WA308 112794

BY THE COMPTROLLER GENERAL

Report To The Congress

OF THE UNITED STATES

Problems In Implementing Regulatory Accounting And Costing Systems For Railroads

The Interstate Commerce Commission recently revised its regulatory accounting system and is in the midst of establishing a new costing system to develop information needed to judge rates for railroad services. GAO believes the Commission must do more to make sure that railroads implement the new accounting system correctly and that the new data is used effectively. GAO makes several recommendations to smooth the conversion process.

The Commission is considering making additional changes to its regulatory accounting and costing systems. However, if major new accounting and costing requirements are introduced too soon, the railroad industry could be burdened with complex and difficult reporting requirements which do not necessarily serve Federal regulatory needs.

UNITED STATES GENERAL ACCOUNTING OFFICE

011333

112794

FGMSD-80-61

JULY 17, 1980

For sale by:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

Telephone (202) 783-3238

Members of Congress; heads of Federal, State, and local government agencies; members of the press; and libraries can obtain GAO documents from:

U.S. General Accounting Office
Document Handling and Information
Services Facility
P.O. Box 6015
Gaithersburg, Md. 20760

Telephone (202) 275-6241

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-199161

To the President of the Senate and the
Speaker of the House of Representatives

Federal regulatory accounting and costing systems for the railroad industry are used by the Interstate Commerce Commission and others for various regulatory purposes, including review of the appropriateness of the rates that railroads charge. In enacting the Railroad Revitalization and Regulatory Reform Act of 1976 (4-R act), the Congress mandated that the Commission update and generally improve the regulatory accounting and costing systems which had been in use for many years. This report summarizes our review of the new systems and contains recommendations to the Commission for improving the implementation of the new systems. It further recommends that the Commission delay additional new accounting requirements until the systems currently being implemented are operating effectively.

Copies of this report are being sent to the Director, Office of Management and Budget and to the Chairman, Interstate Commerce Commission.

Comptroller General
of the United States

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

PROBLEMS IN IMPLEMENTING REGULATORY ACCOUNTING AND COSTING SYSTEMS FOR RAILROADS

DIGEST

Because the Interstate Commerce Commission prescribes regulatory accounting requirements for railroads and uses the accounting data railroads submit to judge the appropriateness of their rates, its actions and decisions can bear heavily on whether the railroads' financial viability improves.

Until recently, the Uniform System of Accounts for railroads had remained essentially unchanged since 1907. Effective January 1, 1978, the Commission prescribed a revised and expanded system which resulted from several years of developmental efforts and was required by the Railroad Revitalization and Regulatory Reform Act of 1976 (4-R act).

This act also required the Commission to develop a revised costing system for estimating the cost of service by using data railroads report under the revised system of accounts. The revised costing system--not yet in operation--is intended for use not only by the Commission but also by railroads and shippers in rate proceedings. Legislation has been introduced in the Congress, and passed in the Senate, which would place added importance on cost of service as a basis for setting rates in the railroad industry.

The Commission has much more to do to make the new accounting and costing requirements effective in meeting the objectives of the 4-R act.

Although railroads have begun reporting under the new uniform system of accounts, the Commission has not assured itself that the information being reported is reliable and consistent. For example, the Commission

FGMSD-80-61

--has not issued continuing guidance on how the system should be implemented, even though it is much more complex than the prior one and may not be well understood; (see p. 6) and

--has made only limited audits of system implementation by the railroads, even though substantive Commission audits identified major problems at five railroads. (See p. 12.)

Furthermore, the revised costing system needed to develop estimates of railroad costs for regulatory and other purposes is not yet operational. Therefore, a major purpose of the 4-R act--to obtain more accurate railroad costs--may not be achieved for some time because

--the Commission will be testing the detailed processes of the system over the next several months to determine if modifications are necessary and

--the reliability of the results produced by the system will not be known until the Commission assures itself that the accounting information reported by railroads under the system of accounts is reliable. (See p. 21.)

Even after the Commission completes testing the detailed processes of the system and assures the reliability of the accounting information to be used, the revised costing system will not produce the best results until 1982 information is available because it is designed to use 3 to 5 years' information in some areas.

Until the revised costing system is operational, the only practical alternative for the Commission and others is to continue using a prior costing system, even though that system has disadvantages.

Although the new costing system is to replace a system which has been widely used by railroads, shippers, and others (e.g., rail consultants) in rate cases before the

Commission, the Commission has not assured itself that such entities will be able to use or understand the revised costing system. (See p. 23.)

The revised costing system has been designed to produce better cost estimates, but it is not possible at this time to predict whether users will view the results as better than the prior costing system or consider them even as acceptable. (See p. 26.)

The Commission is considering additional changes to its regulatory accounting and costing systems for railroads. However, if new major accounting and costing requirements are introduced too soon, the railroad industry could be burdened with complex and difficult reporting requirements which do not necessarily serve Federal regulatory needs. (See p. 31.)

The Interstate Commerce Commission should:

--Expeditiously review and evaluate railroads' implementation of the new Uniform System of Accounts to assure that the conversion processes used by railroads produce reliable accounting information and that adequate guidance on system implementation has been issued.

--Communicate to those outside the Commission the importance of the new costing system, its intended benefits, and its technical characteristics and limitations.

--Provide appropriate technical guidance to assist non-Commission users to understand and appropriately use the costing system's results.

--Delay implementation of a cost center accounting system until the system of accounts and associated costing system are effectively operational and their value can be judged.

COMMISSION COMMENTS AND GAO'S EVALUATION

In commenting on GAO's draft report, the Commission

--agreed with the need to review and evaluate railroads' implementation of the new system of accounts;

--agreed with the need to communicate with those outside the Commission about the revised costing system;

--did not address all areas of technical guidance, but said that they believed non-Commission users had or could obtain the data processing capabilities necessary to use the revised costing system; and

--said it was premature to discuss a delay in the implementation of the cost center system.

GAO recognizes that the Commission has plans to review and evaluate railroads' implementation of the new system of accounts, but believes that the Commission needs to do more to assure that the new system of accounts is implemented properly. Also, GAO recognizes that the Commission has begun to explore the data processing needs of prospective non-Commission users, but GAO believes that--in addition to resolving data processing issues--the Commission should assure itself that prospective users have other technical guidance adequate to use and understand the revised costing system. Lastly, GAO believes that the timing of the cost center system implementation needs to be considered.

The Commission's comments and GAO's evaluation are discussed in detail at the end of chapters 2, 3, and 4.

Contents

ABBREVIATIONS

GAO	General Accounting Office
USOA	Uniform System of Accounts
URCS	Uniform Rail Costing System
4-R act	Railroad Revitalization and Regulatory Reform Act of 1976

CHAPTER 1

INTRODUCTION

Railroads have faced major difficulties for many years, difficulties which have caused great concern among shippers and the Government as well as among the railroads themselves.

In an effort to help this critical national industry, the Congress and the executive branch have been considering changes in the degree and type of Federal regulation as a possible solution to the railroad industry's woes. Railroad regulatory legislation enacted in 1976 included, as a major part, a mandate for new regulatory accounting and costing systems for the industry. Proposed legislation currently being discussed also includes further possible changes to Federal regulatory accounting and/or costing requirements prescribed for the railroad industry.

REGULATORY RESPONSIBILITIES OVER THE RAIL INDUSTRY

The Interstate Commerce Commission, established by the Congress in 1887 as the first independent regulatory agency, is responsible for regulating interstate surface transportation within the United States. It is directed by 11 Commissioners who are appointed by the President and confirmed by the Senate for 7-year terms. The President designates one of the Commissioners to serve as Chairman.

Subject to Commission regulation are approximately 18,000 for-hire companies providing domestic surface transportation in the United States. They include railroads, trucking companies, buslines, water carriers, coal slurry pipelines, freight forwarders, and transportation brokers.

The Commission currently regulates the rail industry in many areas of interstate commerce, including railroad accounting and costing procedures and rates, construction and abandonment of railroad lines, mergers, acquisitions, and issuance of rail securities. Even intrastate rail rates are subject to some Commission control. The Commission is also authorized to enforce the "common carrier obligation" that requires a railroad to provide service to anyone who seeks it and is willing to pay the charge shown on rate schedules filed with the Commission.

State agencies also regulate some aspects of railroad operations but their sphere of control is limited to intrastate commerce. Many States use the Interstate Commerce

Commission's system of accounts for railroads, but with modifications in most cases.

