Few will dispute the need for some kind of regulation in a complex society such as ours. When the behavior of people, or of firms, or even of governmental agencies, causes damage to others — and when the ancient system of tort law becomes too cumbersome or cannot be applied for other reasons — there arises a need for regulation imposed by government on the basis of democratic consent by the people. But like every other human activity, particularly if it is carried out by government, regulation requires a system of checks and balances. Otherwise, a new tyranny will spring up, composed of regulators whose purpose in life, whose gratification, and whose power derive from ever-increasing levels of regulation. Like kudzu in Georgia, regulation will grow until it strangles the economy.

Regulatory Crisis

As the level of regulation in the United States has grown exponentially — measured either in number of laws or in pages of the Federal Register — we may be approaching the critical level where in fact the economy is being strangled — where enterprise is restrained, where entrepreneurship is stifled.

After all, the level of regulatory costs is now in excess of $600 billion per year, over 10 percent of the GNP, according to Prof. Thomas Hopkins of the Rochester Institute of Technology. Prof. Murray Weidenbaum, director of the Center for Study of American Business at the Washington University in St. Louis, estimates that one-quarter of the regulatory costs are connected with the environment, and are the fastest growing segment.

This outlay does not appear in the federal budget but is reflected in higher prices in the stores and lower real incomes. Raising the costs of all goods, energy, and transportation levies an average annual burden of nearly $1500 on every American household — a thoroughly regressive tax. Householders could spend this sum in ways that better advance their health and well-being than do current environmental controls. It is well established that people who are well-off live
healthier and longer lives. Making men and women poorer, as these regulations do, can only degrade their health and shorten their years.

Principles

There may not be much we can do about changing the incentive structure of the regulators themselves. Public choice theory tells us that they will always strive for pay, perks, and power. But we might be able to set up and enforce by law some principles of regulation — to make it more rational, more effective, and less costly. What might such principles be?

First of all, one would argue that the regulatory entity should always be at the lowest level of government appropriate to the problem. This is really a democratic principle, which allows each citizen to make an input on matters that concern him directly. The outstanding example, certainly, is zoning for land use. In the environmental area, the example would be garbage collection and solid waste disposal. These should not be problems regulated by federal regulators inside the Beltway. On the other hand, problems of water quality may involve the counties or states in a watershed; problems of air quality may involve airsheds that encompass more than one state.

A second principle, but just as important as the first, is to make sure that regulation satisfies some kind of cost-benefit criterion. It is understood, of course, that the regulation should be as cost-effective as possible — that is, of least cost to achieve a particular goal. But is the goal itself worthwhile? Here one has to measure the benefits that can be achieved and compare them somehow with the costs.

It is at this point where analysis rather than politics plays a most important role. The economic analyst will want to compare the incremental benefits to be gained with an increment of cost. Only if an additional dollar of pollution control can gain more than a dollar of benefits (in environmental damages avoided) is it worthwhile to tighten controls. But to measure the benefits requires the knowledge and application of appropriate science, whether meteorology or medical science.

Initially, regulation did prove to be worthwhile. Removing the first large increment of pollutants from water and air probably produced more benefits than it cost. In the last twenty years there have indeed been tremendous improvements in the quality of the air, and of streams and lakes. But removing the last few percent of pollution is enormously expensive and often not even within the reach of technology. More important, it does not produce commensurate benefits and therefore wastes resources and money. Economic theory as well as everyday experience show only diminishing returns from increasing degrees of pollution control.

One cannot stress enough the importance of sound science in setting environmental regulations. Recent history is replete with examples of policies instituted on the basis of nothing more than press releases that were not backed up by peer-reviewed scientific data. There are many examples where the science is ignored or misused in order to push particular policies. There are even examples of where the science has reversed itself; yet the policies march on as if nothing had happened.

It is easy to see why politicians, bureaucrats, and regulators would oppose any such rational approaches to environmental regulation. It would restrict their freedom of action, limit their power, and rob them of influence.

Last but not least, there is the matter of comparative risk. Even if a particular control scheme for a particular pollutant satisfies the cost-benefit criteria, the funds involved might be better spent
on doing away with some other hazard to human health or well-being.

In considering environmental regulations, there is also the matter of equity that needs to be weighed. In general, the cost should be borne by those who pollute — thus encouraging them to pollute less. Economists have long argued for fees on emissions rather than for absolute limits. By the same token, those who benefit might be asked to share some of the cost burden. And finally, one needs to consider that costs and benefits impact differently on people depending on their income group or geographic location.

