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## *Regulatory Policy*

### **Practitioner Insights: Fuzzy Math to Assault Environmental Rules**

The Trump administration's relationship with numbers has been rocky from day one when White House officials inexplicably disputed evidence-based estimates of the number of people at the president's inauguration. Of course, the stakes in that kerfuffle—public relations and personal ego—were relatively low.

Telling as that incident was, it was largely a branding exercise for President Donald Trump. A mathematical exercise of more lasting and greater import is the assault that the administration is now waging against our system of regulatory safeguards—the legal measures that are critical to ensuring that the air we breathe is safe, the water that comes out of our taps at home is free of toxic contaminants, and the food we share with our families won't make us sick.

Both on the campaign trail and now in office, Trump has reiterated his promise to bring about the “deconstruction of the administrative state,” as former White House strategist Steve Bannon ominously described it. Making good on this promise, however, will require the Trump administration to confront its old nemesis: arithmetic. The early indications are that the administration will resort to Enron-esque book-cooking to advance its rollback of critical safeguards.

**The WOTUS Repeal: Bye, the Numbers** Starting with the Reagan administration, federal agencies such as the Environmental Protection Agency have been subject to a series of executive orders requiring them to ensure that their pending rulemakings pass a strict “cost-benefit analysis” test.

This means that an agency must demonstrate for each of its rules that the benefits “outweigh” or “justify” its costs, depending on how the test was formulated. The rationale for this analytical requirement was that it would improve regulatory decision making by pushing agencies to develop regulations that made society better off on balance.

The Trump administration has brought a much different philosophy to regulation: Its concern is not the quality of regulations, but the quantity. To that end, Trump has issued a series of executive orders directing agencies to focus on removing existing regulatory safeguards from the books.

Under prevailing administrative law, the process for eliminating an existing regulation is identical to the one that agencies must follow when they develop a new one. Accordingly, one of the big questions facing the Trump administration was whether regulatory actions to eliminate existing rules would also be subject to a cost-benefit analysis test.

In an April 5 memorandum, then-acting Administrator of the Office of Information Regulatory Affairs (OIRA) Dominic Mancini resolved this question, confirming that the cost-benefit analysis test would apply to agency actions to eliminate existing rules just as it does for new regulations. OIRA is the White House office charged with supervising agency compliance with regulatory cost-benefit analysis requirements.

For those Trump administration agencies eager to repeal Obama-era rules—including, most notably, the EPA—the Mancini memo appears to have painted them into a sticky analytical corner. When agencies attempt to demonstrate that repealing an existing rule passes a cost-benefit analysis test, they are in effect seeking to show that the continued implementation of that rule would impose greater costs than benefits. That task can be especially difficult for rules that were only recently issued, since it requires agencies to show that a rule that passed a cost-benefit analysis test just a few months or years ago no longer passes that same test now.

This is the conundrum that Trump's EPA recently faced in developing its proposal to repeal the Obama-era Waters of the U.S. rule (WOTUS). One of the more controversial regulatory actions undertaken during the Obama administration, WOTUS sought to clarify the reach of the Clean Water Act's protections as they applied to waterbodies like wetlands and headstreams that, while small or even ephemeral, still had an impact on the integrity of other, larger waters that clearly fall within the law's scope.

When it finalized the rule in 2015, the EPA concluded that its projected annual benefits of between \$347.0 million and \$586.0 million significantly outweighed its projected costs of between \$162.2 million and \$476.2 million. (The EPA's original analysis was reported in 2014 dollars; numbers used here have been updated to 2016 dollars to account for inflation.)

The benefits stemmed from the fact that the increased clarity would lead to more marginal waterbodies being protected under relevant Clean Water Act programs, such as those aimed at oil spill prevention and stormwater permitting. The protections achieved through the effective and efficient implementation of the Clean Water Act programs would in turn result in better public health and environmental outcomes, such as safer drinking water, more waters available for swimming or other recreational uses, and healthier ecosystems capable of supporting a variety of aquatic animal and plant life. The cost estimates reflected the additional expenditures that would result from administering and complying with the Clean Water Act programs to cover the additional protected waterbodies.

One of the problems with cost-benefit analysis is that it relies on reducing all costs and benefits to dollar figures. In the case of WOTUS, as with many regulatory cost-benefit analyses for environmental safeguards, the EPA was unable to put a dollar figure on many of the benefits categories that the rule produced.

Few environmental benefits—such as a waterbody's recreational value or ecological health—can be fairly “quantified” or reduced to numbers, and fewer still can be “monetized” or translated into dollars-and-cents terms. So, for example, the EPA's WOTUS cost-benefit analysis does not include monetary values that would flow from such important programs as those that protect waters against oil spills or toxic pesticides. Instead, it describes these benefits in qualitative terms. In the end, those qualitative descriptions cannot be and are not included in the estimated ranges of monetary benefits and thus, end up being excluded from the policy debate altogether. As a result, some of the most significant benefits literally do not count.

