

TESTIMONY OF

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before the

**Committee on Environment and Public Works
Subcommittee on Superfund, Waste Management, and Regulatory Oversight
U.S. Senate**

Hearing on
Regulatory Impact Analyses Conducted by the Environmental Protection Agency

October 21, 2015

Mr. Chairman, ranking member Markey, and members of the subcommittee, I appreciate the opportunity to testify today on how the Environmental Protection Agency (EPA) conducts Regulatory Impact Analyses (RIA), more commonly known as cost-benefit analyses.

Introduction and Overview

EPA's work in this area is the gold standard for all other government agencies. Its elaborate studies invariably conclude that benefits exceed costs. In fact, in the case of the Clean Air Act rules reserved for especially irrational condemnation by regulated industries, benefits exceed costs by a margin of 30 to one. Rather than focus on the few marginal improvements that the Government Accountability Office (GAO) has recommended and that EPA is already addressing, I urge the Subcommittee to applaud EPA's diligent, thorough, and creative efforts to carry out one of the most difficult elements of its mission to preserve environmental quality.

I am a law professor at the University of Maryland Francis King Carey School of Law and a founder and past president of the Center for Progressive Reform (CPR) (<http://www.progressivereform.org/>). CPR is a network of sixty scholars across the nation dedicated to protecting health, safety, and the environment through analysis and commentary. We have a small professional staff funded by foundations. I joined academia mid-career, after working for the Federal Trade Commission for seven years, the House Energy and Commerce Committee for five years, and as a lawyer for municipal governments at Spiegel & McDiarmid, a local law firm. My work on health, safety, and environmental regulation includes five books, and over thirty articles (as author or co-author). I have served as consultant to the EPA and testified before Congress many times.

Few agencies have a more important role in improving public health than EPA. Just ask anyone whose children escaped brain damage because the agency took lead out of gas, who turns on the faucet knowing the water will be safe, or who is unfortunate enough to live in an area afflicted by smog and is counting on EPA to lower the emissions that aggravate the asthma that afflicts so many Americans. EPA's regulations are among the most economically beneficial safeguards the U.S. regulatory system has ever produced.

A 2011 EPA analysis assessing Clean Air Act regulations found that in 2010 these rules saved 164,300 adult lives and prevented 13 million days of work loss and 3.2 million days of school loss due to pollution-related illnesses such as asthma. By 2020, the annual benefits of these rules will include 237,000 adult lives saved as well as the prevention of 17 million work loss days and 5.4 million school loss days.¹ Even the most conservative practitioners of cost-benefit analysis, including John Graham, President George W. Bush's regulatory czar,

¹ See ENVTL. PROTECTION AGENCY, THE BENEFITS AND COSTS OF THE CLEAN AIR ACT FROM 1990 TO 2020 (Mar. 2011), *available at* <http://www2.epa.gov/clean-air-act-overview/benefits-and-costs-clean-air-act-1990-2020-second-prospective-study>.

acknowledge what an amazing bang for the buck these regulations deliver in relationship to the costs they impose.

As for the charge that an EPA-induced regulatory “*tsunami*” will cause irrevocable damage to the economy, the truth is that these rules, and the civil servants who write them, do not sweep industry’s hard-earned money into a pile and set it on fire for no good reason. The regulations impose costs and it is certainly appropriate to consider estimates of those financial burdens when deciding whether to promulgate a rule. Yet, as illustrated by Clean Air Act protections, EPA rules also deliver tremendous benefits. Ignoring those benefits has become standard practice in every one of the multiple fora organized by regulated industries to demonstrate EPA’s perfidy. This approach is both biased and unsupportable from any objective perspective.

Because they do not confine themselves to an empirical approach toward predicting costs and benefits, special interests assault every rule that EPA issues. They demand that Congress cripple the agency by cutting its budget, subjecting it to relentless oversight, and passing so-called regulatory reform legislation that will make it even harder for EPA to do its job. Their arguments are premised on the false assumption that EPA administrators over four decades, acting under presidents of both parties, have indulged their personal fantasies of how to make the world a better place by persecuting job creators. Nothing could be further from the truth. Instead, all of these dedicated men and women have worked to satisfy exceptionally detailed statutory mandates that instruct EPA when and how to impose more stringent controls on chemical and power plants, automobile fuel, industrial boilers, sewage treatment plants, oil refineries, and scores of other sources of harmful pollution. Congress passed these laws and Congress has the full authority to amend them. Appropriately, the buck stops with you. Instead

of considering provisions to induce further paralysis-by-analysis, a formula that will continue to cripple the agency by stealth, I hope you will consider returning to the regular order of amending the law if you believe the American people are dissatisfied with it.