REVISION TO THE UNIFORM SYSTEM OF ACCOUNTS

To regulate various economic aspects of the industry, the Interstate Commerce Commission prescribes an accounting system, known as the Uniform System of Accounts, and related reporting requirements to be followed by the railroads. Until recently the Uniform System of Accounts had remained essentially unchanged since 1907.

In September 1973, the Commission established a task force to determine whether the Uniform System of Accounts needed to be revised. The task force concluded in a May 1974 report that the system should be revised to (1) provide more relevant cost information for evaluating the reasonableness of proposed rates, (2) bring the system into conformance with generally accepted accounting principles, and (3) generally clarify and update procedures. The task force recommended that the revision be completed by January 1, 1978.

Following the task force report, the Commission issued the following for public comment:

--A chart of accounts and supporting schedules (September 1975).

--A proposed accounting system which included definitions, instructions, and account texts (March 1976).

In August 1976, the Commission issued a Notice of Proposed Rulemaking concerning the revised system. The Commission and such interested parties as railroads, shippers, and the Department of Transportation participated extensively in the system development through written comments and public meetings. Various system modifications were made and on June 13, 1977, the Commission issued an order stating that the revised system of accounts would become effective January 1, 1978.

For purposes of complying with the new system, the Commission categorized railroads as

--those with annual revenues from railroad operations of $50 million or more (Class I) and

--those with less than $50 million in annual revenues from railroad operations (Class II).

At the time of our review, 41 railroads were categorized as Class I and 37 as Class II. The Class I railroads, which are required to report to the Commission in greater detail than Class II railroads, accounted for nearly all of the industry's traffic, rail mileage, and workers employed.

Revision to costing system

The system of accounts itself does not provide information by specific commodity on the cost of service between specific points. Data reported under the system of accounts is processed along with operating data through a "costing system" to estimate the expenses associated with a particular railroad service such as moving a commodity from one point to another. The costing system now in use was developed over 40 years ago and has been used ever since by the Commission, railroads, shippers, and others in estimating cost of service for railroads.

In 1976, the Commission began to develop a new costing system to be used with the revised accounting system. The railroad industry has been extensively involved in this effort and others, including various associations representing shippers and the Department of Transportation, have informally commented on the revised costing system. Developmental work on the new system was essentially complete at the end of our review but the system was not yet operational. The Commission is considering whether to issue a Notice of Proposed Rulemaking regarding the new costing system but has not yet set a date to do so.

Legislative requirements for railroad accounting and costing

The Railroad Revitalization and Regulatory Reform Act of 1976 (4-R act) proved to be the catalyst in revising the railroad system of accounts and in developing a new costing system.

Section 307 of the 4-R act required that the revision to the system of accounts be effective by January 1, 1978. Specifically, the section required the Commission to:

--Revise the railroad system of accounts.

--Issue the rules and regulations for the revised system of accounts by June 30, 1977, and make the revision effective by January 1, 1978.

--Identify and define (1) operating and nonoperating revenue accounts, (2) direct cost accounts for determining fixed and variable costs for materials, labor, and overhead components of operating expenses and the assignment of such costs to various functions, and (3) indirect cost accounts for determining fixed, common, joint, and constant costs.

--Make the revised system compatible with existing managerial and responsibility accounting requirements of the individual railroads.

Section 202 of the 4-R act also provided an impetus for revising the costing system. That section required, among other things, that the Commission develop formulas for determining the variable and incremental costs of providing railroad service.

Also, pending legislation would further increase the importance of being able to identify the costs of railroad services for ratesetting purposes.

Use of contractors in the revisions

The Congress in the 4-R act authorized an appropriation of up to $1 million for the Commission to obtain services from contractors or consultants in revising the system of accounts and the costing system. The Commission contracted with two accounting firms to assure that the new system of accounts was properly implemented and to develop the costing system to be used with it. In addition, the Commission contracted with two consulting firms to evaluate the products of the accounting firms. The total cost of all the contracts has been about $1 million.

Cost center accounting for the railroad industry

To meet the requirements of Section 202 of the 4-R act, the Commission believes that even more detailed accounting and reporting than that provided by its January 1, 1978, revision is needed. With this in mind, the Commission issued on October 26, 1979, a Notice of Proposed Rulemaking proposing "cost center" accounting and reporting for Class I railroads. If implemented, the proposed rule would also necessitate changes to both the new system of accounts and the revised costing system.

The proposed reporting and accounting concept was developed under a separate contract by one of the two accounting firms referred to above. The cost of the contract, jointly funded by the Commission and the Department of Transportation, was about $390,000. The proposed system would require railroad cost data to be recorded and reported by cost centers, defined as road line segments, terminal switching districts, equipment types, and specific specialized services.

Initially, comments on the Commission's proposal were to be filed on or before December 31, 1979, and the proposed date for implementation of the cost center concept, if adopted, was January 1, 1980. However, those dates were later changed to February 29, 1980, and January 1, 1981, respectively.

SCOPE OF REVIEW

Because the importance of appropriate regulatory accounting and costing systems for railroads has become increasingly apparent, we looked into the problems faced in implementing such systems and the progress made thus far. Our review included an assessment of what has been done pursuant to the 4-R act as well as a review of pending legislation on Federal regulatory policy for the railroad industry.

We made our review primarily at the Commission's Washington, D.C., headquarters and at offices of selected railroads. We reviewed current and proposed legislation as well as pertinent Commission documents and reports. We also interviewed Commission and contractor officials, representatives of the railroad industry, major shippers, and other interested parties (e. g., rail consultants). Because of their predominance in the industry, we restricted our review to the 41 Class I railroads.

In addition, we used questionnaires to solicit the views of State regulatory commissions. However, their responses were not complete enough to be conclusive, and we therefore do not discuss States' views in this report.

CHAPTER 2

PROBLEMS IN GETTING THE REVISED ACCOUNTING SYSTEM IMPLEMENTED PROPERLY

The new Uniform System of Accounts which the Commission has required railroads to follow since January 1, 1978, is designed to produce better accounting information than the one it replaced, which had been essentially unchanged since 1907. Although railroads have begun reporting under the new system, the Commission has not assured itself that the information being reported is reliable and consistent. For example, the Commission

--has not issued continuing guidance on how the system should be implemented, even though it is much more complex than the prior one and may not be well understood, and

--has made only limited audits of system implementation by the railroads, even though substantive Commission audits identified major problems at five railroads.

We believe it is particularly important for the Commission to review and evaluate railroads' implementation approaches since, in reporting to the Commission, most railroads use computerized conversion processes which include extensive processing of information and thereby increase the risk of error.

REVISED SYSTEM IS MUCH MORE DETAILED AND COMPLEX, BUT COMMISSION GUIDANCE IS LIMITED

The revised system of accounts for recording expenses is considerably more detailed than the one it superseded. For example, the new system has about 750 operating expense accounts for freight operations 1/ as opposed to only 130 before. The new system requires expenses to be reported in one of four categories of "natural expenses"--salaries and wages, materials, purchased services, or general. Also, expenses must be allocated to one of four major activities, such as way and structures, and to one of five major functions, such as repair and maintenance. There are further breakdowns into

---

1/If both freight and passenger operations are involved, the number of operating expense accounts can approach 2,000; most Class I railroads have only freight operations.

subactivities and various components within functions, and, if applicable, the system of accounts requires further allocation of expenses between freight and passenger service. For example, what was included in just one account--Roadway Maintenance--before is now further broken down as follows under the revised system.

	Natural Expenses			
	Salaries and wages	Materials, tools, supplies, fuels, and lubricant	Purchased services	General
Activity				
Way and Structures:				
Function				
Repair and Maintenance:				
Roadway/running	***	***	***	***
Roadway/switching	***	***	***	***
Road property: Damaged/running	***	***	***	***
Road property: Damaged/switching	***	***	***	***

The Commission held three workshops to provide guidance on the implementation of the revised system of accounts and in January 1978 issued an accounting circular which responded to questions raised by railroad personnel at those workshops. The circular, directed to the accounting officers of all railroad companies, also corrected and interpreted the revised system of accounts.

Despite the Commission's circular, railroads continue to write and phone the Commission with questions on how the new system should be interpreted and implemented.

The Commission's guidance on how railroads should allocate expenses among and within various activities and functions is very general; essentially, railroads are required only to document their bases for allocations. This lack of specific guidance has caused some railroads difficulty in determining how expenses should be allocated and has led to inconsistencies in allocation methods among railroads.

Railroads have also had trouble determining what expenses should be included in the various expense accounts. One railroad raised the following questions in citing specific difficulties in understanding the revised system:

--What specific categories of expense, such as high water and landslide damage, should be included in the "Road Property Damaged" function?

