

**RAILROAD-SHIPPER TRANSPORTATION ADVISORY COUNCIL  
WASHINGTON, D.C.  
POSITION PAPER ON THE UNIFORM RAIL COSTING SYSTEM  
November 22, 2011**

**EXECUTIVE SUMMARY**

The Surface Transportation Board ("STB") currently uses an outdated and inadequate costing system known as the Uniform Rail Costing System ("URCS") to determine, among other things, whether a rail carrier's rate falls under the STB's rate jurisdiction, for adjudicating disputes involving through routes and divisions between or among all classes of rail services, and in abandonment cases. The use of URCS to make these decisions could lead to inaccurate and unfair results to either shippers or railroads. Congress directed the STB and its predecessor to periodically review its cost accounting systems that it adopted but because of resource constraints, a comprehensive review has not been done since URCS was adopted in 1989 and some of the analyses used in it date back to the 1930's.

The infirmities in URCS include ignoring the differences between the costs of short line and regional railroads and Class I railroads, relying on outdated computer programs, using outdated regression analyses, and using engineering data from as far back as the 1930's. The current system is outdated and does not include data from Class II and III carriers. In the review process, STB also needs to determine how to address the concerns of the Class II and III rail carriers expressed in this White Paper.

The need to use updated data is of critical importance to shippers and railroads, particularly to determinations concerning whether a rate is reasonable. The parties in such cases can expend millions of dollars to prosecute them, and the outcome can involve hundreds of millions of dollars to the parties. Thus, it is imperative that the STB have sufficient resources to review and update URCS as directed by Congress.

The only way to deal with the problems with URCS is for the STB to completely review and revamp URCS to ensure an up-to-date, accurate costing system. It is estimated that such a review and revamp would cost \$10 million.

The Railroad-Shipper Transportation Advisory Council ("RSTAC") recommends that Congress provide the STB the estimated \$10 million to enable it to completely overhaul its uniform costing system to reflect the dramatic changes that have occurred in the railroad industry in the last two decades.

**RSTAC**

RSTAC was established pursuant to the ICC Termination Act of 1995. Its 15 appointed members consist of senior officials representing government, shippers, and railroads. They share a common goal to strengthen the national rail industry to improve service levels and foster mutually beneficial relationships between large and small railroads and shippers, across all commodity groups.

RSTAC is charged to provide a private sector forum for the discussion of matters of concern to small rail shippers and small railroads and to provide advice on regulatory, policy and legislative matters to the Surface Transportation Board ("STB"), Secretary of Transportation, and Congress.

## **BACKGROUND**

URCS was adopted in 1989 by the Interstate Commerce Commission ("ICC"), the predecessor to the Surface Transportation Board ("STB" or "Board"), as its general purpose costing system. URCS evolved from earlier costing methodologies, principally a cost accounting system known as Rail Form A. Rail Form A was used to estimate the variable costs of performing various rail services using statistical techniques and annual expense and operating data reported by the Class I railroads to the ICC. URCS is primarily used for analysis regarding Class I railroads.

When Congress passed the Staggers Rail Act in 1980, it recognized that the ICC's costing model needed revisions. It created the Railroad Accounting Principles Board ("RAPB") to provide guidance to the ICC regarding refining the costing system and to provide guidance on various rate regulation issues. With guidance from the RAPB, the first major task the ICC undertook was to revise the accounting system by which the Class I railroad cost data were collected, the Uniform System of Accounts ("USOA"). The USOA specifies the accounting codes and categories that Class I railroads are required to use for regulatory purposes and explains the accounting requirements for certain types of transactions.

After working with the RAPB and other parties, the ICC concluded that Form A variable unit costs were not reliable because the Form A variability factors, used to determine variable costs were calculated by regression analysis that used Class I railroad operating practices data from 1966-1970 and then applied them to current year total cost data. Some of the RFA variability factors also relied on assumptions and some of these assumptions are still used in URCS. The ICC determined that both the underlying data and the regressions themselves were no longer reflective of the operation of the current rail industry. Additionally, the basic programming for URCS is still in old computer language ("Fortran") and needs to be upgraded to modern computer language.

