

June 22, 2005

Lorraine Hunt Office of Information and Regulatory Affairs Office of Management and Budget NEOB, Room 10202 725 17th Street, NW Washington, DC 20503

BY E-MAIL TO OIRA_BC_RPT@omb.eop.gov

Dear Ms. Hunt:

Attached you will find OMB Watch's comments on OMB's 2005 draft annual report on the costs and benefits of federal regulations. Under separate cover, OMB Watch is also submitting comments focused specifically on the Data Quality Act chapter of the report.

Sincerely,

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Comments on White House's 2005 Draft Annual Report on Costs and Benefits of Federal Regulations

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I am writing in response to OMB's March 23, 2005 notice in the *Federal Register*¹ inviting comments on OMB's 2005 annual draft report on the costs and benefits of regulation.² I am submitting these comments on behalf of OMB Watch, a nonpartisan, nonprofit research and advocacy center dedicated to promoting an open, accountable government that is responsive to the public's needs. For over 20 years, OMB Watch has advocated for improvements to the regulatory process and against policies that constrain federal action in the public interest.

OMB Watch continues to object to OMB's "regulatory accounting" methodology, which has repeatedly been demonstrated as intellectually bankrupt and utterly useless for public policy. The report perpetuates unsound methodologies and calls for regulatory process "reforms" that would inevitably prevent federal agencies from developing new protections of the public health, safety, civil rights, and environment. Perhaps because it recognizes the limited utility of economistic accounting of regulations' costs and benefits, each year OIRA has devoted decreasing attention to the cost-benefit statement and increasing attention to gratuitous additions, such as this year's discussion of look-back studies, net benefits, and regulatory process changes.

OMB has in past years found colorful names for its annual report: Making Sense of Regulation, Stimulating Smarter Regulation, Progress in Regulatory Reform. This year's report should be titled Misguided and Misleading. The direction OMB apparently wants to take this country is misguided, premised on values that treat human life and the world we live in as the equivalent of cash that can be added on a ledger and compared meaningfully against the price tag of pollution scrubbers. The arguments and assertions OMB deploys to make the case for its plans: those are misleading.

OMB's report calls for comments in five discrete areas:

- 1. The report itself, in general, which is always open for public comment and review;
- 2. The utility of its "net benefits" approach, which OMB proffers as an alternative to its usual tallying of total cost ranges and total benefit ranges;³
- 3. The potential lessons learned from look-back studies that validate *ex ante* cost and benefit estimates with data on *ex post* consequences;⁴

^{1.} See Notice, 70 Fed. Reg. 14735 (Mar. 23, 2005).

^{2.} See Office of Info. & Reg. Affs., OMB, 2005 Draft Ann. Rept. on Costs and Benefits of Fed. Regs. (hereinafter "Draft Report").

^{3.} See id. at 36.

^{4.} See id. at 39-40.

- 4. Any regulatory reforms that would necessarily follow from those lessons;⁵ and
- 5. Ways to improve transparency in the implementation of the Data Quality Act.⁶

These comments likewise have five major points to make:

- 1. OMB needs to improve the transparency of this annual process and must be more responsive to the public's comments. Among other problems, OMB has repeated several mistakes in this year's report that were brought to its attention last year. Some of these mistakes have been pointed out multiple times over the years.
- 2. OMB continues to present the unproven argument that regulation to protect the public interest impedes the competitiveness of American businesses in the global marketplace. OMB proffers evidence that is not merely weak but, worse, irrelevant to the point. As to be expected, OMB ignores the wealth of evidence that regulation does not impede competitiveness but, instead, *improves* business operations by encouraging companies to create innovative new technologies and to discover more efficient ways of doing business.
- 3. OMB's net benefits section is both misguided and misleading. It masks highly debatable moral and ethical concerns in a simplistic final number that means, ultimately, nothing for reasonable social policy to protect the public welfare. It appears to be useful for little more than a public relations game, in which OMB's careful caveats about the methodological flaws and limitations of the net benefits numbers are buried far from the pages on which those numbers themselves are presented, so that the Bush administration can present its pattern of failing to protect the public as though it signified real action.
- 4. OMB has provided a puzzlingly limited bibliography of look-back studies, some of which are so deeply flawed that they do not belong on any reasonable list of studies that have something meaningful to say. OMB must take steps to ensure that its interest in look-back studies does not result in uninformed "reforms" of the regulatory process.
- 5. Whatever we might learn from any new look-back studies, we actually already have a significant and rich literature that has proven, again and again, that regulatory protections of the public interest significantly improve not just their public interest purposes but also the economy. Corporate interests' cries of inevitable doom have been revealed repeatedly as the screeching whines of privileged special interests. The lessons learned from this literature compel reforms to the regulatory process that remove unnecessary constraints on

^{5.} See id. at 40.

^{6.} See id. at 55.

agency action, eliminate unproductive navel-gazing, and facilitate regulation to protect the public interest.

Under separate cover, OMB Watch will also be submitting comments focused on the Data Quality Act section of OMB's report.

I. OMB'S REPORT CONTINUES TO SUFFER PROBLEMS OF TRANSPARENCY AND RESPONSIVENESS.

OMB has not yet made its best efforts to facilitate public participation or be responsive to the public's concerns. When Congress authorized OMB to produce this annual report on the costs and benefits of regulation, it required OMB to make a draft of the report available for public comment and peer review. Although OMB has in the past taken advantage of the public comment process to solicit hit lists of regulatory protections to be weakened or eliminated, it has not yet taken advantage of the public comments process to improve the quality of the report itself. OMB has yet to respond adequately to several errors pointed out by commenters over the years, with the result being that errors from previous reports have reappeared in this year's draft report. OMB could enrich the process and ultimately the annual report itself with a few simple reforms to make it easier for the public to comment on the information contained in this report. If OMB would pay enough attention to those comments, it might make fewer errors in the future.

A. OMB should facilitate the public's involvement by making the underlying information more transparent.

OMB has thrown up roadblocks that keep the public from holding OMB accountable for its representations in the annual report. In a nod to postmodern literary theory, each year's report is an experience in intertextuality; in order to track down the information on costs and benefits from previous years, which OMB includes in its 10-year totals, the public must make its way through a maze of past reports:

Major rules from this period	must be found in this report:
10/1/93 - 3/31/95	2003 Report, App. A Tbl.18
4/1/95 - 3/1/99	2000 Report, Chapter IV
4/1/99 - 9/30/01	2002 Report, App. E Tbl.19
10/1/01 - 9/30/02	2003 Report, App. A Tbl.19
10/1/02 - 9/30/03	2004 Report, App. A Tbl.12
10/1/03 - 9/30/04	2005 Draft Report, App. A Tbl.A-

Trying to check OMB's work in producing those totals is an even more arduous task. For many major rules covered by the report, OMB avers that it relies on the unadjusted estimates of costs and benefits that the agencies themselves prepared in the course of the rulemaking process. Tracking those estimates down in the 90 days OMB permits for the public comments process is an exercise in futility. All of the regulatory impact analyses and economic impact analyses (which sometimes are separate and distinct documents, meaning that it takes multiple documents to understand the basis of an agency's ultimate conclusions) are available in the agencies' rulemaking dockets, but not all dockets are available online. Even for those dockets that are available online, OMB does not provide docket numbers, which are the essential quanta of information for anyone trying to make his or her way through the universe of government information.

The existence of online agency dockets does not alone solve these concerns. Occasionally, key documents were prepared before the transition to online docket access. In other cases, the dockets are simply inaccessible online, even if they had an online presence at some point. In the case of EPA, which otherwise does an excellent job of maintaining dockets online even after public comment periods have closed, the dockets can be difficult to search: the EPA e-dockets do not readily collapse into lists of documents by type (such as a list only of documents prepared by the agency, excluding public comments, or a list of impact analyses). The pending development of the new e-rulemaking initiative, even if it answered all of these problems, still would not address the larger problem that tracking down the underlying information from which this annual report is generated would require navigating umpteen dockets in umpteen agencies.

The difficulties continue when it comes to information beyond agency docket documents. OMB has cited numerous scholarly articles in this report, most of which are not accessible for free over the Internet. At least one of them is expressly not available to the public: a paper by OECD economist Giuseppe Nicolletti, which OMB describes as "summariz[ing] the findings of the OECD work" on competitiveness and regulation. OMB was informed by commenters last year that the paper appeared to be unavailable. OMB Watch tried this year to locate the paper by diligently searching the Internet, the working papers archive of the Social Sciences Research Network, the EconLit database of economics articles, and the OECD website. Finally, a phone call to the Washington office of OECD revealed that the report is not publicly available except to OECD-member governments, which are free to make the paper available as they choose. In fact, although OMB describes the paper as summarizing OECD's work, OECD itself disclosed that the paper is not being disseminated specifically because it represents the views of the author alone, not OECD.

OMB has access to all of this information, which it presumably consults in the preparation of this annual report. OMB could advance the public comment process into the 20th century, at least, by creating an online docket with all of the information upon which OMB relies in the course of

^{7.} See id. at 33.

^{8.} The government of Australia, for example, apparently made it available to the Business Council of Australia. See Business Council of Australia, 2004 Annual Review: Seeing Between the Lines, Looking Beyond The Horizon 51, available on-line at http://www.bca.com.au/upload/BCA Annual Review 2004.pdf>.

preparing its annual report. For those documents which copyright concerns would preclude digitizing on an e-docket, OMB could at a minimum establish a physical docket room.

Accessibility is only the first step. OMB must make that access meaningful, by making it possible for the public to compare assertions in the report with the large universe of material involved. Given that cost and benefit estimates are sometimes scattered through multiple novella-length documents, OMB should fully and carefully document the source and page numbers of its data, as would be expected of any scholarly article or even high school term paper. Further, if OMB makes any changes to agency estimates, such as by translating the number of lives saved into dollar figures which are then subjected to discounting, those conversions should be explicitly outlined along with any formulas used. In cases such as the Food and Drug Administration rule banning ephedra, in which the agency inexplicably offered two separate cost estimates based on whether or not the consumer already weighs the dangers of ephedra (inexplicable, given that the agency is charged with removing dangerous drugs from the marketplace so that consumers are freed from that burden in the first instance), OMB should footnote which estimate was selected (and why) for its report. Finally, the spreadsheets and data sets OMB uses to reach its conclusions should be available to the public in electronic form, so that the public can more easily verify OMB's numbers.

OMB can only benefit from the improved public comment and peer review made possible by such transparency measures. John Graham, administrator of OMB's Office of Information and Regulatory Affairs, knows full well that the validating work of peer reviewers can significantly improve the quality of information. When, for example, Graham finally went to publish his study on the cost-effectiveness of passenger air-bags after actual peer review, his dramatic claims they were not cost-effective had transformed into a finding that they are, in fact, a worthwhile investment. The conclusions and methodology of Graham's work (with graduate student Tammy O. Teng and others) purporting to show that federal regulations result in the "statistical murder" of 60,000 Americans every year has also been completely debunked by careful outside study. Professor Lisa Heinzerling shows that Graham's sampling of regulation includes many regulations that have never actually been implemented or even proposed, and that his critique focuses on rules that have been defunct for years, thus making meaningless his assertion that reallocation of the resources spent on these regulations could save lives. Graham must have learned from this scrutiny, as he has not attempted to push his theory of "statistical murder" in public policy.

Likewise, OMB economist John Morrall (who undoubtedly played some role in the preparation of this annual report) must understand the value of having his work undergo outside

^{9.} See LAURA MACCLEERY, PUBLIC CITIZEN, SAFEGUARDS AT RISK: JOHN GRAHAM AND CORPORATE AMERICA'S BACK DOOR TO THE WHITE HOUSE 56-66 (2001), available at http://www.citizen.org/documents/grahamrpt.pdf>.

^{10.} See Tammy O. Tengs et al., Five-Hundred Life-Saving Interventions and Their Cost-Effectiveness, 15 RISK ANAL. 369 (1995); Tammy O. Tengs & John D. Graham, The Opportunity Costs of Haphazard Social Investments, in Life-Saving, in Risks, Costs and Lives Saved: Getting Better Results from Regulation 167 (Robert W. Hahn, ed. 1996).

^{11.} See Lisa Heinzerling, Five-Hundred Life-Saving Interventions and Their Misuse in the Debate Over Regulatory Reform, 13 RISK 151 (2002).

scrutiny, even if the results can be ego-bruising. In a critique of Morall's 1986 review of government regulations, ¹² in which Morrall infamously asserted that some rules lead to costs of up to \$72 billion per life saved, University of Connecticut law professor Richard W. Parker exposes numerous methodological problems, including a regulatory sample biased against regulation, unjustified and undocumented lowering of agency benefits estimates, excessively high discounting of benefits over arbitrary time periods, and complete dismissal of all unquantified and some quantified benefits. ¹³ Morall's reply ¹⁴ raises more doubts about his methodologies than answers. He reveals no justification for his sampling choices and data alterations, proffers new, previously unstated (and arbitrary) criteria for his sample, adds a troubling dismissal of the importance of toxicology and scientific methodology, and confesses an inability to reproduce supporting documentation that would allow others to test his results for replicability. ¹⁵ From this give and take, we are able to learn more about the fundamental and unshakeable errors of Morrall's entire enterprise, finally giving the lie to the oft-repeated claim that government regulation is irrational.

B. OMB has failed to correct mistakes identified by the public.

The draft report is riddled with errors from previous years that OMB has not corrected, even though commenters have brought them to OMB's attention. When Congress required OMB to submit a draft of its annual report to the public and peer reviewers for comment, it clearly expected something more than a *pro forma* exercise: it expected that OMB would pay attention to those comments, and that the final report would be enriched by the process. OMB is not, however, taking advantage of the opportunity provided by the public comment process. This year's draft report replicates several mistakes from earlier reports; some of these mistakes have actually been identified multiple times over the years.

OMB should immediately correct the following errors that have returned in this year's draft report:

Eliminating so-called "transfer rules" from the discussion of total costs and benefits.

OMB should not need yet another recitation of the problems with its arbitrary and incoherent distinction between social regulations and "transfer rules." There is a prevailing definition of transfer rules as those which "simply transfer money from one entity to another after market actors have

^{12.} See John F. Morall III, A Review of the Record, REGULATION (1986).

^{13.} See Richard W. Parker, Grading the Government, 70 U. CHI. L. REV. 1345 (2003).

^{14.} See John Morall, Saving Lives: A Review of the Record, 27 J. RISK & UNCERTAINTY 221 (2003).

^{15.} Richard W. Parker, *Is Government Regulation Rational?: A Reply to Morall and Hahn* (Sept. 2004), available at < http://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID588881_code337450.pdf?abstractid=588881&mirid=1>.

chosen the nature and level of goods and services to be provided" and "do not attempt to change, or have the effect of changing, the nature or level of economic goods or services provided by private economic actors." As has been repeatedly pointed out, OMB exempts several regulations from its annual totals of costs and benefits as transfer rules even though they do not fit these criteria. Back in 2003, OMB conceded that there was "merit to the request" that OMB state a principled list of criteria for what constitutes a transfer rule, explain how rules it excludes from annual accounting meet those criteria, and assess the distributive impacts of the rules; OMB actually added that it was "considering the feasibility of providing [better information on transfer rules] in future reports." 17

OMB has yet to make good on that promise. As it failed to do last year, OMB has again failed to explain adequately its designation of "transfer rules" exempted from its description of costs and benefits. This mistake is not merely academic; it can significantly distort the presentation of the administration's regulatory record. For example, one of the "transfer rules" this year is the rule on Automotive Fuel Economy Manufacturing Incentives for Alternative Fueled Vehicles, better known as the "dual fuel" credit. The National Highway Traffic Safety Administration is charged with developing fuel economy standards that reduce the nation's dependence on foreign oil. NHTSA was further empowered by the Alternative Motor Fuels Act of 1988¹⁸ to encourage use of alternative fuels by granting credits toward average fuel economy requirements to automakers who manufacture "dual fuel" vehicles that can operate on either conventional fuel (gas or diesel) or a domestic alternative fuel such as methanol, ethanol, or natural gas. This incentive is not a tax credit or financial subsidy; it is, instead, a partial exemption from fuel economy standards, the extent of which is calculated in terms of "credits." NHTSA was given the option to end or extend this incentive based on several factors specified in the law. Despite knowing that drivers of vehicles with the dual fuel option inevitably use conventional fuels, because outlets for alternative fuels are few and the fuels can be expensive, the agency decided nonetheless in February 2004¹⁹ to extend the dual fuel incentive, even though the government's own analysis, confirmed in other studies, estimates that the result of extending the dual fuel incentive will be to increase petroleum consumption and emission of greenhouse gases. Projections are that the increase will swallow entirely the oil savings from the administration's recent decision to require a modest hike in fuel economy standards of 1.5 mpg by 2008.²⁰

OMB did gesture in the direction of a response to these issues, but its explanation results in more questions rather than answers. Failing to recognize that these "transfer rules" have consequences as significant as the latest environmental rollback, OMB simply reiterated its impulse to segregate the

^{16.} See Lisa Heinzerling & Frank Ackerman, Comments on 2004 Draft Report, at 16.

