any associated wage reductions. The costs of such standards may not be borne fully or even primarily by workers.<sup>32</sup> And even if wages are reduced in response to the cost of compliance with health and safety rules, the job safety and other benefits of such regulation may compensate for the monetary loss. Workers, as consumers benefiting from safer products and a cleaner environment, may also come out ahead if regulation produces significant net benefits for society and hence for them.<sup>33</sup>

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<sup>31</sup> *Ibid.*, p. 165.

<sup>32</sup>Based on a cost benefit analysis of OSHA’s 1972 Asbestos regulation, which found large net benefits, Ehrenberg and Smith (1991, p. 281) cite this regulation as a case where workers’ wages were reduced, but they were made better off because of improved health.

<sup>33</sup> A conventional neoclassical economics viewpoint may suggest that “whether in the form of smaller wage increases, more difficult working conditions, or inability to obtain or retain one’s first choice in a job, the costs of

## 2. Economic Regulation

For economic regulation, defined as rules designed to set prices or conditions of entry for specific sectors, the effects on wages may be positive or negative.<sup>34</sup> Economic regulation can be used to protect industries and their workers from competition, resulting in increases in income (narrowly defined) for workers in the industries targeted by the regulation. These wage gains come at the cost of inefficiency from reduced competition, a cost that consumers must bear. Workers' wages do not go as far when, as consumers, they face higher prices for goods that are inefficiently produced. Moreover, growth in real wages, which are limited generally by productivity increases, will not grow as fast without the stimulation of outside competition.<sup>35</sup>

These statements are generalizations of the impact of regulation in the aggregate or by broad categories. Specific regulations can increase or decrease the overall level of benefits accruing to workers depending upon the actual circumstances and whether net benefits are produced.

### *Economic Growth and Related Macroeconomic Indicators*

The relationship between regulation and indicators of economic activity raises a number of complex questions, conceptual, empirical, and normative. A key issue involves identification of the appropriate measures. For example, is GDP the appropriate measure? As we have seen, many regulations have favorable net benefits, and by hypothesis, such regulations are desirable on standard economic grounds. Of course it would be useful to understand the effects on GDP of particular regulations and of classes of regulations. But while important, GDP is hardly a complete measure of relevant values,<sup>36</sup> and some of the benefits of regulation, such as environmental protection, are not adequately captured by changes in GDP.

We conducted for this Report a preliminary literature review of studies that looked at the relationship between air quality regulation, the highest benefit and cost regulations documented in this Report, with certain indicators of economic activity in the US. Berman and Bui (2001) provide helpful summaries. The reader should note that these studies are retrospective, whereas most regulatory impact analyses are prospective. And as noted, many environmental and safety regulations affect provision of non-market goods that are not explicitly reflected in standard measures of economic activity.

- Berman and Bui (2001) find that during a period of aggressive environmental

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compliance with health standards will fall on employees." Ehrenberg and Smith (1991). Summers (1989) offers a more nuanced discussion where the type of government intervention will affect not only the efficiency implications thereof but incidence implications as well. This analysis is extended by Jolls (2000).

<sup>34</sup> Historical examples of economic regulation were the Federal regulations on the airline and trucking industries before these markets were deregulated.

<sup>35</sup> Winston (1998) estimates that real operating costs declined 25 to 75 percent in the years following deregulation in the transportation, energy, and telecommunications sectors.

<sup>36</sup> See Sen (1999a, 1999b), Krueger (2009) and Kahneman, et al. (2004).

- regulation, productivity increased among the petroleum refineries located in the Los Angeles from 1987 to 1992, suggesting that “[a]batement costs may severely overstate the true cost of environmental regulation” and that “abatement costs are sometimes productive.”<sup>37</sup>
- Gray (1987) found that between the 1959-1969 period and 1973-1978 period, OSHA and EPA regulation reduced productivity growth in the manufacturing sector by 0.44 percentage points per year, with OSHA having the strongest effect and EPA having a comparatively weak effect.<sup>38</sup>
  - Gray and Shadbegian (1998) examine the investment activity of paper mills from 1979 to 1990,<sup>39</sup> and their findings suggest that “plants with relatively high pollution abatement capital expenditures over the period invest less in productive capital. The reduction in productive investment is greater than the increase in abatement investment, leading to lower total investment at high abatement cost plants. The magnitude of this impact is quite large, suggesting that a dollar of pollution abatement investment reduces productive investment by \$1.88 at that plant. This seems to reflect both environmental investment crowding out productive investment within a plant, and firms shifting investment towards plants facing less stringent abatement requirements. Estimates placing less weight on within-firm reallocation of investment indicate approximate dollar-for-dollar (\$0.99) crowding out of productive investment.”<sup>40</sup>
  - Becker and Henderson (2000)<sup>41</sup> find that in response to ground-level ozone regulation in polluting industries “birth [of plants] fall dramatically in nonattainment counties, compared to attainment counties... This shift in birth patterns induces a reallocation of stocks of plants toward attainment areas. Depending on the interpretation of reduced-form coefficients, net present value for a typical new plant in a nonattainment area could fall by 13-22 percent.”<sup>42</sup>
  - Greenstone (2002)<sup>43</sup> finds that “in the first 15 years after the [Clean Air Act Amendments] became law (1972-1987, nonattainment counties (relative to attainment ones) lost approximately 590,000 jobs, \$37 billion in capital stock and \$75 billion (1987 dollars) of output in polluting industries.”<sup>44</sup>
  - List, et al. (2003), examined the effects of air quality regulation stringency and location decisions of new plants in New York State from 1980 to 1990, and found that regulatory stringency and the decision to locate is negatively correlated, and the current parametric estimates of this negative correlation may be understated.<sup>45</sup>

These studies provide helpful information, but it is partial and incomplete. OMB continues to investigate the underlying questions, on which no clear consensus has emerged.

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<sup>37</sup> Berman and Bui (2001).

<sup>38</sup> Gray (1987).

<sup>39</sup> Gray and Shadbegian (1998).

<sup>40</sup> *Ibid*, p. 254-255.

<sup>41</sup> Becker and Henderson (2000).

<sup>42</sup> *Ibid*, pp. 414-415.

<sup>43</sup> Greenstone (2002).

<sup>44</sup> *Ibid*, p. 1213.

<sup>45</sup> List, et al. (2003).

The Environmental Kuznets Curve literature asks a different set of questions. Grossman and Krueger (1995)<sup>46</sup> state that:

[W]hile increases in GDP may be associated with worsening environmental conditions in very poor countries, air and water quality appear to benefit from economic growth once some critical level of income has been reached. The turning points in these inverted U-shaped relationships vary for the different pollutants, but in almost every case they occur at an income of less than \$8,000 (1985 dollars). For a country with an income of \$10,000, the hypothesis that further growth will be associated with deterioration of environmental conditions can be rejected at the 5 percent level of significance for many of our pollution measures.<sup>47</sup>

Millimet, List and Stengos (2003) examined state-by-state variations in the US rather than country-by-country comparisons, and still found the inverted-U shape.<sup>48</sup> In fact they suggest that the estimates found in other studies may be conservative in that the income level in which the environmental improvements occur may be lower. On the other hand, there is continuing controversy over the basic claim. Harbaugh, Levinson, and Wilson (2002)<sup>49</sup> find that the Grossman and Krueger (1995) results are sensitive both “to slight variations in the data and to reasonable permutations to the econometric specifications.”<sup>50</sup> Stern (2004) finds that “the statistical analysis on which the environmental Kuznets curve is based is not robust” and urges that the results have a weak foundation.<sup>51</sup>

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<sup>46</sup> Grossman and Krueger (1995).

<sup>47</sup> *Ibid*, pp. 370-371.

<sup>48</sup> Millimet, et al. (2003).

<sup>49</sup> Harbaugh, et al. (2002).

<sup>50</sup> *Ibid*, p. 541.

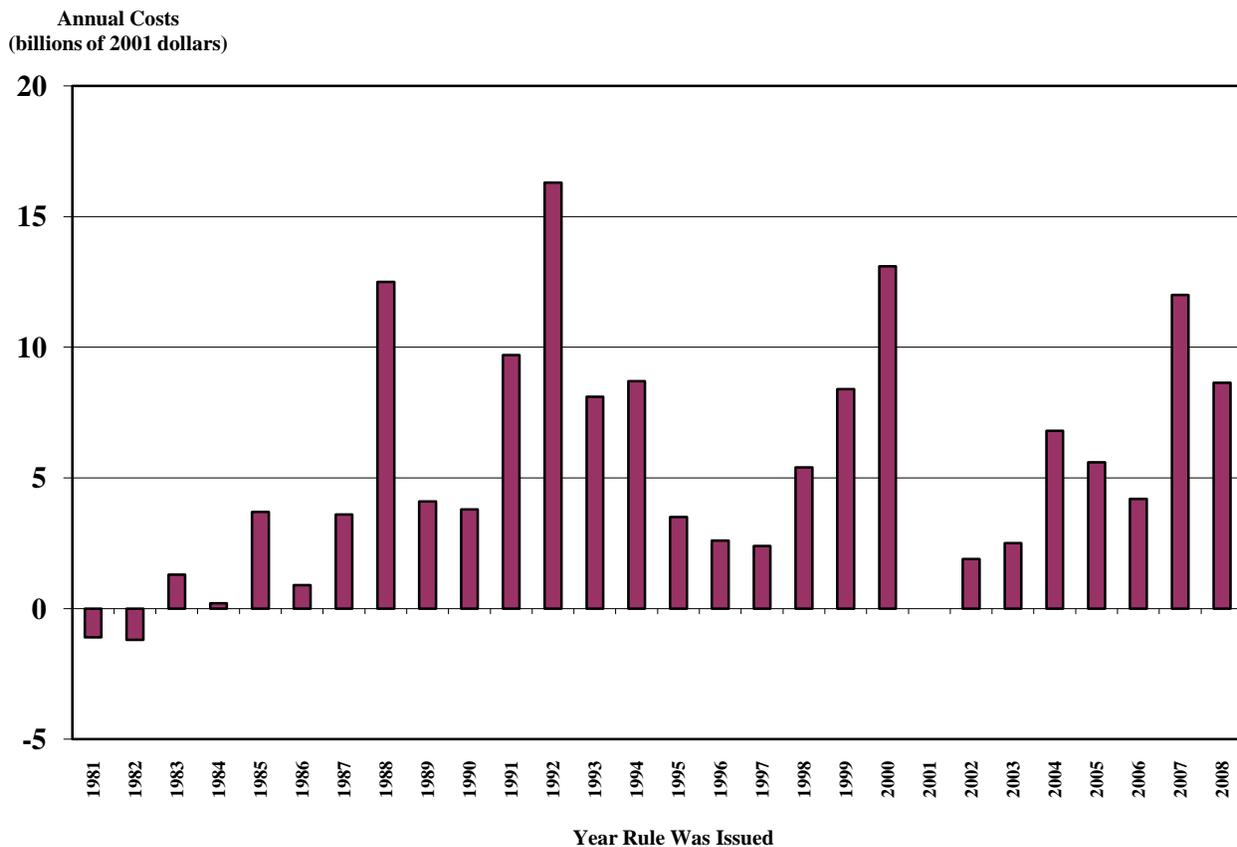
<sup>51</sup> Stern, et al. (2004).

## CHAPTER II: TRENDS IN BENEFIT AND COST ESTIMATES

Since OMB began to compile records in 1981 through the end of fiscal year 2008, Federal agencies have published 129,481 final rules in the *Federal Register*. Of these final rules, 21,741 have been reviewed by OMB under Executive Order 12866 or its predecessor, Executive Order 12291. Of these OMB-reviewed rules, 1,277 are considered major rules, primarily due to their anticipated impact on the economy (i.e., estimated benefits and/or costs were in excess of \$100 million in at least one year). As discussed in Chapter I, many major rules implement budgetary programs and involve transfers from taxpayers to program beneficiaries. Since 1981, OMB has reviewed 300 major rules with estimated benefits and/or costs to the private sector or State and local governments of over \$100 million annually.

Figure 2-1 presents estimates of the costs of major rules from January 20, 1981 through September 30, 2008. Over the last 28 years, \$148 billion of annual regulatory costs (2001 dollars) have been added by the major regulations issued by the Executive Branch agencies and reviewed by OMB. This means that, on average, over \$5 billion in annual costs have been added each year over this period.

**Figure 2-1: Annual Costs of Major Rules (1981-2008)**



While exploring the impact of rulemaking on the economy in the early 1980s, we found

that several important deregulatory actions resulted in a net decrease in compliance costs. The net cost savings generated by these regulations are included as “negative costs” for those years. To be consistent, we have also modified our estimates for later years to include regulatory actions that reduced net costs. In 2004, the Department of Transportation (DOT) issued two regulations that resulted in net cost savings: one rule reduced minimum vertical separation for airspace and the second increased competition in the computer reservation system for airline travel. Another important change is the inclusion of DOT’s 1993 air bag rule, which had been left out of our calculations in 1993 because Congress had mandated the rule.<sup>52</sup> We have made this change to be consistent with OMB Circular A-4, Regulatory Analysis, issued in September 2003. OMB Circular A-4 states that in situations where a rule simply restates statutory requirements, incremental benefits and costs should be measured relative to the pre-statute baseline.

Finally, EPA adopted significantly more stringent National Ambient Air Quality Standards (NAAQS) for ozone and fine particulate matter (PM) in 1997. At that time, EPA has estimated that the actions necessary to meet the revised standards would yield benefits ranging from \$20 billion to \$120 billion per year, and would impose costs of \$10 billion to \$22 billion per year. In the five years following the promulgation of the 1997 ozone and fine PM NAAQS, EPA finalized several key implementing rules that will achieve emission reductions and impose costs that account for a major portion of the benefit and cost estimates associated with the NAAQS rules. Thus, to prevent double-counting, our 2002 Report notes that in developing aggregate estimates of regulatory benefits and costs, estimates for the 1997 revisions of the ozone and fine PM NAAQS would be excluded, and estimates associated with the several “implementing” rules promulgated in subsequent years would be used instead. Although the pattern of benefits and costs of the rules presented below is affected by the decision to focus on the implementing rules, we believe these benefit and cost estimates provide a better measure of the actual impacts and the timing of those impacts. However, we do include the benefit and cost estimates for the National Ambient Air Quality Standards (NAAQS) for ozone in 2008 because the implementing regulations are not in place yet.

Figure 2-2 shows the benefits and costs of 159 major rules issued from October 1, 1992, to September 30, 2008, for which reasonably complete monetized estimates of both benefits and costs are available.<sup>53</sup> Benefit estimates for the rules (with three noted exceptions)<sup>54</sup> that comprise the overall estimates are presented in various tables in the 12 annual Reports that OMB has completed (including this Report). Note that the four highest years for benefits (1992, 2004, 2005, and 2007) are mostly explained by four EPA regulations: the 1992 acid rain permits regulation, the 2004 non-road diesel engine rule, the 2005 interstate air quality rule, and the clean

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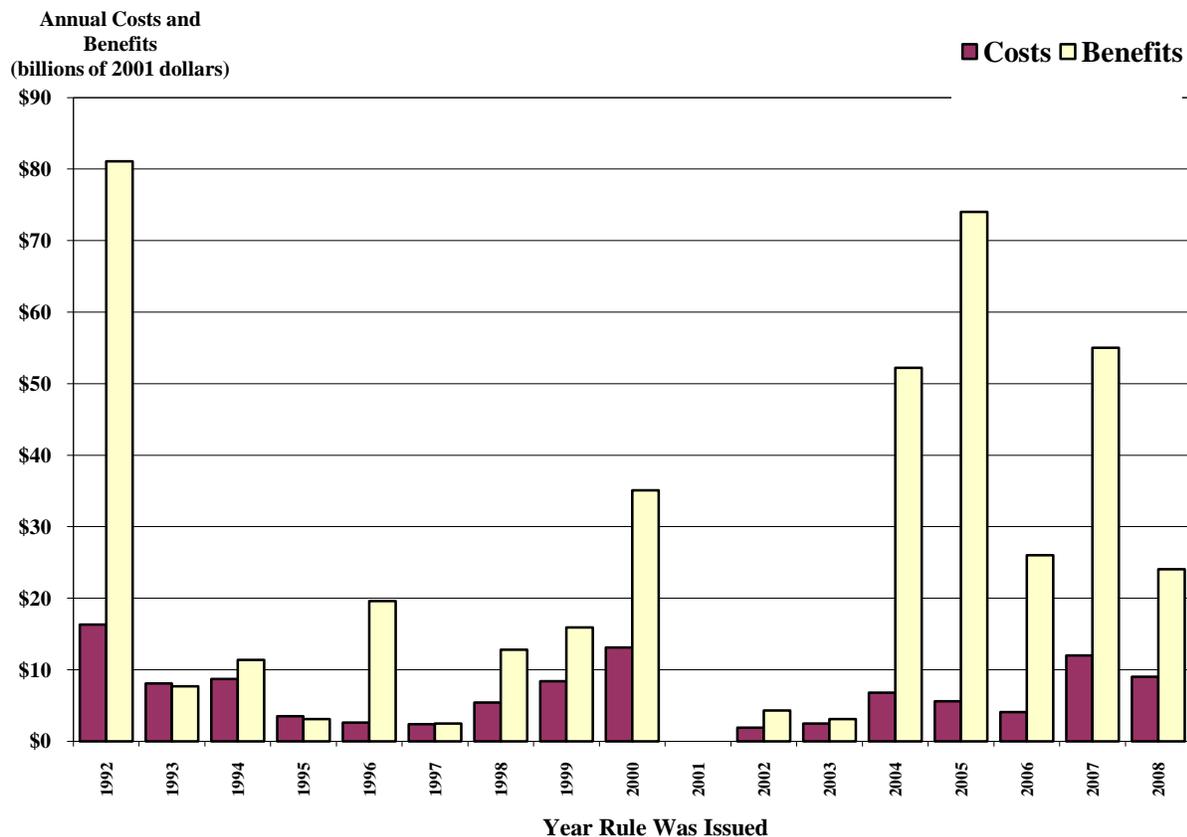
<sup>52</sup>Our estimate of \$4 billion in annual benefits and \$3 billion in annual costs reflects the assumption that without the rule, 50 percent of the benefits and costs of airbags would have been provided by the market.

