

The Regulatory Budget

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Introduction

Whenever an agency of the federal government proposes a new rule or regulation intended to enhance health, safety, or environmental quality, decision makers within that agency have presumably concluded that the benefits wrought by that new rule or regulation will exceed the costs of complying with it. Over the years, the regulatory proposals made by these agencies have increasingly become subject, at least formally, to executive branch oversight. They been required to provide more evidence, hopefully generated by better data and more rigorous analysis, in making the case for their proposals. The most important milestone on the road toward greater executive branch oversight was Executive Order 12291, issued by the Reagan Administration in early 1981. This order required agencies to formulate and to submit to the Office of Management and Budget, for review, a Regulatory Impact Analysis for all proposed rule changes that would have “an annual effect upon the economy” of more than \$100 million. These reviews have subsequently become the responsibility of a group within the OMB, the Office of Information and Regulatory Affairs (OIRA). Proposals for which a positive benefit/cost ratio could not be generated, or which duplicate existing rules, or which could be supplanted by a lower cost means for achieving the same results, can be blocked by OIRA until its concerns are addressed.

Executive Order 12291 built upon a number of important precedents. The Corps of Engineers has been required to conduct cost-benefit analyses for all proposed projects since passage of the Flood Control Act of 1936 (Ferejohn 1974). In 1971 OMB Director George Schultz issued a policy memorandum requiring the Environmental Protection Agency and other regulatory agencies to submit their proposals for new rules and regulations to the OMB for a “Quality of Life” review. Language describing exactly what such reviews entailed was vague, and nothing in the memorandum suggested that the OMB might seek to impede an agency from issuing a new regulation. Even still, EPA officials at the time complained that the Quality of Life review process produced long delays, which in some cases threatened to (Environment Reporter 1976).

Executive Order 11821 issued by the OMB during the Ford Administration in 1974 similarly called for OMB review of all major new regulatory proposals for the avowed purpose of assessing their inflationary impact. Finally, just a year before Executive Order 12291 was issued, Congress passed the Regulatory Flexibility Act of 1980. This legislation requires all independent and executive agencies proposing regulations that would have a “significant economic impact” upon small business to file a Regulatory Flexibility Analysis, with the Small Business Administration, attesting to their search for simpler, less burdensome ways for small businesses to achieve desired results. Like all the other pre-12291 measures, the Regulatory Flexibility Act only established a mechanism for reviewing proposed rules and regulations, and not for blocking or delaying them.

Executive Order 12291 has since been supplemented by additional executive orders and by statutory requirements for regulatory review. The Clinton Administration updated 12291 with Executive Order 12866, which contained somewhat different language. It posited that the benefits of regulations should justify the costs, and that agencies should seek to maximize “net benefits” unless the statute underpinning a proposed regulation required it to do otherwise, e.g. to utilize the best available technology in mitigating an environmental hazard. Mirroring these executive orders, the Congressional Review Act of 1996 (a subsection of the Small Business Regulatory Enforcement Act) requires agencies proposing major (\$100 million) rules and regulations to also submit their reports to Congress and to the General Accounting Office. This was supplemented by additional legislation, the Regulatory Accountability Provision of 1996, that also requires the OMB to send to Congress their assessments and recommendations regarding all major rule proposals (Crandall et al 1997). Congress may block a proposed regulation by passing a resolution of disapproval within 60 days of being notified. This has occurred only once, however, when Congress blocked a Labor Department’s proposal regarding repetitive-motion injuries in early 2001 (Weinstock 2001).

Executive (and legislative) branch oversight of regulatory agencies is presumably intended to result in the promulgation of more efficient and more cost-effective

regulations. There has been little research, however, on the question of whether or not this has been the case. The one study that has looked at this matter finds that if one compares regulations adopted since 1981 (the year Executive Order 12291 was issued) with those adopted after, there has been no improvement in their cost-effectiveness, and may have even been a deterioration in efficiency. Moreover, the decision of the OIRA to block a regulatory proposal (which it has done in only a small number of instances) does not appear to be correlated with the cost-effectiveness, or lack thereof, of the proposal (Farrow 2000).

