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Environmental Regulatory Reform: Discussion

William M. Park

Carriker, Infanger, and Shabman and Stephenson have provided a set of papers related to the current debate over environmental regulatory reform. Each paper stands alone as a distinct and valuable contribution to the literature on this subject. Yet as a set they complement one another and form a whole that is greater than the sum of its parts.

Carriker, in his comprehensive overview of federal environmental policy in the U.S., painstakingly describes the origins, evolution, and impacts of nine major pieces of environmental legislation, and thus sets the stage for discussion of current issues and professional perspectives in the other two papers. Carriker's paper is well documented and should also serve as a good primer for students taking natural resource and environmental economics courses or contemplating graduate research in this area.

Infanger zeroes in upon three overarching issues that have arisen over the last decade or so, as implementation of this composite of legislative initiatives has proceeded and compliance deadlines have arrived. These issues—unfunded mandates, risk assessment, and property rights—have been simmering for some time, but have taken center stage in discussions of environmental regulatory reform since the so-called Republican revolution of November 1994 gave prime-time publicity to the Contract With America's legislative proposals. Infanger provides a very thoughtful discussion of the origin of these issues, the broader context in which they exist, recent efforts to address the issues and their likely effectiveness, and what economists might contribute to the debate surrounding them.

Shabman and Stephenson focus their attention

upon questions regarding how to establish environmental goals (e.g., a particular level of ambient air or water quality) and what institutional approach or mechanism to use to achieve those goals (e.g., command and control or market-based mechanisms). They note that while most economists generally favor market-based mechanisms that provide economic incentives for reducing waste discharges, there are "important and fundamental differences in professional views" on this matter, as well as the matter of establishing environmental goals. Shabman and Stephenson demonstrate much insight in their attempt to provide "a taxonomy describing four economic perspectives on environmental policy."

After reading these three papers and contemplating how I might respond, I experienced two sorts of tension. First, I was torn between focusing upon specific policy reform issues raised in the first two papers versus focusing upon the more general subject of professional perspectives raised by Shabman and Stephenson. The former thrust appealed to me because it would appear to be more interesting and hold more immediate relevance. Too, like most resource and environmental economists I suppose, I have rather strong opinions regarding the path that environmental policy reform could or should take. However, the latter thrust appealed to my intellectual curiosity and my sense that we as a profession do not step back and reflect often enough upon the implicit perspectives we bring to our research, teaching, and policy advising activities.

Second, I felt somewhat schizophrenic as I was drawn to perform a bit of self-analysis and peg myself somewhere within the Shabman and Stephenson taxonomy. While the authors note that an "individual economist's views may not fit neatly into one of the categories," some of the characteristics that differ among the perspectives appear to be philosophically based, particularly those that distinguish

the free market environmentalists from the others. To the extent that this is true, one would not expect an individual economist to hold a mixed perspective or to flip-flop back and forth among the alternative perspectives. However, while I would peg myself as more of a market manager than anything else, I also admit that, depending upon the particular characteristics of the environmental issue at hand, I have taken each of the other three perspectives from time to time.

My inclination to interpret Shabman and Stephenson as saying that these perspectives are to a great extent mutually exclusive may be a function of the fact that they couched their discussion within the context of a single environmental issue—point source pollution—for which market-based mechanisms are broadly supported. As I survey the range of environmental concerns addressed by the legislation reviewed by Carriker and the three crossover issues discussed by Infanger, I find myself drawn toward one or another perspective perhaps as much by pragmatism as by philosophical leaning.

As such, I determined to resolve the first tension and explore my schizophrenic tendencies by attempting to apply or link the taxonomy of perspectives to the three issues raised by Infanger in the context of the legislation reviewed by Carriker. One further point seems important to make before turning to these linkages. Shabman and Stephenson appear to focus upon the four perspectives as alternative normative judgments regarding how environmental goals and institutional mechanisms to achieve them ought to be evaluated or chosen. However, the taxonomy also seems to have usefulness in a more positive vein, in describing what kinds of things are happening within current reform efforts and offering some insights as to why, as some of the discussion to follow will demonstrate.

Unfunded Mandates

The unfunded mandates issue centers on the predicament of local governments, particularly small cities in rural areas, who face costs associated with a set of mandates for wastewater treatment, drinking water monitoring, and other environmental protection measures that exceed reasonable estimates of their fiscal capacity. This issue has been raised and debated primarily as a matter of equity, with the implicit notion that if the mandate were funded

by the federal government, everything would be just fine. However, as the issue has evolved, skepticism about the merits of the standards or requirements imposed in these mandates has arisen, on economic efficiency grounds.

Local governments and state agencies appear to be arguing that, in light of particular circumstances in some areas of the country and the opportunity cost of foregoing spending on other local priorities, fulfilling these mandates is simply not worth it, at least within the time frame required by compliance deadlines. As a result of this reaction at the local level, some regulatory reform has taken place.

With the blessing of and partial support from the Environmental Protection Agency (EPA), the Idaho Division of Environmental Quality undertook in 1994 a "Cumulative Mandates Pilot Project" to assess the fiscal and administrative capacity of small cities to meet the various environmental mandates. Another aspect of the project was to develop and test a model procedure by which local communities could prioritize the projects required to meet the mandates they face, in part at least on the basis of a comparative risk assessment. There was also an understanding from the beginning that the EPA would be open to consider approval of a modified compliance schedule that would stretch out the time frame over which the set of mandates would be fulfilled.