^{17.} See Office of Info. & Reg. Affs., OMB, 2003 Ann. Rept. on Costs & Benefits of Fed. Regs. 17.

^{18.} Pub. L. No. 100-494, 102 Stat. 2441.

^{19.} See Incentives for Alternative Fueled Vehicles, 69 Fed. Reg. 7,689 (Feb. 19, 2004).

^{20.} See Public Citizen's comments on the dual fuel rule at http://www.citizen.org/autosafety/fuelecon/nhtsacafe/articles.cfm?ID=8775 and comments by the Center for Auto Safety at http://www.autosafety.org/article.php?scid=77&did=833.

two categories of rules and added this troubling coda: "Moreover, including budget programs in the overall totals would overwhelm the incremental new regulatory impacts identified by this Report, and would confuse the distinction between on-budget and off-budget government activity." OMB itself appears to be confusing important distinctions: after referring to rules already mistakenly lumped in the "transfer rule" category as "budget programs," OMB stumbles its way into an even greater confusion by conflating regulatory policy and off-budget fiscal policy. The term "off-budget" refers to entitlements and other government spending excluded by law from budget caps, pay-as-you-go, sequestration, and other elements of the federal budget process. The Congressional Budget Office gives the following definition:

Spending or revenues excluded from the budget totals by law. The revenues and outlays of the two Social Security trust funds (the Old-Age and Survivors Insurance Trust Fund and the Disability Insurance Trust Fund) and the transactions of the Postal Service are off-budget. As a result, they are excluded from the totals and other amounts in the budget resolution and from any calculations necessary under the Deficit Control Act.²³

OMB appears to want to have it both ways: to distinguish kinds of regulations as social and budgetary, and then to confuse the two again by using fiscal policy language to describe non-"transfer" regulations. Although industry-funded anti-regulatory think tanks like the Mercatus Center are fond of referring to regulatory policy as imposing "off-budget costs," the White House Office of Management and Budget should not fall prey to this doublespeak. Regulatory protections of the public health, safety, civil rights, environment, and other public interests are not a species of fiscal activity, meaningful only in terms of the costs imposed on corporate special interests when the federal government finally forces them to do the right thing as corporate citizens. When OMB addresses the lingering concerns over its designation of "transfer rules," it should not use the phrase "off-budget government activity."

Failing to account for the benefits lost in deregulation.

OMB has not yet adequately responded to the charge that it has biased its presentation of costs and benefits by failing to include deregulatory actions. For example, OMB omitted the Bush administration's decision to eliminate two Clinton administration rules that gave miners the same level of protection from harmful diesel emissions that truck and bus drivers enjoy. Among other benefits, the rules combined were expected to prevent 9 to 10 cases of cancer every year. The erasure of these benefits was not recorded in the 2004 accounting of the costs and benefits from the Bush

^{21.} See Office of Info. & Reg. Affs., OMB, 2004 Ann. Rept. on Costs & Bens. of Fed. Regs. 29.

^{22.} See OMB Watch, Glossary of Important Budget Terms, available at http://www.ombwatch.org/article/articleview/1932/1/197/>.

^{23.} CBO, Glossary of Budgetary and Economic Terms, available at http://www.cbo.gov/showdoc.cfm?index=3280&amp;sequence=0>.

administration's regulatory policies, even though in a proper accounting these lost benefits should have reduced the total level of benefits reported that year. OMB dismissed this concern by noting that the Bush administration rule eliminating these protections was not "major."²⁴

Of course, OMB has a great deal to say about which rules are considered "major." One of the criteria for "major" rules covered in this annual report is whether they were brought under the review procedures of E.O. 12,866. That executive order, which OMB uses to grant itself a role in regulatory policy that Congress never authorized, establishes several categories of covered rules. Aside from "significant regulatory action[s]" which have costs or benefits of \$100 million or more, the remaining categories all are overtly subjective and determined at the whim of the White House. OMB has used this provision to insert itself into the regulatory process in all manner of rules, typically to the public's detriment. That OMB itself chose not to determine this rollback fell within the scope of E.O. 12,866 and thus would not be treated as a "major" rule for purposes of this annual report means that OMB has a great deal of control over the universe of costs and benefits it chooses to report. The essence of the charge that OMB excludes deregulatory actions from its accounting is that OMB is manipulating the universe of data in order to selectively present costs and benefits and show the Bush administration in the best light. OMB has yet to answer that charge.

Mischaracterizing the benefits of workplace health and safety protections.

In a clumsy discussion of the consequences for workers of regulatory protections that improve the health and safety conditions of their workplaces, OMB again mistakenly asserts, "In the occupational health standards case, where the benefits of regulation accrue mostly to workers, workers are likely to be better off if health benefits exceed compliance costs and such costs are not borne primarily by workers." OMB thus failed to recognize an error pointed out last year:

[Workers] 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." 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

^{24.} See 2004 Report, supra note 21, at 29.

^{25.} See E.O. 12,866 § 3(f).

^{26.} Draft Report, supra note 2, at 29.

lives and health, even if some of the costs are ultimately imposed on the workers themselves.)²⁷

OMB should acknowledge this criticism and either correct the sentence or eliminate the section altogether.

Using absurdly low values to minimize benefits of fuel economy.

OMB continues to use an inexcusably distorted low-ball figure for the cost of gasoline in its cost and benefit calculations. Just as it did the year before, OMB calculates fuel savings benefits using a rate of \$1.10–\$1.30 per gallon. OMB should inform the public where to fuel its cars, because these low prices are nowhere to be found. OMB was informed last year that its cost assumption deviated wildly from the government's own projections for gas prices and, if history is any guide, from common sense: "In fact, the last time that gasoline retailed for \$1.30 per gallon was April 19, 2002—more than two years ago." We are now more than *three* years from such a low price, and the government itself projects that we still have some time to go before gas prices will fall to \$1.30: the Department of Energy projects that regular unleaded gas prices will average \$2.10 for 2005 and \$2.18 for 2006. Unless OMB is intentionally trying to forestall arguments that further fuel economy gains would substantially benefit the country while weaning us from dependence on foreign oil, it should update this figure or proffer some principled and credible explanation for its decision to deviate from the best available evidence of soaring gas prices well in excess of OMB's \$1.30 assumption.

In addition to the factual problems OMB manages to insert into this brief section, it is also very unclear why this section even exists in the Report. While it is true that OMB is charged with describing the effects of regulation on wages, OMB has chosen to discuss only one type of regulation—occupational health and safety—and to use its discussion to embrace, once again, costbenefit analysis as a decision principle in regulatory matters. But the federal statute on occupational health and safety, the Occupational Safety and Health Act, does not permit cost-benefit analysis in standard-setting. See *American Textile Manufacturers' Institute v. Donovan*, 452 U.S. 490 (1981) ("Cotton Dust" case). Unless OMB has something more illuminating to say about the impact of regulation on wages, it should concede that it has nothing new to add this year and omit this section from the Report.

^{27.} See Heinzerling & Ackerman, supra note 16, at 3 (citation omitted). The commenters added this additional question, which OMB has not answered:

Id. Given that the agency charged with protecting workers, the Occupational Health and Safety Administration, has essentially abandoned that role, *see* OMB WATCH, THE BUSH REGULATORY RECORD: A PATTERN OF FAILURE (2004), *available at* http://www.ombwatch.org/regs/patternoffailure, this discussion appears not only incorrect but also moot.

^{28.} See Robert Verchick, Peer Review Comments on OMB 2004 Draft Report, at 4.

^{29.} See Energy Information Admin., Dep't of Energy, Energy Use Projections and Prices by Sector Tbl.4 (June 2005) available at http://www.eia.doe.gov/emeu/steo/pub/4tab.html.

Citing studies that do not meet OMB's own standards for information quality.

It is puzzling that OMB continues to refer to the discredited Crain and Hopkins study commissioned by the Small Business Administration,³⁰ given that even the head of OMB-OIRA has dismissed it as a hack job that fails to rise to the level of quality that OMB expects government agencies to apply:

The fact that attempts to estimate the aggregate costs of regulations have been made in the past, such as the Crain and Hopkins estimate of \$843 billion mentioned in Finding 5, is not an indication that such estimates are appropriate or accurate enough for regulatory accounting. Although the Crain and Hopkins estimate is the best available for its purpose, it is a rough indicator of regulatory activity, best viewed as an overall measure of the magnitude of the overall impact of regulatory activity on the macro economy. The estimate, which was produced in 2001 under contract for the Office of Advocacy of the Small Business Administration, is based on a previous estimate by Hopkins done in 1995, which itself was based on summary estimates done in 1991 and earlier, as far back as the 1970s. The underlying studies were mainly done by academics using a variety of techniques, some peer reviewed and some not. Most importantly, they were based on data collected ten, twenty, and even thirty years ago. Much has changed in those years and those estimates may no longer be sufficiently accurate or appropriate for an official accounting statement. Moreover, the cost estimates used in these aggregate estimates combine diverse types of regulations, including financial, communications, and environmental, some of which impose real costs and others that cause mainly transfers of income from one group to another. Information by agency and by program is spotty and benefit information is nonexistent. These estimates might not pass OMB's information quality guidelines.³¹

The Crain and Hopkins report suffers from so systematic a lack of information quality that, as others have pointed out, even Graham's stinging critique may be generous.

Although OMB cites the report this year only to discuss general conclusions and not specific numbers from the Crain and Hopkins report, it is important to stress that the basis for those general conclusions is the aggregation of the numbers that, as John Graham himself has pointed out, are unreliable. Note, for example, that Crain and Hopkins plug in estimates of the cost of workplace

^{30.} See Draft Report, supra note 2, at 28 (guilelessly referring to the Crain and Hopkins study as a "recently sponsored . . . study" proving a disproportionate burden on small businesses).

^{31.} Hearing on H.R. 2432, Paperwork and Regulatory Improvements Act of 2003, July 22, 2003, Transcript at 21 (statement of John Graham).

protections by relying on a Mercatus Center study by Joseph Johnson.³² Johnson's numbers are utterly unreliable, for two important reasons. First, he relies entirely on *ex ante* estimates of compliance costs from OSHA's regulatory impact analyses, which use biased samples, fail to anticipate technological innovations that will drive down actual costs, and make other conservative assumptions that routinely overestimate actual compliance costs significantly.³³ Second, Johnson inflates these already inflated cost estimates: he actually *multiplied the estimates by 5.55*!³⁴

Why this gross distortion of already distorted estimates? Johnson was emboldened by a previous article on the costs to corporate special interests of making workplaces healthier and safer. That study, by Harvey James, generates the 5.55 multiplier through a series of sleights of hand. To arrive at what he concludes to be the most reasonable estimate of \$33.5 billion, James compares the total annual cost of OSHA compliance estimated by a 1974 National Association of Manufacturers study against the total cost of 25 major rules in 1993, which he discovered was 5.55 times lower than the NAM figure. Here is the trick:

Assuming that the compliance burden of OSHA regulations in 1993 is at least as great as the compliance burden of OSHA regulations on business establishments in 1974 (and that the 1974 estimate is reasonably accurate), then the total compliance costs of all of OSHA's regulations enforced in 1993 is projected to be at least 5.55 times the total for the 25 major OSHA rules examined in this study.³⁵

The assumption that the 1974 NAM estimate is "reasonably accurate" does not hold; the National Association of Manufacturers is a lobbying organization whose vested interest in overestimating regulatory costs makes its numbers immediately suspect, and there is no evidence that James made any effort at all to verify the NAM data.³⁶ Moreover, James, like Johnson, relies entirely on *ex ante* estimates of compliance costs from OSHA's regulatory impact analyses, which are significantly overestimated. (In fact, in the case of the cotton dust rule that is included in James's list of 25 major rules, the actual *ex post* result was rapid compliance that improved competitiveness.³⁷ James's

^{32.} See Crain & Hopkins at 12 ("The source of our cost estimates on workplace regulations is a 2001 study by Johnson.") (citing Joseph L. Johnson, A Review and Synthesis of the Cost of Workplace Regulations, Mercatus Center Working Papers in Regulatory Studies (Aug. 30, 2001), available at http://www.mercatus.org/pdf/materials/10.pdf).

^{33.} See Thomas O. McGarity & Ruth Ruttenberg, Counting the Cost of Health, Safety, and Environmental Regulation, 80 Tex. L. Rev. 1997, 2030-33(2002).

^{34.} See Johnson, supra note 32, at 21 text accompanying note 38.

^{35.} Harvey S. James, Jr., "Estimating OSHA Compliance Costs," 31 Policy Sciences 321, 329.

^{36.} McGarity & Ruttenberg, supra note 33, at 2018 & n.120.

^{37.} See RUTH RUTTENBERG & ASSOCS., PUBLIC CITIZEN, NOT TOO COSTLY AFTER ALL: AN EXAMINATION OF THE INFLATED COST-ESTIMATES OF HEALTH, SAFETY, AND ENVIRONMENTAL PROTECTIONS, Feb. 2004 (available on-line at http://www.citizen.org/documents/Not%20Too%20Costly.pdf) at 27.

estimates nonetheless include the cost estimates for that rule and others that have long since been proven to be significantly overestimated.) The additional assumption that 1993 costs must be at least as great as 1974 costs replicates these same errors by arbitrarily inflating 1993 costs to an already-inflated 1974 level and by failing to consider that innovations over time could indeed make compliance less costly over a 20-year timespan.

Given the absolute lack of credibility of the entire enterprise of the Crain and Hopkins report, OMB should more thoroughly explain its statement in last year's final report that the Crain and Hopkins report is unreliable in its specific calculations but still somehow is "useful as a relative indicator of regulatory activity rather than as an absolute indicator of the overall burden of regulation." The specific conclusions about the "burden" of regulation are utterly unreliable, yet those conclusions are the very basis of the "relative" allocations OMB discusses. If OMB has figured out a way around the "garbage in, garbage out" problem, it should share that secret with the rest of us. Until then, it should assiduously eliminate all references to Crain and Hopkins and leave that study in the wastebin in which it belongs.

II. OMB POSES A FALSE AND MISLEADING TRADE-OFF BETWEEN CORPORATE COMPETITIVENESS AND PROTECTION OF THE PUBLIC.

Despite the best efforts of commenters who responded to last year's draft report, OMB has decided to repeat in this year's report a misguided and misleading section that suggests we need more of the Bush administration's dismantling of public safeguards in order to shore up the competitiveness of American corporations in the global marketplace. OMB insists that the "strongest evidence of the impact of" what it calls "smart regulation" (by which it means its hostility to protections of the public interest, especially those that act before the public has suffered significant harm) is a comparison of economic growth of countries with "different regulatory systems." Although the United States already has the least restrictive regulation in the world and is third on the list of the world's top ten economies, OMB adds, "Less well known are the significant differences in growth rates . . . seen among economies with *smaller differences* in the degree of government control and regulation." Apparently, OMB hints, it is not enough that American regulatory policy is already the least restrictive in the world; we must continue to dismantle the public's protections and block the development of new ones.

^{38.} See 2004 Final Report, supra note 21, at 102.

^{39.} See Draft Report, supra note 2, at 30.

^{40.} Id. at 33 text accompanying note 22.

