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July 12, 2006

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**FILED BY ELECTRONIC MAIL
TO OIRA_BC_RPT@omb.eop.gov**

Re:Draft 2006 Report to Congress on the Costs and Benefits of Federal Regulations

Dear Sir/Madam:

These comments are submitted by the Center for Progressive Reform (CPR or the Center), an organization of academics specializing in the legal, economic, and scientific issues that surround federal regulation. CPR's mission is to advance the public's understanding of the issues addressed by the country's regulatory laws.

The Center is committed to developing and sharing knowledge and information, with the ultimate aim of preserving the fundamental value of the life and health of human beings and the natural environment. One component of the Center's mission is to circulate academic papers, studies, and other analyses that promote public policy based on the multiple social values that motivated the enactment of our nation's health, safety and environmental laws. The Center seeks to inform the public about scholarship that envisions government as an arena where members of society choose and preserve their collective values. We reject the idea that government's only function is to increase the economic efficiency of private markets.

The Center also seeks to provoke debate on how the government's authority and resources may best be used to preserve collective values and to hold accountable those who ignore or trivialize them. The Center seeks to inform the public about ideas to expand and strengthen public decision-making by facilitating the participation of groups representing the public interest that must struggle with limited information and access to technical expertise.

These comments concern the Office of Management and Budget's (OMB) Draft 2006 Report to Congress on the Costs and Benefits of Federal Regulations (2006 Draft Report, Draft Report, or Report).

The Draft Report raises issues primarily in four broad areas; briefly, the Report:

- 1) purports to provide an accounting of the aggregate costs and benefits of major federal regulations over the past ten years (from 1995 to 2005) as well as a specific accounting of the costs and benefits of individual rules promulgated during the past year;
- 2) repeats last year's blatantly ideological attempt to draw a connection between increased levels of regulation (generically defined) and depressed wages and slow economic growth;
- 3) repeats last year's politically self-serving effort to identify a supposed "trend" in federal regulatory activity toward lower regulatory costs and higher net benefits during the Bush II administration;
- 4) adds a new section on "International Developments in Regulatory Policy" describing a series of meetings and initiatives on regulatory cooperation between the U.S. and the European Union and a broad-brush comparison of OMB's guidelines for regulatory analysis (Circular A-4) and the EU's guidelines for regulatory "impact assessment."

Our specific conclusions about the Draft Report can be summarized as follows:

- 1) The enterprise of attempting to aggregate the purported costs and benefits of all federal regulation is fundamentally misguided and misleading. It has no basis in economic theory, and it provides no information as to whether federal regulations are efficient or "smart." Moreover, the process of aggregation necessarily obscures crucial information about the considerable uncertainties, assumptions, and data gaps underlying agency estimates of the costs and benefits of regulations.
- 2) OMB's accounting of the aggregate costs and benefits of federal regulation is grossly incomplete. It categorically omits two major categories of regulation: transfer rules and homeland security regulations. Accordingly, it cannot generate any meaningful conclusions about federal regulation in general.
- 3) OMB's specious attempts to draw a connection between high levels of regulation and slow economic growth and its related attempts to congratulate the Bush II administration for reducing levels of environmental, health, and safety regulation display a pervasive and politically driven anti-regulatory bias.

I. OMB’s Aggregation of Regulatory Costs and Benefits is Misguided and Misleading.

A. The Enterprise of Aggregating the Purported Costs and Benefits of All Federal Regulations is Fundamentally Misguided and has no Basis in Economics.

The entire premise of this report—the notion that by aggregating *ex ante* projections of the costs and benefits of all federal regulations, one can produce meaningful information about the “smartness” or efficiency of such regulation—is misguided.¹ It is based on a fundamental misunderstanding of the economic theory in which OMB purports to ground its cost-benefit mandate. Rather than illuminating the issues surrounding federal regulatory design, it serves only to obfuscate the real issues and to create opportunities for OMB to promote an ends-driven, political agenda in the guise of neutral science.

If in a perfect world we could accurately measure and express in dollar terms all of the costs and all of the benefits to society as a whole of various regulatory alternatives,² then, under basic principles of welfare economics, we could use that information to determine which regulations would produce economically “efficient” results. That is, we could determine which regulations would maximize overall social welfare.

If, for example, we were designing a regulation to limit the amount of mercury emitted by electric power plants, we would estimate the costs and benefits that would accrue to society as a whole from incrementally more stringent levels of regulation. (The change in the level of costs or benefits produced by each incremental change in the stringency of the regulation is called a “marginal cost” or a “marginal benefit.”) Assuming (as is usually the case) that at low levels of stringency, the marginal benefits of pollution control outweighed the costs, but that as the stringency of regulation increased, the marginal costs gradually increased while the marginal benefits gradually decreased, then the optimal (or economically efficient) level of regulation would be that level at which marginal costs were just equal to marginal benefits. That would also be the level at which the net benefits of regulation were maximized.

A cost-benefit analysis, as understood by an economist then, considers the marginal costs and benefits of a series of regulatory options and picks the one for which marginal costs equal marginal benefits. Or, said another way, the cost-benefit analyst picks the option that produces the highest possible net benefits.

¹ See Draft Report at 24-25 (using term “smarter regulation” to refer to regulations consistent with OMB’s regulatory “reform” agenda, including its requirement for the use of cost-benefit analysis).

² As the next section explores, this is a very big “if.”

So the criterion for an economically efficient regulation—that marginal benefits equal marginal costs and net benefits are therefore maximized—is very different from a criterion that simply requires the total benefits of a regulation to exceed its total costs. The latter criterion tells us very little about the efficiency of a regulation. While it is probably true that a regulation that produces more total costs than total benefits is inefficient, the converse is not true. Just because a regulation produces total benefits in excess of total costs does not mean that it is efficient.

Many grossly inefficient regulations produce overall benefits in excess of costs. Imagine for example that the efficient level of mercury regulation would reduce national emissions from 48 to 15 tons per year, and that such a regulation would cost society \$5 billion and produce \$45 billion in social benefits. This regulation would pass either version of the cost-benefit test—it maximizes net benefits *and* total benefits exceed total costs. But while this is the only level of mercury regulation that meets the economists’ cost-benefit test, many other alternatives could meet the simple benefits-exceed-costs criterion. In our example it is easy to imagine, for example, that a regulation that reduced national mercury emissions by just one ton—from 48 to 47 tons per year—would still produce benefits that significantly outweighed the costs and thus would pass the simple benefits-exceed-costs test with flying colors. But such a regulation would not be at all efficient. In order to be efficient, the regulation would have to be much tougher: it would have to cut emissions down to the 15 tons-per-year level.

