

Table 1:
Estimates of Total Annual Monetized Costs and Monetized Benefits of Social Regulation as of 1988
 (Billions of 1996 dollars)

	Environment			Transportation	Labor	Other	Total
	Hahn & Hird (1991)	EPA	Combined Ranges ^(a)				
Costs	76 to 99	54 ^(b)	54 to 99	9 to 12	11 to 12 ^(d)	10 to 15	84 to 140
Benefits	22 to 180	1,450 ^(c)	22 to 1,450	34 to 60	not available ^(e)	not available ^(e)	56 to 1,510

Sources: Calculations based on information from Hahn and Hird (1991) unless otherwise noted.

^(a) Combined ranges from Hahn and Hird (1991) and EPA section 812 retrospective (1997).

^(b) Includes water pollution control costs from *Cost of Clean* (1990), air pollution control costs from EPA's Section 812 Retrospective Report (1997), less adjustments for 1988-1990 overlap.

^(c) Benefits from air pollution control only, based on EPA section 812 retrospective (1997).

^(d) Based on total expenditures for safety and health rather than regulation-induced expenditures.

^(e) Hahn and Hird (1991).

Note: The dollar figures in this table do not reflect benefits that were quantified but not monetized. They also do not reflect benefits and costs that were not quantified.

Table 2:
Estimates of Total Annual Monetized Costs and Monetized Benefits of Social Regulations Issued Between 1987 and First Quarter of 1999
 (Billions of 1996 dollars)

Time Period	Environmental	Transportation	Labor	Other	Total
Costs	71	6	7	7	92
Benefits	75 to 145	50	28 to 30	55 to 60	208 to 285

Source: The 1987 to 1994 estimates of costs are from OMB (1996) p. A-5. The 1987 to 1994 estimates of benefits are calculated by taking the benefit/cost ratios for the final rules issued between 1990 and 1995 from Hahn (1996) Table 10-4 and applying them to our costs estimates to derive benefit estimates. (See caveats above and the discussion in OMB (1997) for the rationale for this approach). The benefit/cost ratios are 1.4 for environmental, 9.7 for transportation, 3.8 for labor and 7.9 for other social regulations. The estimates for 1995 through the first quarter of 1999 are derived as described in tables 6 through 17. Note that totals may not add because of rounding.

Note: The dollar figures in this table do not reflect benefits that were quantified but not monetized. They also do not reflect benefits and costs that were not quantified.

Table 3:
Estimates of Total Annual Monetized Costs and Monetized Benefits of Social Regulations
 (Billions of 1996 dollars as of 1999, Q1)

	Environmental	Transportation	Labor	Other	Total
Costs	\$124 to 175	\$15 to 18	\$18 to 19	\$17 to 22	\$174 to 234
Benefits	\$97 to 1,595	\$84 to 110	\$28 to 30	\$55 to 60	\$264 to 1,795
Net Benefits ^(a)	\$-78 to 1,471	\$66 to 95	\$9 to 12	\$33 to 43	\$30 to 1,621

Source: Tables 1 and 2.

^(a) Lower estimate calculated by subtracting high cost from low benefit. Higher estimate calculated by subtracting low cost from high benefit.

Note: The dollar figures in this table do not reflect benefits that were quantified but not monetized. They also do not reflect benefits and costs that were not quantified.

Table 4
Estimates of the Total Annual Monetized Benefits and Monetized Costs of Social Regulations by Agency
April 1995 to March 1999
(\$ millions)

Agency	2000	2005	2010	2015	Annualized	Net Present Value
<u>Dept. of Agriculture</u> Benefits Costs	\$2,300-4,900 \$1,170-1,190	\$2,300-4,900 \$1,170-1,190	\$2,300-4,900 \$1,170-1,190	\$2,300-4,900 \$1,170-1,190	\$2,600-5,300 \$1,270-1,290	\$35,000-72,000 \$17,100-17,400
<u>Dept. of Education</u> Benefits Costs	\$580-720 \$320-540	\$580-720 \$320-540	\$580-720 \$320-540	\$580-720 \$320-540	\$580-720 \$320-540	\$8,000-10,000 \$4,500-7,500
<u>Dept. of Energy</u> Benefits Costs	\$670 \$300	\$750-780 \$300	\$870-940 \$300	\$970-1,100 \$300	\$780-840 \$280	\$11,000-12,000 \$3,900
<u>Dept. of Health and Human Services</u> Benefits Costs	\$11,000-13,000 \$690-750	\$11,000-13,000 \$690-750	\$11,000-13,000 \$680-740	\$11,000-13,000 \$680-740	\$12,000-14,000 \$700-770	\$170,000-190,000 \$10,000-11,000
<u>Dept. of Labor</u> Benefits Costs	\$390-810 \$230	\$390-810 \$230	\$390-810 \$230	\$390-810 \$230	\$890-3000 \$250	\$12,000-41,000 \$3,400
<u>Dept. of Transportation</u> Benefits Costs	\$1,200-1,700 \$980-2,200	\$2100-2500 \$1200	\$2,100-2,500 \$1200	\$2,100-2,500 \$1,200	\$2,000-2,400 \$1,200-1,600	\$27,000-33,000 \$16,000-22,000
<u>Environmental Protection Agency</u> Benefits Costs	\$4,300-22,000 \$5,500-5,600	\$4900-25000 \$6400-6600	\$27,000-150,000 \$17,300-17,500	\$31,000-170,000 \$61,000-61,100	\$17,000-84,000 \$27,600-27,700	\$220,000-1,200,000 \$370,000-380,000

Table 5
Information Collection Budget for FY 1999
(millions of hours)

Department/Agency	Expected Total Hour Burden
Agriculture	83.55
Commerce	10.74
nonperiodic	8.74
periodic	2.25
Defense	105.20
Education	35.89
Energy	3.88
Health and Human Services	164.55
Housing and Urban Development	22.33
Interior	4.98
Justice	37.37
Labor	193.20
State	28.90
Transportation	143.20
Treasury	5,912.44
Veterans Affairs	3.87
EPA	120.61
FAR	20.36
FCC	31.72
FDIC	7.57
FEMA	3.82
FERC	4.23
FTC	126.83
NASA	7.33
NSF	4.41
NRC	9.59
SEC	75.41
SBA	3.71
SSA	21.60
Government Total	7,202.59

TABLE 6: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/98 - 3/31/99
(As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
USDA	Solid Wood Packing Material from China	Not Estimated	Not Estimated	<p>USDA estimates that if left unchecked, these pests have the potential to create losses in excess of \$41 billion to forest products, commercial fruit, maple syrup, nursery, and tourist industries.</p> <p>The value of imports from China potentially affected is estimated to range between \$12 billion and \$16 billion. These estimates represent a maximum cost that would occur only if all these imports were lost to U.S. markets. [63 FR 50107]</p>
USDA	Pseudorabies in Swine	Not Estimated	Not Estimated	<p>USDA authorizes the transfer of \$80 million in funds for the accelerated pseudorabies eradication program. USDA has determined that this is the most appropriate time to conduct the program because of the depressed market value of swine. This will mean that the indemnity will be paid at considerable savings. [64 FR 2548]</p>
DOC	Endangered and Threatened Species of Salmonids	Not Estimated	Not Estimated	
HHS-FDA	Safety and Effectiveness of New Drugs in Pediatric Patients	\$76 million/yr.	\$47 million/yr.	<p>"FDA could not develop a quantifiable estimate of the benefits of this regulation, although numerous anecdotal examples illustrate the current health problem. To consider some of these potential benefits, the agency examined hospitalization rates for five serious illnesses (asthma, HIV/AIDS, cancer, pneumonia, and kidney infections) and found significantly higher rates for children than for middle-aged adults...the analysis suggests that a 25 percent reduction in the pediatric/adult hospitalization rate differentials would yield annual [medical cost] savings of \$76 million for these five illnesses." [63 FR 66666]</p> <p>"This estimate may represent a lower bound on the benefits to pediatric patients, however, because a number of other disease conditions are also common to children and adults, including such life-threatening conditions as hypertensive disease and renal disease. These pediatric populations would also experience significant benefits from increased safety and access to drug treatments currently available only to adult patient. Moreover, the analysis omits any quantification of benefits from reduced pain and suffering and reduced pediatric mortality. Thus the full benefits of the rule could easily exceed \$100 million per year." [63FR 66667]</p>