--It could be argued that the expense of caboose cleaners could be included in any one of three functions (Operations--Train Crews, Operations--Cleaning Car Interiors, or Repair and Maintenance--Freight Cars). Which of the three is the correct category?

The Commission has answered these and other individual questions from railroads as they have arisen.

We believe that these questions of interpretation indicate that the Commission needs to issue more specific guidance on system implementation. Commission officials maintain that, in the past, railroad officials often sought to have the prior system, which had been in place for years, interpreted or clarified. Because of that, the officials disagreed that any serious problems of interpretation exist now. In our opinion, the persistence of questions is no basis for denying that serious problems exist with the revised system and, in fact, only indicates that more guidance was needed with the prior system.

We recognize that the revised system of accounts replaced one that had been in use for many years and that it is much more complex and detailed than the prior one. It is not surprising then that time and experience will be required before it will be interpreted accurately and consistently. To minimize inconsistencies and misunderstandings, the Commission must assure that railroads have adequate and comprehensive guidance on the system's implementation.

CONVERSION PROCESS INCREASES CHANCE OF INACCURATE REPORTING

Class I railroads use their own internal accounting systems to manage their resources. Since 1907, the Commission's prescribed system of accounts had no major revision. However, railroads' internal accounting systems were modified and many differences resulted. Rather than maintain both their own and the Commission's system, railroads generally chose to "convert" their accounting data when reporting to the Commission. This was the case before the revised system of accounts was ordered and continues to be the case now. However, the

Commission's new system is more complex, so the "conversion" process is now more involved.

Conversions, which are usually done via computer program, involve hundreds or thousands of detailed processes. In converting to the revised system, the railroads use various factors to combine and/or divide account balances from their internal systems to make them "fit" into the Commission's reporting structure. (See p. 11) The number and types of factors used by railroads can be extensive. For instance, the internal accounting system of one railroad identified expenses as belonging to 1 of about 200 organizational units (departments) and as 1 of about 230 expense types. To reclassify expenses from that format for reporting to the Commission, the railroad used a computer program to (1) convert to the Commission's prior system of accounts and (2) convert that data to the revised system of accounts. To do this, the computer used a worktable containing about 13,000 possible combinations and/ or divisions.

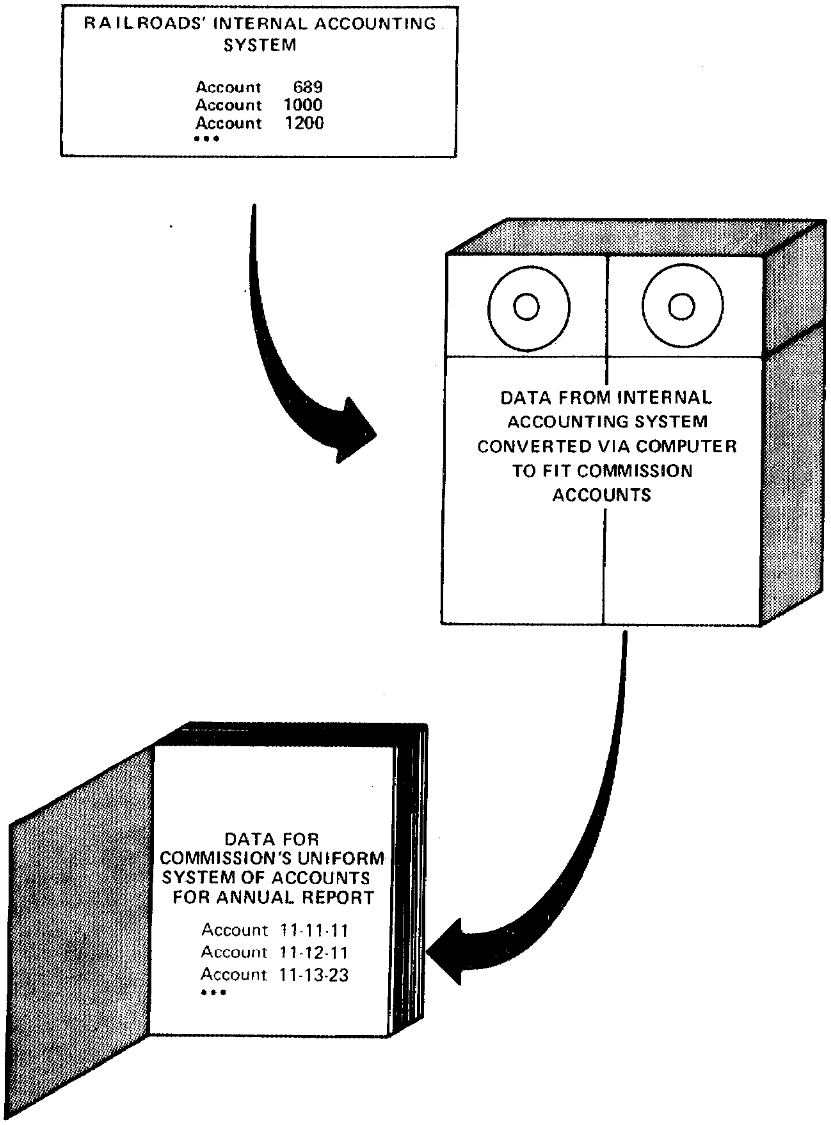
Some examples from the worktables are shown on the next page.

Examples From One Railroad's Conversion Process

Railroad's internal system: Department	Railroad's internal system: Expense type	Commission's prior account	Percentage split (note a)	Commission's revised account
System Track Gangs	Section and Maintenance Gangs	Tunnels and Subways (206)	89%	Salaries and Wages--Way and Structures/Running--Repair and Maintenance/Tunnels and Subways (11-11-11)
			11%	Salaries and Wages--Way and Structures/Switching Repair and Maintenance/Tunnels and Subways (11-12-11)
System Track Gangs	Section and Maintenance Gangs	Station and Office Bldgs. (227)	None	Salaries and Wages--Way and Structures/Other Repair and Maintenance/Station and Office Bldgs. (11-13-23)
Roadmaster Location	Physical Exams--Wages	Track Laying and Surfacing (220)	98%	Salaries and Wages--Way and Structures/Running Repair and Maintenance/Track Laying and Surfacing (11-11-17)
			2%	Salaries and Wages--Way and Structures/Switching Repair and Maintenance/Track Laying and Surfacing (11-12-27)
Roadmaster Location	Health and Welfare Benefits	Track Laying and Surfacing (220)	98%	Fringe Benefits--Way and Structures/Running (12-11-00)
			2%	Fringe Benefits--Way and Structures/Switching (12-12-00)

a/ The railroad determined various factors to use when converting expenses from its own internal system to the Commission's revised system of accounts. Examples of factors are the percentage of track miles for running versus switching, and the number of locomotives repaired versus cars repaired.

METHOD USED BY MANY RAILROAD COMPANIES TO DEVELOP
DATA FOR THE UNIFORM SYSTEM OF ACCOUNTS
(CONVERSION PROCESS)



Another railroad's internal accounting system identified expenses as 1 of about 45 organizational units, and one of several hundred expense types. To reclassify expenses for reporting to the Commission, the railroad used a computer program that converted directly to the revised system of accounts format without first converting to the Commission's prior system format. The computer program's worktable contained about 10,000 possible combinations and/or divisions. Again, the company itself decided which factors to use in converting the data.

In an audit of three affiliated railroad companies, the Commission's auditors found that the computer program which made conversions from the internal system to the Commission's system of accounts structure used a worktable with over 60,000 possible combinations.

Any complex conversion process which involves independently determined factors and many manipulations of data increases the possibility of error or inconsistency. Therefore, if such extensive conversion processes are to result in accurate and consistent reporting

--appropriate, accurate, and consistent factors must be used during the conversions and

--accurate and effective computer programs must be created.

Since the Commission allows railroads to use conversion processes, we believe it also has a responsibility to assure that the conversions used are performed effectively and accurately.

COMMISSION AUDITS, ALTHOUGH LIMITED, FOUND MAJOR PROBLEMS WITH IMPLEMENTATION

The Commission's staff made special desk audits in Washington, D.C., of the initial annual reports submitted by Class I railroads under the new system. The Commission's auditors also have completed substantive onsite audits of system implementation by five Class I railroads. These audits identified major problems with system implementation.

Desk audits disclosed major errors

In a special desk audit of Class I railroads' initial annual reports, the Commission found major errors in all the reports. Those errors generally led to disagreements between supporting schedules and figures reported on summary statements. The railroads corrected their reports and Commission officials indicated that the errors resulted from unclear instructions which were subsequently clarified.

