

Rail Regulators Ponder Benefit-Cost Analysis

By: Jerry Ellig | November 18, 2019

Earlier this month, the Surface Transportation Board (STB) [solicited](#) public comments on how it could apply benefit-cost analysis to the kinds of competition and ratemaking issues with which it deals. The Staggers Act of 1980 statutorily deregulated many categories of rail freight rates and gave regulators authority to deregulate others. But the legislation also gives the STB the job of regulating freight rates for shippers who lack good transportation alternatives to a single railroad.

The STB can most productively develop its approach to benefit-cost analysis by keeping three principles in mind: (1) RIA, not BCA; (2) Words have meanings; and (3) The analysis is not the decision.

RIA, not BCA

The STB's [notice](#) asks “whether and how particular cost-benefit analysis approaches might be more formally integrated” into its rulemaking processes. The notice was issued in response to a petition from the Association of American Railroads that asked the STB to adopt a rule requiring benefit-cost analysis in certain rulemakings.

The STB could obtain much more useful analysis if it focused on regulatory impact analysis, not just benefit-cost analysis. The regulatory impact analysis framework, as outlined in Office of Management and Budget [Circular A-4](#), consists of four main elements: (1) analyze the extent and cause of the problem the regulation seeks to solve, (2) develop alternative solutions, (3) assess benefits of each alternative, and (4) assess costs of each alternative.

Benefit-cost analysis is thus one element of regulatory impact analysis, but it occurs after the problem has been analyzed and alternatives have been developed. In some cases, benefit-cost analysis may not be necessary – if, for example, the problem analysis reveals that the problem is not widespread, or the alternatives analysis reveals that regulation is unlikely to affect the problem. In other cases, additional forms of analysis, such as cost-effectiveness analysis or assessment of distributional consequences, may be necessary to provide decision-makers with the most relevant information.

In brief...

Although regulatory impact analysis would certainly not automate STB regulatory decisions, it would provide a coherent and organized framework for discovering and presenting information about the likely consequences of regulatory alternatives.

Recent STB proceedings to create a streamlined rate complaint process for small shipments (the [“Streamlined Market Dominance”](#) and [“Final Offer Rate Review”](#) proceedings) illustrate how the board could conduct analysis of the problem and alternative solutions. Three types of empirical evidence are necessary to demonstrate that a real and significant problem exists for small shipments: (1) evidence that railroads have market power over a significant number of small shipments, (2) evidence that railroads with market power may be charging unjust or unreasonable rates for these shipments, and (3) evidence that current rate complaint procedures are too costly to use for small shipments. Assuming the STB finds satisfactory evidence on all three points, it could then assess the merits of several specific alternatives mentioned in the notices of proposed rulemaking or [suggested](#) by the former members of the Transportation Research Board’s [Committee for a Study of Rail Freight Transportation and Regulation](#).

Words have meanings

In layman’s language, terms like “benefits” and “costs” of regulation are treated as nearly synonymous with “pros” and “cons.” A regulation’s benefit is anything it accomplishes that I like, and a regulation’s costs are anything it accomplishes that I dislike.

But these words have technical meanings in economics that are far more precise. Economic analysis of regulation focuses on overall benefits and costs to society. The benefit of a regulation is the increased value of output that occurs as a result of the regulation. For example, if a railroad possesses market power over shipments from a particular location, the benefit of a rate regulation is the value of any increased output the shipper produces and ships as a result of the lower, regulated rate.

Costs of a regulation are the value of opportunities forgone because regulation alters the use of resources. One clear cost of railroad rate regulation is the resources used by the government and stakeholders for administration and enforcement. A potentially more significant cost is the value of reduced railroad output that would occur if the rate regulation is significant enough that it reduces railroad investment. Reduced investment could affect the quantity, quality, and safety of rail service. The policy experiment that demonstrates the relationship between regulation, investment, output, service quality, and safety is, of course, passage of the Staggers Act of 1980, which established the contemporary light-handed regulatory system for rail rates. Post-Staggers [empirical studies](#) agree that the legislation increased railroad investment, expanded railroad output, generally improved service quality, and clearly improved [safety](#).

A key empirical question the STB must answer is whether a proposed rate regulation procedure would affect railroad investment significantly enough to affect the quantity, quality or safety of rail service. The value of any reduction in quantity, quality or safety would count as a social cost of a rate regulation procedure that reduced railroad investment.

In addition to benefits and costs, regulations have another type of significant effect: they frequently transfer wealth or resources from one party to another. Transfers are neither benefits nor costs. The primary transfer involved in railroad rate regulation is the rate relief shippers receive as a result of the rate regulation procedure. This should not be counted as a benefit or a cost to society, since it is simply a shift of wealth from one party to another.

The analysis is not the decision

Discussion of benefit-cost analysis often conflates the idea of conducting the analysis with specific normative decision rules for regulators to follow, such as to regulate only if the benefits of the regulation exceed the costs, or to choose the regulatory alternative with the greatest difference between benefits and costs. But the analysis itself is not the same thing as the decision.

This is an especially important distinction to keep in mind when discussing STB rail rate regulation, because the Staggers Act does not explicitly require benefit-cost balancing for rate regulation decisions. Instead, it focuses on the tradeoff between fairness to captive shippers and the potential social costs of regulation. Nevertheless, a regulatory impact analysis can help answer several key questions the STB must answer in order to carry out its statutory duties:

1. Is it likely that railroads have market power over significant numbers of small rail shipments that could be affected by the proposed regulation?
2. Is it likely that significant numbers of small rail shipments over which railroads may have market power are also charged rates that may not be just and reasonable?
3. Does the cost of current rate complaint procedures effectively preclude STB decisions on whether railroads have market dominance over those shipments and whether rates for those shipments are just and reasonable?
4. What alternatives to the current rate complaint process would be most precisely tailored to address whatever problem exists?
5. Could new complaint procedures create significant cumulative costs by reducing railroad investment in ways that could affect the efficiency, safety or soundness of the rail transportation system?

Regulatory impact analysis would certainly not automate STB regulatory decisions. But as I suggested in a recent [comment](#) to the STB, regulatory impact analysis would provide a coherent and organized framework for discovering and presenting information about the likely consequences of regulatory alternatives.