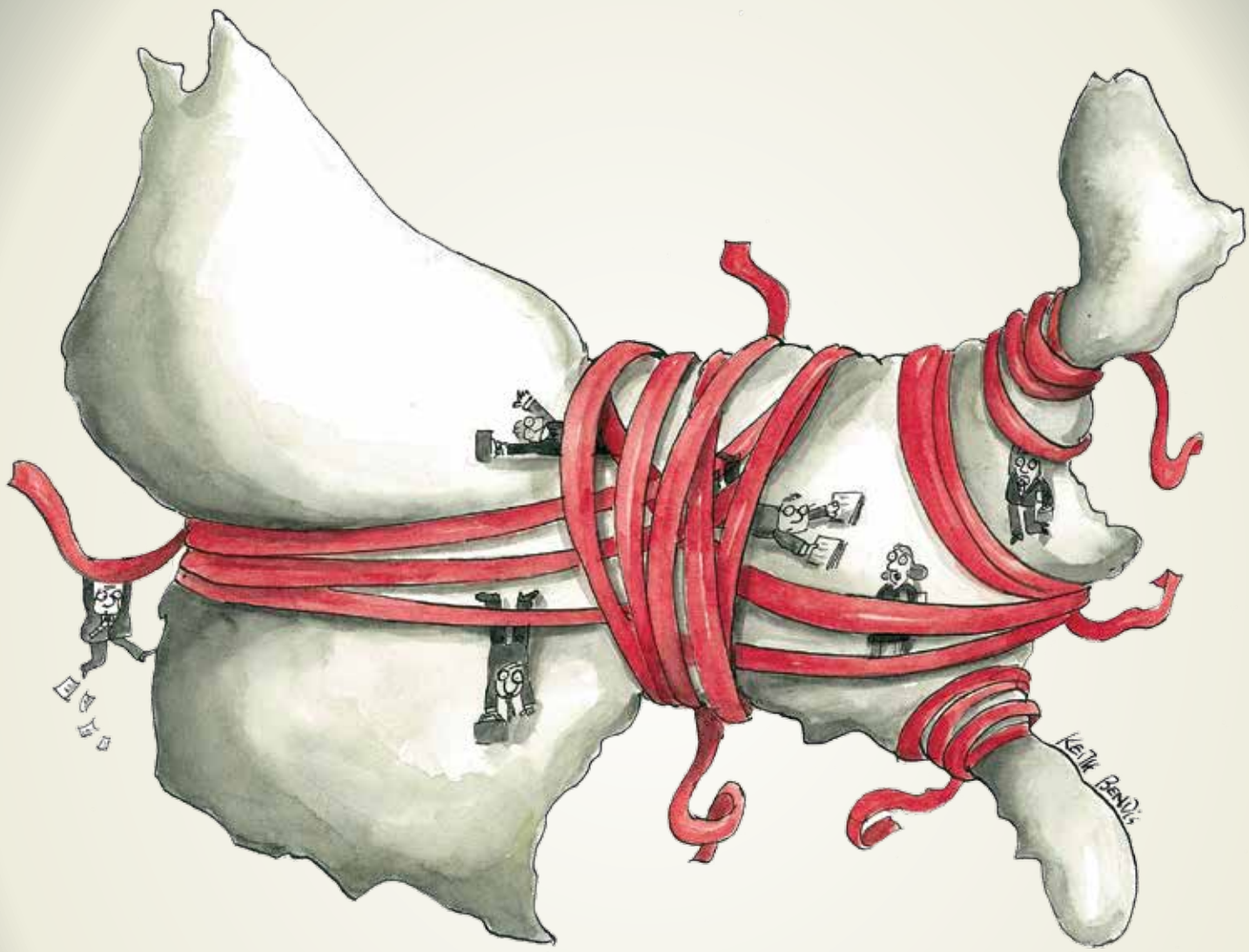
Truth in Regulating:

Restoring Transparency to EPA Rulemaking

No. 6 in a Series of Regulatory Reports



U.S. CHAMBER OF COMMERCE

Environment, Technology & Regulatory Affairs Division

ACKNOWLEDGMENTS

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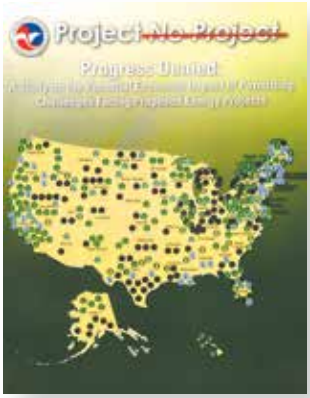
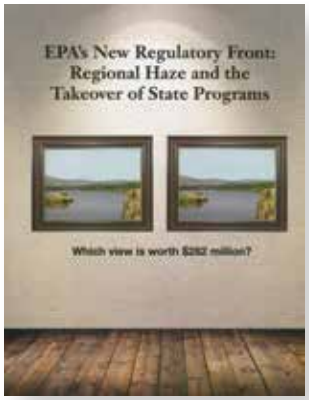
U.S. CHAMBER OF COMMERCE

The U.S. Chamber of Commerce is the world's largest business federation representing the interests of more than 3 million businesses of all sizes, sectors, and regions, as well as state and local chambers and industry associations.