^{41.} *Id.* at 30 text accompanying note 16.

^{42.} *Id.* at 30 (emphasis added).

OMB's argument is overly simplistic. Among other things, there are many confounding variables that preclude universal generalizations from mere comparisons of regulatory stringency. For example, the United States has a history of using military and defense line items to subsidize important innovations (primary recent examples being containerization, desktop-sized computers, and the Internet) that are then spun off into private industry, which is primed to seize a competitive advantage in the market that is essentially made possible by that hidden subsidy. Aside from the unaddressed gap between correlation and causation, OMB fails to cite any evidence for its "[l]ess well known" conclusion that small downward adjustments in the strength of regulatory protections can lead to "significant differences in growth rates." The footnote for that conclusion cites an article that provides no support for the thesis but, instead, compares the United States' regulatory protections to the U.S.S.R. on a scale of "dictatorship" and "disorder."

The evidence that OMB cites for its larger discussion of regulation and competitiveness is not at all relevant to the issue as OMB has framed it, much less to the conclusions OMB wants to draw about its anti-regulatory ("smarter regulation") and anti-science ("sound science") policies. The scholarly studies that would be relevant are noticeably absent, possibly because they simply do not tell the story OMB is so desperate to tell.

A. OMB's strained and simplistic conclusions are not supported by the World Bank and OECD studies that OMB cites.

Other scholarly reviewers have already exhaustively documented the deficiencies of OMB's proffered evidence for its simplistic conflation of low regulation and comparative wealth, including it's extensive reliance on a World Bank report. These deficiencies include the following:

- OMB's simplistic conclusions ignore other means of market interventions used by wealthy countries in place of direct regulation, such as elaborate and heavy taxes on industrial practices disfavored by the government.⁴⁴
- OMB assumes that the benefits of "economic freedom" will continue to accrue equally at every level of deregulation. This conclusion is particularly unsuited for policy in the United States which, according to an OECD study that OMB cites, is already the second least regulated country and one that already follows the World Bank's major recommendations by guaranteeing

^{43.} SIMEON DJANKOV, EDWARD L. GLAESER, RAFAEL LA PORTA, FLORENCIO LOPEZ-DE-SILANES & ANDREI SHLEIFER, THE NEW COMPARATIVE ECONOMICS 23-25 (Nat'l Bureau of Econ. Research, Working Paper No. 9608, April 2003), available at http://www.nber.org/papers/w9608>.

^{44.} Countries such as Denmark, praised in OMB's report, and Norway and Sweden use such an approach. *See* Verchick, *supra* note 28, at 6.

^{45.} *Id.* at 6-7.

property rights, protecting consistency in its treatment of business, and enforcing contracts. OMB provides no support for its conclusion that rolling back health, safety and environmental protections will achieve continued benefits in economic growth.⁴⁶

- Health, safety, and environmental regulations, the types of regulations OMB is most concerned about, are not even addressed in the World Bank study. The World Bank assumes, in comparing regulations affecting market entry, for example, a business that "(1) 'is not using heavily polluting production processes,' (2) is not subject to industry-specific regulations (such as many environmental regulations), and that (3) is operating in the country's most populous city." As Profs. Heinzerling and Ackerman point out, "obviously... many of the rules reviewed by the OMB pertain to heavily polluting industries which are subject to industry-specific regulations and which are not operating in New York City."
- The OMB report erroneously equates wealth and well-being. 49 If measures of well-being such as average infant mortality rates and average life expectancy at birth are considered, the comparatively "less regulated" United States ranks below Greece, Italy, Portugal, Ireland, and France, all among the most regulated nations. In fact, "among all nations, the country whose figures are among the closest to U.S. figures is Cuba, one of the most repressed and regulated on earth." (In this year's draft, perhaps in response to this criticism, OMB cites a report by the Fraser Institute of Vancouver, B.C. that suggests that "economic growth does not appear to come *at the expense of* ... other measures of well-being" like life-expectancy and infant mortality. That economic growth doesn't necessarily hurt other measures still does not support OMB's conclusion that continued deregulation of health, safety, and environmental protections will lead to increased wealth and well-being.)

OMB should finally acknowledge that its section on regulatory protections and competitiveness lacks any relevant support for OMB's arguments.

^{46.} Heinzerling & Ackerman, supra note 16, at 5.

^{47.} Verchick, supra note 28, at 7.

^{48.} Heinzerling and Ackerman, supra note 16, at 4.

^{49.} *Id.*, at 4-5; *see also* Verchick, *supra* note 28, at 7-8.

^{50.} Verchick, supra note 28, at 8.

^{51.} Draft Report, *supra* note 2, at 30-31 (emphasis added).

B. OMB has chosen to ignore the rich scholarship disproving the regulation-competitiveness trade-off.

OMB appears to be using inapposite evidence in order to avoid scholarly evidence that militates for a contrary conclusion. That OMB would maintain this section in the report despite the paltriness of the evidence is perplexing, at least until the actual scholarly debate on regulation and competitiveness comes into clearer focus. That debate, as outlined below, trends toward a completely different conclusion. In fact, given the scholarly evidence below, it would appear that competitiveness concerns should drive us in the opposite direction of this administration's hostility to public protections; we should, instead, embrace them, for the world of good they do for us in terms of public health, safety, civil rights, environment, and now the economy as well.

1. Environmental protection does not necessarily reduce U.S. competitiveness.

The argument that regulation harms U.S. competitiveness is based primarily on the theory that pollution-intensive industries will move to areas with more lax environmental regulations ("pollution havens") in order to avoid the costs of compliance with more stringent environmental protections. Though some economists have found a pollution haven effect, many economists have discovered that regulation has no negative impact on competitiveness, and some have even argued that regulation may increase competitiveness. Even in studies that have found that regulation hampers competitiveness, the effect tends to be insignificant or, at most, significant but relatively minor. Overall, factors such as wages and trade agreements play a much larger role than regulation in determining U.S. competitiveness. Economists have been unable to find the strong correlation between regulation and competitiveness that OMB insinuates.

The draft report tends to ignore or downplay the vast wealth of economic studies finding regulation has little or no impact on competitiveness. OMB failed to mention, for instance, the 1995 survey of economic studies by Jaffe et al., which concludes that "overall, there is relatively little evidence to support the hypothesis that environmental regulations have had a large adverse effect on competitiveness, however that elusive term is defined." Eban Goodstein not only corroborated Jaffe's conclusions but has also found that, between 1979-1989, the industries that spent more on regulation compliance actually exhibited superior performance compared to imports from developed and developing countries. OMB systematically ignores the divergent economic opinion on regulation and competitiveness and instead chooses to focus only on inapposite evidence mischaracterized as corroborating its deregulatory agenda.

Economists look at several economic indicators to determine the impact of regulation on competitiveness, such as plant location, industry imports and exports, and foreign direct investment (FDI). If the pollution haven theory holds, then firms will choose to open new plant locations in areas

^{52.} Jaffe et al., Environmental Regulation and the Competitiveness of U.S. Manufacturing: What Does the Evidence Tell Us?, 33 J. ECON. LIT. 132, 157 (1995).

^{53.} Eban Goodstein, *A New Look at Environmental Protection and Competitiveness*, Briefing Paper for the Economic Policy Institute, Washington, DC (1997).

with less regulation. Similarly, if regulation impacts competitiveness, then there should be a positive correlation between regulation and net imports of an industry: as regulation increases, countries with more lax regulations will gain a great share of the import market. Further, if the pollution haven theory is to hold, then stringent regulation in the United States will induce high polluting firms to disproportionately invest overseas.

The Jaffe et al. study looked at all three indicators of competitiveness and found on all accounts that regulation was not a major factor in competitiveness. In the case of plant location decisions, Jaffe et al. found that there is little evidence to support the conclusion that stringent regulation is a major determinant in plant location decisions. This finding is corroborated by a host of other economists. Timothy J. Batrik studied the impacts of state government environmental regulation expenditures on plant location decisions and found that such expenditures had an insignificant effect on plant locations.⁵⁴ Kevin Gallagher found that plants moving to Mexico are not the ones with highest pollution abatement costs; overseas movement of industries is affected more by labor costs than by regulation.⁵⁵ A look at plant location within India found that increased government spending on environmental regulation not only did not deter plant location but actually had a positive impact.⁵⁶

Clark, Marchese, and Zarrilli examined industry decisions to conduct offshore assembly in developing companies. Consistent with the findings on plant location, the authors found that pollution intensive industries were less likely to conduct offshore assembly. They argued that the U.S. has a comparative advantage in highly polluting industries, while developing countries have a comparative advantage in simple assembly industries. At the same time, "the cost of pollution control and abatement are too small to influence the competitive performance of location decision of these activities."

Further, several economic studies have found that stringent regulations have not led to increases in imports. Jaffe et al. examined a number of studies on the impact of regulation on imports and exports and concluded once again that regulation has no significant impact. Grossman and Krueger, for instance, looked at the impacts of NAFTA on net imports and found greater imports in industries with the lowers pollution costs. Moreover, they found that "traditional determinants of

^{54.} Timothy J. Batrik, The Effects of Environmental Regulation on Business Location in the United States, 19 GROWTH CHANGE 22 (1988).

^{55.} Kevin Gallagher, *Trade Liberalization and Industrial Pollution in Mexico: Lessons for the FTAA*, Working Paper for Global Development and Environment Institute (October 2000).

^{56.} Muthukumara Mani, Sheoli Pargal & Mainul Huq, Does Environmental Regulation Matter? Determinants of the Location of New Manufacturing Plants in India in 1994, World Bank Working Paper, at 1-26.

^{57.} Don P. Clark, Serafino Marchese & Simonetta Zarrilli, Do Dirty Industries Conduct Offshore Assembly in Developing Countries?, 14 INT'L ECON. J. 75, 86 (2000).

trade and investment patterns" have a significant impact on net imports while environmental costs have a minor and insignificant impact.⁵⁸

A 1997 briefing paper by Eban Goodstein confirmed the findings of Jaffe et al. Moreover, Goodstein's study also found that "over the 1979-89 period, industries that spend more money complying with environmental regulations actually demonstrated superior performance against imports from developed countries." Goodstein found the same relationship "for imports from developing countries, but the relationship was not as strong. Goodstein expanded on existing research on the effect of regulation on net imports by exploiting the large dataset made available by the National Bureau of Economic Research (NBER). Again, he concluded from the data that environmental regulation does not harm U.S. competitiveness. A look at the top 20 industries that experienced growth of import share by less-developed countries (LDC) from 1973-79 and 1979-89 shows that industries with high environmental costs were not the industries experiencing growth in net imports. In fact, "only three of the top 20 in the early period were industries with higher-than-average environmental costs; only one in the latter. It seems, then that low-wage industries, not 'dirty' ones, dominate the list of LDC import leaders."

Despite predictions to the contrary, several economic studies have found foreign direct investment to increase with environmental stringency, implying that environmental regulation does not deter foreign investors. In a recently published article for the *International Trade Journal*, Elizabeth T. Cole and Prescott C. Ensign have found that U.S. FDI into Mexico is moving toward low polluting industries.⁶² In fact, air pollution decreased in the United States at a time when foreign direct investment was increasing.⁶³

Thus, the bulk of the economic literature contradicts OMB's claim that regulation seriously hampers U.S. competitiveness. As Jaffe et al. conclude, "studies attempting to measure the effect of environmental regulation on net exports, overall trade flows, and plant-location decisions have produced estimates that are either small, statistically insignificant, or not robust to tests of model

^{58.} Gene M. Grossman & Alan B. Krueger, *Environmental Impacts of a North American Free Trade Agreement*, in The US-MEXICO FREE TRADE AGREEMENT 13 (Peter Garber ed. 1993).

^{59.} Goodstein, supra note 53, at 2.

^{60.} Id.

^{61.} *Id.* at 6

^{62.} Elizabeth T. Cole & Prescott C. Ensign, An Examination of U.S. FDI into Mexico and its Relation to NAFTA: Understanding the Effects of Environmental Regulation and the Factor Endowments that Affect Location Decision, 19 INT'L TRADE J. 1 (2005).

^{63.} DAVID WHEELER, RACING TO THE BOTTOM? FOREIGN INVESTMENT AND AIR POLLUTION IN DEVELOPING COUNTRIES (Development Research Group, World Bank, 2001), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=632594. Wheeler's study shows a correlation and not causation.

specification."⁶⁴ Other economic factors, such as labor costs, play a much more significant role in the movement of industries. Concludes Goodstein, "Highly polluting industries are relocating to poor countries; but the reason, overwhelmingly, is low wages."⁶⁵

Despite OMB's characterizations, economic opinion on the existence of a pollution haven effect is by no means conclusive. Economic studies deviate broadly on the subject. According to one literature review, "much of the empirical literature that has attempted to test this assumption has arrived at differing conclusions, ranging from a modest deterrent effect of environmental regulatory stringency on economic activity to a counterintuitive modest attract effect." Even in the most damning characterizations, regulation still is only said to have a modest impact on U.S. competitiveness⁶⁷

Even if *some* evidence does point to a pollution haven effect, OMB cannot dismiss the wide range of divergent economic opinion on the subject. As Tim Jeppensen, John List and Henk Folmer conclude in a 2002 article for the *Journal of Regional Science*, "casual perusal of the literature [on regulation and competitiveness] indicates that construction of a consensus point is akin to finding a needle in a haystack." ⁶⁸

2. Regulation does not cost jobs.

Economists have also refuted the claim that increased regulation decreases jobs. Economist Eban Goodstein at the Economic Policy Institute has written substantially on the relationship of jobs and the environment. According to Goodstein, the jobs-environment trade-off is largely a myth. Goodstein's book *Jobs and the Environment: The Myth of a National Trade-Off* finds a small positive effect of environmental regulation on overall employment, especially in the area of manufacturing

^{64.} Jaffee et al., supra note 52, at 157-158.

^{65.} EBAN GOODSTEIN, JOBS AND THE ENVIRONMENT: THE MYTH OF A NATIONAL TRADE-OFF 19(1994).

^{66.} Smita B. Brunnermeier & Arik Levinson, Examining the Evidence on Environmental Regulations and Industry Location, 13 J. ENVT. & DEVEL. 6 (2004).

^{67.} See Keller & Levinson, Pollution Abatement Costs and Foreign Direct Investment Inflows to U.S. States, 84 REV. ECON. & STATS. 691 (2002), in which they found that environmental regulation does have significant negative impact on FDI into the United States, but the magnitude is economically small. See also Arik Levinson, Environmental Regulation and Manufacturers' Location Choices: Evidence from the Census of Manufacturers, 62 J. Pub. Econ. 5 (1996), in which Levinson found that the manufacturing sector is sensitive to environmental regulation, but again the impact is small in magnitude. Though the sector was sensitive to regulation, "the degree of aversion to stringent states does not seem to increase for pollution-intensive industries."

^{68.} Tim Jeppesen, John A. List, & Henk Folmer, Environmental Regulations and New Plant Location Decisions: Evidence from a Meta-Analysis, 42 J. REGIONAL SCI. 19, 36 (2002).

workers.⁶⁹ Goodstein also finds that environmental regulation does not lead to manufacturing plant shutdowns.

Regulation leads to job creation and innovation of new technologies that can then expand the economy. Government spending on environmental regulation includes "investments in pollution control equipment and personnel, scientific studies to test pesticides and chemicals, the clean-up of hazardous wastes at Superfund sites, and the bill paid to your local garbage collector." All of these costs *create jobs*. Moreover, these jobs are overwhelmingly blue collar and, by nature, domestic. According to Goodstein, "the one comprehensive estimate available suggests that, in 1992, just under 4 million jobs were directly or indirectly related to pollution abatement and environmental protection the United States."

Even the more equivocal work of Richard D. Morgenstern, William A. Pizer, and Jhih-Shyang Shih cannot avoid the job-creating potential of environmental protection: they conclude that environmental regulation is *just as likely* to create jobs as to cause job losses. "While environmental spending clearly has consequences for business and labor, the hypothesis that such spending significantly reduces employment in heavily polluting industries is not supported by the data," they write. Morgenstern et al. examined the pulp and paper, plastics, petroleum and steel sectors and found "that a million dollars of additional environmental expenditure is associated with an insignificant change in employment."