Onsite audits by Commission also identified major problems

Results of the five substantive audits Commission field auditors had completed at the time of our review reinforce the need for effective auditing of railroads' implementation of the revised system of accounts. Commission auditors identified major problems during each audit.

In two of the audits, the Commission's auditors used extensive computerized audit techniques to review how well the railroads were complying with the requirements of the revised system of accounts. At one railroad, the auditors found that about $112 million, roughly 7 percent, of about $1.6 billion of reported operating expense had been misclassified. At the other railroad, the auditors identified eight areas of misclassification of operating expenses involving about $28 million, roughly 15 percent, of about $189 million. Officials of the two railroads agreed that these amounts had been misclassified.

The misclassifications occurred for two major reasons. In some instances, the railroads simply recorded the entire amounts of certain expenses in the wrong accounts. In other cases, the railroads used erroneous or inappropriate factors when converting their internal systems to the Commission's system.

In an onsite audit of reporting for three affiliated railroads, the Commission's auditors made a substantive effort but did not use computerized audit techniques. After several weeks of effort, the Commission's auditors concluded that the railroads' system did not provide an "audit trail" which would have allowed the transactions to be verified. Therefore, even after an extensive audit, they could not conclude how well the system was being implemented. In response to the finding, the railroad advised the Commission that it would take the necessary corrective actions to provide an audit trail in the future.

ASSURANCE OF PROPER IMPLEMENTATION WILL REQUIRE MORE EFFECTIVE AUDITS

Overall, Commission audits of railroads' implementation of the new system of accounts have been limited. At the time of our review, the Commission's field auditors had reviewed or were reviewing the implementation of the revised system at 29 of the 41 Class I railroads, but those reviews generally involved only a few staff-days of effort. Although the railroads' conversions to the revised system are heavily dependent on extensive computerized processes, the Commission's auditors did not usually review those processes in any detail. Except for the reviews of the five railroads discussed on page 13, the scope of Commission auditors' work was so restricted that it was impossible to conclude how well the new system of accounts was being implemented.

The data that is being reported for the revised system of accounts ultimately provides the basis for the railroads' cost of service estimates. To assure that the system of accounts is being properly implemented, the Commission needs to effectively audit or monitor the recording and reporting of information by the railroad industry; without this, the Commission has no assurance that the information it receives conforms with system requirements. We believe it is particularly important for the Commission to audit railroads' implementation of the new system because:

--The revised railroad accounting system is new and much more complex than the prior system.

--Reports to the Commission are usually generated through computerized conversion processes involving many manipulations of data which create greater chance of error.

--Audits the Commission has made to date of railroads' system implementation have identified major reporting problems.

Railroads we visited generally have not had their internal or external auditors review the implementation of, or conversion to, the Commission's revised system of accounts. Some railroads indicated that using their auditors for this purpose would have been too costly. Accordingly, the Commission could not rely on this option to assure that the system is properly implemented.

<u>Commission attempting to increase audit coverage</u>

The Commission employs about 70 field auditors in six regional offices who are responsible for onsite audits at regulated industries, including hundreds of motor carriers, freight forwarders, and railroad firms. Because the audit universe is large and diverse, the level of audit attention given a single item, such as implementation of the system of accounts at railroads, must be decided according to various priorities. The Commission's field auditors received guidance for fiscal 1980 from the Director, Bureau of Accounts, advising them to give "sufficient time" to reviewing larger railroads' implementation of the new accounting system.

According to Commission officials, their efforts to audit railroads' computerized conversion processes have been hampered because the field auditors have not been required to audit in a computer environment and, as a result, do not have the skills to do so. The use of computer techniques in the audit of two railroads referred to on page 13 was an exception because one auditor acquired the necessary skills on his own, not as a job requirement.

A firm timetable for review of all systems had not been established at the time of our review. The Commission recognizes the importance of assuring that the information to be reported under the revised system of accounts is reliable and realizes its lack of expertise for auditing in a computer environment. Therefore, the Commission issued in July 1979 a request for proposal to evaluate the railroads' implementation of the revised system. An accounting firm responded with a proposed price of about $300,000 for the contract, which included the development of a computerized audit approach. The contract was awarded to them in February 1980. The Commission also recently hired one auditor with computer skills to work out of its Washington, D.C., office and to have responsibility for working with the contractor in developing a computer approach to auditing the railroads' implementation of the revised system of accounts.

The effectiveness of these audit efforts will remain unknown for some time since the contractor will not complete its work until early 1981.

CONCLUSION AND RECOMMENDATION

The design of the revised Uniform System of Accounts was the result of several years' development work and extensive consultation with appropriate parties. Because the new system is much more complex than the prior one and involves intricate conversion processes, the Commission must work even harder to assure that the railroads understand and properly comply with it. However, the Commission has not yet assured itself that the system has been implemented properly by railroads or that the data reported under it is reliable and consistent. If railroads do not understand or properly implement the new system, the value of the lengthy and costly system development effort may be greatly diminished by inconsistent or poor system implementation.

We therefore recommend that the Commission expeditiously review and evaluate railroads' implementation of the new Uniform System of Accounts to assure that

--the conversion processes used by railroads produce reliable accounting information and

--adequate guidance on system implementation has been issued.

COMMISSION COMMENTS AND OUR EVALUATION

In commenting on our report, the Commission stated that it fully agreed with the need for review and evaluation of the new system of accounts and said that it had taken steps to accomplish this. Regarding onsite audits, it referred to (1) Commission guidance issued to its field auditors for fiscal 1980 which directed that "sufficient time" be given to review of system implementation at 25 Class I railroads and (2) the Commission contract, awarded in February 1980 to an accounting firm to develop improved audit techniques to assist the Commission's field auditors.

The actions planned by the Commission should ultimately result in better review and evaluation of railroads' system implementation, but the results will not be known for some time. The Commission's auditors will continue to lack the needed skills to effectively review railroads' computerized conversion processes at least until completion of the contract with the accounting firm in early 1981. Therefore, even if sufficient time is directed to the area, the effectiveness of Commission onsite audits may be marginal. The Commission's contract with the accounting firm does not include a requirement to perform indepth audits of system implementation at all Class I railroads. Therefore, the Commission will not have the means to assure itself that railroads are properly implementing the new system until at least some time in 1981--more than 3 years after system implementation.

Regarding the adequacy of guidance on system implementation, the Commission referred to early involvement of the railroad industry in developing the new system of accounts, to public meetings held in 1976 and 1977, and to its written guidance issued in January 1978. We recognize that the Commission had early involvement from the railroad industry and others in the design of the new system of accounts. However, since January 1978, the Commission has not assured itself that adequate and consistent guidance has been provided to railroads.

We believe that--as an integral part of the review and evaluation of railroads' implementation of the new system of accounts--the Commission should provide continuing guidance. For example, we believe the Commission should maintain records on interpretations provided to individual railroads, and periodically circulate accounting interpretations to all Class I railroads. We agree with the Commission's position that railroads should have discretion to individually decide how to allocate certain expenses. But, if the discretion is unlimited, we believe it can result in inconsistent and incomparable data being reported to the Commission.

The Commission's response to our draft report is included in its entirety in the appendix to this report.

CHAPTER 3

REVISED COSTING SYSTEM NOT YET OPERATIONAL

To arrive at meaningful railroad cost information for reviewing proposed railroad rates and for other regulatory purposes, accounting information reported by railroads under the Commission's system of accounts must be processed through a "costing system." The introduction of a revised system of accounts necessitated a new costing system to replace one which has been used by the Commission, railroads, and shippers for about 40 years.

The Commission and its contractors began developing a revised costing system nearly 4 years ago; however, because of delays and problems, it is still not operational. Moreover, the Commission has not assured itself that--when the costing system becomes operational--it will be generally used and accepted by railroads, shippers, and others involved in rate cases and other regulatory matters. Until the revised costing system becomes an accepted methodology, a major goal of the 4-R act--namely, better identification of railroad cost information--will not be fully achieved.

WHY IS A NEW COSTING SYSTEM NEEDED?

The Uniform System of Accounts does not itself provide cost of service information by specific commodity between specific points. Data reported under the system of accounts is processed along with operating data through a "costing system" to develop cost of service information. (See p. 20.) The costing system now in use is known as Rail Form A, which is the shortened title of "Rail Form A Formula for Use in Determining Rail Freight Service Costs." It is a comprehensive arithmetic formula which uses accounting and other data to allocate each item of cost to railroad services.