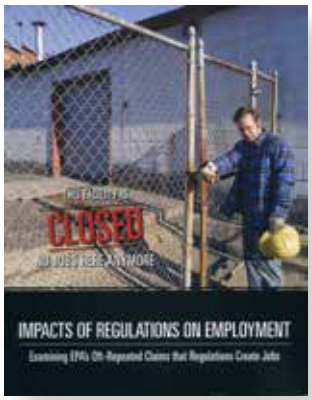
For the past several years the U.S. Chamber has highlighted specific problems associated with the current federal regulatory process.



Understanding the roadblocks in permitting energy projects and their impacts (March 2011)

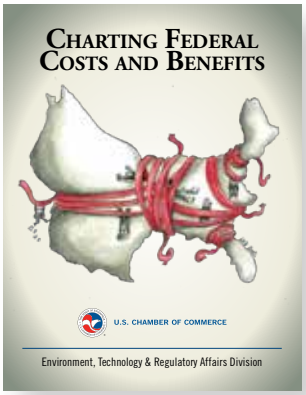


Understanding how federal agencies override states' regulatory discretion (July 2012)



Understanding the impacts of regulations on employment loss and displacement (Feb. 2013)

Understanding how private parties control agencies through the "sue and settle" process (May 2013)



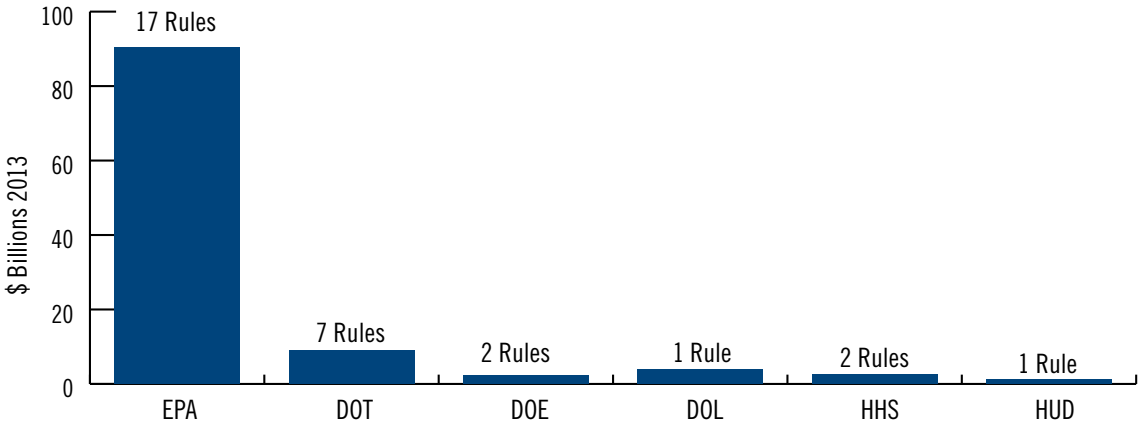
Identifying the federal rulemakings that impose the largest costs (Aug. 2014)

The Chamber's most recent study *Charting Federal Costs and Benefits* found that out of 3,500 to 4,000 new regulations finalized each year, just a tiny handful carry virtually all of the costs (and benefits). The August 2014 study specifically found that the U.S. Environmental Protection Agency (EPA) issued by far the most costly and burdensome rules between 2000 and 2013 of all executive branch agencies.

In late 2014, the Chamber completed further research (summarized in this brief report) that examined the economic justification EPA uses when it issues rules that cost $1 billion or more annually.

Figure 1. Billion-Dollar Rules by Agency

2000–2013



Sources: EPA rules from agency RIAs; other agencies' rules from OMB *Draft 2013 and Draft 2014 Reports to Congress on Costs and Benefits of Regulations*

Figure 2. Annual Cost of EPA Billion-Dollar Regulations

17 EPA Rules From 2000 to 2014

Sources: *Federal Register* and agency RIAs

This research revealed that in recent years EPA has obscured critical details about the specific pollutants a given rule would control, and how much it would actually cost to achieve that control. Thus, the U.S. citizen, who is the "consumer" of federal regulatory benefits—and who ultimately pays the additional regulatory costs through higher prices—is prevented from seeing vital information about the product being "purchased."

Rather than clearly explaining all of the pollution controls it considered and the relative cost of each alternative approach (as well as why it ultimately selected one alternative over all others), EPA simply tells the public that the high cost of a billion-dollar-plus rule is offset by even higher benefits. In effect, the agency tells the "consumer" that she must buy an expensive product (the rule) without knowing exactly what she is buying and with no way of verifying its true value. Simply, there must be—Truth in Regulating so that the public can know what it gets for the money it pays for regulations.