<sup>53</sup>To present benefits and cost estimates by year, we generally used agency estimates of central tendency when available and took midpoints when not available. OMB does not have benefits estimates for years prior to 1992. We include the estimated costs of the 2005 Department of Homeland Security’s air cargo security requirements rule in Table 2-1, but not in net benefits estimates for lack of quantifiable benefits attributable to this rule. Similarly, we include benefits for the 2005 migratory bird rules, but not the costs.

<sup>54</sup>The exceptions, as discussed above, are DOT’s 1993 airbag rule and 2008 hours of service rule (see Footnote 17 and Tables 1-3 and 1-4), and DHS’s 2005 air cargo security requirements rule.

air fine particulate implementation rule.<sup>55</sup>

**Figure 2-2: Annual Benefits and Costs of Major Rules (1992-2008)**



The difference between benefit and cost shows the net benefits of major regulations from 1992 through September 2008. The figure does not show data beyond 1992 because of a lack of comparable data on benefits.

The estimates we report here are prospective estimates made by agencies during the rulemaking process. It is possible that retrospective studies will show (as they sometimes have) that the costs and benefits were either overestimated or underestimated. As discussed elsewhere in this Report (see Appendix A) as well as previous Reports, the aggregate estimates of benefits and costs derived from different agency's estimates and over different time periods are subject to methodological inconsistencies and differing assumptions. In addition, the groundwork for the regulations issued by one administration is often begun in a previous administration.<sup>56</sup>

<sup>55</sup> This chart does include the impacts of EPA's 2005 Clean Air Interstate Rule. On July 11, 2008, the DC Circuit Court vacated the rule; however, in response to EPA's petition, the Court on December 23, 2008, remanded the rule without vacatur, which keeps this rule in effect while EPA conducts further proceedings consistent with the Court's July 11 opinion.

<sup>56</sup>For example, FDA's trans fat rule was proposed by the Clinton administration and issued by the Bush Administration while the groundwork for EPA's 2004 non-road diesel engine rule was set by the NAAQS rules issued in 1997. Moreover, Congress and the Judiciary also play a role in the timing and outcomes of regulations.

### CHAPTER III: RECOMMENDATIONS FOR REFORM

The Regulatory Right-to-Know Act charges OMB with making “recommendations for reform” in this annual Report.<sup>57</sup> OMB’s focus in this year’s Report is on potential reforms that might improve regulatory policy and analysis in three different ways. First, OMB recommends consideration of behaviorally informed approaches to regulation. Such approaches, rooted in several decades of work in social science, can serve to improve rules by incorporating insights that come from relaxing assumptions usually invoked in neoclassical economic theory.<sup>58</sup> With an accurate understanding of human behavior, agencies would be in a position to suggest innovative, effective, and low-cost methods of achieving regulatory goals.

Second, OMB recommends consideration of several steps designed to improve regulatory impact analysis. Regulation should be data-driven and evidence-based, and cost-benefit analysis can help to ensure a careful focus on evidence and a thorough consideration of alternative approaches. Properly understood, such analysis should be seen as a pragmatic tool for helping agencies assess the consequences of regulations and thus to identify approaches that best promote human welfare.<sup>59</sup> In particular, we recommend, among other things, that significant regulations should be accompanied with clear, tabular presentations of both benefits and costs, including nonquantifiable variables; that analysis should take account, where relevant, of the effects of the regulation on future generations and the least well-off; and that continuing efforts should be made to meet some difficult challenges posed by regulatory impact analysis, including treatment of variables that are difficult to quantify and monetize.

Third, OMB recommends that regulatory impact analysis should be seen and used as a central part of open government. By providing the public with information about proposed and final regulations, by revealing assumptions and subjecting them to public assessment, and by drawing attention to the consequences of alternative approaches, such analysis can promote public understanding, scrutiny, and improvement of rules. OMB continues to explore ways to ensure that cost-benefit analysis helps promote the commitment to open government.<sup>60</sup>

#### A. Behaviorally Informed Approaches to Regulation

In recent years, a number of social scientists have incorporated findings about human behavior from psychology into economic models, providing a new set of insights for thinking about regulations and their likely consequences.<sup>61</sup> The central findings<sup>62</sup> include the following:

- People often use heuristics, or mental short-cuts, with which to assess risks.<sup>63</sup> For example, judgments about probability can be affected by whether a recent event

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<sup>57</sup> 31 U.S.C. § 1105 note, Pub. L. 106–554, § 1(a)(3) [title VI, § 624], Dec. 21, 2000, 114 Stat. 2763, 2763A–161.

<sup>58</sup> See Diamond and Vartianen (2007) and Gilovich, et al. (2002).

<sup>59</sup> See Adler and Posner (2004).

<sup>60</sup> See Transparency and Open Government, Memorandum for the Heads of Executive Departments and Agencies, President Obama, Jan. 21, 2009. For discussion of this point and its relationship to retrospective analysis of the effects of regulations, see Greenstone (2009).

<sup>61</sup> See Diamond and Vartianen (2007) and Schwartz (2008).

<sup>62</sup> See generally Gilovich, et al (2002) and Kahneman and Tversky (2000).

comes readily to mind.<sup>64</sup> If an event is cognitively “available,” people might overestimate the risk. If an event is not cognitively available, risks might be underestimated. “Availability bias” can lead to inaccurate judgments about probability.

- Inertia has a large effect on behavior. In the domain of savings for retirement, for example, the default rule has significant consequences for social outcomes: When people are asked whether they want to “opt in” to a retirement plan, the level of participation is far lower than if they are asked whether they want to “opt out.”<sup>65</sup> People might decline to change from the status quo even when the cost of change is low and the benefits may be substantial.
- People display loss aversion, in the sense that they dislike losses far more than they like corresponding gains.<sup>66</sup> Whether a change counts as a loss or a gain depends on the *reference point*, which is often the status quo. In part for this reason, the initial allocation of a legal entitlement can matter to people’s valuations; those who have the initial allocation may value a good more than they would if the allocation were originally elsewhere, thus showing an *endowment effect*.<sup>67</sup>
- Information that is vivid and salient has a far larger impact on behavior than information that is statistical and abstract.<sup>68</sup>
- Emotions often affect people’s judgments.<sup>69</sup> A particular finding involves *probability neglect*: When emotions are strongly felt, people may focus on the outcome, and not on the probability that it will occur.<sup>70</sup> (This point obviously bears on reactions to extreme events of various sorts.) For low and moderate changes, people are often risk-averse with respect to gains but risk-seeking with respect to losses; for very large changes, people are often risk-seeking with respect to gains but risk-averse for losses.<sup>71</sup>
- Individual behavior is much influenced by the perceived behavior of other people.<sup>72</sup> That behavior conveys information about what ought to be done; for that reason, those who lack private information may follow the apparent beliefs and behavior of relevant others.<sup>73</sup> In addition, people care about their reputations, and for that reason, they may be influenced by others so as not to incur their disapproval.<sup>74</sup>
- When people are informed of the benefits or risks of engaging in certain behavior, they are far more likely to engage in corrective action if they are also provided with clear, explicit guidance on how to do so. For example, those who are informed of the

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<sup>63</sup> Kahneman and Frederick (2002).

<sup>64</sup> Tversky and Kahneman (1973, pp. 207-232).

<sup>65</sup> Madrian and Shea (2001). On inertia and choices of travel modes, *see* Innocenti et al. (2009).

<sup>66</sup> Thaler (1993).

<sup>67</sup> *Ibid.* A detailed literature discusses the mechanisms behind the endowment effect and the circumstances in which it will be found. *See, e.g.,* Ericson and Fuster (2009).

<sup>68</sup> *See* Nisbett and Ross (1980; Nisbet, et al (1993).

<sup>69</sup> *See* Loewenstein et al. (2001).

<sup>70</sup> *See* Rottenstreich and Hsee (2001).

<sup>71</sup> *See* Kahneman and Tversky (1979).

<sup>72</sup> *See* Hirshleifer (1995).

<sup>73</sup> *Ibid.*

<sup>74</sup> *See* Kuran (1998).

benefits of receiving a vaccine show a greater tendency to be vaccinated if they are simultaneously given detailed plans and maps about where to go.<sup>75</sup>

Behaviorally informed approaches can be applied in many domains, including financial regulation, public health, environmental protection, energy use, motor vehicle safety, and consumer protection. Empirical research suggests that four such approaches have particular promise: 1) using disclosure as a regulatory tool; 2) simplifying choices through sensible default rules and reduced complexity; 3) increasing the salience of certain factors or variables; and 4) promoting desirable social norms (for example, in favor of reduced smoking or increased safety on the highways).

### *Disclosure as a regulatory tool.*

Many statutory programs recognize that information disclosure can be a useful regulatory tool.<sup>76</sup> Properly designed disclosure requirements can significantly improve the operation of markets, leading consumers to make more informed decisions. Central examples include efforts to disclose the risks associated with smoking, to offer information about potential savings from energy efficiency, and to inform people about the nutritional content of food. The Credit Card Accountability, Responsibility, and Disclosure Act of 2009 takes a variety of steps to better inform credit card users. In the same vein, Congress has directed the Department of Transportation (DOT) to require tire manufacturers to label their replacement tires for fuel economy; such a label could help consumers to make better choices. We believe that such approaches have considerable promise, and we recommend more systematic investigation of disclosure policies and their likely consequences.

As social scientists have emphasized, disclosure as such may not be enough.<sup>77</sup> If disclosure requirements are to be helpful, they must be designed to be sensitive to how people process information. Unduly complex and detailed disclosure requirements may fail to inform consumers. To be effective, disclosure should be clear, meaningful, timely, and salient. To the extent possible, agencies should study in advance the actual effects of alternative disclosure designs. The “Nutrition Facts” labels on food followed such a process of advance study.

Some disclosure requirements can be misleading or confusing; behaviorally informed approaches are alert to that risk and suggest possible improvements. Automobile manufacturers are currently required to disclose the fuel economy of new vehicles as measured by miles per gallon (MPG). Such disclosure is useful to consumers and has helped to promote informed choice. As the EPA has emphasized,<sup>78</sup> however, MPG is a nonlinear measure of fuel consumption. For a fixed travel distance, a change from 20 to 25 MPG produces a larger reduction in fuel costs than does a change from 30 to 35 MPG, or even from 30 to 38 MPG. Evidence suggests that many consumers fail to understand this point and tend to interpret MPG as linear with fuel costs.<sup>79</sup> This error is likely to produce inadequately informed decisions. By

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<sup>75</sup> Leventhal, et al (1965).

<sup>76</sup> For an overview, see Fung, et al. (2007).

<sup>77</sup> See Downs et al. (2009).

<sup>78</sup> “Fuel Economy Labeling of Motor Vehicles: Revisions to Improve Calculation of Fuel Economy Estimates; Final Rule.”, Federal Register 71 (December 27, 2006): 77871-77969.

<sup>79</sup> See Larrick and Soll (2008).

contrast, an alternative fuel economy metric, such as gallons per mile, would be far less confusing. Such a measure is linear with fuel costs and is likely to help consumers make better purchasing decisions.<sup>80</sup>

In general, disclosure requirements should be both straightforward and simple, and should allow comparison-shopping and promote market competition. The Treasury Department's White Paper discussing the proposed Consumer Financial Product Agency (CFPA) emphasizes the value of requiring that "communications with the consumer are reasonable, not merely technically compliant and non-deceptive. Reasonableness includes balance in the presentation of risks and benefits, as well as clarity and conspicuousness in the description of significant product costs and risks."<sup>81</sup> The White Paper goes on to say that the agency

should harness technology to make disclosures more dynamic and adaptable to the needs of the individual consumer . . . Disclosures should show consumers the consequences of their financial decisions. The CFPA should mandate or encourage calculator disclosures for mortgages to assist with comparison shopping. For example, a calculator that shows the costs of a mortgage based on the consumer's expectations for how long she will stay in the home may reveal a more significant difference between two products than appears on standard paper disclosures.<sup>82</sup>

Disclosure requirements of this kind are designed to inform consumers at the point of purchase, often with brief summaries of relevant information. Such "summary disclosures" are often complemented with more robust information, typically found on public or private websites. Other disclosure requirements are not directed to consumers or end-users at all. They attempt to promote public understanding of existing problems, and help produce possible solutions, by informing people about current practices. One example is the Emergency Planning and Community Right-to-Know Act, enacted by Congress in 1986. At first, this law seemed to be largely a bookkeeping measure, requiring a Toxic Release Inventory in which firms reported what pollutants they were releasing. But the law has had significant beneficial effects, spurring reductions in toxic releases throughout the United States.<sup>83</sup>

In 2009, the Occupational Safety and Health Administration placed its fatality data online, in a step that should promote accountability and promote safer workplaces. Also in 2009, the Environmental Protection Agency issued a Greenhouse Gas Reporting rule, requiring disclosure by the most significant emitters. The data will allow businesses to track their own emissions and to compare them to similar facilities. At the same time, it might well help to provide assistance in identifying cost-effective ways to reduce emissions in the future.

By harnessing technology, disclosure policies can help to track the performance of both public and private institutions. For example, the Information Technology Dashboard, created in 2009, provides the public with an online window into the details of Federal information technology investments and gives users the ability to track the progress of investments over time. It is possible to see spending by each major government department, and graphs display performance against schedule, costs, and an informed assessment of how well agencies are

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<sup>80</sup> For one view, see Fisher (2009).

<sup>81</sup> Department of the Treasury (2009, p. 63).

<sup>82</sup> *Ibid.*, p. 65.

<sup>83</sup> See Hamilton (2005).

meeting their objectives. Other dashboards are easy to imagine, promoting transparency and building on existing programs that use disclosure as a regulatory tool.

### *Default rules and simplification.*

Behavioral approaches also draw on the evidence that starting points, or “default rules,” greatly matter,<sup>84</sup> and that social outcomes can be improved with sensible default rules that avoid the unintended consequences of more heavy-handed approaches such as mandates and bans. In the United States, for example, employers have long asked workers whether they want to enroll in 401(k) plans, with the default in the absence of an explicit choice being non-enrollment. The number of employees who enroll, or “opt in,” has not been high. Recently, many employers have responded by changing the default to automatic enrollment, by which employees are enrolled unless they opt *out*. The results are clear; far more employees enroll with an “opt out” design than with “opt-in.”<sup>85</sup>

President Obama has built on this finding by directing the IRS and the Treasury Department to revise regulations to make it easier for employers to adopt automatic enrollment for their retirement savings programs. The IRS and the Treasury have issued guidance, including pre-approved sample plan language, that demonstrates how a 401(k) or SIMPLE IRA plan sponsor can adopt automatic enrollment for employees.<sup>86</sup>

In many other domains, it might be possible to achieve regulatory goals, and to do so without coercion and at lower cost, by selecting better default rules. And where it is not possible or best to change the default, a similar effect might be obtained merely by easing people’s choices. Complexity can have serious unintended effects, and simplification can achieve a great deal. Thus, for example, a series of steps have been taken toward simplifying the Free Application of Student Aid (FAFSA) form, reducing the number of questions and allowing electronic retrieval of information. Use of a simpler and shorter form is accompanied by steps to permit online users to transfer data previously supplied electronically in their tax forms directly into their FAFSA application.<sup>87</sup>

In a related vein, the Department of Treasury is in the early stages of a new innovation in the domain of Social Security and Supplemental Security Income: the Direct Express card program. Under this program, people may receive their money via a debit card – a step that at once improves reliability and convenience, reduces costs and paperwork burdens, and offers particular help for those who do not have bank accounts. Other programs might build on this approach, considering the choice between an “opt in” and “opt out” design.<sup>88</sup>

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<sup>84</sup> See Johnson, et al. (1993).

<sup>85</sup> See Choi, et al. (2009).

<sup>86</sup> Details on the Administration’s automatic enrollment initiatives are available at <http://www.irs.gov/retirement/article/0,,id=212061,00.html>

<sup>87</sup> On the importance of such steps, see Bettinger, et al. (2009)

<sup>88</sup> See Blank and Barr (2009).

### *Salience.*

It is often possible to achieve regulatory goals by making certain features of a good or a situation more *salient* to consumers. When disclosure is used as a regulatory goal, one goal is to inform people of relevant facts; another goal may be to make those facts more salient than they would otherwise be. With respect to tobacco, for example, increased salience is a central purpose of disclosure requirements; the Family Smoking Prevention and Tobacco Control Act of 2009 recognizes this point in calling for new and more graphic warnings. A great deal of behavioral work suggests that non-price interventions, by making energy use more salient, can significantly reduce electricity use.<sup>89</sup> The Energy Star program is the most well-known example, and there is strong evidence that such programs can lead to private as well as public savings.<sup>90</sup>

President Obama's recent Executive Order 13514 builds directly on this idea in an effort to cut costs and reduce greenhouse gas emissions by imposing a series of requirements on federal agencies. One of the central goals of this Executive Order is to make certain costs more visible and salient than they have been within the federal government. It would be possible to take other steps to promote regulatory goals through non-price interventions designed to make potential savings more salient to consumers.

