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**2017 Draft Report to Congress on the Benefits
and Costs of Federal Regulations and Agency
Compliance with the Unfunded Mandates
Reform Act**



2017

OFFICE OF MANAGEMENT AND BUDGET
OFFICE OF INFORMATION AND REGULATORY AFFAIRS

EXECUTIVE SUMMARY

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 costs and benefits (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.¹

The Regulatory Right-to-Know Act 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 at least one of the following three conditions:

- Rules designated as major under 5 U.S.C. § 804(2);²
- Rules designated as meeting the analysis threshold under the Unfunded Mandates Reform Act of 1995 (UMRA);³ or
- Rules designated as “economically significant” under § 3(f)(1) of Executive Order 12866.⁴

This Report covers cost and benefits through Fiscal Year (FY) 2016. Consistent with prior reports, OMB, with only a few exceptions explained clearly in this draft report, summarizes the costs and benefits as they were reported by the agencies themselves, upon publication of their final Regulatory Impact Analyses (RIAs). None of these costs reflect

¹ 31 U.S.C. § 1105 note.

² A major rule is defined in Subtitle E of the Small Business Regulatory Enforcement Fairness Act of 1996 as a rule that has resulted in or 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.” 5 U.S.C. § 804(2). Under the statute, agencies submit a report to each House of Congress and GAO and make available “a complete copy of the cost-benefit analysis of the rule, if any.” *Id.* § 801(a)(1)(B)(i).

³ Generally, a written statement containing a qualitative and quantitative assessment of the anticipated benefits and costs of the Federal mandate is required under Section 202(a) of the Unfunded Mandates Reform Act of 1995 for all rules that include a Federal mandate 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 1 year . . .” 2 U.S.C. § 1532(a).

⁴ A regulatory action is considered “economically significant” under § 3(f)(1) of Executive Order 12866 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”

retrospective evaluation of their impacts. This applies to rules issued in FY 2016, as well as previous years covered by this Report. We are issuing this report after a change in Administration, and therefore would like to clarify that OMB's reporting of the results of these RIAs does not imply an endorsement by the current Administration of all of the assumptions made and analyses conducted at the time these regulations were finalized.

In addition, two final rules (including one from an independent agency) included in the Report for this fiscal year have been subsequently repealed by Congress under the Congressional Review Act. For this draft Report, we have chosen to include these rules in order to provide an estimated, but not necessarily realized, impact of the rules finalized during the fiscal year the Report covers.

Finally, several other rules finalized in this fiscal year may be reconsidered by the current Administration. In these cases, for the purposes of this draft Report, we have included the estimated impacts of the rules contained in the original RIAs at the time these rules were finalized. We have also attempted to indicate in the text of the report that they are being reconsidered by the current Administration.

The principal findings of this Report are as follows.

- The estimated annual benefits of major Federal regulations reviewed by OMB from October 1, 2006, to September 30, 2016,⁵ for which agencies estimated and monetized both benefits and costs, are in the aggregate between \$219 billion and \$695 billion, while the estimated annual costs are in the aggregate between \$59 billion and \$88 billion, reported in 2001 dollars. In 2015 dollars, aggregate annual benefits are estimated to be between \$287 and \$911 billion and costs between \$78 and \$115 billion. These ranges reflect uncertainty in the benefits and costs of each rule at the time that it was evaluated.
- There is substantial variation across agencies in the total net benefits expected from rules. Agencies have projected that some rules are anticipated to produce far higher net benefits than others. All of these estimates reflect the challenges associated with fully capturing the relevant effects—both benefits and costs.
- During FY 2016, executive agencies promulgated 85 major rules, of which 31 were “transfer” rules—rules that primarily caused income or wealth transfers.⁶ Most transfer rules implement Federal budgetary programs as required or authorized by Congress, such as rules associated with the Medicare Program and the Federal Pell Grant Program. More information about the FY 2016 major rules follows:

⁵We explain later in the Report that 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.

⁶ One rule was issued twice in FY 2016—as a final rule with request for comment and then as a more standard final rule (i.e., without request for comment). If it were only included once, the FY total would decrease by one (to 84).

