

August 26, 2013

Via Email

The Honorable Richard Blumenthal
United States Senator
Senate Committee on the Judiciary
Subcommittee on Oversight, Federal Rights and Agency Action
224 Dirksen Senate Office Building
Washington, DC 20510

Dear Senator Blumenthal:

At the end of the hearing on August 1, “Justice Delayed: The Human Cost of Regulatory Paralysis,” you requested examples of rushed or delayed rulemakings. Ultimately, my concern with the rulemaking process does not hinge on time alone. Rather, as I stated in my testimony, a quality analysis of a rule can lead to better outcomes and avoid unintended consequences—both of which can mean avoiding human costs. This letter points out specific examples of rulemakings that failed to make the best choices and therefore incurred human costs. In these cases, a better analysis could have led to better outcomes and prevented injuries and loss of life.

1. Unintended Consequences

It is nearly inevitable that a rulemaking has unintended consequences. A regulatory agency’s task is to anticipate these and act to mitigate or minimize them. Admittedly, anticipating unintended consequences is not easy, and doing so requires an understanding of the science and technology involved in the rule as well as the changes in human behavior that a rule might induce.

Failure to adequately explore the interaction between car passengers and the science and technology of air bag deployment in cars led to the avoidable deaths of at least 32 children between 1991 and 1996.¹ Air bag technology has existed since the 1950s, but it was not widely used until Congress mandated their installation in 1991. The choice to mandate their installation was based on crash tests—performed by the National Highway Traffic Safety Administration—that had been conducted using an adult male-sized dummy. The crash tests seemed to promise considerable safety improvements, and indeed later studies found that air bags reduced fatalities

¹ Sherzod Abdukadirov, 2013. “The Unintended Consequences of Safety Regulation.” Mercatus Research, available online: http://mercatus.org/sites/default/files/Abdukadirov_UnintendedConsequences_v1.pdf.

by 24 percent among adults.² Unfortunately, these safety gains came with an unintended consequence: children under the age of 10 who rode in the front passenger seat were 34 percent more likely to be killed by the deployment of air bags.³ Through 1996, NHTSA's own estimates showed that air bags had fatally injured at least 32 children.⁴ In 1997, NHTSA amended its regulations to allow manufacturers to use less aggressive air bag deployment and to implement other measures to help reduce air bag injuries and fatalities. Children's deaths could have been avoided if NHTSA had done a more thorough analysis originally and understood the consequences of aggressive air bag deployment speeds on children-sized crash dummies.

Unintended consequences also stem from people reacting to changes in relative prices of goods and services, which regulations can affect directly or indirectly. For example, in the wake of 9/11, the Transportation Security Administration was charged with enhancing airport security, including baggage screening. A side effect of TSA's subsequent efforts was that it took travelers longer to fly due to longer security lines and baggage screening times. As a result, an estimated 6 percent of passengers began opting to drive instead of fly. Doing so increases the risk of fatality considerably: per mile traveled, driving is 8.9 times riskier than flying. A 2009 study found that, in the fourth quarter of 2002 alone, over 100 driving-related deaths were caused by the increased wait-times associated with flying.⁵

In all cases, quality analysis can help foresee unintended consequences. And what is foreseen can be more easily avoided or at least minimized.

2. Bad Bargains: Poor Health-Health Tradeoffs

Often, rulemakings will attempt to reduce the risks to human health from exposure to particular substances. Without a doubt, a reduction in exposure to known carcinogens, for example, decreases a person's lifetime risk of cancer. However, not all reductions in exposures are the same. Dangerous substances typically differ in at least two dimensions that are directly relevant to rulemakings that would address human exposure to them: first, different substances comport different risks; second, the cost of reducing exposure varies across substances. This latter point would not matter if we had infinite resources to expend in reducing risks from exposure, but we live in a world of scarcity. Regulations have both direct and indirect costs, and, as a result, decrease household incomes.

² Ibid., p. 10, citing: Elisa R. Braver et al., "Reductions in Deaths in Frontal Crashes among Right Front Passengers in Vehicles Equipped with Passenger Air Bags," *Journal of the American Medical Association* 278, no. 17 (1997): 1437-39.

³ Ibid., p. 10., citing Braver et al, *supra* note 2.

⁴ Ibid., p. 10, citing: Department of Transportation, National Highway Traffic Safety Administration, "Federal Motor Vehicle Safety Standards; Occupant Crash Protection."

⁵ Garrick Blalock, Vrinda Kadiyali, and Daniel H. Simon, "Driving Fatalities after 9/11: A Hidden Cost of Terrorism," *Applied Economics* 41, no. 14 (2009): 1717-29.

