

In Brief

Exploring the Role of Cost-Benefit Analysis in Government Regulations

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This policy paper—written by Eastern Research Group of Massachusetts and Keith Lind, Senior Policy Advisor of the AARP Public Policy Institute—examines the debate on how cost-benefit analysis is used in federal regulations.

When the Environmental Protection Agency made headlines in 2003 for using a cost-benefit analysis that assumed the value of a life saved for people over 70 was only about 63 percent of that for younger Americans, critics branded the EPA action as the “senior death discount.” Seniors began showing up at EPA field hearings wearing price tags, saying “Seniors on Sale — 37 percent off.”

Facing public outcry, the EPA found a less obvious way to factor age into calculations of regulatory impact. However, the continued use of this approach is just one example of how results can be skewed based on questionable assumptions and how regulations can be influenced depending on how cost-benefit analysis is applied.

The debate about widespread use of cost-benefit analysis and a related technique, cost-effectiveness analysis, to evaluate proposed federal health, safety and environmental regulations is no less relevant today than in 2003. Understanding how these techniques are performed and what effect they have on regulations is critical for developing policy positions on issues important to older Americans.

A Primer on Cost-Benefit and Cost-Effectiveness Analysis

This paper identifies strengths and weaknesses of each technique, and highlights key factors (including age) that can substantially influence the results of an analysis. The paper also addresses a series of questions that help clarify the role cost-benefit analysis plays in today’s environment, such as:

- Who uses cost-benefit analysis and why?
- Why is cost-benefit analysis a critical part of regulatory impact analysis?
- Why are only selected regulations subjected to cost-benefit analysis?
- How are cost-benefit analysis and cost-effectiveness analysis related?

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- What are the implications of using age in the calculations?
- How are these tools actually applied?

The Debate

What role, if any, should the results of cost-benefit analysis and economic considerations in general play in public policy and regulatory decision making, especially when health and safety issues are involved? That is the core of the ongoing debate about the value of cost-benefit analysis.

Some argue for a dominant role while others think cost-benefit analysis is a seriously flawed technique for policy making. Critics contend that political decisions are different from market decisions; that reducing life, health and the environment to monetary values is misguided; that cost-benefit analysis ignores equity issues; and that these techniques are hard for the public to understand, which makes the regulatory process less transparent. Proponents have answered critics with progressive refinements to cost-benefit techniques.

One of Many Tools

Advocates of regulatory impact analysis hope that collecting and analyzing information, including cost-benefit and cost-effectiveness analysis, will result in the greatest improvement in public welfare.

Many policy analysts note, however, that cost-benefit analysis and cost-effectiveness analysis should supplement, rather than substitute for information available to policy makers and are not intended to serve as the sole basis for decisions regarding which regulatory approach to adopt. Unfortunately, decision makers often ignore this advice.

Case Studies

To illustrate the practical use of cost-benefit and cost-effectiveness analysis as applied by federal agencies, this paper presents case studies of two rules proposed by EPA and the Food and Drug Administration. These highlight real-world problems that arise in the application of cost-benefit techniques and how agencies attempt to address these problems.

EPA Case Study: Off Road Diesel Emission Rule

Under the *Clean Air Act*, the EPA is required to set emissions standards for engines that contribute significantly to ozone and carbon monoxide concentrations. The EPA's analysis of the off-road diesel rule looked at several health-related and non-health related effects and included the now

discredited assumption that the value of a life saved for people over age 70 amounted to only 63 percent of the value of a life saved for those under age 70. This case study explains how the EPA applied cost-benefit analysis techniques to evaluate the rule and quantify health benefits.

Food and Drug Administration: UPC Bar Code Rule

To reduce preventable medical errors, the FDA wanted to require UPC bar codes on all prescription drugs used by hospitals and nursing homes. This particular rule illustrates the role and effect of age on the analysis since the agency had to value the benefits of avoiding adverse drug events for populations in two distinctly different age groups—hospital patients and nursing home patients. Ultimately, FDA's analysis sidestepped the age issue by assigning the same monetized values for avoiding adverse impacts to both hospital and nursing home patients.

In Brief IB 145, September 2007

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