They explain: "Most importantly, there are strong positive employment effects in industries where environmental activities are relatively labor intensive and where demand is relatively inelastic, such as plastics and petroleum. In others, where labor already represents a large share of production costs and where demand is more elasticity, such as steel and pulp and paper, there is little evidence of a significant employment consequence either way."⁷⁵

Berman and Bui also found that regulation had no impact on labor demands. The authors examined the impact on labor demands of increased air pollution abatement in the Los Angeles area.

^{69.} See generally Goodstein, supra note 65.

^{70.} Eban Goodstein, Jobs or the Environment? No Trade-Off, 38 CHALLENGE 41, 46 (1995).

^{71.} Frank Ackerman & Rachel Massey, *Prospering with Precaution: Employment, Economics, and the Precautionary Principle* (Precautionary Principle Project, Aug. 2002), *available at* http://www.healthytomorrow.org/pdf/prosper.pdf>.

^{72.} Id. at 42.

^{73.} RICHARD D. MORGENSTERN, WILLIAM A. PIZER, & JHIH-SHYANG SHIH, JOBS VERSUS THE ENVIRONMENT: AN INDUSTRY-LEVEL PERSPECTIVE (Resources for the Future Discussion Paper No. 99-01-REV, 2000) 25.

^{74.} Id. at 24.

^{75.} *Id*.

In looking at data from 1979 through 1992, a period that saw sharp increases in environmental regulation, they found that increased regulation had no effect on employment in refineries.⁷⁶

3. Regulation can improve efficiency.

OMB dismisses entirely the Porter "hypothesis" that regulation can actually increase productivity by increasing the efficiency of operations. Porter's theory was developed in response to real-world observations, such as OSHA's Cotton Dust Rule, in which regulations to protect the public had indirect benefits of inducing technological innovations and improved efficiencies in business operations. Since Porter elaborated his argument, the real world examples have continued to multiply. His "hypothesis" is now backed by a robust body of empirical evidence:

- Though regulation certainly does result in some cost to industry, it can also spur economic growth and increased efficiency. Jaffe points to a 1990 Barbera and McConnell study that "found that lower production costs in the nonferrous metals industry were brought about by new environmental regulations that led to the introduction of new, low-polluting production practices that were also more efficient." EPA itself has in fact argued that environmental regulations generate "more cost-effective processes that both reduce emissions and the overall cost of doing business."
- A study of the impacts on food manufacturing of trade liberalization between Mexico and the U.S. found that free trade would benefit Mexican producers because of resulting productivity growth, not because of the country's more lax environmental regulation. In fact, increased environmental regulation actually stimulated greater productivity in Mexican food manufacturing. "Pollution abatement efforts encouraged by the Mexican Government's inspection program manifestly have stimulated improvements in food processing efficiency as well as in environmental quality." The enhanced productivity offset any consequence for the the profitability of Mexican food manufacturing in the aftermath of the new pollution controls. At the same time, the authors

^{76.} Eli Berman & Linda T. M. Bui, Environmental Regulation and Labor Demand: Evidence from the South Coast Air Basin, 79 J. Pub. Econ. 265 (2001).

^{77.} Jaffe et al., *supra* note 52, at 155.

^{78.} Office of Air and Radiation, Environmental Protection Agency, *The Clean Air Marketplace: New Business Opportunities Created by the Clean Air Act Amendments–Summary of Conference Proceedings* (July 24, 1992).

^{79.} Ebru Alpay, Steven Buccola, & Joe Kervilet, *Productivity Growth and Environmental Regulation in Mexican and U.S. Food Manufacturing*, 84 AMER. J. AGR. ECON. 887, 894 (2002).

found "U.S. pollution regulations have had no impact on the profitability or productivity of U.S. food manufacturing." 80

- Berman and Bui also found that in meeting more stringent environmental standards, oil refineries in the Los Angeles Air Basin actually increased their productivity and efficiency. Interviews with "plant managers and environmental engineers suggested that productivity increases were not accidental. They resulted from a careful redesign of production processes induced by the need to comply with environmental regulation." 81
- Stephen Meyer compared regulation across states in the United States found that environmental regulation did impact economic prosperity. In fact, "states with stronger environmental regulations tended to have higher growth in the gross domestic products." Though the correlation does not suggest causation, it does indicate that environmental regulation does not hinder state's economies. The correlation held true even during times of recession. In an update focusing on the 1990-91 recession, Meyer found states with stronger environmental regulation were not more likely to face economic decline during a period of recession than states with weaker environmental standards. 83

After completely mischaracterizing Porter's insights in last year's draft report, ⁸⁴ OMB has opted this year to ignore the matter altogether. Clinging to disproven and unsupported theories tendentiously applied to support its anti-regulatory hostility, OMB is missing out on an opportunity to stimulate truly smarter regulation by paying attention to Porter's theory and the evidence that backs it up.

III. OMB'S "NET BENEFITS" APPROACH IS MISLEADING AND USELESS FOR SENSIBLE SOCIAL POLICY.

Despite the bankruptcy of its usual regulatory "accounting" methods, OMB has made the problems of those methods even worse by producing a chapter on "net benefits." Extensive methodological and logical weaknesses make the net benefits measure a misguided waste of public resources with no real usefulness to policymakers for assessing the health, safety, and environmental

^{80.} Id. at 887.

^{81.} Eli Berman & Linda T. M. Bui, Environmental Regulation and Productivity: Evidence from Oil Refineries, 83 REV. ECON. & STATS. 498, 508 (2001).

^{82.} Stephen Meyer, *Environmentalism and Economic Prosperity: An Update* (Department of Political Science, Massachusetts Institute of Technology, Feb. 1993), at 2.

^{83.} *Id.* at 9.

^{84.} See Heinzerling & Ackerman, supra note 16, at 9.

goals of our country. Instead, the net benefits measure aggravates the problematic and questionable assumptions of cost-benefit analysis in general, and it amounts to little more than a biased and easily manipulable political scorecard which, in the hands of OMB, serves mainly to mislead and hide the current administration's very poor record of protecting the public's interest.

A. OMB's net benefits discussion is misguided and misleading.

"Net benefits," purported without explanation to be a theoretically superior method of measuring the overall value of regulation, is relatively straightforward at first glance; "net benefits" is monetized benefits to society minus costs to society. However, this simplicity—the reduction of the overall costs and benefits to society to one number—is also the central problem for the measure's usefulness. In order to create this one number, costs and benefits must all be reduced to monetary valuations; everything that is not or can not be monetized is left out completely. The many problems of cost-benefit analysis, the strong tendencies to minimize benefits, overestimate costs to industry, and to leave many key and controversial assumptions ignored entirely or relegated to footnotes, are thus greatly aggravated. In the OMB's overall chart on the costs and benefits of major regulations, nonquantifiable benefits are at least listed in cursory fashion in an "other information" column. 85 Of course, this "other information" can not be added or subtracted, and it is missing from the net benefits measure entirely. Without this other information, and a lot more consideration of the political, ethical, moral and all other human considerations necessary to truly assess "the overall value of regulation" 86 to society, this net benefits measurement serves no legitimate purpose. What remains is a biased tool, effective only as a simplistic political device, and inappropriate for a "neutral" analysis. Because of its deceptive attractiveness as a sound bite-ready "bottomline," and because of taxpayer resources expended to create it, the net benefits measure should be discarded.

1. OMB's net benefits approach is a misguided distortion of the values that should drive protective policy.

The draft report asserts that "last year's report also suggested that a theoretically superior measure" of regulation would be net benefits. This sentence is literally true; the 2004 Report did suggest that, with absolutely no support for the assertion. Though unexplained assertions like this

^{85.} Draft Report, supra note 2, at 12-22 Tbl.1-4.

^{86.} Id. at 36.

^{87.} Id.

^{88.} See 2004 Final Report, supra note 21, at 49. If this is only meant to be in comparison with other possible, and laughable, measurements of the overall value of regulation listed on the previous page, the "number of new Federal rules, the number of pages in the Federal Register devoted to new Federal rules, the number of new 'economically significant' rules and the number of full-time equivalent staff at regulatory agencies," the assertion of superiority becomes more defensible.

one are par for the course in the OMB's analysis, something more is required in a serious report on the value of regulation. In reality, net benefit is a poor and misleading measurement of the overall value of regulation to society that says nothing about the unmet needs of our country.

Net Benefits ... Benefits

Though perhaps OMB and the Bush administration are hoping that the *net benefits* figure will be interpreted as *benefits* created, the two are very different. Net benefits have very little relation to the overall levels of benefits of new regulation. Rather than reflecting actual new benefits created, the measurement allows dramatic overall reductions in the aggregate benefits level to be hidden in footnotes, as evidenced by the treatment of the year 2001 in this report. That year, the Bush administration created no new benefits through health, safety and environmental protections in major rules. In fact, during 2001 the Bush administration and a Republican led Congress repealed an important new ergonomics rule that was ten years in the making. Because OMB chose unacceptably not to note the loss of the rule's projected benefits when the rule was repealed, the net benefits for 2001 remain positive when they should instead be *negative*. While this sleight of hand may reflect an understandable political desire by an anti-regulatory administration to minimize *what it has not done* to improve health, safety and environmental protections for the American public, it is not justifiable in a report purporting to be a neutral analysis of the overall benefits of regulation.

Net Benefits ... Optimized Benefits

The measure reflects OMB's narrow-minded objective of "economic efficiency" instead of maximizing benefits and health, safety, and environmental protections. But even in the world of the OMB, where important distributional effects of regulation are to be completely ignored, the preference for maximizing net benefits, rather than benefits, works as a one-way rachet always in favor of the industry to be regulated. If the goal were to optimize benefits from a societal perspective (efficiency), with no consideration of distribution, then the goal would not be to maximize the net positive difference between benefits and costs; instead, whenever benefits exceed costs and there are more benefits to be had, then more stringent regulations should be called for until costs *equal* benefits and the net is zero. Because of these initial, theoretical problems, even given OMB's questionable primary goal of efficiency, the claim for net benefits as "theoretically superior" must be more adequately explained.

By aggregating the net benefits measure to all new major rules propagated by all Federal agencies, OMB further subverts what should be the ultimate concern for policy makers, i.e. maximizing benefits and protecting American workers, consumers, and citizens. This aggregation results in irrelevant combinations of numbers that can have little meaning to policy-makers

^{89.} Draft Report, supra note 2, at 38 Figure 2-2.

^{90.} Id. at 36.

^{91.} OMB Circular A-4, September 17, 2003, at 2 (hereinafter "Circular A-4").

considering individual rules. What can a Reduced Vertical Separation Minimum in domestic airspace⁹² have to do with whether or not there is a need for more stringent for the prevention of Mad Cow disease in the United States⁹³ (unless combined with a proposal that the airline industry should use its savings to pay for better feed inspection and control)? The wide range of estimates and assumptions used by the various agencies and the OMB are combined to form one ultimate number that can have little practical meaning for policy-makers.

2. OMB's net benefits discussion is a misleading distortion of this administration's record of hostility to public protections.

OMB is apparently intending to mislead the public with this discussion of the comparative net benefits of recent administrations, because all its caveats about the significant problems of its measures are conveniently buried. At the very end of the net benefits section, the report admits that "aggregate estimates of costs and benefits derived from different agency's estimates and over different time periods are subject to methodological inconsistencies and differing assumptions." It further admits that "since more major rules had cost estimates than benefit estimates, it is likely that benefit estimates are understated relative to the cost estimates." Maybe OMB has faith that all these caveats, which would seem to a careful observer to call into question the whole enterprise, will follow the bottom-line net benefits figure whenever cited by a policy-maker, politician, or in the media. That is unlikely. The bottom-line number will undoubtably be more effectively utilized for simplistic, political comparisons across administrations.

This suspicion that the ultimate intention is for the measure to be an inappropriate political scorecard is reinforced by the case of OMB's handling of OSHA's ergonomics rule. The rule, which OSHA estimated to have annual benefits of approximately \$9.1 billion, ⁹⁶ was issued on November 14, 2000 and repealed by Public Law 107-5, signed by President Bush on March 20, 2001. ⁹⁷ This rule, which was never actually implemented, is counted in the OMB figures as a \$4.8 billion cost in 2000 (the last year of the Clinton administration) and a \$4.8 billion cost savings in 2001. This accounting, for a rule that never actually imposed any costs on American society (it was to go into effect in the fall of 2001), reflects the logical bankruptcy of analysis that only counts the costs and benefits of new regulations the year they are issued.

^{92.} Draft Report, supra note 2, at 21 Tbl.1-4.

^{93.} Id. at 12 Tbl.1-4.

^{94.} Id. at 39.

^{95.} Id. at 38.

^{96.} OSHA, Dep't of Labor, Proposed Rule: Request for Comments, Nov. 23, 1999 (available online at http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=FEDERAL_REGISTER&p_id=16305).

^{97.} Draft Report, supra note 2, at 36.

Not content with that initial failure, OMB goes further. Not only does the report count almost \$5 billion against the Clinton administration in 2000 and subtract the same \$5 billion for the Bush administration in 2001, it excludes entirely OSHA's estimate of \$9.1 billion in benefits from both years (as benefits in 2000 and lost benefits in 2001).

This exclusion, which would have enormous implications for the bottom-line net benefits numbers for both administrations, is justified in yet another brief footnote: "We did not include benefits for the ergonomics rule because of the speculative nature of the estimates and the difficulty of determining the cause and/or mitigation of the great majority of ergonomics injuries." Many of the benefits of many regulations are indeed very difficult to count, which is the major problem with the enterprise of cost-benefit analysis. But for the OMB to throw up its hands and ignore completely the agency's estimation of the dramatic benefits of the rule, including increased worker productivity and reduced health costs for 3 million work-related musculoskeletal disorders, is unacceptable without further analysis and justification. And this is worse than ignorance—apparently we, and any policymaker trying in good faith to find use for this report, are to take the net benefits figure to mean that all of the benefits that OSHA did actually monetize are worth exactly \$0. The measure is absurd. The \$9.1 billion, or a serious new attempt at counting the benefits of the rule, should be included as an addition to the benefits in 2000 and as lost benefits in 2001, or else the costs of the unimplemented rule should be excluded altogether.

The treatment of the ergonomics rule indicates that the net benefits analysis, touted as a neutral tool for policy makers, is in practice intended as a biased, distracting, and political scorecard pitting one administration against the previous one. In fact the report trumpets that the net benefits figure "shows that the Bush (43) administration issued regulations with net benefits over its first 44 months at a yearly average rate that is more than double the rate of net benefits produced by the regulations issued during the previous administration." If the \$9.1 billion in estimated benefits of the ergonomics rule were included in both years as the costs are, this assertion would be entirely undermined. Of course, that would leave the Bush administration with a very large and embarrassing dip into the red in its own net benefits figure.

The assertion of the Bush administration's efficacy is also is undermined by a central reality of agency rule-making, which is a process that often takes years. OMB admits as much on page 39 of the Draft Report: "the groundwork for the regulations issued by one administration are often begun in a previous administration." Such is the case with the EPA's nonroad diesel engine rule, implemented in 2004, which accounts for by far the bulk of the Bush administration's net benefits to this date. Again, this fact is relegated to a footnote: "the groundwork for EPA's nonroad diesel engine rule was set by the NAAQS rules issued in 1997." 100

By massaging a particular set of numbers, leaving out the ones that they really don't like, and relegating important information like this that refutes the unsupportable claim of the Bush

^{98.} Id. at 37 n.33.

^{99.} *Id*. at 38.

^{100.} Id. at 39 n.34.

administration's efficacy to footnotes, OMB may hope the American public instead takes notice only of the bottom-line net benefits measure. But taxpayer and government resources are much better spent than on simplistic, biased, and political scorecards such as this. The baseline for measuring "the overall value of regulation" to society should not be the Clinton administration anyway. It should rather be what is necessary and effective for addressing the unmet needs of society for health, safety, and environmental protections.