My testimony today makes four specific points about EPA's track record with respect to Regulatory Impact Analyses specifically and environmental regulation in general:

- *The benefits achieved by EPA rules are of tremendous value to the American people and our economy.*
- *Because of the business community's perception that EPA's popular mandate to clean up pollution would produce expensive rules, the agency has experienced intensive scrutiny from its inception and was a pioneer in developing cost-benefit analysis. It performs such analysis today with sophistication, doing its best to produce reliable numbers from a methodology that is anything but precise.*
- *The most significant flaws inherent in cost-benefit analysis as it is practiced today are the pronounced understatement of benefits and significant overstatement of costs.*
- *GAO is undoubtedly correct when it points out that EPA does not "use [RIAs] as the primary basis for selecting the final regulatory action."² This outcome is the right one because the agency's authorizing statutes do not embrace cost-benefit analysis as the determinative factor in making such decisions.*

Tangible Benefits

In addition to the benefits delivered by Clean Air Act rules I described earlier, please consider the following:

- EPA regulation of the discharge of pollution into water bodies nearly doubled the number of waters meeting statutory water quality goals from around 30 to 40 percent in 1972 (when the modern Clean Water Act was first enacted) to around 60 to 70 percent in 2007.³
- EPA regulations protecting wetlands reduced the annual average rate of acres of wetlands destroyed from 550,000 acres per year (during the period from the mid-

² GAO-14-2019, ENVIRONMENTAL REGULATION, EPA SHOULD IMPROVE ADHERENCE TO GUIDANCE FOR SELECTED ELEMENTS OF REGULATORY IMPACT ANALYSES at 10 (July 2014).

³ G. Tracy Mehan, *The Clean Water Act: An Effective Means To Achieve a Limited End*, WATER ENVIRONMENT & TECHNOLOGY, Oct. 2007, available at http://www.wef.org/publications/page_wet.aspx?id=4692&page=ca§ion=CWA%2035th%20Anniversary.

1950s to the mid-1970s) to 58,500 acres per year (during the period from 1986 to 1997), a nearly 90-percent reduction.⁴

- Working together, the EPA and the state of California have reduced the number of Stage 1 Smog Alert days in Southern California from 121 days in 1977 to zero days since 1997.⁵
- EPA regulations phasing out lead in gasoline helped reduce the average blood lead level in U.S. children aged 1 to 5 from 14.9 micrograms of lead per deciliter of blood ($\mu\text{g}/\text{dL}$) during the years 1976 to 1980 to 2.7 $\mu\text{g}/\text{dL}$ during the years 1991 to 1994. Because of its harmful effect on children's brain development and health, the Center for Disease Control considers blood lead levels of 10 $\mu\text{g}/\text{dL}$ or greater to be dangerous to children. During the years 1976 to 1980, 88 percent of all U.S. children had blood lead levels in excess of this dangerous amount; during the years 1991 to 1994, only 4.4 percent of all U.S. children had blood lead levels in excess of 10 $\mu\text{g}/\text{dL}$.⁶

Moreover, contrary to special interest claims, EPA rules have brought great benefit to the United States without any significant economic dislocation. Several convincing economic studies regarding the employment impact of environmental regulations all found either that environmental regulations have a net neutral effect on jobs or lead to a net increase in employment. (See Table 1 below.) These findings should not be surprising. After all, money spent on regulation contributes to the economy, because firms must buy equipment and labor services in order to comply with regulation. In some cases, regulations can also increase employment by making the affected industry more profitable and more productive.

⁴ William L. Andreen, *Water Quality Today—Has the Clean Water Act Been a Success?*, 55 ALA. L. REV. 537, 584-85 (2004).

⁵ South Coast Air Quality Management District, State of California, About South Coast AQMD: Progress So Far, <http://www.aqmd.gov/aqmd/index.html#progress> (last visited June 14, 2011); Air Res. Bd., California Env'tl. Protection Agency, Fact Sheet: Reducing Emissions from California Vehicles, available at <http://www.arb.ca.gov/msprog/zevprog/factsheets/reducingsmog.pdf>.

⁶ U.S. Env'tl. Protection Agency, Blood Lead Level, <http://cfpub.epa.gov/eroe/index.cfm?fuseaction=detail.viewInd&lv=list.listbyalpha&r=224030&subtop=208> (last visited June 15, 2011); Rena Steinzor et. al., *A Return to Common Sense: Protecting Health, Safety, and the Environment Through "Pragmatic Regulatory Impact Analysis"* 17-18 (Ctr. for Progressive Reform, White Paper 909, 2009), available at http://www.progressivereform.org/articles/PRIA_909.pdf.