TABLE 6: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/98 - 3/31/99

(As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
HHS-FDA	Over-The-Counter Drug Labeling	\$61-80 million/yr.	\$18 million/yr.	<p>Monetized benefits are based on the assumption that the rule will reduce hospitalizations resulting from unintentional misuse of drugs by 5 percent. These benefits include avoided direct cost of hospitalizations, and the associated lost work time. They also include the value of time savings in making drug purchase decisions.</p> <p>“Although the agency cannot quantify the value of health improvements that would result, the agency is confident that more informed OTC drug selection and use produced by this rule will increase consumer satisfaction and, at times, reduce health care costs for additional or supplemental medications, doctor visits, and hospitalizations.” [64FR 13277]</p> <p>“The new label format will establish a consistent order of presentation and group similar information (such as ingredients, warnings, and directions) together under relevant headings so that it will be easier for consumers to find and read this information, thus helping to reduce the number of [less severe] adverse event occurrences.” [64FR 13277-8]</p>
HHS - HCFA	Provision of Transplant-Related Data	\$5.7 billion over the first 5 years	\$1.4 billion (direct medical costs) plus 399,000 - 752,000 additional paperwork burden hours over the first 5 years	<p>Benefits and costs based on expectation of 4,118 additional non-renal (primarily liver, heart, pancreas, and lung) transplants over first 5 years and assume an average of 12 life-years gained per transplant at a value of \$116,000 per life-year. [63 FR 33873]</p> <p>The agency also expects “this regulation will increase tissue and eye donations as well as organ donations,” but did not quantify this effect. [63 FR 33872]</p>

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(As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
HHS/ DOL/ Treasury	Group Health Plans Under the Newborns' and Mothers' Health Protection Act	Not estimated	\$130-200 million/yr.	"Many believe that the minimum length-of-stay requirements of 48 hours for a vaginal delivery and 96 hours for a cesarean section will have a positive impact on the overall health and well-being of mothers and newborns. The longer stays will allow health care providers sufficient time to assess their ability to care for the newborn. Although some services performed in an inpatient hospital setting may be effectively provided in other settings, such as clinics or physicians' offices, not all women have access to the full range of appropriate follow-up care. [This law] ensures that many women and newborns with health coverage will now be provided an acceptable level of postpartum care." [63FR 57550-1]
DOI	Migratory Bird Hunting (Early Season Frameworks)	\$50-192 million/yr.	Not Estimated	Estimates of individual's willingness to pay for an additional duck indicate the size of this benefit. Willingness to pay for generally improved duck hunting in California was \$32. Willingness to pay for taking twice as many birds in Montana was \$123. Expanding these estimates nationwide, the welfare benefit of the duck hunting frameworks is on the order of \$50 to \$192 million.
DOI	Migratory Bird Hunting (Late Season Frameworks)	\$50-192 million/yr.	Not Estimated	Estimates of individual's willingness to pay for an additional duck indicate the size of this benefit. Willingness to pay for generally improved duck hunting in California was \$32. Willingness to pay for taking twice as many birds in Montana was \$123. Expanding these estimates nationwide, the welfare benefit of the duck hunting frameworks is on the order of \$50 to \$192 million.

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(As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
DOL	Powered Industrial Truck Operator Training	\$136 million/yr. (1993 dollars); 11 fatalities and 6,449 non-lost-workday injuries prevented/yr.	\$16.9 million/yr. (1993 dollars)	The monetized portion of benefit estimate includes savings in medical costs, the value of lost output, savings in administrative costs of workers' compensation claims, and indirect costs to employer associated with lost-workday injuries [2,973 per year] only. It also includes reduced property damage and reduced litigation costs. It does not include a monetized estimate of loss of life or pain and suffering of injured workers. [63FR 66265]
Education	Education of Children with Disabilities and Early Intervention Program	\$577-723 million/yr.	\$324-544 million/yr.	The Department's estimates include the benefits and costs of significant statutory changes to the IDEA that have been incorporated in the rule and the benefits and costs of those non-statutory provisions that could be quantified. Estimated savings are attributable to statutory changes regarding the responsibility of private schools to provide services to children with disabilities and the elimination of unnecessary testing and non-statutory changes that reduce the number of meetings of school personnel that are required for children who are being disciplined and the extent of required services for children who have been suspended. These savings would be offset to some extent by the costs associated with the statutory changes requiring the participation of the child's regular education teacher in certain meetings and requiring alternate assessments for children with disabilities not included in general assessments. these estimates also include the cost of the non-statutory requirement for continued services to students who have exited high school without earning a regular high school diploma.
DOT/ FHWA	Lighting Devices.	\$360 million (present value)	\$228 million over 2-year phase-in	
DOT/	Child Restraint	36-50 fatalities and	\$152 million/yr.	

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(As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
DOT/ NHTSA	Light Truck CAFÉ Model- Year 2001	Not Estimated	Not Estimated	
EPA	Stage 1 Disinfectants/ Disinfection Byproducts	\$0 - 3.88 billion/yr.	\$626 - 701 million/yr.	Quantified benefits based on potential reductions in fatal and non-fatal bladder cancers. Non-quantified benefits include possible reductions in colon and rectal cancer and possible reductions in adverse reproductive and developmental effects. Regarding colon and rectal cancer, EPA notes that "...the association...while possibly significant, cannot be determined at this time because of limited data..." [RIA, p 4-14] with regard to reproductive and developmental effects, EPA notes that "...the results are inconclusive and do not support quantification of benefits at this time." [RIA p 4-16]
EPA	Enhanced Surface Water Treatment	\$348 - 1,603 million/yr.	\$287 - 307 million/yr.	Quantified benefits based on reduced illness and death from avoided cases of cryptosporidiosis only. Non-quantified benefits include reduced risks from other pathogens, and avoided costs of averting behavior (by people who would not have gotten cryptosporidiosis) in a major, well-publicized outbreak, such as occurred in Milwaukee in 1993.
EPA	Petroleum Refining Process Waste	See "Other Information"	\$30 million/yr.	Recovered oil benefits were identified and netted out of the cost estimate. Risks to exposed populations were assessed. EPA evaluated fifteen waste streams and listed four of these waste streams that it determined to pose potential risks to exposed populations.

TABLE 6: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/98 - 3/31/99

(As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
EPA	Nitrogen Oxide Emissions from New Fossil-Fuel-Fired Steam Generating Units	46,000 tons of nitrogen oxides in 2000	\$81 million in 2000	<p>“Certain simplifying assumptions, such as no fuel switching in response to the rule, may have resulted in a significant overestimation of these costs.” [63FR 49450]</p> <p>“Emissions reductions from replacement boilers are not quantified because of difficulties in characterizing emission rates for the boilers being replaced and the inability of the replacement model to predict selection of different types of boilers in both the baseline case and in response to the regulation. A qualitative analysis of industrial boiler replacement raises the possibility that replacement delay due to the revision may keep some boilers continuing to emit at a higher level than they would in the baseline case where they would be replaced by a lower emitting boiler.” [63FR 49450]</p>
EPA	Volatile Organic Compound Emission Standards for Architectural Coatings	113,500 tons of volatile organic compounds per year	\$26 million/yr.	<p>“The EPA believes the estimates of total cost and associated economic impacts are conservatively high. Since the best available data on VOC content of architectural coatings is from 1990, and the final rule has VOC content requirements similar to State rules which have been enforced since 1990, the EPA believes the estimated number of reformulations and/or their reformulation cost that result from this action may be overstated in that the compliant products developed by manufacturers to comply with various State rules can be used to meet the requirements of the Federal rule.” [63FR 48856]</p>

TABLE 6: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/98 - 3/31/99

(As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
EPA	Non-Road Diesel Engines	768,000 tons of nitrogen oxides; 110,000 tons of hydrocarbons; and 87,000 tons of particulate matter annualized emission reductions (1999-2018)	\$298 million/yr. annualized (1999-2018)	
EPA	Regional Transport of Ozone (NOx SIP Call)	\$1.1-4.2 billion/yr. (1990 dollars) in 2007	\$1.7 billion/yr. (1990 dollars) in 2007	Agency estimates based on analysis of 2007. Actual benefits and costs begin in 2003. The monetized benefits reflect improvements in health, crop yields, visibility, and ecosystem protection. "Due to practical analytical limitations, the EPA is not able to quantify and/or monetize all potential benefits of this action." [63FR 57478]
EPA	New Non-Road Non-Handheld Engines At or Below 19 Kilowatts	194,000 tons of combined hydrocarbons plus nitrogen oxides annualized emission reductions (2001-2020); \$200 million/yr. annualized fuel savings (2001-2020)	\$132 million/yr. annualized (2001-2020)	