There are many reasons why OIRA oversight of regulatory proposals may in fact be largely ineffective. OIRA is a small agency with very limited resources. It has little independent analytical capability, and for the most part it simply accepts agencies' reports and findings at face value. The large majority of Regulatory Impact Analyses submitted to OIRA provide only qualitative assessments of costs and benefits (Hahn 2005). In general, the Environmental Protection Agency, which promulgates more regulations of greater economic consequence than any other federal agency, is forbidden to consider the costs that its regulations impose (Gayer and Hahn 2005). All but 1% or so of proposed rules and regulations are estimated to cost less than \$100 million a year, and so fall below the threshold that triggers OIRA review (Crews 2005).

It is also clear that OIRA, operating without the color of statutory authority, is highly selective in picking its fights. For example, Dudley (2001) reports that in the first six months of the Bush Administration, a "rejuvenated" OIRA had returned more rules (16) to originating agencies than had been returned during the entire eight years of the Clinton Administration. This might sound impressive until one considers that at the end of 2004 there were over 4,000 proposals in the regulatory pipeline (Crews 2005). A hold on 16 of them seems analogous to reports we hear from time to time that the Border Patrol has interdicted a shipment of 100 kilograms of marijuana; a notable accomplishment, perhaps, but not one that is likely to put much of a crimp on business.¹

A Regulatory Budget?

In light of what appears to be the generally ineffectual nature of executive and legislative branch oversight of regulatory activity, many regulatory economists have called for a much higher level of commitment to this task, and the devotion of much greater resources to the economic analysis of regulatory activity (Crandall et al., 1997; Farrow 2000; Hahn and Litan 2003). Others have proposed creation of an agency, something along the lines of the Congressional Budget Office, that would provide Congress with an independent capacity for regulatory review (Antonelli 1998). As its proponents see it, a Congressional Office of Regulatory Affairs would have the capacity to perform an independent analysis of the economic impact of all major rules, as well as to analyze other rules as requested by members of Congress. Proposals to create such an office have so far run into considerable opposition, and have not progressed very far.

Several critics of the current regime of regulatory oversight have also called for the for the formulation of an annual “regulatory budget,” i.e., “an itemized account of all federal regulations” (Johnson 2001, p. 7), intended to mirror and to supplement the annual Budget of the United States Government that governs revenues, expenditures, and borrowing (DeMuth 1980; Crandall et al. 1997; Johnson 2001; Hahn and Litan 2003). An annual regulatory budget, it is argued, would enhance the salience of regulatory policy making to the public and to congressional policy makers alike. It would help provide a more accurate picture of the true size of the footprint that the federal government leaves on the US economy. Most importantly, it would discourage Congress from turning to new regulations as a mechanism for “off-budget” financing. As Crews (2005) puts it:

Moreover, regulations and taxes can be substitutes for one another...unless regulatory activity is better monitored, deficit control may tend to invite Congress to adopt new off-budget private-sector regulations rather than new spending that would increase the deficit. If regulatory costs remain largely hidden from public view, regulating will continue to look like an attractive alternative to taxing and spending (p. 2).

Crandall et al (1997) concur with Crews's characterization of regulation as synonymous to "off-budget taxation." They also assert that to the extent Congress and the president feel pressure to limit government spending, "legislators will look to off-budget programs especially regulation, as a way of promising voters something that does not have an immediate budgetary cost" (p. 6).

That Crews and others continue to urge adoption of an annual regulatory budget is a bit curious, in that a manifestation of this idea, albeit a rudimentary one, has already been mandated by Congress. The Regulatory Right-to-Know Act, enacted in 2000, requires OIRA to annually prepare an estimate, to the extent feasible, of the total annual costs and benefits of the most significant federal rules and regulations. In recent years the Office of Advocacy within the Small Business Administration has also commissioned studies designed to calculate the total annual cost of federal regulations.

A comparison of the total regulatory costs and benefits calculated in these two different sets of reports should be sobering to anyone who is committed to the enterprise of objective economic analysis. It is of course difficult to estimate the costs and benefits of a single regulation, and different researchers making somewhat different assumptions can produce widely differing estimates. When it comes to estimating the total costs and benefits of all federal regulations, aggregation, which will tend to cancel out nonsystematic errors, tends to help some, but wide disparities in estimates remain. In its most recent report, OIRA estimates the total cost of complying with federal regulations currently to be somewhere between \$35 and 39 billion, with total benefits happily ranging from around \$70 billion to \$277 billion (OIRA 2005). In contrast, the Crain and Hopkins (2001) report commissioned by the SBA Office of Advocacy, estimated that the annual costs of federal regulation approached \$850 billion in 2000, and that annual costs had reached \$1.1 trillion in 2004 (Crain 2005).

