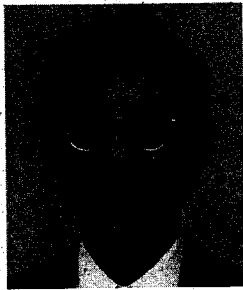




Risk in Perspective

Evaluating Risk Reduction Programs

Photo by Lisa Green



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... if we were to reallocate expenditures from the least to the most effective ways to save lives, we could save an additional 60,000 lives.

People want better lives, including a greater feeling of safety. Government regulations affect our exposure to risks and, in turn, shape the environment in which we live, the goods and services we use, and the places where we work. Regulations can be useful if they are well targeted, designed, and enforced. This issue of *RISK IN PERSPECTIVE* discusses how regulatory programs intended to reduce risk may or may not make good use of their resources. I begin by summarizing how regulatory programs relate to the general policy objectives of efficiency and equity. I then identify things to look for when judging a regulatory program and describe cases where not following principles of efficiency have led to avoidable wasteful policy.

Overview of Programs to Regulate Risk

Regulations place restrictions on behavior. Relevant examples include: maximum allotted pollution, such as limits to discharges of smoke or waste water; required safety features of a product, such as reasonably sturdy bumpers on cars; or required workplace characteristics, such as good ventilation or machine safety guards. A recent estimate places the cost of U.S. risk and environmental regulations at over \$150 billion annually, which is about double the cost of regulations involving monopoly pricing and anti-competitive behavior.

The logic behind safety regulations is that by prohibiting the behavior underlying the danger, the risk will go down. As logical as regulations may seem, if any of the three requirements for an effective regulation are missing—the regulation does not attack the cause of the safety risk, there are infrequent checks so that the regulation need not be obeyed, or detected violators receive trivial punishments—then the regulatory approach will be ineffective.

Safety standards must relate to the problem but acknowledge that total freedom from risk is unreasonable. We can eliminate auto crash deaths by having speed limits of one mile per hour, but that is too slow for most of us to drive. If we have infrequent inspections so that few rule breakers are caught, then safety regu-

lations will be ineffective. On the dreaded other hand, there are costs and a right to privacy to consider. Few of us would tolerate the constant personal surveillance we would be under or the taxes we would have to pay for enough inspectors to detect every scofflaw. The result is that we strike a balance that leaves costs reasonable while allowing some rule breaking to go unnoticed. Fines also have to be reasonably, but meaningfully, severe to encourage adherence to regulations. The death penalty imposed on employers could reduce workplace accidents, but applying capital punishment to a manager whose work force had an accidental death is excessive. It is often difficult to find a balance between a meaningful, but not too tough, penalty for polluters, unsafe drivers, or firms with dangerous work places. Even if a program has the three dimensions just mentioned that make it effective in reducing risk, it may not do it efficiently or equitably.

Efficiency in Risk Reduction Programs

An efficient program does what it is supposed to do at low cost. If a program does not do what it is supposed to do, then most of us would be willing to eliminate it. There is much statistical evidence that OSHA has had no detectable effect on fatal and nonfatal workplace accidents. Most telling is that the historical patterns of fatal and nonfatal work-related accidents are the same before as after 1970, the inception of OSHA. A program that is ineffective is clearly inefficient because it has costs but not benefits.

If a program reduces risk, then we consider a second dimension. Can we get the same level of risk reduction more cheaply or achieve more reduction in risk for the same expenditure using another approach? The executive branch of the federal government has accepted regulations with a cost per life saved of up to \$140 million even though there are programs I will soon mention that can save lives for under \$10 apiece.

Equity in Risk Reduction Programs

Equity concerns whether a policy distributes its benefits and costs among people fairly. Is it