B. OMB's net benefits measures build errors on top of errors.

The net benefits aggregation aggravates the problematic assumptions and biases of cost-benefit analysis in general. OMB's blindness to distributional effects (at least when not in industry's favor) is one of the many problems and assumptions that plague cost benefit analysis in general and are subsumed in the simplistic total of the net benefits measurement. Any time a number is chosen—whether it is a monetary value of a statistical life, the amount by which to discount benefits that accrue in the future, or whose estimate of probable costs will be used and why—a subjective judgment must be made. Any time the determination is made that an unquantifiable benefit or cost is to be left out entirely, a non-neutral choice is made. Because the net benefits figures further reduce the information presented and further cloud the assumptions that, as OMB admits, "necessarily go into their construction," all the underlying problems of cost-benefit analysis are made worse, and the claim of transparency that advocates make for cost-benefit analysis is further undermined. As OMB has yet to fully confront and justify the questionable and consistently anti-regulatory assumptions it continues to make, some time spent reiterating them again is in order.

While many regulations may and do produce numerous benefits that can easily be quantified and even monetized, in reduced health care costs or increased productivity, for example, many benefits are extremely hard or impossible to quantify. OMB acknowledges this possibility, at least, as in this year's report for rules that implement homeland security programs. But the OMB's generally aggressive insistence that numerical and monetary values be wrestled upon benefits that aren't normally conceived of by people (at least non-economists) in monetary terms strains our democratic and moral values, and often logic. Cost-benefit analysis has produced some results that most people would find reprehensible:

 An analysis of the cost of smoking, undertaken while states were in litigation against tobacco companies, suggested that states might want instead to subsidize smoking because of the savings it generates.¹⁰³ Government saves

^{101.} *Id*. at 4.

^{102.} *Id.* at 3.

^{103.} W. KIP VISCUSI, CIGARETTE TAXATION AND THE SOCIAL CONSEQUENCES OF SMOKING 47 (Nat'l Bureau of Econ. Research, Working Paper No. 4891, 1994), available at http://papers.nber.org/papers/w4891.pdf; see also Frank Ackerman & Lisa Heinzerling, Pricing the Priceless: Cost-Benefit Analysis of Environmental Protection, 150 U. Pa. L. Rev. 1553, 1554 (2002).

money in health and Social Security costs, for example, because smokers die comparatively young.

- Some economists suggest that the monetary value that mothers place on their children can be assessed by counting the amount of time, and thus opportunity costs, those mothers take or don't take to buckle their children's seatbelts.¹⁰⁴
- Others believe that the costs that society should reasonably incur to prevent deaths are best considered taking into account the relative ages of victims. Less money should be spent preventing the deaths of the elderly.¹⁰⁵
- And a recent review of some of the most important and effective regulations in the United States, the removal of lead from gasoline, the regulation of exposure to vinyl chloride, and the decision to not dam the Grand Canyon for electricity, finds that all would have failed to pass cost-benefits analysis prior to implementation. 106

If these are the results that cost-benefit analysis gives us, one questions why we'd want to employ it at all. The problems with cost-benefit analysis are inherent to the methodologies that produce what pose as estimations of the benefits and costs of regulation.

1. The methods and assumptions used to estimate the benefits of regulation consistently underestimate or exclude them altogether.

The first of the many assumptions that the OMB and other proponents of cost-benefit analysis make is that humans behave ultimately as *homo economicus*, that we all are "rational" wealth-maximizing consumers in all of our behavior. If this assumption were in fact true, the idea that all benefits should be monetized to the limits of possibility makes a certain amount of sense. But humans act in many roles, as citizens, family members, friends, lovers, worshipers, and activists as well as consumers, and we may make decisions, even financially detrimental ones, that stem from the values that define these roles. These observations are common sense, and they are supported as well by extensive research, but they are simply assumed away in cost-benefit analysis.

^{104.} Paul S. Carlin & Robert Sandy, Estimating the Implicit Value of a Young Child's Life, 58 S. ECON. J. 186 (1991); see also Ackerman & Heinzlering, supra note 103, at 1555.

^{105.} For an overview of what's been called the "senior death discount," see < http://www.ombwatch.org/article/articleview/1570/1/134?TopicID=1>.

^{106.} Frank Ackerman, Lisa Heinzerling, and Rachel Massey, *Applying Cost-Benefit to Past Decisions:* Was Environmental Protection Ever a Good Idea?, 57 ADMIN. L. REV. 155 (2005).

Values and Value\$

Ecological and moral concerns that might be the primary purpose of a regulation, like the Endangered Species Act, are generally ignored or relegated to the "other information" column as "ecological and other non-use benefits," as for example they are in the case of standards for cooling water intake structures at large power plants in this year's report. The only benefits that really count in cost-benefit land for that rule are the economic value of increased fish catches to commercial and recreational fisherman. This is common treatment of environmental regulations. The ecological and environmental concerns, the desire to leave future generations with intact natural beauty and resources, and to be good stewards of the Earth, don't count for much unless they can be tied to some kind of economic and (as we shall see in the discussion of discounting, below) relatively *immediate* savings, like ecological tourism, or increased fish catches.

The assumption that we all act as wealth-maximizing, atomistic consumers also ignores many of our more collective aspects and motivations. The studies that economists use to derive a monetary value of human life, for example, are based on what individuals are supposedly willing to pay, or willing to accept, for reductions in the risk to their own lives. No consideration is given for the value we place on the lives of others. The existence value we feel for people we will never meet is ignored. Also ignored is the fact that while we often do act a certain, "rational," and self-motivated way as individual consumers, we act very differently when social values are at stake and collective action is required to address certain issues. We are often pulled in different directions at the same time, as was the case for students who viscerally opposed a plan for the development of a pristine wilderness area in Sequoia National Park into a ski resort, but unanimously planned to use it if it was. Asking the students what they would have done as individual consumers would have missed the heart of the issue, that collective, political action was required to stop the development.

Quantifying and commodifying these values is not only difficult; in many cases, the attempt to commodify certain values goes directly against human nature. A survey of the behavior of litigants after judgment in nuisance cases found both winners and losers strongly resisted commodifying their rights. And best attempts to commodify love, for example, remain illegal in all jurisdictions in the United States except for several counties in Nevada. The choice of cost-benefit analysis to consider one aspect of what motivates people and not the others is not neutral, and it has a great effect on the outcome. The draft report proffers net benefits to be a measure of the "overall value of regulation . . . benefits to society minus costs to society." When all other ecological, ethical, moral, familial, and social values are ignored in the final number, it is a very bad measure indeed.

^{107.} Draft Report, supra note 2, at 21.

^{108.} Mark Sagoff, We Have Met the Enemy and He is Us, or Conflict and Contradiction in Environmental Law, 12 ENVTL. L. 283 (1982).

^{109.} Ward Farnsworth, Do Parties to Nuisance Cases Bargain After Judgment? A Glimpse Inside the Cathedral, 66 U. CHI. L. REV. 373 (1999).

^{110.} Draft Report, supra note 2, at 36.

Because we don't generally commodify the value of a human life, for cost-benefits analysis of regulations that save lives to work, a figure has to be produced. (OMB, while it will use agencies own estimations when given, imposes its own figure whenever possible. Currently, its favorite number seems to be \$5-6 million. This number is created by transferring figures from studies that attempt to estimate what people will pay, or accept, for incremental reductions in risk of death. Though OMB recognizes in its instructions to agencies on appropriate methodologies for cost-benefits analysis that studies that measure an individual's willingness to accept compensation for increases in risk can provide "a valid measure," It derives its own numbers from willingness to pay figures, in large part because they are "more readily measurable."

The tendency to use willingness to pay figures can have a dramatic effect on the benefits figures produced for evaluating regulation. Not surprisingly, this tendency is to lower the benefits in comparison with costs. As OMB admits "empirical evidence from experimental economics and psychology show that even when income/wealth effects are 'small,' the measured differences between WTP and WTA can be large." The difference can be seen most pointedly in the values you would derive from asking what someone would be willing to pay for you not to poison him, for instance, or for what he would be willing to accept from you for you to have the right to poison him. What he would be willing to accept would be infinite; what he is willing to pay is limited by what he is able to pay.

The use of transferred figures from willingness to pay studies ignores differences that people have in their perception and treatment of different types of risk, and it is inconsistent with the free market principles that cost-benefit analysis is supposed to espouse. Analysts attempt to simulate market prices for markets (in human life and risk) that do not exist from limited studies of how much more workers are paid for higher risk jobs, for instance, or for what consumers pay for products with lower risks. Beyond the many methodological problems in these studies themselves, the attempt to transfer from them figures that can be used to value benefits from regulation on a societal level ignores the subjective differences that various risks may pose. If some individuals do bargain for increased pay for greater risk in the workplace, the that pay differential cannot tell us how society should value risk for *everyone* without ignoring the fact that other people might be more risk averse. Should workers who take high risk jobs, assuming they bargain with enough freedom in the first place, determine the value of risk for everyone in society? There is strong evidence that "indicates that most

^{111.} *Id*. at 65.

^{112.} This calculus, deriving a statistical value of life from valuations of low levels of risk, ignores in practice the distinction between the actual loss of life and the risk of loss of life.

^{113.} Circular A-4, at 18.

^{114.} *Id*. at 19.

^{115.} Id. at 18.

^{116.} See generally Peter Dorman, Markets and Mortality 51-106 (1996).

people regard risks quite differently, depending on such factors as the type of risk and the degree of personal autonomy in bearing it."¹¹⁷

Moreover, many of the risks that regulations attempt to alleviate, such as from toxic chemicals, are not freely undertaken. People tend to perceive of these non-voluntary risks much more negatively than voluntary risks. To transfer values for risk from limited studies of greatly differing types of risk and objectively impose them on all types for all people is in considerable conflict with the free market principles of choice and consumer sovereignty that supposedly justify cost-benefit analysis as mimicking the free market.

Creating monetary values for all specific types of risk that any regulation is meant to address would of course be very expensive. This objective imposition of transferred values is also necessary, because the logic of willingness to pay, if followed through to its logical conclusions, would also dictate that the lives of wealthy people are worth more than those of the poor. Willingness to pay depends upon the ability to pay. Needless to say this equity consideration poses real questions for democracy, fairness, and justice for all of society, and should not be dealt with in some OMB circular. The only way to rectify the democratic and consumer sovereignty issues is to insist on willingness to accept measures for particular risks. If OMB instead truly embraces the strained logic of willingness to pay figures, it should make this decision explicit and not rely on the mere defense that willingness to pay figures are "more readily measurable."

Discounting

The practice of discounting benefits is also skewed against regulation. ¹¹⁹ Cost-benefit analysis insists on discounting the value of future benefits in a strained analogy to the practice of discounting the future value of money. Discounting, very briefly, is the calculation of the present value of a future sum of money. This is not controversial when used by an investor in choosing between different investment opportunities. Many regulations we enact today are meant to create benefits that accrue far into the future. Costs are often incurred more immediately. When one begins to choose figures for the appropriate rate at which we discount future lives, which is essentially what happens when cost-benefit analysis creates a money figure for the value of a human life, moral and democratic questions arise that are beyond the pay grade of OMB. How much are lives saved in the future worth versus lives saved today? How many lives of our grandchildren must be saved for us to spend money on health and environmental protections today? In cost-benefit analysis, these questions hinge on the discount rate we choose. The difference between 3% and 5% and 7% and 10% can have an enormous effect on how great we count the benefits of protections. OMB likes 7 percent. ¹²⁰ Why? —because

^{117.} Id. at 60.

^{118.} See Paul Slovik, Perception of Risk, 236 SCIENCE 280 (1987).

^{119.} For a more in depth critique of the rationales and problems of discounting regulatory benefits in general, and the high discount rates the OMB uses, see, Lisa Heinzerling, *Discounting Our Future*, 34 LAND & WATER REV. 39 (1999).

^{120.} Circular A-4, p33.

7 percent is an estimate of the average before-tax rate of return to private capital in the U.S. economy. That sounds nice, hiding the arbitrary nature of the choice: lives, unlike capital, can not accrue interest. Individuals can't put life in the bank and come out with 1.2, or 1.6 lives because of particularly efficient regulatory choices.

Discounting also obscures the inter-generational effects of regulation. Regulation, especially environmental regulation, is often preventative in purpose, and many of the benefits may accrue for our children and grandchildren. The costs often must be incurred now, both because environmental improvements can take years to pay off and because of the irreversible nature of many of the harms the regulations are meant to prevent. Discounting, especially at the relatively high rate the OMB has chosen, amounts to a short-sighted elevation of our individual, consumer selves to an absurd level. Thankfully, this is not reflective of how people act in their actual lives. Ask any grandparent, or parents who spend money on long-term investments like education. This should not be how we evaluate important matters of national policy.

2. The methods and assumptions used to estimate costs of regulation tend to exaggerate them in comparison with benefits

Numbers for monetary costs for regulation, on the other hand, are comparatively easy to come by, especially as the industry to be regulated is usually more than happy to supply their own. These figures are often overstated; ¹²¹ information on them is poor; and verification is difficult because industries often insist on confidentiality. ¹²² There are many other methodological problems and questionable assumptions, in the OMB's cost counting, and there is as striking a tendency to inflate the costs of regulations as there is to deflate the benefits.

OMB and regulatory agencies often use a baseline for assessing the costs of new regulations—not of what is already mandated by law, but the "no action" status quo, ¹²³ which frequently involves an industry very much out of compliance. ¹²⁴ This choice has the effect of ignoring congressional intent for regulation and rewarding companies for breaking the law. Ruth Ruttenberg reports on many other problems in cost counting for regulations, such as the following:

- inclusion of expenditures to fix problems before the promulgations of regulations,
- using estimated maximum costs rather than mean compliance costs,
- double counting for regulatory compliance already mandated by other regulations, and

^{121.} See Ackerman & Heinzerling, supra note 103, at 1580.

^{122.} RUTH RUTTENBERG & ASSOCS., supra note 37, at 3-4.

^{123.} Circular A-4, at 2.

^{124.} See generally RUTH RUTTENBERG & ASSOCS., supra note 37.

• failure to consider savings from avoided tort liability cases that might be avoided by meeting the standards mandated by regulation. 125

Regulatory analysis is also generally static. 126 Cost estimates fail to envision future technological improvements that will make compliance much cheaper. Often, the part of a new product cost that is attributable to compliance and separable from regular processes and functions is difficult to ascertain. However, when providing data on expected costs of regulation, companies tend to dump in any figures they possibly can, skewing the resulting cost-benefit analysis against regulation.

The use of cost estimates in policy decisions, particularly when used in net benefits measures to lower the worth of a regulatory protections, ignores another crucial equity consideration: not all costs have the same moral or ethical value. Some regulatory costs represent the cost to industry of what it should have done as a good corporate citizen in the absence of regulation. Increased profits earned by a corporation dumping hazardous toxic waste, or by an auto company aware that strengthened car roofs are key to preventing injuries and saving lives in rollover crashed all the while telling government and public the opposite, ¹²⁷ do not in reality accrue to the people who died in rollover crashes, or later develop cancer. These people did not knowingly choose these increased risks, imposed by industry. Ignoring the distribution of costs and benefits thus ignores human nature and what might be most important about regulatory protections. Because of its failure to insist on baselines of legal mandates or ethical and moral behavior, the only world in which cost-benefit analysis could truly claim to be neutral is a depraved one in which life is cheap, future life is cheaper, and law is what you can get away with. Thankfully most of us don't conceive of the world that way, and the OMB should stop pushing us toward that reality.

C. The deeply flawed net benefits discussion has no place in OMB's report to Congress.

The net benefits measure is misleading and misguided, and it exacerbates all the methodological problems already inherent in cost-benefits analysis. Net benefits measures are not useful for assessing the social values of regulations. They are not even "theoretically superior" to the bankrupt methodologies OMB already uses. Rather than further waste taxpayer resources, OMB should discard the measure and abandon it in future reports.

127. See Press Release, Public Citizen, "New Report on Auto Insudtry Data Shows Automakers Misled NHTSA and Public When Deniying Link Between Roof Strength and Injuries" (March 30, 2005) [available online at http://www.citizen.org/pressroom/release,cfm?ID=1909].

^{125.} Id. at 16-20.

^{126.} Id. at 23.