Table 1: Impact of Environmental Regulation on Employment

Source	Segment of Economy Affected by Environmental Regulation	Net Impact on Employment
Bezdek et.al. (2008) ⁷	Entire economy	<ul style="list-style-type: none"> • Increase
Morgenstern et.al. (2000) ⁸	Four polluting industries	<ul style="list-style-type: none"> • Increase in petroleum and plastics • No statistically significant impact in pulp and paper and steel
Berman & Bui(2001) ⁹	Los Angeles area (Clean Air Act)	<ul style="list-style-type: none"> • No evidence of decrease • Probable slight increase
Goodstein (1999) ¹⁰	Entire economy	<ul style="list-style-type: none"> • 7 of 9 available studies found increase • 1 study found decrease • 1 study found mixed results

EPA’s History with Cost-Benefit Analysis

EPA was created in the context of a wave of reform catalyzed by young people’s protests against the Vietnam War, the publication of Rachel Carson’s landmark book *Silent Spring*, and the spectacle of such environmental disasters as the Cuyahoga River burning. The industries subject to this significant expansion of the regulatory state appear to have been caught by surprise, and they did not muster any effective opposition to the agency’s birth and rapid expansion. They recovered quickly, however, and the seeds of centralized White House review controlled by economic advisers at the highest levels were planted in the early days of the Nixon administration when Maurice Stans, President Nixon’s Secretary of Commerce, persuaded chief domestic policy advisor John Ehrlichman to establish a taskforce to oversee EPA’s regulatory activities.

⁷ Roger H. Bezdek, Robert M. Wendling, & Paula Di Perna, *Environmental Protection, the Economy, and Jobs: National and Regional Analyses*, 86 J. ENVTL. MGMT. 63 (2008).

⁸ Richard D. Morgenstern, William A. Pizer, & Jhih-Shyang Shih, *Jobs versus the Environment: An Industry-level Perspective* (Resources for the Future, Discussion Paper 99-01-REV, 2000), available at http://www.globalurban.org/Jobs_vs_the_Environment.pdf.

⁹ Eli Berman & Linda T.M. Bui, *Environmental Regulation and Labor Demand: Evidence from the South Coast Air Basin*, 79 J. PUB. ECON. 265 (2001).

¹⁰ EBAN GOODSTEIN, THE TRADE-OFF MYTH: FACT AND FICTION ABOUT JOBS AND THE ENVIRONMENT (1999).

William Ruckelshaus, EPA's first Administrator and a committed environmentalist, pleaded his case for particularly controversial rules to the press and to sympathetic members of Congress, including Democratic Senator Edmund Muskie, the presidential candidate who is largely credited with having provoked Nixon into creating EPA by executive order. This outside game was more than matched by regulated industries' inside game, including the demand that regulatory agencies carefully quantify the probably costs of their actions.

Eventually, industry, regulators, and the White House negotiated a *détente* and agreed that both the costs and the benefits of new rules should be estimated. Over time, the methodology for conducting such analyses became more and more complex, a trend that accelerated dramatically with the creation of the Office of Information and Regulatory Affairs (OIRA) within the Office of Management and Budget (OMB) under the 1980 Paperwork Reduction Act. OIRA's statutory mission was limited to reviewing any proposal by a government agency or department to require the completion of additional paperwork by citizens, state or local government, or private sector entities. But OIRA's far more important role in reviewing the substance of regulations was soon fleshed out in a series of executive orders.

Under Executive Order 12,291 issued by President Reagan and superseded by Executive Order 12,866, which is still in effect today, Executive Branch agencies must:

1. Refrain from taking action unless potential benefits justify potential costs.
2. Consider regulatory alternatives that involve the lowest net cost.
3. Prepare a Regulatory Impact Analysis containing their cost-benefit analysis for each "economically significant" rule, defined to include any proposal that would have an annual effect on the economy of \$100 million or more.

Because EPA was forever in the crosshairs of regulated industries' advocacy at the White House, the agency was an early guinea pig for regulatory review. It was among the first agencies

to hire economists interested in the practice of cost-benefit analyses and it soon became accustomed to defending those documents during OIRA's increasingly strict review. Its staff expanded and became more and more sophisticated as it developed new approaches to demonstrating that the costs imposed by its rules were amply justified by their benefits.

In fact, an empirical study¹¹ I conducted with colleagues at the Center for Progressive Reform (CPR) documents that EPA is the subject of a disproportional amount of attention from OIRA. The study examined each of the 6,194 separate OIRA reviews of regulatory proposals and final rules from October 16, 2001 until June 1, 2011. During this roughly ten-year period, OIRA officials met 1,080 times with 5,759 participants. True to its origin and institutional history, the study revealed that OIRA has continued to serve as a court of last resort for aggrieved business representatives. We were not surprised to discover that 65% of the attendees at these meetings represented industry, about five times the number of people who appeared on behalf of public interest groups. We were surprised to learn that EPA regulatory matters accounted for 442 of the 1,080 meetings even though the agency accounted for only 11% of the matters reviewed by OIRA. According to its own internal figures, OIRA changed 84% of the rules forwarded by EPA, in comparison to a 65% change rate for other agencies.