EPA Should Disclose to the Public What It Is Regulating and How

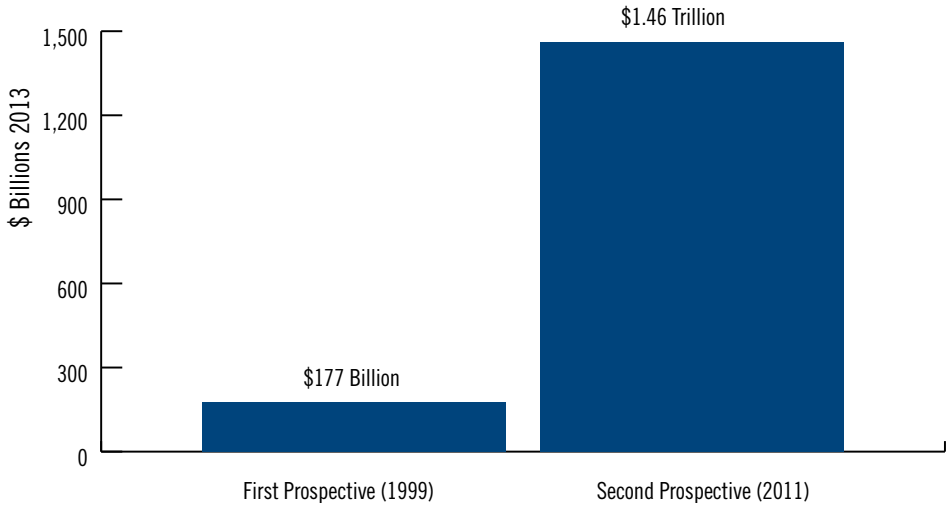
The first step in increasing transparency in EPA rulemaking is for the agency to clearly tell the public the pollutant (or pollutants) it is trying to reduce and what the value of those targeted reductions is to the regulatory consumer. EPA has in recent years denied important, basic information to the public. This pattern consists of the agency first claiming it intends to regulate one (or more) specific pollutants. EPA then writes a proposed rule that has massive costs and even more massive benefits. What the agency fails to tell the public is that almost all of the rule's benefits actually come from purely incidental reductions of fine particulate matter (PM2.5) emissions.

Much of the cause of EPA's move toward relying on incidental PM2.5 benefits to justify virtually all of its most costly rules arises from the way the agency has increased its own calculation of the benefits of reducing this pollutant. Since 2009, EPA has assumed health benefits from reductions of PM2.5 that are four times higher than the agency had previously estimated, thereby quadrupling the benefits it could claim for any regulation that happens to reduce PM2.5.[1] Moreover, as shown in Figure 3 (next page), the massive increase in the value of PM2.5 calculated benefits was based solely on EPA's entirely voluntary reinterpretation of existing data.

1. U.S. EPA (2009) *Integrated Science Assessment for particulate Matter* (Final Report) National Center for Environmental Assessment—RTP Division. *See:* htpp://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=216546.

Figure 3. Escalating EPA Estimates of CAA Benefits

Comparison of EPA Projection in 1999 vs. EPA Estimate in 2011



In 1999, EPA estimated that all CAA rules would produce $177 billion in benefits in 2010. In 2011 EPA found that the CAA has actually produced $1.46 trillion in benefits, a greater than eightfold increase. The vast majority of this increase is due to inflation in the estimated value of PM2.5 reductions.[2]

Because PM2.5 exists in practically every emissions stream that EPA regulates under the Clean Air Act (CAA), the agency can almost always show that a given rule will reduce PM2.5, and that the calculated health benefit of those reductions is immense. This has recently been true even for rules that have nothing to do with PM2.5.