IV. WHEN CONSIDERING VALIDATION STUDIES, OMB MUST NOT STACK THE DECKS AGAINST PUBLIC PROTECTIONS.

It is gratifying that OMB has finally heard the complaints from the public interest community that agencies' *ex ante* estimates of the costs to industry of complying with proposed regulations are consistently overblown. The result—the section of OMB's report discussing validation or look-back studies that compare *ex ante* estimates and *ex post* results—does not, unfortunately, inspire confidence that OMB will be moving in the right direction. OMB has provided a skewed bibliography of existing look-back studies that excludes most of the rich literature on this subject and includes studies of dubious merit.

A. OMB is distorting the record with a limited and biased sampling of look-back studies.

OMB appears poised to draw all the wrong conclusions from the research, because it appears not to have selected the full range of available research. Given the rich body of research available already, particularly with regard to systematic overstatement of cost estimates in OSHA rulemakings, it makes no sense for OMB to present a bibliography concentrating almost entirely on NHTSA rulemakings, unless OMB-OIRA chief John Graham is planning to draw on his years of experience in opposing auto safety regulation. The following studies are conspicuously absent from OMB's minibibliography of look-back studies; many of these glaring omissions have been brought to OMB's attention before. OMB should do its homework and incorporate the findings of these studies in its final report:

- Nicholas A. Ashford & Charles C. Caldart, *Technology, Law, and the Working Environment* (Island Press, 1996).
- Eban Goodstein, "Polluted Data," *American Prospect*, Nov.-Dec. 1997, at 64, *available at* http://www.prospect.org/web/page.ww?section=root&name=ViewPrint&articleId=4757>.
- Eban Goodstein, The Trade-Off Myth: Fact and Fiction About Jobs and the Environment (Island Press, 1999).
- General Accounting Office, Environmental Protection: Assessing the Impacts of EPA's Regulations Through Retrospective Studies (Rep. No. GAO/RCED-99-250, 1999), available at http://www.gao.gov/archive/1999/rc99250.pdf>.
- Thomas O. McGarity & Ruth Ruttenberg, "Counting the Cost of Health, Safety, and Environmental Regulation," 80 *Texas L. Rev.* 1197 (2002).

^{128.} See Heinzerling & Ackerman, supra note 16, at 9.

- Office of Tech. Assessment, U.S. Cong., Gauging Control Technology and Regulatory Impacts in Occupational Safety and Health: An Appraisal of OSHA's Analytical Approach (Rep. No. OTA-ENV-635, Sep. 1995), available at http://www.wws.princeton.edu/~ota/disk1/1995/9531 n.html>.
- Ruth Ruttenberg & Assocs., Not Too Costly, After All: An Examination of the Inflated Cost-Estimates of Health, Safety, and Environmental Protections (Public Citizen, Feb. 2004), available at http://www.citizen.org/documents/ACF187.pdf>.

Many of the findings from the studies listed above are summarized in Appendix A to these comments.

Moreover, in the course of preparing the major study listed above, the now-defunct Office of Technology Assessment contracted original research papers that do precisely what OMB envisions: compare actual *ex post* compliance costs with an agency's *ex ante* estimates. Given that the American taxpayer has paid for these reports, OMB should consult them before spending money on new studies. The reports are as follows:

- Mark A. Boroush, "Hazard Control Responses and Economic Impacts in Selected OSHA Health and Safety Standards: Expectations vs. Outcomes" (July 1995)
- —, "OSHA's 1984 Ethylene Oxide Standard: Retrospective Evaluation of the Rulemaking's Feasibility/Impact Estimates" (Mar. 1994)
- —, "OSHA's 1978 Cotton Dust Standard: Retrospective Evaluation of the Rulemaking's Feasibility/Impact Estimates" (Jan. 1994)
- —, "OSHA's 1974 Vinyl Chloride Standard: Retrospective Evaluation of the Rulemaking's Feasibility/Impact Estimates" (Nov. 1993)
- David Butler, "OSHA's Brethren: Safety and Health Decisionmaking in the U.S. and Abroad" (Sep. 1995)
- Charles Rivers Assocs., "Economic Impact Analysis of OSHA's Rulemaking Process: Lead Case Study" (Apr. 1994)
- Robert Goble & Dale Hattis, "When the Ceteris Aren't Paribus: Contrasts Between Prediction and Experience in the Implementation of the OSHA Lead Standard in the Secondary Smelting Industry" (July 1995)
- Molly K. Macauley & Paul R. Portney, "Comparing Expected and Actual Economic Impacts of OSHA Safety Regulation: A Case Study of the Use of Alternative Stabilization Systems for Powered Platforms" (Feb. 1994)

- —, "Comparing Expected and Actual Economic Impacts of OSHA Safety Regulation: A Case Study of Presence Sensing Device Initiation for Mechanical Power Presses" (Jan. 1994)
- James C. Robinson, "The Impact of Environmental and Occupational Health Regulation on Productivity Growth in U.S. Manufacturing" (July 1994)
- Ruth Ruttenberg, "Compliance With the OSHA Grain Handling Rule: Safety Measures Save Lives and Dollars" (June 1994)
- Robert F. Stone, "An Evaluation of OSHA's Resources for Regulatory Analysis" (Mar. 1995)
- —, "A Retrospective Analysis of the Economic Impact on Foundries of OSHA's 1987 Formaldehyde Standard" (Aug. 1994)
- —, "A Preliminary Examination of OSHA's Analytical Approaches for Estimating the Compliance Costs and Other Economic Impacts of Regulation" (Mar. 1994)
- —, "Three Case Studies of OSHA's Regulatory Impact Analysis in Support of Recent Rulemaking" (Feb. 1994)

Finally, OMB should eliminate two deeply flawed studies from its list: a piece published by the industry-funded think tank AEI-Brookings, ¹²⁹ and one co-authored by John Graham and other researchers at the industry-funded think tank Harvard Center for Risk Analysis. ¹³⁰

AEI-Brookings Study

The industry-funded AEI-Brookings Joint Center for Regulatory Studies published a paper by Si Kyung Seong and John Mendeloff that purports to assess the accuracy of OSHA's pre-regulation estimates of the benefits from proposed safety standards. Although the authors purport to have discovered that OSHA overestimates the benefits of its safety rules, one caveat to their findings calls into doubt the generalizability of their conclusions: "We are not able to distinguish here between overestimates due to lack of compliance and overestimation due to the overstated effectiveness of the standard." In other words, they cannot determine if OSHA truly did overestimate the benefits to be provided by safety standards, because they cannot weed out the number of cases in which

^{129.} See SI KYUNG SEONG & JOHN MENDELOFF, ASSESSING THE ACCURACY OF OSHA'S PROJECTIONS OF THE BENEFITS OF NEW SAFETY STANDARDS (AEI-Brookings Jt. Ctr. for Reg. Studs. Regulatory Analysis No. 03-8, July 2003), available at http://aei-brookings.org/admin/authorpdfs/page.php?id=277.

^{130.} See Kimberly M. Thompson, Maria Segui-Gomez, & John D. Graham, Validating Benefit and Cost Estimates: The Case of Airbag Regulation, 22 RISK ANAL. 803 (2002)

^{131.} SEONG & MENDELOFF, supra note 129, at Exec. Summ.

employers simply failed to obey the standards. The standards themselves might well be as beneficial as OSHA anticipated; they only need to be fully implemented for us to know.

Additionally, the authors appear to have gone out of their way to alter the sample of rules they examined in order to increase the probability of finding a variance between *ex ante* benefits estimates and actual *ex post* benefit results. The authors

- started with all safety rules promulgated since 1990 (thus starting with eleven rules),
- then whittled away the three most recent, making the sample those rules issued between 1990 and 1996 (and bringing them down to eight rules total), 132
- then eliminated two which were projected to prevent small numbers of deaths every year (leaving now six rules), ¹³³
- and finally excluded yet another rule because the number of deaths to be prevented represented "only about a 15% reduction" from the baseline number of deaths per year.¹³⁴

All the way from eleven to five. The authors concede that the "omission of these [last] 3 standards and the focus on standards with relatively large projected effects may make it less likely that [they would] find cases where the effects are underestimated."¹³⁵ The fact is that they have so thoroughly manipulated the universe of cases studied that they appear to have rigged the facts in order to reach a conclusion of the sort that AEI-Brookings is always looking to publish.

This study appears to have been biased at the outset to reach a conclusion counseling against reasonable protections of the public interest. It should therefore be excluded from the final report.

HCRA Study

Public Citizen's comments will more fully detail the problems of the Thompson/Graham article purporting to compare *ex ante* estimates and *ex post* benefits in the case of air bags in automobiles. The key problem is that Thompson and Graham are misattributing the deaths caused by the first wave of air bags to the National Highway Traffic Safety Administration's failure to estimate benefits accurately, without accounting for the intervening malfeasance of the automakers. People who died from air bag deployment in the period Thompson and Graham study "were killed by cut-rate air bags

^{132.} *Id*. at 3.

^{133.} Id.

^{134.} Id. at 4 (emphasis added).

^{135.} *Id*.

that manufacturers installed years ago to save money" even though technology had existed for years that could have prevented injury to children and small-statured adults in low-speed crashes. ¹³⁶ Automakers could have used but failed to use technology such as "dual-inflation air bags (which inflate at lower intensities in low-speed crashes while inflating at higher intensities to protect occupants involved in high-speed crashes); top-mounted, vertically deploying air bags; telescoping steering columns; pedal extenders for shorter drivers; deep-dish steering columns that move the air bag away from the occupant; air bag suppression; tethers to control air bag extension; higher thresholds for deployment; and energy absorbing structures." ¹³⁷ If anything, this study makes the case for exactly the kind of "command-and-control" that OMB dismisses, instead of the "flexibility" that OMB irrationally embraces.

Moreover, the Thompson/Graham article depends on data from an earlier article by Graham. Those data are highly questionable. As Public Citizen has observed, Graham's study "failed to distinguish between different models of air bags and types of air bag release systems—a failing which threatens the validity of the results because, for example, top-mounted, vertically deploying air bags hit the windshield before impacting with occupants and had not caused *any* fatalities at the time the study was completed." ¹³⁸

The Thompson/Graham article is a flawed study built upon yet another flawed study. It should removed from the list in the final report.

B. OMB can and must take steps to avoid any further distortions of the record.

OMB implies that it is considering conducting further studies (or contracting with others) to add to the rich literature identified above. OMB should first avail itself of the rich array of material already identified above, much of which the American taxpayer has already paid for. Any additional studies should avoid the kinds of methodological problems with which John Graham and John Morrall are already familiar, if they are to be worth spending taxpayer dollars. They should above all be empirical, conducted with the rigor of any credible disinterested social science inquiry, provided however that they fully account for the methodological challenges identified by the GAO in its 1999 study, in which it concluded that industry ledger books simply do not account for costs attributable to regulations.

Any additional validation studies ordered by OMB should also be conducted by disinterested and independent scholars. OMB's call for comments on individuals and organizations well positioned to conduct such studies is a worthwhile occasion to advise OMB on sources it should avoid:

^{136.} Public Citizen, Why the Auto Industry Fought a 30 MPH Air Bag Standard: To Avoid SUV Redesign, May 5, 2000, available at http://www.citizen.org/print_article.cfm?ID=6009>.

^{137.} Id.

^{138.} See MACCLEERY, supra note 9, at 61.

- Harvard Center for Risk Analysis: Although housed in the Harvard School of Public Health and accordingly granted the prestigious Harvard name, HCRA is not held in high esteem as a source of disinterested scholarly inquiry. Instead, it is an industry-funded think tank, with a checkered history of taking big donations from big corporations and producing studies that support industry positions against strong protections of the public interest. HCRA's interest in the anti-regulatory positions of corporate special interests has been exhaustively and carefully documented in the Public Citizen report Safeguards at Risk. HCRA's independence from the White House is also questionable, given that HCRA founder John Graham heads OMB's Office of Information and Regulatory Affairs. Neither HCRA nor any "scholar" affiliated with HCRA should be permitted to take taxpayer money for new validation studies.
- <u>Mercatus Center:</u> The Mercatus Center is another industry-funded think tank. As befits an organization whose name means "market," Mercatus has pushed aggressively for deregulation. Mercatus's obvious bias against regulatory policy in the public interest should preclude the organization and its affiliated "scholars" from contributing to OMB's quest for new look-back studies.
- <u>AEI-Brookings Joint Center for Regulatory Studies:</u> AEI-Brookings is yet another industry-funded think tank that appears to specialize in producing reams of paper dedicated to the arguments that the public is irrational in its desire for public protections; that it is acceptable to view potential protections from the perspective not of a culture of life but, instead, of a culture of cash; and that regulatory policy is a blight to be cured by the most noxious of tonics. Neither AEI-Brookings nor its affiliated scholars should be entrusted with any commission for conducting look-back studies.
- <u>National Academy of the Sciences:</u> The NAS is the nation's premier scientific authority, but recent revelations undermine confidence in its ability to conduct a completely disinterested assessment with sufficient independence from the political interventions of the White House. Although required to ensure that its advisory panels are balanced, the NAS has repeatedly stacked panels about the need for regulation with representatives from the very industries that would be regulated. Aside from questions of disinterestedness, the NAS is also vulnerable to questions about its independence from the White House. The NAS has recently been revealed to have allowed White House political

^{139.} One example of a problematic NAS panel is the Committee to Study Mine Placement of Coal Combustion Wastes, which is charged with addressing the environmental consequences of dumping toxic wastes in mines. Nearly half of the provisional panel consisted of individuals with clear ties to the mining and utility industries, but only one scientist who has documented damage from CCW was appointed. Membership on this panel was later adjusted, after the biased composition was exposed in the press. Other recent panels that the NAS stacked with biased industry representatives include a committee to investigate the health consequences of perchlorate ingestion and one assessing plants genetically modified for pest protection. Get more information online at http://www.ombwatch.org/article/blogs/entry/250/18.

appointees to edit or suppress NAS scientific assessments of important topics with high stakes for the public interest. ¹⁴⁰ Until these questions can be addressed more systematically, it makes sense to avoid empaneling the NAS to conduct new look-back studies.

Finally, OMB should examine the extensive taxpayer resources already expended on look-back studies, consider the rich literature already existing on this topic, and conclude that any new studies should be considered expendable extras. In no case should any new studies, as welcome as they may be, divert agency budgets away from the agencies' vital missions to protect the public. Agencies such as OSHA, FDA, and EPA are already straining to meet the public's needs given reduced budgeting and the White House's aversion to public protections. One agency, OSHA, appears to have abandoned its mission altogether. Any new studies should come from new resources, such as OMB's own budget, and not from the limited budgets of the agencies; agency budgets should instead be dedicated to the more important goal of protecting the public.

V. THE REGULATORY PROCESS NEEDS REFORMS TO STRENGTHEN AND NOT WEAKEN PUBLIC PROTECTIONS.

Although it seems premature from the limited bibliography of validation studies OMB provides, OMB has invited the public to comment on regulatory reforms that follow from our improved knowledge about the costs and benefits of regulations. Given the body of knowledge that we do have already, which is much larger than OMB's micro-bibliography, we can safely conclude that regulatory protections of the public interest serve not just the public interest goals that regulations are intended to target but also the economy itself. Regulatory safeguards help America; we should therefore embrace reforms that make it easier for the federal government to develop new protections of the public interest and strengthen the protections we do have, and we should accordingly reject any reforms that would constrain regulatory policy.

A. OMB and Congress should adopt reforms that facilitate rulemaking in the public interest.

Given what we know and what we are likely to learn from an inquiry into the literature validating cost and benefit estimates (provided, however unlikely, that the inquiry is above-board and even-handed), we should immediately reform the regulatory process to remove unnecessary roadblocks and cease wasting time and scarce resources on diversionary navel-gazing. OMB has already received numerous suggestions from organizations such as the Competitive Enterprise Institute, the U.S.

^{140.} For example, the NAS allowed the White House to edit a scientific report on the health effects of mercury, with changes that downplayed the risks of mercury, replaced specific enumerations of mercury-related harms with bland, general references, and introduced additional emphasis on uncertainty to make the science of mercury's neurotoxic effects seem less reliable. More recently, the NAS suppressed a scientific assessment of the dairy industry's vulnerability to bioterror, after the administration requested the paper be delayed. More information is available online at http://www.ombwatch.org/article/articleview/2134/1/132?TopicID=1 (mercury); http://apnews.myway.com/article/20050607/D8AJ0COG1.html (bioterror).