First developed in the 1930s, Rail Form A has been widely used and accepted by the Commission and others in rate cases over the years--even though it was not formally prescribed. The Commission has used it to prepare its annual railroad cost publication for use by the industry, shippers, and others; to evaluate the reasonableness of proposed rail rates; and to perform special cost studies. Railroads, shippers, and others have also relied heavily on Rail Form A, supplemented by other studies and data, in rate hearings before the Commission.

Even though Rail Form A has been widely used and accepted, it has also been widely criticized over the years. Since a costing system is dependent on information reported under the Uniform System of Accounts, the development and implementation of a revised system of accounts provided a good opportunity--and indeed necessitated--development of a costing system to replace Rail Form A. (See p. 28.)

The general criticism of Rail Form A has been that the estimates of railroad costs which the formula produces are not sufficiently reliable nor specific. According to critics, this is because

--the system of accounts on which Rail Form A relies is outdated and does not require operating expenses to be reported in sufficient detail;

--the average, or systemwide, unit costs 1/ produced with Rail Form A are inadequate for estimating the cost of particular movements;

--the formula relies on accounting and operating information from a single year in some instances where an annual average of several years' information would provide a better estimate; and

--the formula relies on factors from special studies which are outdated.

Rail Form A has also been criticized by some for being too complicated or too rigid and for using terms which are too vague.

The Uniform Rail Costing System is considerably more sophisticated than Rail Form A and answers some of its major criticisms. For example, the new costing system uses

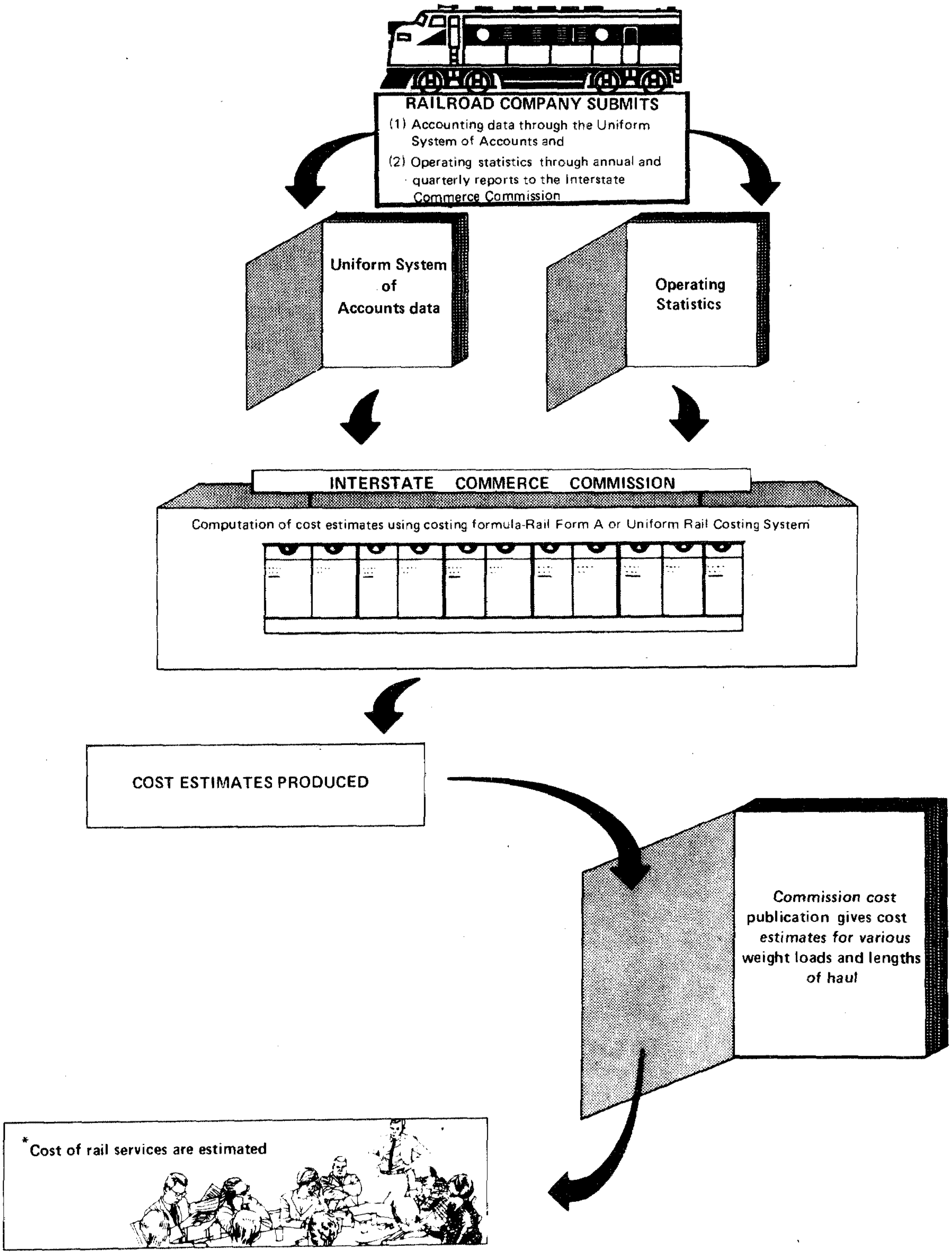
--the revised system of accounts, effective January 1, 1978, which requires operating expenses to be reported in greater detail (see p. 6);

--statistical techniques more advanced than Rail Form A and intended to provide better estimates of the costs of railroad services;

--annual averages of expenses and other information over several years when a single year's experience is considered less precise.

1/Examples of unit costs: line haul, terminal, loss and damage, and freight car costs per appropriate output unit, such as gross ton miles.

HOW RAIL COSTS ARE DEVELOPED BY THE INTERSTATE COMMERCE COMMISSION



* In a specific rate case proceeding, the parties involved may submit other cost evidence to the Commission. This evidence is reviewed and, if necessary, restated by the Commission.

To the extent that it alleviates major shortcomings of Rail Form A, the design of the revised system is considered to be better not only by the Commission but by other interested parties.

The revised costing system has two phases:

--Phase 1 is a regression program which will compare operating expenses reported under the revised system of accounts with related rail operating statistics to determine if a relationship exists. For example, a typical regression would be the relationship between gross ton miles (an output measure) and running track maintenance (an expense). The relationship would show, when a given change in volume occurred, how much change in the expense amount would also occur.

--Phase 2 is a program that uses the results of Phase 1 to separate each expense account into fixed and variable portions and to develop unit costs for various rail services. For example, costs for operations and maintenance would be separated into fixed and variable portions and then added to develop an estimate of unit costs per gross ton miles for operations and maintenance.

The results of Phase 2 are used with traffic statistics to calculate the costs for a given movement.

REVISED COSTING SYSTEM IS NOT READY FOR USE BY COMMISSION

The Commission's contractor did not complete its work on the revised costing system until January 1980--more than 2 years after the initial target date. Moreover, the Commission may not get usable results from the costing system for some time, since

--the Commission will be testing the detailed processes of the system over the next several months to determine if modifications are necessary and

--the reliability of the results produced by the system will be unknown until the Commission assures itself that the accounting information reported by railroads under the system of accounts is reliable. (See p. 15.)

Even after the Commission completes testing of the detailed processes of the system and assures the reliability of the accounting information to be used, the revised costing system will not produce the best results until 1982 information is available because it is designed to use 3 to 5 years of information in some areas.

Developmental work on the revision to the costing system began around June 1976 and the original contract schedule called for completion of both phases by December 1977. The delivery schedule was adjusted four times before being extended the last time to January 1980. According to Commission correspondence, the delays were due primarily to disputes with the contractor over the scope of work to be performed. As compensation for the extensions of delivery schedules, the contract price was lowered $5,000 and the contractor was required to provide additional technical guidance.

Even though the contractor's final products were accepted by the Commission in January 1980, testing of the detailed processes of the system is needed before it can be put into use. The original contract delivery date of December 1977 would have permitted the Commission considerable time for testing and possible modification before the system was needed. The revised costing methodology uses much more sophisticated statistical techniques than Rail Form A and relies on complex computer programs to achieve results. Commission officials said that additional testing will be needed to determine what modifications are necessary. Because of the degree of sophistication of the revised system, it is difficult to predict what modifications may be desirable or how long the modifications may take, but the time needed could be lengthy.

Also, the reliability and consistency of the information reported under the system of accounts is critical to successful use of the new costing system since those factors can affect the accuracy of the cost of service estimate. Yet, because of lack of review or evaluation, the Commission is not in a position to assure that the railroads are reporting accurately and consistently under the new system of accounts.