The largest benefits category for WOTUS that could be quantified and monetized came from a Clean Water Act program to protect against wetlands loss that results when wetlands are dredged or filled as part of permitted development activities. This category accounted for about 88 to 90 percent of the rule's total monetary benefits.

To calculate this benefit, the EPA first estimated the number of additional acres of wetlands that would be protected as a result of the rule. The agency then determined the monetary value of this outcome by incorporating the results of several economic studies that estimated what individual households were “willing to pay” to protect a hypothetical acre of wetland.

**Flipping the Numbers** For Trump's EPA, repealing WOTUS meant flipping the numbers on this cost-benefit analysis: the benefits of the original rule, now forgone, became the “costs” of the repeal, while the costs of the original rule, now avoided, became the repeal's “benefits.” As noted above, though, taking this step alone would place the WOTUS repeal in violation of the Mancini memo, since the benefits of the original rule were substantially higher than the costs.

To solve this “problem”—that is, to manufacture the appearance that repealing WOTUS would make society better off (or, conversely, that the continued implementation of WOTUS would make society worse off)—Trump's EPA had to overhaul the original cost-benefit analysis. Its options for doing so were to increase the original cost estimates, reduce the original benefit estimates, or some combination of the two.

Ultimately, the agency elected to take a hatchet to the rule's benefits estimate, wiping out the entire category of wetlands loss protection, which comprised the vast majority of the rule's quantified and monetized benefits. Particularly striking was the facile and almost cynical manner in which they went about obliterating all of those benefits. Over the course of a single paragraph, Trump's EPA casually dismissed these benefits on the grounds that the willingness-to-pay studies from which they were derived were too old. The analysis concluded that the age of these studies, which were published between 1986 and 2000, made them unreliable because “public attitudes toward nature could have changed” and because economists might have developed better techniques for measuring the public's willingness to pay for environmental protections in the intervening years.

**No Attempt to Update Studies** Despite its professed concerns about the age of these studies, though, it is noteworthy that Trump's EPA appears to have made no effort to obtain more updated studies, or to make any other accommodation to the likelihood that people value the environment even if the president does not. Instead, the agency simply capitulated and erased hundreds of millions of dollars of benefits with a few keystrokes.

The agency's rationale for discounting the benefits of protecting against wetlands loss fails to pass the sniff test, and it completely collapses under scrutiny. If anything, the public's attitude toward nature in general, and wetlands in particular, has almost certainly improved since the studies were published. For example, Hurricanes Katrina, Sandy, and now Harvey have shined an intense spotlight on the value of wetlands in mitigating natural disaster-related damages, while the public's appreciation for these resources as habitat for endangered species among other ecosystem services has also likely grown. In fact, the willingness-to-pay studies likely reflect underestimates as well, since the respondents are necessarily and inevitably constrained by their ability to pay. Consequently, any ensuing advances in economic surveying methodologies would likely serve to correct for the systematic underestimates these studies tend to produce.

The bottom line is that if the original estimate of the benefits of protecting against wetland loss was inaccurate, it was because that estimate was far too low. Short of obtaining more updated willingness-to-pay studies, the most sensible response for the EPA would have been to retain the original estimate as a placeholder representing a conservative, low-end value for those benefits, not to throw it out completely.

In what seems like a parting shot, the Trump EPA concludes this part of the analysis by conceding that it was “confident that the forgone benefits of wetlands protection are greater than zero.” This caveat does not undo the damage, however. The practical effect of converting this benefits category from monetized benefits

into “unquantified” ones is to treat their monetary value as the equivalent of zero dollars.

The controversy over the WOTUS repeal cost-benefit analysis continues to grow. Following press accounts that political appointees at the EPA specifically directed career staff to manipulate the cost-benefit analysis for the rule so that it would appear to generate net benefits, Sen. Tom Carper (D-Del.), the ranking member of the Senate Environment and Public Works Committee, launched his own investigation. He recently sent a letter to EPA Administrator Scott Pruitt requesting various documents related to the agency’s development of the cost-benefit analysis for the WOTUS repeal rule. The letter instructs Pruitt to respond by the end of September.

**Fake Numbers** The EPA’s approach to cooking the books on the cost-benefit analysis for its WOTUS repeal is likely to serve as a blueprint for future deregulatory actions by the Trump administration. In similar fashion, Trump’s agencies will need to devise ways to exaggerate the costs or to minimize the benefits of the existing rules that it is seeking to eliminate so that these deregulatory actions are able to pass a cost-benefit analysis test.

On the benefits side of ledger, the WOTUS repeal effort illustrates how opponents of regulatory safeguards can readily eliminate entire benefits categories for individual rules.

Another rule from the Obama administration, which sought to limit toxic air pollution emissions from fossil-fueled power plants, provides a different, but still extreme, example. There, the EPA quantified and monetized one of the rule’s many benefits categories: protecting children against lost IQ points caused by exposure to mercury, as measured by their lost lifetime earning potential.