### *Social norms.*

Behavioral economists have emphasized the importance of social norms, which have a significant influence on decisions. For example, if people learn that they are using more energy than similarly situated others, their energy use declines---saving money while also reducing pollution.<sup>91</sup> The same point applies to health-related behavior. If people are in a social network with people who are obese, they are significantly more likely to become obese themselves.<sup>92</sup>

This point has implications for regulatory policy. For example, regulation of both tobacco smoking and seatbelt usage appears to have worked hand-in-hand with emerging social norms, helping to save lives. The Family Smoking Prevention and Tobacco Control Act of 2009 contains a range of provisions designed to reduce smoking, in part by working to counteract undesirable norms, especially among young people. Distracted driving presents an area in which similar progress might be made. A social norm against texting while driving would reduce existing risks; President Obama's Executive Order 13513, banning federal employees from texting while driving, may help to promote such a norm.<sup>93</sup>

## **B. Improving Regulatory Impact Analysis**

For over three decades, cost-benefit analysis has played a significant role in the assessment and design of significant rules. In Executive Order 13514, President Obama said, "It

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<sup>89</sup> See Allcott and Mullainathan (2009)

<sup>90</sup> See Howarth, et al. (2000).

<sup>91</sup> See Allcott (2009).

<sup>92</sup> Christakis and Fowler (2009).

<sup>93</sup> Executive Order 13513.

is . . . the policy of the United States that . . . agencies shall prioritize actions based on a full accounting of both economic and social benefits and costs and shall drive continuous improvement by annually evaluating performance, extending or expanding projects that have net benefits, and reassessing or discontinuing under-performing projects.” With recognition of the limits of quantification, efforts to promote a “full accounting” of both benefits and costs can greatly inform judgments about appropriate courses of action – and can help to increase benefits, decrease burdens, and inspire new approaches and creative solutions.

In this section, we recommend several steps designed to promote these goals. In particular, we recommend (1) that all significant regulations should be accompanied with clear, tabular presentations of both benefits and costs, including nonquantifiable variables; (2) that consistent with agency resources and priority-setting, serious consideration should be given to retrospective analyses of the effects of especially significant regulations; (3) that analysis should take account, where relevant, of the effects of the regulation on future generations and the least well-off; and (4) that continuing efforts should be made to meet some difficult challenges posed by regulatory impact analysis, including treatment of variables that are difficult to quantify and monetize. As suggested below, breakeven analysis can be especially useful with respect to (4).

Cost-benefit analysis continues to raise a range of difficult analytical, empirical, and normative issues, involving (for example) the appropriate valuation of mortality and morbidity risks, the proper discount rate for future benefits and harms, the treatment of variables that cannot easily be quantified or monetized, and the role, if any, of “stated preference” studies. OMB Circular A-4 offers guidance on these and other issues. Because our goals are to ensure that regulation is evidence-based and data-driven, to increase the likelihood that regulation will be effective in achieving its goals, and to reduce excessive or unjustified burdens on the private and public sectors, we continue to explore the underlying questions and the best way to approach them.

Several points are clear. To promote evidence-based regulation, those who produce the relevant numbers must respect scientific integrity. It is also vital to have a process of public scrutiny and review, allowing assumptions to be revealed and errors to be exposed and corrected. Imposition of serious burdens and costs must be justified, and any effort at justification should attempt to measure and quantify benefits; the process of analysis might reveal that a particular approach cannot be justified and that a less stringent (or more stringent) approach is better. Appropriate analysis should attempt to quantify relevant variables, to promote cost-effective choices, and to explore and evaluate different alternatives. As we have noted, some variables are essential to identify and consider but difficult to monetize; examples include improvements in the water quality of rivers, protection of endangered species, and measures designed to decrease the risks of terrorist attacks. A sensible approach to cost-benefit analysis recognizes the limits of quantification and insists on presentation of qualitative as well as quantitative information. If, for example, a regulation would prevent a specified range of deaths and injuries from occupational accidents, a proper analysis would present that range as well as the monetary equivalents.

In some cases, the effort to monetize certain benefits (such as protection of streams and wildlife) may run into serious obstacles; quantification may be possible but not monetization. In other cases, regulators will know the direction of an effect, and perhaps be able to specify a

range, but precise quantification will not be possible. For these reasons, we recommend that consistent with Executive Order 12866, the best practice is to accompany all significant regulations with (1) a tabular presentation, placed prominently and offering a clear statement of qualitative and quantitative benefits and costs of the proposed or planned action, together with (2) a presentation of uncertainties and (3) similar information for reasonable alternatives to the proposed or planned action. As this Report demonstrates, some rules are not accompanied by relevant information on either costs or benefits; we recommend that agencies should be more consistent and systematic in providing that information. As noted, some agencies have found it useful and informative to engage in “breakeven analysis,” suggesting how high the unquantified or unmonetized benefits would have to be in order for the benefits to justify the costs. We believe that breakeven analysis can be an important tool and that it has analytical value when quantification is speculative or impossible.

We have noted that while essential, pre-promulgation analyses of costs and benefits of rules may turn out to be inaccurate. Prospective accounts may overestimate or underestimate either costs or benefits. In some cases, regulations may impose significant burdens that are not justified. In other cases, regulations may be working well, and more stringency might be desirable. For this reason, we recommend that serious consideration be given to finding ways to employ retrospective analysis more regularly, in order to ensure that rules are appropriate, and to expand, reduce, or repeal them in accordance with what has been learned.<sup>94</sup>

President Obama’s January 30, 2009, memorandum on regulatory review specifically directed OMB to “offer suggestions on the role of cost-benefit analysis” and to “address the role of distributional considerations, fairness, and concern for the interests of future generations.” It is clear that a full accounting of the costs and benefits of rules must include, rather than neglect, the interests of future generations. For example, regulations that are designed to reduce greenhouse gas emissions attempt to reduce harms to future generations; discussions and analyses of such regulations must consider that goal. Nor does sensible regulation ignore distributional considerations. If regulation would impose serious costs on the least well-off, or deliver significant benefits to them, regulators should take that point into account in deciding how to proceed.

To meet these challenges, we recommend a candid effort to go as far as existing knowledge allows, while also fairly presenting the limits of such knowledge and recognizing that an analysis of quantitative costs and benefits may not be determinative. In some cases, the most that can be done is to present a breakeven analysis, that is, an analysis that specifies the economic value of the unquantified or unmonetized benefits that would make the regulation justified on cost-benefit grounds. We continue to explore methods for handling the most difficult challenges posed by efforts to specify the likely effects of regulation.

### **C. Regulatory Analysis, Disclosure, and Open Government**

Rigorous cost-benefit analysis continues to be a central feature of regulatory review. Properly understood, a public accounting of the consequences of alternative regulatory

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<sup>94</sup> See Greenstone (2009).

approaches can increase transparency and openness, discourage ill-considered initiatives, and promote valuable innovations. President Obama has placed a great deal of emphasis on open government. He has quoted the words of Supreme Court Justice Louis Brandeis: “Sunlight is said to be the best of disinfectants.”<sup>95</sup> He has explained that “accountability is in the interest of the Government and the citizenry alike.” He has emphasized that “[k]nowledge is widely dispersed in society, and public officials benefit from having access to that dispersed knowledge.”<sup>96</sup> Transparency can increase the availability of data to all, and with available data we can greatly improve our practices. OMB’s Open Government Directive, issued in late 2009, is designed to promote the President’s goals by requiring a series of steps to promote the goals of transparency, participation, and collaboration. We recommend (1) that regulatory analysis should be conducted with these goals explicitly in mind and (2) that serious consideration should be given to more systematic use of disclosure as a regulatory tool, informing consumers and end-users and also enlisting the Internet to improve the operation of markets.

Indeed, careful regulatory analysis, if transparent in its assumptions and subject to public scrutiny, should be seen as part and parcel of open government. It helps to ensure that policies are not based on speculation and guesswork, but instead on a sense of the likely consequences of alternative courses of action. It helps to reduce the risk of insufficiently justified regulation, imposing serious burdens and costs for inadequate reason. It also helps to reduce the risk of insufficiently protective regulation, failing to go as far as proper analysis suggests. We believe that regulatory analysis should be developed and designed in a way that fits with the commitment to open government. Modern technologies should be enlisted to promote that goal. Existing websites -- [regulations.gov](http://regulations.gov) and [reginfo.gov](http://reginfo.gov) -- have been improved to increase transparency, participation, and collaboration. We recommend continued assessment of those websites to promote these goals. We also recommend that agencies should publish, on those websites, existing data sets that can help promote regulatory goals. As noted, the Occupational Safety and Health Administration has posted fatality data on [www.osha.gov](http://www.osha.gov). If sunlight can operate as “the best of disinfectants,” steps of this kind might help to increase safety and thus promote the agency’s central mission.

Indeed, OMB’s Open Government Directive specifically calls for open government plans that include “high-value information,” defined to include information “that can be used to increase agency accountability and responsiveness; improve public knowledge of the agency and its operations; further the core mission of the agency; create economic opportunity; or respond to need and demand as identified through public consultation.”<sup>97</sup> For present purposes, we would emphasize that information can “further the core mission of the agency” and “create economic opportunity.” In some cases, disclosure will further that mission, and promote such opportunity, for reasons previously sketched in this chapter.

The idea that with full appreciation of its limitations, cost-benefit analysis itself can promote transparency and accountability, and operate as a form of sunlight, motivated the

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<sup>95</sup> Speech by President Obama, Jan. 28, 2009.

<sup>96</sup> Transparency and Open Government, Memorandum for the Heads of Executive Departments and Agencies, President Obama, Jan. 21, 2009.

<sup>97</sup> Open Government, Memorandum for the Heads of Executive Departments and Agencies, OMB Director Peter Orzag, Dec. 8, 2009.

Regulatory Right-to-Know Act, on which this Report is based. By drawing attention to the consequences of proposed courses of action, cost-benefit analysis can help the public to evaluate regulatory initiatives. At the same time, it creates the possibility of self-correction. Cost-benefit analysis should itself be subject to public scrutiny and review and qualified or corrected if it is wrong. As noted, we continue to explore ways to promote retrospective analysis of rules, thus (in the words of Executive Order 13514) “extending or expanding projects that have net benefits, and reassessing or discontinuing under-performing projects.”

If members of the public have fresh evidence or ideas about improvement of existing regulations – including expansion, redirection, modification, or repeal – it is important to learn about that evidence and those ideas. A general goal is to connect the interest in sound analysis with the focus on open government, in part by promoting public engagement and understanding of regulatory alternatives.

## CHAPTER IV: UPDATE ON THE IMPLEMENTATION OF OMB'S INFORMATION QUALITY INITIATIVES

Objective and high quality analysis leads to better regulatory decisions. OMB and the regulatory agencies have several initiatives to improve the rigor and transparency of analysis supporting public policy. Of particular importance within the context of regulatory analysis is OMB's Circular A-4, "Regulatory Analysis," which was issued in 2003 after public comment, interagency review, and peer review. It defines good regulatory analysis and standardizes the way benefits and costs of Federal regulatory actions are measured and reported. This guidance is available at: <http://www.whitehouse.gov/omb/circulars/a004/a-4.pdf>.

In this chapter of the Report, we discuss the other interagency initiatives designed to improve the objectivity of regulatory analyses, as well as the quality of government disseminations, more generally. These initiatives include:

- 2002: **Government-Wide Information Quality Guidelines**, which provide policy and procedural guidance to Federal agencies for ensuring and maximizing the quality of the information they disseminate. These guidelines are available at: <http://www.whitehouse.gov/omb/fedreg/reproducible2.pdf>.
- 2004: **Information Quality Bulletin for Peer Review**, which provides further guidance for pre-dissemination review of influential scientific information. This Bulletin is available at: <http://www.whitehouse.gov/omb/memoranda/fy2005/m05-03.pdf>.
- 2007: **Final Bulletin for Agency Good Guidance Practices** (Good Guidance Bulletin), which establishes policies and procedures for the development, issuance, and use of significant guidance documents by Executive Branch departments and agencies and is intended to increase the quality and transparency of agency guidance practices and the significant guidance documents produced through them. This Bulletin is available at: <http://www.whitehouse.gov/omb/memoranda/fy2007/m07-07.pdf>.
- 2007: **Updated Principles for Risk Analysis**, which reiterates the risk analysis principles released by OMB in 1995 and reinforces them with more recent guidance from the scientific community. This Memorandum is available at: <http://www.whitehouse.gov/omb/memoranda/fy2007/m07-24.pdf>.

This chapter discusses each of these initiatives, as well as our experience administering them.

### A. Government-Wide Information Quality Guidelines

Section 515 of the Treasury and General Government Appropriations Act, 2001 (Pub. L. No. 106-554, 44 U.S.C. § 3516 note), commonly known as the "Information Quality Act" (IQA), requires OMB to develop government-wide standards "for ensuring and maximizing" the quality of information disseminated by Federal agencies.

To implement the IQA, OMB issued final government-wide guidelines on February 22, 2002 (67 FR 8452), and each Federal agency is charged with promulgating its own Information Quality Guidelines. OMB has facilitated the development of these agency guidelines, working with the agencies to ensure consistency with the principles set forth in the government-wide guidelines. By October 1, 2002, almost all agencies released their final guidelines, which became effective immediately. The OMB government-wide guidelines require agencies to report annually to OMB providing information on the number and nature of complaints received by the agency and how such complaints were resolved.

In August 2004, the OIRA Administrator issued a memorandum to the President's Management Council requesting that agencies post all Information Quality correspondence on agency web pages to increase the transparency of the process.<sup>98</sup> In their FY 2004 Information Quality Reports to OMB, agencies provided OMB with the specific links to these web pages and OMB began providing this information to the public in our 2005 update on Information Quality.<sup>99</sup> This increase in transparency allows the public to view all correction requests, appeal requests, and agency responses to these requests. The web pages also allow the public to track the status of correction requests that may be of interest. An updated list of agency web pages is provided in Appendix D of this Report.

In our 2003 Report, OMB presented a thorough discussion of the IQA and its implementation, including a discussion of perceptions and realities, legal developments, ways to improve transparency, suggestions for improving correction requests, and the release of the OMB Information Quality Bulletin for Peer Review.<sup>100</sup>

This section of the chapter provides a summary of the current status of correction requests received in FY 2008, as well as an update on the status of requests received in FY 2004, FY 2005, FY 2006, and FY 2007. An update on legal developments is also provided. Our discussion here of the individual correction requests and agency responses is brief because all correspondence between the public and agencies regarding these requests is publicly available on the agencies' Information Quality web pages.

### ***Request for Correction Process***

#### *1. New Correction Requests and Appeal Requests Received by the Agencies in FY 2008*

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<sup>98</sup>See OMB, *Memorandum for the Presidents Management Council (2004)*

[http://www.whitehouse.gov/omb/inforeg/info\\_quality\\_posting\\_083004.pdf](http://www.whitehouse.gov/omb/inforeg/info_quality_posting_083004.pdf).

<sup>99</sup>See OMB, *Validating Regulatory Analysis: 2005 Report to Congress on the Costs and Benefits of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities* (2005),

[http://www.whitehouse.gov/omb/inforeg/2005\\_cb/final\\_2005\\_cb\\_report.pdf](http://www.whitehouse.gov/omb/inforeg/2005_cb/final_2005_cb_report.pdf).

<sup>100</sup>See OMB, *Information Quality, a Report to Congress FY 2003*, (2003),

[http://www.whitehouse.gov/omb/inforeg/fy03\\_info\\_quality\\_rpt.pdf](http://www.whitehouse.gov/omb/inforeg/fy03_info_quality_rpt.pdf), and OMB, *Validating Regulatory Analysis: 2005 Report to Congress on the Costs and Benefits of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities*, (2005)

[http://www.whitehouse.gov/omb/inforeg/2005\\_cb/final\\_2005\\_cb\\_report.pdf](http://www.whitehouse.gov/omb/inforeg/2005_cb/final_2005_cb_report.pdf).

Table 4-1 below lists the departments and agencies that received requests for correction during FY 2008. In FY 2008, a total of 14 requests for correction were sent to seven different departments and agencies. FY 2008 was the first year a correction request was sent to the National Transportation Safety Board (NTSB). In addition, three appeals associated with these 14 requests were filed in FY 2008. One appeal was sent to NTSB following their response to the FY08 correction request, and two appeal requests were sent to the Department of Interior. As some of the agency's 14 responses were sent at the end of FY 2008, or were still pending at the end of FY 2008, there is a possibility that additional appeals may be filed.

**Table 4-1: Departments and Agencies that Received Information Quality Correction Requests in FY 2008**

<b>Agency</b>	<b>Number of FY08 Correction Requests</b>
Department of Agriculture	2
Department of Defense	1
Department of Health and Human Services	1
Department of the Interior	4
Department of Labor	1
Environmental Protection Agency	4
National Transportation Safety Board	1
<b>Total</b>	<b>14</b>

Further, as shown below in Table 4-2, two additional appeals have been filed in FY 2008. These appeal requests were sent to the agencies following receipt of responses to correction requests that were initiated in FY 2007. One appeal was sent to the National Institute of Standards and Technology (NIST), within the Department of Commerce, regarding a request relating to the World Trade Center fire and the other appeal was sent to the Fish and Wildlife Service (FWS), within the Department of Interior, following a response relating to the Prebles Meadow jumping mouse.