Thus, the simple benefits-exceed-costs criterion is a poor proxy for actual economic efficiency. Moreover, it is systematically biased toward striking down regulations that are too stringent and allowing regulations that are too lenient. This is because a regulation for which total costs exceed total benefits is usually one that is too stringent. A regulation that errs in the other direction, on the other hand—one that is too lenient—will likely produce positive net benefits, just less of them than an efficient regulation would have produced. Accordingly, a lenient regulation will be upheld under the simple benefits-exceed-costs test, even when under an efficiency test, it ought to be made more stringent. In this way, as David Driesen has shown, the simple version of cost-benefit analysis operates as a one-way ratchet—always pushing regulation toward less stringency, but never in the opposite direction.³

OMB purports to ground its policies in economic theory, and indeed, it explicitly adopts the more sophisticated economics-based version of cost-benefit analysis in its guidelines to agencies. Thus, Circular A-4 instructs agencies “to measur[e] incremental benefits and costs of successively more stringent regulatory alternatives [in order to] identify the alternative that maximizes net benefits.” OMB Circular A-4 at 10.⁴ But as the discussion of the mercury rule below demonstrates, OMB does not consistently hold

³ See David M. Driesen, *Is Cost-Benefit Analysis Neutral?*, 77 U. Colo. L. Rev. 335, 380 (2006). To the extent that OMB endorses agency use of this simplistic, benefits-exceed-costs test, as it did with respect to the mercury rule, see *infra* Section I(C), it belies its assertion that cost-benefit analysis can both limit and prompt regulation. See Draft Report at 25 (Cost-benefit analysis “may cause rules that are more stringent, less stringent, or just better designed to be more cost-effective.”).

⁴ See also Executive Order 12866, 58 Fed. Reg. 51735 (Sept. 30, 1993)(Section 1: directing agencies to choose regulatory approaches that “maximize net benefits”).

agencies to that standard—particularly not when doing so would point toward a more stringent regulation.⁵ And OMB’s annual report to Congress abandons the economic-based version of CBA in favor of the simplistic benefits-exceed-costs test. Accordingly, it tells us virtually nothing about the actual efficiency or “smartness” of regulations. Indeed, it could easily be that the overall benefits of regulation outweigh the overall costs, and yet regulations on the whole are far less stringent than they should be if they were set at economically efficient levels. (It is less likely that they err in the direction of too much stringency if total benefits exceed total costs.)

All of this, of course, assumes that the estimates of costs and benefits that form the basis of the Report bear some relationship to reality to begin with. In fact, as the next sections will show, OMB’s accounting of the overall costs and benefits of federal regulation is built on a house of cards—estimates of regulatory costs and benefits that are wildly uncertain and endlessly contestable.

B. In the Process of Aggregation, Crucial Information is Lost.

Cost-benefit analysis attempts to distill a large and complicated body of information into a few numbers. The information on which the analysis is based is always full of holes and imperfections. Data are never complete. Scientific conclusions are never certain. And the process of converting intangible environmental values into monetary terms is fraught with unsolvable theoretical conundrums.⁶ Accordingly, a properly developed cost-benefit analysis is always peppered with caveats and conditions that explain the uncertainties underlying the numbers, including which benefits could not be quantified, what assumptions were made to reach the numeric results, how changing those assumptions would effect the outcome, and what baseline the costs and benefits were measured against. Indeed, OMB’s own guidance on conducting cost-benefit

⁵ See Lisa Heinzerling & Rena Steinzor, *A Perfect Storm: Mercury and the Bush Administration, Part II*, 34 ELR 10485, 10487 (2004); Driesen, *supra* note 3.

⁶ Prominent among these theoretical conundrums is the problem of discounting. Although discounting based on inflation and interest rates makes sense for purely monetary costs, there is considerable debate and controversy over OMB’s practice of applying a discount rate to benefits of environmental health and safety regulation, like the value of human life, prevention of harms to future generations, and the prevention of ecological harms. Several of our member scholars and other prominent academics have argued that there is no theoretical justification for using any discount rate at all for ecological benefits and other benefits implicating future generations. See, e.g., Lisa Heinzerling, *Discounting Our Future*, 34 LAND & WATER L. REV. 39, 40-41 (1999) (arguing that discounting should be abandoned for measuring future lives saved); Richard Revesz, *Environmental Regulation, Cost-Benefit Analysis, and the Discounting of Human Lives*, 99 COLUM. L. REV. 941, 955-86 (1999). Indeed, use of a discount rate in such circumstances can yield absurd results. Applying a discount rate of five percent to the prevention of a billion deaths 500 years from now, for example, yields the conclusion that such a measure is less beneficial than the prevention of one death today.

Nonetheless, despite this wide-spread discrediting and condemnation of the practice of discounting benefits and despite our extensive comments criticizing OMB’s use of discounting in response to previous draft reports (Letter from CPR to Lorraine Hunt, 5/20/04 at 13-14), OMB once again blithely announces in the Draft 2006 Report its continued practice of using a 7% discount rate across the board, without acknowledging the considerable controversy surrounding this practice. (Report at 4, n. 5 & 37 (Appendix A))

analyses stresses the importance of these narrative explanations of quantitative results,⁷ as do the European Union’s guidelines on regulatory impact assessment.⁸ The monetary estimates of costs and benefits cannot be properly understood in the absence of these caveats.

The process of aggregation, however, must of necessity exclude all of this important narrative information. The result is a set of naked sums that at best provides no useful information and at worst can be dangerously misleading.⁹ Thus, on page one of the Report, OMB announces that the annual benefits of federal regulation are from “\$94 billion to \$449 billion” and the annual costs are “\$37 billion to \$44 billion.” The seeming precision of these numbers creates a false illusion of scientific accuracy and objectivity, which belies the vast gaps and uncertainties that lie beneath the numbers and violates OMB’s purported commitment to transparency. Furthermore, these gaps and uncertainties are far more likely to skew the numbers toward lower rather than higher net benefits.