There are several reasons for the great discrepancy between these two sets of cost estimates. OIRA bases its estimates only upon the 25 most significant rules and regulations put in place during the previous decade. As a consequence, estimates of both

costs and benefits are much lower now than they were a few years ago, when OIRA estimated annual costs of environmental, health, and safety regulations to be about \$200 billion (OIRA 1999). This figure dropped to about \$35 billion for the past two years because some very big-ticket items, particularly the air-quality regulations associated with the Clean Air Act Amendments of 1990, dropped off the ten-year horizon (OIRA 2005). Unlike the OIRA reports, the SBA studies also include estimated costs for tax compliance, paperwork and reporting requirements, and “economic” regulations, which include such things as agricultural commodity price supports and other subsidies. Crain (2005) and Crain and Hopkins (2001) have also been criticized for basing their estimates upon a very thin evidentiary base, and for including the costs of state-based workers’ compensation programs (Kovitch 2004).

The SBA studies do not report estimates of the benefits accruing from the implementation of federal regulations. The OIRA reports do, but the size of the error bands they report make such estimates, well, not particularly useful. According to the authors of the 1998 OMB Report to Congress on the Costs and Benefits of Federal Regulations (OIRA 1999), the benefits derived from federal regulation could range from around \$30 billion to more than \$3.3 trillion! This probably brackets the true figure, but one is left with the impression that calculating regulatory costs and benefits—especially benefits—may be a fool’s errand.

Advocates of economic, cost-benefit analysis of regulations have detailed a myriad of problems involved in such efforts, but nonetheless urge us to keep trying. The rationale for their calls for persistence is that even a little bit of relevant cost and benefit information brought to bear in the regulatory policy making process is better than none (Lave 1996; Farrow 2000; Hahn 2005). There are many more others, on the other hand, who reject the whole enterprise of making cost-benefit calculations as fundamentally flawed (see, *inter alia*, Heinzerling and Ackerman 2002). Chief among their arguments is that there is no market price for the lion’s share of the benefits produced by regulation, and thus they cannot be assigned a monetary value. The problem of seeking to monetize inherently non-monetizable benefits is particularly overwhelming, they believe, in the

case of human life, which cannot be priced because it is priceless and it is immoral to pretend otherwise. Because all human life is, at all points of time, of equal, infinite value, normal economic procedures such as applying discount rates, establishing allowable levels of risk, and accepting a certain level of uncertainty in our assessments of threats to human life are inappropriate (Heinzerling and Ackerman 2002). These critics of economic analysis further assert that the time periods that must be considered in protecting the environment and insuring sustainability are so long that discounting leads to absurd conclusions: “At a discount rate of 5 percent, for example, the deaths of a billion people 500 years from now becomes less serious than the deaths of one person today (Heinzerling and Ackerman 2002, p. 21).

Heinzerling and Ackerman do make a telling point here, in that working out the implications of compound interest rates or discount rates over several centuries can produce scenarios that seem ludicrous to us. At an annual rate of return of 7% on investment, for example, the \$22 that the Indians allegedly received for parting with Manhattan (which was actually not what the deal was), is worth trillions of dollars today, suggesting that it may in fact have been the Dutch who were snookered in the transaction.

As Hahn (2005) notes, however, *not* discounting leads to even more curious results.² Let us consider, for example, some scenarios regarding the future of human life on earth. Lenton and von Bloh (2001) calculate that earth may remain inhabitable for another 800 million years or so, but the increasing luminosity of the sun will eventually fry earth for sure. Alternatively, the earth’s core could solidify. Because of the resultant loss of the planet’s magnetic field the atmosphere would be quickly stripped away, which would also be bad. Long before that—at any time, really—the earth could be struck by a comet or meteor large enough to trigger yet another mass extinction (McGuire 2002).