In sum, since it was founded in 1970, EPA has endured 45 years of supervision by White Houses committed to the rigorous review of the economic burdens required by the regulations it is required by statute to write. This scrutiny has produced a level of sophistication in its understanding of the nuances of the uncertain art of cost-benefit analysis that is a pace-setter for the remainder of the federal government.

¹¹ Rena Steinzor, James Goodwin, and Michael Patoka, Ctr. for Progressive Reform, BEHIND CLOSED DOORS AT THE WHITE HOUSE: HOW POLITICS TRUMPS PROTECTION OF PUBLIC WORKER SAFETY, AND THE ENVIRONMENT (Nov. 2011).

Flaws in Cost-benefit Analysis

Cost-benefit analysis as practiced today has two significant flaws that affect both sides of their deceptively precise mathematical equations: inflation of costs and deflation of benefits.

Costs are inflated because EPA analysts have little choice but to rely upon companies they propose to regulate for the empirical data that underlies costs estimates, and such parties have ample incentives to inflate those numbers. Compounding these mistakes is the reality that when the agency estimates costs, it has difficulty anticipating how market dynamics will serve to lower such expenses over time. For example, simply by creating compelling an industry to use a specific kind of pollution control equipment, EPA establishes both a market and an opportunity for competition within that market that drives competition down.

An article published in the *Texas Law Review*¹² by law professor Thomas McGarity and economist Ruth Ruttenger examined available evidence on the reliability of such cost estimates:

The first broad conclusion is that ex ante cost estimates have usually been high, sometimes by orders of magnitude, when compared to actual costs incurred. This conclusion is not at all surprising in light of the strategic environment in which the predictions are generated. In preparing regulatory impact assessments for proposed rules, agencies are heavily dependent upon the regulated entities for information about compliance costs. Knowing that the agencies are less likely to impose regulatory options with high price tags (or to support them during the review process), the regulatees have every incentive to err on the high side. Beneficiary groups can complain about the magnitude of cost projections, but they rarely have the wherewithal to second-guess regulatee-generated estimates. The only entities with both the economic incentive to exert a leavening influence and the information and expertise necessary to back it up are the occasional independent vendors of the safety and environmental cleanup technologies. These entities are themselves frequently only subsidiaries of the larger regulated entities or in any event cannot risk alienating their potential customers by demonstrating the excessiveness of the cost projections in a public forum, hence the unremarkable conclusion that the regulatory process routinely yields ex ante cost projections that are likely to be biased upward.

¹² Thomas O. McGarity & Ruth Ruttenger, *Counting the Cost of Health, Safety, and Environmental Regulation*, 80 TEX. L. REV. 1997 (2001-2002)

[After a regulation has gone into effect] it is usually extremely difficult and frequently impossible to arrive at accurate retrospective assessments of the resources that regulated entities have devoted to compliance with particular regulatory interventions. This is due primarily to practical limitations on empirical analysis of relatively subtle behaviors of companies operating in complex and rapidly evolving competitive environments. It is also attributable, however, to the fact that no important economic actor has an incentive to find out how much regulations actually did cost once the strategic battle over the proposed regulation has ended and the companies and the agency have moved on to other things.¹³

As for the propensity of cost-benefit analyses to understate benefits, the problem arises because EPA often confronts benefits that are difficult to “monetize,” or turn into dollar amounts. What is the value of avoiding a severe asthma attack that does not require hospitalization, for example? The person experiencing such an attack is miserable for a time and may suffer some increment of long-term adverse effects on her health. But she does ultimately recover from the attack. EPA has great difficulty when it attempts to monetize this suffering. As GAO points out in a recent report,¹⁴ this difficulty affects many RIAs. For example, time and resource constraints make it quite difficult to estimate the aggregate adverse water quality impact of growing biofuels, and simply left this important element of the decision out of its effort to number crunch the benefits of the rule. In a rule to control hazardous air pollutants, EPA lacked firm emissions data from the sources to be regulated and was unable to quantify the adverse health effects that exposure to these clearly dangerous substances would cause. For more on the GAO’s recent report review EPA’s cost-benefit analysis and how it highlights the inherently difficult nature of conducting such analyses for environmental and public health regulations, see the first article attached to this testimony.

¹³ *Id.* at 1998.

¹⁴ GAO-14-2019, ENVIRONMENTAL REGULATION, EPA SHOULD IMPROVE ADHERENCE TO GUIDANCE FOR SELECTED ELEMENTS OF REGULATORY IMPACT ANALYSES at 20 (July 2014).