Perhaps the biggest factor leading to the undercounting of benefits is the fact that many regulatory benefits are simply unquantifiable.¹⁰ Indeed, of the seventeen major environmental, health, and safety regulations reviewed by OMB this past year, at least twelve—including all of the environmental regulations—contained significant non-monetizable benefits, according to OMB’s summary. See Draft Report at 39-51 (Table A-1) Indeed, for four of the regulations, none of the benefits could be monetized at all, thus forcing OMB to omit them from the accounting entirely. For those regulations that were included, however, the non-monetizable benefits were simply jettisoned from the analysis, relegated to a brief reference in an obscure chart buried in an Appendix to the Report.

Another factor leading to the undercounting of net benefits is the over-counting of regulatory costs. There is considerable evidence that agencies routinely over-estimate the costs of regulatory compliance *ex ante*.¹¹ This is not surprising in light of the fact that

⁷ See Circular A-4 at 3 (“A complete regulatory analysis includes a discussion of non-quantified as well as quantified benefits and costs. . . . A good analysis is transparent. . . . For transparency’s sake, you should state in your report what assumptions were used, such as the time horizon for the analysis the discount rates applied to future benefits and costs. It is usually necessary to provide a sensitivity analysis to reveal whether, and to what extent, the results of the analysis are sensitive to plausible changes in the main assumptions and numeric inputs.”)

⁸ See European Commission, *Impact Assessment Guidelines* (June 15, 2005), available at: http://ec.europa.eu/governance/impact/key_en.htm.

⁹ See Richard Parker, *Grading the Government*, 70 U. Chi. L. Rev. 1345, 1348–49, 1404–06 (2003).

¹⁰ See Draft Report at 4, n. 8 (“In many instances, agencies were unable to quantify all benefits and costs.”).

¹¹ See W. Harrington & R.D. Morgenstern, et al., *On the Accuracy of Regulatory Cost Estimates*, 19 J. Policy Analysis & Management 297 (2000); H. Hodges, *Falling Prices: Costs of Complying with Environmental Regulations Almost Always Less Than Advertised*, Economic Policy Institute (1997); U.S. Congress, Office of Technology Assessment, *Gauging Control Technology and Regulatory Impacts in Occupational Safety and Health—An Appraisal of OSHA’s Analytic Approach*, U.S. Government Printing Office OTA-ENV-635, available at: http://www.whitehouse.gov/omb/inforeg/2004_cb_final.pdf; Thomas O. McGarity & Ruth Ruttenberg, *Counting the Cost of Health, Safety, and Environmental Regulation*, 80 Tex. L. Rev. 1997, 2042-44 (2002)(collecting studies); Ruth Ruttenberg, *Not Too Costly After All: An*

agencies are usually heavily dependent on regulated industries themselves for information on compliance costs and those industries have an incentive to exaggerate the potential costs of regulation in hopes of pushing agencies toward less stringent rules.

OMB has for many years refused to acknowledge this phenomenon, however. In each of the last two years' reports, OMB has included a section purporting to survey the literature on "validation studies"—that is, studies that attempt to test the accuracy of *ex ante* estimates of costs and benefits. In both reports, OMB attempted to create the false impression that these studies show that *ex ante* estimates are much more likely to understate regulatory costs. This year, OMB has omitted this section from the report, though apparently not out of any concern that it may have been inaccurate or incomplete. This year's report makes reference to that section of last year's report as "survey[ing] what we know about the validation of *ex ante* estimates of costs and benefits." See Draft Report at 26. This statement is particularly ironic, since in last year's report OMB neglected to include a number of key studies finding a tendency to overestimate regulatory costs even after we brought them to their attention. In any event, a recent article by Frank Ackerman debunks OMB's claims about *ex ante* cost estimates.¹²

C. The Underlying Estimates of the Costs and Benefits of Each Rule are not Trustworthy.

Ultimately, the individual cost and benefit estimates on which OMB's aggregate accounting is built are simply not trustworthy. The problem is that, at least in the context of environmental, health and safety regulation, the numbers produced by cost-benefit analysis are built on so many layers of assumption and uncertainty that they are ultimately endlessly contestable and manipulable. OMB's accounting of the costs and benefits of federal regulation, in other words, is built on a house of cards. In last year's comments, we used EPA's recently promulgated regulation of arsenic in drinking water as an illustrative example of the hopeless indeterminacy of CBA. EPA estimated the costs of that rule at around \$210 million, but a study by Professor Cass Sunstein concluded that reasonable people making reasonable assumptions could peg the benefits of the rule a low as \$13 million or as high as \$3.4 billion. Accordingly, EPA's (and OMB's) estimate of the benefits as between \$140 and \$200 million presented a false picture that failed to capture the magnitude of the uncertainty behind EPA's numbers.

One of the recent rules newly included in this year's accounting provides another telling example of the problem. EPA's Clean Air Mercury Rule was promulgated on March 15, 2005. At Table 1-4, OMB lists the annual costs of this rule at \$500 million and the benefits at a meager \$1 million to \$2 million. (Draft Report at 11) Reported in this way, these dollar figures sound definitive and scientific. And they create the

Examination of the Inflated Cost Estimates of Health, Safety, and Environmental Protections, (Public Citizen White Paper, Feb. 2004), available at: <http://www.citizen.org/documents/ACF187.pdf>.

¹² See Frank Ackerman, *The Unbearable Lightness of Regulatory Costs*, Global Development and Environment Institute, Working Paper No. 06-02 (Feb. 2006).

impression that this is a very bad rule. One wonders how it ever got past OMB to begin with. The explanation section of the table sheds no light on this mystery, containing only a brief reference to the fact that OMB converted EPA's numbers into annualized estimates.