The new costing system is designed to produce its best results only if it has 3 to 5 years of particular accounting and other information, as reported by the railroads. While the costing system can be operated with less data, the results achieved will not be as precise as the system design envisioned. The Commission and others consider an annual average of accounting and operating statistics over several years to be more representative than information from a single year because the impact of unusual fluctuations that may occur in any given year is lessened. This accumulation of accounting and other information will not be available until the railroads' reports for 1980 (3 years) and 1982 (5 years) are completed.

Anticipating the revised costing system, Rail Form A has been, and presumably will continue to be, the alternative in rate cases and in estimating railroad cost for other purposes. Information for 1977, reported under the prior system of accounts and adjusted to reflect current economic conditions, is used. This interim approach has at least the following disadvantages:

- --It does not take advantage of the improvements designed into the revised costing system.
- --It is subject to the impreciseness inherent in estimating the impact of inflation since 1977.

Although continued use of Rail Form A has disadvantages, it may be the only realistic alternative available until the new costing system is fully operational. The results achieved are subject to all of the criticisms of Rail Form A and, in addition, are affected by the inherent impreciseness of inflation factors applied to 1977 information.

COMMISSION HAS NOT ASSURED ITSELF THAT OTHERS CAN USE ITS SYSTEM

Since the new costing system is to replace Rail Form A, which has been widely used by railroads, shippers, and others in rate cases before the Commission, it needs to be usable or understandable by these other parties as well as by the Commission. If not, its value in settling rate cases and other regulatory matters would be greatly diminished. During development of the revised costing system, the Commission announced that the system was intended

- --to provide railroads with a better basis for ratemaking and other management decisions and
- --to place shippers and others on a more equitable basis with the railroads when introducing rail costs during proceedings before the Commission.

Yet at the time of our review, the Commission had not assured itself that users outside the Commission have the capability to use, or at least understand, the revised costing system. The Commission could not be sure because, although discussions were held between the Commission and its contractor concerning possible use outside the Commission, the system development contract did not include a specific requirement that the system be adaptable for non-Commission use. Also, thus far only representatives of the rail industry have elected to review the system's detailed operational characteristics--although railroads, shippers, and other possible users participated informally during early system development. Lastly, the Commission had not yet issued a formal Notice of Proposed Rulemaking nor had it decided at what level of detail such a rulemaking should be issued. (Such a notice could elicit more extensive participation from non-Commission users.)

Users outside the Commission may not have necessary resources

The Commission did not determine the capabilities of railroads, shippers, and others to use or understand the new costing system. The new costing system relies on extensively computerized procedures whereas Rail Form A, though computerized by some, could be applied manually. The new system also relies on more sophisticated statistical techniques requiring qualified personnel to apply them. If users outside the Commission do not have the necessary resources, they will have to obtain them, which could be costly.

The new costing system was designed to work on specific computer equipment that was available to the Commission but not necessarily readily available elsewhere. Commission and contractor representatives acknowledged that other users outside the Commission may not have the necessary computer equipment. Even those users outside the Commission who have appropriate computer equipment may need to modify their software because it was developed to work on computer equipment used by the Commission.

At the time of our review, Commission officials had a general idea of but had not specified how much time or money might be needed for non-Commission users to modify the software. The Commission had made the software for Phase 1 available to the public under the Freedom of Information Act, but only the Association of American Railroads and one railroad company obtained copies of the Phase 1 software. The computer software for Phase 2, which is much more complex and therefore may require greater modification, had not yet been made available to the public for review.

Also, the Commission had not assessed whether users outside the Commission will have the necessary technically qualified personnel to use the system. To the extent that users outside the Commission lack the appropriate personnel resources to use the system, they may be forced to rely more extensively on the services of outside consultants than they currently do, which may be more costly.

Informal participation by those outside Commission limited

In 1977 the Commission conducted two public meetings and met informally several times with representatives of railroads, shippers, and other interested parties to discuss the concepts and basic methodology of the revised costing system. However, when the detailed operational characteristics of the costing system were being developed in 1978 and 1979, apparently the only group that continued any significant informal participation in system development was the railroad industry. Commission officials stated that other interested parties could have participated more extensively but chose not to.

Formal participation of those outside the Commission being considered

In addition to informal participation, the Commission has another option--enlisting formal participation from parties outside the Commission. A Notice of Proposed Rulemaking would give wide public notice of the Commission's revised costing system and possibly elicit more extensive participation from those outside the Commission. Issuance of such a notice could lead to "prescribing" this costing system for use in rate cases--something which has not been the case with Rail Form A.

At the time of our review, the Commission had issued a Notice of Proposed Rulemaking on definitions of costing terms to be associated with the costing system and was considering whether to issue a formal Notice on the system itself after those definitions are formalized. In response to its Notice on proposed definitions of costing terms issued in late 1978, the Commission received and considered comments from interested parties. The Commission was considering the comments received, but had not yet issued a ruling at the time of our review.

The Commission had not set a timetable for issuing a Notice of Proposed Rulemaking on the revised costing system itself. Moreover, the Commission had not decided whether only the general principles and concepts or more detailed operational characteristics of the system would be discussed if a rulemaking is initiated. A Commission official suggested that a formal rulemaking could substantially delay effective use of the new system--particularly if detailed operational characteristics are included.

Another viewpoint held by some Commission officials was that if the Uniform Rail Costing System is the subject of formal rulemaking and becomes a "prescribed system," other cost evidence may be legally precluded from consideration in rate cases. This would be a departure from current practice. The use of Rail Form A has not been formally prescribed by the Commission in rate cases and, therefore, parties often use other valid cost evidence in addition to Rail Form A when appropriate.

The Commission has recognized the importance of the usability or understandability of the revised costing system outside the Commission, but more remains to be done. The effort by users outside the Commission to understand and get the best use from the new system will have to be concerted, because the new system replaces one that was in use for many years and was therefore well understood. It is difficult to predict how much time will be required or what the associated cost will be for the revised system to be accepted and used as widely as Rail Form A, but more extensive communication between the Commission and other potential users will be required if the intended benefits of the revised costing system are to be achieved.

HOW PRECISE WILL THE RESULTS OF THE NEW COSTING SYSTEM BE?

Despite the fact that the revised costing system, if adopted by non-Commission users and if used in conjunction with the new system of accounts, is expected to produce better results than Rail Form A, the Commission itself has recognized that the revised system will still produce only estimates--not precise figures. The cost estimates produced are expected to be better because, as stated earlier, the revised system does not have many of the shortcomings of Rail Form A--the current costing system. The Commission anticipates that the more specific accounting and operating information and more sophisticated statistical techniques required by the new system should produce better cost estimates.

On the other hand, the more sophisticated statistical requirements of the new costing system call for more professional analysis of results than did Rail Form A. For example, about 900 expense accounts will be regressed against dozens of statistics and be subjected to judgmental validation. The purpose of the judgments is to determine whether results are statistically valid. 1/ The results of these subjective processes will be dependent on the level of expertise that users have in various disciplines, such as statistics and cost analysis.

Although the new costing system is an improvement over Rail Form A, it is still burdened by some of the same deficiencies. For example, it uses many of the same outdated factors. The Commission has decided to temporarily continue the use of outdated factors. According to a Commission official, assistance from a contractor may be solicited to update some factors but the funding and timing of assistance were uncertain. Therefore, use of the outdated factors may be the most practical and economic decision under the circumstances, but it will also adversely affect the system's results.

Although the revised costing system has been designed to produce better cost estimates, it is not possible at this time to predict whether users will view the results as better than Rail Form A or even as acceptable. On one hand, the system clearly has advantages over Rail Form A; on the other hand, because of its greater sophistication and complexity, the process includes many points where professional judgment is applied. Also, the revised costing system is not yet completely free of some of the past deficiencies of Rail Form A.

Commission officials and other knowledgeable railroad experts have asserted that estimating the cost of railroad services is an imprecise process--"an art, not a science" some might say. Therefore, expectations of the precision of cost estimates produced by the revised costing system should be considered in that light. Nevertheless, those who use the information from the revised costing system, and others wishing to understand the operation of the system, will need to be aware of the information's peculiarities. It relies heavily on professional judgment, it is complex and difficult to understand and use, and it continues to employ many of the outdated factors of Rail Form A.