Working with an outside consultant and with participation by the Association of American Railroads ("AAR") and some Class I railroads, the ICC established the assumptions underlying the regression model used in URCS today and the econometric methods required to analyze the data. The regression model determined the statistical relationship between dependent variables (dollars assigned to particular expense account groups) and the independent explanatory variables (capacity and output) in order to separate total expenses into their fixed and variable components and to determine unit costs.

According to the STB: "The role of URCS is to estimate that portion of the variable costs of providing rail service that can be attributed to any given rail movement." The URCS system uses statistical techniques to estimate a carrier's variable unit cost in a set of defined expense categories on a system-average basis for that carrier, resulting in one set of average URCS unit costs that can be used anywhere on that carrier's system.

## **USES OF URCS BY THE STB**

The Board uses URCS to calculate a system-wide estimate of the proportion of the Class I railroad's costs of providing service that are variable with changes in traffic volume. URCS develops variable costs estimates by relying principally upon a series of statistical estimation tools.

After developing the variable costs for the Class I railroads, the STB uses URCS in a variety of Board proceedings to, for example, determine whether a rail carrier's rate falls under the STB's rate jurisdiction for a variety of calculations in rate reasonableness determinations; adjudicate disputes involving through routes and divisions between or among all classes of rail services; in abandonment cases, to determine the compensation due to an incumbent railroad when the Board directs that another railroad may operate on the incumbent's lines; and to determine value whenever there is a regulatory need to value a rail line, such as for an offer of financial assistance for a rail line proposed to be abandoned.

## **CONCERNS WITH URCS AND ITS APPLICATION TO SMALL RAILROADS**

A number of concerns exist regarding URCS. Among those raised by various parties are the following:

- There has been no comprehensive review of URCS since it was adopted by the ICC in 1989. Without it being updated or changed, there is no assurance that it remains reliable and useful. Simply stated, URCS has become outdated; programs need to be modernized, and the regression analyses updated and reconfirmed.
- The Board has recognized that "the development of system-wide variable costs associated with a particular rail movement requires that any costing methodology incorporate many assumptions and generalizations about railroad operations." The problem as it relates to Class II and III carriers is that URCS contains no assumptions and generalizations about small railroads' operations. Without those assumptions, URCS is not useful as it relates to small railroads.
- While the STB conducted a review in 1997, that review focused on intermodal costs and was quite limited.
- The Board has adopted a number of changes regarding its determinations in rate cases. URCS plays an important role in determining the reasonableness of a rate and, if the rate is deemed too high, what relief a shipper receives. An outdated or inaccurate costing system could adversely affect either side in a rate case.
- URCS relies entirely on data obtained by the STB from the R-1 forms and other data filed with the STB by the Class I railroads. On high density Class I rail lines, the fixed costs of track maintenance, supervision, and communications and control can be spread over large amounts of traffic. As a result, average costs of operation over these lines may not be greatly in excess of variable costs and it is fairly easy to determine the costs of operation over any portion of the network.
- For light density rail lines on small railroads, fixed costs must be allocated to a much smaller amount of traffic and average total costs will be well in excess of variable costs. As a result of the small size and light densities typical of the small railroads, their fixed costs are generally the largest proportion of their total costs on a per carload basis.
- Despite significant efforts to grow traffic on their light density lines, occasionally a small railroad finds it necessary to either discontinue operations or abandon a line. When an abandonment proceeding is initiated by a railroad, the STB uses URCS to determine the

avoidable cost of not operating the line. The Board compares avoidable costs to actual and potential revenues to determine whether maintaining service over a line is economically feasible. Because URCS is derived from Class I data, this comparison could be unfavorably skewed against a Class II or III railroad.