**Table 4-2: Departments and Agencies that Received Information Quality Appeals Requests in FY 2008, Following Responses to Requests Initiated in FY 2007**

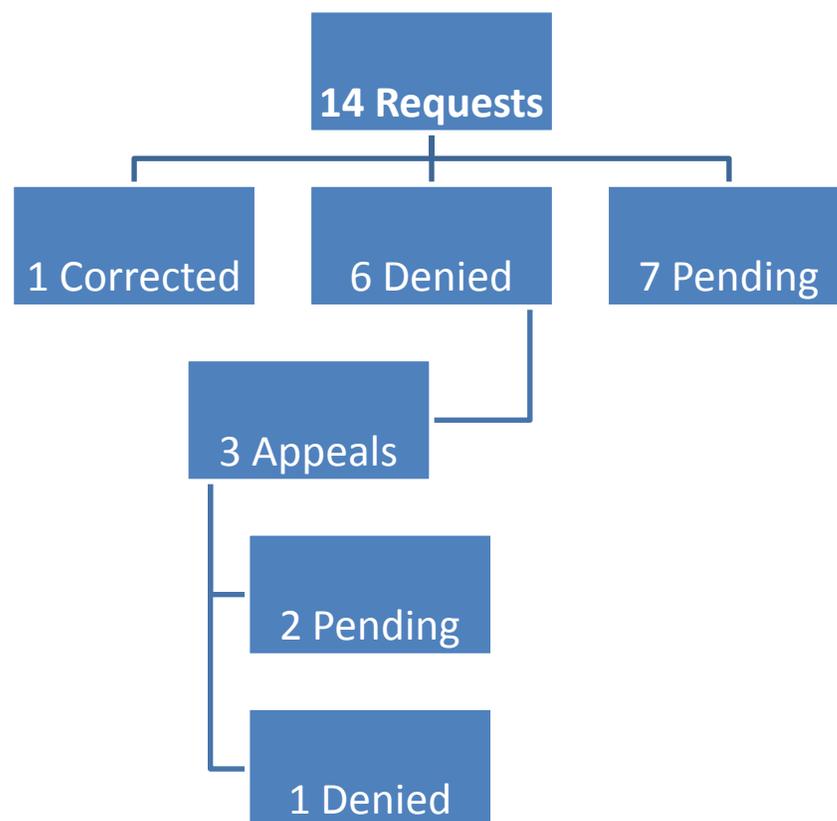
<b>Agency</b>	<b>Number of FY08 Appeals</b>
Department of Commerce	1
Department of Interior	1
<b>Total</b>	<b>2</b>

The correction requests received in FY 2008 were quite diverse. For instance, a private citizen requested that NTSB correct multiple reports relating to flight data recorder information,

the Centers for Disease Control, within the Department of Health and Human Services, was asked by the International Hyperbaric Medical Association to correct information relating to a press release discussing measles vaccinations, and the Army Corps of Engineers, within the Department of Defense, was asked by the Trustees of Anchorage to correct a report regarding a permit granted for the Port of Anchorage. For further details, links to all the correction requests, and the complete agency responses, can be found on the agencies IQ web pages.

Figure 4-1 shows the status of the 14 FY 2008 correction requests and three appeals. As mentioned above, for details relating to the specific requests, including agency responses, we encourage readers to visit agency Information Quality websites.<sup>101</sup>

**Figure 4-1: Status of IQ Correction Requests Received in FY 2008**



As noted in the 2007 Report,<sup>102</sup> OMB cautions readers against drawing any conclusions about trends or year-to-year comparisons because agency procedures for classifying correction

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<sup>101</sup> A listing of webpages for Agency IQ correspondence is available in Appendix D of OMB, *2008 Report to Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities*. (2008). This report can be found at: [http://www.whitehouse.gov/omb/assets/information\\_and\\_regulatory\\_affairs/2008\\_cb\\_final.pdf](http://www.whitehouse.gov/omb/assets/information_and_regulatory_affairs/2008_cb_final.pdf).

requests are still evolving. However, we note that in FY 2003 there were 48 correction requests, in FY 2004 there were 37 correction requests, in FY 2005 there were 24 correction requests, in FY 2006 there were 22 correction requests, and in FY 2007 there were 21 correction requests.

## 2. Status of Outstanding Correction Requests Received by the Agencies in FY 2003-2007

At the close of FY 2007, 13 Information Quality correction request responses and five appeal responses remained pending from the agencies. The pending correction requests were initiated in FY 2004, FY 2005, FY 2006, and FY 2007. Figure 4-2 shows the status of those outstanding correction request responses at the close of FY 2008. Agencies responded to eight of these correction requests and continued to work on responses to the remaining five at the end of FY 2008. As is shown below, for four requests, agencies handled the correction request under a different process. For instance, in one case the Environmental Protection Agency (EPA) deferred responding to a request relating to the Muskego Sanitary Landfill and instead it was handled by an ongoing Superfund regulatory process, and in another case the FWS treated a request relating to catfish farming as a comment received during a rulemaking. There was also one withdrawal of a request related to vinyl acetate carcinogenicity that was sent to the Department of Labor (DOL) in FY 2006. In this case the requestor informed the DOL that they would be sending supplement information to the Department. DOL responded, in 2006, stating that they would take no action until the information was received. In 2008, after not receiving any supplement information, DOL considered the request to be withdrawn.

**Figure 4-2: FY 2008 Status of Pending Correction Requests from FY 2004, FY 2005, FY 2006 and FY 2007**

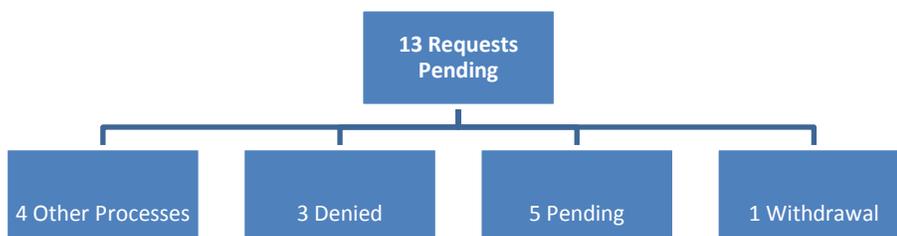
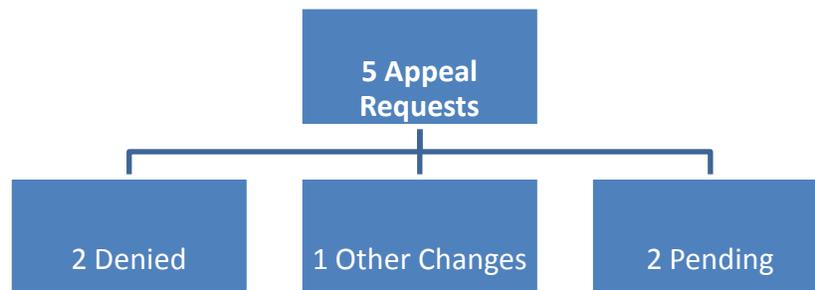


Figure 4-3 below gives the status of the five appeal requests pending at the close of FY 2007. NIST denied an outstanding appeal regarding a World Trade Center fire report, and the

<sup>102</sup> See OMB, *2007 Report to Congress on the Costs and Benefits of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities (2007)*, [http://www.whitehouse.gov/omb/inforeg/2007\\_cb/2007\\_cb\\_final\\_report.pdf](http://www.whitehouse.gov/omb/inforeg/2007_cb/2007_cb_final_report.pdf).

National Institutes of Health denied an outstanding appeal related to anthraquinone toxicity testing. In responding to an outstanding appeal regarding storm water enforcement and compliance, the EPA revised a brochure, rather than removing it from the webpage as was requested. Correspondence showing the agencies responses to these requests is publicly available on the agencies' Information Quality web pages. In addition, both the Federal Communications Commission and EPA continued to work on appeals they received in FY 2007.

**Figure 4-3: FY 2008 Status of Pending Appeal Requests from FY 2007**



### ***Legal update***

As discussed in the final 2008 Report, litigation has arisen regarding the legal issue of whether agency responses to IQA requests for correction are subject to judicial review under the IQA and the Administrative Procedure Act (APA). In this litigation, the courts concluded that the agency responses in those cases were not subject to judicial review under the IQA and the APA. See *Salt Institute v. Leavitt*, 440 F.3d 156, 159 (4th Cir. 2006); *Americans for Safe Access v. United States Dep't of Health and Human Servs.*, No. C 07-01049 WHA, 2007 U.S. Dist. LEXIS 89257, at \*11 (N.D. Cal. Nov. 20, 2007); *Americans for Safe Access v. United States Dep't of Health and Human Servs.*, No. C 07-01049 WHA, 2007 U.S. Dist. LEXIS 55597, at \*14 (N.D. Cal. July 24, 2007); *In re Operation of the Missouri River System Litigation*, 363 F. Supp. 2d 1145, 1174-75 (D. Minn. 2004), *vacated in part and aff'd in part on other grounds*, 421 F.3d 618 (8th Cir. 2005). The district court's ruling in *Americans for Safe Access* is currently pending on appeal. *Americans for Safe Access v. United States Dep't of Health and Human Servs.*, No. 07-17388 (9th Cir.).

### **B. Information Quality Bulletin for Peer Review**

In keeping with the goal of improving the quality of government information, on December 16, 2004, OMB issued the Final Information Quality Bulletin for Peer Review (the

Peer Review Bulletin).<sup>103</sup> The Peer Review Bulletin requires executive agencies to ensure that all “influential scientific information” they disseminate after June 16, 2005 is peer reviewed.

“Influential scientific information” is defined as “scientific information the agency reasonably can determine will have or does have a clear and substantial impact on important public policies or private sector decisions.”<sup>104</sup> The term “influential” is to be interpreted consistently with OMB’s government-wide Information Quality Guidelines and the information quality guidelines of each agency.

One type of scientific information is a scientific assessment. For the purposes of the Peer Review Bulletin, the term “scientific assessment” means an evaluation of a body of scientific or technical knowledge, which typically synthesizes multiple factual inputs, data, models, assumptions, and/or applies best professional judgment to bridge uncertainties in the available information.<sup>105</sup>

The Peer Review Bulletin describes the factors that should be considered in choosing an appropriate peer review mechanism and stresses that the rigor of the review should be commensurate with how the information will be used. It directs agencies to choose a peer review mechanism that is adequate, giving due consideration to the novelty and complexity of the science to be reviewed, the relevance of the information to decision making, the extent of prior peer reviews, and the expected benefits and costs of additional review. When deciding what type of peer review mechanism is appropriate for a specific information product, agencies should consider at least the following issues: individual versus panel review; timing; scope of the review; selection of reviewers; disclosure and attribution; public participation; disposition of reviewer comments; and adequacy of prior peer review.

The Peer Review Bulletin specifies the most rigorous peer review requirements for “highly influential scientific assessments,” which are a subset of “influential scientific information.” To ensure that implementation of the Peer Review Bulletin is not too costly, these requirements for more intensive peer review apply only to the more important scientific assessments disseminated by the Federal Government – those that could have a potential impact of more than \$500 million in any one year on either the public or private sector or are novel, controversial, or precedent-setting, or have significant interagency interest.

Under the Peer Review Bulletin, agencies are granted broad discretion to weigh the benefits and costs of using a particular peer review mechanism for a specific information product. In addition to the factors noted above, agencies also have the option of employing “alternative processes” for meeting the peer review requirement (e.g., commissioning a National

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<sup>103</sup> See OMB, *Memorandum for the Heads of Departments and Agencies*, (2004), M-05-03, <http://www.whitehouse.gov/omb/memoranda/fy2005/m05-03.pdf>.

<sup>104</sup> The Bulletin notes that information dissemination can have a significant economic impact even if it is not part of a rulemaking. For instance, the economic viability of a technology can be influenced by the government’s characterization of its attributes. Alternatively, the Federal Government’s assessment of risk can directly or indirectly influence the response actions of state and local agencies or international bodies.

<sup>105</sup> These assessments include, but are not limited to, state-of-science reports; technology assessments; weight-of-evidence analyses; meta-analyses; health, safety, or ecological risk assessments; toxicological characterizations of substances; integrated assessment models; hazard determinations; or exposure assessments.

Academy of Sciences' panel). Moreover, to ensure that peer review does not unduly delay the release of urgent findings, time-sensitive health and safety determinations are exempted from the requirements of the Peer Review Bulletin. There are also specific exemptions for national security, individual agency adjudication or permit proceedings, routine statistical information, and financial information. The Peer Review Bulletin does not cover information disseminated in connection with routine rules that materially alter entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof.

The Peer Review Bulletin provides two mechanisms for monitoring the progress of the agencies in meeting these peer review requirements: a transparent peer review planning process and annual reporting, described below.

The good science and good government requirements of the Peer Review Bulletin should assist in improving the accuracy and transparency of agency science. Additionally, the peer review planning process described in the Peer Review Bulletin, which includes posting of plans on agency websites, enhances the ability of the government and the public to track influential scientific disseminations made by agencies.

On June 16, 2005, the Peer Review Bulletin became effective for all influential scientific information, including highly influential scientific assessments. The peer review planning component of the Bulletin, discussed below, became fully effective on December 16, 2005. By the end of FY 2007, we had two full years of implementation.

### ***Peer Review Planning***

The Peer Review Planning component of the Peer Review Bulletin (Section V) requires agencies to begin a systematic process of peer review planning for influential scientific information (including highly influential scientific assessments) that the agency plans to disseminate in the foreseeable future.

A key feature of the agency's peer review plan is a web-accessible listing (agenda) of forthcoming influential scientific disseminations that is updated on a regular basis. These postings are designed to allow the public to participate in the peer review process by providing data and comments to the sponsoring agencies, as well as to external peer reviewers. By making these agendas publicly available, agencies increase the level of transparency in their peer review processes, and also have a mechanism to gauge the extent of public interest in their proposed peer reviews.

The agenda is designed to encourage planning for peer review early in the information generation process. Thus, the agenda should cover all information subject to the Peer Review Bulletin that the agency plans to disseminate *in the foreseeable future*. For instance, once an agency has established a time line for the generation of a scientific report, the agency should include that report in its agenda. Thus, although the Peer Review Bulletin specifies that agencies should update their peer review agendas every six months, the agenda is not a six-month forecast (i.e., it should not be limited to information (documents) that the agency plans to peer review in the next six months).

Readers are encouraged to visit the agendas for agencies of interest. OMB asks agencies to ensure that there is an easily identifiable hyperlink to the peer review agenda from the agency's information quality home page. For cabinet-level departments that have a central information quality page but do not have a central peer review agenda, OMB requests that a hyperlink to each agency agenda be provided. Section B in the Appendix D provides the URLs for most agencies' peer review agendas.

Departments and agencies with processes in place for proactively identifying documents subject to the Bulletin include the Departments of Agriculture,<sup>106</sup> Commerce,<sup>107</sup> Health and Human Services,<sup>108</sup> Interior,<sup>109</sup> Labor, and Transportation, Housing and Urban Development, Justice, and State, and the Environmental Protection Agency, the Consumer Product Safety Commission, and the Federal Communications Commission.

From time to time, other agencies produce or sponsor influential scientific information, but do not identify forthcoming information products subject to the Peer Review Bulletin. OMB is currently working with these agencies to ensure that they develop rigorous processes for determining which documents are subject to the Bulletin, and to ensure that the peer review plans for those documents are listed on the agency's agenda in a timely manner. These agencies include the Departments of Defense, Education, Energy, Homeland Security, and Veterans Affairs, as well as the National Aeronautics and Space Administration, the Nuclear Regulatory Commission, the Small Business Administration, the Federal Trade Commission, and the Tennessee Valley Authority.

Several agencies do not think that they currently produce or sponsor information subject to the Peer Review Bulletin. Most of these agencies primarily produce financial information or routine statistical information for which the Bulletin provides specific exemptions. Others primarily engage in management, oversight, or granting activities. A list of these agencies can be found in Section C in the Appendix D.

Although the Peer Review Planning section of the Bulletin lays out the specific items that should be included in each peer review plan, OMB does not specify the format that agencies should use, thereby giving agencies the flexibility to incorporate their agendas into existing e-government and science planning initiatives.<sup>110</sup> As such, some agencies house their peer review agendas within a research arm of the agency, whereas others operate out of the office of the chief information officer or the policy and planning office. Some departments provide an integrated

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<sup>106</sup> The Animal and Plant Health Inspection Service and the Food Safety and Inspection Service have strong peer review programs, as does the Economic Research Service. Many of the other agencies have come into compliance this year. The Forest Service is making progress in coming into compliance.

<sup>107</sup> The National Oceanographic and Atmospheric Administration is the only agency within Commerce that has identified documents subject to the Bulletin; their peer review process is strong.

<sup>108</sup> The Food and Drug Administration, the Center for Disease Control and Prevention, and the National Toxicology Program are compliant with the Bulletin.

<sup>109</sup> The Fish and Wildlife Service has an exemplary peer review process. The US Geological Survey and the Mineral Management Service are also compliant with the Bulletin. The DOI is working to incorporate peer review planning in the rest of its Bureaus.

<sup>110</sup> An example is the Environmental Protection Agency's incorporation with its science inventory project.

agenda across the agencies,<sup>111</sup> while other departments have chosen to have individual agencies host their own agendas.<sup>112</sup> Furthermore, some agencies have chosen to provide a single agenda for both influential scientific information and highly influential scientific assessments,<sup>113</sup> while others provide two separate agendas.<sup>114</sup> The Peer Review Bulletin specifically requires that agencies provide a link from the agenda to each document made public pursuant to the Bulletin, including the completed peer review report. Although some agencies routinely provide such links,<sup>115</sup> agendas at other agencies do not yet have this capability. Agencies have advised us that provision of these links is not always straightforward when the peer review is nested within a more complicated preexisting public process.<sup>116</sup> OMB is currently working with the agencies to ensure that the required information is posted, and that the web sites are easy to locate and navigate.

