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Inflated Benefits in Agencies' Economic Analysis

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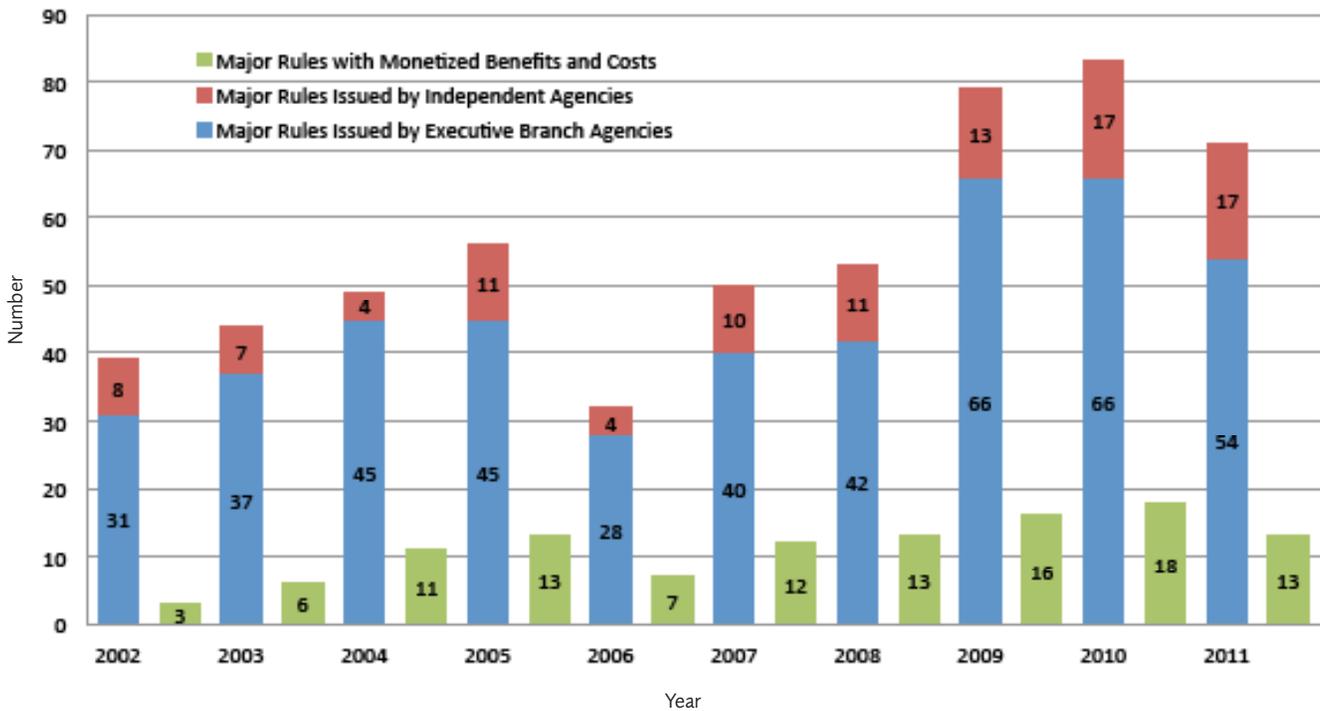
PRESIDENT CLINTON'S EXECUTIVE Order 12866 outlined widely accepted principles for evaluating the merits of regulations. The purpose of the executive order was to ensure that, on balance, the regulations at issue promote social welfare.¹ Consequently, agencies today are required to prepare Regulatory Impact Analyses (RIAs) for economically significant regulations.² In their analyses, agencies must estimate the benefits and costs of a wide range of alternatives, including an option not to regulate, and they must select the option that achieves the greatest benefit at the lowest cost.

Agencies, however, often fail to comply with this requirement. According to the Office of Management and Budget's (OMB's) 2011 report to Congress, only 13 out of 54 major rules finalized that year were supported by a breakdown of benefits and costs (see figure 1).³ When agencies do estimate benefits and costs, their analyses often suffer from methodological inconsistencies and faulty assumptions. Of particular concern is the tendency to inflate benefit estimates by underassessing risk, underreporting uncertainty, and reporting private benefits that market participants reject in their estimates of social welfare.