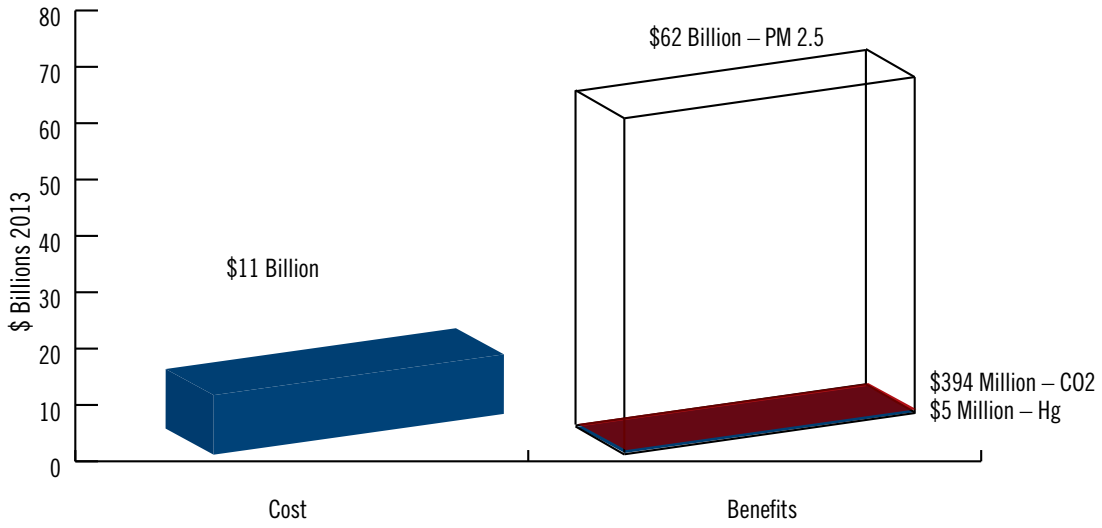
For instance, the 2012 Mercury and Air Toxics (MATS)[3] rule was touted as an essential tool to reduce mercury, with EPA informing the public that its $10.6 billion dollar price tag was more than justified by approximately $60 billion (mid-point of range) in health benefits. What EPA did not clearly explain, however, is that the estimated benefits from reducing mercury under the rule total only about $4 million to $6 million. As shown in Figure 4, virtually all of the remaining calculated benefits of the rule (99.4%) come from incidental reductions in fine particulate matter (PM2.5), with CO2 reductions making up most of the remaining 0.6%. Mercury accounts for only 0.001% of quantified benefits.

2. EPA, Office of Air and Radiation, "The Benefits and Costs of the Clean Air Act from 1990 to 2020: Summary Report" (March 2011).

3. 77 Fed. Reg. 9,304 (February 16, 2012).

4. 75 Fed. Reg. 54,970 (September 9, 2010).

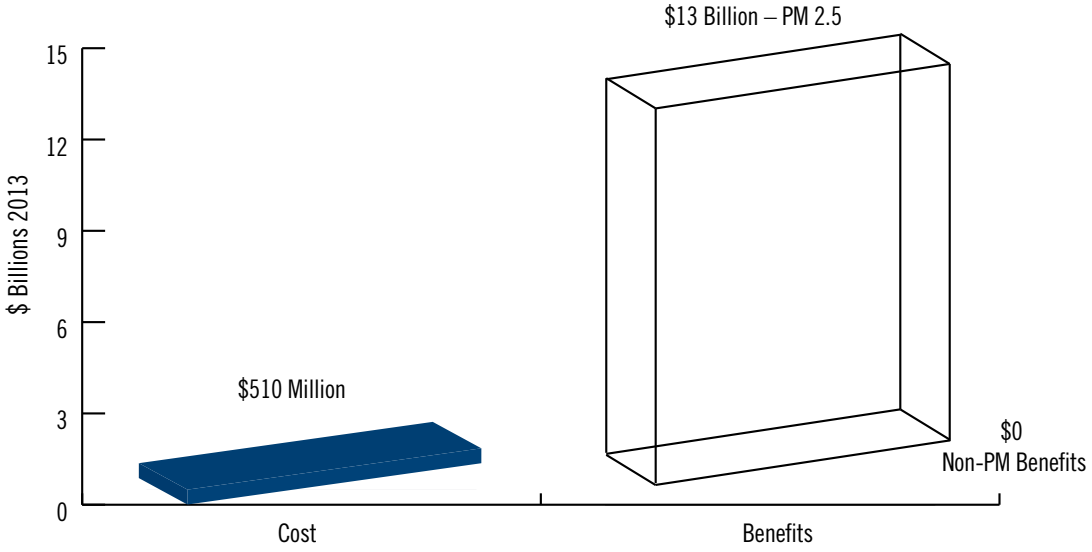
Figure 4. 2012 MATS Rule Annual Costs vs. Benefits



Source: EPA

But at least in the 2012 MATS rule EPA estimated that some benefits came from mercury reductions, no matter how relatively miniscule, even if that fact was obscured from the public. In the 2010 Portland Cement air toxics rule,[4] which the agency announced would control several toxic chemicals from the cement-making industry, EPA relied *entirely* on the benefits of PM2.5 reductions to justify the high cost of this extremely stringent regulation.