***FY 2008 Annual Reports of Agency Peer Reviews***

**Table 4-3: Peer Reviews Conducted Subject to the Bulletin in FY 2008**

<b>Department/ Agency</b>	<b>Total Peer Reviews Completed</b>	<b>Reviews of Highly Influential Scientific Assessments</b>	<b>Waivers, Deferrals, or Exemptions</b>	<b>Potential Reviewer Conflicts</b>
Department of Agriculture <sup>117</sup>	77	15	None	None
Department of Commerce <sup>118</sup>	28	5	None	None
Department of Energy <sup>119</sup>	1	0	None	None
Department of Health and Human Services <sup>120</sup>	23	5	None	None

<sup>111</sup> An example is the agenda for the Department of Transportation.

<sup>112</sup> An example is the agendas for the Department of Health and Human Services and the Department of the Interior.

<sup>113</sup> For instance, the agenda for the Department of Commerce.

<sup>114</sup> For instance, the agenda for the Department of Transportation.

<sup>115</sup> For instance, agendas for the Department of Agriculture’s Animal and Plant Health Inspection Service, the Department of Health and Human Services’ Center for Disease Control, and the Environmental Protection Agency (See Appendix for URLs for these agencies’ agendas.).

<sup>116</sup> For instance, some National Oceanographic and Atmospheric Administration documents that are part of the Endangered Species Act process (e.g., <http://www.fakr.noaa.gov/protectedresources/stellers/section7.htm>).

<sup>117</sup> The Department of Agriculture agencies reporting peer reviews in FY 2008 were the Animal and Plant Health Inspection Service, the Food Safety Inspection Service, the Agricultural Research Service, the Economic Research Service, and the Office of the Chief Economist.

<sup>118</sup> The Department of Commerce agency reporting peer reviews in FY 2008 was the National Oceanic and Atmospheric Administration.

<sup>119</sup> The only Department of Energy peer reviews reported in FY 2008 were associated with its climate change science program.

<sup>120</sup> The Department of Health and Human Services agencies reporting peer reviews in FY 2008 were the Centers for Disease Control and Prevention, the Food and Drug Administration, and the National Toxicology Program at the National Institute for Environmental Health Sciences, and the Office of Public Health Science.

<b>Department/ Agency</b>	<b>Total Peer Reviews Completed</b>	<b>Reviews of Highly Influential Scientific Assessments</b>	<b>Waivers, Deferrals, or Exemptions</b>	<b>Potential Reviewer Conflicts</b>
Department of the Interior <sup>121</sup>	29	3	1 (Waiver)	None
Department of Labor <sup>122</sup>	2	1	None	None
Department of Transportation <sup>123</sup>	5	4	None	None
Environmental Protection Agency	31	17	None	None
Federal Communications Commission	1	None	None	None
National Aeronautics and Space Administration <sup>124</sup>	1	1	None	None
<b>Total</b>	198	51	one	None

### C. Final Bulletin for Agency Good Guidance Practices

On January 18, 2007, OMB issued a Final Bulletin for Agency Good Guidance Practices (Good Guidance Practices Bulletin).<sup>125</sup> This Bulletin is designed to lead to improvements in the way the Federal Government does business – by increasing the quality, accountability, and transparency of agency guidance documents.

The rationale underlying the Good Guidance Practices Bulletin is that while guidance documents do not have the force of law, they can nevertheless have a significant impact on American businesses, workers, consumers, and State, local and tribal governments. Well-designed guidance documents serve many important functions in regulatory programs, such as advising and assisting individuals, small businesses and other regulated entities in their compliance with agency regulations, as well as furthering consistency and fairness in an agency’s enforcement of its regulations. However, agency guidance that has an impact on society equivalent to that of a regulation should be subject to an appropriate level of review;

<sup>121</sup> The Department of the Interior agency reporting peer reviews in FY 2008 was the Fish and Wildlife Service and the U.S. Geological Survey.

<sup>122</sup> The Department of Labor agency reporting peer reviews in FY 2008 was the Occupational Health and Safety Administration.

<sup>123</sup> The Department of Transportation agencies reporting peer reviews in FY 2008 were the Federal Aviation Administration, National Transportation Safety Administration, Federal Highway Administration, and Federal Motor Carrier Safety Administration.

<sup>124</sup> The only National Aeronautics and Space Administration peer reviews reported in FY 2008 were associated with its climate change science program.

<sup>125</sup> OMB, *Final Bulletin for Agency Good Guidance Practices (2007)*, <http://www.whitehouse.gov/omb/memoranda/fy2007/m07-07.pdf>.

within an agency, by other agencies with related missions, and by the public. Many of those providing public comments on the draft bulletin expressed support for OMB's issuance of it.<sup>126</sup>

To accomplish its goal, the Good Guidance Practices Bulletin establishes policies and procedures for the development, issuance, and use of significant guidance documents by Executive Branch departments and agencies, including the following:

- In each agency, appropriate officials review and approve the agency's issuance of significant guidance documents.
- Agencies maintain on their websites current lists of their significant guidance documents that are in effect, so that the regulated community can know what guidance applies to it.
- Agencies provide the public with access to and the opportunity to provide feedback on the significant guidance documents. Agencies advertise on their websites a means for the public to submit comments electronically on these guidance documents.
- For those guidance documents that are economically significant, agencies publish notices in the *Federal Register* announcing that the draft documents are available (on the internet or in hard copy), invite public comment on them, and post on their websites response-to-comments documents.

On April 25, 2007, OMB issued a memorandum to the agencies providing implementation assistance for the Good Guidance Practices Bulletin.<sup>127</sup> This memorandum is designed to respond to frequently-asked questions and guide the agencies to substantial compliance.

### ***Agency Websites for Significant Guidance Documents***

One of the main reasons that OMB issued the Good Guidance Practices Bulletin, as its preamble makes clear, is that, while agency guidance documents serve many important functions--by providing guidance to the public on permissible and impermissible conduct while ensuring equal treatment of similarly situated parties, for example--guidance documents can be poorly or improperly implemented.<sup>128</sup> Additionally, prior to the issuance of the Good Guidance Practices Bulletin, it was not always easy for the public to track down and review agency guidance documents.

One of the ways that the Good Guidance Practices Bulletin seeks to correct these problems is through its requirement that agencies provide the public with access to, and the

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<sup>126</sup> See public comments on the draft OMB, *Good Guidance Practices Bulletin*, (2005) [http://www.whitehouse.gov/omb/inforeg/good\\_guid/c-index.html](http://www.whitehouse.gov/omb/inforeg/good_guid/c-index.html).

<sup>127</sup> See OMB, *Implementation of Executive Order 13422* (amending Executive Order 12866), and the OMB Bulletin on Good Guidance Practice (2007), <http://www.whitehouse.gov/omb/memoranda/fy2007/m07-13.pdf>.

<sup>128</sup> Preamble to the Good Guidance Practices Bulletin.

opportunity to provide feedback on the agency's significant guidance documents.<sup>129</sup> The Good Guidance Practices Bulletin requires each agency to maintain on its website a current list of significant guidance documents in effect, the name of each significant guidance document, their issuance dates, and links to the guidance documents themselves.<sup>130</sup> Additionally, agencies are required to advertise on their websites a means for the public to submit comments on significant guidance documents; to request issuance, reconsideration, modification, or rescission of significant guidance documents; and the office designated to receive complaints that the agency is not following proper guidance procedures.<sup>131</sup>

Links to the guidance document sections of agency websites can be found in Section IV of the Final 2008 Report to Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities.”<sup>132</sup>

#### **D. Updated Principles for Risk Analysis**

Risk analysis, based on objective science, is the key tool used to evaluate health, safety, and environmental risks to inform policy-makers about the extent to which different policy choices can reduce risks. Recognizing this point, an interagency working group co-chaired in 1995 by the Office of Management and Budget (OMB) and the Office of Science and Technology Policy (OSTP) developed a set of principles to guide policymakers in assessing, managing, and communicating policies to address environmental, health, and safety risks (the 1995 Principles).<sup>133</sup> In September 2007, OMB and OSTP issued a joint memorandum to reinforce the 1995 Principles with reference to more recent guidance from the scientific community, the Congress, and the Executive Branch.<sup>134</sup> This Memorandum also benefited from feedback received on OMB's Proposed Risk Assessment Bulletin issued in 2006 (Proposed Risk Assessment Bulletin).<sup>135</sup>

In releasing the updated risk principles, OMB and OSTP asked agencies to review their current risk analysis practices and guidelines to incorporate the updated principles as they

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<sup>129</sup> Section III of the Good Guidance Practices Bulletin.

<sup>130</sup> Section III(1)(a) of the Good Guidance Practices Bulletin.

<sup>131</sup> Section III(2) of the Good Guidance Practices Bulletin.

<sup>132</sup> This report can be found at:

[http://www.whitehouse.gov/omb/assets/information\\_and\\_regulatory\\_affairs/2008\\_cb\\_final.pdf](http://www.whitehouse.gov/omb/assets/information_and_regulatory_affairs/2008_cb_final.pdf).

<sup>133</sup> See OMB, *Memorandum for the Regulatory Working Group, Principles for Risk Analysis* (1995), [http://www.whitehouse.gov/omb/infoereg/regpol/jan1995\\_risk\\_analysis\\_principles.pdf](http://www.whitehouse.gov/omb/infoereg/regpol/jan1995_risk_analysis_principles.pdf).

<sup>134</sup> OMB and OSTP, *Updated Principles for Risk Analysis* (2007), <http://www.whitehouse.gov/omb/memoranda/fy2007/m07-24.pdf>.

<sup>135</sup> OMB, *Proposed Risk Assessment Bulletin*, (2006) [hereinafter Proposed Risk Assessment Bulletin], [http://www.whitehouse.gov/omb/infoereg/proposed\\_risk\\_assessment\\_bulletin\\_010906.pdf](http://www.whitehouse.gov/omb/infoereg/proposed_risk_assessment_bulletin_010906.pdf). In January 2006, OIRA, in consultation with OSTP, released the Proposed Risk Assessment Bulletin for public comment and asked the National Academy of Sciences (NAS) to conduct an expert peer review. The NAS issued its report on the Proposed Risk Assessment Bulletin in 2007 (National Research Council, 2007). While supportive of the goal of “increasing the quality and objectivity of risk assessment in the federal government,” the NAS recommended an approach that would “outline goals and general principles of risk assessment.” After carefully evaluating these constructive recommendations from the NAS, as well as feedback from a rigorous interagency review, and public comments, OMB and OSTP decided to issue an updated memorandum to reinforce generally-accepted principles for risk analysis upon which a wide consensus now exists.

develop, update, and issue risk analyses and guidelines. OMB and OSTP committed to working with the Federal agencies to ensure consistency with the updated principles.

### *The Transatlantic Risk Dialogue*

As discussed in the 2008 Report to Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities, OMB continues to have an ongoing risk analysis dialogue with the European Union and Canada. The governments continue to work together to define specific risk analysis topic areas where further collaboration and joint products would be useful. Working groups identified specific topics relating to uncertainty and terminology, non-threshold carcinogens, exposure assessment, and emerging issues. Each working group is planning to produce outputs by 2010. The conference website can be viewed at: [http://ec.europa.eu/health/ph\\_risk/ev\\_20081113\\_en.htm](http://ec.europa.eu/health/ph_risk/ev_20081113_en.htm).

In addition to the efforts above, the July workshop participants expressed a shared interest in further discussions regarding how risk assessors, risk managers, and economists can work together more efficiently and more effectively, among other topics. Participants also expressed interest in discussing the acceptability of risk, and risk communication challenges. Both these topics will be considered for future transatlantic risk dialogue activities.

**PART II: FOURTEENTH ANNUAL REPORT TO CONGRESS ON  
AGENCY COMPLIANCE WITH THE UNFUNDED MANDATES REFORM ACT**

## INTRODUCTION

This report represents OMB's fourteenth annual submission to Congress on agency compliance with the Unfunded Mandates Reform Act of 1995 (UMRA). It details agency actions to involve State, local, and tribal governments in regulatory decisions that affect them, including expanded efforts to involve them in agency decision-making processes. This report on agency compliance with the Act covers the period of October 2007 through September 2008; the rules published before October 2007 are described in last year's report.

In recent years, this report has been included along with our final Report to Congress on the Benefits and Costs of Federal Regulations. This is done because the two reports together address many of the same issues, and both highlight the need for regulating in a responsible manner that accounts for the benefits and costs of rules and takes into consideration the interests of our intergovernmental partners. This year, OMB is again publishing the UMRA report with the Report to Congress on the Benefits and Costs of Federal Regulations.

State and local governments have a vital constitutional role in providing government services. They have the major role in providing domestic public services, such as public education, law enforcement, road building and maintenance, water supply, and sewage treatment. The Federal Government contributes to that role by promoting a healthy economy and by providing grants, loans, and tax subsidies to State and local governments. However, over the past two decades, State, local, and tribal governments increasingly have expressed concerns about the difficulty of complying with Federal mandates without additional Federal resources. In response, Congress passed the Unfunded Mandates Reform Act of 1995 (the Act).

Title I of the Act focuses on the Legislative Branch, addressing the processes Congress should follow before enactment of any statutory unfunded mandates. Title II addresses the Executive Branch. It begins with a general directive for agencies to assess, unless otherwise prohibited by law, the effects of their rules on the other levels of government and on the private sector (Section 201). Title II also describes specific analyses and consultations that agencies must undertake for rules that may result in expenditures of over \$100 million (adjusted annually for inflation) in any year by State, local, and tribal governments in the aggregate, or by the private sector. Specifically, Section 202 requires an agency to prepare a written statement for intergovernmental mandates that describes in detail the required analyses and consultations on the unfunded mandate. Section 205 requires that for all rules subject to Section 202, agencies must identify and consider a reasonable number of regulatory alternatives, and then generally select from among them the least costly, most cost-effective, or least burdensome option that achieves the objectives of the rule. Exceptions require the agency head to explain in the final rule why such a selection was not made or why such a selection would be inconsistent with law.

Title II requires agencies to "develop an effective process" for obtaining "meaningful and timely input" from State, local and tribal governments in developing rules that contain significant intergovernmental mandates (Section 204). Title II also singles out small governments for particular attention (Section 203). OMB's guidelines assist Federal agencies in complying with the Act and are based upon the following general principles:

- Intergovernmental consultations should take place as early as possible, beginning before issuance of a proposed rule and continuing through the final rule stage, and be integrated explicitly into the rulemaking process;
- Agencies should consult with a wide variety of State, local, and tribal officials;
- Agencies should estimate direct benefits and costs to assist with these consultations;
- The scope of consultation should reflect the cost and significance of the mandate being considered;
- Effective consultation requires trust and significant and sustained attention so that all who participate can enjoy frank discussion and focus on key priorities; and
- Agencies should seek out State, local, and tribal views on costs, benefits, risks, and alternative methods of compliance, and whether the Federal rule will harmonize with and not duplicate similar laws in other levels of government.

Federal agencies have been actively consulting with States, localities, and tribal governments in order to ensure that regulatory activities were conducted consistent with the requirements of the Act.

The remainder of this report discusses the results of agency actions in response to the Act between October 1, 2007 and September 30, 2008. Not all agencies take many significant actions that affect other levels of government; therefore, this report focuses on the agencies that have regular and substantive interactions on regulatory matters that involve States, localities, and tribes, as well as the private sector. This report also lists and briefly discusses the regulations meeting the Title II threshold and the specific requirements of Sections 202 and 205 of the Act. Eight rules have met this threshold, all for their impacts on the private sector. These include both those efforts required under the Act, and the many actions conducted by agencies above and beyond these requirements

## CHAPTER V: REVIEW OF SIGNIFICANT REGULATORY MANDATES

In FY 2008, Federal agencies issued eight final rules that were subject to Sections 202 and 205 of the Unfunded Mandate Reform Act of 1995 (UMRA), as they require expenditures by State, local or tribal governments, in the aggregate, or by the private sector, of at least \$100 million in any one year (adjusted annually for inflation). The Departments of Treasury, Transportation and Commerce each issued one rule, the Department of Homeland Security (DHS) issued two rules, and the Environmental Protection Agency (EPA) issued three of these rules.

OMB worked with the agencies to ensure that the selection of the regulatory options for these rules fully complied with the requirements of Title II of the Act. Descriptions of the rules in addition to agency statements regarding compliance with the Act are included in the following section.

### A. Department of Transportation

*Transport Airplane Fuel Tank Flammability Reduction. (73 FR 42444).* This final rule amends FAA regulations that require operators and manufacturers of transport category airplanes to take steps that, in combination with other required actions, should greatly reduce the chances of a catastrophic fuel tank explosion. The final rule does not direct the adoption of specific inerting technology either by manufacturers or operators, but establishes a performance-based set of requirements that set acceptable flammability exposure values in tanks most prone to explosion or require the installation of an ignition mitigation means in an affected fuel tank. Technology now provides a variety of commercially feasible methods to accomplish these vital safety objectives.

This rule will impose an unfunded mandate on state, local, or tribal governments, or on the private sector by exceeding the previously identified threshold. Consequently, the provisions of this rule constitute a private sector mandate under the UMRA.