RISK ASSESSMENT AND RANGES OF UNCERTAINTY FOR BENEFITS

MANY RIAs CONTAIN benefit estimates with a much wider range of uncertainty than agencies acknowledge.⁴ A broader range reflects a greater degree of uncertainty about the combined effect of uncertain parameters. When the estimates are presented with more certainty—for example, with narrower ranges of values or with the use of exact numbers, e.g., “4,807 deaths prevented,” they mislead policymakers about what is really known or not known. Consequently, policymakers may not be able to accurately compare the costs of a policy option with the benefits. When there is uncertainty in one or both measures, the ranges may overlap. Making policy determinations in

FIGURE 1: FEW MAJOR RULES HAVE MONETIZED BENEFITS AND COSTS⁵



Source: OMB annual reports to Congress

the presence of uncertainty is an exercise in value judgment. When agencies fail to reveal the full extent of uncertainty they usurp the policymaker’s role. This also makes it more difficult for policymakers to hold agencies accountable.

Uncertainty associated with agencies’ risk assessments often leads to inflated estimates of benefit. Risk assessments should include both an upper and a lower limit for decrease in risk. These estimates are then translated in the benefits assessment to monetized savings for consumers.

Consider the Environmental Protection Agency’s (EPA’s) regulations for reducing air pollution. Reductions in fine particulate matter (PM_{2.5}) emissions account for most of the benefits from these rules. The EPA estimates that inhaling PM_{2.5} carries health risks and may ultimately cause death, but some scholars question the extent of the harmful health effects. In particular, they argue that some levels of PM_{2.5} may be safe to inhale.⁶ Before 2009, the agency agreed with this view and assumed that mortality risks from PM_{2.5} tapered off below the level for which there is evidence of human harm.⁷ In 2009, however, the EPA changed its methodology; the agency now assumes that there is no safe threshold for inhalation, even though it has offered little scientific evidence for its decision.⁸ EPA’s rules claim to drastically reduce deaths caused by inhaling PM_{2.5}, yet the bulk of this reduction comes from lowering the PM_{2.5} concentration below the level of measured human

harm. Thus, the rule’s estimated benefits are derived largely from the EPA’s decision to change the way it calculates risk assessment, with little scientific support for the shift.

Disagreement among scholars over proper risk-assessment methodology is itself a sign of uncertainty that should be acknowledged in the agency analysis.⁹ In addition, agencies tend to use conservative models and assumptions that overestimate risk.¹⁰ Conservative risk estimates, by contrast, overstate the benefits. A full discussion of the uncertainty contained in the benefit and cost estimates of the PM_{2.5} rules is likely to result in a much lower boundary for benefits. It is even possible that the lower-boundary benefits could be exceeded by the upper-boundary costs. If this is the case, it raises the possibility that the regulatory program did more harm than good.

RESTRICTING CONSUMER CHOICE

TRADITIONALLY, AGENCIES HAVE focused on mitigating the harm imposed by individuals on others (e.g., pollution, misleading advertising). Recently, some agencies have shifted the focus of regulation to preventing individuals from harming themselves through what agencies view as irrational actions. Pointing to findings from behavioral economics, these agencies argue that in some cases consumers do not act rationally to

improve their welfare. Therefore, agencies step in and push consumers toward better choices through regulation. Agencies consider the restriction of “irrational” consumer choices to be a benefit of regulation.

This practice is dubious. To claim policy outcomes as benefits, agencies must offer solid evidence that consumer choices are, in fact, irrational. If consumers’ behavior is simply representative of their preferences, then a policy that interferes with consumer choice is a cost—not a benefit—to consumers.