TABLE 6: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/98 - 3/31/99

(As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
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TRANSFER RULES

Dept. of Agriculture (USDA)

Disaster Set-Aside Program
Livestock Assistance Program

Dept. of Health and Human Services (HHS)

Definition of an Unemployed Parent
Clinical Psychologist and Clinical Social Worker Services
Prospective Payment System for Skilled Nursing Facilities
Medicare Coverage and Payment for Bone Mass Measurements
Establishment of the Medicare+Choice Program
Hospital Inpatient Prospective Payment System FY1999
Inpatient Hospital Deductible and Hospital and Extended Care Coinsurance 1999
Monthly Actuarial Rates and Insurance Premium Rate beginning 1/1/99
Physician Fee Schedule for CY1999
Medicare Program: Hospital Wage Data Revisions
Temporary Assistance for Needy Families
Medicare State Allotments for Payment of Medicare Part B Premiums FY 1999

Department of Justice (DOJ)

Immigration Examinations Fee Account

Pension Benefit Guarantee Corporation (PBGC)

Payment of Premiums

Department of Transportation

State Observational Surveys of Belt Use
Operation of Motor Vehicles by Intoxicated Persons
Incentive Grants for Use of Seat Belts

Small Business Administration

HUBZone Empowerment Contracting Program

Federal Acquisition Regulation

Reform of Affirmative Action In Federal Procurement - Cases 97-004A and B
Reform of Affirmative Action In Federal Procurement - Case 97-004C

Table 7				
Benefit and Cost Information on Independent Agency Rules				
Agency	Total Rules	Rules with Some Information on Costs or Benefits	Monetized Information on Costs	Monetized Information on Benefits
Federal Communications Commission (FCC)	15	0	0	0
Securities and Exchange Commission (SEC)	6	5	2	1
Nuclear Regulatory Commission (NRC)	2	1	0	0
National Credit Union Administration	1	0	0	0
Total	24	6	2	1

**Table 8:
Major Rules Issued Between April 1, 1995 and March 31, 1999
Without Quantified Estimates of Either Benefits or Costs**

USDA	1996 Farm Bill Farm Program Karnal Bunt, 1996-1997 Solid Wood Packing Material from China Pseudorabies in Swine
DOC	Endangered and Threatened Species of Salmonids
HHS	Substances Prohibited in Animal Feed, 1997-1998
DOI	Migratory Bird Hunting (Early Season), 1995-1996 Migratory Bird Hunting (Fall Season), 1995-1996 Migratory Bird Hunting (Early Season), 1996-1997 Migratory Bird Hunting (Fall Season), 1996-1997 Migratory Bird Hunting (Early Season), 1997-1998 Migratory Bird Hunting (Fall Season), 1997-1998
EPA	Phase III Land Disposal Restrictions
DOT	Light Truck CAFE, 1995-1996 Light Truck CAFE, 1996-1997 Light Truck CAFE, 1997-1998 Light Truck CAFE, 1998-1999

**Table 9:
Small or Missing Estimates, Not Evaluated for Aggregate Estimate**

USDA	Use of the Term "Fresh" for Poultry Labeling Importation of Sonoran Pork Importation of Argentine Beef
DOC	Encryption Items Transferred from U.S. Munitions List to the Commerce Control List
HHS/DOL/ Treasury	Group Health Plans Under the Newborns' and Mothers' Health Protection Act
DOI	Migratory Bird Hunting (Early Season), 1998-1999 Migratory Bird Hunting (Fall Season), 1998-1999
EPA	Lead-Based Paint Activities in Target Housing Toxic Release Inventory: Facility Expansion Petroleum Refining Process Waste

Table 10:
Agency Monetized Benefit/Cost Estimates for Final Rules
April 1, 1995 to March 31, 1996
(Millions of \$1996, Rounded to Two Significant Digits)

Agency	Rule	Category	2000	2005	2010	2015	Annualized Value	Net Present Value
Dept. of Health and Human Services (HHS)								
Hazard Analysis and Critical Control Points (HACCP): Seafood	Benefits		\$ 110- 190	\$ 110- 190	\$ 110- 190	\$ 110- 190	\$ 110- 200	\$ 1,600- 2,800
	Costs		\$ 50- 110	\$ 50- 110	\$ 50- 110	\$ 50- 110	\$ 50- 120	\$ 740- 1,600
Dept. of Transportation (DOT)								
Head Impact Protection	Benefits		\$ 480- 540	\$1,900-2,200	\$1,900-2,200	\$1,900-2,200	\$1,600-1,800	\$22,000-25,000
	Costs		\$ 170	\$ 690	\$ 690	\$ 690	\$ 580	\$ 8,000
Vessel Response Plans	Benefits		\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 330
	Costs		\$ 260	\$ 260	\$ 260	\$ 260	\$ 280	\$ 3,900
Environmental Protection Agency (EPA)								
Marine Tank Vessel Loading and Petroleum Refining NESHAP	Benefits		\$ 170- 760	\$ 170- 760	\$ 170- 760	\$ 170- 760	\$ 170- 760	\$ 2,900-10,000
	Costs		\$ 120- 160	\$ 120- 160	\$ 120- 160	\$ 120- 160	\$ 120- 160	\$ 1,700- 2,200
Air Emissions from Municipal Solid Waste Landfills	Benefits		\$ 50- 200	\$ 60- 220	\$ 70- 230	\$ 70- 230	\$ 60- 210	\$ 820- 2,900
	Costs		\$ 90	\$ 105	\$ 110	\$ 110	\$ 100	\$ 1,400
Municipal Waste Combustors	Benefits		\$ 220- 570	\$ 220- 570	\$ 220- 570	\$ 220- 570	\$ 240- 620	\$ 3,300- 8,600
	Costs		\$ 300	\$ 300	\$ 300	\$ 300	\$ 320	\$ 4,400

Table 11:
Agency Monetized Benefit/Cost Estimates for Final Rules
April 1, 1996 to March 31, 1997
(Millions of 1996\$, Rounded to Two Significant Digits)

Agency	Rule	Category	2000	2005	2010	2015	Annualized Value	Net Present Value
Dept. of Agriculture (USDA)								
Conservation Reserve Program	Benefits		\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,200	\$ 30,000
	Costs		\$ 900	\$ 900	\$ 900	\$ 900	\$ 970	\$ 13,000
Hazard Analysis and Critical Control Points (HAACP): Meat and Poultry	Benefits		\$ 70- 2,600	\$ 70- 2,600	\$ 70- 2,600	\$ 70- 2,600	\$ 70- 2,800	\$ 1,000- 38,000
	Costs		\$ 90- 110	\$ 90- 110	\$ 90- 110	\$ 90- 110	\$ 100- 120	\$ 1,400- 1,700
Dept. of Health and Human Services (HHS)								
Food Nutrition Labeling: Small Business Exemption	Benefits		\$ 275- 360	\$ 275- 360	\$ 275- 360	\$ 275- 360	\$ 300- 390	\$ 4,100- 5,400
	Costs		\$ 3	\$ 2	\$ 1	\$ 1	\$ 2	\$ 30
Restriction on the Sale and Distribution of Tobacco	Benefits		\$9,200-10,000	\$9,200-10,000	\$9,200-10,400	\$9,200-10,000	\$9,900-11,000	\$140,000-150,000
	Costs		\$ 180	\$ 180	\$ 180	\$ 180	\$ 180	\$ 2,500
Medical Devices: Quality Regulations	Benefits		\$ 270- 280	\$ 270- 280	\$ 270 -280	\$ 270- 280	\$ 290- 310	\$ 4,100- 4,200
	Costs		\$ 80	\$ 80	\$ 80	\$ 80	\$ 90	\$ 1,200
Dept. of Labor (DOL)								
Exposure to Methylene Chloride	Benefits		\$ 40	\$ 40	\$ 40	\$ 40	\$ 90	\$ 1,200
	Costs		\$ 100	\$ 100	\$ 100	\$ 100	\$ 110	\$ 1,500