EPA and other agencies are encouraged by OIRA to describe such implications without crunching numbers. But the reality is that any value not translated into a number most often gets lost in the shuffle. The agency staff can write eloquently about brain damage suffered by infants; the likelihood that key elements of an aquatic ecosystem too small to be cooked for dinner will disappear as a result of water pollution, potentially jeopardizing the viability of this critical natural resource; or the effects of sea level rise on iconic American cities as a result of climate change. None of this narrative has anything close to the impact of a number crunched in a comparable fog of uncertainty. The unfortunate truth is that what gets counted might have some chance of getting addressed, assuming that political forces that work relentlessly to kill environmental regulations do not overcome such analysis. For more on the problems that arise when EPA and other agencies are unable to assign monetary value to the benefits their regulations create, see the second article attached to this testimony.

Subjecting EPA RIAs to rigorous scrutiny is a process that has a 45-year history, compelling the agency to adapt and become expert in drafting the most elaborate cost-benefit methodologies in the government. But in the end, attacks on EPA regulation do not depend on imperfect calculations, but instead are effective for reasons related to political clout and campaign contributions and not reasoned debate.

How EPA Makes Regulatory Decisions

The environmental statutes are extraordinarily detailed and complex because Congress worked hard during the period between 1970 and 1990 to ensure they mediated the interests of a diverse group of stakeholders, including regulated industries, without defeating their ultimate goals: protecting public health and preserving natural resources. The laws were drafted with costs in mind, but none require the kind of number-crunching that the White House under seven

presidents has advocated. Instead, the laws adopt two fundamentally different approaches. Statutes like the Clean Air Act's provisions on establishing National Ambient Air Quality Standards for such common pollutants as ozone (or smog) require EPA to set limits on the levels of such substances in the ambient air, considering public health as its sole focus. Alternatively, the statutes typified by the Clean Water Act require the agency to choose the best available cleanup technology and require that it be installed on polluting sources.

RIAs may be helpful in crafting rules that allow for the consideration of costs. They are extra-legal when considered in the crafting of standards when Congress has prohibited the consideration of costs. Requiring these crude tools to become more and more elaborate in the fruitless search for a single magic number will not produce more rational decision-making. Instead, it will serve to further delay a rulemaking process already crippled by the multiple analyses EPA is forced to prepare.

I fully understand why Congress has proven so hesitant to amend the environmental laws. Writing such legislation in any way that achieved support from a critical mass of stakeholders in the current atmosphere of political polarization would be quite challenging. Members would have great difficulty if they try to strengthen aspects of the laws or to expand their coverage to encompass climate change. Members who oppose the laws would experience a severe political backlash once their intentions were publicized by the 24/7 news cycle. The stalemate produces frustration on both sides.

But being frustrated is not a good excuse for browbeating the civil service because quantifying costs and benefits in any honest way is supremely difficult. If Congress is unwilling or unable to amend the law, it should realize that EPA is doing the best it can with shrinking resources and an expanding workload.

Thank you. I'd be pleased to answer any questions you may have.



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August 27, 2014

No, the GAO Didn't Say EPA's Cost-Benefit Analyses are Bad—But Here's What We Should Take Away from Their Report

by James Goodwin

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If you're an antiregulatory, anti-environment member of Congress, such as Sen. David Vitter (R-LA) or Darrell Issa (R-CA), how do you get the Government Accountability Office (GAO) to issue a report that criticizes the cost-benefit analyses that the Environmental Protection Agency (EPA) has performed on some of its recent rules? That's easy—you simply ask for one. Then, when the GAO issues the report, [like it did a few weeks back](#), you can begin issuing press releases filled with invective and righteous indignation. The report's findings, you can assert, are smoking-gun evidence that the EPA is running amok, issuing burdensome rules that are harming small businesses and families. And just like that, you've conjured the latest antiregulatory, anti-EPA scandal du jour out of thin air.

Vitter and Issa have followed this playbook to a T and will no doubt continue trying to spin political gold out of this meaningless hay as part of the Republican's broader strategy of using antiregulatory rhetoric to undermine the work of the Obama Administration while simultaneously boosting their electoral prospects in the fast approaching mid-term elections. "Rather than using a fair and open rulemaking process, EPA pushed through regulations using sloppy analysis without sufficiently informing Congress or the