- For 16 rules, we report the issuing agencies' quantification and monetization of both benefits and costs: a total of \$13.6 billion to \$27.3 billion in annual benefits and \$3.3 billion to \$4.9 billion in annual costs.
- For one rule, the issuing agency was able to quantify and monetize only benefits.
- For 32 rules, we report the issuing agencies' quantification and monetization of costs, which in some cases was only partial.
- For four rules, the issuing agencies were able to quantify and monetize neither costs nor benefits. An additional one rule is categorized in the Report as having neither monetized costs nor benefits due to lack of sufficient clarity in the baseline so as to allow for avoidance of double-counting of impacts with earlier regulations.
- The independent regulatory agencies, whose regulations are not subject to OMB review under Executive Order 12866, issued eighteen major final rules in FY 2016. The majority of rules were issued to regulate the financial sector.

It is important to emphasize that the estimates used here have limitations. These estimates reflect the current state of science and information available to agencies. Insufficient empirical information and data is a continuing challenge to agencies when assessing the likely effects of regulation. In some cases, the quantification of various effects may be speculative and may not be complete. For example, the value of particular categories of benefits (such as protection of homeland security or personal privacy) may be sizable but monetization can present significant challenges (at least, with currently-available data and methods). Careful consideration of costs and benefits is best understood as a pragmatic way of providing insights regarding the prospects for regulations to improve social welfare.

Chapter I summarizes the benefits and costs of major regulations issued between October 1, 2006 and September 30, 2016 and examines in more detail the benefits and costs of major Federal regulations issued in fiscal year 2016. It also discusses regulatory impacts on State, local, and tribal governments, small business, wages, and economic growth. Chapter II provides recommendations for reform.

This Report is being issued along with OMB's Twentieth Annual Report to Congress on Agency Compliance with the Unfunded Mandates Reform Act of 1995 (UMRA).⁷ OMB reports on agency compliance with Title II of UMRA, which generally requires that each agency conduct a cost-benefit analysis, identify and consider a reasonable number of regulatory alternatives, and from those alternatives select the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule before promulgating any proposed or final rule that includes a Federal mandate that may result in expenditures of more than \$100 million (adjusted for inflation) in at least 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.

⁷ 2 U.S.C. § 1538.

OMB is specifically requesting comment on how best to provide the information required by law in this Report. New circumstances provide an opportunity to take a fresh look at how each of these analyses is conducted, and whether OMB is providing the public with the optimal level and scope of information, given the current status of these final rules covered in this draft Report. For example, for rules that have been repealed under the Congressional Review Act, we are considering whether to follow a different convention, such as removing such rules completely, or reporting them separately. OMB is also considering whether we should adjust the reporting of the costs and benefits of revised rules, if a subsequent analysis suggests those original RIAs did not adequately analyze impacts, or if subsequent analysis suggests that the impacts are different than originally expected.

Upon publication of this draft report, OMB will also request general public comment via a *Federal Register* notice and will seek input from peer reviewers with expertise in areas related to regulatory policy or cost-benefit analysis. OMB plans to consider public and peer reviewer comments as appropriate. The final version of this report may include revisions based on those comments and will—like the draft report—be posted on the White House website.

Table 1-1: Estimates of the Total Annual Benefits and Costs of Major Federal Rules (For Which Both Benefits and Costs Have Been Estimates) by Agency, October 1, 2006 - September 30, 2016 (billions of 2001 or 2015 dollars)²¹

Agency	Number of Rules	Benefits		Costs	
		2001\$	2015\$	2001\$	2015\$
Department of Agriculture	5	0.5 to 1.1	0.6 to 1.5	0.4 to 0.9	0.5 to 1.1
Department of Energy	27	17.6 to 30.0	20.3 to 39.3	6.0 to 9.0	7.9 to 11.9
Department of Health and Human Services	18	4.5 to 24.1	5.9 to 31.6	1.4 to 4.8	1.9 to 6.3
Department of Homeland Security	4	0.4 to 1.2	0.5 to 1.6	0.4 to 0.8	0.6 to 1.0
Department of Justice	3	1.5 to 3.7	1.9 to 4.8	0.7 to 0.9	0.9 to 1.2
Department of Labor	10	7.5 to 20.8	9.8 to 27.2	2.1 to 5.0	2.7 to 6.5
Department of Transportation (DOT) ²²	27	17.0 to 31.1	22.3 to 40.8	6.5 to 11.9	8.5 to 15.7
Environmental Protection Agency (EPA) ²³	39	149.2 to 537.8	195.8 to 705.7	41.2 to 49.4	54.1 to 64.8
Joint DOT and EPA	4	34.0 to 59.3	44.6 to 77.8	8.2 to 15.1	10.7 to 19.9

Table 1-2 provides additional information on estimated aggregate benefits and costs for specific agency program offices. In order for a program to be included in Table 1-2, the program office must have finalized three or more major rules in the last ten years with monetized benefits and costs. Two of the program offices included—Department of Transportation’s National Highway Traffic Safety Administration and the Environmental Protection Agency’s Office of Air and Radiation—finalized four overlapping sets of rules pertaining to the control of greenhouse gas emissions from mobile sources and improved vehicle fuel economy, and these are listed separately.