- Engineering time and motion analyses form the basis of the special study factors used in URCS. Some of those studies date back to the 1930's. In the decades since those studies were done, dramatic changes have occurred in the rail industry. Not least among those changes since 1980 is the emergence of hundreds of short line and regional railroads and a concentration of heavier cars and trains creating operating and maintenance factors unlike the conditions in the 1930's and unlike those experienced by any regional or short line. The engineering studies do not take into account those changes. In fact, URCS does not contain any of the operating characteristics of short line or regional railroads or their cost structures.

- There are several key general characteristics of small railroads that make them different from Class I railroads:

- Their service territories are local or regional and their traffic densities are generally low.
- Fixed costs are generally the largest proportion of their total costs.
- They have lower shares of dominant rail commodities such as coal, motor vehicles, and intermodal, but a much higher concentration of non-captive, truck competitive general merchandise traffic.
- The traffic and commodity mix varies from short line to short line.
- They are often dependent upon a limited market and a traffic base that can be non-diversified.
- They are mostly involved in the switching-intensive portions of rail trips, namely the "first and last miles" in serving customers.
- Most traffic handled by short lines, however, originates within terminal areas or along light density lines where traffic volumes are much lower, train speeds are slower, and fixed costs are a much larger component of total costs.

These differences between Class I railroads and regional and short line railroads result in vastly different cost structures that are not reflected in URCS.

## **POTENTIAL SOLUTIONS**

At an April 2009 public hearing on URCS, various parties submitted comments requesting that URCS be revised in a number of ways, including: (1) use replacement costs instead of book value costs; (2) allow carriers to submit data to the Board using their internal railroad accounting procedures rather than

the USOA; (3) change the cost treatment for privately owned railcars; (4) radically revise or delete the make-whole adjustment as these adjustments are simply a reallocation of cost savings to unrelated traffic; (5) change the treatment of fuel surcharges; and (6) adjust circuitry factors.

The problem with these approaches is that they still largely ignore the significant differences between the Class I carriers and the Class II and III carriers regarding such items as costs, operations, traffic densities, infrastructure needs, and similar factors. It remains a concern that applying a costing system that ignores these factors for small railroads masks or distorts the economic and competitive impacts and is fundamentally inequitable and unfair.

Any adjustments to URCS should only be considered as part of a complete overhaul and requires Congressional action. Thus, RSTAC recommends that Congress authorize and appropriate \$10 million to allow the STB to complete an upgrade of the computer language and verify the regression analyses used. It is also recommended that the characteristics that differentiate the Class II and Class III carriers from Class I carriers also be addressed and comprehended in the URCS upgrade.

URCS uses only Class I railroad cost data to determine the variable cost of transporting goods by rail. As noted above, the URCS model relies on aggregated annual cost information from just the Class I railroads despite the fact that is relied on to adjudicate cases involving not only Class I railroads but also regional and short-line railroads. The STB has recognized that a costing model that relies on more disaggregated data collected directly from the railroads or the Carload Waybill Sample might result in better cost estimates.

One solution that has been suggested is to require short line and regional railroads to maintain and submit the R-1 forms to the STB: That suggestion is not workable for small railroads for a number of reasons. First, this exercise is both labor intensive and expensive. Further, most short line railroads do not keep the types of records that are required to complete the R-1's.

Congress should provide \$10 million to allow the STB should do an analysis of generally comparable factors for low density lines to allow all parties to be able to develop parameters that allow some estimation by both shippers. This would allow Class II and III's of a uniform starting point for evaluating rate case possibilities or for using URCS for its other purposes.

## **SUMMARY**

RSTAC submits that the STB needs to completely review and revamp URCS to ensure an up-to-date, accurate costing system. RSTAC recommends that Congress provide the STB the \$10 million to enable it to completely overhaul URCS to apply in exercising its jurisdictional obligations.