Table 11:
Agency Monetized Benefit/Cost Estimates for Final Rules
April 1, 1996 to March 31, 1997
(Millions of 1996\$, Rounded to Two Significant Digits)

Agency	Rule	Category	2000	2005	2010	2015	Annualized Value	Net Present Value
Dept. of Transportation (DOT)								
Airbag Depowering	Benefits		\$ 540- 860	\$ 0	\$ 0	\$ 0	\$ 170- 270	\$ 2,400- 3,800
	Costs		\$ 340- 1,600	\$ 0	\$ 0	\$ 0	\$ 110- 500	\$ 1,500- 7,000
Roadway Worker Protection	Benefits		\$ 30	\$ 30	\$ 30	\$ 30	\$ 40	\$ 490
	Costs		\$ 30	\$ 30	\$ 30	\$ 30	\$ 40	\$ 480
Environmental Protection Agency (EPA)								
Accidental Release Prevention	Benefits		\$ 170	\$ 170	\$ 170	\$ 170	\$ 170	\$ 2,400
	Costs		\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 1,500
Financial Assurance for Municipal Solid Waste Landfills	Benefits		\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Costs		-\$ 100	-\$ 100	-\$ 100	-\$ 100	-\$ 110	-\$ 1,500
Deposit Control Gasoline	Benefits		\$ 120- 350	\$ 120- 350	\$ 120- 350	\$ 120- 350	\$ 120- 350	\$ 1,700- 5,200
	Costs		\$ 140	\$ 140	\$ 140	\$ 140	\$ 150	\$ 2,000
Acid Rain Phase II NO _x Controls	Benefits		\$ 460- 2,100	\$ 460- 2,100	\$ 460- 2,100	\$ 460- 2,100	\$ 430- 2,000	\$ 6,000- 27,000
	Costs		\$ 200	\$ 200	\$ 200	\$ 200	\$ 190	\$ 2,600
Federal Test Procedure Revisions	Benefits		\$ 140- 820	\$ 140- 820	\$ 140- 820	\$ 140- 820	\$ 130- 760	\$ 1,700- 11,000
	Costs		\$ 200- 250	\$ 200- 250	\$ 200- 250	\$ 200- 250	\$ 200- 250	\$ 2,600- 3,200
Voluntary Standards for Light-Duty Vehicles (NLEV)	Benefits		\$ 50- 220	\$ 130- 590	\$ 260- 1,200	\$ 380- 1,800	\$ 230- 1,000	\$ 3,100- 14,000
	Costs		\$ 600	\$ 600	\$ 600	\$ 600	\$ 640	\$ 8,920

Table 11:
Agency Monetized Benefit/Cost Estimates for Final Rules
April 1, 1996 to March 31, 1997
(Millions of 1996\$, Rounded to Two Significant Digits)

Agency	Rule	Category	2000	2005	2010	2015	Annualized Value	Net Present Value
Environmental Protection Agency (EPA), continued								
Emission Standards for Marine Engines	Benefits		\$ 10- 50	\$ 90- 390	\$ 180- 810	\$ 240- 1,100	\$ 150- 680	\$ 2,100- 9,400
	Costs		\$ 50	\$ 310	\$ 360	\$ 320	\$ 270	\$ 3,760

Table 12:
Agency Monetized Benefit/Cost Estimates for Final Rules
April 1, 1997 to March 31, 1998
(Millions of 1996\$, Rounded to Two Significant Digits)

Agency	Rule	Category	2000	2005	2010	2015	Annualized Value	Net Present Value
Dept. of Agriculture (USDA)								
Environmental Quality Incentives Program (EQIP)	Benefits		\$ 270	\$ 270	\$ 270	\$ 270	\$ 290	\$ 4,000
	Costs		\$ 180	\$ 180	\$ 180	\$ 180	\$ 200	\$ 2,700
Dept. of Health and Human Services (HHS)								
Organ Procurement and Transplantation Network	Benefits		\$ 30-410	\$ 30-410	\$ 30-410	\$ 30-410	\$ 40-440	\$ 510-6,100
	Costs		\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Quality Mammography Standards	Benefits		\$ 180-260	\$ 180-260	\$ 180-260	\$ 180-260	\$ 200-280	\$ 2,800-3,900
	Costs		\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 570
Dept. of Labor (DOL)								
Respiratory Protection	Benefits		\$ 140-560	\$ 140-560	\$ 140-560	\$ 140-560	\$ 590-2,700	\$ 8,200-37,000
	Costs		\$ 110	\$ 110	\$ 110	\$ 110	\$ 120	\$ 1,700

Table 12:
Agency Monetized Benefit/Cost Estimates for Final Rules
April 1, 1997 to March 31, 1998
(Millions of 1996\$, Rounded to Two Significant Digits)

Agency	Rule	Category	2000	2005	2010	2015	Annualized Value	Net Present Value
Environmental Protection Agency (EPA)								
Emission Standards for New Locomotives	Benefits		\$ 250-970	\$ 250- 970	\$ 250- 970	\$ 250- 970	\$ 230- 900	\$ 3,200- 13,000
	Costs		\$ 90	\$ 90	\$ 90	\$ 90	\$ 80	\$ 1,900
Emission Standards for New Highway Heavy-Duty Engines	Benefits		\$ 0	\$ 310-1,400	\$ 310- 1,400	\$ 310- 1,400	\$ 220- 990	\$ 3,000- 14,000
	Costs		\$ 0	\$ 200	\$ 200	\$ 200	\$ 140	\$ 1,900
Pulp and Paper: Effluent Guidelines	Benefits		\$ 10-160	\$ 10- 160	\$ 10- 160	\$ 10- 160	\$ 10- 250	\$ 150- 3,400
	Costs		\$ 160	\$ 160	\$ 160	\$ 160	\$ 250	\$ 3,400
Pulp and Paper: National Emission Standards for Hazardous Air Pollutants (NESHAP)	Benefits		-\$ 1,000-1,000	-\$1,000-1,000	-\$ 1,000- 1,000	-\$ 1,000- 1,000	-\$ 970- 1,100	-\$ 13,000- 14,000
	Costs		\$ 80	\$ 80	\$ 80	\$ 80	\$ 120	\$ 1,600
National Ambient Air Quality Standards (NAAQS): Ozone	Benefits		\$ 0	\$ 235- 710	\$ 470- 2,500	\$ 1,800- 10,000	\$ 770- 4,300	\$ 11,000- 59,000
	Costs		\$ 0	\$ 470	\$ 1,310	\$ 11,000	\$ 4,500	\$ 62,000

Table 14:
Estimates of the Total Annual Monetized Costs and Monetized Benefits of Social Regulations by Year, 1995 to March 1999
(\$ millions)

	2000	2005	2010	2015	Annualized	Net Present Value
<u>1995-96</u> Benefits Costs	\$ 1,100- 2,300 \$ 1,300- 1,400	\$ 2,500- 3,900 \$ 1,800- 1,900	\$ 2,500- 3,900 \$ 1,800- 1,900	\$ 2,500- 3,900 \$ 1,800- 1,900	\$ 2,200- 3,600 \$ 1,700- 1,800	\$ 31,000- 50,000 \$ 23,000- 25,000
<u>1996-97</u> Benefits Costs	\$13,000-20,000 \$ 2,900- 4,200	\$13,000-20,000 \$ 2,800- 2,900	\$13,000- 21,000 \$ 2,900- 2,900	\$13,000- 22,000 \$ 2,800- 2,900	\$ 14,000-22,000 \$ 3,000- 3,500	\$200,000- 310,000 \$ 42,000- 48,000
<u>1997-98</u> Benefits Costs	\$ 750- 5,100 \$ 980	\$ 1,400- 7,300 \$ 1,600	\$24,000-130,190 \$ 13,000	\$27,000-150,000 \$ 56,000	\$ 13,000-71,000 \$ 23,000	\$180,000- 990,000 \$ 310,000
<u>1998-99</u> Benefits Costs	\$ 5,700-17,000 \$ 4,300-4,600	\$ 5,700-17,000 \$ 4,300-4,600	\$ 5,700-17,000 \$ 4,300-4,600	\$ 5,700-17,000 \$ 4,300-4,600	\$ 5,700-17,000 \$ 4,300-4,600	\$ 77,000 - 230,000 \$ 58,000 - 62,000
<u>Total</u> Benefits Costs	\$21,000-45,000 \$10,000-11,000	\$23,000-48,000 \$10,600-11,000	\$46,000-180,000 \$21,000- 22,000	\$49,000-190,000 \$64,000- 66,000	\$36,000-110,000 \$ 32,000-33,000	\$490,000- 1,500,000 \$440,000- 450,000