If it makes no sense to factor in discount rates or risk calculations in saving human lives, the eventual but certain loss of all human life on earth surely dictates that we begin immediately to invest all possible resources into building space ships to get as many of us off the planet as quickly as possible. I for one would oppose this policy, and would

recommend focusing attention on policies with more immediate payoffs, e.g., removing lead from children's toys. In other words, discounting and calculating risks are good ideas, and are extremely useful in helping us set sensible priorities. It is unwise to not to incorporate them into our analyses and decision making.

While deeply committed to the canons of modern economic analysis, I am nevertheless willing to concede much to the Heinzerlings of the world. It is probably not worth the candle to seek to monetize many of the benefits that regulations are intended to produce. What is it worth, after all, to keep the spotted owl from going extinct, to know that marine mammals are not being pestered or harassed, or to halt the loss of water clarity in Lake Tahoe? No matter what estimates one might come up with, through shadow prices, contingent valuation, or whatever methodology, there is no way that they will be accepted as legitimate by enough people involved in policy making to form the basis of a quasi-budgetary process. The requirement of an annual regulatory budget would also engender endless and fruitless controversy and debate over how to define regulation, or more specifically, over what programs should be included in the regulatory budget and which should not. For these and for other reasons, the idea of an annual regulatory budget will not be worth pursuing.

A Regulatory Cost-Effectiveness Budget

A more promising approach to regulatory reform is what might be termed a *regulatory cost-effectiveness budget*. In formulating such a budget we would limit ourselves to only health, safety and environmental regulations intended to save human lives. We would not attempt to monetize the value of preventing species from going extinct, or of preserving breathtaking vistas of natural wonders such as the Grand Canyon. We would instead restrict our intention to health, safety, and environmental regulations that are primarily intended reduce human injury, morbidity, and mortality.

The rationale for a regulatory cost-effectiveness budget derives from one of the most important findings made by regulatory economists during the past few decades: there are

huge discrepancies, of several orders of magnitude, in the cost effectiveness, measured in terms of lives or years of life saved, of different federal rules and regulations. Morrall (1986) found many regulations, particularly those involving automobile safety features such as collapsible steering columns, air bags, and automatic seatbelts, to be remarkable cost-effective in preventing death and serious injury to thousands of people. The cost per life saved (in 1984 dollars) associated with these requirements was in most cases well under \$100,000. Other regulations, particularly those designed to prevent cancers caused by exposure to certain substances in the environment, were considerably less cost-effective—by several orders of magnitude. For example, a rule issued by the Food and Drug Administration in 1979 that banned diethylstilbestrol (DES) from cattle feed was estimated to cost \$132 million per life saved, or well over a thousand times more than the collapsible steering column requirement alluded to earlier.

Subsequent studies have strongly reinforced Morrall's basic finding. Tengs et al (1995) and Tengs and Marshall (1996) made several refinements in his analysis, by attempting, to the extent possible, to discount benefits, to estimate years of life saved instead of lives saved, and to estimate marginal as opposed to average costs. They found that huge disparities existed even for the same potential health hazard, e.g. radiation. Government-imposed limits on exposure to X-ray equipment entailed expenditures of about \$23 thousand per life saved, while radiation emission controls at uranium fuel cycle facilities were calculated to cost \$34 billion per year per life saved. Viscusi (1996) and others have produced similar findings.

Much of the variance in the cost-effectiveness of various regulations is a function of whether the regulation is intended to enhance safety or to prevent cancer. In general, the studies by Morrall and by Tengs and her associates show safety regulations are vastly more cost-effective than those intended to protect us from potential carcinogens. These calculations, moreover, are based upon the agencies' own data and own analyses, which many critics believe that routinely overestimate cancer risks by several orders of magnitude. The worst-case-scenario methodologies that are employed extrapolate risks associated with extremely low levels of intermittent exposure in humans from

extraordinarily high levels of chronic exposure in laboratory rats and mice, and then incorporate a very large safety margin to account for uncertainty. There is some variation in how various regulatory agencies assess the risks of potential toxins and carcinogens, but they all tend to employ this sort of risk-assessment methodology (Rhomberg 1997).

According to Ames and Gold (1996), this sort of science is highly suspect:

By weight, there are more rodent carcinogens in a single cup of coffee than there are potentially carcinogenic pesticide residues in the average American diet in a year, and a thousand chemicals in unroasted coffee are still untested. That does not mean that coffee is dangerous, but rather that animal cancer tests and worse-case risk assessment build in enormous safety factors and should not be considered true risks (p. 5).