The numbers on OMB's chart obscure a far more complicated and disturbing story about the cost-benefit analysis of the mercury rule. The story begins with the Clinton EPA, which made a finding in December, 2000 that mercury emitted from power plants was a hazardous air pollutant for which regulation was "appropriate and necessary" under the Clean Air Act.¹³ Some initial estimates were that the Clean Air Act would require mercury levels to be reduced from the existing level of 48 tons per year to as little as five tons per year by 2008.¹⁴ According to one EPA official "the true range of possible [limits required under the Act] was probably as low as 8 to 10 tons per year up to the mid-twenties, [although] either end of that range would be a stretch."¹⁵

Despite these findings, the proposed rule that the Bush EPA published in January 2004 provided for reducing emissions to just 34 tons per year over the following four to six years. Apparently the agency reached this figure by flouting the requirements of the statute. Indeed, the abuse was so flagrant, that EPA's own Office of Inspector General issued a stinging report in February 2005 chastising the agency for ignoring the law. According to the report, "EPA senior management instructed EPA staff to develop a . . . standard for mercury that would result in national emissions of 34 tons annually instead of basing the standard on an unbiased determination of [what the Act required]."¹⁶ The 34-tons-per-year target represented the amount of mercury reductions the agency expected to achieve anyway as an incidental byproduct of implementation of the separately proposed Clean Air Interstate Rule for the reduction of NOx and SO2 emissions. In other words, EPA management decided that power plants should not have to take any additional steps to reduce mercury emissions until 2018 at the earliest.¹⁷

EPA did not issue a cost-benefit analysis with the proposed mercury rule as it was required to under Executive Order 12866.¹⁸ OMB, however, remained strangely silent in response to EPA's omission.¹⁹ What EPA did finally produce was not a formal cost-benefit analysis of the kind it usually completes for proposed major rules. Instead, it cobbled together several documents presenting various analyses that had for the most part been done in connection with the Clean Air Interstate Rule and President Bush's

¹³ U.S. EPA, Regulatory Finding on Emissions of Hazardous Air Pollutants From Electric Utility Steam-Generating Units, 65 Fed. Reg. 79825 (2000).

¹⁴ See Testimony of David Hawkins, Hearings on S. 485, Clear Skies Act of 2003, U.S. Senate Committee on Env't and Public Works, Subcommittee on Clean Air, Climate Change, and Nuclear Safety (Apr. 8, 2003).

¹⁵ U.S. EPA Office of Inspector General, *Evaluation Report: Additional Analysis of Mercury Emissions Needed Before EPA Finalizes Rule for Coal-Fired Electric Utilities*, Report No. 2005-P-00003 (Feb. 3, 2005) at 15 [hereinafter "IG Report"].

¹⁶ IG Report, *supra* note 15 at summary page "At a Glance."

¹⁷ Under the cap-and-trade alternative, overall mercury emissions have to be reduced to 15 tons per year in 2018, although provisions for banking allowances may push that date even later.

¹⁸ See 58 Fed. Reg. 51735 (Sept. 30, 1993)(Section 1(b)(6))

¹⁹ See Heinzerling & Steinzor, *supra* note 5, at 10489.

proposed Clear Skies legislation.²⁰ These EPA documents presented estimates of costs and benefits for two separate alternatives that the agency had presented in its proposed rule—a cap-and-trade program and a technology-based standard. Because it analyzed the two alternatives using two different baselines, however, EPA prevented any meaningful comparison of the two.²¹ The cap-and-trade alternative was analyzed in combination with the Clean Air Interstate Rule. This analysis revealed enormous annual benefits for both rules combined of \$58 to \$73 billion. These benefits vastly outweighed the annual costs of \$3 to \$5 billion. For the technology-based alternative, the agency only counted costs and benefits over and above those required by the Clean Air Interstate Rule. But even there, the benefits were substantial—\$15 billion annually—and dwarfed the estimated costs of \$2 billion annually.

For both alternatives, these benefits estimates, though large, were grossly incomplete. They only included the benefits associated with the particulate matter (PM) formed when NO_x and SO₂ combine in the atmosphere. EPA did not quantify the many other benefits of the rule, including those stemming from reductions in NO_x and SO₂ themselves, from reductions in the PM emitted directly from plants, and from reductions in mercury itself.

Moreover, this analysis failed to demonstrate whether the proposed mercury rule was efficient in an economic sense because it failed to comply with OMB’s directive “to measur[e] incremental benefits and costs of successively more stringent regulatory alternatives [in order to] identify the alternative that maximizes net benefits.” OMB Circular A-4 at 10. Had EPA performed an analysis that permitted the evaluation of more stringent alternatives, both of the agency’s proposed regulations might well have been shown to be inefficient. While neither one contemplated reducing levels below 34 tons per year before 2018,²² the dramatic net benefits projected even for that modest reduction raised an obvious question even to the lay observer: If a modest reduction produces net benefits of \$13 to \$70 billion, isn’t it possible that reducing mercury levels even further would produce even greater net benefits? But EPA did not consider a significantly more stringent option. And strangely, OMB—which has not been at all shy about sending rules back to EPA for further analysis in the past—never asked EPA to evaluate a more stringent option. Instead OMB encouraged EPA to downplay the benefits of the proposed rule.²³

EPA’s proposed rule and its accompanying cost-benefit analysis provoked an uproar—not just among environmental groups but from such staid quarters as the Government Accountability Office and EPA’s Office of Inspector General. They

²⁰ See *id.* at 10490.

²¹ See U.S. Government Accountability Office, *The Clean Air Act: Observations on EPA’s Cost-Benefit Analysis of Its Mercury Control Options*, GAO 05-252 (Feb. 2005) at 8-10 [hereinafter “GAO Report”].

²² The technology-based option called for a reduction to 34 tons by 2008 while the cap-and-trade option called for a reduction to an unspecified amount by 2010, followed by a reduction to 15 tons per year in 2018. It seems clear that top EPA officials had in mind capping emissions no lower than 34 tons in 2010 under the cap and trade option, since that was the level of mercury reduction projected to be achieved under the Clean Air Interstate Rule anyway. See OIG Report at 10-16.

²³ See Heinzerling & Steinzor, *supra* note 5, at 10490.

criticized EPA for failing to consider more stringent options, for choosing an emissions limit on the basis of political expediency rather than an “unbiased determination” of what the Act required, and for failing to conduct the cost-benefit analysis in a way that allowed comparison of the two alternatives. And they contended that even EPA’s astronomically high estimate had significantly undercounted the benefits of the rule by, among other things, failing to quantify any of the health benefits stemming directly from reduced mercury emissions.