APPENDIX: TABLE 15: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/95 - 3/31/96
(As reported by the agency as of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
USDA	Use of the Term "Fresh" on the Labeling of Raw Poultry Products	Not estimated	\$7 million/yr	USDA estimated transfers from producers to consumers of \$75 - 125 million/yr due to potential price decreases of \$.04 - .10/lb. The qualitative benefits of the rule are that consumers would be assured that poultry products are not labeled in a misleading or false manner.
HHS	Hazard Analysis and Critical Control Points (HACCP): Seafood ("Safe and Sanitary Processing and Importation of Seafood")	\$1.44 - 2.56 billion (present value)	\$677 million - \$1,490 million (present value)	FDA believes that there may be "re-engineering" types of benefits associated with these regulations. For both seafood and other foods for which HACCP has been implemented, FDA has received information that firms have found cost-saving innovations in other areas as they implement HACCP. These innovations are considered trade secrets by firms and thus, their description (actual process innovations) and quantification is impossible as firms have not released this data into the public domain. This phenomenon involves unexpected savings and efficiencies as a result of establishing a new system in a processing operation. The majority of firms that have previously instituted HACCP reported that they believed that the advantages they derived from HACCP were worth the costs to them in terms of better control over their operations, better sanitation, and greater efficiencies, such as reduced waste. Virtually all foresaw long-term benefits from operating under HACCP.
DOI	Migratory Bird Hunting (Early Season Frameworks)	Not Estimated	Not Estimated	DOI reports that duck hunters spend an estimated \$416 million/yr; unquantified economic stimulus benefits derived from spending on duck hunting; unquantified benefit of value to hunters (consumer surplus) from more than 11 million hunting days per year; unquantified benefit to bird population by reducing overcrowding and ensuring continued use of resource in future.

APPENDIX: TABLE 15: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/95 - 3/31/96
 (As reported by the agency as of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
DOI	Migratory Bird Hunting (Late Season Frameworks)	Not Estimated	Not Estimated	DOI reports that duck hunters spend an estimated \$416 million/yr; unquantified economic stimulus benefits derived from spending on duck hunting; unquantified benefit of value to hunters (consumer surplus) from more than 11 million hunting days per year; unquantified benefit to bird population by reducing overcrowding and ensuring continued use of resource in future.
DOT	Light Truck CAFE Model-Year 1998	Not Estimated	Not Estimated	None reported
DOT	Head Impact Protection	873 - 1,045 fatalities prevented/yr; 675 - 768 serious head injuries prevented/yr	\$640 million/yr	None reported
DOT	Vessel Response Plans	22,000 bbls oil prevented from being spilled/yr	\$260 million/yr	The U.S. Coast Guard also stated that there are additional benefits which are not quantifiable. Effectiveness of response operations is enhanced both by the training of citizens and hatchery employees so they may assist in nearshore and onshore operations, and by prepositioning containment and cleanup equipment near where it would be utilized. Also, area drills are expected to improve the proficiency of operations.

APPENDIX: TABLE 15: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/95 - 3/31/96

(As reported by the agency as of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
EPA	Land Disposal Restrictions Phase III	Not Estimated	\$30 - 220 million/yr	Qualitative discussion, including possible reduction in individual cancer risks; EPA did not provide quantified estimates of benefits because it was not able to identify the magnitude of the exposed population. The RIA reports that benefits would range from very small to zero.
EPA	Marine Tank Vessel Loading and Unloading Operations	40,000 t HC/yr	\$60 - 100 million/yr	EPA also reports a reduction of 4,600 tons per year in emissions of toxic pollutants.
EPA	Petroleum Refinery NESHAP	250,000 t HC/yr	\$80-100 million/yr	
EPA	Air Emissions from Municipal Solid Waste Landfills	83,000 t HC/yr; 4,250 Kt methane/yr	\$100 million/yr	
EPA	Municipal Waste Combustors	20,000 t SO ₂ /yr; 3,000 t PM/yr; 20,000 t NO _x /yr; 60 t Hg/yr; 800 grams TCDD TEQ /yr	\$320 million/yr	

ABBREVIATIONS: bbls = barrels, CO = carbon monoxide, HC = hydrocarbons, Hg = mercury, kg = kilograms, Kt = kilotons, NO_x = nitrogen oxides, PM = particulate matter, SO₂ = sulfur dioxide, t = tons, TCDD TEQ = 2,3,7,8 tetrachlorodibenzo-p-dioxin toxicity equivalent.

APPENDIX: TABLE 15: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/95 - 3/31/96
 (As reported by the agency as of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
TRANSFER RULES				
Dept. of Agriculture (USDA)				
	1995 Upland Cotton Program			
	1995 Rice Acreage Reduction Program			
	Disaster Payment Program for 1990 and Subsequent Crops - - Tree Assistance Program			
	1995 Wheat, Feed Grain, and Oilseed Programs			
	General Crop Insurance Regulations (Hybrid Sorghum Seed and Rice)			
	Utility Reimbursement Exclusion			
Dept. of Health and Human Services (HHS)				
	Changes to Hospital Inpatient Prospective Payment System FY 1996			
Dept. of Justice (DOJ)				
	Charging of Fees for Services at Land Border Ports-of-Entry			

APPENDIX: TABLE 16: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/96 - 3/31/97
(As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
USDA	1996 Farm Bill Farm Program	Not Estimated	Not Estimated	<p>“Net farm income (including crop and livestock sectors) during the 1996-2002 calendar years is expected to be about \$15 billion higher under the 1996 Act than under the FY 1997 President’s Budget baseline. This largely reflects higher Government payments to farmers under the 1996 Act as production flexibility contract payments exceed projected deficiency payments. Additionally, changes in the timing of payments to farmers provide an additional boost to farm income in the first year of the program--pushing 1996 net income up about \$4 billion. However, net farm income is up by less than the increase in Government payments due to changes in the dairy and peanut programs. Crop sector receipts are down slightly under the 1996 Act due to lower plantings and production of the eight major commodities. Livestock sector receipts are lower due primarily to lower dairy sector receipts. Cash production expenses are up slightly due to increases in net cash rents, which offset lower crop production expenses from lower plantings.</p> <p>“Farmland values are higher under the 1996 Act compared with the FY 1997 President’s Budget, reflecting the capitalized value of higher income. Land values average about 3 percent higher under the 1996 Act compared with FY 1997 President’s Budget estimates.</p> <p>“Consumer costs are expected to be only slightly lower under the 1996 Act. Because grain prices, on average, are expected to be essentially unaffected, no appreciable change in grain-based food product costs, such as cereal and meat products, is expected.” 61 FR 37544-5.</p> <p>“Alternatively, the 1996 Act can be compared to a ‘no program’ baseline. Under the 1996 Act, contract commodity payments represent a large portion of the benefits received by producers and there are few planting restrictions. The major differences between a no-program scenario (if the CRP and export programs were continued) and the 1996 Act are that producers would no longer receive contract commodity payments of about \$35.9 billion and would no longer be subject to farm conservation and wetland protection requirements. The loss in farm income would likely entail substantial short-term adjustments and financial stress. However, over the longer term, a no-program scenario is expected to have little or no impact on supply, demand, and prices compared with the 1996 Act for most commodities except for peanuts, sugar, and, in the initial years of the period, dairy.</p>

APPENDIX: TABLE 16: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/96 - 3/31/97
 (As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
USDA	Conservation Reserve Program	\$2 billion/yr, 1997- 2002	\$900 million/yr, 1997 - 2002	Other miscellaneous (unquantified) benefits: swimming, boating, wetland conservation, human health impacts, and reduced nutrients in habitats; \$5.8 billion/yr in transfers from consumers and taxpayers to farmers.
USDA	Karnal Bunt	Not Estimated	Not Estimated	“This rule is being published on an emergency basis in order to give affected growers the opportunity to make planting decisions for the 1996-97 crop season on a timely basis...This rule may have a significant economic impact on a substantial number of small entities. If we determine this is so, then we will discuss the issues raised by section 604 of the Regulatory Flexibility Act in our Final Regulatory Flexibility Analysis, which we will publish in a future Federal Register.” 61 FR 52206.