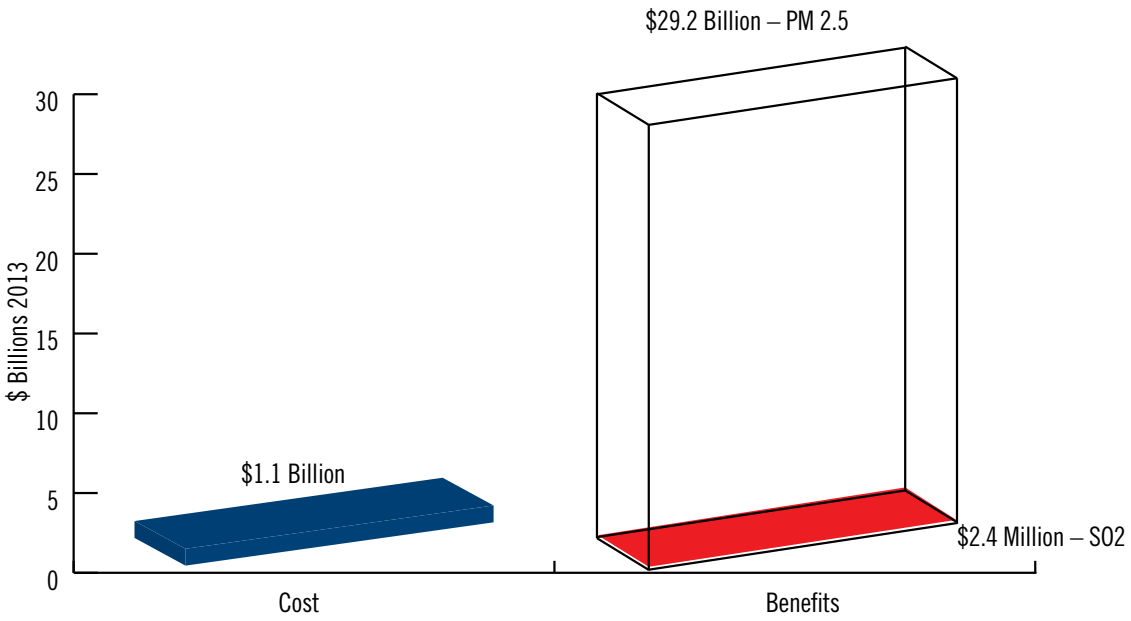
Figure 5. 2010 Portland Cement NESHAP Annual Costs vs. Benefits



Source: EPA

Again, in the 2010 National Ambient Air Quality Standards (NAAQS) for SO2 (sulfur dioxide), all but $2.4 million in SO2 benefits actually came from PM2.5 reductions.[5]

Figure 6. 2010 Primary SO2 NAAQS Annual Costs vs. Benefits



Source: EPA

Not only did EPA fail to fully justify reductions of SO2 under the SO2 NAAQS program, it relies almost exclusively on PM2.5 benefits to justify the rule. PM2.5 is itself covered by a NAAQS standard.[6] The public deserves to be told how the agency can set a NAAQS standard as required by law and still rely on calculated benefits from PM2.5 reductions to drive up the stringency of the SO2 standards. 97.2% of all claimed EPA benefits, including for water, toxics, and all other regulatory programs, come from PM2.5 reductions. From the perspective of a regulatory "consumer," it is impossible to know if each new EPA rule actually provides valuable benefits as claimed, or whether the agency is simply using PM2.5 reductions to mask overly burdensome regulations that cannot be justified on their own merits.

5. 75 Fed. Reg. 35,520 (June 22, 2010).2. 77 Fed. Reg. 9,304 (February 16, 2012).

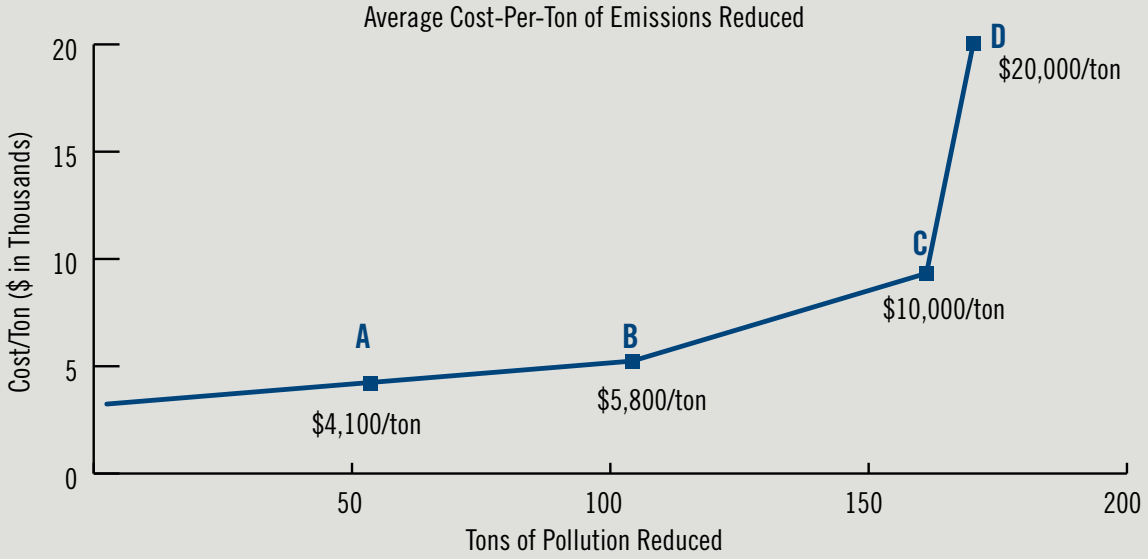
6. See http://www.epa.gov/air/criteria.html for a list of all pollutants covered by NAAQS as well as current standards for each.