Based in part on the findings of this pilot project, the EPA announced in November 1995 its "Policy on Flexible State Enforcement Responses to Small Community Violations," which formalizes the EPA's "support for States' use of enforcement flexibility to provide compliance incentives for small communities." At least two states, Idaho and Colorado, have passed legislation to allow approval at the state level of such extended compliance agreements.

How, then, would economists with each of the alternative perspectives react to what has happened on this issue? The rational analyst might be inclined to agree that extending the compliance deadlines for some mandates may well increase the economic efficiency of local government spending, but would probably recommend comprehensive analyses of the standards or requirements associated with each mandate to determine if they are economically efficient for small cities. The cost analyst might accept the standards but would suggest a comprehen-

sive analysis of alternative means for small cities to meet the standards more cost effectively. The market manager would probably applaud the process of revising the environmental goals, in terms of the compliance deadlines. The market manager might acknowledge that shifting the locus of collective decision making toward the local level, using available information to provide a comparative risk assessment, and recognizing the real opportunity costs could be expected to produce more economically efficient goals. The market manager might also be interested in design of the process for developing local priorities, with a view to reducing the administrative transactions costs involved. Free market environmentalists would, I suppose, argue that such mandates from the federal government are unnecessary, if not illegitimate. They would probably suggest that if local people want cleaner water, for example, they should bargain with those whose activities impact water quality or take them to court, depending upon the existing property rights specification. They might accept the possibility of voluntary collective solutions organized through local government.

Risk Assessment

One area of environmental policy in which calls for reform have been made based on comparative risk assessment is that of municipal solid waste management. Subtitle D regulations for municipal landfills stemming from the Resource Conservation and Recovery Act were issued on October 9, 1991, containing location restrictions, facility design and operations criteria, groundwater monitoring requirements, and other measures which dramatically increased the cost of landfill disposal, particularly for rural communities handling a relatively small amount of municipal solid waste. These regulations were implemented to protect the environment and human health, but like many federal regulations, they appear to be designed for the "worst case scenario" with respect to risk. A complementary objective, at least implicitly, was to facilitate siting of new landfills by eliminating the perceived if not real risks that foster political opposition.

In response to complaints regarding the costs that local communities would face, the compliance deadline was extended for six months and states were allowed to extend it further as long as only air

space above an existing footprint was being used. However, throughout much of the West, complaints arose that these regulations were ridiculous for small landfills serving rural communities in areas where rainfall averages less than 10 inches per year and it is 500 feet to the groundwater table. As a result, the EPA instituted a policy exempting small landfills (handling less than 20 tons per day) in arid regions from some of the design and monitoring requirements. This is but one of many examples where the apparent political constraint that forces federal environmental policy to be applied uniformly throughout the country, and based on the worst case scenario with regard to risk, leads to an outcome that most people would readily agree is (sometimes ridiculously) inefficient.

How would our four economists respond to this case? The rational analyst would again call for a comprehensive benefit/cost analysis that might lead to standards that would differ depending upon geographic and demographic characteristics. The cost analyst would question the nationally uniform technology-based requirements and call for further analysis of options like the small landfill exemptions that appear to reduce costs without sacrificing achievement of the environmental standard. The market manager might focus more attention on resolving the siting issue itself without resorting to regulations that attempt to reduce risks to zero. The market manager might suggest an auction mechanism for securing voluntary acceptance by communities of a landfill in their backyard, or something like Wisconsin's Waste Facility Siting Board, which institutionalizes the process by which landfill developers and communities arrive at a negotiated settlement regarding host community benefits. The free market environmentalist would again eschew federal standards for this kind of issue, arguing that clarification of property rights with regard to groundwater contamination or nuisance impacts is really all that is needed.

Property Rights

Some of the most contentious debate today surrounds the restrictions on private land use resulting from designation of critical habitat for endangered species. On the surface, this appears primarily an equity issue of who should bear the opportunity costs associated with protection of endangered spe-

cies. While H.R. 9, or something like it, may deal with the equity issue, the debate has also uncovered an efficiency issue, based on observations regarding the magnitude of opportunity costs in some cases and the logic of marginal analysis, not to mention the prohibitively high administrative transactions costs associated with the procedures required by the Endangered Species Act. Reauthorization has been held up as progress toward a compromise that would incorporate some balance to the process has been slow in coming.

What observations or advice would our four economists offer here, besides applauding the recognition of opportunity costs and the search for some balance at the margin? The rational analyst would perhaps call for a massive contingent valuation study to estimate what it is worth to people to protect endangered species. The cost analyst might argue for studies to explore lower cost protection strategies than simply putting all suitable habitat off limits, or to estimate a marginal cost curve for reducing the probability of extinction by expanding the area designated as critical habitat. The market manager might recommend an approach similar to

the Conservation Reserve Program, whereby bids would be solicited from private landowners to set aside land as critical habitat. The free market environmentalist would probably point to the activity of the Nature Conservancy in preserving environmentally sensitive land as the only legitimate approach to this issue.

A Closing Comment

Reflecting upon the nature of the issues we are struggling with in this process of environmental regulatory reform, I am reminded that both Infanger and Shabman and Stephenson noted the importance of rent-seeking behavior. Infanger also discussed the increased attention to conflict resolution strategies once battle lines are drawn. What seems to me a critically important role for economists, regardless of their "perspective," is the design of institutional mechanisms that provide sufficient redistribution of benefits and costs, or reduce the transactions costs of doing so, to make attainment of reasonably efficient environmental goals politically acceptable.