If these critics are right, the cost-effectiveness of some anti-carcinogen regulations would actually be considerably less than official figures suggest. Also, all types of cancer are not equally lethal. And while cancer is much more likely to afflict older people, traffic accidents and occupational injuries are far more likely to affect younger people. Estimating marginal costs as opposed to average costs would further exacerbate the imbalance between transportation safety and anti-carcinogen regulations. We could go on, but the point has been sufficiently made.

That they are not cost-effective is not the only reason why regulatory economists disapprove of regulations that are not cost-effective. The more essential problem is that they impose potentially large opportunity costs. Tengs and Graham (1996), for example, consider 134 regulations intended to save lives that were issued by five major regulatory agencies: the CPSA, EPA, FAA, NHTSA, and OSHA. They conclude that shifting resources away from the least cost-effective regulations and to the most cost-effective ones could significantly increase the number of lives saved at current budget levels. Alternatively, the same number of lives could be saved at dramatically lower levels of expenditures. Crandall et al (1997) also stress the large opportunity costs imposed by the current mix of existing regulations, as do Gayer and Hahn (2005): “Spending several billion dollars to reduce emissions that are likely to yield few social benefits means that

we have several billion dollars less to spend on things that could do a lot more good” (p. 33). Ames and Gold (1996) identify another, less direct but still potentially important opportunity cost, and that is an overall loss of wealth by the country. As they put it,

Regulating trivial risks or exposure to substances erroneously inferred to cause cancer at low doses can harm health by diverting resources from programs that could be effective in protecting public health. Moreover, wealth creates health: poor people have a shorter life expectancy than wealthy people. When government policy results in wasting money and resources on trivial problems, it reduces society’s wealth and hence harms health (p. 6).

In principle, a regulatory cost-effectiveness budget could be implemented in a very simple manner. As Tengs and Graham (1996) explain:

How can policy makers make decisions so that we might save more lives at less expense? The good news is that fancy mathematical programming techniques are not needed to achieve the optimal portfolio. The following rule of thumb, elegant in its simplicity, will achieve the same results: Invest in all interventions costing less than some threshold (for example, \$5 million per life saved) and in none of the interventions costing more (p. 178).

Is it not the case, however, that basing decisions about which regulatory proposals to allow and which to disallow on the basis of cost-effectiveness in effecting years of life saved flies in the face of the Heinzerling and Ackerman (2002) critique that “pricing the priceless” makes no sense? If we concede that it is futile to attempt to monetize the benefits of preventing snail darters from going extinct, must we not also concede that it is futile, if not immoral, to monetize the benefits of extending human life? The answer is no. Human life may indeed be considered to be priceless, but the means and mechanisms for saving or protecting lives do come with price tags, and some or vastly more expensive than others.

If critics of the existing regulatory regime have been successful in persuading policymakers that the current mix of regulations is far from cost-effective, the usefulness of explicitly implementing a regulatory cost-effective budget might be questioned. So has there been any improvement on this score over the past two decades? There has not

recently been a full replication of the Morall study, but a cursory examination of current regulatory proposals suggests that there has not. Viscusi (1996) notes some movement in transportation safety toward more aggressive and more costly regulation, but there appears to still be a significant amount of low-hanging fruit in this area. The National Transportation Safety Board, which forwards recommendation to the relevant regulatory agencies (e.g., FAA, NHTSA) for safety improvements with respect to aviation, highway vehicles, marine vessels, railroads, and pipelines, annually publishes a “Most Wanted List” of new rules and regulations that are deemed particularly efficacious and cost-effective in saving lives and preventing serious injuries. Recent recommendations that have been adopted include significant upgrades of de-icing equipment and on-board ice detection systems on airplanes, antilock braking systems on all new large trucks, improved airbag and child restraint systems. Most of these are astonishingly cost-effective. Simply making sure small children are buckled into a child safety seat in the back seat prevents hundreds of deaths and thousands of serious injuries every year to small children (National Transportation Safety Board 2005, p. 21). Current recommendations include reducing the volatility/flammability of aviation fuel when fuel tanks rupture, and upgrades to the structure (especially roofs) of motorcoach buses.