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Joe Feller	public of the economic impact," Issa predictably huffed following the report's release.	Excessive Secrecy in Government
Adam Finkel		Food and Drug Safety
Robert Fischman	Even for a manufactured controversy, though, this one is a complete Nothing-Burger. With a side of Yawn-Fries. Washed down with a "Who Cares"-Milkshake. Vitter and Issa ordered the GAO to review the EPA's recent cost-benefit analyses and identify faults. Because the GAO must do what members of Congress tell them to do, the GAO attempted to comply as best as they could. What they came back with were some of the most picayune nitpicks that were ever nitpicked. For example, the GAO found that the Executive Summary for many of the EPA's cost-benefit analyses could be improved if the agency included such things as clearer statements of the problem the regulation will solve or a summary of the analyses' results. (In nearly all cases, this information was available in the body of the cost-benefit analysis or in the rule's preamble.) Note that this criticism relates to the analysis's style, rather than its substance, and in no way calls into question the results of the analysis or, indeed, the quality of the underlying rule.	Occupational Safety and Health Issues
Victor Flatt		Publications and Books
Alyson Flournoy		Regulatory Policy
Matt Freeman		Testimony and Letters to Agencies
Bill Funk		
Margaret Giblin		
Robert Glicksman		
Dale Goble		
James Goodwin		
Elizabeth Grossman		
Emily Hammond		
Anne Havemann		
Lisa Heinzerling	When the GAO report did pass judgment on the substance of the EPA's cost-benefit analyses, the criticisms were meek at best. For example, the GAO noted that the EPA did not always perform full quantitative analyses of the alternative policy options that the agency considered. Circular A-4, a White House Office of Management Budget (OMB) guidance document that outlines best practices for conducting cost-benefit analyses, does recommend that agencies perform such analyses on their larger rules but, as the GAO report noted, also leaves it up to agencies to exercise their judgment whether to do so in light of practical considerations, such as limited resources and data.	Blogs we read:
Lisa Heinzerling		ACSBlog
Yee Huang		AlterNet
David Hunter		Center for Environmental Health
Evan Isaacson		Climate Progress
Peter Jenkins		Coalition for Sensible Safeguards
Shana Jones		Consumer Law and Policy Blog
Bradley Karkkainen		DeSmogBlog
Alice Kaswan		Enviroblog
Erin Kesler	Similarly, the GAO also observed that the EPA did not always monetize key benefits for their rules. In addition, the GAO was concerned that the EPA was relying on old studies to assess the employment impacts of its rules. Again, as the GAO report recognized, Circular A-4 anticipates that agencies cannot monetize all benefits due to lack of data and resources. As for the employment impact analyses, Circular A-4	Environmental Health News
Alexandra Klass		EPA's Greenversations
Christine Klein		The Fine Print
John Knox		Flatt Out
Robin Kundis Craig		Environmental GreenLaw
		Grist
		The Intersection
		HuffPost's Watchdog
		Legal Planet
		The Pop Tort
		Public Goods
		Real Climate Economics
		RegBlog

Douglas Kysar	provides no guidance for how this task is to be performed at all. Tellingly, the GAO could provide no specific advice for how the EPA could improve its employment impact analyses, since it recognized that the studies the agency was using were the best that are currently available and that the EPA is currently working to develop new tools to inform these analyses.	Science Progress
Patrick MacRoy		ScienceBlogs
Lesley McAllister		Sierra Club
Martha McCluskey		Sustainablog
Thomas McGarity	When understood in context, the GAO criticisms of the EPA are revealed to be quite modest—if indeed they can be framed as criticisms at all. In conducting its review, the GAO recognized that the EPA faces real barriers in how the agency performed its cost-benefit analyses and that these barriers are far beyond the agency's control. The GAO also acknowledged that cost-benefit analysis is far from an exact science and that Circular A-4 directs agencies to exercise their judgment in the amount of detail or thoroughness they achieve in their analyses given the practical resource and data constraints they face. If anything, the GAO's recommendations to the EPA can best be read as parroting Circular A-4's advice to agencies that they should seek to achieve a proper balance between these competing demands of thoroughness and practical constraints when conducting their analyses. As the GAO found no evidence that the EPA isn't already working to achieve this proper balance, it's hard to find much in the way of a strong critique of the agency's performance in conducting cost-benefit analyses.	Switchboard
Nina Mendelson		The Pump Handle
Joel Mintz		Think Progress
Celeste Monforton		TreeHugger
Richard Murphy		unEARTHED
Catherine O'Neill		US PIRG
Dave Owen		Consumer Blog
Michael Patoka		Watchdog Blog
Richard Pierce, Jr		Wilderness Blog
Lena Pons		Wildlife Promise
Wayland Radin		Yale Environment
Dan Rohlf		360
Daniel Rosenberg		
Mollie Rosenzweig	Just because the GAO report didn't find what Vitter and Issa said it did doesn't mean that it offers no useful information, however. Based on my reading, the report imparts two important lessons.	
Noah Sachs		
Christopher Schroeder		
Sidney Shapiro		
Isaac Shapiro	First, it clearly illustrates the dangers that would result from efforts by conservatives to enact legislation, such as the Regulatory Accountability Act or the House Unfunded Mandates Information and Transparency Act, that would make cost-benefit analysis a judicially reviewable legal requirement for agency rules. After all, even when agencies do a pretty good job on these analyses, it's still possible to find problems with them. That's because, as noted above, cost-	
Matt Shudtz		
Aimee Simpson		
Amy Sinden		
Ben Somberg		
Rena Steinzor		
Dan Tarlock		