²¹ Benefit and cost values were converted from 2001 dollars to 2015 dollars using Gross Domestic Product implicit price deflators from the Bureau of Economic Analysis.

²² This total excludes FMCSA’s 2010 Electronic On-Board Recorders for Hours-of-Service Compliance rule. The rule was vacated on Aug. 26, 2011, by the U.S Court of Appeals for the Seventh Circuit. *Owner-Operator Indep. Drivers Ass’n v. Federal Motor Carrier Safety Admin.*, 656 F.3d 580 (7th Cir. 2011).

²³ For reasons explained in several previous Reports, this total excludes the impacts of EPA’s 2005 Clean Air Interstate Rule (CAIR), but does include an attribution of the benefits and costs of equipment installed under CAIR between CAIR and the subsequently issued Cross State Air Pollution Rule (CSAPR). This total also excludes EPA’s 2005 “Clean Air Mercury Rule,” which was vacated in 2008.

Table 1-2: Estimates of Annual Benefits and Costs of Major Federal Rules: Selected Program Offices and Agencies, October 1, 2006 - September 30, 2016
(billions of 2001 or 2015 dollars)

Agency	Number of Rules	Benefits		Costs	
		2001\$	2015\$	2001\$	2015\$
Department of Agriculture					
Animal and Plant Health Inspection Service	3	\$0.4 to \$1.0	\$0.6 to \$1.3	\$0.3 to \$0.6	\$0.3 to \$0.8
Department of Energy					
Energy Efficiency and Renewable Energy	26	\$17.5 to \$29.9	\$23.0 to \$39.2	\$6.0 to \$9.0	\$7.9 to \$11.8
Department of Health and Human Services					
Food and Drug Administration	7	\$1.1 to \$10.8	\$1.4 to \$14.2	\$0.5 to \$1.0	\$0.7 to \$1.3
Center for Medicare and Medicaid Services	9	\$3.2 to \$6.7	\$4.2 to \$8.9	\$0.8 to \$3.4	\$1.0 to \$4.4
Department of Labor					
Occupational Safety and Health Administration	5	\$0.9 to \$2.3	\$1.2 to \$3.0	\$0.3 to \$0.4	\$0.4 to \$0.5
Employee Benefits Security Administration	3	\$6.6 to \$18.4	\$8.6 to \$24.1	\$1.7 to \$4.5	\$2.2 to \$5.9
Department of Transportation					
National Highway Traffic Safety Administration	9	\$11.3 to \$20.5	\$14.8 to \$26.9	\$3.7 to \$7.4	\$4.8 to \$9.8
Federal Aviation Administration	6	\$0.4 to \$2.9	\$0.5 to \$3.8	\$0.5 to \$1.1	\$0.6 to \$1.4
Federal Motor Carriers Safety Administration	5	\$4.3 to \$5.4	\$5.7 to \$7.1	\$1.9	\$2.4 to \$2.5
Federal Railroad Administration	3	\$0.9 to \$1.0	\$1.2 to \$1.3	\$0.7 to \$1.4	\$0.9 to \$1.9
Environmental Protection Agency					
Office of Air and Radiation	26	\$138.7 to \$521.4	\$182.0 to \$684.1	\$38.4 to \$46.0	\$50.4 to \$60.3
Office of Solid Waste and Emergency Response	6	\$0.3 to \$0.9	\$0.4 to \$1.2	\$0.2 to \$0.4	\$0.2 to \$0.6
Office of Water	4	\$0.6 to \$0.9	\$0.8 to \$1.2	\$0.8 to \$1.1	\$1.1 to \$1.5
Department of Transportation + Environmental Protection Agency					
National Highway Traffic Safety Administration/Office of Air	4	\$34.0 to \$59.3	\$44.6 to \$77.8	\$8.2 to \$15.1	\$10.7 to \$19.9

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.²⁴ The range reported by the agency for each rule reflects a portion of the agency's uncertainty about the likely impact of the rule. In some cases, this range is a confidence interval based on a formal integration of the statistical uncertainty. Such

²⁴ To the extent that the estimates quantitatively incorporated uncertainty, this approach of adding ranges may overstate the uncertainty in the total benefits and costs for each agency.