Finding the Regulatory "Sweet Spot"

EPA needs to be more transparent about exactly what pollutants it is controlling and why it chose to impose the controls it did and not some other control. In choosing among several alternatives and the varying costs of each alternative, EPA should be able to show that it chose the most reasonable one. If the agency has selected a less reasonable alternative, public "consumers" of the rule will either not get enough reduction in air pollution or they will pay too much for the reduction they get.

Until recently, EPA used cost-per-ton of emissions reduction as a way to show why it chose a particular standard or control technology over other alternatives. The public was told how the cost-per-ton of a pollutant reduced changes with more stringent emissions standards or different control technologies. Comparing alternative pollution control requirements and their respective costs allowed the public to see for itself whether the agency was choosing the "right" level of control—the regulatory "sweet spot."

In the hypothetical situation illustrated below, EPA has a choice between four different regulatory options to reduce a specific pollutant. Each option respresents a rule with a different level of stringency or control technology. As the illustration shows, Option A is the cheapest, but only delivers about 55 tons of reductions. Option B reduces almost twice as much air pollution at a slightly higher cost. Option C delivers 165 tons of reductions, but costs more than twice as much on a per/ton basis as Option A. Option D delivers 170 tons of reductions, only slightly more than Option C, but does so at a per/ton cost that is double that of Option C. In this example, Option C is the "sweet spot." Option D is clearly not a reasonable alternative, and would represent overregulation by EPA.



The U.S. Supreme Court, in its recent decision in *EPA v. EME Homer City Generation, L.P.,* 572 U.S. __ , 134 S.Ct. 1584 (2014), affirmed the wisdom of this approach. The Court reasoned that the sensible way to reduce pollution was to look at all sources and "to reduce the amount easier, i.e., less costly, to eradicate." Further, the Court noted that "(e)liminating those amounts that can cost-effectively be reduced is an efficient and equitable solution" to the problem that EPA's regulation sought to address. Simply put, the Court held that in seeking to reduce pollution levels, regulatory decision makers need to compare costs across the range of controls and choose the level of pollution control that yields the greatest reductions at the lowest incremental cost. The Court went on to say that ignoring this concept when setting standards, and instead setting a standard that applied equally to each source, regardless of cost, would lead to "costly overregulation." The public "consumer" of EPA's final rule bears the cost of this "overregulation."

To accomplish needed transparency and accountability in its regulatory decision-making, EPA needs to:

- Move away from relying on inflated benefits estimates for purely incidentally reduced pollutants such as PM2.5.
- Return to its former policy of telling the "consumer" of its rules about exactly what pollutants are being targeted by each regulation.
- Return to its former policy of telling the "consumer" of its rules about how much the reductions in those targeted pollutants will cost.
- Inform the "consumer" of its rule about how much the targeted pollutant(s) will actually be reduced, and how those specific reductions will benefit the public.

In order for regulatory "consumers" to have confidence that EPA is choosing the "right" level of regulatory protection, the public needs more information about why the agency chose one level of stringency over other alternatives available to it.

7. Total U.S. mercury emissions have fallen from about 250 tons in 1990 to about 100 tons in 2010. Over that period, mercury from power plants declined from 59 tons in 1990 to about 26 tons in 2010. Data from "2008 National Emissions Inventory: Review, Analysis, and Highlights" U.S. EPA, Office of Air Quality Planning and Standards (May 2013) is available at: http://www.epa.gov/ttn/chief/net/2008report.pdf.

8. 70 Fed. Reg. 28,606 (May 18, 2005).

Illustrating the Need for Cost-per-ton Metrics in Recent EPA Rulemakings: The 2012 Mercury and Air Toxics (MATS) Rule

EPA informed the public that it issued the 2012 Mercury and Air Toxics Standard (MATS) rule for coal- and oil-fired utility boilers to directly address mercury emissions. EPA has estimated that the MATS rule will reduce mercury emissions from U.S. power plants from about 26 tons in 2010 to an estimated 9 tons by 2016.[7]

The 2012 MATS rule is a more stringent version of a finalized, but never-implemented, 2005 rule called the Clean Air Mercury Rule (CAMR).[8] The MATS rule that replaced CAMR costs $10.6 billion annually, 106 times as much as CAMR costs each year.

In developing the 2005 CAMR rule, EPA clearly disclosed the cost for each pound of mercury that would be reduced. The public had the information enabling it to agree or disagree with the agency's choice.

By contrast, in developing the 2012 MATS rule, EPA simply presented the public with one aggregated cost of the rule and one aggregated estimate of benefits, as if all costs and benefits could be ascribed to mercury reductions. The value of the MATS mercury reductions should have been judged by comparing its additional costs over the CAMR rule with the value of its extra mercury reductions. Table 1 below compares the cost-per-ton of the CAMR rule and our estimated values for MATS cost-per-ton based on the costs of the three control technologies and the reductions in targeted pollutants that EPA estimates the rule produces.