**Economic Impacts of Over-Regulation**

As long as the criteria listed are satisfied, we can be confident that regulation is benefiting society. It is over-regulation that one needs to be concerned about. One of its pernicious aspects is the fact that it adds costs to the economy which are not very apparent. The costs do not appear in the federal budget and they are not paid for by federal taxes. They appear as the costs of raw materials and production, of transportation and distribution. As these costs are passed along to the consumer, they raise prices and lower the standard of living. People become poorer without knowing where to put the blame.

The enormous expense of further curbing effluents from power plants, factories, and cars — and now, in Los Angeles, from dry-cleaning shops, the corner garage, and the bakery down the street as well — must be passed along to the consumer through higher prices; otherwise these establishments have to fold. As sales fall due to higher prices and some firms cannot maintain their viability, workers lose their jobs. The costs of these regulations force the weaker companies into bankruptcy. Typically, small firms cannot afford the specialists to fill out the innumerable forms needed for emission permits, or to take the precise measurements required, or to employ the myriad of environmental consultants, lawyers, and just plain paper pushers.

Strict regulations also erect barriers to entry for new businesses, discourage entrepreneurship and innovation, and curtail competition, all of which force prices up. Large established firms should love this new business climate, which bestows on them monopoly power — but consumers and job seekers should be very concerned. Except for those employed in large corporations that face less competition, individual workers and labor unions should also be apprehensive. Higher production costs pare our standard of living, diminish our competitive position on the world market, and curtail exports. Traditionally, firms have moved to areas offering lower labor costs. Textiles and other labor-intensive manufacturers, for example, shifted from New England to the South. Now plants subject to strict environmental controls, such as those in the chemical and extractive industries — mining, smelting, petroleum and refining — are seeking less costly climates. For many it's the only alternative: close down or move offshore where environmental regulations are less burdensome.

The way in which these controls are enforced contributes significantly to their burden. Courts and juries are holding companies with deep pockets guilty of "criminal" offenses for environmental accidents, like the *Exxon Valdez*. The assigning of liability post-facto, often hitting not the actual polluter but those who can afford to pay, is damping new investment. Although this disincentive is impossible to quantify, the fear of exposure to enormous costs must be having a crimping effect on economic growth. Investors are increasingly wary of putting their money in the United States because any serious environmental mishap with which they could be remotely connected might subject them to huge liabilities.
More Jobs?

Does environmental regulation create new jobs? The argument was used widely by Vice President Al Gore during the recent campaign. But it is problematic at best. As money is removed from the private sector, it destroys productive jobs in industry and agriculture, while creating jobs for regulators who promulgate and enforce, administrators who monitor and issue permits, and environmental lawyers who lobby and litigate.

Let's be clear: tightening environmental standards cannot create more jobs — the contrary is true. At the very best it will shift jobs, without any net gain. It will abolish jobs in factories that construct real products and substitute pursuits that spawn paperwork. All we have to do is to retrain workers — so the story goes. But it won't be easy to turn out-of-work miners and blue-collar workers into environmental lawyers.

Government, of course, can always create jobs with tax money or through regulation. For example, for major projects the law requires that government agencies or private firms produce environmental impact statements. The taxpayer or the consumer, by way of higher prices, must pay one group of consultants to write these tomes — many inches or even feet thick — and then spend more of our money to employ another firm to read them. One bunch of guys digging holes and another filling them in — but no product! The private sector could have used those funds to employ workers in productive occupations that would have created valuable goods and services, raising people's standard of living and improving their physical well-being.

Science Misused and Ignored

There are many examples — too many — of misguided regulations based on pseudo-science or worse, and applied without regard for geographic differences or other common sense factors. The 1990 Clean Air Act gives us many good examples. One title deals with urban smog and prescribes what to do about it. As Kenneth Chilton of Washington University reminds us, the data are suspect, the criteria are misplaced, and national control policies are pitched to making Los Angeles smog-free — an impossible goal. The costs to the nation, not surprisingly, will be enormous.

Another title of the same law deals with air toxics, the emission of substances that could conceivably cause cancer. The problem is that the cancer risk is calculated for a susceptible person who is maximally exposed to the atmosphere for 70 years, and that the risks are computed based on dubious scientific data. Furthermore, the analysis neglects the obvious: the fact that the person will be indoors for much of his life exposed to an indoor air quality that is likely to be much more hazardous. Even so, cancer risk, normally about 25 percent, would be reduced to only 24.99999 percent, but at a cost of multi-billion dollars that could have been used to save many more lives by reducing more down-to-earth risks.