EPA reacted to all this criticism by issuing a final rule that was even *less* stringent than the proposed rule—a cap-and-trade program requiring a reduction to just 38 tons per year by 2010 and to 15 tons per year by 2018. The existing cost-benefit analysis, of course, posed a problem for this approach, since the large net benefits the agency had found associated with the proposed rules would seem to point toward exploring *more* stringent rather than less stringent alternatives. So perhaps it was no surprise that in conjunction with the final rule, EPA issued a new, dramatically revamped cost-benefit analysis. What was surprising, was *how* EPA reworked its analysis. Rather than counting more benefits, it counted fewer—so few, in fact, that the *net* benefits of the rule actually went from *positive* \$13 to \$70 billion to *negative* \$850 million. One might be tempted to ask: if the new, less stringent regulation produced such drastically reduced net benefits, why did the agency choose it over its original proposals?²⁴ On the other hand, if the agency could spin the original cost-benefit analysis as simply a mistake—or otherwise deflect attention from it—this new analysis showing negative net benefits even from a relatively weak rule might give pause to those pushing for a more stringent rule.

How did EPA achieve such a dramatic about-face? It built the new cost-benefit analysis on a series of questionable assumptions, each of which chipped away at the final benefits estimate until almost nothing was left. For one thing, it left whole categories of benefits out of the analysis. It excluded entirely the co-benefits stemming from reductions in atmospherically produced PM. These benefits had formed the basis for all of the dramatic benefits quantified in the analysis of the proposed rule, yet with no explanation, these benefits fail to even make an appearance in the analysis of the final rule. The agency did analyze the co-benefits stemming from reductions in a different type of PM—that emitted directly from smoke stacks—but after quantifying and monetizing these benefits, EPA ultimately decided the figures were too uncertain include in the final estimate.²⁵ The analysis made no attempt to estimate the co-benefits stemming from reductions in SO₂ and NO_x themselves.

This time, EPA did attempt to quantify some the benefits stemming from reductions in mercury itself—an omission from the earlier cost-benefit analysis for which the agency had been sharply criticized. But the mercury analysis was so narrow and so constrained by a long string of limiting assumptions, that it is not at all clear that the

²⁴ There is no indication that OMB asked any such question.

²⁵ See Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units, 70 Fed. Reg. 28606, 28642 (May 18, 2005)[hereinafter “Final Mercury Rule”] (“[C]alculation of these benefits is highly dependent on uncertain future technology choices of the industry.”)

miniscule estimates ultimately produced by the EPA—just \$0.2 to \$3 million—even begin to fully reflect the true benefits of the mercury reductions mandated by the rule. First, while there is evidence that mercury causes a range of nasty impacts on human health—from decreased neurological function and loss of fine motor skills to adverse cardiovascular effects, genotoxic effects, and immunotoxic effects—EPA chose to include in its analysis just one endpoint: decreases in IQ in children exposed prenatally to mercury from their mother’s consumption of fish.²⁶ Moreover, the agency made no effort to quantify the ecological effects of mercury emissions.²⁷

By leaving out so many of the other health effects of mercury, EPA significantly reduced its final benefits estimate. There is good reason to believe, for example, that adding in just the cardiovascular benefits of reduced mercury exposure could have drastically increased the final number and boosted the total benefits of the rule far above the total costs. A study issued by John Graham’s own Harvard Center for Risk Analysis concludes that the monetized cardiovascular benefits from reduced mercury exposure are seventeen times larger than the IQ benefits.²⁸ This study modeled a more stringent rule than EPA ultimately adopted—the original Clear Skies initiative, which would have limited emissions to 26 tons per year in 2010 and 15 tons per year in 2018—so the results are not strictly transferable. Nonetheless, their estimate of benefits is startlingly high in comparison to EPA’s analysis. The Harvard study found that the cardiovascular benefits alone came to \$3.3 to \$4.9 billion. Even if EPA’s final rule produced only a fraction of those benefits, these cardiovascular benefits alone could well be enough to outweigh the costs of \$848 to \$896 million.

But this was not all EPA did to minimize the benefits of its final rule. In order to count the benefits due to avoided IQ decrements, the agency began by narrowing down the population of people accounted for by the analysis. The total number of fish consumers in the U.S. is 184 million. But EPA reduced this number by a factor of six—down to just 28 million—by excluding all consumers of commercial fish. Even though “commercial fish consumption constitutes a large portion of exposure to methylmercury,”²⁹ EPA reasoned that since most commercial fish come from the ocean and since it couldn’t be sure that mercury contamination in the oceans is primarily attributable to U.S. pollution sources, it should exclude all consumers of commercial fish.

²⁶ See U.S. EPA Office of Air Quality Planning and Standards, *Regulatory Impact Analysis of the Final Clean Air Mercury Rule*, EPA-452/R-05-003, 3-10 to 3-14 (March 2005) [hereinafter “Mercury RIA”], available at http://www.epa.gov/ttn/ecas/regdata/RIAs/mercury_ria_final.pdf. Mercury emitted from power plants is carried by winds through the air and eventually deposited on water and land. Once in the water, some mercury is transformed to methylmercury, a highly toxic form of the chemical, which is ingested by organisms low on the aquatic food chain and eventually bioaccumulates in fish. And there is considerable evidence that children exposed to mercury in utero from their mothers’ consumption of contaminated fish exhibit decreases in IQ.

²⁷ See Mercury RIA at 2-8.

²⁸ See Glenn Rice & James K. Hammitt, *Economic Valuation of Human Health Benefits of Controlling Mercury Emissions from U.S. Coal-Fired Power Plants* 189 (Harvard Center for Risk Analysis, Feb., 2005), available at <http://bronze.nescaum.org/airtopics/mercury/rpt050315mercuryhealth.pdf>. (estimating IQ benefits at between \$194 million and \$288 million annually, and cardiovascular benefits at between \$3.3 billion and \$4.9 billion annually).

²⁹ See Mercury RIA at 4-1.