### B. Department of Homeland Security

*Chemical Facility Anti-Terrorism Standards (72 FR 65396).* This final rule establishes risk-based performance standards, and requires vulnerability assessments and the development and implementation of site security plans for major chemical facilities. Specifically, it requires facilities to undergo a “top screen” to determine whether or not they need to be further regulated. As a result of the top screen, a smaller number of the most risky facilities would be identified for classification in one of the four risk tiers, triggering additional security planning and analysis requirements.

DHS estimates that this rule will cost \$835-1,535 million annually. This final rule would not impose any cost on small governments or significantly or uniquely affect small governments. However, DHS has determined that the rule would result in the expenditure by the private sector

significantly greater than \$100 million (adjusted annually for inflation) in any one year. Consequently, the provisions of this rule constitute a private sector mandate under the UMRA.

*Documents Required for Travelers Entering the United States at Sea and Land Ports-of-Entry From Within the Western Hemisphere.* (73FR18384). This rule finalizes the second phase of a joint Department of Homeland Security and Department of State plan, known as the Western Hemisphere Travel Initiative, to implement new documentation requirements for U.S. citizens and certain nonimmigrant aliens entering the United States. This final rule details the documents U.S. citizens and nonimmigrant citizens of Canada, Bermuda, and Mexico will be required to present when entering the United States from within the Western Hemisphere at sea and land ports-of-entry.

DHS estimates this rule will cost approximately \$300 million. This rule would not impose a significant cost or uniquely affect small governments; however, it does have an effect on the private sector of \$100 million or more. Consequently, the provisions of this rule constitute a private sector mandate under the UMRA.

### **C. Department of Treasury**

*Implementation of a Revised Basel Capital Accord (Basel II).* (72 FR 69288). The Office of the Comptroller of the Currency (OCC), the Board of Governors of the Federal Reserve System (Board), the Federal Deposit Insurance Corporation (FDIC), and the Office of Thrift Supervision (OTS) adopted a new risk-based capital adequacy framework that requires some and permits other qualifying banks to use an internal ratings-based approach to calculate regulatory credit risk capital requirements and advanced measurement approaches to calculate regulatory operational risk capital requirements. This final rule applies to commercial banks and savings associations. Three banking agencies—the OCC, the Board, and the FDIC—regulate commercial banks while OTS regulates all Federally chartered and many State chartered savings associations.

The agencies estimate that this rule will cost between \$101 million to \$797 million. The final rule qualifies as a significant regulatory action under the UMRA because its Federal mandates may result in the expenditure by the private sector of \$100 million or more in any one year. Consequently, the provisions of this rule constitute a private sector mandate under the UMRA.

### **D. Environmental Protection Agency**

*Lead-Based Paint; Amendments for Renovation, Repair and Painting.* (73FR21692). This final rule addresses lead-based paint hazards created by renovation, repair, and painting activities that disturb lead-based paint in target housing and child-occupied facilities. This rule establishes requirements for training renovators, other renovation workers, and dust sampling technicians; for certifying renovators, dust sampling technicians, and renovation firms; for accrediting providers of renovation and dust sampling technician training; for renovation work practices; and

for recordkeeping. Interested States, Territories, and Indian Tribes may apply for and receive authorization to administer and enforce all of the elements of these new renovation requirements.

EPA estimates this rule will cost between \$383 and \$417 million. Under UMRA Title II, EPA has determined that this rule contains a Federal mandate that may result in expenditures that exceed the inflation-adjusted UMRA threshold of \$100 million by the private sector in any 1 year, but it will not result in such expenditures by State, local, and Tribal governments in the aggregate.

*Control of Emissions from New Locomotives and New Marine Diesel Engines Less Than 30 Liters per Cylinder. (73 FR25098).* This rule implements a program to reduce pollution from locomotives and marine diesel engines. The controls will apply to all types of locomotives, including line-haul, switch, and passenger, and all types of marine diesel engines below 30 liters per cylinder displacement, including commercial and recreational, propulsion and auxiliary. The near-term emission standards for newly-built engines will phase in starting in 2009. The near-term program also includes new emission limits for existing locomotives and marine diesel engines that apply when they are remanufactured, and take effect as soon as certified remanufacture systems are available, as early as 2008. The long-term emissions standards for newly-built locomotives and marine diesel engines are based on the application of high-efficiency catalytic after treatment technology. These standards begin to take effect in 2015 for locomotives and in 2014 for marine diesel engines.

EPA estimates this rule will cost between \$310 million and \$430 million annually. This rule contains no federal mandates for state, local, or tribal governments as defined by the provisions of Title II of the UMRA. The rule also does not significantly or uniquely affect small governments, however, this rule contains federal mandates that may result in expenditures of more than \$100 million to the private sector in any single year. Consequently, the provisions of this rule constitute a private sector mandate under the UMRA.

*Control of Emissions From Nonroad Spark-Ignition Engines and Equipment. (73FR 59034).* This final rule adopts exhaust emission standards for new nonroad spark-ignition engines that will substantially reduce emissions from these engines. The standards would apply starting in 2009 for new marine spark-ignition engines, including first-time EPA standards for sterndrive and inboard engines. The standards would apply starting in 2011 and 2012 for different sizes of new land-based, spark-ignition engines at or below 19 kilowatts (kW), which is equivalent to about 25 horsepower.

EPA estimates this rule will cost approximately \$200 million per year. The final rule does not contain federal mandates for state, local, or tribal governments as defined by the provisions of Title II of the UMRA. The rule also does not impose enforceable duties on any small governments. However, EPA determined this contains federal mandates that may result in expenditures of more than \$100 million to the private sector in any single year.

## **E. Department of Commerce**

*Right Whale Ship Strike Reduction. (71 FR 36299).* This final rule establishes speed restrictions to reduce the number of deaths to North Atlantic right whales as a result of collisions with vessels, which account for more confirmed right whale deaths than any other anthropogenic cause. Speed restrictions would be limited to areas and times when North Atlantic right whales and ships overlap to reduce the likelihood of ship strikes to the extent practicable.

Commerce estimates this rule will cost \$116 million per year. This rule contains no federal mandates for state, local, or tribal governments as defined by the provisions of Title II of the UMRA. The rule also does not significantly or uniquely affect small governments. However, this rule contains federal mandates that may result in expenditures of more than \$100 million to the private sector in any single year. Consequently, the provisions of this rule constitute a private sector mandate under the UMRA.

## APPENDIX A: CALCULATION OF BENEFITS AND COSTS

Chapter I presents estimates of the annual benefits and costs of selected major final regulations reviewed by OMB between October 1, 1998 and September 30, 2008. OMB presents more detailed explanation of these regulations in several documents.

- Rules from October 1, 1997 to September 30, 1998 appear in Table B-1 in Appendix B of this Report.
- Rules from October 1, 1996 to September 30, 1997 appear in Table B-1 in Appendix B of the 2008 Report.
- Rules from October 1, 1995 to September 30, 1996 appear in Table B-1 in Appendix B of the 2007 Report.
- Rules from October 1, 1992 to September 30, 1995: Tables C-1 through C-3 in Appendix C of our 2006 Report.
- Rules from October 1, 1995 to March 31, 1999 can be found in Chapter IV of the 2000 Report.
- Rules from April 1, 1999 to September 30, 2001: Table 19 of the 2002 Report.
- Rules from October 1, 2001 to September 30, 2002: Table 19 of the 2003 Report.
- Rules from October 1, 2002 to September 30, 2003: Table 12 of the 2004 Report.
- Rules from October 1, 2003 to September 30, 2004: Tables 1-4 and A-1 of the 2005 Report.
- Rules from October 1, 2004 to September 30, 2005: Tables 1-4 and A-1 of the 2006 Report
- Rules from October 1, 2005 to September 30, 2006: Tables 1-4 and A-1 of the 2007 Report.
- Rules from October 1, 2006 to September 30, 2007: Tables 1-4 and A-1 of the 2008 Report.
- Rules from October 1, 2007 to September 30, 2008: Tables 1-4 and A-1 of this Report.

In assembling estimates of benefits and costs presented in Table 1-4, OMB has:

- (1) Applied a uniform format for the presentation of benefit and cost estimates in order to make agency estimates more closely comparable with each other (for example, annualizing benefit and cost estimates); and
- (2) Monetized quantitative estimates where the agency has not done so (for example, converting agency projections of quantified benefits, such as estimated injuries avoided per year or tons of pollutant reductions per year, to dollars using the valuation estimates discussed below).

All benefit and cost estimates are adjusted to 2001 dollars using the latest Gross Domestic Product (GDP) deflator, available from the Bureau of Economic Analysis at the Department of Commerce.<sup>136</sup> In instances where the nominal dollar values the agencies use for their benefits and costs is unclear, we assume the benefits and costs are presented in nominal

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<sup>136</sup>See *National Income and Product Accounts*, <http://www.bea.gov>.

dollar values of the year before the rule is finalized. In periods of low inflation such as the past few years, this assumption does not affect the overall totals. All amortizations are performed using a discount rate of 7 percent unless the agency has already presented annualized, monetized results using a different explicit discount rate.

OMB discusses, in this Report and in previous Reports, the difficulty of estimating and aggregating the benefits and costs of different regulations over long time periods and across many agencies. In addition, where OMB has monetized quantitative estimates where the agency has not done so, we have attempted to be faithful to the respective agency approaches. The adoption of a uniform format for annualizing agency estimates allows, at least for purposes of illustration, the aggregation of benefit and cost estimates across rules; however, agencies have used different methodologies and valuations in quantifying and monetizing effects. Thus, an aggregation involves the assemblage of benefit and cost estimates that are not strictly comparable.

To address this issue in part, the 2003 Report included OMB's new regulatory analysis guidance, also released as OMB Circular A-4, which took effect on January 1, 2004 for proposed rules and January 1, 2005 for final rules. The guidance recommends what OMB considers to be "best practices" in regulatory analysis, with a goal of strengthening the role of science, engineering, and economics in rulemaking. The overall goal of this guidance is a more competent and credible regulatory process, and a more consistent regulatory environment. OMB expects that as more agencies adopt these recommended best practices, the benefits and costs presented in future Reports will become more comparable across agencies and programs. The 2006 Report was the first report that included final rules subject to OMB Circular A-4. OMB will continue to work with the agencies to ensure that their impact analyses follow the new guidance.

Table A-1 below presents the unmodified information on the impacts of 24 major rules reviewed by OMB from October 1, 2007 through September 30, 2008, and includes additional explanatory text on how agencies calculated the impacts for these rulemakings. Unless otherwise stated, the totals presented in Table A-1 are annualized impacts in 2001 dollars, which is the requested format in OMB Circular A-4. Table 1-4 in Chapter I of this Report presents the adjusted impact estimates for the 14 rules finalized in 2007-2008 that were added to the Chapter I accounting statement totals.

**Table A-1: Summary of Agency Estimates for Final Rules  
October 1, 2007 - September 30, 2008 (As of Date of Completion of OMB Review)**

<b>Rule [FR Cite]</b>	<b>Agency</b>	<b>Benefits</b>	<b>Costs</b>	<b>Other Information</b>
Right Whale Ship Strike Reduction [73 FR 60173]	DOC/ NOAA	Not estimated	\$105 million per year	Benefits: Reduction of right whale mortality which reduces the likelihood of extinction of this endangered species.  Costs: Total costs include both direct and secondary economic effects.  The RIA is available online at: <a href="http://www.nmfs.noaa.gov/pr/pdfs/shipstrike/feis_economic_analysis.pdf">http://www.nmfs.noaa.gov/pr/pdfs/shipstrike/feis_economic_analysis.pdf</a>
Energy Efficiency Standards for Residential Furnaces and Boilers [72 FR 65136]	DOE/ EERE	\$120 - 182 million per year	\$33 - 38 million per year	Energy savings of 0.011 quadrillion BTUs of energy from 2015 to 2038.  The RIA is available online at: <a href="http://www1.eere.energy.gov/buildings/appliance_standards/residential/pdfs/fb_fr_tsd/ria.pdf">http://www1.eere.energy.gov/buildings/appliance_standards/residential/pdfs/fb_fr_tsd/ria.pdf</a>
Group Health Plans and Health Insurance Issues Under the Newborns and Mothers Health Protection Act [73 FR 62409]	HHS/ CMS, DOL/ EBSA and Treas/ IRS	Not estimated	\$119 - 238 million per year	Benefits: Increase in access to health plan coverage for postpartum care and monitoring of mothers and their newborns should reduce the risk of adverse health outcomes.  Costs: Because the statute does not require a 48 or 96-hour stay, but instead gives the decision-making authority to the attending physician in consultation with the mother, it is expected that not all these births will result in additional hospital time.  The RIA is available online at: <a href="http://www.regulations.gov/fdmspublic/component/main?main=DocumentDetail&amp;o=090000648076a419">http://www.regulations.gov/fdmspublic/component/main?main=DocumentDetail&amp;o=090000648076a419</a>

<b>Rule [FR Cite]</b>	<b>Agency</b>	<b>Benefits</b>	<b>Costs</b>	<b>Other Information</b>
Fire Safety Requirements for Long-Term Care Facilities: Sprinkler Systems [73 FR 47075]	HHS/CMS	\$53 - 56 million per year	\$45 - 56 million per year	The RIA is available online at: <a href="http://www.regulations.gov/fdmspublic/component/main?main=DocumentDetail&amp;o=09000064806c1263">http://www.regulations.gov/fdmspublic/component/main?main=DocumentDetail&amp;o=09000064806c1263</a>
Substances Prohibited from Use in Animal Food or Feed to Prevent the Transmission of Bovine Spongiform Encephalopathy [73 FR 22720]	HHS/FDA	Not estimated	\$58 - 72 million per year	Benefits: 90% reduction in potential Bovine Spongiform Encephalopathy infectivity.  The RIA is available online at: <a href="http://www.ers.usda.gov/Publications/LDP/2008/08Aug/LDPM17001/ldpm17001.pdf">http://www.ers.usda.gov/Publications/LDP/2008/08Aug/LDPM17001/ldpm17001.pdf</a>
Changes to the Visa Waiver Program to Implement the Electronic System for Travel Authorization (ESTA) Program [73 FR 32440]	DHS/OS	\$20 - 29 million per year	\$13 - 99 million per year	The RIA is available online at: <a href="http://www.regulations.gov/fdmspublic/component/main?main=DocketDetail&amp;d=USCBP-2008-0003">http://www.regulations.gov/fdmspublic/component/main?main=DocketDetail&amp;d=USCBP-2008-0003</a>
Documents Required for Travelers Entering the United States at Sea and Land Ports-of-Entry from Within the Western Hemisphere [73 FR 18384]	DHS/USCBP	Not estimated	\$268 - 284 million per year	The RIA is available online at: <a href="http://www.regulations.gov/fdmspublic/component/main?main=DocumentDetail&amp;o=090000648054b924">http://www.regulations.gov/fdmspublic/component/main?main=DocumentDetail&amp;o=090000648054b924</a>

Rule [FR Cite]	Agency	Benefits	Costs	Other Information
Minimum Standards for Driver's Licenses and Identification Cards Acceptable by Federal Agencies for Official Purposes [73 FR 5272]	DHS/OS	Not estimated	\$477 - 1,331 million per year	<p>Benefit: Improve the security and decrease the vulnerability of federal buildings, nuclear facilities, and aircraft to terrorist attack.</p> <p>DHS assumes voluntary compliance from States, with estimated costs of \$2,9 billion over 11 years.</p> <p>The RIA is available online at:  <a href="http://www.dhs.gov/xprevprot/laws/gc_1172765386179.shtm">http://www.dhs.gov/xprevprot/laws/gc_1172765386179.shtm</a></p>
Migratory Bird Hunting; 2008 to 2009 Migratory Game Bird Hunting Regulations [73 FR 55602]	DOI/FWS	\$711 - 1,002 million	Not estimated	<p>Benefits: The listed benefits represent estimated "consumer surplus." Consumer surplus in this instance essentially measures the net gains to hunters stemming from the right to hunt, which this rule grants. Those net gains are the difference between what it costs to hunt (including gear, travel, and time spent hunting) and the satisfaction hunters get from taking part in this activity. Data to estimate "producers' surplus" (the net gains to producers of hunting gear and to the providers of other services hunters use) are not available; producer surplus is likely minimal compared to consumer surplus, but would also be a benefit of the rule if monetized.</p> <p>Costs: The economic model used by DOI did not produce a separate estimate of the costs of the rulemaking.</p> <p>Other details: DOI performed an economic impact analysis to estimate the impact of bird hunting regulation for the 2008-2009 season. This analysis looks at the economic effects of duck hunting, the major component of all migratory bird hunting. Sufficient data exists for duck hunting to generate an analysis of hunter behavior in response to regulatory alternatives. The analysis for all migratory bird hunting is not possible because of data limitations, but can be inferred from the results of the duck hunting analysis presented here.</p> <p>The RIA is available online at:  <a href="http://www.fws.gov/migratorybirds/reports/SpecialTopics/Mig%20bird%20Regs%20analysis%202008.pdf">http://www.fws.gov/migratorybirds/reports/SpecialTopics/Mig%20bird%20Regs%20analysis%202008.pdf</a></p>