The EPA, in contrast, continues its mission—as it legally required to do—to remove chemicals from the environment that potentially pose even a remote risk of being carcinogenic. In late January of this year, for example, the agency obtained a voluntary agreement to eliminate perfluorooctanoic acid (PFOA) in the production of Teflon (Weise 2006). The agency sought this agreement because the lack of evidence of a cancer link means that it lacks the authority to ban or restrict its use under the provisions of the Toxic Substance Control Act (Weise 2006).

Political realities

Why did such large disparities in the cost-effectiveness of life-saving federal regulations come about? Many observers believe that the federal government is actually doing an

excellent job of giving people what they want, and that these discrepancies reflect broadly shared perceptions and preferences. According to Viscusi (1966), “The public has a well-documented tendency to overestimate risks with low probabilities and risks that have received substantial media attention (p. 151). Regulatory economists such as Morrall (1986) and Hahn (2005) also attribute the extreme measures that have been implemented to remove potential carcinogens from the air and drinking water reflect the American public’s deep and abiding phobia regarding cancer. These characterizations of the mass public may well be true, but they are insufficient as far as an explanation is concerned. As noted earlier, Tengs et al (1995) found tremendous differences in the cost-effectiveness of different regulations directed at the same hazard (radiation). Similarly, in regulating exposure to a particular hazardous substance, the Environmental Protection Agency is much more stringent than the Occupational Safety and Health Administration. So public opinion is at best only part of the story.

Another part of the story must be Congress itself. As Morrall (1986) noted, differences in the cost-effectiveness of various health and safety regulation are in large part dictated by the statute authorizing the program: “The safety statutes, such as those authorized by the NHTSA, the CPSA, and OSHA, almost invariably speak in terms of regulations that are “reasonable,” “practicable,” “appropriate,” and so forth. In contrast, the health statutes, including not only the much-discussed Delaney clause but also the relevant portions of the Clean Air Act and the OSHA statute, speak in terms of absolute or near-absolute protection” (p. 32).

In other words, in designing regulatory statutes, Congress can favor one set of outcomes that subsequently emerge from any agency’s operations by “stacking the deck” (McCubbins, Noll, and Weingast 1987). Often the most important aspect of deck-stacking is the design of the procedures that agencies must follow in promulgating regulations. Procedures for holding hearings, giving notice, standards of evidence, establishing burden of proof, and either limiting or expanding the opportunities for litigation or judicial review can all be arranged to bias agency outcomes in one direction or another. A case in point was the EPA vs. OSHA matter to which we just alluded: “...

the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA) often regulate the same pollutants, OSHA inside the workplace and EPA everywhere else, yet their procedures—from setting priorities to methods for evaluating regulations, to the timing scope, and nature of judicial review—are quite different” (p. 244). The McNollgast trio also contrast the Federal Food, Drug, and Cosmetic Act, which imposes tremendously onerous requirements for bringing new drugs online, to the Toxic Substances Control Act, which requires the EPA to prove that a chemical is a risk before they can restrict or regulate its use.

As McNollgast see it, the particular way in which a regulatory agency’s deck is stacked is, for the most part, a function of the particular constellation of preferences present at the time: “Deck-stacking enables political officials to cause the political environment in which an agency operates to mirror the political forces that gave rise to the agency’s mandate long after the coalition behind the legislation has disbanded” (p. 262). The essential features of the political environment they re referring to would seem to be partisan and ideological in nature. The Clean Air Act, for example, bears the imprint of the heady, early days of the liberal environment movement ca. 1970.

Arnold (1987), in contrast, stresses the ability of relevant congressional committees and subcommittees to exert continuous, ongoing influence over agency behavior: “Congressional hearings, reports, and other nonstatutory techniques are essentially committee activities. None require action on the floor, and none provide opportunities for those who are not on the relevant committees to intervene. Statutory techniques, such as authorization, reauthorization, and appropriations bills, also concentrate influence within committees. (281-2). These mechanisms of agency control, because of their committee-centered nature, point instead to the existence of stable, persistent subgovernments. Of course, Arnold’s perspective complements that of McNollgast rather than conflicts with it.