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 (As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
USDA	Hazard Analysis and Critical Control Points: Meat and Poultry	\$0.71-\$26.59 billion present value discounted over 20 years	\$0.97-1.16 billion present value discounted over 20 years	<p>“The benefits are based on reducing the risk of foodborne illness due to <i>Campylobacter jejuni/coli</i>, <i>Escherichia coli</i> 0157:H7, <i>Listeria monocytogenes</i> and <i>Salmonella</i>. ... these four pathogens are the cause of 1.4 to 4.2 million cases of foodborne illness per year. FSIS has estimated that 90 percent of these cases are caused by contamination occurring at the manufacturing stage that can be addressed by improved process control. This addressable foodborne illness costs society from \$0.99 to \$3.69 billion, annually. The high and low range occurs because of the current uncertainty in the estimates of the number of cases of foodborne illness and death attributable to the four pathogens. Being without the knowledge to predict the effectiveness of the requirements in the rule to reduce foodborne illness, the Department has calculated projected health benefits for a range of effectiveness levels, where effectiveness refers to the percentage of pathogens eliminated at the manufacturing stage...” 61 FR 38956.</p> <p>“The link between regulatory effectiveness and health benefits is the assumption that a reduction in pathogens leads to a proportional reduction in foodborne illness. FSIS has presented the proportional reduction calculation as a mathematical expression that facilitates the calculation of a quantified benefit estimate for the purposes of this final RIA. FSIS has not viewed proportional reduction as a risk model that would have important underlying assumptions that merit discussion or explanation. For a mathematical expression to be a risk model, it must have some basis or credence in the scientific community. That is not the case here. FSIS has acknowledged that very little is known about the relationship between pathogen levels at the manufacturing stage and dose, i.e., the level of pathogens consumed.” 61 FR 38945-6.</p>

APPENDIX: TABLE 16: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/96 - 3/31/97
 (As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
DOC	Encryption Items Transferred from the U.S. Munitions List to the Commerce Control List	Not Estimated	\$834,000 (govt admin cost FY97), \$591,850 (paperwork burden costs)	Unquantified benefits in terms of improved national security, law enforcement and public safety benefits, and economic benefits for industry: "This initiative will support the growth of electronic commerce; increase the security of the global information infrastructure; protect privacy, intellectual property and other valuable information; and sustain the economic competitiveness of U.S. encryption product manufacturers during the transition to a key management infrastructure. 61 FR 68573.
HHS	Food Labeling/ Nutrition Labeling: Small Business Exemption	\$275-360 million/yr	\$4 million in first year, expected to decline thereafter	None reported.

APPENDIX: TABLE 16: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/96 - 3/31/97

(As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
HHS	Restriction on the Sale and Distribution of Cigarettes and Smokeless Tobacco	\$9.2-10.4 billion/yr at 7% discount rate; \$28.1-43.2 billion/yr at 3% discount rate	\$180 million/yr at 7% discount rate	Unspecified costs of mandatory consumer education program. “These totals do not include the benefits expected from fewer fires (over \$160 million annually), reduced passive smoking, or infant death and morbidity associated with mothers' smoking....” “In addition, while FDA could not quantify the benefits that will result from the projected decline in the use of smokeless tobacco, they would be considerable.” 61 FR 44396ff.

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AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
HHS	Medical Devices: Quality Systems Regulation	\$29 million/yr; 44 deaths avoided/yr; 484 to 677 serious injuries avoided/yr;	\$82 million/yr	<p>“The medical device industry would gain substantial economic benefits from the proposed changes to the [Comprehensive Good Manufacturing Practices, “CGMP”] regulation in three ways: Cost savings from fewer recalls, productivity gains from improved designs, and efficiency gains for export-oriented manufacturers who would now need to comply with only one set of quality standards.</p> <p>“These estimates of the public health benefits from fewer design-related deaths and serious injuries represent FDA’s best projections, given the limitations and uncertainties of the data and assumptions. The above numbers, however, do not capture the quality of life losses to patients who experience less severe injuries than those reported in [medical device recalls, “MDR’s”], who experience anxiety as a result of treatment with an unreliable medical device, or who experience inconvenience and additional medical costs because of device failure.</p> <p>“Medical device malfunctions are substantially more numerous than deaths or injuries from device failures and also represent a cost to society. Malfunctions represent a loss of product and an inconvenience to users and/or patients. Additionally, medical device malfunctions burden medical personnel with additional tasks, such as repeating treatments, replacing devices, returning and seeking reimbursement for failed devices, and providing reports on the circumstances of medical device failures. No attempt was made to quantify these additional costs.” 61 FR 52602ff.</p>
DOI	Migratory Bird Hunting (Early Season Frameworks)	Not Estimated	Not Estimated	<p>DOI reports that duck hunters spend an estimated \$416 million/yr; unquantified economic stimulus benefits derived from spending on duck hunting; unquantified benefit of value to hunters (consumer surplus) from more than 11 million hunting days per year; unquantified benefit to bird population by reducing overcrowding and ensuring continued use of resource in future.</p>

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(As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
DOI	Migratory Bird Hunting (Late Season Frameworks)	Not Estimated	Not Estimated	DOI reports that duck hunters spend an estimated \$416 million/yr; unquantified economic stimulus benefits derived from spending on duck hunting; unquantified benefit of value to hunters (consumer surplus) from more than 11 million hunting days per year; unquantified benefit to bird population by reducing overcrowding and ensuring continued use of resource in future.
DOL	Exposure to Methylene Chloride (MC)	31 cancer cases/yr avoided; 3 deaths/yr avoided from acute central nervous system effects and carboxyhemo-globinemia	\$101 million/yr	"MC exposures above the level at which the final rule's STEL is set--125 ppm--are also associated with acute central nervous system effects, such as dizziness, staggered gait, and diminished alertness, all effects that can lead to workplace accidents. OSHA estimates that as many as 30,000 to 54,000 workers will be protected by the final rule's STEL from experiencing CNS effects and episodes of carboxyhemoglobinemia every year. Moreover, exposure to the liquid or vapor forms of MC can lead to eye, skin, and mucous membrane irritation, and these material impairments will also be averted by compliance with the final rule. Finally, contact of the skin with MC can lead to percutaneous absorption and systemic toxicity and thus lead to additional cases of cancer that have not been taken into account in the benefits assessment." 62 FR 1567-68.
DOT	Airbag Depowering	83-101 fewer fatalities, 5,100 - 8,800 fewer serious injuries over lifetime of one full model-year's vehicles	\$0	50 - 431 more fatalities and 171 - 553 more serious/severe chest injuries over lifetime of one full model-year's vehicles; substantial unquantified reduction in minor/moderate injuries.

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(As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
DOT	Light Truck CAFE Model- Year 1999	Not Estimated	Not Estimated	None reported.
DOT	Roadway Worker Protection	\$240 million present value discounted over 10 years	\$229 million present value discounted over 10 years	Possible increased capacity of rail lines and improved morale.
EPA	Accidental Release Prevention	\$174 million/yr	\$97 million/yr	Unspecified value of information made available through disclosure/reporting requirements; efficiency gains, increased technology transfer, indirect cost savings, and increased goodwill; possible damage reductions attributable to offsite consequence analysis and to a reduction in routine emissions.
EPA	Financial Assurance for Municipal Solid Waste Landfills	\$105 million/yr	\$0	None reported.
EPA	Deposit Control Gasoline	<u>AVG EMISSION REDUCTIONS PER YEAR, 1997-2001:</u> 25,000 t HC, 474,000 t CO, 95,000 t NOx	<u>AVG COST/YR, 1997 - 2000:</u> \$138 million/yr	Fuel economy benefits are also expected as a result of the detergent program, amounting to nearly 450 million gallons during the 1995-2001 period. The savings associated with this fuel economy benefit are expected to partially offset the costs of the program. This rule should result in increased sales and business opportunities within the fuel additive industry. EPA anticipates that this program may result in significant vehicle maintenance benefits. However, due to uncertainties in their magnitude, and for other reasons, they were not considered quantitatively in the analysis.