Joseph Tomain
Robert Verchick
Nicholas Vidargas
David Vladeck
Wendy Wagner
Katie Weatherford
Katie Weatherford
Chris Wold
Sandra Zellmer

benefit analysis is hardly an exact science—despite what its proponents claim. One of the biggest impediments to performing a cost-benefit analysis is that the necessary data are not always available to make meaningful conclusions about a rule's potential impacts. Sometimes, it's because the data cannot possibly exist, such as a coherent monetary "value" of saving a human life. In some cases, the data are prohibitively expensive to obtain, likely wouldn't impact the analyses' overall results, or both. In other words, performing cost-benefit analysis—and especially what is included and what is left out—requires the exercise of judgment on the part of agencies, as both Circular A-4 and the GAO report acknowledge. If cost-benefit analysis was a judicially reviewable legal requirement, as conservatives are pushing for, then businesses that don't like the EPA's regulations could challenge them by attacking how the agency exercised its judgment in performing the underlying cost-benefit analysis.

At best, legal challenges to the EPA's rules would descend into irrelevant and unhelpful squabbles over the minutiae of the cost-benefit analysis, while more important issues—such as whether or not the rule is adequately protecting people and the environment—would get ignored. At worst, these legal challenges would provide activist conservative judges with virtual carte blanche to strike down rules they disagree with.

Second, the GAO report's conclusions unwittingly highlight the essential indeterminacy of cost-benefit analysis—and its essential uselessness as an analytical tool. Take, for example, this statement: "Without enhancements to its review process targeted at improving adherence to [Circular A-4], EPA cannot ensure that its [cost-benefit analyses] provide the public with a clear understanding of its decision making." (See page 28.) This statement suggests that improvements to the EPA's internal management processes governing the conduct of cost-benefit analysis are a necessary (though perhaps not a sufficient) condition for helping the public to understand why its rule turned out the way it did. This statement is demonstrably false, since such enhancements are not necessary for achieving this result, and indeed may run counter to its

achievement. In practice, cost-benefit analysis does not clarify agency decision-making; rather, it obscures it behind technical economic formulas and theories that are well beyond the ken of most citizens. To make matters worse, this economic analysis is almost invariably irrelevant to or even prohibited by the various statutes under which the EPA's rules are promulgated. As such, more of this analysis or "improvements" to it will do nothing to help regular people understand why the EPA has designed its regulations in a particular way.

Or take this statement: "However, when EPA does not monetize key benefits and costs, the [cost-benefit analysis] may be limited in their usefulness for helping decision makers and the public understand economic trade-offs among different regulatory alternatives." (See pages 28-29.) Again, this statement asserts that more monetization of costs and benefits is a necessary condition for helping people understand whether a rule does more good than harm. And again, this statement is demonstrably false, since monetization is actually detrimental to promoting this kind of understanding. Telling an average person that preventing a death is worth only \$10.8 million or that preserving a child's IQ point is only worth \$1,100 doesn't help them evaluate a particular regulation. Rather, it serves only to confuse. Understandably, they'll want to know how you came up with those numbers, and the explanation that you provide (wage premiums, willingness-to-pay surveys) is more likely to horrify than elucidate. More to the point, the average person will want to know whether a particular regulation represents our best efforts to protect lives and IQ points. Monetization cannot answer that question now, just as more monetization cannot do that in the future.

I wouldn't expect the GAO to weigh in on such a politically charged question as "should the EPA be doing cost-benefit analysis at all?" Based on the evidence outlined in its recent report, though, the GAO could build a strong case that the answer should be a resounding "no."

Let's hope other policymakers are paying attention to these more important lessons of the recent GAO report, and not falling victim to

Vitter's and Issa's misrepresentations about the report's findings.

James Goodwin, Senior Policy Analyst, Center for Progressive Reform. [Bio.](#)

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March 25, 2015

Carry the Zero: The Polluters' Flawed Arithmetic in the EPA's Hazardous Air Pollution Rule

by James Goodwin

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In the [run-up to this morning's oral arguments](#) before the Supreme Court on the Environmental Protection Agency's rule to limit hazardous air pollutants from fossil-fueled power plants—and indeed throughout the [oral arguments themselves](#)—opponents repeatedly pointed out that the benefits of the rule in reducing mercury pollution were “only” between \$4 million and \$6 million. Putting aside the ethically problematic question of trying to put a dollars-and-cents value on achieving improved public health and environmental protection, it is worth pondering this number and what it reveals about the significant methodological flaws that are endemic to cost-benefit analysis. (For the record, this number is supposed to represent the “value” of lost earning potential of children that the rule would protect against IQ point degradations. Do you see what I mean about ethically problematic?)