1/ The question of statistical validity involves issues such as (1) choice of output variables and equation form for each expense, (2) interpretation of statistical tests used to measure the "goodness of fit" for regression equations and coefficients, (3) examination of statistical problems often encountered (such as multicollinearity), (4) choice of whether to aggregate expenses, and (5) choice of whether to accept poor statistical results or to use nonstatistical default procedures which are also limited.

PAST, PRESENT, AND PROPOSED
COSTING SYSTEMS FOR REGULATORY PURPOSES

Time frame	Source of accounting data	Major process in use	Intended result
Before January 1978	Old Uniform System of Accounts (USOA)	Old costing system or formula called Rail Form A	Estimates of cost of service
Now, early 1980	1977 data from old USOA adjusted for inflation	Rail Form A	Estimates of cost of service (perhaps not as good as before)
Planned, when new costing system is ready	New USOA, effective January 1, 1978	New costing system called Uniform Rail Costing System	Better estimates of cost of service
Proposed for future	New USOA, modified by "cost center" concept	Uniform Rail Costing System, modified	Even better estimates of cost of service

CONCLUSIONS AND RECOMMENDATIONS

The revised costing system, which is intended to produce better cost-of-service information, has fallen behind schedule which means that one of the primary goals of the 4-R act will not be fully achieved in the near future. Moreover, the date when the revised costing system will produce accurate and reliable cost-of-service information (that is generally acceptable to various users) is uncertain because the system has not yet been successfully implemented.

The end result is that, even though a revised system of accounts was implemented effective January 1, 1978, the expectations of the Congress in enacting the 4-R act have not yet been fully achieved. The Commission is continuing to work toward putting the revised costing system into use, but it acknowledges that more must be done before it will be fully useful.

If the revised costing system is to serve its intended purposes in regulatory matters, it must be accepted by parties outside the Commission, such as railroads, shippers, and others. Yet, the Commission has not assured itself that these other users will have the capability to use or understand the system, and be willing to generally accept the results it produces. The Commission has two basic ways to communicate with non-Commission users--namely informal means, such as public meetings, or a formal Notice of Proposed Rule-making which it is already considering.

We therefore recommend that the Commission

--use either or both of the options available to fully communicate to those outside the Commission the importance of this new costing system, its intended benefits, and its technical characteristics and limitations; and

--provide appropriate technical guidance to assist non-Commission users to understand and appropriately use the system's results.

COMMISSION COMMENTS AND OUR EVALUATION

In regard to our first recommendation, the Commission agreed that it needs to communicate with those outside the Commission and said that it plans to explain the revised costing system to the using public. It stated that public meetings regarding the revised system will be held once the Phase 1 regression program is completed. The Commission stated that its publications regarding the costing system are available to the public but acknowledged that a public notice had not been issued. We believe the Commission should inform the using public of the availability of those publications.

In regard to our second recommendation, the Commission stated it believes the revised costing system can be used by parties outside the Commission without unreasonable data processing equipment problems. The Commission noted that the system's computer programs are written in a generally accepted computer language and can therefore be converted to equipment of a similar capacity. However, it also agreed with us that the revised costing system and its accompanying computer programs are complex and will not be adaptable to computers owned by all prospective users. The Commission pointed out that prospective users who do not have the necessary computer equipment may be able to use the computer-sharing arrangements of a commercial firm or use the Commission's computers. The latter option is still being explored.

We do not consider the Commission's comments to be fully responsive to our second recommendation. As discussed in this chapter, our concerns about non-Commission use include data processing capabilities but also extend to other matters, such as the need for appropriate technical skills among personnel and the need to assure that the revised system's limitations are properly recognized. The Commission's comments addressed only the data processing capabilities and possible options of non-Commission users; even in that regard, the Commission's comments do not show that it has yet assured itself that non-Commission users will have or be able to obtain the data processing capabilities needed to use the revised costing system.

The Commission's response to our draft report is included in its entirety in the appendix to this report.

CHAPTER 4

FURTHER MAJOR CHANGES IN RAILROAD ACCOUNTING AND COSTING MAY BE PREMATURE

Even though neither the new system of accounts nor the revised costing system are operating effectively, the Interstate Commerce Commission may require railroads to implement a cost center accounting system. Because it could require substantial changes to the revised system of accounts and the new costing system, we believe that development and implementation of a cost center accounting system at this time would be premature and should be delayed. In our opinion, the Commission should first assess the usefulness of the data that is developed from the new system of accounts--which is experiencing implementation problems--and from the new costing system which is still not operational. Before requiring the railroad industry to incur additional cost to develop more detailed information, we believe that the Commission should be in a position to determine how much better the cost estimates would be and how much it would cost to obtain the more detailed cost information. Until the present systems are working, the Commission cannot make such determinations.

THE COMMISSION PROPOSES CHANGE TO COST CENTER ACCOUNTING AND REPORTING

The Commission believes that the 4-R act requires a cost center accounting approach. However, unlike the system of accounts, the act did not set a date for implementing cost center accounting. In this regard, the Commission issued a Notice of Proposed Rulemaking on October 26, 1979, entitled Cost Center Accounting and Reporting System for Class I Railroads. The proposal was based on concepts developed under a contract with an accounting firm at a cost of about $390,000.

The Commission's proposal stated that its ratemaking function would be the primary beneficiary of improved cost data. The proposal also stated that the 4-R act required a cost center accounting approach. The Commission believes that its proposed cost center accounting and reporting system will provide more accurate and more relevant costing information than is now available which could be applied to a wide range of proceedings within the Commission.

The proposed cost center accounting would require that the system of accounts have more detailed categories. For example, instead of just reporting expenses for the activity of "way and structures--running," the railroads would be required to report under four classes of traffic density. Also, instead of reporting under just one activity of "way and structures--switching," railroads would be required to report under four classes of average daily number of cars received for switching.

COST CENTERS WOULD AFFECT BOTH REVISED ACCOUNTING SYSTEM AND NEW COSTING SYSTEM

In its proposal, the Commission solicited comments on the implementation costs, compatibility with existing railroad internal accounting systems, and data confidentiality of the proposed accounting system expansion. Initially, comments to the Commission were due by December 31, 1979, but the due date was later extended to February 29, 1980. Also, the proposed date for implementation of the cost center concept, if adopted, has been changed from January 1, 1980, to January 1, 1981.

The Commission's proposal for a cost center accounting requirement for railroads would affect both the revised Uniform System of Accounts, which became effective January 1, 1978, and the new costing system which the Commission has recently completed developing.

As stated earlier, in reporting under the Commission's system of accounts, many railroads already use complex conversion processes which can involve hundreds or thousands of data manipulations. A cost center accounting concept would make the conversion processes even more complex and further increase the possibility of error. Further, because the system of accounts would have more accounts and be more detailed, the Commission's task of auditing would become more complicated.

Since the revised costing system relies on the system of accounts for information, it also would be affected. In fact, the contractor indicated to the Commission that the proposed cost center concept would have a substantial impact on the revised costing system.

For instance, the contractor believed that

--more statistical analysis for Phase 1 would be required because of the greater number of separate expenses and statistics to consider,

--Phase 2 procedures would have to be modified to accommodate the new cost data and operating statistics, and

--the number of output unit costs from the new costing system would increase the amount and type of information that would be required from the users in order to apply these costs.

COST CENTER ACCOUNTING CONCEPT MET WITH BOTH OPPOSITION AND ADVOCACY

We did not review the comments the Commission received regarding its October 26, 1979, Notice of Proposed Rulemaking because they were not available until after completion of our review. However, the general topic of a cost center approach was the subject of considerable interest by the railroad industry and shippers for several years before the Commission's specific proposal on cost center accounting.

Railroad industry opposes proposal

Based on its general understanding of this approach before the Commission's specific proposal, the railroad industry generally opposed the concept of cost center accounting. For example, the Association of American Railroads rejected an offer by the Commission to assist the national accounting firm that contracted with the Commission to develop a specific approach. According to Commission and contractor officials, only 4 of 41 Class I railroads permitted the contractor to come to their offices to study existing systems and only 2 allowed indepth discussions.

The railroad industry has generally opposed the concept of cost center accounting for the following reasons:

--Possible high implementation costs for the industry.

--A perception that the Commission does not regularly need cost data in such detail.

--Unwarranted intrusion into internal railroad management.

--A belief that effective alternatives are available.

Moreover, the Association of American Railroads does not agree with the Commission that cost center accounting is required by the 4-R act.

Representatives of the railroads we visited expressed similar opposition to the cost center concept. Some also thought that prescribing a uniform cost center system would be difficult because of variances in railroad operations and organizations. Another view was that the cost center concept would place an additional regulatory burden on railroads and be contradictory to the spirit of deregulation.