According to the EPA, “a large majority of the commercial fish consumed [in the U.S.] are imported from foreign sources, or 3-200 miles offshore by domestic commercial fishermen.”³⁰ In fact, however, as the analysis goes on to acknowledge, only three percent of commercially caught fish sold in the U.S. are from beyond the 200 mile federal exclusive economic zone or from foreign shores. And a substantial amount—36 percent—is caught within three miles of U.S. shores. The analysis provides no explanation for why mercury emissions from U.S. plants that settles on inland waters would suddenly stop at the shoreline. Nor does the analysis explain why it completely excludes fish produced commercially through aquaculture, even though the vast majority of such facilities are located in inland waters and the rest are in near-shore salt water.³¹

Based on the same reasoning, EPA then reduced the relevant population even further—narrowing it down not just to recreational fishers, but to the 39 percent of recreational fishers who catch fish from inland, rather than ocean waters. By the time it was done, EPA had managed to whittle down its model so that it accounted for just thirteen percent of fish consumption in the U.S.³²

The EPA analysts then applied various modeling techniques in order to derive an estimate of the average amount of mercury ingested by women of childbearing age and the expected IQ decrement in their children resulting from in utero exposure. They then attempted to attach a dollar figure to the benefits the rule would produce by preventing these IQ losses. Relying on a 1995 study that established a numeric correlation between loss of IQ points and lost future earnings, they posited that the average effect of a one-point loss in IQ is a 2.379 percent decrease in future earnings and a 0.1007 percent decline in years of schooling. They then calculated the total average expected future earnings for a person born in the U.S. Multiplying that number by the 2.379 percent decrease in future earnings attributable to one lost IQ point, they came up with an average present value of net earnings lost per IQ point of \$8,807 in 1999 dollars.

A number of factors skewed this number downward. First, by using earnings data from 1992, the EPA analysts failed to account for real earnings growth over the previous 13-year period. Second, through a remarkable twist of logic, they counted the fact that people with lower IQs tend to attend fewer years of school than those with higher IQs as a *benefit* of mercury poisoning (or, conversely, a cost of mercury regulation). After all, school costs money—both in terms of direct tuition costs and in the opportunity costs of the lost wages you could have earned had you not been wasting time in the classroom. So those who are made stupider through mercury exposure enjoy the benefit of not having to pay for so many years of school! Accordingly, in EPA’s calculations the analysts offset the lost earnings per IQ point attributable to mercury poisoning by the money the exposed children would ultimately save in education costs.

Several studies confirm that EPA’s estimates of the lost earnings attributable to IQ losses are low. A recent study by three doctors from some of the nation’s top medical

³⁰ See *id.*

³¹ See *id.* at 4-12.

³² See *id.* at 4-46.

schools calculated net earnings losses per lost IQ point to be over twice as high as those calculated by EPA.³³ Although the final results of this study are difficult to compare directly to EPA's analysis, since it did not specifically measure the particular levels of mercury reduction required under EPA's final rule, it did conclude that eliminating all mercury emissions from U.S. power plants would produce benefits of \$1.3 billion annually. This is over 400 times the maximum annual IQ benefits EPA found attributable to the rule. Similarly, the Harvard Center for Risk Analysis found the benefits attributable to avoided future earnings losses from IQ decrements to be far higher than those found by EPA. Their estimates for a regulation somewhat more stringent than EPA's final rule ranged from a low of \$75 million in annual benefits to a high of \$288 million annually³⁴—25 to 95 times higher than EPA's estimates.

Finally, as EPA's analysis itself acknowledges, their approach of attempting to estimate the value of lost future earnings is incomplete even just with respect to the impacts associated with IQ losses themselves—putting aside the many other adverse effects of mercury exposure. EPA states that its approach “understates total [willingness to pay to prevent the loss of an IQ point because it fails] to account for many effects of disease beyond those associated solely with net earnings.”

Thus, there is much evidence that EPA significantly underestimated the benefits of the final mercury rule. And perhaps it had an incentive to do so, since it was under fire from so many quarters for failing to consider more stringent alternatives. In any event, the wild fluctuations in the estimates of the benefits of the mercury rule over the course of the regulatory process illustrate how indeterminate and manipulable cost-benefit analysis really is. Additionally, it shows how OMB has allowed cost-benefit analysis to be used—and has itself used it—in an improper and misleading way. In this instance, OMB approved a grossly incomplete cost-benefit analysis of the mercury rule and has incorporated it into its own aggregate accounting of the costs and benefits of federal regulation, despite its own admonition in Circular A-4 that: “When important benefits and costs cannot be expressed in monetary units, benefit-cost analysis is less useful and can even be misleading.” (Circular A-4 at 10)

III. OMB's Accounting of Aggregate Costs and Benefits Leaves Out Major Categories of Regulation.

OMB's accounting of the aggregate costs and benefits of major federal regulations is also grossly incomplete because it categorically excludes certain important types of regulation from the accounting entirely. For the last fiscal year, for example, OMB included only 13 of the 45 federal regulations that it categorized as “major.” (Draft Report at 8) As in prior years, OMB has chosen to categorically exclude “Transfer Rules” and Homeland Security Rules.³⁵ Indeed, because so many important categories of

³³ See Leonardo Rasande, Philip J. Landrigan, & Clyde Schechter, *Public Health and Economic Consequences of Methyl Mercury Toxicity to the Developing Brain*, 113 *Children's Health* 590, 592 (2005).

³⁴ See Rice & Hammitt, *supra* note 28, at 189.

³⁵ At the same time that OMB leaves huge categories of regulation out of its analysis, it also includes at

regulation are excluded, it is not at all clear whether the accounting provides any meaningful information at all.

A. Homeland Security Regulations Get a Free Ride.

Homeland security regulations are again categorically excluded from OMB's accounting of overall costs and benefits because, OMB informs us, "the benefits of improved security are very difficult to quantify and monetize." (Draft Report at 8)³⁶ The exclusion of this major category of regulation obviously raises questions about the capacity for OMB's aggregate figures to generate meaningful generalizations about the success or "efficiency" of the federal regulatory program as a whole. It also highlights the way in which OMB provides selective treatment to regulation depending on its goals or content. Homeland security regulations apparently get a free ride from OMB. That is, OMB does not require the Department of Homeland Security justify its regulations with cost-benefit analysis because OMB accepts that the benefits of such regulations are simply too difficult to monetize. Yet, as the foregoing discussion of the mercury rule demonstrates, the benefits of many environmental regulations can also be exceedingly difficult to meaningfully monetize. And OMB's inclusion of such rules in its aggregate accounting despite these difficulties can create a false impression that such regulations are inefficient.