The link between income and mortality is well established: higher levels of income and closely related factors, such as education and nutrition, are closely and negatively correlated with mortality rates.⁶ In 2010, I published a law review article that discussed this tradeoff:

When regulations take resources away from other uses, that reallocation may negatively affect individual health and welfare because of a necessary reduction in spending on other goods and services. Health-health analysis points to a relationship between wealth and health, where health is measured by mortality risk and morbidity risk. Put differently, the health-health tradeoff occurs because regulations aimed at reducing one health risk may simultaneously increase some other health risk by inducing a reduction in the consumption of health risk-reducing goods and services. Because efforts to reduce target risk in one area may lead to increases in other health risks, there can be a mortality cost resulting from regulatory actions. That mortality cost may outweigh the health benefits of a regulation. To be sure, health-health analysis paints a sometimes bleak picture of the reality of some regulations: costly regulations, regardless of their intention, can sometimes induce fatalities.⁷

In a 1994 academic journal article, Randy Lutter and John Morrall succinctly explained the consequences of poorly assessed health risks: “Compliance with costly regulations affects the consumption of risk reducing goods and services in the same way as a wealth decline. Spending on compliance necessarily reduces the resources that may be spent on all other goods and services. The effective size of the [economic] pie being smaller, less of it is put to the purchase of health and safety.”⁸

Some regulations can be so costly, and therefore diminishing to the overall size of the economic pie and income, as to actually cause more statistical fatalities than save statistical lives. A 2003 study by former OMB economist John Morrall estimated that a regulation that leads to “a diversion of \$21 million [in year 2002 dollars] induces one fatality.”⁹ Using that threshold, any regulation that costs more than \$21 million *per life saved* is actually causing more people to die than it is saving.

Even though this health-health tradeoff is widely recognized by scholars, it does not appear to affect regulatory decision making. My aforementioned 2010 law review article includes a table, partially reproduced below, that lists several specific regulations that have cost significantly

⁶ Ibid., p. 11, citing: Evelyn M. Kitagawa and Philip M. Hauser, *Differential Mortality in the United States: A Study in Socio-economic Epidemiology* (Cambridge, MA: Harvard University Press, 1973); Ralph R. Frerichs et al., *Cardiovascular Diseases in Los Angeles, 1979–1981* (Los Angeles: American Heart Association, Greater Los Angeles Affiliate, 1984); Michael Drummond et al., “Health Economics: An Introduction for Clinicians,” *Annals of Internal Medicine* 107, no. 1 (1987): 88–92.

⁷ Patrick A. McLaughlin, 2010. “Ignoring Implementation Costs of the Clean Air Act: A Costly Mistake.” *Journal of Law, Economics, and Policy*. Vol. 7, No. 1, pp. 119-136. December 2010.

⁸ Randall Lutter and John F. Morrall III, 1994. “Health-Health Analysis: A New Way to Evaluate Health and Safety Regulation.” *Journal of Risk and Uncertainty*, Vol. 8, pp.43-44.

⁹ John F. Morrall III, 2003, “Saving Lives: A Review of the Record.” *Journal of Risk and Uncertainty*, Vol. 27, 221-232.

more than \$21 million per life saved, although that list is restricted to only environmental regulations. Were that list to include all regulations, including health and safety regulations, it would surely be much longer. Moreover, because estimates of costs per life saved are typically only calculated in hindsight, it is a virtual certainty that several recent regulations should be added to this list.

In the table below, the relevant threshold is \$20.1 million dollars because all costs in the table are stated in year 2000 dollars. I have shaded all the regulations that, by this measure, have statistically caused more deaths than they have saved.

Regulation	Year	Cost per life saved (millions of year 2000 \$)
Benzene NESHAP (original: fugitive emissions)	1984	4.8
Nox State Implementation Plan Call	1998	5.7
Ethylene dibromide in drinking water	1991	6.7
Benzen NESHAP (revised: code by-products)	1988	7.2
Standards for radionuclides in uranium mines	1984	7.4
Arsenic emission standards for glass plants	1986	18.1
Arsenic/copper NESHAP	1986	28.3
Hazardous waste listing of petroleum refining sludge	1990	32.3
National primary and secondary drinking water regs., Phase II	1991	37.7
Benzene NESHAP (revised: transfer operations)	1990	38.7
Benzene NESHAP (revised: waste operations)	1990	198.4
Land disposal restrictions for third scheduled waste	1990	215
Sewage sludge disposal	1993	358.7
Hazardous waste: solids dioxin	1986	378.4
1,2-dichloropropane in drinking water	1991	878.4
Land disposal restrictions, Phase II	1994	1,747.20
Hazardous waste land disposal ban	1988	2,377.20
Drinking water, Phase V	1992	14,404.70
Municipal solid waste landfills	1988	25,702.60
Solid waste disposal facility criteria	1991	67,743.40
Atrazine/alachlor in drinking water	1991	123,851.40

Health-health tradeoffs don't only arise from decreases in income caused by regulation. Former OIRA administrator Cass Sunstein recognized another form of health-health tradeoffs in a 1996 law review article. While listing several instances of health-health tradeoffs, Mr. Sunstein wrote, "A ban on carcinogens in food additives may lead consumers to use noncarcinogenic products that carry greater risks in terms of diseases other than cancer."¹⁰ Mr. Sunstein goes on to recommend that more thorough analysis be used to help avoid regulations that can actually increase overall risk while addressing one particular risk.