Shippers side with Commission

On the other side of the issue, some shipper associations have made clear their desire for a uniform accounting and costing system to assure that they are not being charged unfair rates for railroad transportation.

Department of Transportation strongly supports concept

The Department of Transportation has been a primary advocate of the cost center accounting concept for the railroad industry. Transportation officials believe that the cost center concept is needed to accurately identify costs associated with a particular movement or service. For this reason, the Department of Transportation cosponsored, with the Interstate Commerce Commission, the contract under which the Commission's proposed cost center concept was developed.

PENDING LEGISLATION WOULD MAKE COST MORE IMPORTANT FOR SETTING RATES

Proposed legislation introduced in the 96th Congress regarding Federal regulatory policy for the railroad industry would make cost a more important determinant for setting the rates that railroads charge. Both the House and Senate have proposed bills which would place importance on identifying costs for particular services by the railroad industry. The concept of "cost based rates" is provided in both bills. This concept is premised in part by the fact that Congress wants a system for evaluating the cost of rail services and wants the rail industry to improve its costing approaches. On April 1, 1980, the Senate passed a bill to alter Federal regulation of the railroad industry. A House bill was still being considered as of May 1980.

CONCLUSION AND RECOMMENDATION

We believe that before moving ahead to the cost center approach, the Interstate Commerce Commission should first determine what information and cost estimates will be produced from the changes already made. If new major accounting and costing requirements are introduced prematurely, the railroad industry could be burdened with complex and difficult reporting requirements which do not necessarily serve Federal regulatory needs.

We therefore recommend that the Commission delay implementation of a cost center accounting system until the system of accounts and associated costing system are successfully operational and the value of those systems can be better judged.

COMMISSION COMMENTS AND OUR EVALUATION

The Commission stated that it believes it is premature to discuss delaying implementation of the cost center accounting and reporting system because the proposed system is still in the rulemaking stage and its timing is under discussion as part of that proceeding. Also, the Commission stated that the results of the contract to evaluate railroads' implementation of the new system of accounts will be used in considering cost center accounting implementation.

Although the Commission chose not to discuss a possible delay in the implementation date at this time, we believe the Commission should not implement the new system until it can demonstrate that the information to be reported is needed and that it can be productively and effectively used for a legitimate regulatory purpose.

The Commission's response to our draft report is included in its entirety as appendix I to this report.

Interstate Commerce Commission
Washington, D.C. 20423

OFFICE OF THE CHAIRMAN

Mr. Donald L. Scantlebury
Director
Financial and General Management
Studies Division
Room 6001, General Accounting Office
Building
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Scantlebury:

Thank you for your letter of April 8, 1980, requesting the Commission's comments on your draft report, "Problems in Implementing Regulatory Accounting and Costing Systems for Railroads." We have reviewed the report and offer the following comments on your recommendations.

RECOMMENDATION: The Commission should review and evaluate railroads' implementation of the new Uniform System of Accounts to assure that the conversion processes used by railroads produce reliable accounting information and that adequate guidance on system implementation has been issued.

We fully agree with the need for review and evaluation of implementation of the new USOA and have taken steps to accomplish this. As noted in the report, the Commission awarded a contract to the accounting firm of Coopers & Lybrand. Basically, the contractor will review and evaluate the new Uniform System of Accounts (USOA) and develop a program for a continual review of the USOA. This review and evaluation will determine whether the revised USOA effectively meets the ICC's information needs and whether the USOA-based accounting information reported by railroads is valid and reliable.

Your recommendation is based partially on the conclusion that the Commission has not issued continuing guidance on how the revised USOA should be implemented, even though it is much more complex than the prior one and may not be well understood by railroads. We believe needed guidance has been given.

The railroad industry was involved in developing and implementing the USOA. At our direction, Deloitte Haskins & Sells and Peat, Marwick, Mitchell & Co. (which had been engaged to assure proper implementation of the new USOA), established an Association of American Railroads (AAR) contact committee to provide a vehicle for industry as well as all interested party input. Six public meetings were held by the consultants and the contact committee which were open to interested parties to the proceeding. As a result of these public meetings, changes were made to the proposed system of accounts published August 2, 1976. These changes mainly incorporated proposals of the AAR and Department of Transportation.

As your report points out, the Bureau of Accounts also held a series of meetings with railroad accounting and data systems officers to assist in the changeover from the old Uniform System of Accounts to the new Uniform System of Accounts.

We provided further guidance through the issuance of Accounting Series Circulars 167 and 168. Accounting Series Circular 167 provided assistance to Class II railroads in implementing the revised USOA. Accounting Series Circular 168 was designed to supplement the Commission Report and Order (No. 36367) with corrections and clarifications, and explanations and interpretations presented in a question and answer format.

Your recommendation is also based on the fact that guidance for allocations is very general. Most of the data in the USOA operating expense account structure is directly assignable to the accounts with minimum use of allocations. Some allocations, of course, are required; these can be eliminated by refinement of input data or processing systems to allow direct assignment. In those cases where the allocation is unavoidable, the carrier has the discretion to allocate these expenses so that they are responsive to its operations. We believe that railroads are in a better position to make allocations for their particular operations. Prescribing rigid allocation rules in the accounting system itself will not reflect the various operational characteristics of individual roads.

Your report points out that the results of our desk audits of 1978 rail annual reports shows further USOA implementation problems. The errors were almost totally restricted to the supporting schedules. These schedules are reporting schedules which do not tie in directly with the accounting system and the errors did not result from misunderstanding the USOA. In discussions with the carriers, we found that the instructions to these schedules were unclear and we subsequently clarified them. The information from these schedules which is used in the costing system was corrected through contact with individual carriers.

Your report also states that the existence of interpretative inquiries indicates a lack of adequate and comprehensive guidance on implementing the new USOA. However, the volume and nature of interpretative inquiries has not significantly changed with the implementation of the new USOA. The majority of inquiries concern unique or unusual transactions which require prior notice before recording; e.g. incentive per diem, rail abandonments, depreciation rates and annual and quarterly reports.

The text of accounts and instructions in the USOA cannot provide for every conceivable circumstance or transaction. We believe the USOA, the implementation manual, the three instructional workshops, and pertinent accounting series circulars provide comprehensive guidance. We further believe that interpretative inquiries should be expected when dealing with a complex accounting system for a dynamic industry.

We agree that the Commission has made only limited field audits of system implementation by railroads. However, the audit staff was directed to audit 25 Class I railroads during fiscal year 1980. These audits will devote sufficient time to reviewing the railroads' implementation of the new USOA. As noted in your report, one product of the Coopers & Lybrand contract to evaluate the overall validity of the railroad accounting data is an EDP audit software package and users manual which will be designed to assist our auditors in their on-going field compliance audits.

RECOMMENDATION: The Commission should communicate to those outside the Commission the importance of the new costing system, its intended benefits and its technical characteristics and limitations.

We agree with the need to communicate with those outside the Commission and plan to explain the new costing system to the using public. Presently hard copies of the costing methodology are available which can and have been manually processed although not as easily as Rail Form A. Also, two publications are available which explain the costing methodology, Phase I and Phase II, in detail. These publications are available to the public although a public notice has not been issued.

The AAR has received these publications. In addition, we plan to hold public meetings to explain the costing methodology once the Phase I regression program is completed.

RECOMMENDATION: The Commission should provide technical guidance to assist non-Commission users to understand and appropriately use the systems results.

We believe the costing methodology can be used by parties outside of the Commission without unreasonable data processing equipment problems. The program was written in generally accepted computer language (Fortran) and is, therefore, convertible to other equipment of a similar capacity. GAO is correct in stating that the URCS and the accompanying programs are complex and will not be adaptable to computers owned by all prospective users. However, the programs are reasonably convertible to equipment of the same capacity which is available on a timesharing basis and are convertible by companies whose general needs require computers of a similar capacity. In addition, we are exploring the potential for interested parties to utilize the same computers used by the Commission.

RECOMMENDATION: The Commission should delay implementation of a cost center accounting system until the system of accounts and associated costing system are effectively operational and the value of those systems can be judged.

We believe it is premature to discuss delaying implementation since the cost center accounting and reporting system is currently in the rulemaking process and implementation timing is a matter of discussion in that proceeding.

Further, the Coopers & Lybrand validity contract will compare identified USOA inconsistencies with 1978 URCS results. These results will be used in considering cost center accounting implementation.

If you have any questions or need further information on our comments, please contact me.

Sincerely yours,

Robert Gresham

Robert C. Gresham
Acting Chairman

(914502)