Table 1: Cost-per-ton(lb) of Targeted Pollutants

Pollutant	CAMR	MATS
Mercury (2013$/lb)	$45,500	$82,100
SO2 (2013$/ton)	$1,200	$3,900
PM2.5 (2013$/ton)	Not estimated[9]	$21,000

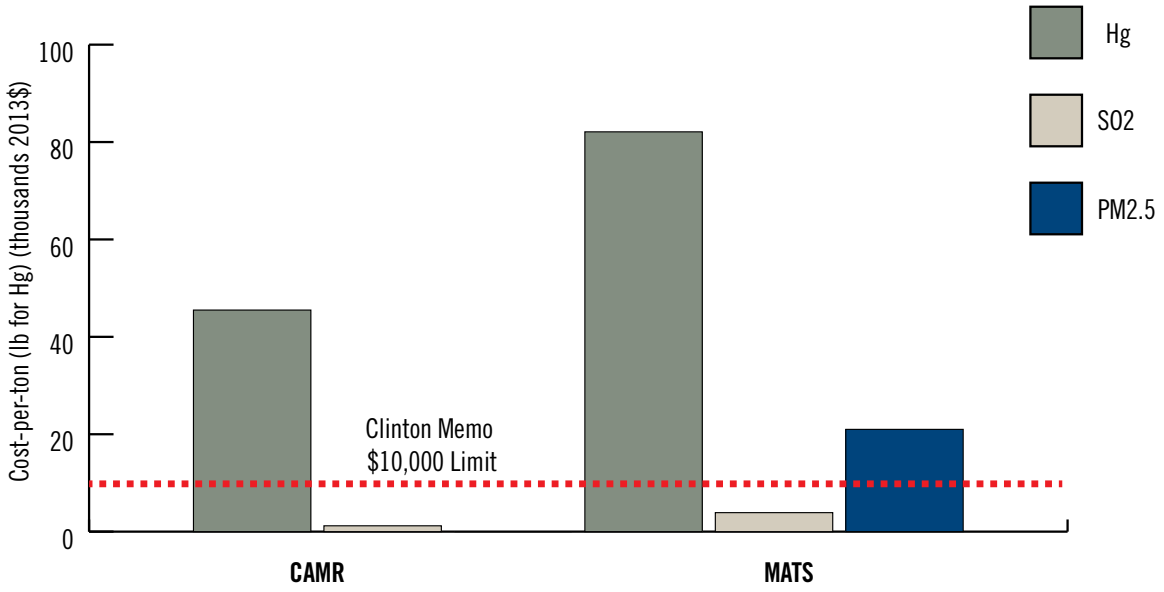
But EPA didn't allow the public to compare regulatory costs. Instead, the agency led the public to believe it was producing a rule that created tens of billions of dollars of health benefits from mercury reductions, when in reality it created yet another PM2.5 control rule.

9. In 2005 EPA did not estimate the cost-per-ton of PM2.5 reductions from the CAMR rule because PM2.5 reductions were not the focus of the rule. Additionally, virtually all of the PM2.5 reductions EPA takes credit for in MATS are actually SO2. However, EPA is able to claim higher benefits from PM2.5 reductions than from SO2 reductions, so the agency has shifted to a policy of translating SO2 into PM2.5 to justify greater reductions with higher benefits estimates.

Figure 8 below compares CAMR and MATS emissions reductions and their cost-effectiveness. In addition to nearly doubling the cost-per-pound of mercury compared with CAMR, the MATS rule also has a high cost-per-ton of PM2.5 that EPA did not disclose to the public. In July 1997, President Clinton issued a Presidential Memorandum instructing EPA to keep the implementation costs for the final 1997 Ozone and PM2.5 NAAQS standards below $10,000 per ton.[10] The MATs rule yields slightly larger reductions in mercury at a cost for PM2.5 reduction that exceeds the Clinton cost limit by more than double.

Figure 8. Cost-per-ton of Emissions Reductions

The 2005 CAMR Rule vs. the 2012 MATS Rule



In the CAMR rule EPA claimed incidental reductions of SO2 as co-benefits because they were achieved as a side effect by installing the mercury emissions controls. In the MATS rule, EPA required additional costly controls to further reduce SO2, and then claimed most of the SO2 reductions as PM2.5 reductions because it could inflate the value of claimed health benefits further by doing so.