APPENDIX: TABLE 16: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/96 - 3/31/97
(As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
EPA	Acid Rain Phase II Nitrogen Oxides Emission Controls	<u>EMISSION REDUCTIONS PER YEAR:</u> 890,000 t NO _x	\$204 million/yr	None reported.
EPA	Federal Test Procedure Revisions	<u>EMISSION REDUCTIONS:</u> <u>In 2005:</u> 30,994 t NMHC 1,937,114 t CO 164,112 t NO _x <u>In 2010:</u> 54,892 t NMHC 3,430,769 t CO 290,655 t NO _x <u>In 2015:</u> 72,025 t NMHC 4,501,555 t CO 381,372 t NO _x <u>In 2020:</u> 81,977 t NMHC 5,123,565 t CO 434.068 t NO _x	\$199-245 million/yr	Analysis does not include potential fuel savings of \$13.45 discounted over the lifetime of the average vehicle, or about \$202 million/yr.

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(As of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
EPA	Voluntary Standards for Light-Duty Vehicles	<u>EMISSION REDUCTIONS</u> (tons/ozone season- weekday): <u>In 2005:</u> 279 t NMOG, 3,756 t CO, 400 t NOx <u>In 2007:</u> 399 t NMOG, 5,302 t CO, 600 t NOx <u>In 2015:</u> 778 t NMOG, 9,723 t CO, 1,249 t NOx	\$600 million/yr	None reported.
EPA	Lead-Based Paint Activities in Target Housing	Not Estimated	\$1.114 billion present value over 50 years discounted at 3%	Will provide consumers with greater assurance that they will be able to purchase abatement services of reliable quality.
<p><u>ABBREVIATIONS:</u> CO = carbon monoxide, HC = hydrocarbons, Kt = kilotons, NMHC = non-methane hydrocarbons, NMOG= non-methane organic gases. NOx = nitrogen oxides. t = tons.</p>				

APPENDIX TABLE 17: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/97 - 3/31/98

(As reported by the agency as of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
USDA	Environmental Quality Incentives Program (EQIP)	\$2.41 billion (present value) 1997 - 2012	\$1.65 billion (present value) 1997 - 2012	<p>“The analysis estimates EQIP will have a beneficial impact on the adoption of conservation practices and, when installed or applied to technical standards, will increase net farm income. In addition, benefits would accrue to society for long-term productivity, maintenance of the resource base, non-point source pollution damage reductions, and wildlife enhancements. As a voluntary program, EQIP will not impose any obligation or burden upon agricultural producers that choose not to participate. The off-farm public benefits associated with on-farm conservation efforts are directly dependent upon the on-farm treatment needs and associated benefits. In the case of non-point source pollution from agricultural sources, for instance, public benefits are not achieved until private land user behavior changes and on-site conservation measures are applied. Some of the off-site benefits are attributable to improvements made to enhance freshwater and marine water quality and fish habitat, improved aquatic recreation opportunities, reduced sedimentation of reservoirs, streams, and drainage channels, and reduced flood damages. Additional benefits are from reduced pollution of surface and groundwater from agrochemical management, improvements in air quality by reducing wind erosion, and enhancements to wildlife habitat. EQIP encourages participants to adopt a comprehensive approach to solving natural resource and environmental concerns. Off-site benefits for pasture and rangeland and total benefits for animal waste management were not estimated due to unavailability of data.” [62 FR 28258-9]</p>

APPENDIX TABLE 17: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/97 - 3/31/98

(As reported by the agency as of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
USDA	Importation of Pork from Sonora, Mexico	\$0	\$0	<p>“<u>Low-impact scenario</u>: 67k hogs (0.02%), assuming supply elasticity = 0.15 and demand elasticity = -0.44. <i>Economic impacts on farrow-to-finish swine operators</i>: output decline≈10k-17k hogs ($\leq 0.02\%$); price decline≈ \$0.05/hundredweight liveweight equivalent.; producers’ receipts decline ≈ \$10.7 million/yr (0.02%) and are transferred to consumers (as consumer surplus) and Mexican producers (as producer surplus). <i>Economic Impacts on live-hog dealers/transporters</i>: 86 trips.</p> <p><u>High-impact scenario</u>: 134.1k hogs (0.02%), assuming supply elasticity = 0.075 and demand elasticity = -0.44. <i>Economic impacts on farrow-to-finish swine operators</i>: output decline≈20k-34k hogs ($\leq 0.02\%$); price decline≈ \$0.11/hundredweight liveweight equivalent; producers’ receipts decline≈ \$24.5 million/yr (0.2%) and are transferred to consumers (as consumer surplus) and Mexican producers (as producer surplus). <i>Economic impacts on live-hog dealers/transporters</i>: 125 trips.” [62 FR 25441-15443]</p>

APPENDIX TABLE 17: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/97 - 3/31/98

(As reported by the agency as of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
USDA	Importation of Beef from Argentina	\$49 million/yr (net of transfers from producers)	\$0	<p>“Average wholesale U.S. beef prices estimated to decline by \$8.27/MT (from \$4,402.17/MT to \$4,393.9/MT), less than 0.02%.</p> <p><i>Effects on U.S. livestock sector:</i> producers’ receipts decline ≈ \$40.15 million/yr and are transferred to consumers (as consumer surplus) and Argentine producers (as producer surplus).” [62 FR 34889-34391]</p> <p>“If Argentina were able to fill its 20 KT quota to the U.S.’s uncooked beef market with nonfed beef product, consumer welfare gains of around \$90 million annually are possible. These consumer gains, as well as the likely producer welfare losses, would depend on the type of beef and total quantities received in the U.S. from Argentina. The 20 KT of imports will likely consist mainly of nonfed beef. Consumers would enjoy both lower prices and greater supplies, while producers realize lower returns from lower prices, but not lower quantities produced. These gains, even after taking into account the likely producer losses ... produce a net social welfare gain to the United States of \$48.7 million ...</p> <p>“...In the aggregate, producer welfare losses of \$40.45 million are distributed between the dairy and beef sectors, the latter sector being composed of cow-calf, feedlot and slaughter operations.” [62 FR 34392]</p>

APPENDIX TABLE 17: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/97 - 3/31/98

(As reported by the agency as of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
HHS	Substances Prohibited in Animal Feed	Not estimated	\$53 million/yr	<p>“FDA estimated that, if BSE were to occur in this country, the disease would be associated with approximately \$3.8 billion in losses due to the destruction of BSE-exposed livestock and the taking of other measures needed to prevent continued BSE proliferation. While FDA could not quantify the expected additional costs to consumers and producers in the United States that would result from the loss of consumer confidence following a BSE outbreak, the agency found that plausible scenarios indicated that the likely drop in the demand for cattle and beef products could cause billions of dollars in lost market values. In addition, FDA noted, but did not attempt to quantify, the value of the human lives that might be lost or the associated medical treatment costs that might follow a domestic outbreak of BSE.” [62 FR 30967]</p> <p>“Additional [benefits] that could not be quantified include the lost human lives and medical treatment costs that could result from BSE-related disease, as well as the consumer and producer losses that would result from the expected decrease in the sales and consumption of beef. Sales of medical products and cosmetics containing cattle-derived components could also be affected.” [62 FR 30968]</p>

APPENDIX TABLE 17: SUMMARY OF AGENCY ESTIMATES FOR FINAL RULES 4/1/97 - 3/31/98

(As reported by the agency as of date of completion of OMB review)

AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
HHS	Organ Procurement and Transplantation Network	297-1,306 additional "life-years"/yr	\$0	<p>HHS recognizes in its analysis the difficulty of quantifying the costs and the benefits of the rule. The rule discusses the current costs of transplantation and the analysis concludes that the final rule will not substantially increase the costs.</p> <p>Regarding benefits, HHS discusses difficulties associated with assigning value to a statistical life when quantifying the benefits for this rule. The rule also discusses the benefits that arise from public oversight and accountability of the organ transplant system, which will preserve public trust and confidence. Also, a system of patient-oriented information of transplant performance will allow easier comparison of transplant center performance and the use of performance goals will create equity in the system.</p>
HHS	Quality Mammography Standards	\$182-263 million/yr	\$38 million/yr (annualized over 10 years)	<p>FDA states that it is difficult to determine the increase in the quality of mammograms which the final rule will cause. However, FDA calculates the following benefits assuming a 5-percent improvement. This degree of improvement would prevent 75 women per year from dying of breast cancer within a 20-year period. At \$5 million per life saved, the discounted value of this outcome would be \$234 million per year. In addition, fewer false-positive screens and decreased treatment costs add about \$29 million in annual benefits. FDA points out that an improvement of quality as low as 2 percent would result in the benefits outweighing the costs of the final rule.</p>
HHS/ DOL/ Treasury	Mental Health Parity	Not estimated	\$464 million/yr	None reported.