Chamber of Commerce, and trade associations, but those suggestions would result in exactly the opposite of what we need: more burden, more delay, and less protection.¹⁴¹ The suggestions in various documents appear to OMB's call for regulatory reform suggestions seems an opportune moment to review some of the anti-regulatory ideas that are circulating and, since they would result in the opposite of what we need, consider the opposite of those suggestions. Listed in no particular order, they look like the following:

1. End imperial power grabs: require congressional review and approval of burdens on the regulatory process.

Unlike the bean counters at OMB, the members of Congress were elected by the people. Congress, not OMB, has democratic legitimacy and constitutional authority to pass laws governing the regulatory process. Congress alone has the power to legislate in the public interest; in cases such as environmental protection and workplace health and safety, in which Congress sees the need for complex solutions to complex problems, Congress delegates broad grants of authority to the agencies, which Congress charges to unite technical expertise and democratic participation in order to develop concrete, specific solutions. Congress delegates that authority directly to the agencies themselves and permits no role for the White House to distort the process with its political interventions.

For too long now, OMB has been arrogating this power unto itself. For example, OMB requires agencies to submit many of their most important proposed regulations for OMB's scrutiny and approval. OMB's performance review process, using the Program Assessment Rating Tool, actually penalizes agencies for following Congress's mandates rather than OMB's preferred policies. In fact, OMB recently penalized the Consumer Product Safety Commission, the Occupational Safety and Health Administration, and the Mine Safety and Health Administration for failing to use OMB's preferred cost-benefit analyses in all their rulemakings, even though they are forbidden by law to do so. 142

Some suggest requiring congressional review and approval as a condition precedent of regulations taking effect. Perhaps congressional review and approval should be a requirement of something else entirely: cost-benefit analysis, OMB review, and any other overlays on top of the APA that delay regulatory protections addressing unmet needs and override decisions made democratically in the halls of Congress.

^{141.} See OMB Watch, Corporate-Conservative Alliance Plots Attack on Safeguards, OMB WATCHER, Apr. 19, 2005, available at http://www.ombwatch.org/article/articleview/2806/1/308?TopicID=1.

^{142.} These examples are only the beginning. There is now no need for more examples: OMB deputy director Clay Johnson was recently asked in a congressional hearing, "[I]s it possible for a program to get a poor rating simply because it does what's required by statute and not necessarily what OMB might like for that program to do?"—and Johnson replied, simply, "Yes." Accountability and Results in Federal Budgeting: Hearing Before the Subcomm. on Federal Financial Management, Government Information & Int'l Security of the Senate Comm. on Homeland Security & Gov't Affairs, 109th Cong. (2005), 2005 WL 1409975 (F.D.C.H.) (colloquy between Sen. Carper and Clay Johnson III).

2. Publish an annual report card of corporate compliance with public protections.

Research has proven—repeatedly proven—the value of our regulatory protections. Corporate-funded think tanks and trade associations have not learned the lessons of that research; insisting that regulations unduly burden corporate profit, they demand such "accountability" measures as report cards grading agencies with anti-regulatory principles in mind. Instead of devoting agency resources to proving the likely success of a proposed regulation within an inch of its life, a policy of sensible safeguards would shift those analytical resources into reports on the scofflaws who prevent the public from enjoying the full measure of protection to which it is entitled. In the spirit of this administration's penchant for risk-based regulation, these reports could target those corporations with the worst records of noncompliance with workplace, environmental, consumer, health, civil rights, and even tax regulations. For a pilot study of these report cards, agencies could focus on a smaller universe of corporate malfeasors, such as those that enjoy federal contracts.

3. Require that agencies catalog benefits but not costs.

We have known for some time now that industry cost estimates are so overblown that they are not reliable for use in policy decisions. Some anti-regulatory position papers actually call for agencies to score costs alone when preparing new regulations and not attempt to assess future benefits at all. Such recommendations may well be the opposite of what we need. Perhaps agencies should spend time informing the public of what really matters in any rulemaking: the level of benefits to be expected from a proposed rule. OMB could advance such a policy by calling on agencies to cease the misleading practice of converting distinct and incommensurable events (such as lives saved, diseases averted, wildlife preserved) into common units, whether dollar values or such absurd inventions as Quality Adjusted Life Years; instead, agencies would provide unmonetized, unconverted catalogs of benefits expected, in rich narratives that adequately convey to the public what is really at stake in a new regulatory protection.

4. Raise the "major rules" threshold.

Anti-regulatory position papers insist that regulations are still too costly and that even more proposed rules should be subject to mandatory OMB review, in order to shore up OMB's role as a gatekeeper charged with keeping the interests of big corporations in mind. Given the established value of regulatory protections, perhaps it is time to conclude exactly the opposite: that too many protections of the public interest are subjected to OMB's scrutiny and additional analytical requirements as "major rules," "significant regulatory actions," and so on. In this light, subjecting rules with projected consequences of \$100 million or more to OMB's reviews and other burdens keep probably efficacious safeguards off the books for too long. The time delay between a rule's proposal and effective date is time that people are continuing, unnecessarily, to die or be harmed. When those delays are caused by OMB's reviews, small business reviews, and the like, the resulting deaths could well be called "statistical murder," with the culpable party being the overpraised and overused practice of cost-benefit analysis. OMB could reduce the risk of having statistical blood on its hands by raising the "major rules" threshold rather than lowering it.

5. Create new exemptions from the "major rules" category.

Additionally, there should be new exemptions from the major rules category for the following kinds of regulations:

- regulations specifically required by statute,
- regulations issued under statutory authority that forbids cost-benefit analysis,
- regulations that protect America's workers,
- regulations that clean the environment, and
- regulations that ensure the public health and safety.

6. Explore analysis budgets: budgets for time and resources devoted to burdensome analytical requirements and extraneous reviews.

We know, from the thorough discrediting of the shoddy pseudo-scholarship that purports to demonstrate the irrationality of regulation, ¹⁴³ that there is no proven need for the enormous resources invested in analyzing every proposed regulation within an inch of its life. We also know that industry's *ex ante* estimates of financial ruin from proposed regulation are really cynical manipulations of the regulatory analysis process; as these cost estimates have assumed an increasingly important role in regulatory policy, corporations have discovered a growing interest in gaming their estimates in order to decrease the likelihood that a proposed safeguard will be enacted. Finally, we have reason to believe that regulations to protect the public interest induce significant unanticipated innovations that ultimately improve corporate operations, save the bottom line, and spur the economy.

Given all the good that regulation offers, there is no need for the regulatory "budgeting" policies proposed by anti-regulatory think tanks. Regulatory "budgeting" would impose fictional budget caps on the amount of costs that an agency can impose on corporations every year; once an agency hits its cap, it would be barred from any more regulation. (Recent calls for regulatory "budgeting" have scaled down in ambition and tend currently to call for pilot studies rather than instantaneous implementation.) The budgeting analogy could be applied more fruitfully to something else entirely: the enormous resources invested in the analyses, such as cost-benefit analysis, SBREFA reviews, and PART assessments, that are born from the irrational fear that protecting the public puts the economy at risk. Given OMB's penchant for calculation of burden hours under the Paperwork Reduction Act and for converting incommensurable entities into fungible units, OMB would surely consider a common monetized unit for the total burden hours invested in analyses as well as the actual direct costs of the analytical requirements and then, of course, impose a cap.

7. Demand corporate disclosure of regulatory costs in corporate filings.

For some, the impulse to curb regulation entails a disclosure imperative: disclose yet more information about kinds of regulatory costs, such as "indirect costs," "transfer costs," and so on, all of which would of course be the focus of yet more analytical burden. Belief in the value of public protections might entail an altogether different disclosure imperative. Although it seems unlikely,

^{143.} See text accompanying notes 9-15 supra.

given the great weight of evidence currently available, OMB appears to believe that new look-back studies could conclude that industry's *ex ante* estimates of the costs of complying with proposed regulations are accurate and do not systematically overstate the case. If true, then the public should know about the regulatory "costs" that publicly-traded companies anticipate. With the demise of defined benefit retirement plans in favor of 401(k)s (and the current administration campaign to privatize Social Security by creating stock market accounts), the public has a definite right to know the full financial picture of the corporations in which the nation's retirement assets are invested. If, then, industry compliance cost estimates are actually accurate, then any publicly traded company that participates in a cost estimate survey should be required to include those cost estimates on its balance sheets in its required periodic corporate filings. The rest should be required to report a proportional allocation of total cost estimates, based on its market share of the industry for which a cost estimate has been conducted.

8. Review the cost of agency analytical burdens and add sunsets to those policies.

Rejecting the value of public protections, some call for inserting automatic sunset dates in the full range of regulatory protections—even such proven protections as the rules governing lead in gasoline. The proven value of regulatory safeguards and the still unproven value of cost-benefit analyses, centralized White House regulatory review, and PART assessments would seem to lead to quite different sunsets: sunset clauses in these extraneous review policies, so that advocates of them will be forced to justify their continued existence.

9. Agencies must periodically identify unmet needs that remain to be addressed and project rules to be created to meet those needs.

Anti-regulatory voices call for the agencies to flip through the rule books and start taking erasers to regulations that, they say, we no longer need. There is no case left for the proposition that regulatory protections for workers, the environment, public health, and safety harm the economy or are irrationally expensive. Agency analytical resources should therefore be refocused where they can do the most good: namely, in identifying the public's unmet needs for protections. Agencies should therefore be required to assess on a periodic basis not rules to be eliminated but, instead, unmet needs that demand remedy. The semiannual publication of the Unified Agenda or the annual publication of the Regulatory Plan—either would be a perfect opportunity for this assessment of the ongoing need for new agency action to protect the public. Alternatively, the public's own process for informing agencies of the need for action, the petition for rulemaking, should become a truly meaningful opportunity to compel action. Currently, it takes much too long for agencies to respond to petitions, and the courts allow significant leeway for these delays. OMB and Congress should consider process reforms that accelerate the timeframe for responding to petitions for rulemaking to address unmet needs, while leaving in place the more deliberative pace of the present for any petitions to reverse or weaken existing protections.

10. Establish a bipartisan Unmet Needs Commission.

At least one anti-regulatory position paper has called for a bipartisan "regulatory reduction commission." If there is a need for a bipartisan commission, *reduction* of the level of public protection may be the wrong focus entirely. Agencies have not been doing enough during the Bush administration to continue work on long-identified unmet needs or to aggressively identify remaining unmet needs. In some cases, such as the need to protect workers from exposure to hexavalent chromium, agencies have been informed by the public that a compelling need cried out for remedy, but the agencies have stalled, delayed, and refused to act. For hexavalent chromium, it took a court order to get OSHA to do its job and begin protecting workers. If a bipartisan commission is needed for regulatory policy, perhaps it would be most effective if charged with applying external pressure on the agencies to get their agendas back on track and refocus their efforts on their mission to protect the public. The Bush administration has done more than enough to speak for corporate special interests and identify protections to be weakened or eliminated; perhaps the public needs a voice now to remind the administration of the unmet needs for protection that are presently festering.

B. We should subject any anti-regulatory process changes to the Historical Test.

Given what we know about the proven value of regulatory protections, for both the intended public interest goal and the economy, and what we know about the risks and unnecessary burdens of OMB's analytical policies, it is time to establish a rigorous test for any proposed process reform that would potentially constrain regulatory protections. No matter how neutral proponents of such burdens claim their tools are, we must be skeptical of any overlay added to the rigorous process already demanded by the Administrative Procedure Act. The analytical resources that are currently devoted to scrutinizing and re-scrutinizing proposed safeguards of the public health, safety, civil rights, environment, and other public interests should be reallocated into tests of any recent or proposed process reforms, to make sure that they would not unduly burden government action to protect the public. One such test for analytical burdens and any other "reforms" that would constrain regulatory protections of the public interest is the Historical Test.

The Historical Test is the logical outgrowth of a recent study by economist Frank Ackerman, law professor Lisa Heinzerling, and environment/health researcher Rachel Massey, "Applying Cost-Benefit Analysis to Past Decisions: Was Protecting the Environment *Ever* a Good Idea?" The authors tested the pro-CBA argument that the tool is neutral by reviewing three key historical cases and identifying the consequences of applying contemporary "smarter regulation" and "sound science" policies. Two of those cases are described below: the 1973 decision to phase out lead in gasoline, and the 1974 decision to reduce workers' exposure to vinyl chloride.

^{144.} See MARLO LEWIS, JR., REGULATORY REFORM: OPTIONS FOR THE PRESIDENT AND CONGRESS 88 (CEI Issue Analysis No. 2005-3, 2005), available at http://www.cei.org/pdf/4446.pdf.

^{145.} See generally Ackerman, Heinzerling & Massey, supra note 106.

Banning Lead in Gasoline

Lead was introduced into gasoline in the 1920s because it could increase power and speed without the popping sound that came with alternatives. Within months of initial production, workers at plants that produced the lead started falling ill and dying. It would not be until the 1970s, after a long and complicated history, and persistent denials by its producers about its effects, that Congress would finally act to reduce the presence of this deadly poison in gasoline.

Defenders of cost-benefit analysis often point to its influence on the phase down of lead in the 1980s as evidence of the even-handedness of the tool. But they fail to consider the influence the earlier rules of the 1970s, implemented without cost-benefit analysis, had on the later rule. A real assessment of the costs and dramatic benefits of the final phase down would not have been possible in the absence of the more significant earlier regulation. As the authors state, "Had we waited in the 1970s, as some argue we should do in policy disputes today, for cost-benefits analysis to show us the way, we might still be waiting now." 146

Controlling Vinyl Chloride in the Workplace

Vinyl chloride is a known carcinogen used in making PVC. In 1974, when OSHA sought to regulate vinyl chloride, substantial evidence existed about vinyl chloride's toxicity, especially its link to a rare form of liver cancer, angiosarcoma, but little was known about the safe level of exposure or how many people had or would die from angiosarcoma through exposure to vinyl chloride. At the time, there were only 13 known cases of angiosarcoma deaths from vinyl chloride exposure. Still, OSHA chose to take a precautionary stance and sought to lower the allowable exposure level to 1 ppm over an eight-hour period. Previously, industry had allowed an exposure of 200 ppm "time-weighted average" with a maximum allowable exposure of 500 ppm.

In accordance with its authorizing act, OSHA did not perform a cost-benefit analysis and sought instead to set the most stringent policy "feasible." If it had performed CBA when determining an exposure limit for vinyl chloride with the knowledge available at the time, the agency would have preferred a much weaker standard. Why? The authors compare the estimated cost of compliance at the time with the estimated value of a life in order to determine how many lives OSHA would have needed to think it was saving to justify the stringent regulatory standard:

- The estimated cost of compliance with the vinyl chloride regulation was thought to be \$200 million per year (though it turned out to be much lower).
- For the value of a human life, the authors used two different estimates: the highest value of a life based on current EPA calculations (\$6 million) and adjusted backward to 1974 dollars, which is \$1.81 million, and the much lower value of life used in the Ford Pinto controversy that occurred around the same time, which estimated the value of a statistical life at \$200,000.

- Only 7,000 people worked in the vinyl chloride industry. Using the Ford Pinto value, one out of every seven workers would have had to die to justify the stringent standard. That means that 1,000 people would have had to die each year to justify OSHA's regulation.
- If you take into account discount rates, the picture becomes even more dismal. At a 3 percent discount rate, 200 people using the high estimate for life value or 2,000 people using the lower estimate would have had to die each year for OSHA to justify the costs. At a 10 percent discount rate, 700 people would have had to die using the former estimate and 7,000 using the lower.

Thus they conclude, "using a 10 percent discount rate and the value of life estimated in the 1970s, it would [have been] necessary to show that *every worker in the industry*, *every year*, *would have died* in the absence of the standard, in order to justify the regulation in cost-benefit terms." ¹⁴⁷

The Historical Test that we should develop would simply operationalize this study and apply the historical case test method to current and proposed process reforms. OMB should develop a list of historical cases, such as the following:

- the 1973 decision to phase out lead in gasoline,
- the 1974 decision to reduce workers' exposure to vinyl chloride,
- the 1978 decision to protect workers from cotton dust, and
- the 1967 decision not to dam the Grand Canyon.