<b>Rule [FR Cite]</b>	<b>Agency</b>	<b>Benefits</b>	<b>Costs</b>	<b>Other Information</b>
Section 404 Regulation— Default Investment Alternatives under Participant Directed Individual Account Plans [72 FR 60451]	DOL/EBSA	Not estimated	Not estimated	Annual contributions to 401(k) plans are expected to grow by between \$5.7-11.4 billion (\$2006). Some participants will benefit additionally from an increase in average investment returns. Pension income will increase substantially.  The RIA is available online at: <a href="http://www.dol.gov/ebsa/regs/fedreg/proposed/2006008282.htm">http://www.dol.gov/ebsa/regs/fedreg/proposed/2006008282.htm</a>
Employer Payment for Personal Protective Equipment [72 FR 64341]	DOL/OSHA	\$40 – 336 million per year	\$2 - 20 million per year	Benefits: Represents value of injuries and fatalities prevented annually. In addition, this rule transfers \$62.30 million/year from employers to employees since employers would pay for some equipment purchased by employees.  The RIA is available online at: <a href="http://www.osha.gov/pls/oshaweb/owadis.show_document?p_id=20094&amp;p_table=FEDERAL_REGISTER">http://www.osha.gov/pls/oshaweb/owadis.show_document?p_id=20094&amp;p_table=FEDERAL_REGISTER</a> (see Sec. XV)
Transport Airplane Fuel Tank Flammability Reduction [73 FR 42444]	DOT/FAA	\$21 - 66 million per year	\$60 - 67 million per year	The RIA is available online at: <a href="http://www.regulations.gov/fdmspublic/component/main?main=DocumentDetail&amp;o=090000648068105d">http://www.regulations.gov/fdmspublic/component/main?main=DocumentDetail&amp;o=090000648068105d</a>
Hours of Service of Drivers [72 FR 71247]	DOT/ FMCSA	\$0 - 1,760 million per year	\$0 - 105 million per year	The RIA is available online at: <a href="http://www.gao.gov/decisions/majrule/d09222r.pdf">http://www.gao.gov/decisions/majrule/d09222r.pdf</a> (indicates RIA conducted by FMCSA for 2005 rule is still valid)  2005 RIA available online at: <a href="http://www.fmcsa.dot.gov/rules-regulations/topics/hos/regulatory-impact.htm">http://www.fmcsa.dot.gov/rules-regulations/topics/hos/regulatory-impact.htm</a>
Regulatory Relief for Electronically Controlled Pneumatic Brake System Implementation [73 FR 61512]	DOT/FRA	\$828 - 884 million per year	\$130 - 145 million per year	The RIA is available online at: <a href="http://www.epa.gov/EPA-IMPACT/2008/October/Day-16/i22549.htm">http://www.epa.gov/EPA-IMPACT/2008/October/Day-16/i22549.htm</a>

Rule [FR Cite]	Agency	Benefits	Costs	Other Information
Implementation of a Revised Basel Capital Accord (Basel II) [72 FR 69288]	TREAS/ OCC and TREAS/ OTS	Not estimated	\$101 - 797 million per year	Benefit: Benefits include: (1) better allocation of capital and reduce effect of moral hazard through reduction in the scope for regulatory arbitrage; (2) improved signal quality of capital as an indicator of solvency; (3) encouragement of banking organizations to improve credit risk management; (4) more efficient use of required bank capital; (5) incorporation and encouragement of advances in risk measurement and risk management; (6) recognition of new developments and innovation in financial products by focusing on risk; (7) better alignment of capital and operational risk; (8) enhancement of supervisory feedback; (9) incorporation of market discipline into the regulatory framework; (10) preservation of benefits of international consistency and coordination achieved with the 1988 Basel Accord; and (11) ability to opt in offers long-term flexibility to non-mandatory organizations.  The RIA is available online at: <a href="http://www.occ.treas.gov/law/Final_Rule_PDF_Filed_via_ROCIS_doc.pdf">http://www.occ.treas.gov/law/Final_Rule_PDF_Filed_via_ROCIS_doc.pdf</a>
Control of Emissions from New Locomotives and New Marine Diesel Engines Less Than 30 Liters per Cylinder [73 FR 25097]	EPA/AR	\$4,150 - 14,500 million per year	\$295 - 392 million per year	Benefits: Low and high benefits are estimated by adding results derived from a range of ozone-related premature mortality functions (including an assumption of no causality) to PM 2.5-related premature mortality benefits derived from the ACS study. The benefit estimates are annualized using two assumptions: (1) linear benefit streams between the year of implementation to 2020, and 2020 to 2030; and (2) 2030 benefits are assumed for perpetuity.  The RIA is available online at: <a href="http://www.epa.gov/oms/regs/nonroad/420r08001a.pdf">http://www.epa.gov/oms/regs/nonroad/420r08001a.pdf</a>
Control of Emissions from Nonroad Spark-Ignition Engines and Equipment [73 FR 59034]	EPA/AR	\$900 - 4,760 million per year	\$196 - 200 million per year	Benefits: Low and high estimates replace Pope et al. (2002) estimates with the range associated with the expert elicitation conducted for the PM NAAQS and replace the NMMAPS estimate with a range of ozone mortality estimates including an assumption of no causality. The benefit estimates are annualized using two assumptions: (1) linear benefit streams between the year of implementation to 2020, and 2020 to 2030; and (2) 2030 benefits are assumed for perpetuity.  The RIA is available on line at: <a href="http://www.epa.gov/OMS/regs/nonroad/marinesi-equipld/420r08014.pdf">http://www.epa.gov/OMS/regs/nonroad/marinesi-equipld/420r08014.pdf</a>

<b>Rule [FR Cite]</b>	<b>Agency</b>	<b>Benefits</b>	<b>Costs</b>	<b>Other Information</b>
Petroleum Refineries— New Source Performance Standards (NSPS)— Subpart J [73 FR 35838]	EPA/AR	\$176 - 1,670 million per year	\$27 million per year	The RIA is available online at: <a href="http://www.epa.gov/ttnecas1/regdata/RIAs/finalpetroleumrefineriesnspsria43008.pdf">http://www.epa.gov/ttnecas1/regdata/RIAs/finalpetroleumrefineriesnspsria43008.pdf</a>
Review of the National Ambient Air Quality Standards for Ozone [73 FR 16435]	EPA/AR	\$1,580 - 14,900 million per year	\$6,680 - 7,730 million per year	The RIA is available online at: <a href="http://www.epa.gov/ttn/ecas/regdata/RIAs/452_R_08_003.pdf">http://www.epa.gov/ttn/ecas/regdata/RIAs/452_R_08_003.pdf</a>
Definition of Solid Wastes Revisions [73 FR 64668]	EPA/SWER	\$16 - 285 million per year	\$14 million per year	The RIA is available online at: <a href="http://www.regulations.gov/fdmspublic/component/main?main=DocumentDetail&amp;d=EPA-HQ-RCRA-2002-0031-0602">http://www.regulations.gov/fdmspublic/component/main?main=DocumentDetail&amp;d=EPA-HQ-RCRA-2002-0031-0602</a>
Lead-Based Paint; Amendments for Renovation, Repair and Painting [73 FR 21691]	EPA/OPPTS	\$657 - 1,611 million per year	\$383 - 417 million per year	The RIA is available online at: <a href="http://www.regulations.gov/search/Regs/home.html#documentDetail?R=09000064805f918b">http://www.regulations.gov/search/Regs/home.html#documentDetail?R=09000064805f918b</a>

## **APPENDIX B: THE BENEFITS AND COSTS OF 1997-1998 MAJOR RULES**

Table B-1 lists the rules that were omitted from the ten-year running totals presented in Chapter 1 of our Report to Congress. It consists of the annualized and monetized benefits and costs of rules for which OMB concluded review between October 1, 1997 and September 30, 1998. These rules were included in Chapter 1 of the 2008 Report as part of the ten-year totals, but are not included in the 2009 Report.

While we limit the Chapter 1 accounting statement to regulations issued over the previous ten years, we have included in this Appendix the benefits and cost estimates provided for the economically significant rulemakings that have been covered in previous Reports in order to provide transparency.

**Table B-1: Estimates of Annual Benefits and Costs of Eight Major Federal Rules  
October 1, 1997 - September 30, 1998  
(millions of 2001 dollars)**

<b>REGULATION</b>	<b>AGENCY</b>	<b>BENEFITS</b>	<b>COSTS</b>	<b>EXPLANATION</b>
Organ Procurement and Transplant Network	HHS/HRSA	44 - 480	0	No adjustment to agency estimate
Respiratory Protection	DOL/OSHA	644 - 2950	131	No adjustment to agency estimate
Emission Standards for Locomotive and Locomotive Engines	EPA/Air	467 - 4880	87	Changed Benefits Calculations Based on New VSL and \$ per ton ranges for 2004 report
Revised Standards of Performance for Nitrogen Oxide Emissions from New Fossil-Fuel-Fired Steam Generating Units	EPA/Air	17 - 175	88	Changed Benefits Calculations Based on New VSL and \$ per ton ranges for 2004 report
National Volatile Organic Compound Emission Standards for Architectural Coatings	EPA/Air	36 - 327	32	No adjustment to agency estimate
Non-Road Diesel Engines	EPA/Air	1780 - 17900	327	No adjustment to agency estimate
Findings of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Transport of Ozone (NOx SIP Call)	EPA/Air	1420 - 5350	2180	No adjustment to agency estimate
National Emission Standards for Hazardous Air Pollutants for Sources Category: Pulp and Paper Production; Effluent Limitation Guidelines; Pre-treatment Standards; and New Source Performance	EPA/Water	11 - 273	273	No adjustment to agency estimate

**APPENDIX C: INFORMATION ON THE REGULATORY ANALYSES FOR MAJOR RULES BY  
INDEPENDENT AGENCIES**

**Table C-1: Total Number of Rules Promulgated by Independent Agencies  
October 1, 1998 - September 30, 2008**

<b>Agency</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Consumer Product Safety Commission (CPSC)	0	0	0	0	0	0	0	1	0	0
Federal Communications Commission (FCC)	7	8	2	4	0	1	4	2	2	4
Federal Energy Regulatory Commission (FERC)	0	2	0	0	0	0	0	0	0	1
Federal Reserve System	0	1	0	0	1	1	0	0	0	0
Federal Trade Commission (FTC)	0	1	0	0	0	0	1	0	0	0
National Credit Union Administration (NCUA)	1	0	0	0	0	0	0	0	0	0
Nuclear Regulatory Commission (NRC)	1	2	1	1	1	1	1	1	1	2
Pension Benefit Guaranty Corporation (PBGC)	1	0	0	0	0	0	0	0	0	0
Securities and Exchange Commission (SEC)	4	6	3	3	5	1	5	0	7	4
<b>Total</b>	<b>14</b>	<b>20</b>	<b>6</b>	<b>8</b>	<b>7</b>	<b>4</b>	<b>11</b>	<b>4</b>	<b>10</b>	<b>11</b>

**Table C-2: Total Number of Rules with Some Information on Benefits or Costs<sup>137</sup>  
Promulgated by Independent Agencies  
October 1, 1998 - September 30, 2008**

<b>Agency</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Consumer Product Safety Commission (CPSC)	--	--	--	--	--	--	--	1	--	--
Federal Communications Commission (FCC)	0	1	0	0	0	1	0	0	0	0
Federal Energy Regulatory Commission (FERC)	--	2	--	--	--	--	--	--	--	1
Federal Reserve System	--	0	--	--	0	1	--	--	--	--
Federal Trade Commission (FTC)	--	1	--	--	--	--	0	--	--	--
National Credit Union Administration (NCUA)	0	--	--	--	--	--	--	--	--	--
Nuclear Regulatory Commission (NRC)	--	1	--	--	--	--	--	--	--	1
Pension Benefit Guaranty Corporation (PBGC)	1	--	--	--	--	--	--	--	--	--
Securities and Exchange Commission (SEC)	4	6	3	3	5	1	5	--	7	4
<b>Total</b>	<b>5</b>	<b>11</b>	<b>3</b>	<b>3</b>	<b>5</b>	<b>3</b>	<b>5</b>	<b>1</b>	<b>7</b>	<b>6</b>

<sup>137</sup> Table C-2 excludes all fee assessment rules promulgated by independent agencies. FCC promulgated six fee assessment rules from 1997 through 2002. NRC promulgated 11 statutorily mandated fee assessment rules from 1997 through 2008.

**Table C-3: Percent of Rules with Monetized Benefits<sup>138</sup>  
Promulgated by Independent Agencies  
October 1, 1998 - September 30, 2008**

<b>Agency</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Consumer Product Safety Commission (CPSC)	--	--	--	--	--	--	--	100	--	--
Federal Communications Commission (FCC)	0	0	0	0	--	0	0	0	0	0
Federal Energy Regulatory Commission (FERC)	--	50	--	--	--	--	--	--	--	0
Federal Reserve System	--	0	--	--	0	0	--	--	--	--
Federal Trade Commission (FTC)	--	0	--	--	--	--	0	--	--	--
National Credit Union Administration (NCUA)	0	--	--	--	--	--	--	--	--	--
Nuclear Regulatory Commission (NRC)	--	100	--	--	--	--	--	--	--	100
Pension Benefit Guaranty Corporation (PBGC)	0	--	--	--	--	--	--	--	--	--
Securities and Exchange Commission (SEC)	0	0	66	33	20	100	40	--	43	0

**Table C-4: Percent of Rules with Monetized Costs<sup>139</sup>  
Promulgated by Independent Agencies  
October 1, 1998 - September 30, 2008**

<b>Agency</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Consumer Product Safety Commission (CPSC)	--	--	--	--	--	--	--	100	--	--
Federal Communications Commission (FCC)	0	0	0	0	--	100	0	0	0	0
Federal Energy Regulatory Commission (FERC)	--	0	--	--	--	--	--	--	--	100
Federal Reserve System	--	0	--	--	0	0	--	--	--	--
Federal Trade Commission (FTC)	--	0	--	--	--	--	0	--	--	--
National Credit Union Administration (NCUA)	0	--	--	--	--	--	--	--	--	--
Nuclear Regulatory Commission (NRC)	--	100	--	--	--	--	--	--	--	100
Pension Benefit Guaranty Corporation (PBGC)	0	--	--	--	--	--	--	--	--	--
Securities and Exchange Commission (SEC)	25	33	100	100	80	100	100	--	43	0

<sup>138</sup> Table C-3 excludes all fee assessment rules promulgated by independent agencies. FCC promulgated six fee assessment rules from 1997 through 2002. NRC promulgated 11 statutorily mandated fee assessment rules from 1997 through 2008.

<sup>139</sup> Table C-4 excludes all fee assessment rules promulgated by independent agencies. FCC promulgated six fee assessment rules from 1997 through 2002. NRC promulgated 11 statutorily mandated fee assessment rules from 1997 through 2008.

## APPENDIX D: INFORMATION QUALITY AND PEER REVIEW

### A. Links for Agency Information Quality Correspondence

*Links to Agencies that Received Correction Requests in FY 2007:*

**Department of Commerce:**

[http://ocio.os.doc.gov/ITPolicyandPrograms/Information\\_Quality/index.htm](http://ocio.os.doc.gov/ITPolicyandPrograms/Information_Quality/index.htm)

**Department of Defense, Army Corps of Engineers:**

<http://www.hq.usace.army.mil/ceci/informationqualityact>

**Department of Energy:**

<http://www.cio.energy.gov/infoquality.htm>

**Department of Health and Human Services:**

<http://aspe.hhs.gov/infoquality/requests.shtml>

**Department of the Interior, Fish and Wildlife Service:**

<http://www.fws.gov/informationquality>

**Department of the Interior, National Park Service:**

<http://www.nps.gov/policy/infoqualcorrect.htm>

**Department of the Interior, US Geological Survey:**

[http://www.usgs.gov/info\\_qual](http://www.usgs.gov/info_qual)

**Department of Labor:**

<http://www.dol.gov/cio/programs/InfoGuidelines/IQCR.htm>

**Environmental Protection Agency:**

<http://epa.gov/quality/informationguidelines/iqg-list.html>

**Federal Communications Commission:**

<http://www.fcc.gov/omd/dataquality/welcome.html>

*Links to All Agencies' IQ Correspondence Web Pages:*

**Access Board:**

<http://www.access-board.gov/about/policies/infoquality.htm>

**Chemical Safety and Hazard Investigation Board:**

[http://www.csb.gov/index.cfm?folder=legal\\_affairs&page=index](http://www.csb.gov/index.cfm?folder=legal_affairs&page=index)

**Commodity Futures Trading Commission:**

<http://www.cftc.gov/webpolicy/index.htm#information>

**Consumer Product Safety Commission:**

<http://www.cpsc.gov/library/correction/correction.html>

**Corporation for National and Community Service:**

[http://www.nationalservice.gov/home/site\\_information/quality.asp](http://www.nationalservice.gov/home/site_information/quality.asp)

**Defense Nuclear Facilities Safety Board:**

[http://www.dnfsb.gov/about/information\\_quality.html](http://www.dnfsb.gov/about/information_quality.html)

**Department of Agriculture:**

[http://www.ocio.usda.gov/qi\\_guide](http://www.ocio.usda.gov/qi_guide)

Department of Agriculture, Forest Service:

<http://www.fs.fed.us/qoi>

**Department of Commerce:**

[http://ocio.os.doc.gov/ITPolicyandPrograms/Information\\_Quality/index.htm](http://ocio.os.doc.gov/ITPolicyandPrograms/Information_Quality/index.htm)

**Department of Defense:**

<http://www.defenselink.mil/pubs/dodiqguidelines.html>

Department of Defense, Army Corps of Engineers:

<http://www.hq.usace.army.mil/ceci/informationqualityact>

**Department of Education:**

<http://www.ed.gov/policy/gen/guid/infoqualguide.html>

**Department of Energy:**

<http://www.cio.energy.gov/infoquality.htm>

**Department of Health and Human Services:**

<http://aspe.hhs.gov/infoquality/requests.shtml>

**Department of Housing and Urban Development:**

<http://www.hud.gov/offices/adm/grants/qualityinfo/qualityinfo.cfm>

**Department of Justice:**

[http://www.usdoj.gov/iqpr/iqpr\\_disclaimer.html](http://www.usdoj.gov/iqpr/iqpr_disclaimer.html)

**Department of Labor:**

<http://www.dol.gov/cio/programs/InfoGuidelines/IQCR.htm>

**Department of State:**

<http://www.state.gov/misc/49492.htm>

**Department of the Interior:**

<http://www.doi.gov/ocio/iq>

Department of the Interior, Bureau of Land Management:

[http://www.blm.gov/wo/st/en/national\\_page/Notices\\_used\\_in\\_Footer/data\\_quality.html](http://www.blm.gov/wo/st/en/national_page/Notices_used_in_Footer/data_quality.html)

Department of the Interior, Fish and Wildlife Service:

<http://www.fws.gov/informationquality>

Department of the Interior, National Park Service:

<http://www.nps.gov/policy/infoqualcorrect.htm>

Department of Transportation, Surface Transportation Board:

<http://www.stb.dot.gov/stb/InformationQualityGuidelines.htm>

**Department of Transportation:**

<http://www.dot.gov/infoquality.htm>

**Department of Veteran Affairs:**

[http://www.rms.oit.va.gov/Information\\_Quality.asp](http://www.rms.oit.va.gov/Information_Quality.asp)

**Environmental Protection Agency:**

<http://epa.gov/quality/informationguidelines/iqg-list.html>

**Equal Employment Opportunity Commission:**

<http://www.eeoc.gov/policy/guidelines/index.html>

**Farm Credit Administration:**

[http://www.fca.gov/FCA-Web/fca%20new%20site/home/info\\_quality.html](http://www.fca.gov/FCA-Web/fca%20new%20site/home/info_quality.html)

**Federal Communications Commission:**

<http://www.fcc.gov/omd/dataquality/welcome.html>

**Federal Deposit Insurance Corporation:**

<http://www.fdic.gov/about/policies/#information>

**Federal Energy Regulatory Commission:**

<http://www.ferc.gov/help/filing-guide/file-correct.asp>

**Federal Maritime Commission:**

<http://www.fmc.gov/reading/IntroInformationQualityGuidelines.asp?PRINT=Y>

**Federal Reserve Board:**

[http://www.federalreserve.gov/iq\\_correction.htm](http://www.federalreserve.gov/iq_correction.htm)

**Federal Trade Commission:**

<http://www.ftc.gov/ogc/sec515/index.htm>

**General Services Administration:**

[http://www.gsa.gov/Portal/gsa/ep/contentView.do?contentId=12667&contentType=GSA\\_OVERVIEW](http://www.gsa.gov/Portal/gsa/ep/contentView.do?contentId=12667&contentType=GSA_OVERVIEW)

**Institute of Museum and Library Services:**

<http://www.imls.gov/about/guidelines.shtm>

**Internal Revenue Service:**

<http://www.irs.gov/irs/article/0,,id=131585,00.html>

**Merit Systems Protection Board:**

<http://www.mspb.gov/netsearch/viewdocs.aspx?docnumber=251846&version=252119&application=ACROBAT>

**National Aeronautics and Space Administration:**

<http://www.sti.nasa.gov/qualinfo.html>

**National Archives:**

<http://www.archives.gov/about/info-qual/requests/index.html>

**National Credit Union Administration:**

<http://www.ncua.gov/data/InfoQuality/InfoQuality.htm>

**National Endowment for the Arts:**

<http://www.arts.gov/about/infoquality.html>

**National Endowment for the Humanities:**

<http://www.neh.gov/whoweare/dissemination.html>

**National Labor Relations Board:**

[http://www.nlr.gov/about\\_us/public\\_notices/information\\_on\\_quality\\_guidelines.aspx](http://www.nlr.gov/about_us/public_notices/information_on_quality_guidelines.aspx)

**National Science Foundation:**

<http://www.nsf.gov/policies/infoqual.jsp>

**National Transportation Safety Board:**

<http://www.nts.gov/info/quality.htm>

**Nuclear Regulatory Commission:**

<http://www.nrc.gov/public-involve/info-quality.html>

**Nuclear Waste Technical Review Board:**

<http://www.nwtrb.gov/plans/plans.html>

**Occupational Safety & Health Review Commission:**

<http://www.oshrc.gov/infoquality/infoquality.html>

**Office of Federal Housing Enterprise Oversight:**

<http://www.ofheo.gov/PublicInformation.aspx?Nav=105>

**Office of Government Ethics:**

[http://www.usoge.gov/pages/about\\_oge/info\\_quality.html](http://www.usoge.gov/pages/about_oge/info_quality.html)

**Office of Management and Budget:**

[http://www.whitehouse.gov/omb/inforeg/info\\_quality/information\\_quality.html](http://www.whitehouse.gov/omb/inforeg/info_quality/information_quality.html)

**Office of Personnel Management:**

<http://www.opm.gov/policy/webpolicy/index.asp>

**Office of Special Counsel:**

<http://www.osc.gov/InfoQuality.htm>

**Overseas Private Investment Corporation:**

<http://www.opic.gov/pubs/qualityguidelines/index.asp>

**Peace Corps:**

<http://www.peacecorps.gov/index.cfm?shell=pchq.policies.docs>

**Pension Benefit Guaranty Corporation:**

<http://www.pbgc.gov/media/key-resources-for-the-press/content/page5274.html>

**Small Business Administration:**

<http://www.sba.gov/information/index.html>

**Social Security Administration:**

<http://www.ssa.gov/515/requests.htm>

**Tennessee Valley Authority:**

<http://www.tva.gov/infoquality/>

**US International Trade Commission:**

[http://www.usitc.gov/policies/info\\_quality.htm](http://www.usitc.gov/policies/info_quality.htm)

**USAID:**

[http://www.usaid.gov/policy/info\\_quality/](http://www.usaid.gov/policy/info_quality/)

**B. Links for Agency Peer Review Agendas**

*Cabinet-Level Departments*

**Department of Agriculture:**

[http://www.ocio.usda.gov/qi\\_guide/qoi\\_officer\\_lst.html](http://www.ocio.usda.gov/qi_guide/qoi_officer_lst.html)

Agricultural Research Service:

<http://www.ars.usda.gov/Main/docs.htm?docid=8040>

Animal and Plant Health Inspection Service:

[http://www.aphis.usda.gov/peer\\_review/peer\\_review\\_agenda.shtml](http://www.aphis.usda.gov/peer_review/peer_review_agenda.shtml)

Economic Research Service:

<http://www.ers.usda.gov/AboutERS/peerreview.htm>

Food Safety Inspection Service:

[http://www.fsis.usda.gov/Information\\_Quality/Peer\\_Review/index.asp](http://www.fsis.usda.gov/Information_Quality/Peer_Review/index.asp)

Forest Service:

<http://www.fs.fed.us/qoi/peerreview.shtml>

Grain Inspection, Packers, and Stockyard Inspection Administration:

<http://www.gipsa.usda.gov/GIPSA/webapp?area=home&subject=iq&topic=pr>

Office of the Chief Economist:

[http://www.usda.gov/oc/e/peer\\_review](http://www.usda.gov/oc/e/peer_review)

**Department of Commerce:**

[http://ocio.os.doc.gov/ITPolicyandPrograms/Information\\_Quality/index.htm](http://ocio.os.doc.gov/ITPolicyandPrograms/Information_Quality/index.htm)

National Oceanic and Atmospheric Administration:

<http://www.cio.noaa.gov/itmanagement/prplans/PRsummaries.html>

**Department of Defense:**

<http://www.defenselink.mil/pubs/dodiqguidelines.html>

Army Corps of Engineers:

<http://www.hq.usace.army.mil/ceci/informationqualityact>

**Department of Education:**

<http://www.ed.gov/policy/gen/guid/iq/peerreview.html>

**Department of Energy:**

<http://cio.energy.gov/infoquality.htm>

**Department of Health and Human Services:**

<http://aspe.hhs.gov/infoquality/peer.shtml>

Center for Disease Control:

<http://www2a.cdc.gov/od/peer/peer.asp>

Food and Drug Administration:

<http://www.fda.gov/ScienceResearch/SpecialTopics/PeerReviewofScientificInformationandAssessments/default.htm>

National Toxicology Program:

<http://fmp-8.cit.nih.gov/sif/agenda.php>

Office of Public Health and Science:

<http://aspe.hhs.gov/infoquality/guidelines/ophspeer.html>

**Department of Homeland Security:** no website

**Department of Housing and Urban Development:**

[http://www.huduser.org/about/pdr\\_peer\\_review.html](http://www.huduser.org/about/pdr_peer_review.html)

**Department of the Interior:**

[http://www.doi.gov/ocio/iq\\_1.html](http://www.doi.gov/ocio/iq_1.html)

Bureau of Land Management:

[http://www.blm.gov/wo/st/en/national\\_page/Notices\\_used\\_in\\_Footer/data\\_quality.print.html](http://www.blm.gov/wo/st/en/national_page/Notices_used_in_Footer/data_quality.print.html)

Bureau of Reclamation:

<http://www.usbr.gov/main/qoi/peeragenda.html>

Fish and Wildlife Service:

[http://www.fws.gov/informationquality/peer\\_review/index.html](http://www.fws.gov/informationquality/peer_review/index.html)

Mineral Management Service:

<http://www.mms.gov/qualityinfo/PeerReviewAgenda.htm>

National Park Service:

<http://www.nps.gov/policy/peerreview.htm>

Office of Surface Mining:

[http://www.osmre.gov/guidance/osm\\_info\\_quality.shtm](http://www.osmre.gov/guidance/osm_info_quality.shtm)

US Geological Society:

[http://www.usgs.gov/peer\\_review](http://www.usgs.gov/peer_review)

**Department of Justice:**

[http://www.usdoj.gov/iqpr/iqpr\\_disclaimer.html](http://www.usdoj.gov/iqpr/iqpr_disclaimer.html)

**Department of Labor:**

<http://www.dol.gov/asp/peer-review/index.htm>

Employee Benefits Security Administration:

<http://www.dol.gov/ebsa/regs/peerreview.html>

Occupational Safety and Health Administration:

[http://www.osha.gov/dsg/peer\\_review/peer\\_agenda.html](http://www.osha.gov/dsg/peer_review/peer_agenda.html)

**Department of State:**

<http://www.state.gov/misc/49492.htm>

**Department of Transportation:**

<http://www.dot.gov/peerrt.htm>

**Department of Veterans Affairs:**

[http://www.va.gov/oit/egov/rms/info\\_peer.asp](http://www.va.gov/oit/egov/rms/info_peer.asp)

*Other Agencies*

**Consumer Product Safety Commission:**

<http://www.cpsc.gov/library/peer.html>

**Environmental Protection Agency:**

<http://www.epa.gov/quality/informationguidelines>

**Federal Communications Commission:**

<http://www.fcc.gov/omd/dataquality/peer-agenda.html>

**Federal Energy Regulatory Commission:**

<http://www.ferc.gov/help/filing-guide/file-correct.asp>

**Federal Trade Commission:**

<http://www.ftc.gov/ogc/sec515/>

**National Aeronautics and Space Administration:**

[http://www.sti.nasa.gov/peer\\_review.html](http://www.sti.nasa.gov/peer_review.html)

**Nuclear Regulatory Commission:**

<http://www.nrc.gov/public-involve/info-quality/peer-review.html>

**Office of Management and Budget:**

[http://www.whitehouse.gov/omb/inforeg/info\\_quality/information\\_quality.html](http://www.whitehouse.gov/omb/inforeg/info_quality/information_quality.html)

**Small Business Administration:**

<http://www.sba.gov/information/index.html>

**Tennessee Valley Authority:**

<http://www.tva.gov/infoquality>

**C. Agencies that Do Not Produce or Sponsor Information Subject to the Bulletin**

*See website links in section A of this Appendix.*

Agency for International Development  
Corporation for National and Community Service  
Council on Environmental Quality  
Defense Nuclear Facilities Safety Board  
Department of the Treasury  
Equal Employment Opportunity Commission  
Farm Credit Association  
Federal Maritime Commission  
Federal Reserve  
General Services Administration  
Institute of Museum and Library Services

International Trade Commission  
Merit Systems Protection Board  
National Archives  
National Credit Union Administration  
National Endowment for the Arts  
National Endowment for the Humanities  
National Labor Relations Board  
National Science Foundation  
Nuclear Waste Technical Review Board  
Office of Federal Housing Enterprise Oversight  
Office of Government Ethics  
Office of Personnel Management  
Overseas Private Investment Corporation  
Patent and Trade Office  
Peace Corps  
Pension Benefit Guaranty Corporation  
Railroad Board  
Securities and Exchange Commission  
Selective Services System  
Social Security Administration  
Surface Transportation Board  
US Occupational Safety and Health Review Commission

## APPENDIX E: RESPONSE TO PEER REVIEWS AND PUBLIC COMMENTS

We wish to express our sincere gratitude and appreciation for the thoughtful peer review and public comments we have received on the draft 2009 Report. In particular, we would like to thank our invited peer reviews Susan Rose-Ackerman (Yale University), Matthew Stephenson (Harvard University), Richard Revesz (New York University), and Michael Livermore (New York University). We are grateful for their time and the thoughtfulness of their comments.

We detail several of the major comments received and our response. Their comments are available on OMB's website at [http://www.whitehouse.gov/omb/inforeg\\_regpol\\_reports\\_congress/](http://www.whitehouse.gov/omb/inforeg_regpol_reports_congress/).

Stephenson noted that the Report was unclear about the meaning of ranges of benefit and cost estimates reported. OMB has clarified the text to note that the ranges represent agencies' treatment of uncertainty in their estimates, a few of which entail formal uncertainty analysis and confidence intervals, but the bulk of which used informal sensitivity analyses that describe the set of estimates that are consistent with plausible assumptions about unknown quantities.

Stephenson and Rose-Ackerman suggested that the Report detail social costs and benefits of transfer programs rather than merely reporting budgetary impacts. OMB agrees that better reporting for transfer programs would be desirable and strongly encourages agencies to report social benefits and costs of transfer programs.

Revesz and Livermore recommended that the Report identify where agencies are already engaging in best practices of designing regulations to facilitate evaluation as well as areas where better evaluations are needed. OMB agrees that this would be useful and will consider incorporating the recommendation in future Reports.

Rose-Ackerman, Stephenson, Revesz, and Livermore all recommended that the Report should include information about retrospective analyses of costs and benefits of regulation to the Report. OMB agrees that such information is useful, but a comprehensive literature review on retrospective evaluations was presented in the 2005 Report and an update to that review is not yet necessary. OMB has added an encouragement of retrospective analyses in its new section of the final Report on recommendations for reform.

Revesz and Livermore recommended that the Report detail how agencies conducted their cost-benefit analyses. OMB agrees that this would be valuable and intends to do so in future Reports.

Rose-Ackerman, Stephenson, Revesz, and Livermore all recommended that the Report provide recommendations for regulatory reforms. A new section has been added to the Report that describes recommendations for reforms to regulatory policymaking.

Stephenson recommended that the Report change its reporting of costs and benefits by not summing across cost-benefit analyses that are incomparable and by reporting costs and benefits in units other than dollars. However, OMB is bound by the Regulatory Right-to-Know

Act to report monetized costs and benefits and to aggregate costs and benefits across rules to the extent feasible. OMB has rewritten the discussion to acknowledge Stephenson's point.

Stephenson suggests that the Report provide ranges of net benefits, not just ranges of costs and ranges of benefits. However, the Regulatory Right-to-Know Act requires aggregation of costs and benefits separately. OMB does think that it should provide best estimates of costs and benefits, in addition to ranges, which can be more easily aggregated into a best estimate of net benefits across rules, and OMB plans to do so for future Reports.

Center for Progressive Reform (CPR) criticizes the fundamental usefulness of providing aggregate benefit and cost estimates for federal regulations. CPR recommends to OMB to "re-imagine OIRA's role" in the federal regulatory process. OMB provides aggregate benefit and cost estimates in accordance with the Regulatory-Right-to-Know Act. OMB has, however, taken steps to acknowledge some of the limits of both quantification and monetization. The recommendations on re-imagining OIRA's role are outside the scope of this Report.

Gary Wiggins proposes a new definition of benefits for benefit-cost analyses. OMB declines to adopt this definition because it is not consistent with the standard practices of economic analysis.

Center for Regulatory Effectiveness (CRE) suggested that the Information Quality chapter provide more information regarding the history of the Information Quality Act to help correct misperceptions that may exist. The OMB Information Quality 2003 Report to Congress<sup>140</sup> provides a useful summary of the Information Quality Guidelines history and also discusses some of the most common misperceptions that existed at the time.

CRE suggested that OMB assess the extent to which agencies are or are not providing timely response to petitions and appeals. OMB will consider this suggestion for future reports. Furthermore, CRE had a variety of suggestions regarding how OMB might assess compliance with certain aspects of the Bulletin for Peer Review. OMB will consider these suggestions as it continues to work with agencies on a one-on-one basis to ensure implementation of the Bulletin.

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<sup>140</sup> See OMB, *Information Quality, a Report to Congress FY 2003*, (2003), [http://www.whitehouse.gov/omb/inforeg/fy03\\_info\\_quality\\_rpt.pdf](http://www.whitehouse.gov/omb/inforeg/fy03_info_quality_rpt.pdf).

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