B. "Transfer Rules" Are Arbitrarily Excluded.

In the Draft 2006 Report, OMB also follows its prior practice of failing to include in its aggregate accounting what it calls regulations that "implemented federal budgetary programs," or rules that transfer money from the federal government to private parties. (Draft Report at 8) Twenty-four of the 45 major federal rules reviewed by OMB over the past year fell into that category. OMB provides no real explanation for why it excludes these rules, even though they are covered by Executive Order 12866. It merely asserts cryptically that it need not analyze the costs and benefits of these transfer rules because "this Report is focused on regulations that impose costs primarily through private sector mandates." (Draft Report at 8)

This distinction between transfer rules and other kinds of rules is specious. The transfer rules listed in Table 1-6 of the Report include many very expensive government programs. (Draft Report at 13) The money spent on these programs is not available for other purposes. The expenditures associated with these programs are therefore opportunity costs in the classic sense. In its guidelines for cost-benefit analysis, OMB makes clear that a basic purpose of conducting cost-benefit analysis is to assess the opportunity costs of federal government programs. (Circular A-4 at 17-19.) In addition,

least one regulation—OSHA's 2000 ergonomics rule—that shouldn't be counted because it never went into effect. *See* Report at 26, 28 n. 43.

³⁶ We agree that prevention of terrorism, like many other important social aims, is not capable of being incorporated into the narrow and rigid framework of cost-benefit analysis, and have commented extensively to that effect previously. *See* Letter from CPR to Lorraine Hunt, 4/3/03 at 16-18.

these guidelines explicitly require agencies to analyze the distributional effects of transfer payments. (Circular A-4 at 11.) OMB's complete failure to identify, much less analyze, the opportunity costs and distributional consequences of the agency transfer rules in Table 5 flouts OMB's own official policy statements.

If OMB's concern is really the efficiency of government, there is no reason the agency should not be equally concerned about spending programs as it is about regulations that impose restrictions on private parties. If, on the other hand, OMB's real concern is a politically motivated agenda aimed at removing regulatory burdens on the private sector, its approach is perhaps understandable.

IV. OMB's Draft Report Evidences a Pervasive Anti-Regulatory Bias.

OMB's specious attempts to draw a connection between high levels of regulation and slow economic growth and its related attempts to congratulate the Bush II administration for reducing levels of environmental, health, and safety regulation display a pervasive and politically driven anti-regulatory bias.

A. OMB's Comments on the Relationship between Regulation and Wages are Unsubstantiated and Irrelevant.

Once again, OMB has included in this year's report a brief section entitled "Impact on Wages." With language lifted virtually verbatim from prior year's reports, OMB takes the position that the costs of social regulation, in particular occupational health and safety standards, are borne by employees. (Draft Report at 19-20) The only citation OMB gives for this broad claim is a single quotation from one textbook in modern labor economics. (Draft Report at 19, n. 19) Textbooks, of course, do not all agree with each other, and they do not represent peer-reviewed literature, the standard of proof that OMB requires in other areas. OMB cites no empirical evidence for its claim. Moreover, the Report focuses myopically on the assumed negative effect of regulation on wages in the regulated industry, and ignores entirely the possibility that regulation may increase revenues and wages in other sectors of the economy—in, for example, the industry that produces pollution control equipment.

OMB goes on to concede that in some cases workers might not be hurt by occupational health standards. They will likely be better off with such standards, OMB says, "if health benefits exceed compliance costs *and* such costs are not borne primarily by workers." (Draft Report at 20 (emphasis added)) In fact, however, the conjunction is misplaced; workers will be better off if *either* of the conditions cited by OMB is true. If health benefits (which accrue to the workers themselves) exceed compliance costs, then even if workers bear the full cost of the regulation they obtain a net benefit. Furthermore, if workers do not bear the costs of the rule, then they will be better off with a rule that protects their health than they would be without such a rule. (Of course, workers may also be better off if workplace rules protect their lives and health, even if some of the costs are ultimately imposed on the workers themselves.)

B. B. OMB's comments on the relationship between regulation and economic growth are misleading

OMB purports to take the position that CBA is a neutral tool that is neither anti-regulatory nor pro-regulatory but simply distinguishes good regulation from bad regulation. Nonetheless, it has again included in this year's Draft Report a gratuitous and blatantly ideological section that purports to draw a link between government regulation of all kinds and depressed wages and slow economic growth. (Draft Report at 20-25) Since we commented extensively on a very similarly worded section of the report two years ago, we will not rehash old arguments here, but simply refer the reader to our previous comments. (Letter from CPR to Lorraine Hunt, 5/20/04 at 2-6.)

For the purposes of this year's comments, it suffices to note that OMB's lengthy discussion on this topic fails to even acknowledge the large literature that finds a positive correlation between levels of environmental regulation and per capita income³⁷ and confirms the "Porter hypothesis" that regulation can improve economic competitiveness.³⁸ Furthermore, OMB's efforts to find a link between regulation and slow economic growth are also at odds with the growing evidence that in many instances environmental regulation actually imposes costs that are too small to have any discernable economic impact.³⁹

C. OMB's Attempt to Identify a Trend Toward More Efficient Regulation in the Bush II Administration is Specious.

OMB's attempt to make a case against regulation in general as an enemy of economic growth sets the stage for the next section, in which OMB purports to identify "trends" in federal regulatory activity. In particular, OMB insinuates that by decreasing regulatory activity, the Bush II Administration has improved the efficiency of regulation over the past four years.

OMB presents two charts. One shows the costs of major rules from 1981 to 2005, and the second shows the costs and benefits of major rules from 1992 to 2005. (Draft Report at 28-29) From these charts, OMB extracts several conclusions, which it apparently views as important enough to highlight in the executive summary. One is that "[t]he average yearly cost of the major regulations issued during the Bush (43)

³⁷ See, e.g., Dasgupta, S., A. Mody, S. Roy and D. Wheeler, 1995, *Environmental Regulation And Development: A Cross-Country Empirical Analysis*, World Bank Policy Research Department Working Paper, No. 1448, March (examining data from 31 countries showing positive correlation between stringent air pollution regulations and per capita income), available at http://www-wds.worldbank.org/servlet/WDS_IBank_Servlet?pcont=details&eid=000009265_3970311121743).

³⁸ M. Porter & C. van der Linde, *Toward a New Conception of the Environment-Competitiveness Relationship*, 9 J. Economic Perspectives 97 (1995); Ebru Alpay et al., *Productivity Growth and Environmental Regulation in Mexican and U.S. Food Manufacturing*, 84 American J. Agricultural Economics 887 (Nov. 2002).