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AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
DOI	Migratory Bird Hunting (Early Season Frameworks)	Not Estimated	Not Estimated	DOI reports that duck hunters spend an estimated \$416 million/yr; unquantified economic stimulus benefits derived from spending on duck hunting; unquantified benefit of value to hunters (consumer surplus) from more than 11 million hunting days per year; unquantified benefit to bird population by reducing overcrowding and ensuring continued use of resource in future.
DOI	Migratory Bird Hunting (Late Season Frameworks)	Not Estimated	Not Estimated	DOI reports that duck hunters spend an estimated \$416 million/yr; unquantified economic stimulus benefits derived from spending on duck hunting; unquantified benefit of value to hunters (consumer surplus) from more than 11 million hunting days per year; unquantified benefit to bird population by reducing overcrowding and ensuring continued use of resource in future.

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DOL	Respiratory Protection	4,046 injuries and illnesses/yr avoided; 932 deaths/yr avoided	\$111 million/yr	"The Agency estimates that the standard will avert between 843 and 9,282 work-related injuries and illnesses annually, with a best estimate (expected value) of 4,046 averted illnesses and injuries annually. This reduction is estimated to save \$18.8 to \$218 million per year, with a best estimate of \$93.9 million per year. In addition, the standard is estimated to prevent between 351 and 1,626 deaths annually from cancer and many other chronic diseases, including cardiovascular disease, with a best estimate (expected value) of 932 averted deaths from these causes." [63 FR 1173]
DOE	Energy Conservation Standards for Refrigerators and Freezers	\$7.62 billion (present value) in energy savings for purchases between years 2000 - 2030	\$3.44 billion (present value) for purchases between years 2000 - 2030	"The estimated environmental benefits from today's final rule (based on the 1997 AEO fuel prices) are, over the period from 2000 to 2030, a reduction in emissions of NO _x by 1,362 thousand tons (1,501 thousand short tons), a reduction in emissions of CO ₂ by 465 Mt (513 million short tons) and a reduction in the cost of the emission controls roughly equivalent to the cost of reducing SO ₂ emissions by 1,545 kt (1,703 thousand short tons)." [62 FR 23110-11]
DOE	Energy Conservation Standards for Room Air Conditioners	\$740 million (present value) in energy savings for purchases between years 2000 - 2030	\$290 million (present value) for purchases between years 2000 - 2030	"The Department projects the standards to save 0.64 quad of energy through 2030, which is likely to result in a cumulative reduction of emissions of approximately 95,000 tons of nitrogen dioxide and 54 million tons of carbon dioxide." [62 FR 50122]
DOT	Light Truck CAFE Model-Year 2000	Not Estimated	Not Estimated	None reported

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EPA	Emission Standards for New Locomotives	385,000 tons of nitrogen oxides; 6,000 tons of hydrocarbons; and 4,000 tons of particulate matter annualized emission reductions (2000 - 2040)	\$90 million/yr annualized cost (2000 - 2040)	None reported
EPA	Emission Standards for New Highway Heavy-Duty Engines	593,000 tons of nitrogen oxides annualized emission reductions (2004 - 2023)	\$196 million/yr annualized cost (2004 - 2023)	None reported

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EPA	Pulp and Paper: National Emission Standard for Hazardous Air Pollutants (NESHAP)	-\$1.04 - 1.05 billion/yr	\$125 million/yr	Benefit estimate includes benefits ranging from \$24 - \$1,055 million/yr for reductions in emissions of volatile organic compounds and disbenefits ranging from \$1 - \$1,065 million/yr for increases in emissions of sulfur dioxide and particulate matter. Other quantified (but not monetized) benefits include annual reductions of 139,000 tons of hazardous air pollutants and 79,000 tons of Total Reduced Sulfur. Other quantified (but not monetized) disbenefits include annual increases of 5,200 tons of nitrogen oxides and 8,700 tons of carbon monoxide. All estimates are for existing sources only; no benefits or costs were estimated for new sources.
EPA	Pulp and Paper Effluent Guidelines	\$12 - 57 million/yr	\$263 million/yr	Other quantified (but not monetized) annual benefits include lifting of 19 dioxin/furan-related fish consumption advisories; elimination of 3 exceedences of human health ambient water quality concentration standards (AWQC); and elimination of 19 exceedences of aquatic life AWQCs. Unquantified benefits include non-cancer human health effects and improvements in fish and wildlife habitats. All estimates are for existing sources only; no benefits or costs were estimated for new sources.
EPA	Medical Waste Incinerators	\$7 million/yr for particulate matter reductions only	\$71 - 146 million/yr	EPA states that it cannot quantify or monetize many of the benefits, such as the reduction in the emission of hazardous air pollutants which include cadmium, hydrogen chloride, lead, mercury, and dioxin/furan. In addition, reductions in emissions of sulfur dioxide, carbon monoxide, and nitrogen oxides are expected.

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AGENCY	RULE	BENEFITS	COSTS	OTHER INFORMATION
EPA	National Ambient Air Quality Standards (NAAQS): Ozone	\$0.4 - 2.1 billion in 2010 (partial attainment) ----- \$1.5 - 8.5 billion in 2010 (full attainment)	\$1.1 billion in 2010 (partial attainment) ----- \$9.6 billion in 2010 (full attainment)	Benefit estimates do not include anticipated reductions in harmful effects in the following human health areas: airway responsiveness, pulmonary inflammation, increases susceptibility to respiratory infection, acute inflammation and respiratory cell damage, and chronic respiratory damage/premature aging of the lungs. Benefits also do not include effects in the following welfare areas: ecosystem effects in "Class I" areas (e.g., national parks), damage to urban ornamentals, reduced forestry yields, damage to ecosystems, materials damage, nitrates in drinking water, and brown clouds.
EPA	National Ambient Air Quality Standards (NAAQS): Particulate Matter	\$19 - 104 billion in 2010 (partial attainment) ----- \$20 - 110 billion/yr (full attainment)	\$8.6 billion in 2010 (partial attainment) ----- \$37 billion/yr (full attainment)	Benefit estimates do not include anticipated reductions in harmful effects in the following human health areas: pulmonary function, morphological changes, altered host defense mechanisms, cancer, other chronic respiratory diseases, infant mortality, and mercury emissions. Benefits also do not include effects in the following welfare areas: materials damage (other than cleaning costs), damage to ecosystems, nitrates in water, and brown clouds.
EPA	Toxic Release Reporting ("Community Right-to-Know")	Not estimated	\$226 million in the first year and \$143 million/yr in subsequent years	This rule will make available to the public information on releases and transfers from these additional facilities of chemicals listed under the Toxic Release Inventory Program.
EPA	Disposal of Polychlorinated Biphenyls (PCBs)	Net cost savings of \$150 - \$740 million/yr	\$14 million/yr	None reported.

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TRANSFER RULES				
Dept. of Agriculture (USDA)				
	Improved Targeting of Day Care Home Reimbursements Peanut Poundage Quota Regulations			
Dept. of Health and Human Services (HHS)				
	Coverage of Personal Care Services Inpatient Prospective Payment Systems for 1998 Physician Fee Schedule for 1998 Limit on the Valuation of a Depreciable Capital Asset Salary Equivalency Guidelines for Physical Therapy Limitations on Home Health Agency Costs State Allotments for Payment of Medicare Part B Premiums for 1998			
Dept. of Justice (DOJ)				
	Affidavits of Support on Behalf of Immigrants			
Dept. of Veterans Affairs (DVA)				
	Schedule for Rating Disabilities, The Cardiovascular System			