Any proposed changes to the regulatory process should be applied retroactively to all the cases in this list, using the body of knowledge available at the time. If the proposed reform would have counseled against any one of those four proven protections, then the "reform" should be prohibited.

C. OMB should not adopt anti-regulatory process changes based on a distorted record.

Undoubtedly, OMB will ignore all the foregoing suggestions. At a minimum, OMB must avoid further damaging the public by ensuring that it does not adopt any regulatory process changes based on the distorted record of look-back studies it offers in the draft report. Two possible "reform" suggestions should be headed off at the pass: conclusions about uncertainty from the Thompson/Graham air bag study, and conclusions about benefits estimates from the Resources for the Future literature review.

^{147.} *Id.* at 191 (emphasis added).

1. OMB must not use "uncertainty" as an excuse to delay or prevent protections of the public interest.

The Thompson/Graham air bag study, discussed earlier as a flawed study based on even more flawed data, ends with a series of propositions about the regulatory process that the authors believe, based on their flawed analysis, should be reformed or questions for future reform discussions. One proposition in particular stands out: that their flawed examination of the air bag case "reveals the degree of uncertainty in estimates of risk and benefit." As they misdescribe the air bag example, the supposed failure to account fully for uncertainties in the benefits estimates precluded the agency from taking "opportunities to perform additional research on the effectiveness of airbags prior to their introduction." In other words, uncertainty means that we must further delay needed rules while yet more analyses are conducted.

Their emphasis on uncertainty is worth stressing as a misguided process reform suggestion. For one thing, Graham himself co-authored the paper. For another, the administration has repeatedly been deploying uncertainty as an excuse for a policy of inaction and delay.¹⁵¹ In the draft report itself,

151. One recent example is the administration's effort to alter the rules governing the maximum number of hours that trucking companies can force their drives to work without break. Among other things, the administration's proposed rules would have actually increased the number of hours truckers could drive each week above the cap from the old existing rules; whereas the old rules had set absolute caps of 60 hours for a seven-day week, or 70 hours for eight, trucking companies could game the new rules and force truckers to work 77 hours in a seven-day period. The Federal Motor Carrier Safety Administration attempted to argue that uncertainty excused their proposal to increase the number of tired truckers on the road: FMCSA assumed away the fatiguing effects of "time on task" in its cost-benefit model in order to justify increasing the maximum daily driving time, arguing that the studies showing incredible increases in crash risk after the eighth hour of driving do not provide sufficient evidence (or are too *uncertain*) for attributing fatigue to the time spent driving.

A federal court rejected that argument, noting specifically that FMCSA's use of uncertainty was problematic:

Quite apart from the circularity of the agency's explanation, moreover, the model's assumption that time-on-task effects are nil is implausible. Again, the agency admits that studies show that crash risk increases, in the agency's words, "geometrically"... after the eighth hour on duty, and the agency does not deny that this geometric risk increase results at least in substantial part from time-on-task effects. The mere fact that the magnitude of time-on-task effects is *uncertain* is no justification for disregarding the effect entirely.... In light of this dubious assumption, the agency's cost-benefit analysis is questionable

^{148.} See Thompson, Segui-Gomez, & Graham, supra note 130, at 809-810.

^{149.} Id. at 810.

^{150.} Id.

OMB gives corporate special interests contemplating using the Data Quality Act a big hint that they stand a better chance of success if they base their petitions on "the agency's inadequate treatment of uncertainty rather than the accuracy of information."¹⁵²

OMB must avoid any regulatory process revisions that are based on these misguided manipulations of scientific uncertainty. Uncertainty in its technical, scientific sense is a feature of any scientific information. It is not a monolith; there are, instead, multiple kinds of uncertainty, each of which demands a different response in the regulatory process:

- "Parameter uncertainty refers to missing or ambiguous information in specific informational components of an analysis. Parameter uncertainty can often be reduced by gathering more information or using better techniques to gather and analyze it. However, if it is due to variability, this may not be the case. In environmental releases, [for example,] individuals not only receive various exposures; they also vary in their susceptibility to harm. Attempts to measure and control exposure to hazards may inadequately protect many in the population." ¹⁵³
- "Model uncertainty refers to gaps in scientific theory or imprecision in themodels used to bridge information gaps Models are constructed to explain current or past events or predict the future. They are only as good as the information used to build them[,] which is necessarily incomplete [as, for example,] when models refer to open and interdependent environmental systems." ¹⁵⁴
- "Systemic or epistemic uncertainty refers to the unknown effects of cumulative, multiple, and/or interactive exposures" and other potential harms to people and the world we live in, for which there is little or no concrete scientific evidence to date. This kind of uncertainty can be "a reason to act," when we realize "that we may never know how a particular hazard affects humans or the environment. . . . Once this lack of knowledge has been exposed, the

of the agency's claim that uncertainty prevented it from even roughly estimating the benefits that would accrue from increased compliance with the hours of service rules because of an electronic recording system, the court added, "Regulators by nature work under conditions of serious uncertainty, and regulation would be at an end if uncertainty alone were an excuse to ignore a congressional command " *Id.* at 1221.

^{152.} Draft Report, supra note 2, at 50.

^{153.} JOEL TICKNER, CAROLYN RAFFENSPERGER, & NANCY MYERS, THE PRECAUTIONARY PRINCIPLE IN ACTION: A HANDBOOK 12 (1st ed. 1999), *available at* http://www.mindfully.org/Precaution/Precaution-In-Action-Handbook.pdf.

^{154.} Id.

^{155.} Id.

notion of needlessly exposing humans and the environment to hazards without information on their effects seems irrational, and precaution seems logical."¹⁵⁶

In any of the above types, uncertainty is a technical aspect of any scientific information. In everyday discourse, uncertainty is the opposite of certainty; we use the term to refer to lingering questions about which we lack sufficient facts to state an answer with firm conviction. In anti-regulatory rhetoric, the single word is often used to toggle back and forth between both the scientific and the quotidian meanings, the effect being to make even overwhelming scientific consensus appear unresolved. Using uncertainty in this way to justify any anti-regulatory constrictions on the ability of the federal government to protect the public would only create yet another kind of uncertainty: "politically-induced uncertainty," or "deliberate ignorance on the part of agencies charged with" protecting the public. 157

2. OMB must not apply "uncertainty" factors to discount benefits estimates without also assessing the gross uncertainties of cost estimates.

OMB economist John Morrall recently participated in an American University forum on regulatory policy issues, at which he mischaracterized a recent Resources for the Future literature review¹⁵⁸ as suggesting that benefits estimates are equally overestimated as cost estimates:

Now, the critics of regulatory reform always point to this article saying that it showed that costs were overestimated *ex ante* compared to *ex post* studies. *Ex post* they were much less. But what you really have to look at is cost per unit of benefit. When you look at that, there's no overestimation, and that's because—and this is in the article—and that's because not only do the agencies overestimate total costs, they also overestimated total benefits. So when we look at costs per unit of benefit, it's about the same.¹⁵⁹

Bracketing the concerns that the RFF study examined state as well as federal regulations ¹⁶⁰ and that the universe of regulations examined in their literature review is not a representative sample from

^{156.} *Id.* at 14.

^{157.} See id. at 12.

^{158.} See WINSTON HARRINGTON, RICHARD D. MORGENSTERN, & PETER NELSON, ON THE ACCURACY OF REGULATORY COST ESTIMATES (Resources for the Future, Discussion Paper No. 99-18, Jan. 1999), available at http://www.rff.org/Documents/RFF-DP-99-18.pdf>.

^{159.} Transcript of "Ossification" Revisited: The Current State of Procedural and Analytical Complexity in Rulemaking (Amer. Univ., Ctr. for the Study of Rulemaking, Mar. 16, 2005), at 15 (statement of John Morrall), available at http://www.american.edu/rulemaking/panel2 05.pdf>.

^{160.} See HARRINGTON, MORGENSTERN, & NELSON, supra note 158, at 13.

which conclusions can properly be generalized to the larger universe of regulations, ¹⁶¹ the basic problem of Morrall's description of the study is that Morrall is just wrong. In the authors' small and unrepresentative sample, they still found that total cost overestimation occurred as often as overestimation of costs per unit of pollution reduction, and each occurred more often than benefit overestimation. ¹⁶²

Morrall did indicate in the AU forum that he was not speaking officially on behalf of OMB. Nonetheless, it seems prudent to urge OMB now that this reading of the RFF study is, in fact, a misreading, and it should not be the basis of any process reforms that discount the problems of cost overestimation or asymmetrically apply uncertainty to dismiss the value of numbers on only one side of the cost-benefit equation.

^{161.} See id. at 15 ("One striking point that emerges from our dataset is the relatively large representation of rules incorporating market-based incentives, which account for only a tiny fraction of total regulatory activity in the U.S. and elsewhere.").

^{162.} See id. at 14 Tbl.3.

Systematic Overstatement of Cost Estimates

Based on Existing Validation Studies that OMB Has Ignored

Case Study	Ex ante	Ex post
Asbestos	"When the Occupational Safety and Health Administration (OSHA) instituted regulations covering exposure to asbestos in the early 1970s, [it] hired a consulting firm to estimate the cost of compliance."	"Two later studies found that the original prediction for the cost of compliance was more than double the actual cost, because of overly static assumptions." ²
Benzene	"In the late 1970s, the chemical industry predicted that controlling benzene emissions would cost \$350,000 per plant."	"Shortly after these predictions were made, however, the plants developed a process that substituted other chemicals for benzene and virtually eliminated control costs."
CFCs	"In 1988, reducing CFC production by 50 percent within 10 years was estimated by the EPA to cost \$3.55 per kilogram. By 1993, the goal had become much more ambitious: complete elimination of CFC production, with the deadline moved up two years, to 1996."	"Nevertheless, the estimated cost of compliance fell more than 30 percent, to \$2.45 per kilogram. And where substitutes for certain CFCs had not been expected to be available for eight or nine years, industry was able to identify and adopt substitutes in as little as two years."
		Additionally, regulated industry achieved substantial costs savings as a result of the CFC phase-out. For example, "when the international phase-out of ozone-destroying CFCs got underway, a company called Nortel began looking for substitutes. The company, which had used the chemicals as a cleaning agent, invested \$1 million to purchase and employ new hardware. Once the redesigned system was in place, however, Nortel found that it actually saved \$4 million in chemical waste-disposal costs and CFC purchases."
CFCs in Automobile Air Conditioners	"In 1993 car manufacturers estimated that the price of a new car would increase by \$650 to \$1,200 due to new regulations limiting the use of CFCs."	"In 1997 the actual cost was estimated to be \$40 to \$400 per car."9

Coke Ovens	
(1976/1987))

OSHA Rule: Overall. "The original OSHA estimate for the cost of complying with the 1976 coke oven standard was more than five times higher than estimates of actual costs. OSHA's contractor suggested that complying with the standard would cost from \$200 million to more than \$1 billion."

"However, a Council on Wage-Price Stability study later estimated the actual cost of the standard to be \$160 million. . . . Ultimately, firms were able to meet the standard without incurring all of the capital costs in the first year, and actual compliance costs were dramatically lower than originally predicted."

OSHA Rule: RIA Sample. "The OSHA consultant estimated that three steel firms in their sample would spend \$93 million on capital equipment and \$34 million in annual operating costs to comply with the regulations." ¹²

"A later study by Arthur Andersen determined that the three firms actually spent between \$5 million and \$7 million in 1977 to comply with the standard, and only \$1 million to \$2 million on capital expenditures." ¹³

EPA Rule. "In the late 1980s, coke production again came under regulatory scrutiny, this time by the EPA. In 1987, the agency estimated that the cost of controlling hazardous air pollution from coke ovens would be roughly \$4 billion."

"By 1991 that estimate fell to between \$250 million and \$400 million." ¹⁵

Cotton Dust (1978)

Total Cost. "OSHA's estimate in the Final Regulatory Impact Analysis placed the textile manufacturing sector's cost of compliance at \$280.3 million annually (1982 dollars, for amortized capital spending, incremental operations and maintenance, and other new spending)." ¹⁶

"However, actual spending is estimated to have been only about a third of this amount, \$82.8 annually (also 1982 dollars), chiefly because of the advantageous economics of the plant modernization push that was widely undertaken across the sector." ¹⁷

Other Consequences. "Concern was expressed in the rulemaking that smaller textile firms could encounter substantial constraints in raising capital for compliance-related improvements, and that the standard would tilt the sector's competitive center toward newer and more modern plants. Also, control equipment suppliers argued during the rulemaking that serious bottlenecks would arise in trying to retrofit the industry's equipment in short order." 18

"Nonetheless, the actual effects in all these respects proved to be modest and generally bearable." 19

Ethylene Oxide (1984)	"There was little concern at the time of the rulemaking that the standard would entail substantial financial or economic consequences for the industry or the national economy, because average spending for compliance per hospital was estimated to total no more than \$1,500 to \$3,500 annually."	"There is no evidence that the outcome differed from these expectations." ²¹
Formaldehyde (1987)	"OSHA's final estimate placed the industry's compliance costs at \$11.4 million annually (1987 dollars). (Cost savings of \$1.7 million annually from avoided medical expenses also were identified.)" ²²	"Actual spending appears to have been about half this level, \$6.0 million annually." ²³
Grain Handling Facilities (1987)	"OSHA estimated the sector's total compliance costs in the range of \$41.4 million to \$68.8 million annually (1985 dollars; spanning the incremental need for equipment and actions across the 13 separate provisions) and avoided property losses at \$35.4 million annually (as compliance reduced the number of facility explosions and serious fires). These calculations yielded an estimated net cost of compliance in the range of \$5.9 million to \$33.4 million annually." ²⁴	"Now that nearly five years have passed since full compliance with the terms of the 1987 standard was mandated, the evidence is that few if any facilities have ceased operation as a result of the standard—an outcome contrary to the economic impact estimates the industry submitted to the rulemaking. (The sector has, however, been subject to substantial economic pressures over this period for reasons not related to OSHA actions.)" ²⁵
Occupational Lead Exposures (1978)	"OSHA did, however, outline an outer bound of about \$91 million (1976 dollars) in total capital spending, based on a complete rebuilding of the industry using the Bergsoe smelter technology (then considered to be the most cost-effective option). In an early 1980s revision of the estimates, OSHA placed the cost of PEL compliance at a capital requirement of \$125 million (1982 dollars), or 1.3 cents annually per pound of production (\$150 million and 1.6 cents/lb, respectively, in 1992 dollars)." ²⁶	"Nevertheless, the industry's actual spending to date (through early 1994) has been far below these levels. Cumulative capital investment appears to total no more than \$20 million (1992 dollars), and some of this overlaps with expenditures to meet the various environmental requirements to which the industry has also been subject. Annual compliance spending appears to be averaging 0.5 cent/lb to 1.0 cent/lb (1992 dollars), and perhaps as low as 0.3 cent/lb, i.e. well below OSHA's expectations at the time of the rulemaking and largely reflective of the industry's strategy of minimizing expenditures on engineering controls and relying much more heavily on respirator and hygiene programs to reduce exposures." 27

Strip Mining (1978)	"Prior to the passage of the 1978 Surface Mining Control and Reclamation Act, estimates for compliance costs ranged from \$6 to \$12 per ton of coal." ²⁸	"Actual costs for eastern coal operations have been in the range of 50 cents to \$1 per ton. After the regulations were adopted, the market switched away from coal deposits with high reclamation costs. Ready substitutes included surface-minable coal in flatter areas (with lower reclamation costs), and underground deposits." ²⁹
Vinyl Chloride (1974)	"The most credible figures put forth at the time were those of the agency's technical consultant, which estimated total costs at around \$1 billion (1974 dollars), including capital expenses for new equipment, replacement of lost capacity, and incremental operating expenses."	"According to the post-promulgation survey of industry members, however, actual spending amounted to only about a quarter of this estimate, \$228 million to \$278 million."