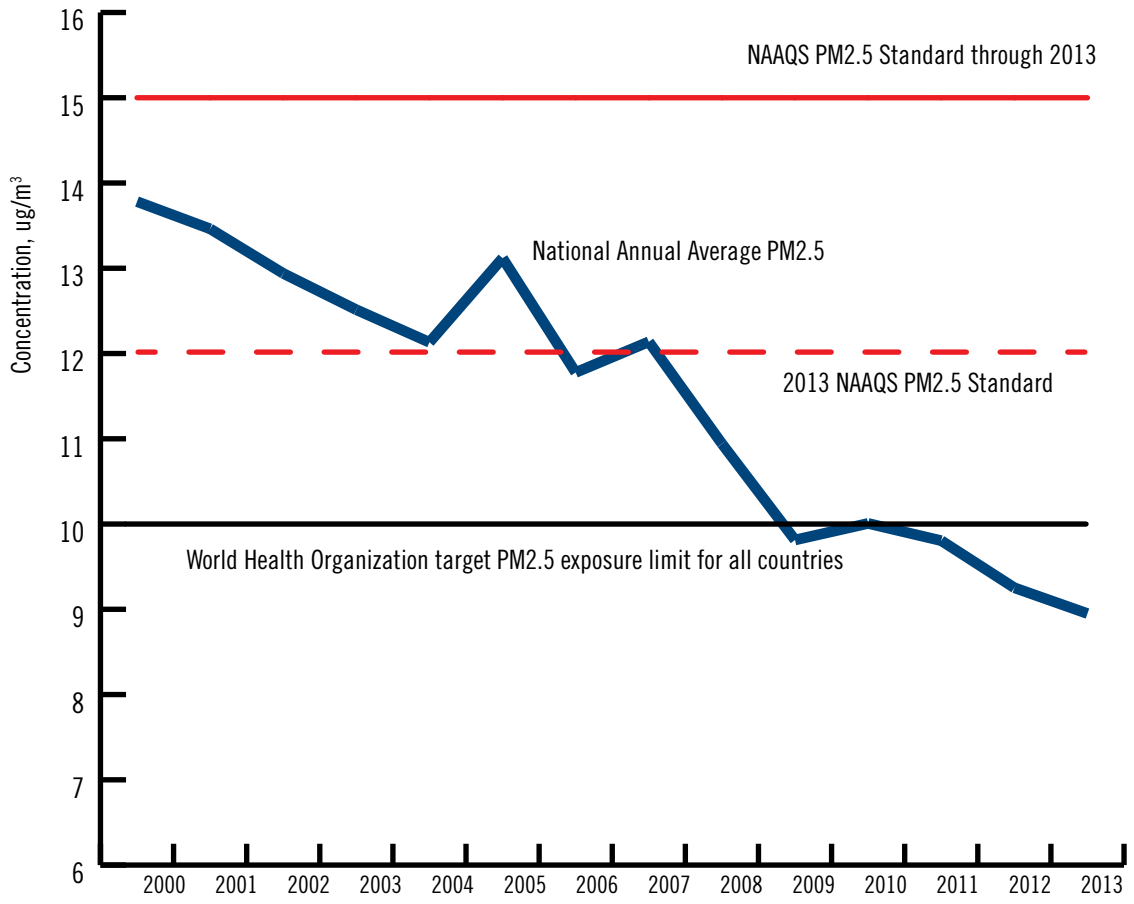
This example clearly demonstrates the need for increased transparency in EPA rulemaking. More than 99% of the benefits EPA attributes to MATS are PM2.5 benefits, a pollutant that is already adequately controlled by a separate NAAQS standard.

10. White House Memorandum to the Administrator of the Environmental Protection Agency, "Implementation of Revised Air Quality Standards for Ozone and Particulate Matter" (July 16, 1997).

Fine particulate matter in the United States has been steadily declining such that current average atmospheric levels for most Americans are well below the levels in virtually every other country.[11]

Figure 9: PM2.5 Air Quality, 2000 to 2013

33% Decrease in National Annual Average PM2.5 Levels



Sources: *EPA, WHO*

EPA should have developed the MATS rule, and its other multi billion-dollar rules, under a more transparent rulemaking process that allows the public to see for itself whether the agency set standards at an appropriate level based on cost-per-ton considerations as it traditionally has done for this type of rulemaking.

11. See WHO Country Profiles (http://www.who.int/countries/en/).

Recommendations

EPA must be more transparent when communicating the benefits of rules to the public. Specifically, the Chamber recommends the following:

1. **EPA must clearly identify the pollutant(s) being targeted by the regulation.**
2. **EPA should curtail the use of incidental PM2.5 benefits as justification for more stringent and costly regulation of other pollutants.**
3. **EPA should resume its practice of providing detailed discussions of regulatory alternatives and cost-per-ton.**
4. **Congress needs to enact the Regulatory Accountability Act of 2015 to achieve greater transparency in the rulemaking process.**

This critical regulatory reform bill would compel agencies like EPA to be more transparent and accountable when they conduct rulemakings, particularly the most complex and costly rulemakings. For the two to three largest rulemakings that federal agencies cumulatively undertake each year, the Regulatory Accountability Act would require the agencies to spend more time earlier in the process gathering data, evaluating alternatives, and receiving public input on regulatory costs and benefits. Stakeholders would have an opportunity to build a more robust administrative record that will be available to a reviewing court.

Truth in Regulating

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