Yet another title deals with the acid rain problem, the acidification of rain by sulfur dioxide from coal-burning power plants. It calls for emissions reduction nationally of 10 million tons per year — a nice round number for which there is no scientific justification whatsoever, except that it would cut the remaining emissions in half. Over the last twenty years, the emissions have already been reduced by 25 to 30 percent, without much noticeable impact on acidity. Furthermore, the science has changed completely since the early 80s when there appeared to be
some cause for concern about the health of lakes and forests. By the end of the decade these fears had disappeared. A major scientific study, the half-billion dollar, ten-year-long National Acid Precipitation Assessment Project (NAPAP), conducted under government auspices, had demonstrated that most small lakes affected are naturally acidic and that forests are not harmed. This new scientific evidence was never disputed; it was simply ignored. Those who wanted to pass the extremely expensive control legislation that would add some $5 to 10 billions to the cost of electricity simply declared the scientific studies to be "not policy-relevant."

One final example: the precipitous phase-out of production of chlorofluorocarbons (CFCs). The policy decisions here were driven by hype and fear, by false stories of blind sheep and rabbits in Patagonia, and by exaggerating the fear of skin cancer. Press releases about ozone depletion always refer to it as "worse than expected." The question was never raised whether the theory underlying the expectations was wrong, whether the observations were wrong, or whether both were wrong; yet these are the only logical choices.

What To Do?

What can be done about excessive regulation, not supported by scientific evidence, yet imposing tremendous costs on the economy, destroying jobs, and discouraging entrepreneurs and small business enterprises? Somehow — to use President Clinton's words — the public must be made to "feel the pain." In other words, there is hope — provided the public can be educated about the cause-and-effect relationship between overregulation and the loss of jobs and lower standards of living.

One way to do this is by having people pay directly for what is judged to promote environmental quality. Within the next few years, motorists will face not only higher gasoline taxes but also greatly increased costs in monitoring car emissions and in recharging or replacing air-conditioning systems. Perhaps these and similar instances of direct, out-of-pocket costs will lead to a kind of consumer revolution, which in turn can lead to an overhaul and rationalization of our whole system of environmental regulation.

And who will be our allies in this enterprise? The greatest support may come from small business, particularly from start-up companies, and from labor unions who are beginning to understand why productive jobs are being lost and why the economic engine is no longer running at full speed — and from citizens acting through local government, through counties and cities.

Local governments are feeling the burden of ever-growing federal regulation. Last September, Ohio's major cities released a cost report on environmental compliance: more than $3 billion for the next decade. Columbus, for example, spent 10.6 percent of its 1991 budget on compliance and expects this figure to rise to 23 percent by the year 2000. The report identified 14 specific environmental areas covered by legislation and subject to regulation. It also noted that during the past four years alone EPA worked on 1219 regulations of which 665 were new — proposed rules that required study and comments. Leaders in other states are also lodging complaints — for example, the Southern Municipal Conference, representing fourteen states. The National League of Cities, in endorsing these grassroots complaints of the cities, may be successful in forcing action at the national level.

Perhaps these state and local activists will get behind the outstanding legislation on risk assessment that Senators Johnston, Moynihan and others are offering to rectify this situation.
Conclusion

Will stiff, super-clean standards really generate benefits in terms of human health? Science tells us that there is little if any additional return from the complete elimination of “hazards” such as pesticides, asbestos, dioxin, radon and various air pollutants. Most gains come from eliminating the initial 90 percent — which is generally simple and cheap — rather than from eliminating the last one percent — which is frightfully difficult, in many cases virtually impossible, and in almost all instances extremely costly. The goal of zero risk is not only unrealistic, but unattainable and infinitely costly.

The real questions are — or should be: Do we need more stringent environmental controls for better human health and ecological values? Are the additional benefits worth the additional cost? How clean is clean? The answers to these questions are not easy to come by and require a lot of scientific data and understanding. They cannot — and should not — be settled by emotional appeals and activist rhetoric. Society can no longer afford to waste resources on a large scale.

The purpose of environmental regulation is not — and should not be — to “create jobs.” Its announced purpose is to improve human health and protect ecological values. But once past the initial level, further clean-up often throws off little in the way of health benefits. Households could take the $1500 per year and spend it better on food and shelter and proper medical care. It is well-recognized that “wealthier makes healthier.” And cleaner, too.

If human health and a better standard of living are the major societal objectives, then we want productive economic growth, not unproductive make-work jobs based on excessive regulation. To echo the principal recommendation of the Ohio municipalities: “Environmental legislation and resulting regulations should be formulated on a well-founded, peer-reviewed scientific basis.”

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ABOUT THE AUTHOR

S. Fred Singer is professor of environmental sciences at the University of Virginia and directs the Washington-based Science & Environmental Policy Project.
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