In any case, proposals for regulatory reform, like the one for a regulatory cost-effectiveness budget that we are considering, must confront the big, ongoing reality show that is Congress. The beginning of wisdom in understanding why there are such great

disparities in the cost-effectiveness of federal regulations in preserving health, preventing injury and saving lives is to understand that, in the final analysis, this is the way Congress wants it. Actually, it is more accurate to say that this schizophrenic pattern of regulation persists because it is not possible to find enough votes at the present time to change the status quo. As Stigler (1972) and other political economists have observed, efficiency is one of only several considerations that congressional policy makers entertain in making policy, and it is far from being the most important.

Conclusion

The vast regulatory machinery of the federal government has long been and continues to be stuck on stupid. Many measures that could save lives and prevent injuries at relatively low cost have not been implemented. At the other extreme, federal regulations that are in effect result in the expenditure of tens of billions of dollars every year in the chimeric pursuit of a toxin and carcinogen-free environment. Thus, while striving mightily to remove the last few parts per billion of lead from the air and water supply, children's jewelry heavily contaminated with lead (some metal parts tested by the Consumer Products Safety Commission have been more than 50% lead) has continued to be legally imported into the United States, and several cases of severe, acute lead poisoning involving small children have been documented (DeFao 2006). An economist who is now current head of the OIRA describes the current regulatory landscape as "a syndrome of paranoia and neglect...Large amounts of resources are devoted to slight or speculative dangers while substantial and well-documented dangers remain unaddressed (Graham 1996, p. 183).

A regulatory cost-effectiveness budget, if adopted, could prove to be one of the most important budgetary reforms ever undertaken. This accounting exercise would justify itself many times over if it were to reduce, even incrementally, the tremendous imbalances that exist in the cost-effectiveness of various federal regulations designed to improve health and safety and to save lives.

Endnotes

1. If the OIRA has taken a more muscular approach to regulatory oversight during the Bush Administration than it did under Clinton, these efforts do not seem to have been consequential. Between 2001 and 2004 the number of major rules, i.e., those with an annual impact in excess of \$100 million, that federal agencies managed to have adopted averaged 59 a year, which is only slightly less than the 63 major rules a year adopted, on average, during the second Clinton Administration (Crews 2005 p. 24).

2. I am sympathetic to the plight of Robert Hahn and other regulatory economists. On numerous occasions I have found myself in conversation with one of the world's most brilliant scientists and engineers, patiently explaining to them some basic economic concept, e.g., opportunity costs, discounting, comparative advantage, or the way in which markets aggregate information. At some point, usually after only a few minutes, the scientific savant will make a face, roll his eyes, and tell me, usually with a fair amount of condescension, that they "just don't believe in economics" or that "people don't really think that way." I have not yet figured out how to respond persuasively to these sorts of criticisms of economic analysis.

References

- Ames, Bruce, and Lois Gold. 1996. "The Causes and Prevention of Cancer: Gaining Perspectives on the Management of Risk." In Robert Hahn, (ed.), *Risks, Costs, and Lives Saved*. Oxford: Oxford University Press.
- Antonelli, Angela. 1998. "Two Years and 8,600 Rules: Why Congress Needs an Office of Regulatory Analysis." Washington, D.C.: The Heritage Foundation.
- Arnold, R. Douglas. 1987. "Political Control of Administrative Officials." *Journal of Law, Economics, and Organization* 3:279-86.
- Crain, W. Mark. 2005. "The Impact of Regulatory Costs on Small Firms." Washington, D.C.: Office of Advocacy, Small Business Administration.
- Crain, W. Mark, and Hopkins. 2001. "The Impact of Regulatory Costs on Small Firms." Washington, D.C.: Office of Advocacy, Small Business Administration.
- Crandall, Robert, Christopher DeMuth, Robert Hahn, Robert Litan, Pietro Nivola, and Paul Portney. 1997. *An Agenda for Regulatory Reform*. Washington, D.C.: American Enterprise Institute and the Brookings Institution.
- Crews, Clyde. 2005. "Ten Thousand Commandments: An Annual Snapshot of the Federal Regulatory State, 2005 Edition." Washington, D.C.: Competitive Enterprise Institute.
- DeFao, Janine. 2006. "71 Firms Agree to Sell Kids' Jewelry with Reduced Lead." *San Francisco Chronicle*, January 30 (online at <http://sfgate.com>).
- DeMuth, Christopher. 1980. "The Regulatory Budget." *Regulation* 4:29-43.
- Dudley, Susan. 2001. "Bush's Rejuvenated OIRA." *Regulation* 24:5-6.
- Environment Reporter. 1976. "Office of Management and Budget Plays Critical Part in Environmental Policymaking, Faces Little External Review." Washington, D.C.: The Bureau of National Affairs.
- Farrow, Scott. 2000. "Improving Regulatory Performance: Does Executive Office Oversight Matter?" Manuscript, Carnegie Mellon University.
- Ferejohn, John. 1974. *Pork Barrel Politics*. Stanford: Stanford University Press.
- Gayer, Ted, and Robert Hahn. 2005. "The Political Economy of Mercury Regulation." *Regulation* 28:26-33.