Table 1-3: Estimates of Annual Benefits and Costs of Non-Environmental Health and Safety Rules: October 1, 2006 - September 30, 2016
(billions of 2001 and 2015 dollars)

Area of Safety and Health Regulation	Number of Rules	Estimated Benefits		Estimated Costs	
		2001\$	2015\$	2001\$	2015\$
Safety rules to govern international trade	3	\$0.4 to \$1.0	\$0.6 to \$1.3	\$0.3 to \$0.6	\$0.3 to \$0.8
Food safety and labeling	7	\$1.1 to \$10.7	\$1.4 to \$14.0	\$0.5 to \$1.1	\$0.7 to \$1.4
Patient safety	3	\$0.2 to \$0.3	\$0.2 to \$0.4	\$0.1 to \$0.2	\$0.2
Consumer protection	3	\$1.4 to \$4.7	\$1.9 to \$6.1	\$0.7 to \$0.8	\$1.0 to \$1.1
Worker safety	7	\$0.9 to \$2.4	\$1.2 to \$3.1	\$0.4 to \$0.5	\$0.5 to \$0.6
Transportation safety	24	\$12.9 to \$26.5	\$16.9 to \$34.7	\$6.0 to \$10.1	\$7.9 to \$13.3

B. Trends in Annual Benefits and Costs of Regulations Reviewed by OMB over the Last Ten Years

Table 1-4 reports the total benefits and costs of rules issued from October 1, 2006, to September 30, 2016, by fiscal year for which monetized estimates of substantial portions of both benefits and costs are available.³⁵ Figure 1-1 provides similar information to Table 1-4 in graphical form. The heights of the red bars in this figure presents the annual sums of primary estimates (or midpoints of ranges if primary estimates are not available) for costs and benefits. The accompanying error bars (in blue and green) represent the ranges in values between low and high estimates for costs and benefits.

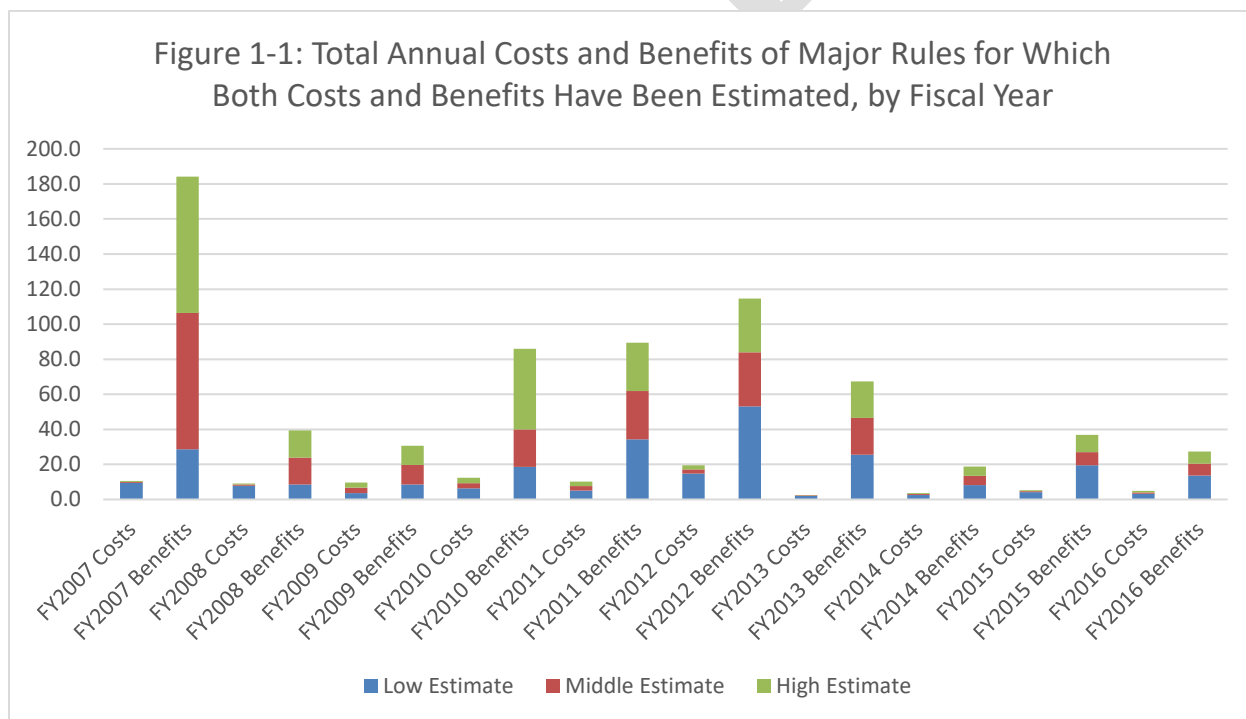
Table 1-4: Total Annual Benefits and Costs of Major Rules (For Which Both Benefits and Costs Have Been Estimated) by Fiscal Year
(billions of 2001 and 2015 dollars)