Take the example of recent energy-efficiency regulations promulgated by the Department of Energy, the Department of Transportation, and the EPA. In their analyses, these agencies claimed that the total energy savings realized from the use of energy-efficient appliances outweigh the appliances’ higher cost. Consumers who choose to purchase less efficient appliances must therefore be irrational and would benefit from government regulation that forces them toward more efficient options. By contrast, Ted Gayer and W. Kip Viscusi demonstrated that it may in fact be rational for some consumers to opt for cheaper, less energy-efficient appliances.¹¹ They argued that the agencies’ exclusive emphasis on energy costs is unjustified, since consumer purchases are influenced by a variety of product attributes, including style and reliability. In addition, consumers may not realize the full savings from an energy-efficient purchase if they plan to move or sell the product in the near future, and they may not have the money on hand to cover the higher initial cost. Consequently, energy-efficiency regulations that force consumers to buy products they do not want fail to benefit those consumers and impose costs by restricting consumer choice. Thus, once the private benefits are excluded from the analysis, the costs of these regulations far outweigh the benefits.

The FDA’s regulations requiring restaurants and vending machines to post calorie counts provide another example of how behavioral economics is misused by federal agencies. In its analysis, the FDA has acknowledged that restaurants and vending machines operate in competitive markets and that vendors would provide calorie counts if consumers demanded such information. Because consumers do not, the FDA has assumed that they are irrational and that the FDA should step in and force vendors to post calorie counts. Yet the FDA has failed to provide any evidence that such a policy would reduce obesity or that consumers would use the information to alter their purchasing behavior. In fact, Michael Marlow and Sherzod Abdukadirov have demonstrated that consumers are generally well informed and providing them with nutritional information has no impact on obesity levels.¹² Thus, the benefits claimed by the FDA are not likely to materialize.

CONCLUSION

REGULATORY IMPACT ANALYSES can serve as an important tool. They are designed to help policymakers consider a proposed regulation’s potential impact on the economy as a whole, not simply the interests of those lobbying for that regulation. When federal agencies conduct such analyses, however, they often fail to comply with requirements enunciated in executive orders from presidents of both political parties over the past few decades. As a result, agency estimates of benefits are often fragmentary and unreliable, leading to ineffective regulation and wasting of public resources.

ENDNOTES

1. "Executive Order 12866: Regulatory Planning and Review," *Federal Register* 58, no. 190 (October 4, 1993): 51735–44.
2. Economically significant regulations are those that "have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy"; see Executive Order 12866: Regulatory Planning and Review.
3. Office of Management and Budget, *2011 Report to Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities* (Washington, DC: Government Printing Office, 2011).
4. The number of major rules with monetized costs and benefits is taken from the OMB annual reports to Congress.
5. Richard Belzer, "Risk Assessment 101: How Risk Assessments Distort Estimates of the Benefits of Regulation" (working paper, Mercatus Center, George Mason University, Arlington, VA, forthcoming).
6. Louis Anthony Cox, "Reassessing the Human Health Benefits from Cleaner Air," *Risk Analysis* 32, no. 5 (2012): 816–29; Anne Smith, "Quality Science for Quality Air," testimony before the House Subcommittee on Energy and the Environment, 112th Cong. (2011).
7. Anne Smith, "Quality Science for Quality Air."
8. *Ibid.*
9. Millett Granger Morgan, Max Henrion, and Mitchell Small, *Uncertainty: A Guide to Dealing with Uncertainty in Quantitative Risk and Policy Analysis* (New York: Cambridge University Press, 1992).
10. Albert Nichols and Richard Zeckhauser, "The Perils of Prudence: How Conservative Risk Assessments Distort Regulation," *Regulatory Toxicology and Pharmacology* 8, no. 1 (1988): 61–75; Belzer, "Risk Assessment 101."
11. Ted Gayer and W. Kip Viscusi, "Overriding Consumer Preferences with Energy Regulations" (working paper, Mercatus Center, George Mason University, Arlington, VA, July 2012).
12. Michael Marlow and Sherzod Abdukadirov, "Fat Chance: An Analysis of Anti-Obesity Efforts" (working paper, Mercatus Center, George Mason University, Arlington, VA, March 2012).

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