- Graham, John. 1996. "Making Sense of Risk: An Agenda for Congress." In Robert Hahn, (ed.), *Risks, Costs, and Lives Saved*. Oxford: Oxford University Press.
- Hahn, Robert. 2005. *In Defense of the Economic Analysis of Regulation*. Washington, D.C.: AEI Press.
- Hahn, Robert, and Robert Litan. 2003. "Why Congress Should Increase Funding for OMB Review of Regulation." AEI-Brookings Joint Center Policy Matters 03-34, Washington, D.C.
- Heinzerling, Lisa, and Frank Ackerman. 2002. *Pricing the Priceless: The Cost-Benefit Analysis of Environmental Protection*. Washington, D.C.: Georgetown Law and Policy Institute.
- Johnson, Joseph. 2001. "Measuring Hidden Taxes." *Regulation* 24:7.
- Kovitch, S. 2004. "A Second Look at Regulations' Cost." *Regulation* 27:2-3.
- Lave, Lester. 1996. "Benefit-Cost Analysis: Do the Benefits Exceed the Costs?" In Robert Hahn, (ed.), *Risks, Costs, and Lives Saved*. Oxford: Oxford University Press.
- Lenton, Timothy, and Werner von Bloh. 2001. "Biotic Feedback Extends the Life Span of the Biosphere." *Geophysical Research Letters* 28:1715-8.
- Leslie, John. 1996. *The End of the World*. New York: Routledge.
- McCubbins, Mathew, Roger Noll, and Barry Weingast. 1987. "Administrative Procedures as Instruments of Political Control." *Journal of Law, Economics, and Organization* 3:243-77.
- McGuire, Bill. 2002. *A Guide to the End of the World: Everything You Never Wanted to Know*. Oxford: Oxford University Press.
- Morrall, John. 1986. "A Review of the Record." *Regulation* 10:25-34.
- National Transportation Safety Board. 2005. "We Are All Safer: Lessons Learned and Lives Saved 1975-2005." Safety Report NTSB/SR-05/01. Washington, D.C.
- Nichols, Albert, and Richard Zeckhauser. 1986. "The Perils of Prudence: How Conservative Risk Assessments Distort Regulation." *Regulation* 10:13-24.
- Office of Information and Regulatory Affairs. 1999. "1998 Report to Congress on the Costs and Benefits of Federal Regulations." Washington, D.C.: Office of Management and Budget.

Office of Information and Regulatory Affairs. 2006. "Validating Regulatory Analysis: 2005 Report to Congress on the Costs and Benefits of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities." Washington, D.C.: Office of Management and Budget.

Rhomberg, Lorenz. 1997. "A Survey of Methods for Chemical Health Risk Assessment among Federal Regulatory Agencies." *Human and Ecological Risk Assessment* 3:1029-1196.

Tengs, Tammy, Miriam Adams, Joseph Pliskin, Dana Safran, Joanna Siegel, Milton Weinstein, and John Graham. 1995. "Five-hundred Life-Saving Interventions and Their Cost-Effectiveness." *Risk Analysis* 15:369-90.

Tengs, Tammy, and John Graham. 1996. "The Opportunity Costs of Haphazard Social Investments in Life Saving." In Robert Hahn, (ed.), *Risks, Costs, and Lives Saved*. Oxford: Oxford University Press.

Viscusi, W. Kip. 1996. "The Dangers of Unbounded Commitments to Regulate Risk." In Robert Hahn, (ed.), *Risks, Costs, and Lives Saved*. Oxford: Oxford University Press.

Weinstock, Deborah. 2001. "The Repetitive Motion Un-rule." *Multinational Monitor* 22:1-3.