Fiscal Year	Number of Rules	Benefits		Costs	
		2001\$	2015\$	2001\$	2015\$
2007	12	\$28.6 to \$184.2	\$37.5 to \$241.6	\$9.4 to \$10.7	\$12.3 to \$14.0
2008	12	\$8.5 to \$39.4	\$11.2 to \$51.7	\$7.9 to \$9.2	\$10.3 to \$12.1
2009	16	\$8.6 to \$30.7	\$11.3 to \$40.3	\$3.7 to \$9.6	\$4.8 to \$12.6

³⁵ Table 1-4 includes all rules reported in Table 1-1. The ranges will not necessarily match previously reported estimates for a fiscal year in past reports as rules have been dropped over time, as described in this and past reports. See Appendix A for a complete list of rules included in these totals. In some years, the costs attributable to rules that did not have monetized benefits are relatively large when compared to the costs of rules that had both benefits and costs monetized. In order to maintain the convention we have used over many years of presenting in this table and accompanying diagram only estimates of rules for which both costs and benefits were monetized, we have not included the costs here. There are also rules that only had benefits monetized; however, their inclusion in this year's totals would have only a small impact on the overall benefits estimate. All of these additional rules are listed and summarized in Table 1-6(b) below.

Fiscal Year	Number of Rules	Benefits		Costs	
		2001\$	2015\$	2001\$	2015\$
2010	17 ³⁶	\$18.6 to \$85.9	\$24.4 to \$112.7	\$6.4 to \$12.4	\$8.4 to \$16.2
2011	12	\$34.3 to \$89.5	\$45.1 to \$117.4	\$5.0 to \$10.1	\$6.6 to \$13.3
2012	14	\$53.2 to \$114.6	\$69.8 to \$150.4	\$14.8 to \$19.5	\$19.4 to \$25.6
2013	7	\$25.6 to \$67.3	\$33.5 to \$88.4	\$2.0 to \$2.5	\$2.6 to \$3.3
2014	13	\$8.1 to \$18.9	\$10.7 to \$24.8	\$2.5 to \$3.7	\$3.3 to \$4.9
2015 ³⁷	21	\$19.6 to \$36.9	\$25.7 to \$48.4	\$4.2 to \$5.3	\$5.5 to \$7.0
2016	16	\$13.6 to \$27.3	\$17.8 to \$35.8	\$3.3 to \$4.9	\$4.3 to \$6.4

As demonstrated by Figure 1-1, the estimated variability in benefit estimates across fiscal years is greater than in cost estimates, but there still is considerable uncertainty in the estimation of costs.



The estimates we report here are prospective estimates made by agencies during the rulemaking process adjusted for vacated or superseded rules. As we have emphasized, it is possible that retrospective studies will show (as they sometimes have³⁸) that the benefits and costs were either overestimated or underestimated. As discussed elsewhere in this Report (see

³⁶ This total excludes the impacts of DOT's 2010 Electronic On-Board Recorders for Hours-of-Service Compliance rule, which was vacated. See *supra* note 23.

³⁷ The estimates shown in this row reflect a categorization of certain emission reductions as negative costs, rather than as benefits. As shown in footnote 43 of the Draft 2016 Report, we have previously requested comment on this accounting practice, and we reiterate that request here.

³⁸ See Harrington, Morgenstern and Nelson (2000).