That’s hardly the standard a parent would use in gauging the “cost” of a child’s cognitive impairment, failing as it does to account for the full panoply of negative consequences that a child might suffer from such impairment. Nor does it account for the numerous other public health harms that mercury pollution causes, such as heart disease and kidney damage in adults. Nor, for that matter, does it account for the environmental harms that mercury pollution causes to plants, animals, and the healthy functioning of their ecosystems. Or for all the public health and environmental damage caused by other non-mercury toxic air pollutants that the rule would address, including acid gases and dioxin. In short, just a fraction of a fraction of a fraction of the rule’s direct benefits is captured in monetary terms.

**Bye Bye to Cross-Cutting Benefits** More broadly, the Trump administration has signaled that it intends to eliminate or reduce more “cross-cutting” types of benefits, as well. For example, agencies may stop considering what are known as “co-benefits,” or those benefits that result from the implementation of a rule even though they are not the direct purpose of the rule.

The Obama administration’s air toxics rules for fossil-fueled power plants delivered significant co-benefits in the form of reduced emissions of ozone precursors and particulate matter. In fact, one of the bonuses of the rule is that by complying with the air toxics rule, power plants would inevitably reduce their emissions of these other types of air pollutants, as well, adding to its public health and environmental benefits.

The fossil fuel industry and their conservative allies in Congress heavily criticized the Obama administration for incorporating these co-benefits into the rule’s analysis, even though the George W. Bush administration had included these very same co-benefits in the analysis for its version of the power plant air toxics rule. (That rule was eventually struck down in court for unrelated reasons). In contrast to both Obama and Bush, the Trump administration plans simply to ignore such benefits.

Another type of cross-cutting benefit that the Trump administration has targeted is the “social cost of carbon,” which purports to assign a value to reducing emissions of the greenhouse gas carbon dioxide.

In particular, the Trump administration has ordered the EPA and other agencies to severely reduce the value of the social cost of carbon by using an artificially high discount rate (many of the harms of climate change will not occur until several decades in the future, and thus would be worth almost nothing in present day dollars if too high a discount rate is applied) and by arbitrarily restricting its scope to just damages that occur in the United States (by definition, climate change is a worldwide phenomenon with global causes and consequences that cannot be restricted to human-defined national borders).

**Mythical Costs** On the cost side of the ledger, Trump’s agencies may follow the lead of industry-funded economic consultants in using outrageous data inputs to construct absurd compliance cost predictions.

To take one particularly egregious example, an economic consultant manufactured an extreme overestimate of the costs of the EPA’s then-pending rule to tighten the national ozone air pollution standard by extrapolating from a deliberately misleading source: the Department of Transportation’s (DOT) 2009 “Cash for Clunkers” program.

This was analogous to using the menu for the fanciest steakhouse in town to project the costs of a program to feed the poor. That’s because the DOT program was designed as an economic stimulus program targeted at jumpstarting U.S. auto sales in the wake of the 2008 economic crash, and such stimulus programs by their nature carry hefty price tags.

While Cash for Clunkers had some incidental environmental benefits by encouraging car owners to replace their older, more polluting cars, no one would ever seriously defend such an expensive and inefficient approach for controlling air pollution.

More to the point, the DOT program provided no realistic basis for predicting the costs of complying with the EPA’s pending ozone rule, especially given the decades of experience showing how private sector actors continuously found innovative ways to control air pollution that were cheaper and more efficient.

Nevertheless, the economic consultant’s goal was to generate a large cost estimate that could be used to attack the EPA’s ozone rule; the misuse of the Cash for Clunkers program made it possible to conjure such an extreme overestimate.

**Controversial Methodology Use** Finally, Trump’s agencies might deploy a controversial cost-benefit analysis methodology known as “whole economy modeling” or “economy-wide modeling.”

Opponents of protective safeguards have long sought to use whole economy modeling, which purports to

measure how the effects of a particular regulation reverberate throughout the economy as a means for systematically exaggerating regulatory cost estimates by, among other things, incorporating specious estimates of the indirect job losses a particular regulation might purportedly cause.

As the name suggests, whole economy modeling relies on human-constructed models, rather than empirical observation, to measure regulatory impacts. Its results are highly sensitive to the design choices and assumptions made by the model maker, which renders the technique susceptible to manipulation and misuse.

If whole economy modeling becomes widely used, it would provide the Trump administration with another powerful tool for fabricating regulatory cost-benefit analyses to support its assault on protective safeguards. For example, opponents of the EPA's Clean Power Plan frequently cite a coal industry-funded study that purports to use whole economy modeling to estimate the rule's economic costs. Among the study's outlandish findings are that the Clean Power Plan will cost the

economy tens of millions of dollars and lead to double digit increases in electricity costs.

The WOTUS repeal is likely just the first of many episodes in which regulatory cost-benefit analyses are twisted and contorted to justify rollbacks of regulatory safeguards. These efforts will show the disingenuous lengths to which the Trump administration will go to advance its deregulatory agenda. They also will confirm what critics of regulatory cost-benefit analysis have long been saying—that the methodology is far too subjective and susceptible to politicized manipulation to warrant the highly influential role it plays in regulatory decision-making.

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