Opponents of the rule claim that this \$4-million figure is the only valid benefit estimation of the rule that the EPA should be able to count in evaluating its mercury rule. In making this argument, their real beef is that the EPA has also counted the co-benefits of the rule—that is, benefits that the rule achieves as an incidental byproduct of what is really trying to achieve. In this case, EPA's rule is meant to address mercury and other “hazardous” air pollutants, but along the way would significantly reduce particulate matter and ozone, which are classified as- “non-hazardous” air

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Joe Feller	pollutants, but are still known by scientists to cause a host of environmental and public health problems.	Excessive Secrecy in Government
Adam Finkel		Food and Drug Safety
Robert Fischman	Even if we exclude the value of the rule's co-benefits, that doesn't mean the rule's benefits are only worth \$4 million, as the corporate polluters would have you believe. Instead, this value captures (poorly) just one aspect of one part of the benefits of reducing one of the many hazardous air pollutants covered by the rule. Yes, the rule would protect children against reduced IQ degradation, but does anyone believe that "lost earning potential" is the only negative consequence to flow from IQ degradation? Other negative consequences might include the lost quality of life the child experiences or the extra money that his family might have to spend to get him through remedial classes. And those, of course, are just the tip of the iceberg.	Occupational Safety and Health Issues
Victor Flatt		Publications and Books
Alyson Flournoy		Regulatory Policy
Matt Freeman		Testimony and Letters to Agencies
Bill Funk		
Margaret Giblin		
Robert Glicksman		
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James Goodwin	On top of that, impaired brain function isn't the only public health threat that comes from mercury pollution. This pollution has also been linked to heart disease and damaged kidneys in human adults . Plus, this doesn't include the damage that mercury pollution causes to plants, animals, and the healthy functioning of affected ecosystems .	Blogs we read:
Elizabeth Grossman		ACSBlog
Emily Hammond		AlterNet
Anne Havemann		Center for Environmental Health
Lisa Heinzerling	And there's more still to consider. Mercury is just one of the many hazardous air pollutants covered by the EPA's rule. It also reduces power plant emissions of acid gasses and dioxin . Each of these air pollutants causes an array of negative human health and environmental effects as well.	Climate Progress
Lisa Heinzerling		Coalition for Sensible Safeguards
Yee Huang		Consumer Law and Policy Blog
David Hunter	In short, that \$4-million figure covers just a fraction of a fraction of a fraction of all of the direct benefits provided by the EPA's rule.	DeSmogBlog
Evan Isaacson		Enviroblog
Peter Jenkins		Environmental Health News
Shana Jones	So, why aren't all of these other benefits counted? By and large, it's because we lack adequate data to translate these benefits into dollar amounts. And, when this happens, the default rule of cost-benefit analysis is to arbitrarily treat these benefits as if they are worth \$0. Of course, this default rule makes no sense. After all, even though we don't know what these benefits are "worth," the one thing we are sure of is that they're not worth \$0. This irony notwithstanding, this is just how the "game" of cost-benefit analysis is played.	EPA's Greenversations
Bradley Karkkainen		The Fine Print
Alice Kaswan		Flatt Out
Erin Kesler		Environmental GreenLaw
Alexandra Klass		Grist
Christine Klein		The Intersection
John Knox		HuffPost's Watchdog
Robin Kundis Craig	With things like \$0-default-rule going in the background, it's easy to see why polluters like cost-	Legal Planet
		The Pop Tort
		Public Goods
		Real Climate Economics
		RegBlog

- Douglas Kysar
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- Rena Steinzor
- Dan Tarlock

benefit analysis so much, and push for Congress to institute [new requirements on agencies to include even more cost-benefit analysis](#). When there's any uncertainty about a benefit whatsoever, it's simply removed from the calculation as if it didn't exist at all. Note that nothing analogous to this ever happens on the cost side of the ledger. Of course, this default rule gives polluters plenty of incentive to manufacture uncertainty about regulatory benefits, too. With enough effort and creativity, they are able to kick just about all of the benefits out of the calculation—hoping to emulate what has happened with the EPA's hazardous air pollution rule. What's left is a highly skewed analysis that all but guarantees that the rule will look like a terrible policy.

The more one looks at cost-benefit analysis, the clearer it becomes that it in no way resembles common sense, as its defenders contend. Let's hope the Supreme Court uses this morning's oral arguments as an important learning moment about this and the many other methodological and ethical defects of cost-benefit analysis that the case reveals.

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