3. **Consideration of Alternatives**

¹⁰ Cass R. Sunstein, 1996. "Health-health Tradeoffs." *The University of Chicago Law Review*, 1533-1571.

The current executive orders and guidance regarding the economic analysis of rulemakings clearly indicate that agencies should analyze a wide variety of alternatives.¹¹ Yet the records of the Mercatus Regulatory Report Card show many examples where alternatives are routinely ignored. More importantly, a recent study found that several interim rules, created in response to the Patient Protection and Affordable Care Act, “ignored less-expensive alternatives that would be obvious to most health policy analysts.”¹² In other words, even though agencies have been instructed for decades to consider a wide range of alternatives, not only do they appear to do a poor job at this, their failure to do so would be recognized by most experts as willfully ignorant. For example, in considering the coverage of preventive services (RIN 0938-AQ07), the Department of Health and Human Services “did not consider mandating a smaller range of preventive services, such as only those that produce net cost savings or produce health improvements at some specified cost per outcome. Since a small minority of preventive services produce net cost savings and a sizeable number produce health improvements only at very high cost, such alternatives could have accomplished much of the desired outcome at lower cost.”¹³

The fact that a lower-cost alternative exists does not necessarily dictate its selection. Just as there are examples of poor analysis of alternatives leading to poor choices, there are also examples of choices being well-informed by an analysis. A recent study listing best and worst practices in regulatory analysis points to one good example where an analysis of alternatives led to the choice of an alternative that would do less harm to small businesses, with only a slight reduction in net benefits:

In 2012, the Department of Agriculture (USDA) proposed a regulation to modernize its system of poultry slaughter inspection. The rulemaking came as a result of President Obama’s Executive Order 13563 requiring executive branch agencies to review existing rules. The goal was to have agencies assess “rules that may be outmoded, ineffective, insufficient, or excessively burdensome, and to modify, streamline, expand, or repeal them in accordance with what has been learned.” In response to this executive order, USDA reviewed its poultry slaughter inspection system to see if it could identify ways to increase efficiency and improve safety.

[...]

USDA conducted a benefit-cost analysis for several alternative ways of modernizing its poultry inspection system. One of the striking aspects of this [analysis]... is the small difference in the net benefits between the alternatives. One alternative (alternative 3) with slightly greater net benefits than the

¹¹ Executive Order 12866 (reaffirmed by the current administration in Executive Order 13563), at section 6(a)(3)(C)(iii); Office of Management and Budget, *Circular A-4*.

¹² Christopher J. Conover and Jerry Ellig, 2012. “Beware the Rush to Presumption, Part A: Material Omissions in Regulatory Analyses for the Affordable Care Act’s Interim Final Rules.” Working Paper No. 12-01, available online:

http://mercatus.org/sites/default/files/publication/Beware_the_Rush_to_Presumption_PartA_ConoverEllig.pdf.

¹³ *Ibid.*, p. 20.

alternative that was ultimately chosen in the proposed rule was rejected due to the disproportionate impact it would have on small businesses relative to larger firms. USDA determined the alternative embraced by the proposed rule would not affect small business in a disproportionate way. Another alternative (alternative 5) was dismissed even though it had higher net benefits than the proposed rule because USDA determined the alternative selected in the proposed rule had additional, unquantified benefits.¹⁴

This underscores the fact that a good analysis can help an agency understand how a rulemaking will affect different groups in different ways. As I pointed out in my testimony, for example, regulations can disproportionately harm low-income households. However, a quality analysis can anticipate this and, in some cases, may be able to reduce the regressive effects of regulation.

4. Concluding Remarks

I again applaud the willingness of you and this committee to consider the human costs of the regulatory process. I share your guarded optimism that there may exist substantial agreement that the regulatory process needs to be improved. My research indicates that any changes to regulatory process should include provisions for improved analysis because better analysis can lead to better outcomes. Similarly, poor analysis can lead to rules that cost more human lives than they needed to in order to accomplish their goals.

If you have any questions, I am happy to be of assistance. Thank you again for this opportunity.

Sincerely,

Patrick A. McLaughlin
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cc: The Honorable Orrin Hatch

¹⁴ Jerry Ellig and James Broughel, 2013. "How Well Do Federal Agencies Use Regulatory Analysis?" *Mercatus on Policy*, available online: http://mercatus.org/sites/default/files/Ellig_FedAgenciesRIA_MOP_071513.pdf.