³⁹ See Frank Ackerman, *The Unbearable Lightness of Regulatory Costs*, Global Development and Environment Institute, Working Paper No. 06-02 (Feb., 2006).

Administration is about 54% less than over the previous 20 years.” The second is that “[t]he average yearly benefit of the major regulations issued during the Bush (43) Administration is over double the yearly average for the previous eight years.” (Draft Report at 1, 27, 28) Both assertions are highly misleading.

First, to attempt to draw any meaningful conclusion about regulatory legitimacy or efficiency by looking only at costs flies in the face of the economic theory on which cost-benefit analysis is supposedly grounded and to which OMB purports to subscribe. While OMB does not directly state that the decreasing trend in costs necessarily indicates an improvement in the efficiency of regulation under the Bush II administration, it is hard to imagine what other purpose is served by making this assertion and highlighting it in the executive summary. The placement of this analysis directly after the section arguing that regulation negatively impacts economic growth also contributes to this impression. According to the economic theory to which OMB purports to subscribe, one can only judge the efficiency of a regulation by looking at both marginal costs and marginal benefits and comparing them. Looking only at costs provides no useful information about the efficiency or desirability of a regulation. It doesn’t even permit a determination as to whether those costs are less than or greater than the benefits. Under principles of economic theory, the fact that costs have decreased does not indicate that regulation has become “better” or “smarter” (unless one’s real agenda is the dismantling of the regulatory state rather than economic efficiency).

Thus, if the costs of regulation have substantially decreased during the Bush II administration, that may mean either one of two things: 1) many inefficient regulations for which costs exceeded benefits have been foregone or repealed, thus increasing economic efficiency or 2) many efficient and desirable regulations that would have provided far more benefits to society than costs have been foregone, thus leading to less economic efficiency than would have been possible had more regulatory costs been incurred. To suggest that a decrease in regulatory costs standing alone indicates a “good result” or an increase in economic efficiency is intellectually incoherent.⁴⁰

The second assertion—that the average yearly benefit of regulation under the Bush II administration has doubled over the previous eight years of the Clinton administration—is also highly misleading. Just as information on the costs of regulation provides no useful information in the absence of information about the benefits (not to mention the marginal costs and benefits), so information about benefits only provides no information in the absence of information about costs.

To be fair, while the statement in the executive summary is phrased solely in terms of benefits, Figure 2-2 does provide information on costs as well and does indicate dramatically high net benefits in the most recent two years of the Bush II administration.

⁴⁰ The Report’s gratuitous reference to the “net decrease in compliance costs” that occurred during the first two years of the Reagan administration similarly creates a false impression that Reagan somehow streamlined regulation or made it more efficient. In fact, these data provide absolutely no useful information about the relative efficiency of regulation during the Reagan presidency. (See Draft Report at 26)

But, as OMB acknowledges, the high average yearly net benefit for the Bush years is primarily due to three rules promulgated in the last two years, which yielded unusually high projections of net benefits: EPA's non-road diesel engine rule, which generated an estimated \$27.3 billion in net benefits, EPA's hazardous air pollutant standard for boilers and process heaters, which generated an estimated \$16 billion in net benefits, and EPA's Clean Air Interstate Rule, which generated an estimated \$10 billion to \$150 billion in net benefits. (Draft Report at 10, 28; Draft 2005 Report at 8) If one were to remove those two outliers from the data, even a visual inspection of the graph makes clear that the average yearly net benefits of regulation during the Bush II years would be drastically reduced. (Draft Report at 39)

Additionally, OMB uses some accounting slight-of-hand in order to attribute these regulatory gains to the Bush administration rather than the Clinton administration. The two biggest benefits-producers of the three—the non-road diesel engine rule and the Clean air interstate rule—were triggered in part by the Clinton EPA's 1997 revision of the NAAQS for ozone and fine PM. In the Report, OMB explains that it omitted from its aggregate accounting the estimated \$10 billion to \$100 billion per year in net benefits that EPA attributed to the 1997 NAAQS revision and chose instead to include the costs and benefits of various rules implementing the new NAAQS (like the non-road diesel engine rule and the Clean Air Interstate Rule) in order to avoid double counting. Of course, OMB could just as easily have chosen to count the costs and benefits associated with the 1997 NAAQS revision in lieu of the costs and benefits of the subsequent implementing regulations. But faced with a choice whether to attribute a particular set of regulatory benefits to the Clinton administration or the Bush administration, OMB—perhaps predictably—chose to give the credit to the Bush administration.

In another cheap trick, OMB includes \$4.8 billion in costs for 2000 (the last year of the Clinton administration) for a rule that never went into effect so that it can credit the Bush administration with the \$4.8 billion that was supposedly “saved” when Congress repealed the rule in 2001. OSHA's ergonomics rule was issued by the agency in November 2000, but never went into effect, because Congress repealed it five months later, in March 2001. Instead of taking the logical approach of simply leaving this rule out of the analysis entirely, the Bush OMB takes the self-serving approach of crediting the \$4.8 billion in “costs” (that were never incurred) to the Clinton administration and the subsequent \$4.8 billion cost “saving” to the Bush administration.⁴¹ (See Report at 26, 28 n. 43)

The irony in giving the Bush administration credit for increases in the net benefits of regulation that are primarily due to the promulgation of three rules under the Clean Air Act is considerable. As OMB itself has acknowledged, the Clean Air Act has consistently been the source of the highest quantifiable benefits estimates in the federal regulatory lexicon. Yet, the Bush administration has been widely credited with gutting the Clean Air Act. Conveniently, those regulatory actions have managed to fly under the

⁴¹ OMB did not attribute any benefits to this rule, apparently on the basis of a retrospective study that indicated that the rule would not in fact have reduced muscular skeletal disorders, as it was intended to do. See Draft Report at 28, n. 43.

cost-benefit radar screen. When one of the most visible and controversial of the Bush administration's clean air rollbacks was issue, for example—the rule relaxing the eligibility requirements for New Source Review—OMB simply declined to require a cost-benefit analysis at all.⁴²

Thank you for your attention to these comments.

Sincerely,

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⁴² See Heinzerling & Steinzor, *supra* note 5, at 10488.